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Awareness and learning skills in ICT among B.Ed., trainees

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Abstract:

The present study aims to examine the awareness and learning skills in ICT among B.Ed trainees. The investigator has adopted causal comparative method under descriptive method of research. The sample consists of 400 B.Ed trainees from different colleges of Education selected by stratified random sampling technique. The investigator developed a self-made tools to measure the awareness and learning skills of the B.Ed trainees towards ICT. To interpret the raw scores, data were analysed using mean, standard deviation, t-test and correlation. The findings shows that significant and positive relationship was observed between learning skills in ICT and awareness towards ICT of B.Ed trainees. The B.Ed trainees of aided and unaided have similar awareness and similar learning skills in ICT, The female science B.Ed trainees have higher awareness and higher learning skill in ICT as compared to male and Arts B.Ed trainees.

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INTRODUCTION :

Information and Communication Technologies (ICT) are electronic and/or computerized devices and associated human interactive materials that enable the user to employ them for a wide range of teaching and learning process in addition to personal use. Around the world, educational systems are under increasing pressure to use the new information and communication technologies to teach students the knowledge and skills they need in the 21st Century. With the emerging new technologies, the teaching profession is evolving from an emphasis on teacher-centered, lecture-based instruction to student-centered, interactive learning environments.

In the new technology era the role of classroom teaching is directed towards ICT. In this way the teachers should have good learning skills and positive attitude towards ICT and awareness of ICT is essential. In this study the researcher is intended to analyse the ICT awareness and learning skills in ICT among B.Ed., Trainees.

NEED OF THE STUDY :

Introduction of computer education in professional training colleges is a major step in the direction of ICT in preparing the next generation workers. ICT is the most significant challenge now confronting teachers, schools and teacher educators. A teacher being a pivot in the process of teaching and learning, knowledge of ICT and skills to use ICT in teaching-learning has gained immense importance for today's teacher.

If the B.Ed trainees are well versed in ICT usage, they can use ICT effectively and efficiently for achieving curricular objectives. The positive academic experience will improve self efficiency and teaching competency of B.Ed., trainees. Thus, integrating technology in the classroom redefines established teacher-learner relationships and teaching-learning styles. So the investigator intends to study the ICT awareness and learning skills in ICT among B.Ed trainees

STATEMENT OF THE PROBLEM :

A study on awareness towards ICT and learning skills in ICT among B.Ed., trainees of Davangere University.

- Research Scholar, Dept of Education, Davangere University, Davangere.
- Research Guide and principal (Retd), M. M College of Education, Davangere.

OBJECTIVES OF THE STUDY :

- To find out the relationship between ICT awareness and learning skills in ICT among B.Ed., Trainees.
- To study the difference in the ICT awareness of aided and unaided B.Ed trainees.
- To study the difference in the learning skills of aided and unaided B.Ed trainees.
- To study the difference in the ICT awareness of male and female B.Ed., trainees.
- To study the difference in the learning skills of male and female B.Ed., trainees.
- To compare the ICT awareness among Arts & Science B.Ed trainees.
- To compare the learning skills among Arts & Science B.Ed trainees.

VARIABLES :

Independent Variable : Awareness of ICT
Dependent Variable : Learning Skills in ICT
Moderator Variables : Gender, Type of colleges, faculty of Arts and Science.

TECHNICAL TERMS :

ICT awareness :

ICT stands for information and communication technologies and are defined, for the purposes of this primer, as a divers set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information In the field of education.

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Learning Skills in ICT :
Learning Skills in ICT is refers to the practical skills in information and communication technology, to operate, to create, engage, interact with multimedia content and presentation skills in teaching learning process.

B.Ed students :
The student studying their B.Ed. degree programme after completion of their UG/PG degree through regular mode in college of Education which are affiliated to Davanagere University.

TOOLS USED FOR COLLECTION OF DATA :
1. ICT awareness tool : ICT awareness tool was developed by the researcher
2. Learning skills in ICT tool : learning skills in ICT tool was developed by the researcher.

METHODOLOGY :
The investigator has used causal comparative method under descriptive method of research.

SAMPLE :
A sample consists of 400 B.Ed., Trainees selected by using Stratified random sampling technique

STATISTICAL TECHNIQUES USED FOR ANALYSIS :
- Mean, Standard deviation, t-test.
- Correlation analysis.

ANALYSIS OF THE DATA:
Hypothesis 01 : There is no significant relationship between learning skills in ICT and Awareness ICT among B. Ed. trainees.
To accomplish the above null hypothesis, the Karl Pearson's correlation coefficient method was performed and the results are presented in the following table.
Table: Relationships between learning skills in ICT and Awareness towards ICT of B. Ed. trainees with r-value, t-value and p-value

Variables	Relationships between		
	r-value	t-value	p-value
Learning skills in ICT with Awareness towards ICT	0.4149	9.0962	0.0001*

The results of the above table clearly point out that, a significant and positive relationship was observed between learning skills in ICT and awareness towards ICT of B. Ed. trainees ($r=0.4149$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the learning skills in ICT and awareness towards ICT of B. Ed. trainees are dependent on each other. In another words, the learning skills in ICT scores are increases or decreases with increase or decrease in awareness towards ICT of B. Ed. trainees.
Hypothesis 02 : There is no significant difference between aided and unaided college B. Ed trainees with respect to their Awareness towards ICT.
Table: Results of t test with mean, SD, t-value and p-value between B. Ed. trainees of aided and unaided colleges with respect their Awareness towards ICT.

Variable	Management	n	Mean	SD	SE	t-value	P-value
Awareness towards ICT	Aided	200	19.79	5.74	0.41	1.7981	0.0729
	Unaided	200	18.76	5.77	0.41		N S

From the results of the above table, it can be seen that the B. Ed. trainees of aided and unaided colleges do not differ significantly with respect to awareness towards ICT ($t=1.7981$, $p>0.05$) at significant level of percent. Hence, the null hypothesis is not rejected and alternative hypothesis is rejected. It means that, the B. Ed. trainees of aided and unaided colleges have similar awareness towards ICT.
Hypothesis 03 : There is no significant difference between aided and unaided college B. Ed trainees with respect to their learning skills in ICT.
Table: Results of t test with mean, SD, t-value and p-value between B. Ed. trainees of aided and unaided colleges with respect to their learning skills in ICT.

Variable	Management	n	Mean	SD	SE	t-value	P-value
Learning skills in ICT	Aided	200	14.94	3.55	0.25	-0.8836	0.3775
	Unaided	200	15.26	3.80	0.27		N S

From the results of the above table, it can be seen that the B. Ed. trainees of aided and unaided colleges do not differ significantly with respect to learning skills in ICT ($t=-0.8836$, $p>0.05$) at significant level of percent. Hence, the null hypothesis is not rejected and alternative hypothesis is rejected. It means that, the B. Ed. trainees of aided and unaided colleges have similar learning skills in ICT.

Hypothesis 04 : There is no significant difference between male and female B. Ed. trainees with respect to their Awareness towards ICT.
Table: Results of t test with mean, SD, t-value and p-value between male and female B. Ed. trainees with respect to their Awareness towards ICT.

Variable	Gender	n	Mean	SD	SE	t-value	P-value
Awareness towards ICT	Male	200	17.94	5.42	0.38	-4.7396	0.0001*
	Female	200	20.61	5.82	0.41		

From the results of the above table, it can be seen that the male and female B. Ed. trainees differ significantly with respect to Awareness towards ICT ($t=-4.7396$, $p<0.05$) at significant level of percent. Hence, the null hypothesis is rejected and alternative hypothesis is not rejected. It means that, the female B. Ed. trainees have significant higher Awareness towards ICT as compared to male B. Ed. trainees.
Hypothesis 05 : There is no significant difference between male and female B. Ed. trainees with respect to their learning skills in ICT.
Table: Results of t test with mean, SD, t-value and p-value between male and female B. Ed. trainees with respect to their learning skills in ICT.

Variable	Gender	n	Mean	SD	SE	t-value	P-value
Learning skills in ICT	Male	200	14.09	3.13	0.22	-5.6912	0.0001*
	Female	200	16.11	3.91	0.28		

From the results of the above table, it can be seen that the male and female B. Ed. trainees differ significantly with respect to learning skills in ICT (t=-5.6912, p<0.05) at significant level of percent. Hence, the null hypothesis is rejected and alternative hypothesis is not rejected. It means that, the female B. Ed. trainees have significant higher learning skills in ICT compared to male B. Ed. trainees.

Hypothesis 06 : There is no significant difference between Arts and Science graduated B. Ed. trainees with respect to their Awareness towards ICT.

Table: Results of t test with mean, SD, t-value and p-value between Arts and Science graduated B. Ed. trainees with respect to their Awareness towards ICT.

Variable	Degree	n	Mean	SD	SE	t-value	P-value
Awareness towards ICT	Arts	200	17.73	5.54	0.39	-5.5594	0.0001*
	Science	200	20.82	5.60	0.40		

From the results of the above table, it can be seen that the B. Ed. trainees with Arts degree differ significantly with respect to Awareness towards ICT (t=-5.5594, p<0.05) at significant level of percent. Hence, the null hypothesis is rejected and alternative hypothesis is not rejected. It means that, the B. Ed. trainees with science degree have significant higher Awareness towards ICT compared to B. Ed. trainees with Arts degree.

Hypothesis 07 : There is no significant difference between Arts and Science graduated B. Ed. trainees with respect to their Learning skills in ICT.

Table: Results of t test with mean, SD, t-value and p-value between Arts and Science graduated B. Ed. trainees with respect to their Learning skills in ICT.

Variable	Degree	n	Mean	SD	SE	t-value	P-value
Learning skills in ICT	Arts	200	14.08	3.16	0.22	-5.7523	0.0001*
	Science	200	16.12	3.88	0.27		

From the results of the above table, it can be seen that the B. Ed. trainees with Arts degree differ significantly with respect to learning skills in ICT (t=-5.7523, p<0.05) at 5% significant level. Hence, the null hypothesis is rejected and alternative hypothesis is not rejected. It means that, the B. Ed. trainees with science degree have significant higher learning skills in ICT as compared to B. Ed. trainees with Arts degree.

FINDINGS :

- A significant and positive relationship was observed between learning skills in ICT and awareness towards ICT among B. Ed. trainees (r=0.4149, p<0.05) at 5% level of significance.
- The B. Ed. trainees of aided and unaided colleges have similar awareness towards ICT.
- The B. Ed. trainees of aided and unaided colleges have similar learning skills in ICT.
- The female B. Ed. trainees have significant higher Awareness towards ICT as compared to male B. Ed. trainees.
- The female B. Ed. trainees have significant higher learning skills in ICT as compared to male B. Ed. trainees.
- The B. Ed. trainees with science degree have significant higher Awareness towards ICT compared to B. Ed. trainees with Arts degree.
- The B. Ed. trainees with science degree have significant higher learning skills in ICT as compared to B. Ed. trainees with Arts degree.

CONCLUSION :

The present study clearly indicated that a significant and positive relationship was observed between learning skills in ICT and awareness towards ICT of B.Ed trainees. The B.Ed trainees of aided and unaided have similar awareness and similar learning skills in ICT, The female science B.Ed trainees have higher awareness and higher learning skill in ICT as compared to male and Arts B.Ed trainees.

IMPLICATIONS :

- Some orientation training programmes should be organized by the colleges at regular intervals so that the maximum users can improve their excellence or proficiency in the use of the ICT for academic purpose.
- Modern ICT tools workshop should be conducted to B.Ed trainees which will help to enhance the learning skill among trainees.
- Teachers training institutions should provide ICT labs to help the trainees to improve the learning skills.
- B.Ed teachers Educators to be given ICT a part of in-service training.
- The teacher trainees should be given opportunities to use power point presentation or multimedia presentation during their practice teaching.
- Creation of appropriate instructional and infrastructural facilities for ICT integration in all the teacher education intuitions should be made mandatory.
- Internet and computer facility should be made familiarized to all.

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