Key characteristics quantitative method psychology essay



The key characteristics of quantitative analyses begin with the world view that traditionally shapes the thoughts of those who participate in quantitative research. The postpoistivist engages in the scientific method beginning by stating a theory. The method is engaged in the research of questions or hypotheses. In seeking answers to research questions or hypotheses researchers ask close-ended questions, a particular method which is also characteristic of the quantitative methodology. Quantitative research focuses on empirical data that can explain, and predict. The data provides a means to analyze and assess the relationship between a dependent variable and one or more independent variables. Data is collected, and a hypothesis is stated. The interpretation of the results of the test is statistical (Creswell, 2009).

Quantitative research strategies are driven by two concerns; the nature of relationships, and a discovery that is generalizable. The research is unbiased.

Key Characteristics- Qualitative analysis

The key characteristics of qualitative analyses begin with the world view of a constructivist whose understanding of the world understood by inductive reasoning processes. Constructivists use theory as a broad explanation for behavior and attitudes. Characteristic to the constructivist is the way that a researcher engages in descriptive research questions, and hypotheses; hermeneutic. "The goal of the research is to rely as much as possible on the participants views of the situations being studied" (Creswell, 2009, p. 8). The researchers seek answers to constructed questions with open- ended questions. The primary focus is on the effect of perceptions, beliefs, cultural https://assignbuster.com/key-characteristics-quantitative-method-psychology-essay/

context and experiences. In focus are relationships by what people think and feel. The researcher's intent here is to "make sense (interpret) the meanings' others have about the world. The data collected is interpreted by themes and patterns, and it is subjective and biased. It is not generalizable.

Key Characteristics-Mixed Method

The key characteristics of mixed method analyses begin with the world view of an advocate. Advocates, especially those who are participatory evolve their theories through the use of both deductive and inductive reasoning processes. "Individual researchers have a freedom of choice. In this way, researchers are free to choose the methods, techniques, and procedures of research that best meet their needs and purposes" (Creswell, 2009, p. 11). The processes are observed, changed, and measured. Also, characteristic to the mixed method research is the way that the researchers engage with the data using the strengths of quantitative and qualitative methodologies to provide broad perspectives. When collecting data the researcher uses both open-ended and or close-ended questions. The focus is open, exploratory, and seeks, change through a social justice, and political lens. As such advocates pragmatically assess data when seeking to make a claim. The data is analyzed both statistically, and by detecting themes, and patterns.

Key Characteristics Action Method

The key characteristics of the action method analyses begin with researcher's interaction with the world. It starts with a theory. Researchers engage in interviews, collection of quantitative data, note taking, and discussion. Researchers seek answers by asking open-ended questions. The focus is on their study or subject as well as with their data. The key

https://assignbuster.com/key-characteristics-quantitative-methodpsychology-essay/ characteristic of action research is the four-step methodology which is repeatedly; plan, act, observe, and reflect. The emphasis of the research is put on practical value.

Contrasts- World View- Quantitative

The world view of the quantitative methodologist is positivism. By way of contrast to the qualitative methodologist, the mixed methodologist, and the action methodologist the "positivist hold deterministic philosophies in which causes probably determine effects of outcomes. Thus, the problems studied by postpositivist reflect the need to identify and assess the causes that influence outcomes, such as found in experiments. It is also reductionistic in that the intent is to reduce the ideas into a small, discrete set of ideas to test, such as the variables that comprise hypotheses and research questions" (Creswell, 2009, p. 7). The forthcoming knowledge is based on careful "observation and measurement of the objective reality" (Creswell, 2009, p. 7). Finally, there are laws or theories that govern the world, and these need to be tested or verified and refined so that we can understand the world.

Contrasts- World View- Qualitative

The qualitative social constructivists gain understanding of the world from the "subjective meaning of their own experience" (Creswell, 2009, p. 8).

Thus, the meanings are "varied and multiple, leading the researcher to look for complexity of views rather than narrowing meanings into a few categories or ideas" (Creswell, 2009, p. 8). The social constructivist assumes that "humans engage with their world and make sense of it their historical and social perspectives, thus, the basic belief is that we are all born into a https://assignbuster.com/key-characteristics-quantitative-method-psychology-essay/

world with a particular culture to which we gain an accepted norm. (Creswell, 2009, p. 8)

Contrasts- World View- Mixed

And, yet the advocates belonging to a mixed method methodology group of thinkers' hold that research inquiry needs to be intertwined with politics and as well as with a political agenda. Thus, the research contains an action agenda for reform, and is empowerment issue oriented. The researchers are collaborative and accentuate the constant need for change.

Contrasts- World View- Action

The emergence of another group became notable and known as action researchers. The world view of the action researcher is pragmatism. Their focus is based on actions, situations, and consequences. The Pragmatist puts a lot of emphasis on the research problem, but remains uncommitted to any particular philosophy. They address the problem with questions of what and how. The action researcher uses multiple methods, with different world views and different assumptions than any of the other methodologists.

Data Collection Contrasts-Quantitative

The quantitative methodologist may use test based questions with a predetermined bias to collect data. Another method used is the collection of performance-based data. Performance based data collects information by way of observation, or census. The data is analyzed statistically. The data is interpreted statistically.

Data Collection Contrasts-Qualitative

The qualitative methodologist uses emerging methods, and seeks answers to open questions to collect data. The data is collected by conducting interviews, observations, documentation, and audiovisual. The data is analyzed using text and image analysis. The data is interpreted by themes and patterns.

Data Collection Contrasts-Mixed

The mixed methodologist uses both pre-determined and emerging methods to compile data. The mixed method researcher uses both open- and closed-ended questions to collect data. The researcher also uses " multiple forms of data drawing on all possibilities" (Creswell, 2009, p. 15). The data is statistically and text analyzed, and is interpreted across databases.

Data Collection Contrasts-Action

The action researcher collects data by way of observation and interview. Interviews, collection of quantitative data, note taking, and discussion are valuable to the action researcher. The data is collected by actively engaging in situations and evaluating the consequences. The data is analyzed using different methods, and there is no commitment.

IV. Approach Contrasts-Quantitative

In doing qualitative research the constructivist generally uses phenomenology, grounded theory, ethnography, case study, narrative strategies. The qualitative researcher will use particular methods such as open-ended questions, emerging approaches, and text or image data. The researcher will also want to use these practices when conducting research:

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positioning, collect participant meanings, bring personal value to the table, study the context or setting of participants, and create an agenda for reform. The qualitative methodologist will always make interpretation of the data, and will collaborate with participants.

IV. Approach Contrasts-Qualitative

In doing quantitative research the researcher will make post positivist knowledge claims. The post positivist strategies include surveys, and experiments. The methods include the use of closed-ended questions, predetermined approaches, and numeric data. The general practices of the quantitative methodologist are tested and verifying theories and explanations, identifying variables to study, relating variables in questions and hypotheses, and usage of standards of validity and reliability. The researcher will also observe and measure information numerically using an unbiased approach while employing statistical procedures.

IV. Approach Contrasts-Mixed

In conducting mixed method the researchers seek pragmatic knowledge and claims. The pragmatist uses sequential, concurrent, and transformative strategy, and employs both open- and close-ended questions, using both pre-determined and determined approaches, and both qualitative, and quantitative data analysis methods. The pragmatists' practices include collecting quantitative and qualitative data, development of rationale mixing, integration of data at different stages of inquiry, and presentation. The research will also employ the practice of quantitative and qualitative research. (Creswell, 2009, p. 17).

IV. Approach Contrasts-Action

In conducting action research the scope is planning, identifying informing, and organizing. The strategy is non-committal. Acting, trailing, collecting and questioning are often thought to be the general methods of observation, while reflecting, evaluating, implementing, and revisiting the general practice of the action researcher. There are always these four steps that are repeated, and then repeated: reflection, evaluation, implementation, and revision.

Examples of Each

Qualitative

"Qualitative research aims to determine the human emotions, thoughts and feelings associated with the research topic. The goal is to derive information that can provide a better understanding of the topic. Researchers obtain data through the use of interviews, focus groups and questionnaires. The questions posed in a qualitative research project are the lifeblood of the research" (Carpenter, n. d., para 1). For example: What do you think the meaning of Free Speech is?

Quantitative

"Quantitative research questions are usually either closed-ended. A closed-ended question is one that provides respondents with a list of multiple choice responses" (Suttle, n. d. para 1). For example: Have you read the United States Constitution?

Mixed

Mixed research questions demand "both qualitative and quantitative research question (and hypotheses) which need to be advanced in a mixed methods study in order to narrow and focus the purpose statement. These questions or hypotheses can be advanced at the beginning or when they emerge during a later phase of the research. For example, if the study begins with a quantitative phase, the investigator might introduce hypotheses. Than "later in the study when the qualitative phase is addressed, the qualitative research questions appear" (Creswell, 2009, p. 138). For example: Do you believe that you are entitled to free speech? Followed by: what do you think the meaning of free speech is?

Action