

The relationship  
between need for  
cognition and present  
recall of acquired  
inform...



**ASSIGN  
BUSTER**

“ Cognition refers to the ability of the brain to process, store, retrieve and manipulate information” D. Ingnatavicius and L. Workman (2002). Cognition can be measured through the employment of a scale known as the need for cognition scale (NFC scale), it was developed by Cacioppo and Petty (1982) and its aim is to measure the level of a participant’s cognition in various situations. High need for cognition can be correlated with a larger capacity of recalling information, Cacioppo et al., (1983).

According to the University of Bolton’s glossary section vocabulary is defined as being: “ The body of words used in a particular language or in a particular sphere of activity; the body of words known to an individual person; a list of difficult or foreign words with an explanation of their meanings.” The mill hill vocabulary scale is produced from a test, which records a participant’s recall of acquired information Raven, Raven, & Court,(1998). Therefore a person’s need for cognition can be related to a participant’s ability to utilize a vocabulary.

The aim of this study is to examine the relationship between a participant’s need for cognition and their ability to recall acquired information. Cacioppo et al., (1996) study into; The life and times of individuals varying in need for cognition, relates to this study as they found that people with higher need for cognition are “ more likely to draw out all of the information available to them”. I. e. a person with higher need for cognition is more inclined to take more information in, meaning that they should have a larger capacity for storing detailed information.

A study into the relationship between need for cognition and the acquisition of complex skills by Day et al (2007) relates to this study as it tested the relationship between need for cognition and a participants ability to learn complex motor skills. The study found that need for cognition was “ associated but distinguishable” from general cognitive ability and was linked to skill acquisition and “ was a possible determinate to leaning complex motor skills.” This should be reflected by the mill hill vocabulary test as it tests for a complex cognitive skill.

However a study conducted by Loranel (2007) suggests that people with a higher need for cognition level are susceptible to false recall of critical words. Sixty undergraduate students were tested (39 women and 21 men) to find whether false recognition in the Deese Roediger McDermott paradigm was related to need for cognition or not. This could mean that people with higher need for cognition may get a lower score in the mill hill test than those with a low need for cognition due to false recognition.

A higher need for cognition can be related to larger capacity for recalling information and learning of complex motor skills, as a result of this the hypothesis is that participants with a higher need for cognition will generally have higher mill hill vocabulary score. However the effects of false recognition will be taken into account.

## Method

### Participants

The participants who took part in this study were all 1st year LJMU undergraduate psychology students. Their gender was not noted as it was not deemed relevant to the study. Convenience sampling was used to select the participants. Although their age was not noted it is possible to say that a majority of the students were between the ages of 18-20 as a high percentage of undergraduates are.

## Design

This study has been designed to show whether or not there is a relationship between a high need for cognition and a person's present recall of acquired information. This information will be gathered in a quantified way through the application of two different scales (Need for Cognition scale and the Mill Hill vocabulary test). The study can be defined as an experimental test of difference.

## Materials

In order to prove or disprove a relationship between the two variables, it was necessary to measure them in a quantified way. In this case Need for Cognition was measured with the use of the need for cognition scale, the results were formed with the use of a test called the Rational-Experiential Inventory scale as well as need for cognition it measured other factors which were irrelevant to this study (see appendices). It was presented in the form of a 5 point Likert scale, with 1= meaning extremely uncharacteristic; 2 meaning somewhat uncharacteristic; 3 meaning uncertain; 4 meaning somewhat characteristic; 5 meaning extremely characteristic.

Vocabulary was tested with the use of the mill hill vocabulary scale this scale formed a result which represented a participants ability to recall acquired information. The test consisted of a multitude of individual alpha words with a group of 6 delta words following each of them respectively. The 6 delta words consisted of five words whose meanings were unrelated to the meaning of the individual alpha word, with one delta word that was directly related to the alpha word (see appendices). The higher the final score was the higher there variable score was. A parametric test known as an unrelated t test was then used to identify a relationship between the two variables.

### Procedure

The questionnaire was administered to the subjects in their workshop groups which consisted of approximately 17 people. The participants were given clear instructions and were given a briefing sheet which informed them of what was required of them and were given the right to withdraw from the study. Each subject completed the form independently and all were given adequate time and were asked to answer honestly.

### Ethics

The subjects were asked if they wanted to participate and there consent was noted through the use of consent forms. To insure anonymity their names were not taken and each participant was issued with a pin, which meant they could check their results in an anonymous way. The participants were informed that they could remove themselves from the test anytime they wanted.