

Enhancement of technology base teaching Environment among Female Educator in Medical College

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Abstract: Enhancement of technology base Teaching Environment for the contemporary development in Higher Education Institution has always been a part to integrating ICT policy's and plan documents on higher Education. As many scholar reveals that Information and Communication Technology (ICT) enables wide range of technologies enhancement among the male educator compare to Female Educators for teaching process, however the present research is focuses on purpose integration of ICT among female Educator in Medical college. Despite of the study has been conductor to find the factor associated for enhancement of technology base Teaching Environment among the Female Educator in Medical College in Pondicherry. A Structured questionnaire was designed to find the Female Educators Level Technology based Teaching Environment. Participated were 160 Female Educator in Medical college and Completed Questionnaire were (n= 126).The study revealed that the Female Educator in Medical College has high usage level in Basis ICT and Moderate level usage in internet and Interactive Communication and Low usage level in Advance ICT usage. And the factor were exported for innovation teaching process as self-Esteem Booster, Conformability, Technology Rice Environment and ICT Pedagogical advantage were positive towards the technology base Teaching Environment among the Female Educator in Medical in Pondicherry.

Keywords: ICT , Female Educator ,Technology base Teaching Environment , Higher Educational Institution.

I. INTRODUCTION

Rapid developments in Information Communication Technologies affecting the way higher education system and in research development. In 21st century learner requires classroom instruction that validates their digital culture and educators who effectively integrate pedagogy with technology (Prensky, 2001). Information and Communication Technology (ICT) enables wide range of technologies however the present research paper is focuses on purpose integration of ICT among female teaching faculties in Medical college. Use of Information Communication Technologies for promoting education and development has always been a part of policy and plan documents on higher Education. Higher education plays a pivotal role in the development of a country, as it is viewed as a powerful means to build knowledge based society. In India, higher education imparted by universities is facing challenges in terms of Access, Equity and Quality. **ACCESS**-Availability of suitable number of institution across region to fulfill the demand; **EQUITY**- Equal opportunity for all section of society to participate in higher education; **QUALITY**- Provision of suitable infrastructure, trained faculty and effective delivery mechanism in institution.

The Government of India has taken several initiatives during the Eleventh Five Year Plan period to increase access to higher education by adopting state specific strategies, enhancing the relevance of higher education through Curriculum reforms, Vocational programs, Networking, Information Technology adoption and Distance Education along with reforms in governance. The terms "Gross Enrollment Ratio "(GER), India still lags behind the worldwide average and emerging countries like Brazil and China.

Most of the scholar's refers that ICT's Teaching and Learning were used effectively in higher educational institution for pedagogy , delivery in resources , information access for research and development in student and teacher communication for teaching purpose. Das (2007) remarked that Technology is an important instrument, which can shift the present out-of-the-way, teacher-centred, book-centred learning environment into a rich student-centre environment. Technology as a transformative change agent it refers that Information Technology have been introducing for the Teaching and Learning that can improving both the pedagogical Perspective and Learning Perspective to teacher as well as learner (Students). Jonassen et al. (1999) advocate that learning environment includes a problem manipulation space in which students can experiment with the problem and the study finds that experimentation students need access to information such as text documents, video, sound, graphics, and begin making meaning about the problem as well as related to the difficulty of the problem from multiple perspectives.

II. REVIEW OF LITERATURE

Moreover, some researchers considering the technology use in academic is purposeful and a lot of studies have denoted that gap between male and female usage of ICT's in teaching and learning process (La Valle and Blake, 2001; Selwyn, 2003; Sorenson and Stewart, 2004). W.M.Olatokun, 2007 contact research on female academics of 246 member in six university in south Western Nigeria about their available, accessibility of Information and Communication Technologies for their teaching and learning process. Finally the study recommends that it very essential for Nigerian Government and academics management should spread the ICT and increase its availability, accessibility and usage by the women ; and also enable them to participate in the decision-making and control of ICT deployment.

However current technologies makes Educator's to utilizes the technology enhance their teaching and learning as (communication about subject content information –pedagogical approach and sharing of subject related Digital material for student learning purpose). Integration of ICT for learn and to teach with digital technologies, and supposing many of them have not been taught to do so. In modern teacher need to posses the basic ICT Skill as word processing, power point and accessing information search in Internet , so in our modern world Educator need to develop to have sound skill in IT for successfully to enhance and to promote higher order skills (BECTA, 2003).

Many scholar research work reviles that compare to male female have less confident over the integration of ICT tools for Teaching and the (King, Bond, & Blandford, 2002; North & Noyes, 2002) made research over the primary and secondary school Teacher and their study reviles technologies have become a normal part of the workplace setting, a series number research were examined the computing should no longer be regarded as a male domain that Loyd and Gressard (1986) suggested that male teachers have very higher confident and less anxious toward computers compared to their female counterparts. So This study emphasizes the need to reconsider the female potential part in the context of educational ICT use among female Teaching faculties in Medical College in Pondicherry.

III. Objectives Of The Study

The study was conducted to achieve the following objectives:

1. To study the Teacher's Level of Integrating ICT for Teaching among the female Teaching faculties in Medical College
 - a) Basic ICT usage.
 - b) Advance ICT
 - c) Interactive communication purpose.
2. To study the factor enhances to Integration of ICT tools for teaching and Learning for female Teaching faculties in Medical College

IV. Methodology

4.1 Sample

The study was conducted on female educators in higher education institution (Medical College) in Pondicherry and Four collage were selected and selected sample size for female educators (N=160) were as completed questionnaire (n=126) because those college were have enormous facilities for integrated teaching process.

4.2 Instrumentation

The instrument used in the study was Likert-scale. the Questionnaire was divided into two Section:-A Section about the age, year of teaching Experience and ICT Usage Home / office (Teaching) per week for ICT resource material for teaching purpose. Section B- consist of 13 questions about the ICT Usage Level of Integrating for Teaching process" Basic ICT usage ,Advance ICT ,Interactive communication purpose". Section C was made up of 18 statements for utilization of ICT in teaching and Learning process to the female teaching faculty in higher education institution (Medical). The 18 statements was based on 5-point Liker scale in which the Teachers were to indicate the extent of their strongly disagree or Strongly agree with each of the statements.

4.3 Data Collection

The data were collected through the administration of the questionnaire to the targeted Female Educator by the researcher. Names were not requested so that anonymity was maintained throughout the study and the questionnaires were collected back immediately from the respondents.

V. Result

Characteristics among female teaching faculties in Medical college.

Variable	Category	Frequency	Percent
Age	21-30	15	12%
	31-40	42	33.4%
	41-50	35	27.7%
	51-60	23	18.3%
	Above 60	11	8.8%
Teaching Experience	1 – 5	23	18.2%
	5 – 10	52	41.2%
	10 –15	15	12%
	15 – 20	31	25%
	Over 25	5	4%
ICT Usage office (Teaching) per week	1 - 3 hours	34	27%
	3 - 6 hours	13	10%
	6 - 10 hours	4	2%
	10 - 15 hours	0	0
ICT Usage Home (Teaching) per week	1 - 3 hours	25	21%
	3 - 6 hours	7	19%
	6 - 10 hours	0	0
	10 - 15 hours	0	0

5.1 Profile of Respondents

The demographic Characteristics among female teaching faculties in Medical college. The information included age, teaching experience, ICT Usage in office (Teaching) per week and ICT Usage in home (Teaching) per week as shown in Table 1. In terms of years of experience using computer, the findings vary of 126 respondents majority of the respondents belongs to age of 31- 40 of 42(33.4%),15 respondents of 21-30 (12%) , age between 41-50 of 35 respondents (27.7%) , 23 respondents (18.3%) with between 51-60 ages, and 11 respondents of (8.8%) with between 50-60 of age . Teaching experience of 1 -5 years of respondents were 23(18.2%) ;5-10 years of respondents 52(41.2%); 10-15 years of respondents 15 (12%);15-20 years of respondents 31(25%);over 25years of respondents 5(4%).

ICT Usage in Office (Teaching) per week 1 to 3 hours were utilizing for ict use in their home the respondent 34 of 27% is majority and 3-6 hours of female teaching faculties of only 13 respondents (10 %) and remaining hours of 6-10 and 10-15 hours not utilized by the respondent. ICT Usage in home (Teaching) per week 1 to 3 hours were utilizing for ICT use in office for teaching the respondent 25 of 21% is majority and 3-6 hours of female teaching faculties of only 7 respondents (19 %) and remaining hours of 6-10 and 10-15 hours not utilized by the respondent. The result is consistent with (Lau & Sim, 2008) who found teachers using ICT either daily or weekly for teaching and learning support. The survey also tries to investigate the place or location in around Pondicherry Region and randomly selected Medical Colleges.

[Table.II] Integration of ICT Facilities teaching process

Items		Yes n (%)	No n (%)
Basic ICT usage			
1	Using of MS Word	78(61.3)	31(24.63)
2	Using simple PowerPoint Presentation (MS PowerPoint)	81(73.6)	14(11.1)
3	Using CD and DVD (Tutors)	32(25.4)	47(36)
4	Using Computer with Video Projector	64(50.7)	35(24.5)
5	Using Basic Soft wares	64(50.7)	27(21.3)
Advance ICT			
1	Producing graphics and animation for presentation	34(27)	67(53)
2	Integration Digital information and presentation (Editing digital E-resource)	41(32.5)	56(33.6)
3	Record, sort and interpret student Assessment process (Data Management)	49(38)	34(27)
Internet/Interactive communication purpose			
1	Using search engines(Google)	108(86)	37(29)
2	Email-Sending/Receiving (Digital learning/instruction)	59(47)	43(34.1)
3	Using Social Media(Communication-File Sharing)	39(31)	123(98)
4	Tele-Video Conferencing	17(13.4)	119(94)
5	Using Hyperlinks for instruction	17(13.4)	114(90.2)

From table II, shows that the majority of the respondents uses the Basic ICT usage for Teaching purpose and the access of information as use search engines 108 respondents of (86%). The basic ICT usage of (MS word 78 respondents of (61.3%), simple PowerPoint Presentation (MS PowerPoint) 81 respondents of (73.6%), Using CD and DVD (Tutors) 32 respondents of (25.4%), Computer with Video Projector and other Basic Software) 64 respondents of (42.8%).The next Level is “Advance ICT” the respondents have moderate level usage as Producing graphics and animation for presentation is low compare to basic ICT skill that 34 respondent of 27% , Integration Digital information and presentation (Editing digital E-resource) 41 respondents of 32.5% and Record, sort and interpret student Assessment process (Data Management) 49 respondents of 38%.

The third Level Internet/Interactive communication purpose the majority of the respondents uses the Using search engines(Google) for information access as the most frequent practices in school, with 108 respondents (86%) Email-Sending/Receiving (Digital learning/instruction) 59 respondents of 47%. The respondents hardly use ICT to Using Social Media(Communication-File Sharing) 39 respondents of 31%), Tele-Video Conferencing 16 respondents of 12.6 %/ use web camera , Using Hyperlinks for instruction 17 respondents of 26.8%).

In general, this study reveals that the moderate level usage of in terms of Interactive communication purpose and advance ICT Skill The study finding on Basic ICT skills is consistent female teaching which indicates at the moderate level Interactive communication purpose and advance ICT Skill (example: Nor Izah, Norazah & Zalizan, 2008). The findings of this study reveal that majority of the respondents are skillful in the Internet search information for teaching and access Basic ICT tools for integrating ICT for teaching and Learning, it is not a surprise to observe this finding among the teenage respondents age from(25-35) . It was also found that they are moderately skilled in basic ICT skills and Internet application for information access.

[Table -III] Factor Loaded For Female Teaching Faculty

	Factor 1	Factor 2	Factor 3	Factor 4
	Self-Esteem Booster	Conformability	Technology Rice Environment	Pedagogical advantage
I believe that it is easy to get ICT Tools to do what I want it to do	0.811			
Overall, I believe that computing technology is easy to use.	0.708			
Using computing technology fits into my work style.	0.647			
Using ICT Tools gives me greater control over my work.	0.612			
Using ICT Tools improves my image within the organization.	0.581			
Adopting new ICT tool with teaching methods made me easy for teaching		0.732		
Teaching with ICT offers real advantages over traditional methods of instruction		0.665		
It is comfortable to integrate Subject-content with ICT tools my classroom		0.617		
ICT Tools supported teaching makes learning more effective.		0.587		
Use the ICT tool for Students Assessment work(Online Exam)			0.724	
I believe that tools like e-mail, forum and chat will make communication with my students easier.			0.667	
Nowadays students expect Teacher to Integrate new ICT Tools and methods as a matter of course			0.686	
Use social Media for (Digital Learning) File sharing with students			0.611	
Presentation with Video projector for my classroom			0.523	
ICT environment save the teacher repeating work				0.745
Search for information and content for lessons				0.728
Use ICT for presentations (i.e., PowerPoint, Word, Audio& video)				0.652
I prefer to Use ICT tools to create or edit audio and/or video my Class(Digital tutors)				0.611

5.2 Factor load for (Self-Esteem Booster)

The factor loaded for self-Esteem Booster range from (0.811) to (0.581); I believe that it is easy to get ICT Tools to do what I want it to do (0.811); overall, I believe that computing technology is easy to use. (0.708); using computing technology fits into my work style. (0.647); Using ICT Tools gives me greater control over my work.(0.612); Using ICT Tools improves my image within the organization.(0.581) and total five item were loaded for self-Esteem among female teaching faculties in medical college

5.3 Factor load for (Comfortability)

The factor loaded for Comfortability range from (0.732) to (0.587). Adopting new ICT tool with teaching methods made me easy for teaching (0.732); Teaching with ICT offers real advantages over traditional methods of instruction (0.665); It is comfortable to integrate Subject-content with ICT tool my classroom (0.617); ICT Tools supported teaching makes learning more effective (0.587). and total four item were loaded for Comfortability among female teaching faculties in medical college.

5.4 Factor load for (Technology Rice Environment)

The factor loaded for Technology Rice Environment from (0.724) to (0.523). Use the ICT tool for Students Assessment work(Online Exam) (0.724) ; I believe that tools like e-mail, forum and chat will make communication with my students easier (0.667); Nowadays students expect Teacher to Integrate new ICT Tools and methods as a matter of course (0.686); Use social Media for (Digital Learning) File sharing with students (0.611); Presentation with Video projector for my classroom (0.523). total five item were loaded for Technology Rice Environment among female teaching faculties in medical college.

5.5 Factor load for (ICT-Pedagogical advantage)

The factor loaded for ICT-Pedagogical advantage from (0.745) to (0.611). ICT environment save the teacher repeating work (0.745) ; Search for information and content for lessons (0.728); Use ICT for presentations (i.e., PowerPoint, Word, Audio& video) (0.652); I prefer to Use ICT tools to create or edit audio and/or video my Class.(Digital tutors) (0.611). total four item were loaded for **ICT-Pedagogical advantage** among medical teaching faculty.

VI. CONCLUSION

The Study found that the determines of female teaching faculties in medical college have proper direction toward the success of technology incorporation in the classroom. Additionally their level of ICT's usage in classroom is basic level and some interactive communication also took part in their teaching and Learning process. The factor load were for to enhance the development towards innovation teaching process as self-Esteem Booster, Comfortability, Technology Rice Environment and ICT Pedagogical were positive towards their teaching purpose and that will access achieve its goal of an information literate society who is able to keep abreast with the latest technology development to enhance teaching process. According to (Y. Akbulut, M. Kesim and F. Odabasi 2007) Suggested that ICTs in teacher education constitute a dynamic field of study, which requires constant refreshment, there is always a need to measure up-to-date latent constructs of ICTs through valid reliable tools including high quality indicators.

REFERENCES

- [1] Jacobsen, D. M. 1998. Adoption patterns of faculty who integrate technology into teaching and learning in higher education. Proceedings of ED-MEDIA AND ED-TELECOM 98: World Conference on Educational Multimedia and Hypermedia & World Conference on Educational Telecommunications, Freiburg, Germany, June 20-25.
- [2] La Valle, A. and Blake, M. 2001. The National Adult Learning Survey 2001, Research Report 321, London, DfES. Available at: <http://www.dfes.gov.uk/>
- [3] Selwyn .N. Apart from technology: understanding people's non-use of information and communication technologies in everyday life, *Technology in Society*, 25, 2003, 99-116 .
- [4] Sorensen, K. and Stewart, J. Strategies of inclusion: Gender in the information society ,Digital divides and inclusion measures: *A review of literature and statistical trends on gender and ICT* , 2004, vol 4, Issue 2, 34-39.
- [5] Hafkin, N. and Taggart, N. Gender, information technology, and developing countries: an analytic study, for the Office of Women in Development Bureau for Global Programs, Field Support and Research, United States Agency for International Development (USAID). Available at: <http://www.usaid.gov/wid/pubs/hafnoph.pdf> (22nd April 2006).
- [6] King, J., Bond, T. & Blandford, S. An investigation of computer anxiety by gender and grade. *Computers in Human Behavior*, 2002, vol 18, 69-84.
- [7] North, A. S. & Noyes, J. M. Gender influences on children's computer attitudes and cognitions. *Computers in Human Behavior*, 2002. Vol 18, 135-150.
- [8] Nor Izah, M.S., Norazah, M.N. & Zalizan M.J. Assessment of ICT integration in teaching and learning Mathematics in Malaysia Smart Schools, Proceedings of the 2nd International Malaysian Educational Technology Convention. (2008).
- [9] W.M.Olatokun. AVAILABILITY, ACCESSIBILITY AND USE OF ICTS BY NIGERIAN WOMEN ACADEMICS, *Malaysian Journal of Library & Information Science*, Vol. 12, no.2, Dec 2007: 13-33
- [10] Prensky, M. Digital natives, digital immigrants. *The Horizon*, 9(5), 2001, 1-6.
- [11] Jonassen, D. H.. Toward a design theory of problem solving. *Educational Technology Research and Development*, 48(4), 2000, 63-85.
- [12] Y. Akbulut, M. Kesim and F. Odabasi . Construct validation of ICT Indicators Measurement Scale, *International Journal of Education and Development using Information and Communication Technology(IJEDICT)*, 2007, Vol. 3, Issue 3, pp.60-77.