

## **TECHNOLOGY SKILLS AMONG UNDER GRADUATE STUDENTS – NEED OF THE HOUR**

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### **Abstract**

*The study examined the Technology Skills among under Graduate Students – Need of the Hour in Vellore District. A descriptive survey design was used for the study. Questionnaire was used for data collection from 739 graduate students by using multi-stage sampling method with three different colleges namely Government, Aided and Self-finance colleges affiliated Thiruvalluvar University in Vellore District. The research adopted descriptive design. The data were analyzed using the descriptive statistics from the Statistical Package for Social Science -20 version. The study was an attempt to find out the relationship between Technology skills and their courses of study, gender, domicile, academic performance and categories of colleges. There is immediate necessity to capacitate the college students to face the challenges towards their better life. The study used various statistical methods such as; t-test and ANOVA test. The various suggestions given here would certainly help the students, parents, teachers, state and central governments and educational institutions to benefit and join hands to ensure a strong nation through developing technology skills among the graduate students.*

**Key Words:** Technology skills and Graduate Students

### **Introduction**

Technical skills which includes, what traditionally has been associated with library media, audiovisual, computer, driving two wheelers and four wheeler. Technical growths have been developed very fast in all fields like medicine, engineering, education, science & Technical, political and environment. All students must be able to use Technical effectively to live, learn and work successfully in an increasingly complex and Technical-based society. The overarching goal of Technical literacy instructional program is to ensure that all graduate students are independent, competent, responsible and confident users of Technical and can apply related strategies for acquiring basic skills and content knowledge, communicating ideas, problem-solving, pursuing personal interests and ensure that all the students have the opportunity to learn and practice these new essential skills. The college students have technical skills needed to be successful in today's workforce.

### **Concept of Technical**

Technical is often used as the generic term to include the all technologies that people use in their lives for better life. Technical refers to systematic application of scientific or other organized knowledge to practical task. Therefore, educational Technical is based on theoretical knowledge from different disciplines (communication, psychology, sociology, philosophy, artificial

intelligence, computer science, etc.) plus experiential knowledge from educational practice (Cox. & Webb: 2004).

According to UNESCO (2005) Technical is the “know-how” and creative processes that may assist people to utilize tools, resources and systems to solve problems and enhance control over the natural and manmade environment in an endeavour to improve the human condition.

### **Types of Technical Skills**

#### **1. Computer Software MS-Office**

MS-Office is application software which has contained three software like MS-word, MS-Excel and MS-Power point. Word Processing Skill is use to complete written tasks and spreadsheet used to complete the create table, store data, query data and provide electronic presentation with support of power point in a timely manner. (Laura Turner 2005).

#### **2. Computer Hardware**

Computer hardware is the collection of all the parts you can physically touch. Computer hardware is the collection of physical parts of a computer system. This includes the computer case, monitor, keyboard, and mouse. It also includes all the parts inside the computer case, such as the hard disk drive, motherboard, video card, and many others. (Paul Zandbergen, 2005).

#### **3. Web Browsing**

- **Internet:** The Internet is a global collection of many types of computers and computer networks that are linked together. It is increasingly becoming the solution to many information, problems, information exchange, and marketing (Adesanya: 2002).
- **E-mail:** Electronic mail (e-mail) is the exchange of text messages and computer files transmitted via communications networks such as the Internet (Nwosu: 2004). Not only written data, but all sorts of information in the form of video, audio, or photographs, can be sent via e-mail.

#### **4. Other Software:** Photoshop, page maker, CorelDraw, SPSS, move maker etc.

#### **5. Making Attempts to explore other Technical Products:**

- **Typing:** Typewriting is programe for learning to touch type. Typewriting trainer provides the students with text to instruct on and adjusts to different levels depending on the students. It displays which key to press next and the correct finger to use.
- **Printing:** Which the monitors enable us to see or view the output, the printers enable to make a hard copy of it. There are various types of printers like Dot Matrix Printer, Daisy wheel Printer, Laser Printer, Ink Jet Printer etc. Students should be able to learn by operating the printers.
- **Scanning:** An Image Scanner is an input device that translates paper documents into an electronic format that can be stored in a computer. The input documents may be typed text, pictures, graphics or even handwritten material.
- **Cell Phone:** Mobile phones are defined as a telephone system that can move or be moved easily and quickly from place to place. According to Marcelle (1999) the availability of this new Technical has been reshaping the material basis of the society as

well as bringing about a profound restructuring of economic, political, and cultural relations among states.

6. **Two and Four Wheeler Skill:** Two wheeler and four wheeler skill teaches motorcycle and car riders the skills for riding on public roads. According to Holmstrom, Darwin (2001) says that motorcycle and car training beyond basic qualification and licensing is available to those whose duty includes motorcycle riding, such as police, and additional rider courses are offered for street riding refreshers, sport riding, off-road techniques, and developing competitive skills for the motorcycle racetrack.
7. **Handling Minor Technical Skills:** Minor technical problems can be attempted without the major support of technician and it is considered as a common attitude and skill of an employee.

### Methodology

The research design of this study is Descriptive Research Design. The design describes the graduate student's level of Technical skills. The colleges were stratified into three namely Government, Aided and Self-financed. Since, the number of colleges in each category is not equal, an inclusion criteria was used to narrow down the eligibility. The colleges irrespective of their category which have completed 20 years of its existence were included for the study purpose. From each category, one college was selected by using lottery method. Hence, the sampling design used for this was **Multistage Sampling**. The total number of samples of the study was 739 undergraduate students. The data collected from the primary respondents were analyzed using SPSS (Statistical Package for Social Sciences). correlation, t-test and ANOVA were used to find out the significant difference or associations among the variables.

### Analysis And Interpretation

**Table - 1**  
**Course of studying by their Technical Skills (ANOVA- test)**

Course of Studying	Descriptive Analysis			ANOVA test			
	N	Mean	Std. Deviation	df	Mean Square	F	Sig.
B.Sc. Maths	138	23.21	6.20	8 730 738	476.084 35.016	13.596	0.000
B.Sc. Chemistry	85	23.10	7.28				
B.Sc. Physics	69	23.69	6.62				
B.Com	165	26.10	5.48				
BBA	36	28.77	4.94				
B. Sc (CA)	115	29.40	4.51				
B.A Economics	56	25.41	6.54				
B. Sc Bio-Chemistry	38	27.50	5.97				
B.Sc. Bio Tech	37	24.54	5.44				
Total	739	25.57	6.30				

All students must successfully complete a course of study leading to one of the approved major programs in the College of Arts and Science. It is inferred from the above table that B. Sc (CA) mean=29.40, BBA mean=28.77 college students have higher technical skill compared to the department students. The ANOVA test has been applied to find out the variance between the status of technical skills and their studying courses. It is found that studying course is highly influence by the student’s technical skills.

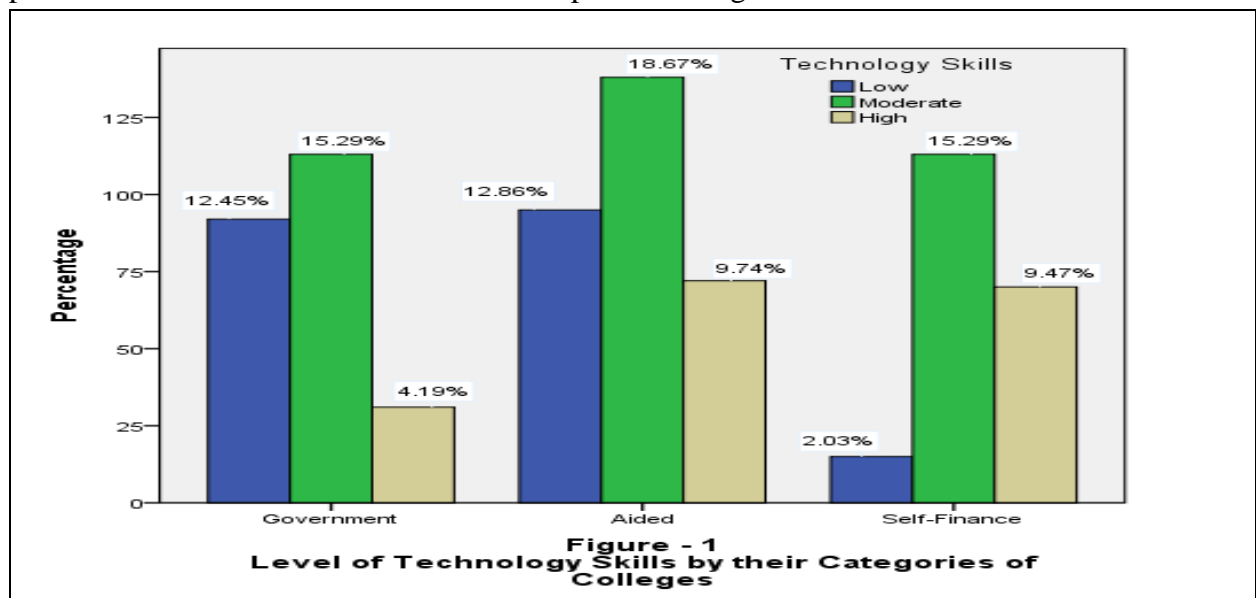
**Table -2**  
**Gender and their Technical skills score (Independent Sample t-test)**

Group Statistics				Levene's Test for Equality of Variances		Independent Samples Test		
Gender	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
Male	387	26.74	6.20	0.197	0.657	5.374	737	0.000
Female	352	24.29	6.18					

The above table describes the mean difference in the technical skills between boys and girls. The boys (*mean = 26.74*) have possessed higher technical skills than girls (*mean = 24.29*). It is proved the independent samples t-test showed that there is significant difference (*t=5.374, df=737, p<0.000*) in the mean score of technical skills by gender. Researches indicate that female were usually less experience than male with regard to technical skills (Dain, 1991; Durndell, Glissov, & Siann, 1995; Shashaani, 1995).

**Technical Skills and Categories of Colleges**

Quarterly deviation method was used to classify the Technical skills level. Thus, Technical score has been divided into three such as; less than 25 percentile low level, 25 percentile to 75 percentile moderate level and more than 75 percentile high level.



It is reveals that little more than one tenth (12.65%) of the government and aided students have irrespective of same technical skills with low level. Less than one tenth (9.74%) of the aided college students have higher level technical skill compared to the other college students. Chi-square test is applied to find out the association between the level of technical skills by their categories of colleges. Chi-square value =67.871, df=4 and  $p < 0.000$ . Since the level of significance is less than 0.05  $H_0$  is rejected and it could be concluded that there is association between the level of technical skills and by their categories of college.

**Table -3**

**Student's Stay Places and their Technical Skills Score (Independent Sample t-test)**

Group Statistics				Levene's Test for Equality of Variances		Independent Samples t-test		
Staying Places	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
Days Scholar	656	25.39	6.31	.841	.359	-2.258	737	.024
Hosteller	83	27.04	6.11					

From the above table it is found out that Technical skill significantly differ ( $P < 0.05$ ) by their staying place for their education. The mean value of technical skill has high among day-scholars than the hostellers. It is necessary to have an environment with freedom and opportunities to develop Technical skills.

**Table -4**

**Student's Native Place by their Technical skills**

Group Statistics				Levene's Test for Equality of Variances		Independent Samples t-test		
Native Places	N	Mean	Std. Deviation	F	Sig.	t	df	Sig. (2-tailed)
Rural	545	25.04	6.33	1.301	.254	-3.902	737	.000
Urban	194	27.08	5.98					

The above table shows that the mean difference in technical skill between rural and urban (*urban mean*=27.08) (*rural mean*=25.04) the urban students have higher technical skill than rural students. Hence, the independent sample t-test proved that there is significant difference ( $t = -3.902$ ,  $df = 737$ ,  $p < 0.05$ ) in the mean value of Technical skills by their native places. Technical skills both urban and rural areas as there is no obvious evidence of technical skills between students in urban and rural area (Yasin, 2002).

**Results And Discussions**

- The science students have higher technical skills compared to the arts students, especially the B.Sc computer science students have higher Technical skills. There is a variance in the technical skills and studying courses of college students.
- The girl students have low level technical skills compare to the male students.
- Little more than one tenth (12.65%) of the government and aided college students have irrespective of same technical skills with low level. This is not sufficient for today's job market.
- The technical skill is high among day-scholars than the hostellers.
- The urban students have higher technical skill than rural students.

**Discussions**

- The educational institutions should provide technical skills apart from the academic curriculum for all types of students. The technical skills could be project based, office based, skill based training for all arts and science students.
- Provide innovative training strategies, creating awareness to enhance the technical skills among the college students especially for girl students. And address the short training materials for learning technical skills.
- College students may not seem immediately apparent, but possessing a solid foundation in using daily technology can greatly smooth a student's transition to academics and employment. In order to be successful, there are a few fundamental technical skills students should develop long before going out from the colleges. Typing, computer operating, few knowledge about software, internet browsing, two and wheeler driving.
- A holistic approach to train students in technical skills is suggested by considering all important basic needs in utilizing the technology. To develop an information literate society, training should move beyond teaching basic skills, but should cover technical aspects including maintaining hardware and software. Students in urban area seem to be more lucky because they have more opportunity to access technology (computer, internet facilities) facilities either by using their own computer in their neighbourhood.

**Way of enhancing Technical Skills**

- Learning typing in English without mistakes
- Being familiar in working with Excel, Word, Power point
- Being comfortable in Browsing web sits
- Being able to send and receive e-mail.
- Using short cut keys while using computer
- Operating other software (Photoshop, Page Maker, Coral Draw, HTML, VB, C, C++, etc.
- Attempting to probe in to the Technical of products which are in front of you
- Formal training should take for driving two and four wheeler in recognized institution
- Try to initiate to solve minor technical problems at home or college independently

**Conclusion**

The number of institutions of higher education enables the students to become undergraduates in the country. On the other hand the unemployment is severe because only good

communicative students can get into the job. The lack of communication skill prevent or postpone the graduates, to get job and therefore knowing the level of communication of the graduates enable to understand the reality and suggest ways and means to the graduates and to the educational institutions to enhance the communication skill. New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.

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