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Mengapa Pelaburan Emas Menjadi Pilihan?

Telur Mana Telur?

An Affair of Online Learning and Covid-19

Pembasmian Kemiskinan Dalam RMK Ke-12

Bukit Harimau Menangis
Tarikan Pendakian di Kemaman

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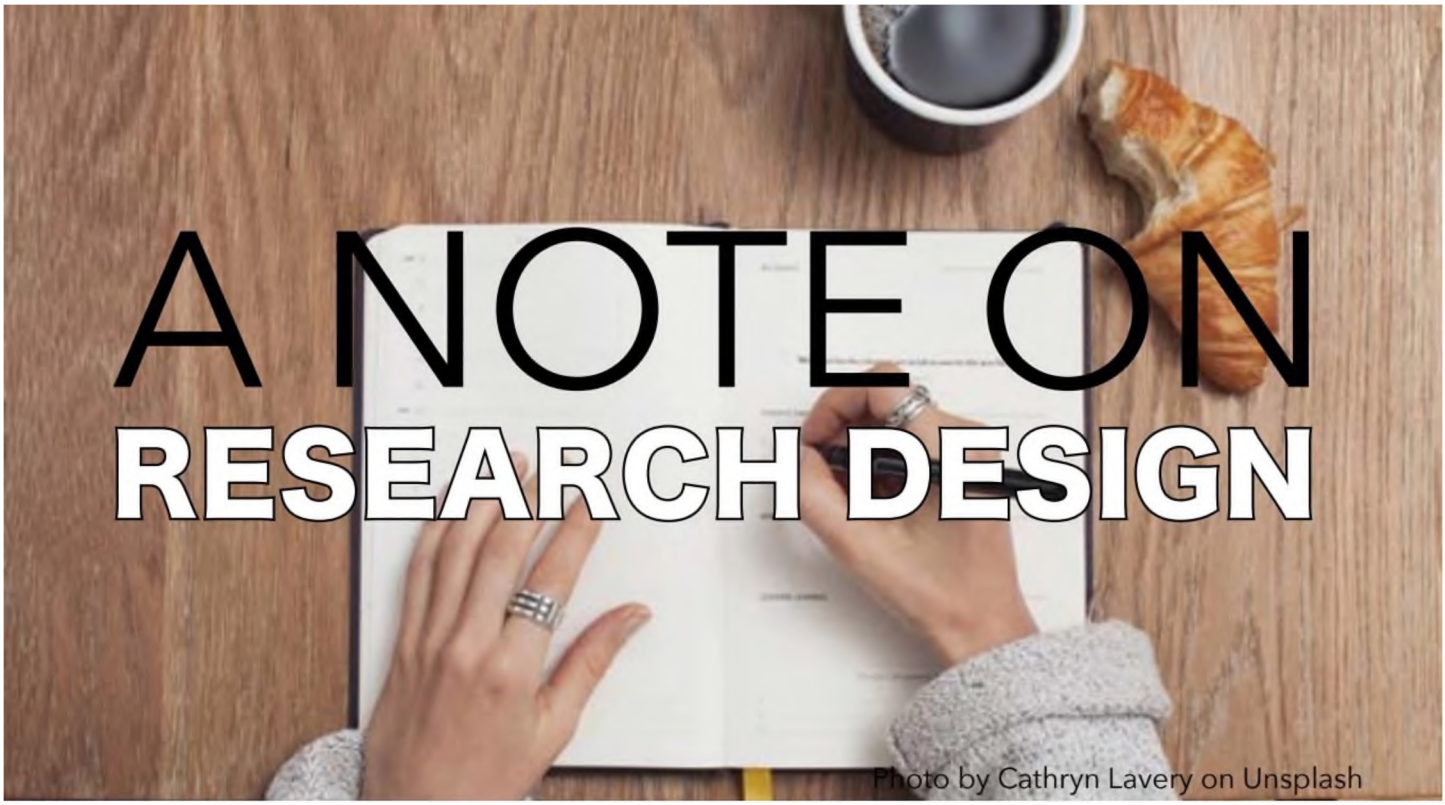

By:
[1]Yunita Awang, [1]Azuraidah Taib, and [2]Abdul Rahman Muhammad
[1]Faculty of Accountancy, Universiti Teknologi MARA Cawangan Terengganu
[2]General Studies Department, Politeknik Sultan Mizan Zainal Abidin (PSMZA)

Academicians are important players towards universities' excellence. The tasks of academicians are not confined to teaching alone but also to research. In conducting research, academicians, particularly young or novice researchers, need to understand the research design. The research design is crucial during the academic-research process as it affects the research process itself. It acts as a master plan that describes the plans and procedures for research inclusive of detailed data-collection and analysis methods. The research design "constitutes the blueprint for the collection, measurement, and analysis of data" (Cooper & Schindler, 2011: 139). Thus, the researchers need to be aware of the various research designs and select the most suitable one for any particular research to be undertaken.

Cooper and Schindler (2011) have listed out five (5) essential features of research design. These include time- and activity-based plans; the research question is always the starting point for a plan; a guide to deciding which sources and types of information to use; a framework for describing the relationships between the variables in the study; and a step-by-step outline for each research activity.

According to Creswell (2009), there are three types of research designs, which are qualitative, quantitative, and mixed methods. Qualitative research refers to a method for investigating and comprehending the meaning that individuals or organisations assign to a social or human issue, while quantitative research is a method for evaluating a relationship between variables in order to test objective theories (Creswell, 2009). However, the quantitative and qualitative methods have different assumptions about the purpose of research, methods used by researchers, types of studies conducted, role of a researcher, and degree to which generalisation is possible (Fraenkel & Wallen, 2008).

The quantitative data is structured as it is measured in numbers and values. This research method tries to figure out answers to queries like how many, how much, and to what extent (Rasinger, 2013). Surveys and experiments are among the common data-collection methods under quantitative research. On the other hand, qualitative research is used to better understand people's cultures, ideas, and values, as well as human experiences and situations, and to generate theories that explain these experiences (Creswell & Clark, 2011; Holloway & Galvin, 2016). For qualitative research, the data-collection methods may include ethnography, grounded theories, case studies, phenomenological research, and narrative research (Creswell, 2009). Commonly, the difference between quantitative and qualitative research design can be seen in Table 1.

Table 1: Differences between quantitative and qualitative research methodologies

Dimensions	Quantitative Research	Qualitative Research
Focus on understanding the context of a problem	Smaller	Bigger
Dimension of group studies	Smaller	Bigger
The proximity of a researcher to a problem being studied	Smaller	Bigger
Scope of the study in time	Immediate	Linger range
Researcher's point of view	External	Internal

Source: Queirós et al. (2017)

In addition, the mixed-method research is a method that mixes or links qualitative and quantitative kinds of inquiry. Both qualitative and quantitative approaches are adopted in the same research. The mixed-method designs are critical in overcoming limitations associated with both qualitative and quantitative 'mono-method research' (Kelle, 2006). Combining quantitative and qualitative research can result in well-rounded conclusions that are based on both hard data and human experiences. The mixed-method may be conducted in the form of sequential, concurrent, or transformative (Creswell, 2009). In the sequential mixed methods, a researcher wants to use another approach to supplement or build the findings of one method. For example, in the sequential quantitative-qualitative approach,

quantitative research can aid in the selection of examples for small and qualitative studies (Kelle, 2006). For the concurrent mixed methods, a researcher converges or combines quantitative and qualitative data in giving a full understanding of a studied problem, while under the transformative mixed methods, a researcher employs a theoretical lens as an overall perspective within a design that includes both quantitative and qualitative data (Creswell, 2009).

There are several advantages and disadvantages identified under each of the research design. Some of the advantages are listed in Table 2.

Table 2: Advantages of research designs

Research Design	Advantages	Sources
Quantitative	• Can be tested and checked – quantitative research necessitates an in-depth understanding of experimental design and the capacity of anybody to duplicate both the test and the results. This increases the reliability of the data collected and makes it less susceptible to debate. • Straightforward analysis – when collecting quantitative data, the nature of the results will dictate which statistical tests to perform. As a result, evaluating data and presenting conclusions is clear and subjectivity-free. • Prestige – complex statistical and data-analysis research is regarded as valuable and impressive because many individuals are unfamiliar with the mathematics involved. Quantitative research is related to technological breakthroughs, such as computer-modelling, stock-picking, portfolio appraisal, and other business decisions based on the data.	Devault (2017)
Qualitative	• It is flexible to follow unexpected ideas during research and explore processes effectively. • It raises the sensitivity to contextual factors. • A researcher has a clear vision of what to expect. • The issues and subjects covered can be evaluated in-depth and in detail. • Smaller sample sizes are used, which saves costs. • Interviews are not limited to particular questions and can be redirected by a researcher in real-time. • Data are based on human experiences and observations. As a result, they are more compelling and powerful.	Mohajan (2018)

Research Design	Advantages	Sources
Mixed Method	• Qualitative interview findings can aid in identifying unobserved heterogeneity in quantitative data, as well as previously unknown explanatory variables and incorrectly stated models. • Qualitative findings from a mixed-method approach can aid in the comprehension of previously inexplicable statistics findings. • Qualitative research can assist in identifying a quantitative measuring operation's or instrument's lack of validity. • A quantitative investigation can assist in corroboration and transfer of findings from a qualitative study to other domains	Kelle (2006)

In contrast, the disadvantages for each research design are summarised in Table 3.

Table 3: Disadvantages of research designs

Research Design	Disadvantages	Sources
Quantitative	• False focus on numbers – quantitative research tends to be narrow in its pursuit of precise, statistical links, which can result in a researcher missing larger themes and relationships. By concentrating exclusively on stats, the researcher risks missing out on unexpected or big-picture information that could benefit his or her organisation. • Difficulty setting up a research model – when conducting quantitative research, it is critical to carefully create a hypothesis and establish a model for data collection and analysis. Any problems in a researcher's setup, researcher bias, or execution can invalidate all of his or her results. Even developing a hypothesis might be subjective, especially if the researcher already has a specific question in mind that he or she wishes to confirm or refute. • Can be misleading – many individuals believe that quantitative research is more trustworthy or scientific than observational, qualitative research since it is based on numbers. Both types of study, however, have the potential to be subjective and deceptive. The researcher's beliefs and biases are equally as likely to influence quantitative techniques in data collection. Indeed, the impact of this bias is felt earlier in the quantitative-research process than in the qualitative-research process.	Devault (2017)

Research Design	Disadvantages	Sources
Qualitative	It is not statistically representative. Data rigidity is more difficult to assess, demonstrate, and maintain. Data are usually gathered from a few individuals or cases. Therefore, findings and outcomes cannot be spread to larger populations. The created data are not always accepted. The quantity of data makes interpretation and analysis time-consuming.	Mohajan (2018)
Mixed Method	Difficult for a novice researcher to manage due to time, resource, and expertise requirements. The researcher needs to demonstrate proficiency and competence in both the quantitative and qualitative methods chosen as well as proficiency and competency in applying the rules of integration to methods and data analysis. Expensive and time-consuming.	Hafsa (2019); Cameron (2011)

As each of the research design possesses its own characteristics, one type of design is not superior to others as the selection of a research design is influenced by a research problem, personal experiences of researchers, and study audiences (Creswell, 2009).

In summary, each research design has its own strengths and weaknesses, thus its selection will very much be determined by research issues to be addressed. Young or novice researchers may look into past research within the same area of interest to evaluate the appropriateness of a research design to be applied. Past research within the same research area may provide useful guidelines for the approaches in the context of the research to be conducted.

References:

Cameron, R. (2011). Mixed methods research: The five Ps framework. Electronic journal of business research methods, 9(2), pp96-108-pp196-108.
Cooper, D. R., & Schindler, P. S. (2011). Business research methods (Eleventh ed.). Mcgraw-hill
Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches (Third ed.). SAGE Publications.
Creswell, J. W., & Clark, V. L. P. (2011). Designing and conducting mixed methods research (Second ed.). Sage publications.
Devault, G. (2017). Advantages and disadvantages of quantitative research. The Balance.
Fraenkel, J. R., & Wallen, N. E. (2008). How to design and evaluate research in education (Seventh ed.). McGraw-Hill Higher Education.
Hafsa, N.-E. (2019). Mixed methods research: An overview for beginner researchers. Journal of Literature, Languages and Linguistics, 58(1), p45-48.
Holloway, I., & Galvin, K. (2016). Qualitative research in nursing and healthcare. John Wiley & Sons.
Kelle, U. (2006). Combining qualitative and quantitative methods in research practice: purposes and advantages. Qualitative research in psychology, 3(4), 293-311.
Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. Journal of Economic Development, Environment and People, 7(1), 23-48.
Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. European journal of education studies.
Rasinger, S. M. (2013). Quantitative research in linguistics: An introduction. A&C Black.

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Faculty of Business and Management
Universiti Teknologi MARA Cawangan Terengganu, Kampus Dungun
Sura Hujung, 23000 Dungun, Terengganu, MALAYSIA
Tel: +609-8400400
Fax: +609-8403777
Email: biznewzuitm@gmail.com