Choice of Research Methodology: Qualitative Methodology

Any research study needs to have a well-defined research approach that helps in precisely defining the steps required for data collection, data analysis, and interpretation. The choice of a research approach solely depends on the research questions and the expected outcomes of the study. In general, there are three main research approaches which are qualitative, quantitative, and mixed methodology which includes both qualitative and quantitative methods. This paper aims to present a justification for the chosen methodology of the current research questions, with emphasis on how the chosen methodology will contribute to an enhanced understanding of the study outcomes.

The type of methodology chosen for this study is a qualitative research methodology. This is an inductive approach wherein a researcher looks for meanings and insights in the data collected (Levitt et al., 2017). It uses a naturalistic and interpretive outlook for analysing the available information and answering the research questions. The data in this case is non-numerical; rather, it is based on observations and interpretations of people's perceptions in different situations. It does not follow a definitive structure as it seeks to create knowledge and build theories. In this case, the researcher observes events in their natural setting and seeks to understand their meanings and relationships (Gentles et al., 2015). Some of the most important attributes of a qualitative research approach are logic, discourse analysis, ethnography, observation, grounded theory, comparison, introspection, and criticism (Cibangu, 2012).

The present research aims to assess the reliability, validity, and usefulness of experimental cognitive psychology results in real-life practice. Several studies (Verhaeghen et al., 2012; Ladouce et al., 2016) have highlighted a disconnect between experimental results and real-life human cognitive abilities. In order to understand how well the experimental results can be applied to the understanding of real-life cognitive psychology, a qualitative approach is essential. This is because of the multiple differences in population groups, type and setting of experiments, and personal and professional contexts of subjects. In such a diverse setting, a qualitative approach will

help make sense of the data considering all possible meanings and explanations for the experimental results and their application to real life (Mohajan, 2018).

Physical symptoms directly point to a specific disease or an organ system that might be affected; however, this is not the case for behavioural disturbances. Standardized psychometric assessments are available that can point towards a specific cause for emotional disturbances (Lezak et al., 2012). However, these assessments are quantitative in nature and are largely carried out in a controlled and simulated environment. The extent to which these experimental results accurately define and describe the cause of a person's lapse in cognitive functioning is uncertain. Therefore, in order to provide insights into the results of these psychometric tests and their relevance to the actual problems in the patient, a qualitative approach will help in considering each patient scenario separately based on the specific context and drawing conclusions for each situation.

On the contrary, a quantitative approach depends on using statistical and numerical analyses to generate conclusive evidence. It uses an objective rather than a subjective approach for data collection, analysis, and interpretation. Also, it uses a convergent reasoning method where a single theory is proposed for the observations rather than a divergent reasoning method where multiple reasons may be possible for a given observation depending on the specific context (Apuke, 2017). This type of approach is not suitable for the present study because in cognitive psychology, there may be multiple causes giving rise to a particular observation. Therefore, in order to understand the application of experimental cognitive psychology in real-life setting, it is essential to consider all different effectors of an experiment and a real-life setup that can explain the observations. These effectors may be different for each experimental setup, and a quantitative approach will not allow the researcher to take these into account.

In conclusion, the research approach chosen for this study is a qualitative methodology as this will enable the proposal of several theories and explanations for the observed differences between experimental setups and real-life situations. The existing interpretation of cognitive psychology tests largely depends on statistical and

numerical analyses, and the reliability and validity tests are also quantitative in nature. Therefore, this study aims to provide an explanatory discourse of the relevance of experimental cognitive psychology in the real world. Additionally, this approach will enable the analysis of all factors that prevent the experimental results from being translated and/or replicated in practice. It will also help provide a basis for the analysis of possible actions that are currently being undertaken to bridge this gap between theory and practice.

References

Apuke, O. D. (2017). Quantitative Research Methods : A Synopsis Approach. *Kuwait Chapter of Arabian Journal of Business and Management Review, 6*(11), 40-47. doi:10.12816/0040336

Cibangu, K. S. (2012). Qualitative Research: The Toolkit of Theories in the Social Sciences. In Asunción López-Varela (Ed.). Theoretical and Methodological Approaches to Social Sciences and Knowledge Management, pp. 95–126. InTech.

Gentles, S. J., Charles, C., Ploeg, J., & McKibbon, K. (2015). Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. The Qualitative Report, 20(11), 1772– 1789.

Ladouce, S., Donaldson, D. I., Dudchenko, P. A., & Ietswaart, M. (2017). Understanding Minds in Real-World Environments: Toward a Mobile Cognition Approach. *Frontiers in Human Neuroscience, 10*. doi:10.3389/fnhum.2016.00694

Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for Designing and Reviewing Qualitative Research in Psychology: Promoting Methodological Integrity. Qualitative Psychology, 4(1), 2–22.

Lezak M, Howieson D, Bigler E, Tranel D. Neuropsychological assessment. 5th. New York: Oxford University Press; 2012.

Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. *Journal of Economic Development, Environment, and People, 7*(1), 23-48.

Verhaeghen, P., Martin, M., & Sędek, G. (2012). Reconnecting cognition in the lab and cognition in real life: The role of compensatory social and motivational factors in explaining how cognition ages in the wild. *Aging, Neuropsychology, and Cognition, 19*(1-2), 1-12. doi:10.1080/13825585.2011.645009