INVESTIGATING THE WILLINGNESS AND PERCEPTION OF PARTICIPANTS IN RESPONDING TO ELECTRONIC AND MANUAL QUALITY ASSURANCE SURVEYS: THE CASE OF COLLEGES OF EDUCATION IN GHANA

ABSTRACT

Quality Assurance (QA) offices in Ghanaian Colleges of Education are a key component that facilitates institutional accreditation and reaccreditation. To constantly evaluate institutional activities and ascertain feedback from stakeholders for decision-making, these offices make use of questionnaires and interviews to collect data. Most colleges now turn to use web-based QA surveys instead of the usual manual or paper-based survey administering mode due to the increasing number of enrolments. This evidence-based process relies on the regular gathering of accurate enough data. Response rates may however be affected by the survey mode used and this affects the decision made based on this data. This study examines[1] the perception of the participant towards the survey modes, and identifies[2] their perceived preference and the factors that underpin this preference for the survey mode. A questionnaire was used to achieve the study's objectives with the targeted population comprising of tutors and students in the Ghanaian public colleges of education. The study evidenced the preferred QA survey mode as electronic-based surveys and factors that determines participants preferred QA survey mode as anonymity of the response and easiness or quickness of the surveys to respond to.

INTRODUCTION

Quality Assurance has been one of the key issues all Ghanaian colleges try to enforce as it is one of the aspects that facilitate institutional accreditation and re-accreditation of tertiary education ever since the establishment of the Colleges of Education Act 847 in 2012 leading to the upgrading of public teacher training colleges in Ghana to tertiary education status.

The Quality Assurance Units or Offices in tertiary education are charged with the core mandate of maintaining the desired standard of education by constantly evaluating the institutions' activities, facilities and programmes. One of the core ways of carrying out this task is by constantly ascertaining feedback from stakeholders most especially students. This is usually done by administering questionnaires and interviewing students. This is required to be done so frequently that it is captured in the academic calendar of many of the colleges. One of the quality assurance processes or methods used to guide the operations of the colleges is the data collection (T-TEL, 2016). The data collection process is used to generate evidence to inform improvement strategies. The methods adopted for gathering these data are mostly surveys and interviews.

With the increasing number of enrolments into the CoE however, the traditional pen-and-paper mode of data gathering is becoming obsolete and some colleges are now adopting the use of online surveys mostly custom-built to suit their preference.

As Information and Communications Technologies (ICT) integration into the world of work constantly evolves in this digital age, most colleges of education rely on readily available IT tools to enhance their quality assurance processes. A key instance of such use could be seen in many institutions now relying on electronic means to conduct surveys for quality assurance processes instead of the traditional pen-and-paper mode. This raises the issue of participants'

wiliness[3] in responding to either online surveys or the traditional paper survey and the perception of participants about both surveys means.

This study quests[4] to investigate the wiliness[5] and perception of respondents towards the two modes of administering questionnaires (electronic and traditional pen and paper mode).

One key process adopted by the QA units to execute its mandate of monitoring and evaluating college activities and processes is the collection of data by the use of surveys to seek feedback from stakeholders. Most colleges in other[6] to deal with the increasing number of enrolments turn to adopt the use of an electronic survey system instead of the usual pen-and-paper mode of administering surveys. This evidence-based process requires adequate data in other[7] to be efficient. There may be however the preference for one survey mode over the other by participants in responding to the questionnaires. This might hinder the adequacy and sufficiency of the data to be collected and hence the decisions that may be made based on such data will also be affected. Therefore, there is a need to identify which questionnaire administering mode will be preferred by the respondents by examining their perception in other[8] to select the one that will lead to gathering more sufficient data.

This study identifies the survey mode preferred by respondents and the reasons aligned with the preference.

OBJECTIVES AND RESEARCH QUESTION

The purpose of this study is to examine the perception and willingness of participants in responding to electronic quality assurance surveys vis-a-vis manual quality assurance surveys in the Ghanaian CoE. The specific objectives that guide this study are;[8b]

1. To[9] identify the perception of participants towards responding to electronic quality assurance surveys and manual quality assurance surveys[10]

2. To[11] determine the perceived preference of participants towards electronic quality assurance surveys or manual quality assurance surveys[12]
3. To[13] determine the factors underpinning participants' preference for one quality assurance survey over the other[14]

The research questions that guided the study in the collection of relevant data to achieve the objectives of the study are;[15]

1. What is the perception of participants towards responding to electronic quality assurance surveys and manual quality assurance surveys?
2. What is the perceived preference of participants towards electronic quality assurance surveys and manual quality assurance surveys?
3. What are the factors underpinning participants' preference for one quality assurance survey mode over the other?

This study is guided by the hypotheses;[16] There is no statistically significant difference between participants preference for electronic-based QA surveys and manual QA surveys.

METHODOLOGY

3.1 Introduction

The purpose of this study is to investigate the perception and willingness of participants in responding to Electronic quality assurance surveys alongside manual quality assurance surveys in the Ghanaian CoE.

This section of the study focuses on the methods and procedures used in collecting the data required for the study. It states and explains the procedures to be followed in data collection. It states and discusses the studies` research design, population and sampling technique, data

collection instrument and procedure and the data analysis procedure, intervention design and implementation, the data collection procedures and data analysis.

3.2 Research Design

Creswell (2012) describes research designs as specific procedures involved in the collection of and analysing data and the report writing of the research process. The type of design for this sturdy is Survey design[17]. It is a quantitative research procedure in which a survey or questionnaire is administered to a small group of people (sample) to study or identify trends in attitudes, opinions, behaviours, or characteristics of samples` larger group (population).

Creswell (2012) further states that qualitative research best suite a research problem in which the researcher may not know the variables and need to explore. The survey is a good procedure to use in addressing a research problem in which the researcher seeks to describe trends in large populations of individuals and not necessary testing an activity or materials.

The independent variable for the study is the perception and willingness of respondents whiles the dependent variable is "responding to survey".

3.3 Population and Sampling

3.3.1 Population

There are 46 government colleges of education currently in Ghana. The estimated average population of each college about[18] 500 students giving an estimated number of students to be around 23,000 students. The participants for colleges of education quality assurance surveys are usually students and college staff (both teaching and non-teaching). A statistical report by the National Council for Tertiary Education (2017) indicated a total of 1,736 full-time teaching staff. The researcher intends to gather responses from both students and staff since

they both take[19] part in responding to quality assurance questionnaires in the colleges. This brings the estimated target population to 24736.

3.3.2 Sampling

The sampling technique employed in this study is convenience sampling. This is a nonprobability sampling technique where participants for the study are selected because they are willing and available for the study (Creswell, 2012). In other words, participants for the study will be[20] selected based on how convenient it will be for the researcher. The readily available data source is what adopted for the study. Even though this sampling technique may be vulnerable to sampling error or selection bias and influences beyond the control of the researcher, it is selected because of its simplicity of sampling and the fact that data collection facilitation can be done efficiently and in a short duration. This sampling technique is mostly used by researchers doing pilot studies for hypothesis generation. It is also one of the cheapest to implement.

The researcher also adopted alongside convenience sampling, the snowballing sampling technique to minimize the sampling error or selection bias that could be associated with convenience sampling technique and to maximize the sample size. With this technique, participants help in identifying or gathering other participants to become part of the sample. Participants did so by simply forwarding the survey questionnaire to other colleagues or help the researcher identify them to get more participants. This technique helped widen the sample for the study by covering more participants.

3.3.3 Sample size

The sample frame for the study is as below;

1. Students in all 46 public Colleges of Education in Ghana.

2. Tutors and non-teaching staff of public Colleges of Education in Ghana

The sample size for the study is 379 respondents. This was calculated using the online sample size calculator by Survey Monkey (online survey service platform). The size was calculated based on a population size of 24736 with a Confidence Level of 95% and a Margin Error of 5%.

3.4 Data Collection

This is how data on variables of interest are collected and measured systematically to answer the research questions, test hypotheses, and evaluate outcomes (Creswell, 2012). This includes the instruments used and the procedure for the collection.

3.4.1 Instruments

An instrument as explained by Creswell (2012) is a tool for measuring, observing, or documenting quantitative data. For this study, the instrument to be used for data collection is a questionnaire. This is usually a form containing the set of questions relating to a study,[21] that is given to respondents to gather statistical information.

The instrument to be used in collecting data for this study is a questionnaire. This instrument is chosen because does[22] not require much time of the respondents its[23] nature easily allow for employing IT tools to broaden the sample geography. It is also noted to be reliable and valid when construction and administering are done carefully. (Creswell 2012)

The opening of the questionnaire included basic demographic data on the respondents. The content is centred on the research questions. It consisted of both open and close-ended questions with most of them being closed-ended. At least 3 questions are centred on each objective or research question. The closed-ended questions are liker-scale type. A copy of the questionnaire is appended to this study.

3.5 Data Collection Procedure

The survey questionnaire was one short survey administered through both traditional pen and paper mode and online with most being through web-based (Google Forms). With the traditional, the researcher printed the designed questionnaire and distribute them those readily available or reachable. This includes both students and staff of colleges of education. With the online, the researcher created a survey with the same content as the paper questionnaire and shared the link via email and WhatsApp platform to the targeted participants. The researcher also employed the snowballing technique by entreating respondents to also and[24] share the survey link to other colleagues in other colleges of education.

3.6 Data Analysis

Generally, the researcher conducted a descriptive analysis of the data reporting measures of central tendency and variation. The results found were then reported using tables and figures. The key results were then discussed and the results from the data analysis were then interpreted.

The data gathered from the questionnaires were sorted and checked for missing data before entered in the SPSS software. The web-based responses were exported to excel and imported into the SPSS software. The software was then be[25] used to generate the statistical tools or analysis needed for the study. The following statistical tools were employed to analyse the data;

1. Averages and percentages of responses were employed to provide a summary of the responses.

2. Standard deviation was also calculated to measure the spread of the results and used with the determine[26] statistical significance and expected variation.

3. Pearson[27] correlation[28] and Multiple regression were also employed to determine the relationship between the variables under study.

4. Analysis of variance[29] (ANOVA) was also used to test for a difference among male, female, students and tutors in terms of their preference of survey mode

3.7 Validity and Reliability of the Instrument

Validity is the ability of an instrument to measure what it is intended to measure (Taherdoost, 2018). In other[30] to ensure the validity of the instrument, the researcher after deriving the instrument items from the related literature discussed it with his supervisor. Guidelines where[31] given and the revised questionnaire was resubmitted for verification before the been[32] used to collect the data.

Taherdoost (2018) also explains reliability as concerned with repeatability, thus an instrument is said to be reliable if it provides the same results when repeated under constant conditions. To ensure the reliability of the instrument, test-retest reliability was conducted. The instrument was administered to a group of respondents who are easy to reach twice within one month. The result from both tests was compared and it was observed that the results were similar. A further test for reliability using SPSS version 25 revealed an acceptable Cronbach's Alpha of 0.711[33]

Construct validity is a determination of the significance, meaning, purpose, and use of scores from an instrument. Content[34] validity is the extent to which the questions on the instrument and the scores from these questions are representative of all the possible questions that could be asked about the content or skills.

3.8 Ethical Issues

According to Creswell (2012), individuals who participate in a study has[35] the rights to know the purpose and aim of the study, how the results will be used, and the likely social consequences the study. They also reserve the right to refuse taking part in a study and to withdraw at any time. These rights were taken into consideration through the data collection process. No responded was forced to respond and the purpose of the study was also made clear to the respondents.

The researcher also made sure no confidential personal information was required by the respondents and the report from the data collected is also reported honestly without altering any findings.

RESULTS AND DISCUSSION

Response and Background Information of Respondents

The researcher could only gather 132 responses via online due to no known responses for manual surveys as a result of the COVID-19 outbreak. The responses captured under the respondents' background are gender, position or category in the college (either student or staff), age-range and the zone which they belong to can be categorized.

Out of the 132 respondents, 93 are males and 39 are females representing 70.5% and 29.5% respectively. This comprised of 42 staff of colleges of education (35 tutors and 7 non-teaching staff) and 90 students. Age range distribution and the college geographical zone of the respondence[36] are summarised in tables 1 and 2 below respectively.

Table 1:Age distribution of respondents

Age range	Frequency	Percent (%)
Below 20	5	3.8
20-30 years	89	67.4
30-40 years	16	12.1
Above 40	22	16.7
Total	132	100.0

Source: Field data, 2020

Table 2: College geographical zone of respondents

Zone	Frequency	Percent (%)
Northern Zone	96	72.7
Ashanti/Brong Ahafo Zone	16	12.1
Volta Zone	11	8.3
Eastern/Greater Accra	4	3.0
Central/Western Zone	5	3.8
Total	132	100.0

Source: Field data, 2020

The respondents' background information shows 70% of respondents are below age 30 (3.8 and 67.4) and 70.5% of them are male. Though it could be a confirmation of Ansolabehere and Schaffner (2014) findings that males and younger adults prefer electronic surveys, this might not be the case as most of the respondents are students below age 30 and also the gender ratio in Ghanaian collages[37] of education might not be balanced.

Perception of Participants Towards Responding to Electronic Surveys and Manual QA Surveys

There are two questions in the questionnaire that were used to gather data relating to the perception of participants in responding to manual or electronic surveys. The first question was centred on participants' perception of electronic surveys whiles[38] the other was on the perception about electronic surveys. Tables 3 and 4 below summarise the responses to these questions respectively[39]

Table 3: Respondents perception about electronic surveys

Respondents Perception About Electronic Surveys	Response Freq	Mean	Std. Deviation	Response Percent (%)
Fast to respond to	81	0.61	0.489	30.5
Ensures privacy and anonymity	66	0.50	0.502	24.8
Convenient to respond to	59	0.45	0.499	22.2
Difficult in responding to	30	0.23	0.421	11.3
Tedious and takes more time	19	0.14	0.352	7.1
Doesn't ensure privacy and anonymity	10	0.08	0.266	3.8
It encourages laziness	1	0.01	0.87	0.4
Total	266			100.0

Multiple responses

Source: Field data, 2020

Table 3 above represents the participants' responses concerning their perception about electronic survey. The response from the survey shows that 266 multiple responses were gathered. Out of this, 30.5% of the sample turn[40] to perceive electronic surveys as being fast to respond to with a mean and standard deviation of 0.61 and 0.489 respectively, 24.8% perceived electronic surveys to ensure privacy and anonymity with 0.50 and 0.502 as the mean and standard deviation respectively. About 22% perceive it to be convenient to respond to with a mean of 0.45 and a standard deviation of 0.499. This brings the total positive responses for participants[41] perception about electronic surveys to approximately 77.5% (30.5+24.8+22). The remaining 22.5% (11.3, 7.1, 3.8 and 0.4) of the responses are directed towards downside perspective of the electronic survey. About 11.3% of the participants are of the perception[42] that electronic surveys are difficult to respond to. Also, 7.1% and 3.8% perceived electronic surveys to be tedious or time-consuming to respond to and also not

ensuring respondents[43] privacy and anonymity respectively while 1 respondent representing 0.4% perceives electronic surveys to be encouraging laziness.

Table 4: Respondents perception about manual surveys

Respondents Perception About Manual Surveys	Response Freq	Mean	Std. Deviation	Response Percent (%)
Tedious and takes more time	79	0.60	0.492	30.5
Doesn't ensure privacy and anonymity	57	0.43	0.497	22.0
Difficult in responding to	45	.034	0.476	17.4
Ensures privacy and anonymity	27	0.20	0.405	10.4
Fast to respond to	26	0.20	0.399	10.0
Convenient to respond to	24	0.18	0.387	9.3
Respondents read and understand more	1	0.01	0.087	0.4
Total	259			100.0

Source: Field data, 2020

Table 4 above also represents the respondent's perception of manual surveys. Taking a closer look, it is evident that out of the 259 multiple responses, 181 responses representing about 70% were negative. Respondents who perceived manual surveys to be tedious and requiring more time are 30.5% while those who perceived it not to ensure privacy and anonymity is 22%. Those who perceived it to be difficult to respond to is[44] 17.4%. The positive responses which entail manual surveys ensuring privacy and anonymity, convenient to respond to and fast to respond to are 10.4%, 9.3% and 10% respectively. Also, 1 respondent representing 0.4% is of the perception that manual surveys encourage students under to read through the questions helping students to understand more as compared to electronic surveys.

Table 5: Crosstabulation[45] of participants[46] perceptions on electronic and manual surveys

Perception of Electronic surveys		Perception on Manual survey							Total
		Tedious and takes more time	Difficult in responding to	Ensures privacy and anonymity	Convenient to respond to	Fast to respond to	Doesn't ensure privacy and anonymity	Respondents read and understand more	
Tedious and takes more time	Count	8	8	11	10	9	8	0	19
	% Electronic	42.1	42.1	57.9	52.6	47.4	42.1	0	
	% Manual	10.1	17.8	40.7	41.7	34.6	14.0	0	
	% of Total	6.1	6.1	8.3	7.6	6.8	6.1	0	14.4
Difficult in responding to	Count	10	7	14	15	12	8	1	30
	% Electronic	33.3	23.3	46.7	50.0	40.0	26.7	3.3	
	% Manual	12.7	15.6	51.9	62.5	46.2	14.0	100.	
	% of Total	7.6	5.3	10.6	11.4	9.1	6.1	0.8	22.7
Ensures privacy and anonymity	Count	53	33	14	12	9	47	0	66
	% Electronic	80.3	50.0	21.2	18.2	13.6	71.2	0	
	% Manual	67.1	73.3	51.9	50.0	34.6	82.5	0	
	% of Total	40.2	25.0	10.6	9.1	6.8	35.6	0	50.0
Convenient to respond to	Count	49	30	11	8	6	41	0	59
	% Electronic	83.1	50.8	18.6	13.6	10.2	69.5	0	
	% Manual	62.0	66.7	40.7	33.3	23.1	71.9	0	
	% of Total	37.1	22.7	8.3	6.1	4.5	31.1	0	44.7
Fast to respond to	Count	61	32	15	10	12	44	0	81
	% Electronic	75.3	39.5	18.5	12.3	14.8	54.3	0	
	% Manual	77.2	71.1	55.6	41.7	46.2	77.2	0	
	% of Total	46.2	24.2	11.4	7.6	9.1	33.3	0	61.4
Doesn't ensure privacy and anonymity	Count	5	5	9	7	7	5	1	10
	% Electronic	50.0	50.0	90.0	70.0	70.0	50.0	10	
	% Manual	6.3	11.1	33.3	29.2	26.9	8.8	100	
	% of Total	3.8	3.8	6.8	5.3	5.3	3.8	0.8	7.6
It encourages laziness	Count	0	0	1	0	0	0	1	1
	% Electronic	0.0	0.0	100.0	0.0	0.0	0.0	100	
	% Manual	0.0	0.0	3.7	0.0	0.0	0.0	100	
	% of Total	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.8
Total	Count	79	45	27	24	26	57	1	132
	% of Total	59.8	34.1	20.5	18.2	19.7	43.2	0.8	100.

Source: Field data, 2020

Table 5 above shows a crosstabulation of participants[47] perception of electron surveys along the rows and that of manual surveys along the columns.

Interpreting the table for the first major row (Tedious and takes more time) for perception on electronic surveys, it can be said that 8 participants representing 6.1% of the total sample perceived both survey modes to be "Tedious and takes more time". This represents 42.1% of the 19 participants who perceive electronic surveys to be tedious and 10% of the 79 participants who perceive manual surveys to be tedious. The next adjacent column represents participants who perceived electronic surveys to be both tedious to respond to and difficult to respond to. From the table, it can also be seen that 8 participants representing 6.1% of the entire sample have this perception. This number takes 42.1% of the total response for perception about electronic surveys been[48] tedious and 17.8% of the entire responses for manual surveys been[49] perceived as difficult to respond to. This trend is how the table shows the relationship between the perception of both survey modes across the rows and columns of the table. The last row and column labelled total represent the respective total responses for the row and column headers.

Overall, one could infer from the first three highest response frequency for electronic survey perception that more participants perceive electronic surveys to be fast to respond to, ensures privacy and convenient to respond to as the[50] record the high figures 81, 66 and 59 out of the total of 266 responses for perception on electronic surveys. On the other hand, participants[51] perception about manual surveys shows that more responses are on manual surveys being tedious, not ensuring privacy or anonymity and difficult to respond to are they record the first three highest response frequencies of 79, 57 and 45 respectively.[52]

Table 6: Cross table of Participants Perceptions of electronic surveys and their preferred survey mode

Perception of Electronic Survey		Preferred Mode: Electronic/ Online	Preferred Mode: Manual	Total
Tedious and takes more time	Count	12	7	19
	% within row	63.2	36.8	
	% within Column	11.5	25.0	
	% of Total	9.1	5.3	14.4
Difficult in responding to	Count	16	14	30
	% within row	53.3	46.7	
	% within Column	15.4	50.0	
	% of Total	12.1	10.6	22.7
Ensures privacy and anonymity	Count	59	7	66
	% within row	89.4	10.6	
	% within Column	56.7	25.0	
	% of Total	44.7	5.3	50.0
Convenient to respond to	Count	58	1	59
	% within row	98.3	1.7	
	% within Column	55.8	3.6	
	% of Total	43.9	0.8	44.7
Fast to respond to	Count	74	7	81
	% within row	91.4	8.6	
	% within Column	71.2	25.0	
	% of Total	56.1	5.3	61.4
Doesn’t ensure privacy and anonymity	Count	6	4	10
	% within row	60.0	40.0	
	% within Column	5.8	14.3	
	% of Total	4.5	3.0	7.6
It encourages laziness	Count	0	1	1
	% within row	0.0	100.0	
	% within Column	0.0	3.6	
	% of Total	0.0	0.8	0.8
Total	Count	104	28	132
	% of Total	78.8	21.2	100.0

Source: Field data, 2020

Table 6 above represents a cross-tabulation of Participants' Perception of electronic surveys and their preferred survey mode. A closer look at the totals for each row representing the total responses under each perception reveals that more responses are on the reasons relating to survey being fast to respond to (61.4%), privacy (50%) and convenience of the survey to be

responded to (44.7%). This implies that participants are more likely to consider these reasons before responding to QA surveys.

The discussion above confirms the study of Ward (2014) which states that participants[53] perception on survey mode includes anonymity of the delivered mode. Implying[54] that participants might be willing to respond to sensitive surveys if they perceive the mode to anonymous. This is also in line with the findings of Denny et al. (2008) that students find internet-based tablets more private and confidential when it comes to responding to school surveys.

4.1 Perceived Preference of Participants Towards Electronic or Manual QA Surveys

To answer the second research question which was centred on identifying the respondence[55] preferred survey mode, two questions were used in the instrument to address this question or objective. These questions asked respondents[56] to identify the survey mode they respond to willingly and the survey mode they preferred.

The researcher first tested to know if respondents usually respond to quality assurance surveys willingly. The results from the data gathered shows that, more than half of the respondents (56.8%) responded to surveys willingly, 40.2% of the respondents said they sometimes responded to surveys willingly and only 3% said they do not usually respond to surveys willingly. The mean and standard deviation for the response is 1.89 and 0.959 respectively. This result implies that almost all respondents (97%) of the respondents at a point in time respond to surveys willingly. Since all responses for this study were electronic-based, one could infer that participants to a survey are more likely to respond to surveys willingly if they are electronic-based. The table below summarises this result.

Table 7: Participants willingness to respond to a survey

Do you take part in responding to surveys willingly	Frequency	Percent
Yes	75	56.8
No	4	3.0
Sometimes	53	40.2
Total	132	100.0

Mean =1.89, Standard Deviation = 0.959

Source: Field data, 2020

Table 8 below also presents participants response about the survey mode they usually respond to willingly. With a mean of 1.83 and a standard deviation of 0.974, the results further show about half of the participants (51.5%) willingly respond to electronic surveys whiles[57] 40.9% will respond[58] to both surveys modes willingly. The remaining 7.6% chose manual surveys as the mode they will respond to willingly. This goes to further confirm the discussion for table 7 that participants are more likely to willingly respond to electronic surveys than manual surveys.

Table 8: Survey mode participants willingly respond to

Which mode do you usually respond to willingly?	Frequency	Percent
Electronic/Online	68	51.5
Manual	10	7.6
Both	54	40.9
Total	132	100.0

Mean =1.83, Standard Deviation = 0.974

Source: Field data, 2020

Table 9 shows the response on the preferred mode of survey by the respondents. The data gathered indicates that majority of the respondents (78.8%) preferred online surveys while

28% preferred manual surveys. Comparing the three table[59] (8, 9 and 10) it is evidenced[60] that the number of people who preferred online surveys (104) is more than those who usually respond to electronic surveys (68) and who always respond to surveys willingly (75). This can be an implication that though most participants prefer electronic surveys, they are mostly presented with manual surveys to respond to.

Table 9: Participants preferred survey mode

Which of these modes will you prefer most?	Frequency	Percent (%)
Electronic/Online	104	78.8
Manual	28	21.2
Total	132	100.0

Mean = 1.21, Standard Deviation = 0.410

Source: Field data, 2020

Table 10: One-Sample test of participants preferred survey mode

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Preferred Mode	-8.060	131	.000	-.288	-.36	-.22

*Test Value = 1.5

Source: Field data, 2020

A one-sample t-test with a test value of 1.5 (average) reveals a statistically highly significant difference (t=-8.060, df=131, p<0.001) at 95% confidence interval. This disproves and therefore rejects the null hypothesis and accepts the alternative hypothesis. Hence, there is a

significant difference between participants[61] preference for electronic-based QA surveys and manual QA surveys. This however conflicts with the findings of (Thorpe, 2002) that there is no significant difference between manual and electronic surveys but confirms that of Chang (2004).

The study further confirms other studies (Denny et al., 2008; Dammeier et al., 2004; Levine et al., 2004; Qualtrics, 2020; Snapsurveys, 2020) that web-based or electronic surveys are more likely to be responded to or yield more respondents than manual surveys where basic IT tools are in use. Therefore, they get more response than paper-based surveys.**Factor**[62]

Underpinning Participants' Preference for One QA Survey Mode Over the Other

In addressing the research question or objective relating to the sub-topic above the question in the questionnaire used was asking respondents to select and or state their reason for their choice of survey mode. The table below summarises the responses in percentages and descending order.

Table 11: Participants reason for their survey mode choice

Participants Reason for Choice	N	Mean	Std. Deviation	Percent (%)
It is easy to respond to	93	0.64	0.456	21.3
It is fast to respond to	84	0.64	0.481	19.2
It is comfortable to use	83	0.63	0.485	19.0
It is convenient to respond to	74	0.57	0.497	16.9
Ensures privacy and anonymity	68	0.52	0.502	15.6
Does not require any special skills	34	0.26	0.439	7.8
Does not require the use of internet or data	1	0.01	0.087	0.2
Total	437			100.0

Source: Field data, 2020

The response shows that participants preference of a survey mode is determined by factors such as the survey being easy to respond to, fast in responding to, comfortable, convenience, privacy and anonymity, not requiring special skills and use of respondents own internet data with more emphasis on the first 3 to 6 factors mentioned as they record higher frequencies among the other response.

Table 12: Crosstabulation[63] of participants preferred survey mode and their reasons

Survey choice Reason		Preferred Mode		Total
		Electronic/ Online	Manual	
It is easy to respond to	Count	83	10	93
	% within Reason	89.2	10.8	
	% within Mode	80.6	35.7	
	% of Total	63.4	7.6	71.0
It is fast to respond to	Count	78	7	85
	% within Reason	91.8	8.2	
	% within Mode	75.7	25.0	
	% of Total	59.5	5.3	64.9
Ensures privacy and anonymity	Count	61	7	68
	% within Reason	89.7	10.3	
	% within Mode	59.2	25.0	
	% of Total	46.6	5.3	51.9
It is convenient to respond to	Count	63	12	75
	% within Reason	84.0	16.0	
	% within Mode	61.2	42.9	
	% of Total	48.1	9.2	57.3
Does not require any special skills	Count	26	8	34
	% within Reason	76.5	23.5	
	% within Mode	25.2	28.6	
	% of Total	19.8	6.1	26.0
It is comfortable to use	Count	70	13	83
	% within Reason	84.3	15.7	
	% within Mode	68.0	46.4	
	% of Total	53.4	9.9	63.4
Does not require the use of internet or data	Count	0	1	1
	% within Reason	0.0	100.0	
	% within Mode	0.0	3.6	
	% of Total	0.0	0.8	0.8
Does not require the use of any device	Count	0	1	1
	% within Reason	0.0	100.0	
	% within Mode	0.0	3.6	
	% of Total	0.0	0.8	0.8
Total	Count	103	28	131
	% of Total	78.6	21.4	100.0

Source: Field data, 2020

Further crosstabulation[64] of reasons for participants choice of survey mode and their preferred mode indicates survey modes are determined by factors such as easiness, fast in responding, comfortability and privacy-related factors among others as shown in the table above.

From the cross-tabulation analysis, 89.2% of the people whose reason for a choice of a survey mode base on it being easy prefer electronic surveys whiles 80.6% of those who prefer electronic surveys associate it to be easy to respond to. On the contrary, 10.8% of the people whose choice for a survey mode is based on its easiness to respond to prefer manual surveys whiles[65] 35.7% of those who preferred manual surveys believe it is easy to respond to.

On the row for fast to respond to, 91.8% of participants whose choice of survey mode is based on survey been fast to respond to prefer electronic surveys, while 8.2% prefer manual surveys. Out of the total number who prefer[66] electronic surveys, 75.5% are based on the fact that they are fast to respond to while 25% of those who prefer manual survey are based on the fact that they are fast to respond to.

A further look at the table also reveals that out of the 57.3% of the responses for the choice of survey been[67] based on convenience of response, 84% prefer electronic surveys while 16% prefer manual surveys. And of the total number of responses for participants who prefer manual survey, 61% are linked to the fact that electronic surveys are convenient to respond to while 42.9% of those who prefer manual survey associate their choice with convenience of the survey to respond to.

The findings above imply that participants[68] choice of QA survey mode is highly based on factors such as easiness and fastness of the survey to be responded to, survey ensuring privacy or anonymity and convenience in responding to it. This is in line with findings of Liu and Wronski (2018) that survey response rate is greatly affected by difficulty nature of the questions. It further confirms Andrews et al[69]. (2010) study that states that privacy and

confidentiality are factors that affect the survey response rate. In other words, participants are likely not to respond to a survey if they perceive the survey administered mode to be associated with issues of privacy and confidentiality.

Summary of Key Findings

The summary of the key finding from this study is categorised under thematic subtopics which are developed from the respective research questions or objective of the study. These findings are as below

Perception of participants towards responding to electronic surveys and manual QA

1. the study revealed that participants' perceptions about surveys include survey modes being;
    a) Tedious and takes more time
    b) Difficult in responding to
    c) Ensures privacy and anonymity
    d) Convenient to respond to
    e) Fast to respond to
    f) Doesn't ensure privacy and anonymity
    g) It encourages laziness
2. From the perceptions mentioned, most perceptions about electronic survey modes include the following from highest to least occurrence.[70]
    I. Fast to respond to
    II. Ensures privacy and anonymity
    III. Convenient to respond to
3. The perception of most participants about manual surveys are also as follows from highest to least occurrence

I. Tedious and takes more time

II. Doesn't ensure privacy and anonymity

III. Difficult in responding to

Perceived preference of participants towards electronic or manual QA surveys

The study further revealed that most participants to surveys prefer and will most likely willingly respond to electronic-based surveys more than manual surveys. It further reveals a statistically highly significant difference in the preference for electronic QA surveys and manual QA surveys (t=-8.060, df=131 $p<0.001$)[71]

Factors underpinning participants' preference for one QA survey mode over the other

The study also reveals that participants' reasons for preferring the survey mode are;[72]

1. Survey mode is easy to respond to
2. Survey mode being fast to respond to
3. Survey mode being comfortable responding to
4. Survey mode being convenient to respond and
5. It assured privacy and anonymity

This goes to suggest that these factors affect the participants' preferred survey mode and hence their wiliness to take part in the survey[73]

Conclusion

In administering QA surveys in institutions, it is important to consider the survey mode which will yield more results by getting more responses and detailed responses from users. This can be catered for if survey designers consider the perception of response on survey modes. For electronic surveys, most participants perceive it to be fast to respond to, ensures[74] privacy and anonymity and is[75] convenient to respond to. They, however, perceive manual surveys to be tedious and takes more time, don't ensure privacy or anonymity and are

difficult in responding to. These factors should be considered before designing and selecting the survey mode to be used.

Also, the electronic-based survey should be considered more because more respondents will easily and willingly respond to it than manual surveys and this will yield more responses, especially in places where there is high availability of IT gadgets.

Further, factors such as survey mode being easy to respond to, fast and comfortable to be responded to, convenient and assurance of privacy and anonymity should be considered when designing and conducting QA surveys. These factors are more likely to determine whether more people will take part in the survey or not.

Recommendations

The following are the recommendations made from the study[76]

1. In designing and conducting QA surveys, surveys designers should consider the following when deciding on the survey mode

    1. Survey mode is easy to respond to
    2. Survey mode being fast to respond to
    3. Survey mode being comfortable responding to
    4. Survey mode is convenient to respond and
    5. The Survey mode is assured of privacy and anonymity

2. Though an electronic survey yields more responses, the manual survey should be considered where participants may be limited in the necessary IT tools and services. Combining the two survey modes will likely yield more responses than using one.

Suggestions for Further Research

The suggestions for further studies following the findings of the study are below;[77]

1. the[78] study could also be carried out on larger groups including basic education to determine if different or similar results could be ascertained.

2. Comprehensive studies could also be carried out to know if specific year groups of students or student gender preferences of surveys modes differ.

3. Further studies should be made to determine the available IT tools that could be used to conduct surveys and come out with an analysis without the need for any further data entry or coding involved[79]

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