



A Comparative Study Of Digital Competency of Teachers In Higher Education

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Abstract

In today's society, teaching and learning is not limited to traditional classroom. It has been shifted to various live experiences related to content to make learner feel more connected with knowledge. Learning habits of students have been changed, their needs, circumstances are no longer same as ten years ago, which is why it is essential that education providers can learn how to provide an educational, didactic and safe response to the needs of students. To achieve this, it requires a teacher with an updated training and possessing a degree of digital competence to undertake the teaching-learning process of students and to promote the acquisition of key competencies in students. In this context, this research is about to study the digital skill of teachers in higher education. In this study, researchers have made an attempt to study the differences of digital competency of teachers of self- finance institutions and aided colleges. Researchers also studied the differences of digital competency between male and female teachers of self- finance institutions & aided colleges. Results revealed that teachers of self- finance institutions and aided colleges have similar digital competence. Also male and female teachers have same digital competency from self-finance institutions and aided colleges.

Key- words: *Digital Competency, Teaching Skills, Higher Education*

Digital competence involves the confident and critical use of electronic media for work, leisure, and communication. These competencies are related to logical and critical thinking, high-level information management skills, and well-developed communication skills. In context of teaching, digital competency is a set of skills, competencies, knowledge and attitudes that teachers must have in order to make a critical, dynamic and creative use of ICT in their classrooms. There are five major areas of digital competency in teaching:

1. Computerization and information literacy. The teacher should know how to identify, organize, retrieve, store, and analyze information and digital content, evaluating its purpose.

2. Communication and elaboration. This competence means that the teacher has to master communication in the digital environment, share resources and tools, share, interact and participate in communities and networks.
3. Creation of digital content. In this competence, the teacher must know how to create and edit new content, link and rework previous knowledge and content, make artistic productions, multimedia content and computer programming.
4. Security. It is the essential and key digital skill and consists of personal protection, data protection, digital identity protection, use of security.
5. Problem solving. This competence is focused on knowing how to identify needs and digital resources and also in making decisions when choosing digital resources.



Use of ICT is a trending concept now a days. Since that time the concept has become increasingly contested as new technologies and new applications for technology have emerged, many of which have been spawned by progressively ubiquitous access to the internet, and the proliferation of personal, mobile digital devices. Terms such as 'information

literacy' (Zurkowski 1974), 'computer literacy' (Tsai 2002), 'internet literacy' (Harrison 2017), 'media literacy' (Christ and Potter 1998) and recently, 'multi-modal literacy' (Heydon 2007) have all been associated with effective use of digital resources in teaching and learning, and have been promoted as components of an inclusive view of digital literacy (Gruszczynska and Pountney 2013). As Helsper (2008) identifies, reaching a singular definition of digital literacy is challenging, due to constantly evolving technological, cultural and societal landscapes redefining what, when and how digital technologies are used in personal and professional activities. In terms of teacher education, producing digitally-literate students has generally meant the prioritization of technical skills in using digital tools and systems deemed appropriate to educational settings, and identifying how these can be used within particular units of learning (Admiraal et al. 2016).

In Indian higher education system, there are various types of institutions such as aided, self-financed, semi- aided , private etc. In these various type of institution there is difference in infrastructure, learning environment and e-resources. Therefore teachers from various institution may have different digital skills. Also digital knowledge varies in various area of India. So it is a point to study that is there any difference in digital competence of various institutions? Is digital competence of male and female teachers is different? Is institutional set up and e- resources affects digital competence of teachers? In this study, there is an effort to find out the answers of all these questions. Therefore, it seems relevant to study about difference in digital competence of teachers from higher education.

Objectives of the study: Objectives of the present study are as following:

1. To compare digital competence of teachers from aided and self- finance colleges.
2. To compare digital competence of male and female teachers of higher education.

Hypotheses: These following hypotheses were formulated and tested :

1. There exists no significant difference in digital competence of teachers from aided and self- finance colleges.
2. There exists no significant difference in digital competence of male and female teachers of higher education.

Methodology:

Method: Descriptive survey method was used in the present study.

Sample: Sample consisted 160 teachers ,80 from self-finance colleges & 80 from aided colleges, affiliated to CCS University, Meerut.

Tool: Self – developed digital competence scale was used to collect the data.

Statistics used: Mean, S. D. & t-test were used for the analysis of the data.

Result & Discussion:

Table 1 : Mean, S.D. & t-ratio showing the difference in digital competence of teachers from self – financed colleges & aided colleges:-

S.No.	Group	N	Mean	S.D.	t- ratio
1.	Teachers from Aided Colleges	80	41.53	4.79	0.18
2.	Teachers from Self- financed Colleges	80	41.4	4.11	
	Total	160			

Table –1 reveals that t-value is not significant at 0.01 level . It means there does not exists a significant difference in digital competence of teachers belonging to self – financed colleges and aided colleges. This can be happen because teachers from various types of colleges not facing any problem related to digital skills. All the teachers can have same digital competence as during the time of COVID pandemic teachers have no any other option to arrange classes except digital platform so they become habitual of using technology and data through digital skill. Also this data reflects that infrastructure facility or other e-resources in college does not affect the digital competence of teachers. Therefore there no difference found in digital competence.

Table 2 : Mean, S.D. & t-ratio showing the difference in digital competence of male and female teachers from self-financed and aided colleges:-

S.No.	Group	N	Mean	S.D.	t- ratio
1.	Male Students	80	42.33	3.42	1.74
2.	Female Students	80	41.23	3.83	
	Total	160			

Table –2 reveals that t-value is not significant at 0.01 level . It means there does not exists a significant difference in digital competence between male and female students belonging to aided and self-financed colleges. This can be happen because digital competence cannot be differentiating on the bases of gender. All the teachers can have same digital competence in

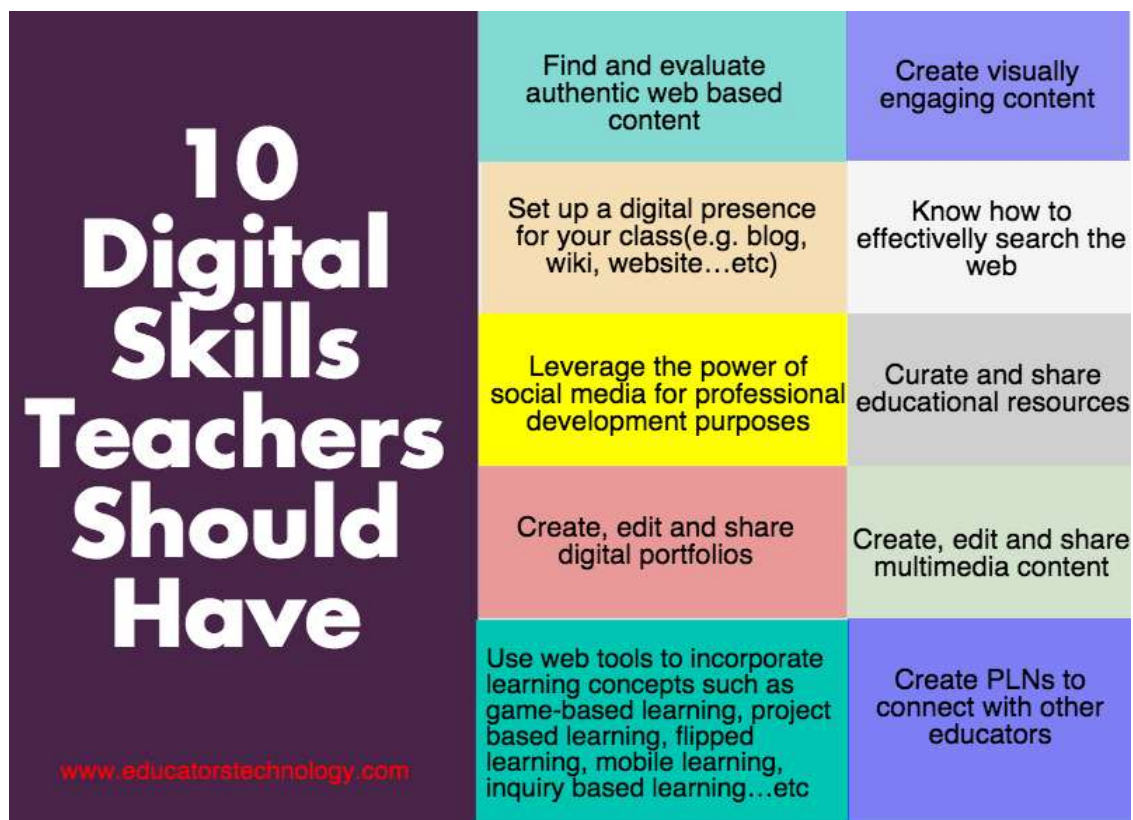
teaching. Therefore no difference found in digital competence in male & female teachers of aided and self – financed colleges.

Conclusion:

Digital competency is a concept in higher education which is essential for teaching students. In higher education students are full of curiosity, insight and eager to gain maximum knowledge. In this context, a teacher plays a very important role to satisfy the students according to their needs. Digital competence in higher education can make teaching – learning environment livelier and helpful in expansion of knowledge. Teachers may use various tools through using computer , data sheet , charts, evaluation index etc. So it is clearly acceptable that scope of digital competency is undeniable for future teaching-learning environment.

Suggestions: There are some suggestions related to develop the digital competency in teachers:

- Have a positive attitude towards ICT.
- To know the uses of ICT in the educational field.
- Know the use of ICT in the field of their area of knowledge.
- Skillfully use ICT in their activities: text editor, e-mail and Internet browsing.
- Acquire the habit of planning the curriculum integrating ICT.
- Propose training activities to students that consider the use of ICT.
- Permanently evaluate the use of ICT.



Currently, teachers have many advantages when working in their classrooms, since there is a wide variety of digital tools that help the teacher to teach classes and evaluate students in an agile and effective way. Among the most didactic, professional tools that serve as a great help to the teacher when preparing their classes: There are so many online portals which has a series of functions to facilitate many of the tasks that a teacher performs when preparing and teaching their classes such as:

- Gradebook: allows the management of groups of students and their notes in a practical and simple way.
- Lesson planner: it is about to facilitate the teacher's tasks is the lesson planner.
- Calendar and schedules: with the platform you can create calendars with scheduled events, which can be displayed with a weekly or monthly view.
- Data import and export: Data import system from files created in Microsoft Excel spreadsheet helpful in various evaluation work.
- Sharing with other teachers, families and students: the system of notes, calendars, events and other data can be shared with other teachers using these applications.

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