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Research Article

Influence Of Meta Cognition On Knowledge Of Virtual Learning Of College Students In Chennai District

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ABSTRACT

The goal of this study is to determine the importance and influence of meta cognition on knowledge of virtual learning among the college student in Chennai. Metacognition enables an individual to become a successful learner which is being associated with intelligence. Metacognition refers to higher order of thinking which involves active control over the cognitive process engaged in learning. Virtual learning helps the students to update their knowledge in their subjects. Most of the higher educational institutions have integrated technology on their day to day teaching learning Process. The study was conducted among the randomly selected arts and science college students, which are situated in Chennai city and was fitted with the normative survey approach. The investigator has chosen a sample from the population using a basic random sampling approach. A total of 825 arts and science college students from Chennai were included in the study. Percentage analysis, 't' and 'F' tests were used to analyse the data statistically. The finding of result revels that there is significant difference between male and female B.Ed. college students in their meta cognition, there is significant difference between the college students hail from joint and nuclear families in their metacognition, there is significant relationship between metacognition and virtual learning of B.Ed. students. A very high positive correlation was existed between metacognition and virtual learning of B.Ed. students.

Keywords: Meta Cognition, Virtual learning and College Students.

INTRODUCTION

Cognition is the study of mental processes underlying one's ability to perceive the world, learn from one's experiences, and modify out behaviour accordingly. It includes perception, memory, language and thought. Cognition is the product of top-down and bottom-up processes. Top-down processing refers to the influence of knowledge expectations on language perception and memory. Bottom-down processing is processing driven by an external stimulus. Cognitive functions are assumed to be modular that is to operate independently of each other. Metacognition is a very complex phenomenon. It refers to the cognitive control and monitoring of the cognitive processes; action, memory and reasoning.

E-Learning has been introduced as a tool in the learning process in the majority of the international universities worldwide. The term "Virtual Classes" is defined as "any learning that involves using internet or intranet." A year later made the definition more generalized by indicating that it is "anything delivered, enabled, or mediated by electronic technology for explicit purpose of learning".

METACOGNITION

In the field of educational psychology, metacognition is an emerging concept. Metacognitive activities are there in every one's daily life. It enables an individual to become a successful learner. It refers to higher order of thinking which involves an active control over the cognitive process engaged in learning. Activities such as planning how to approach a given learning task, monitoring, comprehending and evaluating process towards the completion of a task are metacognitive in nature. It refers to awareness of one's own thoughts.

VIRTUAL LEARNING

According to "e" in Virtual Classes should not stand for electronic; it should be an abbreviation for "evolving, enhanced, everywhere, every time and everybody." Although the Virtual Classes term and tools do exist for over a decade, the educational research field has not given enough attention to the study of student motivation under the effect of Virtual Classes. Virtual Classes has grown in significance as an educational tool just like technology has developed and progressed over the years. Interestingly, there have been more efforts at advancing technology than on attempting to understand the needs and learning styles of individual learners and instructional design. The 21st century has seen rapid progress with such things as the Internet and online learning.

OBJECTIVES OF THE STUDY

The following are the objectives above been set in the present study.

i. To find the level of Meta cognition and Knowledge of Virtual Learning of Arts and Science college students
ii. To find whether there will be any significant relationship exists between metacognition and virtual learning of Arts and Science College students
iii. To find whether there will be any significant difference in metacognition of Arts and Science College students with respect to their
a. Gender
b. Family type
iv. To find whether there will be any significant difference in knowledge of virtual learning of Arts and Science College students with respect to their
c. Gender
d. Family type

HYPOTHESES

The following are the hypotheses formulated based on the above objectives.

i. There is no significant relationship between metacognition and knowledge of virtual learning of Arts and Science College students
ii. There will be no significant difference between male and female Arts and Science College students' metacognition.
iii. There will be no significant difference between male and female Arts and Science College students' knowledge of virtual learning.
iv. There will be no significant difference between students from joint and nuclear family Arts and Science College students' metacognition.
v. There will be no significant difference between students from joint and nuclear family Arts and Science College students' knowledge of virtual learning.

METHOD

Since the present study deals with the existing condition, it is a descriptive or survey. Survey method is a method is collecting and analyzing data obtained from large number of respondents representing a specific population collected through highly structured and detailed questionnaire. Data are gathered, tabulated, classified, interpreted, compared, evaluated and then generalizations are made. Everything proceeds towards understanding and solving or reducing educational problems.

SAMPLE

The arts and science college students constitute the population of the present study. In the study a sample of 825 college students studying in the arts and science colleges located in Chennai district of Tamil Nadu, India was selected as the sample using random sampling technique.

Research Instruments employed

i. A scale on Metacognition was adopted for the study developed by Prof.Kanmani and Prof.Annaraja(2009)
ii. A scale on Virtual Learning was constructed and developed by G.Shoban Prabhu and Prof.M.Kanmani(2023)

STATISTICAL TECHNIQUES EMPLOYED

Descriptive and inferential statistics namely (a). Measures of Central Tendency (b). t, F and 'r' are used to analyse the data collected.

ANALYSIS AND INTERPRETATION OF DATA

i. There will be no significant difference between male and female Arts and Science College students' metacognition.

TABLE – 1 SIGNIFICANT DIFFERENCE BETWEEN MALE AND FEMALE ARTS AND SCIENCE COLLEGE STUDENTS METACOGNITION

SAMPLES	SUB-SAMPLES	N	MEAN	STANDARD DEVIATION	't' Value	Significant at 0.05 Level
Total Sample		825	54.60	12.28	-	
Gender	Male	405	53.70	12.45	2.08	Significant
	Female	420	55.48	12.07		

It is inferred from the above table that the calculated value of 't' is greater than the table value of 't' at 5% level of significance. Hence the null hypothesis is **rejected.** While comparing their mean scores the mean score of male students is better then the mean score of female students.

ii. There will be no significant difference between the students hail from joint and nuclear families of Arts and Science College students' metacognition.

TABLE – 2 SIGNIFICANT DIFFERENCE BETWEEN STUDENTS HAIL FROM JOINT AND NUCLEAR FAMILIES OF ARTS AND SCIENCE COLLEGE STUDENTS METACOGNITION

SAMPLES	SUB-SAMPLES	N	MEAN	STANDARD DEVIATION	't' Value	Significant at 0.05 Level
Total Sample		825	54.60	12.28	-	
Family type	Nuclear family	339	54.47	12.08	0.26	Not Significant
	Joint family	486	54.70	12.44		

It is inferred from the above table that the calculated value of 't' is greater than the table value of 't' at 5% level of significance. Hence the null hypothesis is **accepted.** Hence, the students hail from joint and nuclear families do not differ in their metacognition.

iii. There will be no significant difference between male and female Arts and Science College students' knowledge of virtual learning.

TABLE – 3 SIGNIFICANT DIFFERENCE BETWEEN MALE AND FEMALE ARTS AND SCIENCE COLLEGE STUDENTS' KNOWLEDGE OF VIRTUAL LEARNING

SAMPLES	SUB-SAMPLES	N	MEAN	STANDARD DEVIATION	't' Value	Significance at 0.05 Level
Total sample		825	115.98	15.85	-	
Sex	Male	405	114.79	16.31	2.11	Significant
	Female	420	117.13	15.33		

It is inferred from the above table that the calculated value of 't' is greater than the table value of 't' at 5% level of significance. Hence the null hypothesis is **rejected.** While comparing their mean scores the mean score of male students is better than the mean score of female students in knowledge of virtual learning.

vi. There will be no significant difference between the students hail from joint and nuclear families of Arts and Science College students' knowledge of virtual learning.

TABLE – 4 SIGNIFICANT DIFFERENCE BETWEEN STUDENTS HAIL FROM JOINT AND NUCLEAR FAMILIES OF ARTS AND SCIENCE COLLEGE STUDENTS KNOWLEDGE OF VIRTUAL LEARNING

SAMPLES	SUB-SAMPLES	N	MEAN	STANDARD DEVIATION	't' Value	Significant at 0.05 Level
Total Sample		825	54.60	12.28	-	
Family type	Nuclear family	339	115.90	16.21	0.01	Not Significant
	Joint family	486	116.03	15.62		

It is inferred from the above table that the calculated value of 't' is greater than the table value of 't' at 5% level of significance. Hence the null hypothesis is **accepted.** Hence, the students hail from joint and nuclear families do not differ in their knowledge of virtual learning.

CORRELATIONAL ANALYSIS

It may be recalled that the objectives of the present investigation include the finding out of the nature of the relationship existing between the metacognition skills scale and level of virtual learning. In order to realize the above objectives, Pearson's product moment 'r' was computed between the following sets of scores (zero order correlation), given in table 3.

TABLE – 5 CORRELATION BETWEEN METACOGNITION AND KNOWLEDGE OF VIRTUAL LEARNING OF ARTS AND SCOENCE COLLEGE STUDENTS

VARIABLES	df	CALCULATED VALUE OF 'r'	REMARKS
Metacognition and Virtual learning	823	0.468	Significant at 0.01 Level

It is inferred form the above table that there exists a significant relationship between metacognition and knowledge of virtual learning of arts and science college students.

FINDINGS

i. The level of arts and science college students' metacognition is found to be an average.
ii. The level of arts and science college students' knowledge of virtual learning is found to be an average.
iii. Male and female arts and science college students differ in metacognition.
iv. Students hail from joint and nuclear families do not differ in their metacognition.
v. Male and female arts and science college students differ in knowledge of virtual learning.
vi. Students hail from joint and nuclear families do not differ in their knowledge of virtual learning.
vii. There is a significant relationship between metacognition and knowledge of virtual learning of the college students.

CONCLUSION

On the basis of analysis of data it may be concluded that entire sample value lie in the average level for metacognition skills and virtual learning hence the investigator conclude the arts and science college students shows an average level of metacognition skills and knowledge of virtual learning, based on the data analysis the arts and science college students shows there is no significant difference except sex in respect of their demographical variables such us (Locality and Type of family) for metacognition and shows no significant difference except sex in respect of their demographical variables such us (Locality and type of family) in respect of their for virtual learning. Moreover, the result shows there is a significant relationship between metacognition skills and virtual learning. This will help the policy makers to design the curriculum in such a way that it will help the teacher to teach the subject in an effective manner and maintain pace with the modern education.

REFERENCES

1. Best, John, W., (1977), "Research in Education", Englewood cliffs: Prentice Hall of India (P) Ltd, New Delhi.
2. Edwards, L Allen., (1957), "Techniques of Attitude Scale construction", Bombay: Vakils Feffer and Simons (P) Ltd, Bombay, India.
3. Garrett, H E., (1975), "Statistical Psychology and education Hyderabad", International book, Bereau. Bombay, India.
4. Good, et al., (1941), "Methodology of Educational Research", Applention century croff, Inc, New york.
5. https://www.infitt.org/ti2014/papers/026_vignesh_raj_final.pdf