

Original Research Article

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Use of Digital device in Academic Achievement by the Post Graduate Students of MPUAT, Udaipur (Rajasthan), India

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ABSTRACT

The current study was taken in Udaipur District of Rajasthan state. The purpose of the study was to perceive the extent of use of digital device in academic achievement by the students of MPUAT, Udaipur. For this research, two colleges namely CTAE and RCA were from MPUAT, purposefully selected based on the maximum strength of the students. From each college 60 PG students were randomly selected. Total 120 students were selected from both the colleges; they were interviewed to gather the informational data with support of pre structured schedule. The results of the study depict majority (64.16%) of the students use digital devices at medium extent in academic achievement followed by 22.50 and 13.33 percent students use at low and medium extent. Majority of students used for preparation of thesis, to run search engine, reading news and current affairs, preparation of notes and for data analysis.

Keywords

Digital technology, Student, Search engine, Laptop, Interview

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Introduction

Digital technology is the major out turning revolution in human life. Now, a days we are moving with the digital technologies in our daily routine works. In general, major priority was given to high speed internet and digital devices in both urban as well as rural parts of India, by the initiation of use of digital devices and mobile phones in education of students. The emerging technologies in the field of education made knowledge

transferring and process of learning more interactive.

Before to present scenario there was traditional method was followed in which teacher guides students directly in class room. The traditional environment has been rapidly moving to digital and use of internet and technology becomes mandatory in teaching. It provides students to learn outside of books and get vast resources of information by using digital technology.

Digital technologies modifying education system. Academic research majorly emphasise that different digital gadgets potentially improves the learners learning ability. Every educational institutes using digital technology in educating the students. In which educators utilize these updated technologies were used in instructing the students by using tools like interactive white boards, power point presentations, virtual learning and on line learning. By students' digital devices utilized as audio-visual tool to learn, completion of the class works, assignment, storage of information, preparation of presentation, for soft notes reading, for analysis of data, for entertainment purpose and used as medium of communication. For students by digital era, it is easy for retention of information, better presentation and storage of the information and creates more enthusiasm in learning. Arrival of digital tools like computers in education, it reduces the efforts of teachers to impart knowledge as well as students to acquire it.

Digital devices are physical equipment which utilize discrete, numerical data and process it for all its operations. Major advantages of utilization of digital devices are social connectivity, information storage, speeding up of communication, low cost, entertainments and generation of learning opportunities.

Digital technology plays an immense role in educational sector and improvement of students in academics. The improvement is directly relating to how digital devices uses and how much extent of use by students in academical purposes. These helps students to improve their ability, efficiency in knowledge gaining process.

In viewing the above concept current study taken over with particular objective “extent of

use of digital device in academic achievement of the PG students”.

Materials and Methods

The current study was taken over in Maharana Pratap University of Agriculture and Technology, Udaipur. The two constituent colleges of MPUAT i.e. College of technology and engineering and Rajasthan college of agriculture were selected for the present study, based on the higher strength of students. Sixty PG students were selected randomly from each college for the study.

Over all 120 PG students were selected from both the colleges. The students were interviewed and gathered the data based on the prepared interview schedule based on specific objective. The gathered data was refined, tabulated, analysed and interference were made in accordance with objective.

Results and Discussion

Extent of use of digital device in academic achievement of the PG students

The part wise divination of the digital gadgets in various types, applications and purpose of activity using were enlisted. The analysed results were given below with appropriate table and explanations.

Categorization of students based on level of extent of use of digital device in academic achievement

To get knowledge about extent of use, based on all the overall values of standard deviation and mean of all students, students were categorised in to three groups i.e. (i) low extent (ii) medium extent (iii) high extent. The analysed data were presented in table 1. The data in table 1 clearly picturised that majority (64.17 %) of the students were using

digital gadgets at medium extent, followed by low extent and high extent in using gadgets for academics, which were 22.50 and 13.33 per cent respectively. That's why it could be clearly interpret major of the students were using digital device at medium extent level in academic achievement.

In depth observation of Table 1 shows that more than three fifth 40 (66.68 %) students of CTAE and 37 (61.67 %) students of RCA utilizes digital device at medium extent in academic achievement. As following 10 (16.66%) of students of CTAE and 17 (28.33%) of students of RCA using at low extent. Remaining 10 (16.66%) students of CTAE and 0 6 (10.00%) students of RCA were using digital device at high extent.

Extent of use of digital devices by the students in academic achievement

By interpreting the table 2, majority of overall students were using laptop for academic activity and stands at first rank with 91.66 MPS. In constituent colleges also it stands at first rank with 95.55 MPS at CTAE and 87.77 MPS at RCA. Laptops used most frequently because, it is easily carriable and standard applications runs smoothly and fast.

Further majority (90.00 MPS) of the overall students use smartphones for academic achievement. In depth observations highlighted that it stands at second rank in both colleges with 93.88 MPS at CTAE and 86.11 MPS at RCA. It is due to smartphones are economically feasible for students and familiarity in operational uses.

Overall third rank was to the Personal computers with 65.00 MPS. In constituent colleges also same pattern continued with 65.55 MPS and 64.44 MPS at CTAE and RCA. This was because computers are less advantageous than laptops and not carriable and less updated.

Table 2, also showed that tablet used less and stands at fourth rank with 40.55 over all MPS. In both colleges same pattern was maintained i.e. 45.00 MPS at CTAE and 36.11 MPS at RCA. I pad stands at last rank with 35.83 MPS. This was due to higher cost of these gadgets and it will be not familiarity in use due to different operational software.

Extent of use of standard software applications

The table 3, clearly picturised that among five applications search engines stands at first rank with overall 94.72 MPS. In CTAE it was 97.77 and in RCA it was 91.66 MPS.

This was in regredience in higher use of e resources like e books and e journals for study and research purpose, to get on line information and transferring the information.

The second rank given to M.S. Word application in which over all 93.88 MPS students agreed for it. In CTAE it stands at second rank with 95.00 MPS and in RCA it stands at first rank with 92.77 MPS. The apparent cause behind it was every PG student should utilize this application in write up of their thesis and in preparation of soft notes.

M.S. Power point stands at third with 85.00 MPS and in both colleges same MPS and rank was maintained. The presumed reason was all the students utilizes this application for presenting their research works and also for seminars.

Adobe reader and M.S. Excel stands at fourth and fifth positions respectively with 78.05 MPS and 73.33 MPS. This might be due to adobe reader used only for pdf formats which was less. Excel was due to use very less may be during the time of data analysis only by the students.

Use of digital devices in academic achievement

The table 4, clearly picturises in academics “Advantageous in research work in preparation of thesis” was ranked first with 92.22 MPS. The reason behind was each of individuals utilizing the device to create their thesis in soft copy format i.e. by utilizing laptop or computer and it is very easy to prepare with help of digital gadgets, therefore it might get highest MPS from the students. “Helpful to run search engines” was ranked at second position with overall 89.44 MPS. The reason was, now a days each information regarding anything will be easily found in the internet, it might be e-books, e-journals or research article etc. for searching of information search engines are needed it may be chrome or any other browsers, for processing the browsers devices must be needed. “For reading news and current affairs” was stands at third rank with 87.50 MPS. The reason might be, in competitive days updating of emerging news is very essential, news articles and important bulletins of information are available in each day. Many of the students were preparing for competitive exams, so it was necessary to read timely news. “Preparation of notes” stands at rank fourth with overall 84.44 MPS. The reason was students’ preferred more soft type notes and it is easy to prepare and read through mobile or laptops. All the soft notes can be stored easily and use whenever required. “Convenient in calculations and data analysis” stands at fifth rank with 83.88 MPS. The clear reason was every student used it during their data processing during preparation of thesis, the agricultural engineering students used it more because they deal more with the numerical data. “To use dictionary applications to enhance vocabulary” stand at sixth rank with 83.05 MPS. Majority of the applications were based on vocabulary building in smart phones and in

which offline dictionary also available. It replaces the traditional book dictionaries. “For downloading pictures related to notes or practical” stands next with 81.94 MPS. Now a day’s transfer of data is so easy, many of them download the notes through social media and some of practical issue related pics through internet surfing. “Helpful to face the online as well as mock examinations” stands at eight position with 81.66 MPS. This was due to major competitive exams which were made online through cyber cafes and mock preparation trails also available in some sites for practising for exam. “Presentation of Seminars” stand next with 81.38 MPS. Every postgraduate should have the part of seminars in his curriculum and to represent his research work, it is mandatory to use. “For inquire results of exams” stands at tenth rank. This might be due to every competitive exam result was released through internet, for getting result students have to use gadgets and internet. “For applying scholarships” and “For use e-resources online as well as offline” both stand at eleven position with 80.55 MPS. Most of the students download the research articles and journals which are e resources. “Reading of Soft notes” stands next with 80.27 MPS, majority of lectures provide online notes and for further searching of information in online the PDF format notes are available for reading. “Medium for communication” stands at thirteenth position with 78.88 MPS. Devices are the only way for speed communication between distinct people. Majority of students were used for discussing the problem in academics with other students. “Creating slides / Slide preparation” and “Transforming information through hard disk and pen-drive” both stands at fourteenth position with 78.05 MPS. It was due to transfer of documents from one device to another device. Many students use pen drive to transfer and storage of information. “Helpful in on line storage and recovery of data” stands next with 77.50 MPS, most of

the students use Google drive for on line storage of data. It is easy to recollect information and use whenever we want through using internet. “Arose interest among student regarding learning” stands next with

75.00 MPS, students agreed that vast information resources and method of information description made them to gather abundant knowledge.

Table.1 Categorisation of students based on over all extent of use of devices

Extent of use of device	CTAE (n ₁ =60)		RCA (n ₂ = 60)		Total (n= 120)	
	f	%	f	%	f	%
Low	10	16.66	17	28.33	27	22.50
Medium	40	66.68	37	61.67	77	64.17
High	10	16.66	06	10.00	16	13.33
Total	60	100.00	60	100.00	120	100.00

f= frequency, %= per cent

Table.2 Extent of use of digital devices by the students in academic achievement

S. No.	Devices	CTAE (n ₁ =60)		RCA (n ₂ =60)		Total (n= 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1	PC	65.55	III	64.44	III	65.00	III
2	Laptop	95.55	I	87.77	I	91.66	I
3	Tablet	45.00	IV	36.11	IV	40.55	IV
4	I pad	37.77	V	33.88	V	35.83	V
5	Smartphone	93.88	II	86.11	II	90.00	II

Table.3 Extent of use of software applications by the students in academic achievement

S. No.	Application	CTAE (n ₁ =60)		RCA (n ₂ =60)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1	M. S. Word	95.00	II	92.77	I	93.88	II
2	M. S. Power point	85.00	III	85.00	III	85.00	III
3	M. S. Excel	75.00	V	71.66	V	73.33	V
4	Adobe reader	76.66	IV	79.44	IV	78.05	IV
5	Search engine (Internet)	97.77	I	91.66	II	94.72	I

Table.4 Use of digital devices by the students in academic achievement

S. No.	Statements	CTAE (n ₁ = 60)		RCA (n ₂ =60)		Total (n = 120)	
		MPS	Rank	MPS	Rank	MPS	Rank
1	Reading of Soft notes	86.11	V	74.44	XII	80.27	XII
2	Presentation of Seminars	85.55	VI	77.22	X	81.38	IX
3	Offline Lectures	75.00	XVI	67.22	XVII	71.11	XXI
4	Creating slides / Slide preparation.	80.00	X	76.11	XI	78.05	XIV
5	Scanning of text and photos.	74.44	XVII	68.88	XV	71.66	XX
6	Transforming information through hard disk and pen-drive etc.	77.77	XIII	78.33	VIII	78.05	XIV
7	Helpful to run search engines	97.22	I	81.66	V	89.44	II
8	Advantageous in research work in preparation of thesis	95.55	II	88.88	I	92.22	I
9	For use e-resources online as well as offline	83.33	VII	77.77	IX	80.55	XI
10	Arose interest among student regarding learning	76.66	XV	73.33	XIII	75.00	XVI
11	Convenient in calculations and data analysis	87.22	IV	80.55	VI	83.88	V
12	Tool for online trainings	74.44	XVII	70.55	XIV	72.50	XIX
13	Preparation of notes	87.22	IV	81.66	V	84.44	IV
14	Medium for communication	79.44	XI	78.33	VIII	78.88	XIII
15	For audio and video conferencing	71.66	XVIII	76.11	XI	73.88	XVII
16	For inquire results of exams	78.33	XII	83.88	III	81.11	X
17	For applying scholarships	82.77	VIII	78.33	VIII	80.55	XI
18	Helpful in on line storage and recovery of data	77.22	XIV	77.77	IX	77.50	XV
19	For distance learning	74.44	XVII	67.77	XVI	71.11	XXI
20	Helpful to face the online as well as mock examinations	85.55	VI	77.77	IX	81.66	VIII
21	For reading news and current affairs	88.33	III	86.66	II	87.50	III
22	To use dictionary applications to enhance vocabulary	86.11	V	80.00	VII	83.05	VI
23	For downloading pictures related to notes or practical	81.11	IX	82.77	IV	81.94	VII
24	Helpful in recording explanations and creation of data base	76.66	XV	70.55	XIV	73.61	XVIII

Table.5 Comparison of students of CTAE and RCA based on extent of use of Digital devices

S. No.	Category of sample	Mean	S.D.	'Z' value
1.	Students of CTAE	81.88	9.54	2.12*
2.	Students of RCA	77.56	12.55	

* Significance at 5% level of significance

“For audio and video conferencing” stands seventeenth with 73.88 MPS, it was more helpful in their research work where they can clarify doubts by discussing with the seniors and faculty at various places. “Helpful in recording explanations and creation of data base” was next with 73.61 MPS, this was to record the difficult lectures and seminars and eventually store and helps to recall it whenever they want. “Tool for online trainings” stands at nineteenth position, which was least use and somewhere when the trainer is far away it was helpful. “Scanning of text and photos” stand prior to last position with 71.66 MPS, it was very least used only useful for updating documents for verifications. “Offline Lectures” and “For distance learning” stands at last position with 71.11 MPS where students utilization was very least because everything they get with lecturers and availability of source was vast here, only few were used devices for this purpose.

Comparison between the extent of use of digital devices by the students of both colleges regarding academic achievement

To realize the difference between the students of the both colleges in regredience with the use of digital device in academic achievement, “Z” test was taken over, to know the significance, null hypothesis was tested and analysed result were shown in the below table.

H₀: There is no significant difference between extent of use of digital devices in academic achievement of students of selected colleges.

H₁: There is significant difference

between extent of use of digital devices in academic achievement of students of selected colleges.

Table 5 indicates that calculated “Z” value was greater than its tabulated value at 5 per cent level of significance. Therefore, the null hypothesis was rejected and alternative hypothesis was accepted. It clearly shows there was significant difference in extent of use of digital devices among the students of selected colleges in regredience with academic achievement.

Conclusion and suggestions are as follows:

At the end of study clearly concluded 64.17 per cent of students utilize device at medium extent, succeeded by low extent which was 22.50 per cent students fell in this category and remaining 13.33 per cent students utilized the device at high extent level for academic achievement. Majority students prefer laptop and smartphone as device. In application search engines and M. S. Word were priorities. For academic activity majority for the research activity, to use for current affairs, studying and preparation of soft notes.

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