

Perception of the College Students Regarding Various Aspects of Computer Applications

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ABSTRACT

This paper focuses upon describing and understanding the responses of a small case of undergraduate teacher education students (n=76) in Anand Agricultural University, Anand towards a planned information communication technology (ICT) interaction. As a human being, there is an adaptation process of the new developments and implications as well. Therefore; the research based study handled the attitudes of students towards computers and its new trends. Computer and Information Technology have always mattered in agricultural sector. Computer applications are used and toughed in higher secondary as a secondary subject as a part of their curricula. Our aim is to check the perception of students regarding various aspects of computer applications when they entered into the college. As a faculty member of Anand Agricultural University, Anand to know this status of student. Based on findings we can work accordingly to improve their computer skill.

Keywords: *Preception, Computer application*

INTRODUCTION

Technology is the main support for the students learning developments nowadays. This research represents a pilot study which was undertaken in 2012 at Anand Agricultural University. Data were from a small group of undergraduate students in this higher education setting in order to determine their attitudes towards their use of and engagement in computer application being used in agricultural interactions. The college of Food Processing Technology and Bio Energy in Anand Agricultural University, Anand runs four years B.Tech (FPT) and two years M.Tech (FPT) courses. The intake capacity for B.Tech is 35. The College offers subjects related food production, processing, food technology, agriculture, statistics, information technology etc.

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 research study is conducted to know the perception of the students of College of Food Processing Technology and Bio Energy regarding various aspects of Computer Applications.

OBJECTIVES

- 1 To study the profile of students of College of Food Processing Technology and Bio Energy
- 2 To study the Perception of the students of College of Food Processing Technology and Bio Energy regarding various aspects of Computer Applications.
- 3 To find out relations between the students profile and the perception regarding various aspects of Computer Applications.

METHODOLOGY

Study was conducted on 76 graduate students of college of food processing technology and bio energy. Data were collected through question. The collected data were classified, tabulated and analyzed with frequency, percentage and coefficient correlation.

RESULTS AND DISCUSSION

Table 1: Profile of the Student n=76

Sr.No.	Response	Frequency	Per cent
HSC Score			
1	High	76	91.27
2	Low	76	45.00
3	Average	76	69.27
Computer Subject in HSC			
1	Yes	40	52.63
2	No	36	47.37
Gender			
1	Male	38	50.00
2	Female	38	50.00
Native			
1	Rural	34	44.74
2	Urban	42	55.26
Family Type			
1	Nuclear	48	63.16
2	Joint	28	36.84
Father's Education			
1	Std. I to X	18	23.68
2	HSC	21	27.63
3	Graduate	25	32.89
4	Post Graduate	9	11.84
5	Doctorate	3	3.95
Father's Occupation			
1	Govt. Job	33	43.42
2	Private Job	21	27.63
3	Business	18	23.68
4	Other	4	5.26
Family Income (Yearly)			
1	Less than One Lack	30	39.47
2	One to Two Lacks	3	3.95
3	Two to Five Lacks	20	26.32
4	More than Five Lacks	23	30.26
Personal Computer/Laptop at Home			
1	Yes	23	30.26
2	No	53	69.74

Sr.No.	Response	Frequency	Per cent
Personal Mobile with Internet Facilities			
1	Yes	56	73.68
2	No	20	26.32
Usage of Computer per week in hours			
1	Zero	4	5.26
2	1 to 10	31	40.79
3	10 to 20	26	34.21
4	above 20	15	19.74
Training / Certificate course on Computer Application			
1	Less than or equal 7 days	3	3.95
2	Between 8 to 15 days	0	0.00
3	Above 15 days	6	7.89

The data represented in table 1 indicates that the students taking admission in to the college of food processing technology and bio energy have 91.27 percentage as the highest score, 45.00 percentage as lowest score while average score of the students are 69.27. More than half the students (52.63 percent) were having computer as a subject in HSC. Gender wise ratio of all the students is exactly 50 percent. Slightly more than half (55.26 percent) of the students are from urban area followed by (44.58percent) students from rural area. Similarly more than half of the students (63.16 percent) were from nuclear family followed by the joint family (36.84 percent). Educational background regarding the students' father indicates that majority are graduate (32.89 percent) followed by HSC (27.63 percent) followed by std. I to X (23.68 percent) followed by post graduate (11.84 percent) and Doctorate by (3.95 percent). Majority of the students were not having their own personal computer or laptop (69.74 percent) while only (30.26 percent) having personal computer or laptop. Majority of the students (73.68 percent) of the students were having mobile with Internet facility while (26.32 percent) of the students were either not using a mobile or were not having a mobile with internet facility. Majority of the students(40.79 percent) are using personal computer between 1 to 10 hours per week followed by 10 to 20 hours per week (34.21 percent) followed by 20 and more hours per week (19.74 percent) while 5.26 percent of the students were not using computer .Of all the students only (3.95 percent) of the students have Training/Certificate course on computer application with less than or equal to 7 days period and (7.89 percent) with above 15 days period.

Table 2 : Perception regarding Microsoft Word with the following components

n=76

Sr. No.	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Formatting Text	53	69.74	17	22.37	03	03.95	03	03.95
2	Paragraph Formatting and Line spacing	52	68.42	18	23.68	04	05.26	02	02.63
3	Using Find and Replace Tool	42	55.26	23	30.26	04	05.26	07	09.21
4	Creating Tables	58	76.32	13	17.11	01	01.32	04	05.26
5	Inserting Header and Footers	42	55.26	22	28.95	05	06.58	07	09.21
6	Inserting Pictures, Clipart and Shapes	55	72.37	15	19.74	01	01.32	05	06.58
7	Using Spelling and Grammar checking	56	73.68	14	18.42	01	01.32	05	06.58
8	Setting Page layout Options	46	60.53	20	26.32	06	07.89	04	05.26
9	Using Mail Merge tool	27	35.53	22	28.95	12	15.79	15	19.74
10	Creating and Using Macro	11	14.47	22	28.95	21	27.63	22	28.95

The data stated in Table 2 indicates that most of the students are fully aware with Microsoft word components such as Formatting Text, Paragraph formatting and line spacing, Using find and replace tool, creating tables, inserting header and footers, Using spelling and grammar, Page layout setting. While majority of the students were facing difficulty in using mail merge and creating and using macro.

Table 3 : Perception regarding Microsoft Excel with the following components

n=76

Sr. No.	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Insert, delete rows and columns	62	81.58	11	14.47	01	01.32	02	02.63
2	Selecting range of data	49	64.47	19	25.00	04	05.26	04	05.26
3	Merge Cell	39	51.32	19	25.00	08	10.53	10	13.16
4	Use of Sort and Filter tool	22	28.95	28	36.84	13	17.11	13	17.11
5	Functions	36	47.37	27	35.53	07	09.21	06	07.89
6	Page Orientation	33	43.42	26	34.21	08	10.53	09	11.84
7	Creating Charts	46	60.53	21	27.63	06	07.89	03	03.95
8	Setting Password to Excel	21	27.63	23	30.26	09	11.84	23	30.26
9	Using Freeze Pan tool	08	10.53	23	30.26	14	18.42	31	40.79
10	Pivot Table tool	14	18.42	15	19.74	13	17.11	34	44.74

The data stated in table 3 indicates that most of the students are fully aware with Microsoft excel components such as Insert/delete rows and columns, selecting range of data, merge cell, functions, Page orientation, Creating Charts. While majority of the students were facing difficulty in using Sort and filter tool, Setting password, Using Freeze Pan and Pivot table.

Table 4 : Perception regarding Microsoft PowerPoint with the following components.

n=76

Sr. No.	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Open, Close, Save Presentation	53	69.74	17	22.37	03	3.95	03	03.95
2	Create a new Presentation	52	68.42	18	23.68	04	5.26	02	02.63
3	Adding and deleting slides from Presentation	42	55.26	23	30.26	04	5.26	07	09.21
4	Applying Design and Animation to different slides	58	76.32	13	17.11	01	1.32	04	05.26
5	Inserting Slide number and Date to all slides	42	55.26	22	28.95	05	6.58	07	09.21
6	Applying Auto pay and Transition time to slide	55	72.37	15	19.74	01	1.32	05	06.58
7	Rotate and Flip Pictures -shapes	56	73.68	14	18.42	01	1.32	05	06.58
8	Print Presentation, Handouts and notes	46	60.53	20	26.32	06	7.89	04	05.26
9	Use and modify tables on slides	27	35.53	22	28.95	12	15.79	15	19.74
10	Linking movie clip to slide show	11	14.47	22	28.95	21	27.63	22	28.95

The data stated in Table 4 indicates that most of the students are fully aware with Microsoft PowerPoint components such as Open/Close/Save Presentation, Creating a new presentation, Adding and deleting slides, Applying design and animation to slides, Inserting number and date to

slide, Applying Auto play and transition time to slide, Rotate and flip pictures, Print presentation/handouts and notes. While majority of the students were facing little trouble in using and modifying tables on slides and linking movie clip to slide show.

Table 5 : Perception regarding Internet with the following components

n=76

Sr. No.	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Creating E-mail Account	17	92.11	03	3.95	02	02.63	01	01.32
2	Check, send, Replay to E-mail	66	86.84	07	9.21	03	03.95	0	00.00
3	Attach - download Files	60	78.95	09	11.84	03	03.95	04	05.26
4	Using Social Network website such as Facebook and Orkut	62	81.58	11	14.47	02	02.63	01	01.32
5	Downloading Content from website	63	82.89	10	13.16	02	02.63	01	01.32
6	Connecting your computer/laptop to internet	61	80.26	10	13.16	04	05.26	01	01.32
7	Accessing Internet from your mobile	63	82.89	8	10.53	04	05.26	01	01.32
8	Creating Web content using HTML/DHTML	19	25.00	18	23.68	13	17.11	26	34.21
9	Developing Dynamic website	05	6.58	16	21.05	09	11.84	46	60.53
10	Animations Using Photoshop /Coral Draw/ PageMaker/ Flash	22	28.95	17	22.37	12	15.79	25	32.89

The data stated in Table 5 indicates that most of the students are fully aware with Internet components such as Creating e-mail account, Check/Send/Replay to e-mail, Attaching and downloading files to email, Using social network website such as Facebook and Orkut, Downloading content from website, Connecting computer/laptop to

internet, Accessing Internet from mobile. While majority of the students were facing difficulty in Creating web content using HTML/DHTML, Developing dynamic website and Developing Pictures/Animations using Photoshop /Coral Draw / Page Maker/ Flash.

Table 6 : Perception regarding C language with the following components

n=76

Sr. No.	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Developing and Running simple C Program	38	50.00	29	38.16	07	9.21	02	2.63
2	Using Variable, Constant, Operators in C Program	30	39.47	32	42.11	11	14.47	03	3.95
3	Using Decision Making Statements (if,switch etc)	28	36.84	28	36.84	12	15.79	08	10.53
4	Using Loops	28	36.84	32	42.11	12	15.79	04	5.26
5	Using Array	22	28.95	29	38.16	18	23.68	07	9.21
6	User Defined functions	14	18.42	31	40.79	22	28.95	09	11.84
7	Using Structure and Union	09	11.84	27	35.53	24	31.58	16	21.05
8	Using Pointer	17	22.37	22	28.95	21	27.63	16	21.05
9	Working with files	15	19.74	27	35.53	10	13.16	24	31.58
10	Dynamic Memory Allocation	07	9.21	17	22.37	10	13.16	42	55.26

The data stated in Table 6 indicates that most of the students are partially aware with C language components such as Developing and running simple program, using variable/ Constant/Operators in C program, Using decision making

statements, loops, Array, Creating user defined functions, Using structures and pointer. While majority of the students were facing difficulty in Working with files and Dynamic memory allocation.

Table 7 : Perception regarding MATLAB with the following components

n=76

Sr.No	Components	Full		Partial		Preliminary		Not at all	
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1	Working with MATLAB environment	09	11.84	12	15.79	02	02.63	53	69.74
2	Using Library Functions	08	10.53	10	13.16	04	05.26	54	71.05
3	Using Curve Fitting Tool	11	14.47	09	11.84	03	03.95	53	69.75
4	Creating scripts and Function in MATLAB	10	13.16	10	13.16	03	03.95	53	69.75
5	Importing and Exporting Data	06	07.89	09	11.84	06	07.89	55	72.37

The data stated in table 7 indicates that most of the students are not at all aware with MATLAB Components. Only few students were either fully or partially aware with MATLAB components.

Table 8 : Relationship between variables.

	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
X ₁	-	-	-	-	-	-
X ₂	-0.12076	-	-	-	-	-
X ₃	0.104898	0.092634	-	-	-	-
X ₄	0.028347	0.25675*	0.130094	-	-	-
X ₅	0.00169	0.08219	-0.1017	0.055567	-	-
X ₆	0.050675	0.300927*	-0.08843	0.26207*	0.175084	-

X₁ = Computer in HSC; X₂ = Personal computer/laptop; X₃ = Computer Usage; X₄ = Personal Mobile with internet Facility; X₅ = Training / Course on Computer Application; X₆ = Perception of the students on various aspects of Computer Application

The data stated in table 8 indicates that there is some significant relationship between Personal computer/laptop(X₂) and Perception of the students on various aspects of computer application(X₆), Personal computer/laptop(X₂) and Personal Mobile with internet Facility(X₄), Personal Mobile with internet Facility(X₄) and Perception of the students on various aspects of computer application (X₆).

CONCLUSION

The research represents a study that has provided some interesting insights into the attitudes of students enrolled in a B.Tech. program towards their use of and engagement in computer applications. 52.63 percent of the students were having compute as subject in HSC which helped them to gain perception on various aspects of computer applications. 69.74 percent of the students are having their own personal computer or laptop which helped them to get awareness on computer applications. Most of the students are fully aware with Microsoft word, Microsoft Excel, Microsoft PowerPoint

and Internet applications. Majority of the students are partially aware with C language and MATLAB applications. More efforts should be given towards the advance topics on various computer applications improve students’ knowledge. MATLAB and other statistical package should be given more importance to improve students’ data analysis skill.

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