Study of FPT and BE Students' Knowledge, Anxiety and Attitude Towards Computers

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ABSTRACT

Throughout the world, information and communications technologies (ICTs) are changing the face of education. It has been argued that the transformation of education may be the most important of the many practical revolutions sparked by computer technology. Just as computers are about to replace books as our main source of information globally, computers will come to occupy the central position in education once occupied by books. The efficient use of Information Technology can help students in higher education for their independent learning and research activities. In this regard, this study attempted to find out the relation between students' knowledge, anxiety and attitude towards computers. Sample of the study were 149 students from the college of Food Processing Technology and Bio Energy, Anand Agricultural University including male and female of B. Tech (Semester 1, 3, 5 and 7) and M. Tech (Semester 1 and 3). Students' computer knowledge access through researchers" made test. Attitude and anxiety were measured throughComputer Attitude Scale (C.A.S.). There is a *positive significant relationship between students Computer Anxiety and Attitude towards computer, Computer Confidence and Attitude towards computer, Computer Linking and Attitude towards computer, Computer usefulness and Attitude towards computer.*

Keywords: *ICT, CAS.*

INTRODUCTION

Globalization and technological change processes that have accelerated in tandem over the past years have created a new global economy —Powered by technology, fueled by information and driven by knowledge. The emergence of this new global economy has serious implications for the nature and purpose of educational institutions

Today's world is a world of information explosion. This information explosion is taking place in such a fast speed that even a literate person is feeling as if he or she is illiterate being not able to cope up with such an information explosion. Here the question arises how is one to cope up with it? The answer is, information technology (IT) that can help in coping with the information explosion. So, we can say that - Information Technology is nothing but coping up with explosion of Information. Information technology (IT) is the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a micro-electronics - based combination of computing and telecommunication.

METHODOLOGY

Study was conducted on graduate and post graduate students of college of food processing technology and bio energy. Data were collected through questionnaires. The collected data were classified, tabulated and analyzed with frequency, mean and standard deviation.

RESULTS AND DISCUSSION

Table 1: Number of students

Degree	Semester	Male	Female	Total
B.Tech	1st	21	19	40
	3rd	14	16	30
	5th	20	13	33
	7th	10	15	25
M.Tech	1st	05	04	09
	3rd	09	03	12
	Total	**79**	**70**	**149**

Table 1 shows the under graduate and post graduate number of students from each semester who participated in

study.

Table 2: Number of student's having personal computer and previous knowledge of computer

Degree	Semester	Gender	Personal Computer	No Personal Computer	Previous Knowledge	No Previous Knowledge
B.Tech	1st	Male	12	09	19	02
		Female	10	09	17	02
	3rd	Male	08	06	14	00
		Female	08	08	15	01
	5th	Male	11	09	20	00
		Female	07	06	13	00
	7th	Male	09	01	10	00
		Female	14	01	15	00
M.Tech	1st	Male	03	02	05	00
		Female	04	00	04	00
	3rd	Male	09	00	07	02
		Female	03	00	02	01

Table 2 shows the under graduate and post graduate number of students from each semester having personal computer and previous knowledge of computer.

Table 3: Means score and standard deviation of student's on knowledge of computer test and computer attitude based on personal computer

Degree	Sem.	No	PC	No PC	Knowledge of computer				Attitude towards compute			
					Mean		SD		Mean		SD	
					PC	No PC	PC	No PC	PC	No PC	PC	No PC
B.Tech	1st	40	22	18	29.05	25.22	8.20	6.81	138.23	131.61	17.98	14.55
	3rd	30	16	14	31.00	28.29	6.42	4.43	143.13	128.50	15.65	10.71
	5th	33	18	15	29.33	27.87	7.77	6.37	135.39	127.60	21.49	14.35
	7th	25	23	2	34.65	34.50	5.15	6.36	147.78	130.00	12.26	9.90
M.Tech	1st	9	7	2	34.29	29.50	7.61	3.54	161.57	143.00	24.56	5.66
	3rd	12	12	0	33.92	NA	4.34	NA	143.92	NA	22.77	NA
Total		**149**	**98**	**51**	**32.04**	**29.08**	**6.58**	**5.50**	**145.00**	**132.14**	**19.12**	**11.03**

With respect to knowledge test score of students the Table 3 indicates that mean score of all the semester having personal computer is 34.04 with standard deviation of 6.58. the mean score of all the semester does not having personal computer is 29.08 with standard deviation of 5.50.

With respect to attitude towards computer of students the table indicates that mean score of all the semester having personal computer is 145.00 with standard deviation of 19.12. the mean score of all the semester does not having personal computer is 132.15 with standard deviation of 11.03.

Table 4: Means score and standard deviation of student's on knowledge of computer and computer attitude based on previous knowledge of computer

Degree	Sem	No	PK	No PK	Knowledge of computer				Attitude towards compute			
					Mean		SD		Mean		SD	
					PK	No PK	PK	No PK	PK	No PK	PK	No PK
B.Tech	1st	40	36	04	28.42	17.50	7.20	5.80	137.14	118.25	16.33	8.18
	3rd	30	19	01	30.00	5.56	22.00	NA	136.79	122.00	15.29	NA
	5th	33	33	00	28.67	NA	7.10	NA	131.85	NA	18.74	NA
	7th	25	25	00	34.64	NA	5.10	NA	146.36	NA	12.89	NA
M.Tech	1st	09	09	00	33.22	NA	7.03	NA	157.44	NA	22.88	NA
	3rd	12	09	03	35.78	28.33	2.86	2.89	140.67	153.67	21.33	29.02
Total		**149**	**131**	**08**	**31.79**	**17.13**	**8.55**	**4.35**	**141.71**	**131.31**	**17.91**	**18.60**

With respect to knowledge test score of students the Table 4 indicates that mean score of all the semester having previous knowledge of computer is 31.79 with standard deviation of 8.55. The mean score of all the semester does not previous knowledge of computer is 17.13 with standard deviation of 4.35.

With respect to attitude towards computer of students the table indicates that mean score of all the semester having previous knowledge of computer is 141.71 with standard deviation of 17.91. The mean score of all the semester does not having previous knowledge of computer is 131.31 with standard deviation of 18.60.

Table 5 : Mean score and standard deviation of student's knowledge of computer test and computer attitude

Degree	Semester	No of Students	Knowledge of computer		Attitude towards compute	
			Mean	SD	Mean	SD
B.Tech	1st	40	27.33	7.75	135.25	16.65
	3rd	30	29.73	5.66	136.30	15.27
	5th	33	28.67	7.10	131.85	18.74
	7th	25	34.64	5.10	146.36	12.89
M.Tech	1st	9	33.22	7.03	157.44	22.88
	3rd	12	33.92	4.34	143.92	22.77
Total		**149**	**31.25**	**6.16**	**141.85**	**18.20**

With respect to knowledge test score of students the Table 5 indicates that mean score of all the semester is 31.25 with standard deviation of 6.16.

With respect to attitude towards computer of students the table indicates that mean score of all the semester is 141.85 with standard deviation of 18.20.

Table 6: Mean scores and standard deviation of students on sub-scales of computer attitude scale

Semester	No. of Students	Computer Anxiety Sub-scale		Computer confidence Sub-scale		Computer linking Sub-scale		Computer usefulness Sub-scale	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
1st (B.Tech)	40	34.08	6.90	35.38	5.93	31.68	4.81	34.13	5.13
3rd (B.Tech)	30	35.23	5.58	36.13	5.51	31.63	4.88	33.30	5.74
5th (B.Tech)	33	34.45	6.59	34.15	7.22	31.00	5.35	32.24	6.02
7th (B.Tech)	25	37.04	6.11	37.48	5.30	34.00	3.28	37.84	2.85
1st (M.Tech)	09	44.22	8.11	42.33	7.50	33.22	7.60	37.67	4.12
3rd (M.Tech)	12	41.58	4.87	40.92	6.11	31.17	9.43	30.25	9.68
Total	**149**	**37.77**	**6.36**	**37.73**	**6.26**	**32.12**	**5.89**	**34.24**	**5.59**

With respect to student's score on computer anxiety sub-scale the Table 6 indicates that the mean score of all the semester is 37.77 with standard deviation of 6.36. With respect to student's score on computer confidence sub-scale the Table indicates that the mean score of all the semester is 37.77 with standard deviation of 6.36. With respect to student's score on computer linking sub-scale the Table indicates that the mean score of all the semester is 32.12 with standard deviation of 5.89. With respect to student's score on computer usefulness sub-scale the Table indicates that the mean score of all the semester is 34.24 with standard deviation of 5.59.

Table 7: Relationship between variables

Sr. No.	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1					
X_2	0.341882	1				
X_3	0.219986	0.546553	1			
X_4	0.14846	0.253091	0.299717	1		
X_5	0.3004	0.36073	0.394623	0.488611	1	
X_6	0.348491	0.762875	0.777439	0.656577	0.745764	1

X_1 = Knowledge Test Score X_2 = Computer Anxiety X3 = Computer Confidence X_4 = Computer Linking
X_5 = Computer Usefulness X_6 = Attitude Towards computer

The Table 7 indicate that The mean score on computer usefulness subscale for students of 7th semester (B. Tech) was highest. There is a positive significant relationship between students Computer Anxiety and Attitude towards computer, Computer Confidence and Attitude towards computer, Computer Linking and Attitude towards computer, Computer usefulness and Attitude towards computer. There is no significant relationship between students' knowledge of computer and their computer anxiety.

CONCLUSION

The data analysis reveals that 65.77% of the students have personal computer and 94.63% of the students had previous computer knowledge. The mean score on computer

confidence subscale for students of 1th semester (M. Tech) was highest.

The mean score on computer linking subscale and computer usefulness subscale for students of 7th semester (B. Tech) was highest.

There is a positive significant relationship between students Computer Anxiety and Attitude towards computer, Computer Confidence and Attitude towards computer, Computer Linking and Attitude towards computer, Computer usefulness and Attitude towards computer.

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