Research Findings: Experimental Research

Date 23 March 2015
Researcher Paul Lee

---

1. Background

The research phase of the project will need a tried and true method of research to get the best out of the project.

---

2. Objectives

Look in to experimental research methodology and see how this would benefit our research phase and pros and cons of it.

---

3. Approach

Read through online articles, journal articles, ask lecturers on their opinion.

---

4. Findings

4.1. Experimental research is commonly used in sciences, such as sociology and psychology, physics and chemistry etc.

4.1.1. It is a collection of research designs which use controlled testing to understand casual processes. Generally one or more variables are manipulated to determine their effect.

4.1.1.1. Research designs are the structure of any scientific work. It gives direction and systematises the research.

4.1.1.2. There are two main approaches to a research problem: Quantitative and Qualitative Research.

4.2. Experiments are conducted to be able to predict phenomenon.

4.2.1. Typically research is conducted to explain something. Experimental research is important to society – it helps us to improve our everyday lives.

4.3. The main phases of experimental research are: Identifying, Constructing, Conducting, and Analysis and Conclusions.

4.4. Validity of Experimental Design

4.4.1. Internal Validity and External Validity

4.4.1.1. Internal validity asks did the experiment make a difference in this specific instance rather than other extraneous variables.

4.4.1.1.1. Some factors that jeopardise interval validity are: history, maturation, pre-testing, measuring instruments, statistical regression etc.

4.4.1.2. External validity asks to what populations, settings, variables, and measurement variables can this observed effect be generalised.

4.4.1.2.1. Some factors that jeopardise external validity are: pre-testing, differential selection, experimental procedures, multiple treatment interference.

---

5. Further Investigation

5.1. Different qualitative research methods.

5.2. Qualitative research method because the research is too complex to be answered by a simple yes or no hypothesis.

6. Recommendations

6.1. We are not conducting experiments, we are investigating uses for augmented reality. We do not have a variable that we change and no controlled variable so therefore we are not conducting experimental research. Although some principals from experimental research will be good to take away and keep in mind.

7. References

Blakstad, O. (2015). *Experimental Research - A Guide to Scientific Experiments*. *Explorable.com*. Retrieved 23 March 2015, from https://explorable.com/experimental-research

Luzzi, J. (2015). *Experimental Research*. *Kean.edu*. Retrieved 23 March 2015, from http://www.kean.edu/~jluzzi/classes/experim.doc

Okstate.edu,. (2015). *Experimental*. Retrieved 23 March 2015, from http://www.okstate.edu/ag/agedcm4h/academic/aged5980a/5980/newpage2.htm