# Technophobic Attitude among the Students of Senior Secondary Level

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### Abstract

*In the era of modernization and advancement of technology, the adaption and supportiveness of technology has always been considered imperative for completeness of education. The fast growing e-learning environment overcomes the limitations of traditional bound class- room learning like availability of physical space, time bound delivery, attentiveness of the recipients etc. the attitude of students occupies central place in learning. The Technophobic and Technophiliac attitude of the students are two extremes on the scale of e-learning. The present paper deals with the technophobic attitude of students studying at senior secondary schools of Yamunanagar district of Haryana. It also highlights the influence of variables like gender, discipline and residing area on their attitude inclined towards technophobic extreme.*

*Key words: Technophobia, e-learning, Technical jargon, senior secondary students, attitude.*

**Introduction:** Technology is rapidly changing many of the ways in which humans communicate, and technological media directly affects our natural state of body and mind in the interaction process (Morreale *et al.,* 2001). In accordance with the changes and needs in society, the education system is also supposed to keep side by side to the new innovations in the educational sector. As a result, many of emergent technologies become an integral component of educational system. It is required either demand of the time to adopt technologies in teaching learning process. Technology in the field of education brought a revolution in the process of teaching and learning. The emergence of information and technology has given a new dimension to education, both within and beyond the curriculum. Every walk of educational system, especially the learning process is directly affected by the impact of new technology. Usage of new technology into the education system resulted in change in teaching styles of teachers. It also directly influenced the thinking and learning pattern of students. Technology mediated teaching learning process caused a need for the people to understand, adjusts, adopt and use technology. The rate of adoption is directly

linked to the dissemination of innovations. According to Rogers, the rate of diffusion of innovations and the rate of adoption is the relative speed with which an innovation is adopted by the members of the system. Historically, technological progress has given rise to change in learning process of the students. Although, technology assists in learning, many students experience resisting attitude towards it. They feel some kind of fear which resists them to come forward and accept new technology. According to Goldsborough (2003), many students struggle with technology, avoid learning and how to use it, or fail to take full advantage of it, when they do not know how to use technology. They may have some kind of fear or anxiety about using it. This can cause resistance to use or perhaps avoidance of the technology altogether.

According to Bunz (2003), learning about technology, or at least having an attitude of openness towards it, aids in understanding, a requirement for success in an increasingly technologically-driven society. Increase in anxiety leads to fear which resist to use technology and play an adverse role in a student's adoption or rejection of a particular innovation, or can cause anxiety or apprehension. The attitude of students has significant role in accepting or rejecting any technology. The use of technical jargon plays vital role in determination of attitude. When these two factors of anxiety and attitude are combined, the technophobia emerges. Students may feel overwhelmed or afraid of something because of its unfamiliar technical nature. Technophobia is a feeling of discomfort, fear or unease towards any technology. It is a condition of nervousness which affects the person mentally and physically too resulted in avoidance attitude and self doubt. Jay (1981) defines it as "a resistance to talking about computers or even thinking about computers; fear or anxiety towards computers; hostile or aggressive thoughts about computers". Rosen and Maguire (1990) characterize technophobia as "anxiety about current or future interactions with computers or computer-related technology; negative global attitudes about computers, their operation or their societal impact; and/or specific negative cognitions or self-critical internal dialogues during actual computer interactions or when contemplating future interaction". Morreale *et al.* (2001) suggests that technophobia is often based on unfamiliarity with a medium. Yet, everyone must learn the use of technology, as our educational system is becoming more and more dependent upon the use of advanced technology. Studies have shown a rise in Technophobia as a result of educational modernization. It seems that technophobia may become increasingly common, with the infiltration of such a variety of technological innovations. Korukunda and Finn (2003) found that technophobia has been an

enduring problem in Industrial economics over the last 20 years with some estimates putting the number of technophobes at close to one-third of the industrialized population of the world. They suggest that this is likely due to heavy infusion of computer technology in every walk of life. Students are often exposed to such technologies with computers and digital media at the forefront of education. Many studies are conducted to measure the anxiety with computers among the students (Scull, 1999). They reported that anxiety increases among the students when they were under pressure related to either time or any goal to achieve in time. The level of anxiety also increases when the technology being used failed or malfunctioned. When something went wrong this affected the emotional state of students, leading to panic and anxiety. On the other hand, it was also found that despite of deadlines and equipment failure, many students were able to figure it out. Exploring logical solutions to the problems they were experiencing included methods such as calling technical support or asking someone to help. Those with knowledge and experience had less anxiety than those who did not know how to operate the equipment. It seems as though person's inability to efficiently utilize a particular technology may increase technophobia, if they lack the necessary knowledge or skill to operate it.

The degree of technophobic attitude determines the competency of students in coping with new technology. Therefore, it is important to understand and examine the attitude of the students towards the adoption of new technology, as well as both the positive and negative effects that technology can have on its users. Since the quantum of technophobic attitude of students determine the degree of learning, the determination of their technophobic attitude of students taken into consideration. Therefore, the study was conducted with the aim to study the technophobic attitude of the students with the objectives to find out the difference between the technophobic attitude of male and female students, students residing in urban and rural areas and students of science and arts streams at senior secondary level and null hypotheses were formulated.

**Methodology :** Apropos to the objectives of current study, the normative survey method and cross-sectional approach has been employed by the researchers. The students studying in senior secondary schools of Yamunanager district of Haryana constitute the population. Depending upon the nature and objectives of the study, multiple sampling strategies have been employed. The sample consisted of 300 subjects, where the variables like gender, discipline and residing area were solicited. A self made questionnaire consisting 21 items was used to collect the data. It was a 5-point Likert type scale with the columns strongly agree,

agree, neutral, disagree and strongly disagree. The students had to respond by marking tick in one of the column. The score ranged from 21 to 105. The collected data was analyzed and t-test was computed to find the difference between the variables.

**Result and Discussion:**

**Table-1 : Technophobic Attitude of Male and Female Students**

| Variable | No | Mean | SD | SE | t-value |
|---|---|---|---|---|---|
| Male student | 50 | 68.00 | 14.20 | 1.40 | 0.7 |
| Female student | 50 | 66.00 | 13.80 | | |

Table-1 presents the technophobic attitude of male and female students. The mean value and standard deviation of male students was found to be 68 and 14.20 respectively and that of female students 66 and 13.80, respectively. The calculated t- value was found to be 0.7 with degree of freedom 98 which is less than table t-value. Thus, null hypothesis is not rejected at any level of significance i.e. there is no significant difference of technophobic attitude between the male and female students.

**Table – 2: Technophobic Attitude of the Students having Science and Literary Stream**

| Variable | N | Mean | SD | SE | t-value |
|---|---|---|---|---|---|
| Literary discipline | 50 | 73.20 | 18.50 | 1.68 | 3.55 |
| Science discipline | 50 | 61.20 | 15.20 | | |

Table-2 depicts the technophobic attitude of students studying in literary and science streams. Total 100 students were studied, out of which 50 were having literary stream and the rest 50 having science stream. The mean value and standard deviation of literary and science students are found to be 73.20, 61.20, 18.50 and 15.20 respectively. The t- value was calculated as 3.55 with degree of freedom 98 which is greater than the table value. Thus, null hypothesis is rejected i.e. there is significant difference between the technophobic attitude of students having literary and science discipline. The students of literary stream have more technophobic attitude.

**Table – 3: Technophobic Attitude of the Students residing in Rural and Urban Areas**

| Variable | N | Mean | SD | SE | t-value |
|---|---|---|---|---|---|
| Rural area | 50 | 43.5 | 10.90 | 1.41 | 3.15 |
| Urban area | 50 | 37.2 | 09.10 | | |

Table-3 reflects the technophobic attitude of students residing in rural and urban areas. Total 100 students were studied, out of which 50 were residing in urban and 50 in rural areas. The mean value and standard deviation of students of rural area was observed as 43.5 and 10.90

respectively and of urban area 37.2 and 9.10 in the same order. The calculated t- value was found to be 3.15 with degree of freedom 98 which is greater than the table value. Thus, null hypothesis is rejected i.e. there is significant difference between the technophobic attitude of students. The students residing in rural area have more technophobic attitude compared to students of urban area.

The study inferred that there exists no influence of gender on technophobic attitude of the students of senior secondary school. Researchers have also reported that there is no difference between men's and women's fear of technology. Brosnan (1998) reported that females use new technologies when they are of their interest. Females use computers only when they have a direct and useful purpose in their life and attitude and computer anxiety both result in technophobia. He also has the opinion that apparent sex differences are due to the masculinising nature of technology. A survey by the American association of university women found that girls possess the ability to learn and use computers but do not want to be associated with the "geeky" image of technical careers by "guys" tapping on the keyboard all day long (The Herald Sun-Business, 2000).

The study inferred that there exists an influence of stream of education and residing areas on technophobic attitude of the students of senior secondary school. It is found that students of literary stream are more technophobic. It may be due to the nature of the disciplines. Science students are experienced to handle equipments and are also familiar with technology. They are more exposed to technical terminology which influence a person and increase their apprehension, resulting in adoption of new technology (Wheelless *et. al.,* 2005).Similarly, the students residing in rural areas are observed to be more technophobic. This may be due to the less exposure of these students and home environment. There may be lack of positive attitude or motivation by the parents in the area. Absence of positive motivation reflects the fear and apprehension aspects result in technophobia (Spitzberg, 2004). Experiences with technology decrease the phobia. Morreale *et.al.* (2001) suggests that knowledge can be gained either via formal methods such as workshops and computerized tutorials, or by more informal ways such as tinkering with a device, or having someone show them how to perform a simple task. Scull (1999) reported that anxiety is related with the conditions. Situations such as equipment failure and unreliability creates uncomfortable environment and causes technophobia.

**Conclusion:** In modern world, we cannot avoid technology because it influences every aspect of our life and our lifestyle. Technophobia is a kind of fear to adopt and use new technology. Our attitude determines the degree of fear. Our attitude is influenced by

motivation, exposure and circumstances. Technophobic attitude restricts to cope with new technology. It is a kind of hindrance in growth and progress. It must be overcome by the students for development and betterment, also to adjust in the existing world of advancement. The study identifies influences of gender, residing areas and stream of education on the technophobic attitude of the students of senior secondary level. The present study concluded that the students have moderate to high level of technophobia. Gender has no role, whereas the students of literary discipline and those who are residing in rural area are more technophobic than those of the students of science discipline and are residing in urban area.

Positive attitude towards new technology should be developed to crack the barrier of technophobia. Teachers can play a significant role in this field provided they are not technophobic. They can motivate students and create comfortable environment to adopt new technology by the students.

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