



## EFFECT OF DIGITALIZATION OF LEARNING IN HIGHER EDUCATION

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\*Corresponding Author**ABSTRACT**

The main concern of the learner in higher education in one way or the other is accessing of study materials for the content. The task of the learner is to organize content for learning. Learning is not confined to syllabus alone. There should be opportunities for many sided learning on the content. All subjects deal with concepts and generalizations. Concept makes critical thinking. The higher education curriculum widens learning in terms of concepts. Effectiveness of leaning can be ensured by means of digitalization. Digitalization is therefore essential, and goes beyond the syllabus to involve the ethos of the entire learning system. The aim is to increase the participation in learning in preparation for the long term they can expect to grow. The effectiveness of digitalization will depend on the specific condition, age of the learner, etc. The purpose of this paper is to examine the effectiveness of digitalization and how to enrich its usefulness in the higher education Institutions.

**KEYWORDS** : Digitalization, Learning, Higher Education, Content, Technology**INTRODUCTION:**

Digitalization of learning is one way of utilizing computer, communication and network devices, system and resources in learning. Digitalization of learning will allow learners the flexibility to gather information and utilize skill clusters. Nowadays there is a consensus among learners in higher education that the process of using digital equipments to felicitate learning is not merely a technical affair. It is a matter of utilizing the emerging technologies for developing both creativity and competencies.

Learning should be categorized in higher order conceptual structures. If technology is employed in learning, the chances of its retention increase. Better learning can be ensured through the use of better technology. Digital learning will help learner to retain better what they have learned. As Cronbach has pointed out, in any situation we learn some of the following things – Specific facts, specific action, , general concepts and principles, general effective techniques, attributes towards various aspects, self concepts. A learning situation should not be treated in isolation. The intellectual level of the learner can be increased by and digital tools both of verbal and visual types.

**Characteristics of digitalization in learning:**

1. They are the user friendly.
2. There are many varieties that are consistent with the learning

**objectives.**

3. It permits student to choose from a wide alternate resources.
4. Students experience sense of belonging.
5. Self regulation.

**Need and Significance of the study:**

Learner at higher education level spend most of their times to search appropriate study material for the content. Digitalization provides versatile, authentic and comprehensive environment that yields a positive effect in organizing study materials. It is assumed that the technology will help the learner to complete the academic tasks successfully without stress and strain. The present study would help the students to select appropriate tool for learning the desired content and store it for future use. Now technology is inseparable in all spheres of life. Hence the investigator has made an attempt to study effect of digitalization in learning particularly in higher education.

**OBJECTIVES OF THE STUDY:**

The following are the objectives of the study.

1. To study the effect of digitalization of learning in higher education.

2. To study the level of appreciation of digital resources among learners in higher education.
3. To study the influence of digitalization in learning.
4. To identify the interactive effect of digitalization on the learners of higher education.

**Review of Literature**

- **Anderson T (2008)** in his book *The Theory and practice of Online Learning* , Second Edition have suggested that all teaching and learning systems should be built from two points the needs of the individual students and the intended learning of the course or program. That is knowledge, skills and attributes that students will gain. An ideal online learning system will be based on a plan that flows from a full understanding of these two fundamentals. For intended students it is necessary to understand their prior learning, background with technology, expectations financial and other resources, access to the web or other online networks, bandwidth limitation and any other pertinent information about their preparedness and ability to participate equally and fully in the online learning experience.
- **Anupam Raghav (2018)** observed that India's territory education system is the largest system in the world behind China and United States. Universities and Colleges are institutions of higher education in India. According to the Ministry of Higher Education in India there are 18,800 exclusive female colleges in 16,885 universities . The general scenario of Higher Education in India does not match global quality standard. Therefore there is a sufficient justification to improve the evaluation of the quality of educational institutions in the country.
- **Elileen O Donnel and Liam O Donnel** have studied the challenges in developing adaptive educational hypermedia systems. The purpose of adaptive hypermedia system is to provide each learner with learning experiences which have been specially tailored to their specific learning requirements. In order to successfully use AEHS education must decide on what student characteristics to base the adaptive element of a course. AEH is an electronic content which can be used in the provision of adaptive education. Software developers and educational providers are continuously exploring how technology can be used to enhance the learning experience of learners. Adaptive education can be defined as an educational experience that adapts to suit the learning requirement of each individual learner. The purpose of AEH is to provide learners with learning resources which have been specially selected to suit their specific learning needs.
- **Mable B.Kinzie, Marcia A.B.Delcourt, Susan M.Power (1994)**

in their paper Computer technologies: Attitudes and self efficacy across undergraduate disciplines report on the factor validation of two affective measures related to computer technologies. The results of expository analysis examining predictors or self efficacy for UG students are presented and implications and future research directions are discovered.

- **Suresh K (2014)** observed that reasoning is a power of mind of drawing conclusions and determining right and truth. This includes problem solving ability. The study assesses the students' reasoning ability by using a normative survey method. The sample comprised of 246 students of Arts and Science Colleges in Kumbakonam has taken on the basis of Random sampling technique. Major findings in this study are there is a significant difference in reasoning ability between male and female students and Urban and rural students

**Hypotheses:**

The following hypotheses are formulated for this study.

1. There is no significant difference between male and female students in using digital resources for learning.
2. There is no significant difference between undergraduate and postgraduate students in using digital resources for learning.
3. There is no significant difference between urban and rural students in using digital resources in learning.

**Methodology:**

**Population**

The population for the study is the students of undergraduate and post graduate programmes of the Arts and Science colleges affiliated to the Bharathidasan University, Trichirapalli.

**Sample**

A random sample of 5 colleges was selected to participate in this study. Investigator applied purposive sampling technique for the collection of data from 106 students using the tools developed for this purpose.

**Administration of Questionnaire**

The current research study is based on descriptive survey method for collecting the primary data. The investigator constructed a 4 - point scale with 40 items on the basis of various digital resources applied for learning in consultation with the research supervisor. The scoring of the response is zero for strongly disagree, one for disagree, two for agree and three for strongly agree. A response sheet consisting of 40 items were prepared and based on the pilot study the tool was finalized with 30 items. Pilot study was conducted on 30 students to establish validity and reliability. The intrinsic validity and reliability of the tool are 0.46 and 0.21 respectively. The investigator used item whole correlation and the tool was standardized.

**Analysis and Interpretation:**

**1. Hypothesis – 1:** The Hypothesis – 1 is formulated with regard to the gender of the learner in higher education.

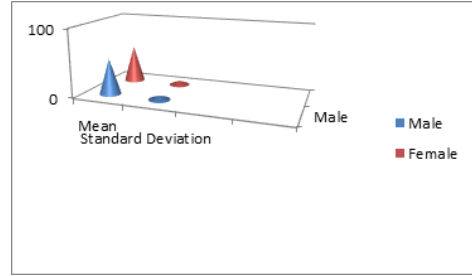
“There is no significant difference between male and female students in using digital resources for learning.”

The results pertaining to the above hypothesis is presented in the Table – 1 and Graph-1.

Table-1 shows the values of Mean, Standard deviation and t-value of male and female students in Arts and Science colleges in relation to their use of digital resources in their learning.

**TABLE- 1 : Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their gender**

	Gender	N	Mean	SD	t - Value	Significance
Use of Digital Resources	Male	38	52.05	4.794	1.447	NS
	Female	68	54.08	5.946		
	Total	106	53.65			



**GRAPH – 1: Showing the Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their gender**

The sample consists of 38 male students and 68 female students. The mean value of male and female students is 52.05 and 54.08 respectively. The standard deviation value of male and female students is 4.794 and 5.946 respectively. The calculated t value is 1.447. The calculated t value is lesser than the table value 1.980 at 5% level of significance. There is no significant difference between male and female students in using digital resources for learning. Thus Hypothesis – 1 is accepted.

**2. Hypothesis – 2:** The Hypothesis – 1 is formulated with regard to the level of study that is under graduate and post graduate students in higher education.

“There is no significant difference between undergraduate and postgraduate students in using digital resources for learning.”

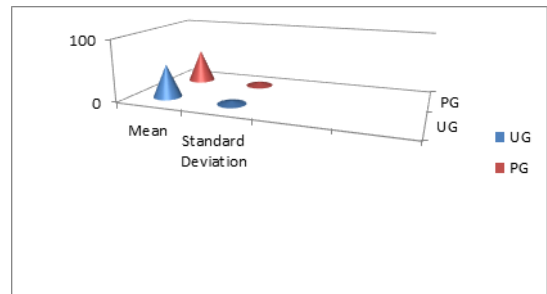
The results pertaining to the above hypothesis is presented in the Table – 2 and Graph-2.

Table-2 shows the values of Mean, Standard deviation and t-value of undergraduate and post graduate students in Arts and Science colleges in relation to their use of digital resources in their learning.

**TABLE- 2 : Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their level of study**

	Level	N	Mean	SD	t - Value	Significance
Use of Digital Resources	Under graduate	76	53.45	5.020	0.192	NS
	Post graduate	30	53.73	6.235		
	Total	106	53.57			

**GRAPH – 2 : Showing the Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their level of study**



The sample consists of 76 students studying in undergraduate level and 30 students in post graduate level. The mean value of undergraduate and post graduate students is 53.45 and 53.73 respectively. The standard deviation value of undergraduate and post graduate students is 5.020 and 6.235 respectively. The calculated t value is 0.192. The calculated t value is lesser than the table value 1.980 at 5% level of significance. There is no significant difference between male and female students in using digital resources for learning. Thus Hypothesis – 2 is accepted.

**3. Hypothesis – 3:** The Hypothesis – 3 is formulated with regard to the locality of students in higher education.

“There is no significant difference between urban and rural students in using digital resources in learning.”

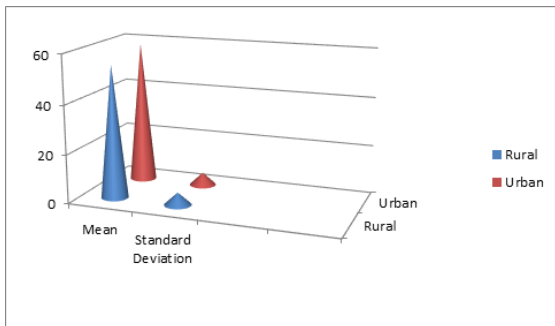
The results pertaining to the above hypothesis is presented in the Table – 3 and Graph-3.

Table-3 shows the values of Mean, Standard deviation and t-value of rural and urban students in Arts and Science colleges in relation to their use of digital resources in their learning.

**Table- 3: Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their locality**

	Locality	N	Mean	SD	t - Value	Significance
Use of Digital Resources	Rural	54	54.53	5.118	0.122	NS
	Unban	52	58.45	5.263		
	Total	106	53.65			

**Graph – 3: Showing the Mean and Standard deviation values of students in higher education in use of digital resources on the basis of their locality**



The sample consists of 54 students from rural area and 52 students from urban area. The mean value of rural and urban students is 54.53 and 58.45 respectively. The standard deviation value of undergraduate and post graduate students is 5.118 and 5.263 respectively. The calculated t value is 0.122. The calculated t value is lesser than the table value 1.980 at 5% level of significance. There is no significant difference between male and female students in using digital resources for learning. Thus Hypothesis – 3 is accepted.

**Findings:**

- It is found that there is no significant difference between male and female students in using digital resources for learning. However female students are frequent users of digital resources than male students.
- It is found that there is no significant difference between undergraduate and post graduate students in using digital resources for learning. However the mean score shows the fact that post graduate are frequent users of digital resources than graduate students
- It is found that there is no significant difference between rural and urban students in using digital resources for learning. However urban students are frequent users of digital resources than rural students.

**CONCLUSION**

Based on the research conducted on the effect of digitalization of learning in higher education the investigator concluded that there is no significant difference among the learners in higher education towards the use of digital resources on the basis of their gender, level of study and locality.

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