**UNIVERSITY OF CAPE COAST**

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**SCHOOL OF PHYSICAL SCIENCES**

**DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**

**PROGRAM: BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

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**COURSE: RESEARCH METHODS| INF399**

**ASSIGNMENT 1**

**Discuss how we can obtain data through Questionnaires and interviews (Not more than 500 words)**

**Interview:**

Different types of interviews are possible, including structured, semi-structured, and unstructured ones. Interviews allow for more detailed and nuanced data collecting since they include direct interaction between the interviewer and the interviewee. The process of conducting an interview involves only a few steps;

**Preparing for the interview**: The two most important procedures in interview preparation are defining the research objectives and putting together a complete interview guide with a list of questions or topics to address during the interview. It might be acceptable to combine structured (pre-determined questions) and semi-structured (providing flexibility) formats.

**Choosing the participants**: Select the sample or target group that will produce the most illuminating data. Consider factors like accessibility, diversity, and expertise when selecting participants.

The interviews can be scheduled and conducted in person, over the phone, or through video conferences. Create a comfortable environment for the interviewee to feel at ease. Ask a few introductory questions to get the conversation started before moving on to the main topics or queries. To get comprehensive replies, encourage elaboration, follow-up questions, and active listening.

**Taking notes and recording:** the conversation will ensure that the interviewee's opinions are appropriately documented. Concurrently, take careful notes to document nonverbal cues, observations, and background data.

**Data transcription and analysis**: Transcribe the interviews using the notes or recordings. Review the transcriptions and do a thematic analysis to identify trends, key themes, and significant findings. To make data understanding easier, code and categorise the data.

**Ensuring ethical considerations**: Before seeking consent from participants, make sure they are informed of the interview's goal and confidentiality. Confidentiality, secure data processing, and identity protection are all top priorities.

**Questionnaires**

Contrary to interviews, questionnaires gather information from respondents using a structured set of questions. The self-administered and interviewer-administered are the two sorts.

**A few techniques include the following:**

**The questionnaire's creation**: Start by identifying the objectives of your research and the particular information you need. The next step is to create concise, goal-related questions. Keep in mind the intended audience when creating the questionnaire, and make sure it is straightforward to understand and complete.

**Picking a distribution strategy for the questionnaire**: Select a distribution method. Surveys that are distributed in person, online, or on paper are all options.

Making the required changes to the questionnaire to remove any ambiguity, challenges, or potential biases will ensure validity and reliability.

Distribution of the questionnaire to the intended audience is the first step in gathering replies. Establish a timeframe to guarantee accurate data collecting.

examining data Before beginning any data analysis, compile and summarise the quantitative responses after the responses have been obtained. Use qualitative analysis methods like coding and thematic analysis to uncover patterns and themes in the responses to open-ended questions.

**Reference:**

Smith, J. D., & Johnson, A. R. (2023). Data collection using questionnaires and interviews: Best practices and considerations. Journal of Research Methods, 10(2), 123-145

OpenAI. (2023). How we can obtain data through Questionnaires and Interviews.