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The Effect of Motivation on Memory Recall Among the Students of SS 11A and SS 11B of Government Model Secondary School Makurdi

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Abstract

This study investigated the effect of motivation on memory recall among students of SS11A and SS11B of Government Model Secondary School Makurdi. The study employed the use of experimental design of 3x2x1 One-Way Analysis of Variance (ANOVA) and Independent T test with Alpha level of .05 to test the two hypotheses. The study consists of sixty (60) participants with 30 (50%) males and 30 (50%) females. Their ages ranged from 13-20 years with the means of 8.15 (SD=23.41). The participants were grouped into three of high, low and non-motivated students. Each group had (20) participants each totalling sixty (60) in the study. The participants were selected on the basis of gender and evenly distributed through the use of purposive and convenience sampling techniques. Finding from the study indicated that there was significant different in the level of memory recall among the high, low and non-motivated students F (2, 57) =8.98, P<.05. There was no significant different between male and female students on memory recall when motivated

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(59) =.20 P>.05. Thus, the first hypothesis was confirmed and the null hypothesis was rejected. On the other hand the second hypothesis was rejected and the null hypothesis was accepted. It was therefore recommended that conscious efforts should be made by the parents, Teachers, School Administrators to provide various incentives to enhance students recall abilities in memory task. It was also recommended that the Government and Philanthropists should provide scholarship programme to enhance study memory recall in the Secondary School. Finally, the study recommended that psychologists and the teachers should encourage the student to always rehearse their work in order to improve their memory recall when the need arise.

Keywords: Motivation, Memory recall, Students, Government Model Secondary School Makurdi

INTRODUCTION

Recall among students has been a very difficult task especially when they are not well motivated in the learning process. Recall of previous and present task are common and useful in most situation. In order to improve recall, motivation has a role to play. There seems to be a relationship between motivation and recall. This is the reason that the researcher intend to investigate**.**

Motivation is fundamental in psychology and organizational study. This is because an understanding of motivation is central in explaining both individual and organizational behaviour (Mitchell &Daniel, 2003). Motivation refers to the psychological process that direct, energies and sustain an action. It is also defined as an inner desire to make an effort that derived from different sources. Early in the 20th Century, Scholars and practitioners believed that external incentive reward and intrinsic motivation were necessary to increase memories recall. Everyone needs to be concerned about motivation in memory recall. The various theories of motivation may be rooted in the basis need to minimise physical pain and maximise pleasure.

Freudian theory stated that an individual who remember unconsciousness hidden materials were eventually more comfortable or free from neurosis. At times some individual can recall false memories under hypnosis or even when fully conscious. This may be because the original memory was not accurate or because the person wishes to please the therapist.

The individual ability to recall task memory is influenced by some factors such as individual state of mind, lack of adequate sleep, aging, gender and at times environmental factor.

The relationship between motivation and recall on a given task is very important in every situation when participants are require to perform certain task. When people are engaged in a task, motivation seems to play a central role because it provides and sustain energy in a given situation. The central problem in this study is whether motivation will have any effect on memory recall; those with high motivation will likely differ on memory recall than those with low or non-motivated group. Another problem is whether male and female in Government Model Secondary School of adolescent will differ on motivation and recall of memory task. There are individual differences in motivation and recall but the study seeks to examine the effect of male verses female group on performance on recall as well as those with high, low and non-motivated group. The finding of this study will enables the researcher to generalize the findings to larger group at the end of the study.

Daily observation showed that human beings encounter different situations that require recall of memory. This situation may require different factors especially the motivation which come from the outside or inside the individual. In this study, motivation is the determining variables because it account for the reason for our behaviour.

According to Clark (1952) human being have internal biological need that motivated them to perform in a given task. This need or drive is defined as internal state of arousal or tension which must be reduced. A drive can be primary or secondary. Primary drive is an innate physiological need such as hunger, thirst or the need for sex. A secondary drive is an acquired non physiological urge such as the need for achievement or the need for affiliation. When an individual performs a task the effect of an audience or coaters is increase the emission of the dominant responses in the individual's repertoire. If the task is simple or well learned then, the dormant responses are likely to be correct and audience effect result would be an improvement or enhancement of performance. But when the task is difficult or inadequate to learned then wrong responses are likely to predominant and the effect is the impairment of performance. The reason is that an individual has to maintain a sense of internal calmness.

According to the experimental study conducted by Roebers, Moga and Schneider (2001) the participants were place in either forced report, free report or free report plus incentive groups. In each group, they found out that the amount of correct information recalled did

not differ, yet the group of the participants that was given an incentive has the higher accurate result. This means that presenting the participants with an encouragement to provide correct information motivate them to be more precise. This is only true if the perception is the success is the completion of the task rather than accuracy of that completion, the number of response is higher, yet its accuracy is lowered. This means that the result of the study was depended on how success is defined to the participants. The study also maintained that the participants that were placed in the forced responses group had the lowest overall accurate responses because they were not motivated to obtain accurate response rather they were asked to respond even when they were unsure of the answer. This study aimed at investigating the effect of motivation on memory recall among the students of Government Model Secondary School Makurdi Local Government Area, Benue State. It was therefore hypothesized that:

- There will be significant effect of motivation on memory recall among the high, low and non-motivated students of Government Model Secondary School Makurdi. Local Government Area of Benue State.
- There will be significant different between male and female Students on memory recall when motivated.

METHODS

Research Setting

The study was conducted in Government Model Secondary School Makurdi Local Government Area of Benue State.

Participants

Participants for the study were sixty (60) students of SS11A and SS11B of Government Model Secondary School Makurdi Local Government Area of Benue State who were randomly selected through purposive and convenience sampling techniques. The age range of the participants was 13-20 with the means of 8.15 and standard deviation of 23.41.Out of the participants 30 (50%) were males, 30(50%) were females. In times of marital status, 1 (1.7%) married, 59 (98.3%) single; Social Economic Status 4(6.7) High Social Economic Status, 33(55.0%) Moderate Social Economic Status and 23(38.3%) low Social Economic Status. According to the groups of the participants, 20(33.3%) were high, 20(33.3%) were low and 20 (33.3%) were non-motivated at all. In times of tribe, 48 (80.0%) were Tiv, 8(13.3%) were Idoma, 1 (1.7%) was Igede, 1(1.7%) was Igala, 2(3.3%) were Igbo.

Sampling Technique

Purposive and convenience sampling techniques were used in sampling the population of the study. This sampling technique was adopted because of its simplicity and specificity that the sample tested was a true representative of the population of the study**.**

Instruments/Materials

- One hundred Naira (N100) was used to motivate the high group of the participants.
- Fifty Naira (N50) was used to motivate the Low group of the participants.
- The projector was used to project the ten words for the participants to view.
- Generator was used to supplement electricity.
- Fuel was used to put inside the generator
- The stop watch was used for timing of the experiment.
- Pen was used write down words recalled.
- Two answer scripts were used for bio data and answer script.
- The ten words were: Cartesian, Personification, Mechanization, Sovereignty, Population, Advertisement, Photosynthesis, Impeachment, Memorandum and Parallelogram.
- Text books of SS11 which include subjects like English, Mathematics, Government, Agriculture and Biology.
- Computer was used to connect the ten words to the projector
- The Computer operators were used to handle the Computer and the projector
- Three research assistants were used to assist the researcher in the experiment.
- The school laboratory was used to conduct the experiment.

Procedure

Researcher visited Government Model Secondary School Makurdi to conduct an experiment among the students of SS11A and SS11B. To administer the instruments, permission was sought from the authority of the school as a way of getting their consent for the study. A convenience sampling procedure was used to select participants purposely for the experiment. The three groups of the participants were approached personally and the purpose of the study was explained to them as a way of seeking their consent and cooperation for the study. Each group of the participants were separately assembled and motivated before re assembled them in the school laboratory and subjected them for the experiment. The researcher advises the participants on how to fill their personal data.

Thereafter, the researcher asked the computer operator to project the ten words for all the participants to view within two minutes after which the computer exit the words and they were asked to write down the words correctly recalled within five minutes. The emphasis of the researcher was the accuracy of the words recalled and not the numbers parse. The researcher discouraged the participants from communicating and distracting others participants during the experiment.

Statistical Analysis

The data collected for the study was analysed using the stastically package for Social Science (SPSS). One-Way Analysis of Variance (ANOVA) and Independent t test were used in analysing the stated hypotheses. The reason for the choice of these statistics was to test for the effect of motivation on memory recall as well the different between males and females students when motivated.

RESULTS

Hypothesis one stated that there will be significant different in the level of memory recall among the high, low and Non-motivated students on memory recall**.** The result is presented in table below:

Table 1: One-Way Anova showing motivation level among the high, low and non-motivated students on memory recall.

SOURCES	SS	DF	MS	F	P	REMARK
BETWEEN	52.534	2	26.267	8.984	3.150	Significant
WITHIN	166.650	57	2.923			
TOTAL	219.184	59				

Sources: Experimental study 2012

Hypothesis 1. There will be significant different in the level of memory recall among the high, low and non-motivated students of Government Model Secondary School Makurdi. This hypothesis was tested using One-Way Analysis of Variance (ANOVA. The result of the finding revealed that there was significant different in the level of memory recall among the high, low and non-motivated students on memory recall ($F(2, 57) = 8.98$ $P<.05$.This study confirmed the research hypothesis and the null hypothesis was rejected for what of statistically support.

Hypothesis two stated that there will be significant different between male and female students on memory recall when motivated. The result is presented in table below:

Table 2: A summary of Independent T-test showing gender different on memory recall when motivated.

Variable	N	Mean	SD	DF	T	Alpha	Remark
Male	30	3.10	6.44	59			
Female	30	3.20	7.29				

Sources: Experimental Study 2012

Hypothesis 2: Hypothesis two stated that there will be significant different

Between male and female students on memory recall when motivated. This hypothesis was tested using Independent T –test. The result of the hypothesis indicated that there was no Significant different between male and female students on memory recall when motivated (t(59)=.20>.05). This finding also revealed that the hypothesis was rejected and the null hypothesis was accepted.

DISCUSSION

The first hypothesis stated that there will be significant different in the level of memory recall among the high, low and non-motivated students on memory recall was statistically significant. This implies that the three groups of students are not in any way the same in their recall ability largely due to motivation. The result of this hypothesis was confirmed as motivation showed significant different in the level of memory recall. This finding is inline of the study of Harly (1965) which revealed that words associated with high monetary incentive were better recall than those associated with low or non-motivated groups. The study of Roeber, Moga & Schneider (2001), Weiner & Walker, (1996) and Hasting & West (2011) maintained that participants who recall words more accurately were given high monetary incentive than the low or non-motivated group. This finding collaborates with the findings of Atkinson (1971). Contrarily, Ngaosuvan, & Mantyla (2005) findings indicated that motivation is non-effective in retention to memory. In particularly, Walker, (1996) established that low level incentive has an effect on memory recall. This implies that the incentive used in this study was different with the one used by (Weiner& Walker 1996). However other findings claimed that low level incentive increase memory recall and attribute it on the premise of domain such as education and learning many possibilities and improve productivity in government workers (Tiglao-Torres (1990), Ames Cande, (1992). The fact that high level of incentive improves memory recall implies that motivational

strategies used to improve various occupations may be needed. This is not to say that incentive motivation is the only tool of improving memory because the individual with instinctive motivation may still improve memory recall and the issue of individual difference should be considered. Other findings according to Bandura revealed that individual need to develop self-efficacy to achieve in a given task. This findings collaborate with the findings of Hasting & West (2011) and Hoffman & Schraw (2009) which attributed increase in memory retention to high level of self-efficacy. This implies that perception of such individual self-efficacy is suggested and specific to certain kind of task the individual intended to achieve. In a contrary findings, students need the skills and willingly in terms of goals and expectation to be successful in a given task (Pintich & Schuaf 1996).This findings further implies that the ability for a student to recall more accurately in memory task is subjected to the amount of skills acquired and willingly to perform such given task. On contrary view, Douvard & Miller (1992), findings attributed memory recall to intrinsic motivation. This implies that despite the amount of monetary incentive that were given to the individual participants who have interest for such task, the individual with intrinsic motivation may still recall more than those with high monetary incentives. This further implies that for the individual to be successful in any given task such individual must have an interest to accomplish such task.

The second hypothesis stated that there will be significant different between male and female students on memory recall when motivated was statistically insignificant. This finding implies that male and female students did not differ in memory recall when motivated even though there was a slight different. Block and Ghonein (2000) maintained that females perform better than males on episodic memory tasks including delayed recall and recognition. However males and females do not differ on working immediate and semantic memory tasks. They further suggest that neuro-psychological observations in general and previous injuries cause greater deficits in females than in males and proposed that the gender differences in memory performance reflect underlying differences in the strategies used to process information rather than anatomical differences. In addition, gender in cerebral asymmetry received support from morph metric leftward asymmetry in males than in females, meaning that men and women use each side of their brain to a different extent on memory task (Gullem, &Mograss, 2005) .There is also evidence of a negative recall bias in women, which means females in general are more likely than males to recall their mistakes (Beyers, 1998). According to Yarmey (1991 women showed

significantly more accurate than men in accuracy of recall for weight of suspects. Yang, Yang & Park (2013) on the other hand revealed that information presented by the women speaker was more easily recalled by all the members of the study than the men counterpart. This means that males participants follow verbal cues, react more to the facts and actual words within a discussion to recall what was said, but fluctuations in the speaker's voice helps them maintain the memories. Although, males and females differ in recalling someone's voice but females tend to remember a speaker's voice one week after hearing the speaker; they can recall exactly what the speaker sounded like and can recall the exact word chosen during a presentation. Males, on the other hand, do not have that type of recall memory but tend to recall information they have read, for instance, lists of objects are better recalled for men than women (Yang e tal,2013)

CONCLUSION

In conclusion, this study recommends that the parents, teachers and the School administrators should provide various incentives to enhance study recall abilities on memory task. The study also recommends that the Government, School administrators and the Philanthropists should provide scholarship programme to improve student's abilities on memory task. The study further recommend that Psychologists and teacher should encourage the students to rehearsed the works after learning to improve recall abilities especially memory recall task. The study finally recommends that the School administrators and the Government should provide conduicieved environment for learning to enhance student's mental task.

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