

Research methods in cognitive psychology



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Memory has been a popular topic for most students of cognitive psychology. There is so much to discover and learn about how the brain processes and encodes information to memory and how man is able to make use of that stored memory when it is needed (Barsalou, 1992).

The study of memory also has practical applications as it can help students improve their studying skills, on the medical aspect; it explains amnesia and other conditions which involve memory loss. One of the interesting topics in the study of memory is how a person can maximize his/her memory and what medium of information delivery is better, reading or listening. The research question is “ which method of information delivery can lead to faster encoding; reading or listening? ” This research problem can be studied by using the experimental method. A true experimental method requires that a control group and an experimental group are used in the study. The experimental group will receive the intervention or experimental conditions while the control group does not. However, since the problem aims to find out which information delivery is better, then this study would probably need three groups, one group for the reading conditions, one group for the listening condition and one control group.

The experimental environment will consist of a small room where the participants will be seated and which the directions or tasks will be presented by the experimenter while the room would have cameras or sophisticated equipments to monitor response rate and other behavioral indications of activity. The environment in which the experiment will be conducted should be controlled by the experimenter in order to avoid extraneous variables, and consistency for all groups must also be achieved.

Usually, after the reading and listening delivery the groups will be asked to complete a task that would demonstrate remembering of the information presented earlier. The experimental method can adequately test the research hypothesis and it enables the isolation of causal factors, for example since all external variables have been eliminated, the result of the experiment can only be attributed to the research variables (Goldstein, 2005).

However, the experimental method lacks ecological validity, it is a reality that man's environment is stimulus laden, man has to attend to a number of sensory experiences everyday. Therefore, to measure whether reading or listening leads to better memory encoding must also account for other competing variables like voice inflection, prior learning and intelligence. Self-reports can also be used to study the same research problems, in self-reports the participants report their own cognition as it progress or as recollected after the exercise (Reisberg, 2005). The participant is therefore subjected to the two delivery methods, reading and listening and after which the participants are asked to relate the process in the said activity.

The participants will also be asked to complete a task to test the retention of the memory which would lead to the identification of which was more effective in bringing memory retention. The participants again will be asked to relate the experience of remembering the information presented earlier. Self-reports provide an intimate and personal description of the cognitive processes that participants experience which cannot be measured by any other means. However, the disadvantage of using self-reports is that the participant may not be able to report anything that does not involve

conscious awareness and that the researcher's data gathering may actually influence the participants reporting of processes which may invariably affects the data of the study and cannot be controlled for.