

A STUDY ON THE USAGE OF COMPUTERS AMONG PROSPECTIVE TEACHERS

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Abstract

Although it is a given that our generation known as the millennial have gained so much through technological advancements, albeit there have been more innovations within the past five years than there were within the past two thousand years. A computer is a medium that centres at the heart of the communication revolution. Computers are used in the present day to prepare prospective teachers for an informative future in the field of education. Therefore it is essential to study how the usage of computers is affected by some factors like gender, order of birth, type of management of colleges, locality of residence, type of family, order of birth age and parental monthly income of the prospective teachers. Hence the present research was attempted to study the usage of computers among prospective teachers.

Introduction

‘The real danger is not that computers will begin to think like men, but that men will begin to think like computers.’

- Sydney J. Harris

In India, as in the rest of the world, phenomenal changes are taking place in almost all walks of life at a fast pace. Since education is expected to play a pivotal role in the liberation of individuals from ignorance, exploitation and poverty and make a nation enlightened, prosperous and empowered it has to respond to the demands of changing

times to retain its relevance and effectiveness.

Using technology in education enables growing up individuals who are familiar with technology and who make use of it by improving the quality of education. The most important of these technological devices that are used at present is Computers. One of the most important factors that affect the success of the implementation of Computer-assisted instruction, which has such an important field of use in the education-instruction process, is students' Usage of Computer and their Attitude towards computers.

Using a Computer for personal or professional Usage has become quite common. Within the past ten years, the range of possible Usage has grown, as well as the connectivity of PCs with other electronic devices such as digital cameras, TV, mobile handsets or portable media players. The rise of broadband internet access and the development of online services have participated in this evolution: Web 2.0, this evolution changed the place of the Computer in daily Usages, which appears to be a universal toolbox switched on permanently.

The Computer is used in many cases to supplement students' academic activities and provide some alternatives for professors and Students looking to bring a new life to the familiar educational experience. The internet provides improved information on the latest events and the latest opinion. The internet exposes Students to a great variety of materials and sources and predisposes them to do more reading.

Need for the study

Computing presents a particular case for understanding the role of technology in moulding an individual. As these technologies become a more integral part of daily activities, automate more decision-making processes and continue to transform people. The growing pervasiveness of computer technologies in everyday life and the new possibilities that they provide make them an asset in the field of education. The usage of

computers in education has indeed become inevitable in this tech-savvy world. So it's become essential to train and equip the prospective teachers with effective ways of using the computers. So, the present study would help in enhancing the appropriate and effective usage of computers among prospective teachers.

OBJECTIVES OF THE STUDY

- 1) To access the level of usage of computers of the prospective teachers.
- 2) To find out the significant differences, if any, in the usage of computers among prospective teachers with respect to certain demographic variables such as gender (Male/Female), type of management of colleges (Govt/Govt-Aided/Self-Financed), locality of residence (Rural/ Urban), type of family (Joint/Nuclear), order of birth (First Born/MiddleBorn/Last Born), age (Below 25Years/Between 25 Years & 30 Years/ Above 30 Years) and parental monthly income (Below Rs.15,000/Between Rs.15,000 & Rs.40,000/Above Rs.40,000) of the prospective teachers.

HYPOTHESES OF THE STUDY

1. The level of usage of computers among prospective teachers is moderate in nature.
2. There may be no significant difference in the usage of computers among prospective teachers based on gender, type of management of colleges, locality of residence, type of family, order of birth, age and parental monthly income of the prospective teachers.

SAMPLE OF THE STUDY

The present study is mainly concerned with the prospective teachers studying in 10 different Teacher Training Colleges in Chennai. For the present study, the sample of 305 prospective teachers studying in 10 different Teacher Training Colleges with varied

management of colleges in Chennai District in the academic year 2020-2021 was chosen, using a stratified random sampling technique. Out of the 10 Teacher Training Colleges in the sample, two were Government colleges, four were Government-Aided and the rest four were Self-Finance colleges. Among the 305 prospective teachers in the sample, 47 were male and 258 were female.

TOOLS USED FOR THE PRESENT STUDY

Questionnaire on Usage Of Computers

Description

The Questionnaire on Usage Of Computers has been developed by the investigator(2021), to know the level of usage of computers among prospective teachers. There are 35 items. Each item has 5 alternatives and the responses are strongly agree, agree, uncertain, disagree, strongly disagree, respondent has to select an alternative from the given for each item.

Analysis of Data

TABLE- 1

Showing the levels of usage of computers among the sample.

Groups	Score Range	No. of Prospective Teachers	Percentage
Low	0-142	77	25.2
Average	143-155	143	46.9
High	156-175	85	27.9
Total	-	305	100

From the above table, it is seen that the level of usage of computers of prospective teachers is moderate in nature.

Showing the significant difference between the mean scores of usage of computers of male and female prospective teachers.

Group comparison	N	Mean	SD	SE	't' Value	Level of significance
Male	52	148.90	13.790	1.912	0.400	NS
Female	253	149.53	9.392	0.590		

From the above, table it is clear that gender does not influence the usage of computers among prospective teachers.

TABLE- 3

ANOVA shows the significance of the difference between the mean scores of usage of computers of prospective teachers based on the type of management of the colleges.

Source	Sum of Squares	Mean Squares	df	'F' Ratio	Level of Significance
Between group	108.972	54.486	2	0.517	NS
Within group	31833.467	105.409	302		
Total	31942.439	-	304		

The above table reveals that the type of management of college does not influence the usage of computers among prospective teachers.

TABLE- 4

Showing the significant difference between the mean scores of usage of computers of prospective teachers hailing from Rural/Urban areas.

Group comparison	N	Mean	SD	SE	't' Value	Level of significance
Rural	56	148.91	12.176	1.627	0.413	NS
Urban	249	149.54	9.790	0.620		

The above table reveals that prospective teachers from rural locality do not differ much from those belonging to urban ones in the case of usage of computers.

TABLE- 5

Showing the significant difference between the mean scores of usage of computers of prospective teachers hailing from joint and nuclear families

Group comparison	N	Mean	SD	SE	't' Value	Level of significance
Joint	66	148.95	10.770	1.326	0.419	NS
Nuclear	239	149.55	10.122	0.655		

The above table reveals that prospective teachers from joint families do not differ much from those belonging to nuclear ones in the case of usage of computers.

TABLE- 6

ANOVA shows the significant difference between the mean scores of usage of computers of firstborn, middle born and last born prospective teachers.

Source	Sum of squares	Mean Squares	df	F Ratio	Level of significance
Between groups	461.769	230.885	2	2.215	NS
Within groups	31480.670	104.241	302		
Total	31942.439	-	304		

There is no significant influence of the birth order on the usage of computers among prospective teachers.

TABLE- 7

ANOVA shows the significance of the difference between the mean scores of usage of computers of prospective teachers based on their Age.

Source	Sum of Squares	Mean Squares	df	'F' Ratio	Level of Significance
Between group	71.786	35.893	2	0.340	NS
Within group	31870.653	105.532	302		
Total	31942.439	-	304		

The above table reveals that their Age does not influence the usage of computers among prospective teachers.

TABLE- 8
ANOVA shows the significance of the difference between the mean scores of usage of computers of prospective teachers based on their parental monthly income

Source	Sum of Squares	Mean Squares	df	'F' Ratio	Level of Significance
Between group	226.213	113.107	2	1.077	NS
Within group	31716.226	105.021	302		
Total	31942.439	-	304		

The above table reveals that the parental monthly income of prospective teachers does not influence their usage of computers.

MAJOR FINDINGS

A careful analysis of the data had resulted in the following findings:

- 1) The level of usage of computers of prospective teachers is moderate in nature.
- 2) Gender does not influence the usage of computers among prospective teachers.
- 3) The type of management of college does not influence the usage of computers among prospective teachers.
- 4) The prospective teachers from rural locality do not differ much from those belonging to urban ones in the case of usage of computers.
- 5) The prospective teachers from joint families do not differ much from those belonging to nuclear ones in the case of the usage of computers.
- 6) There is no significant influence of the birth order on the usage of computers among prospective teachers.
- 7) Age does not influence the usage of computers among prospective teachers.

The parental monthly income of prospective teachers does not influence their usage of computers.

EDUCATIONAL IMPLICATIONS:

1. The usage of computers among prospective teachers is moderate in nature, revealing that the teacher training colleges should take steps to increase the usage of computers among prospective teachers. This may be done by introducing computer courses in the curriculum
2. The facilities for the usage of computers in teacher training colleges must be appropriate for prospective teachers to make optimum usage of computers.
3. Computer-Based Learning (CBL) or Computer Assisted Instruction (CAI) can be used in teacher training colleges to equip prospective teachers with the effective usage of computers.
4. The prospective teachers can be encouraged to pursue professional computer courses.
5. The Government can also organise pre-service training on the usage of computers for the prospective teachers.
6. Both male and female teachers should be provided with equal opportunity in the usage of computers.
7. The prospective teachers must be made aware of the various computer applications in the field of teaching and learning.
8. Government can provide prospective teachers with laptops to improve their usage of computers among the prospective teachers.

Reference

Garland, K. J., & Noyes, J. M. (2005). Attitudes and confidence towards computers and books as a learning tool: a cross-sectioned study of student cohorts. *British Journal of Educational Technology*, 36(1), 85-91

Hong, K. S., Ridzuan, A. A., & Kuek, M. K. (2003). Students' attitudes toward the use of the Internet for learning: A study at a university in Malaysia. *Educational Technology & Society*, 6(2), 45-49

Hunt, N. P., & Bohlin, R. M. (1993). "Teacher education students' attitudes toward using computers". *Journal of Research on Computing in Education*, 25 (4), 487-497.

Cluever, R. C., Lam T. C., Hoffman, E. R., Green, K. E., & Swearingen, D. L. (1994). "The computer attitude scale: assessing changes in teachers' attitudes toward computers". *Journal of Educational Computing Research*, 11 (3), 251-261. liking, and perception of usefulness". *Journal of Research on Computing in Education*, 22 (2), 137-150.

<https://plato.stanford.edu/entries/computing-responsibility>

https://www.tutorialspoint.com/computer_concepts/