

AN INVESTIGATION INTO THE CYBER CRIME AWARENESS AMONG PUPIL TEACHERS OF PUNJAB

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Abstract

Cybercrime is the latest and perhaps the most complicated problem in cyber world. "Any criminal activity that uses computers either as an instrumental target or a means for perpetuating further crime comes within the ambit of cybercrime" There is a widespread lack of awareness regarding cybercrimes and cyber laws among the people who are constantly using information technology infrastructure for official and personal purposes. In this study researcher tried to investigate the cybercrime awareness among the pupil teachers of Punjab. Sample of the study comprised of 200 B.Ed. students of three different colleges of education i.e. D.A.N. College of Education for Women, K.C. College of Education and SAI College of Education, Jadla of Nawanshahr District. Out of these 200 B.Ed. students, 50 were male and 120 were female. Scale of cybercrime awareness was developed by the researcher herself. This scale consists of 42 statements out of which 24 were positive statements and remaining 18 were negative statements. Each statement was set against five point scale. The results of the study revealed that B.Ed. students studying in the colleges of education in Nawanshahr district having low level of awareness regarding cybercrime. Further this study also indicates that male as well as urban pupil teachers were more aware than the female and rural pupil teachers respectively.

Key Words: Cyber Crime and Pupil Teachers

Introduction:

Young people are spending an increasing portion of their time online for studying, transacting, shopping, social networking, posting photos or gaming. This may have enhanced communication, productivity and entertainment but it has also left people more vulnerable than ever to cyber-crime. Reports mentioned in International Telecommunication Union (2012) indicated that in 2011, at least 2.3 billion people, the equivalent of more than one third of the world's total population, had access to the internet. Over 60 per cent of all internet users are in developing countries, with 45 per cent of all the internet users below the age of 25 years. By the year 2023, it is estimated that mobile broadband subscriptions will approach 70 percent of the world's total population. By the year 2025, the number of networked devices will outnumber people by six to one, transforming current conceptions of the internet. In the hyper connected world of tomorrow, it will become hard to imagine a 'computer crime', and perhaps any crime, that does not involve electronic evidence linked with internet protocol (IP) connectivity. The advantages of the internet are that people enjoy to access all kinds of information anytime from anywhere, transformation and expansion of trade and business, electronic governance, e-learning and education, research, entertainment, culture etc.

The disadvantages of Internet includes hacking, email bombing, unauthorized access to email accounts, data altering, salami attacks (financial crimes), service attack (service blocked)/trafficking, viruses/worm attacks, Trojan attacks/unauthorized programme, fake emails Internet time theft, web jacking, blackmailing, violation of privacy, indecent mailing/dissemination of obscene material, pornography, improper downloading of copyrighted material etc. 'Definitions' of cybercrime mostly depend upon the purpose of using the term. A limited number of acts against the confidentiality, integrity and availability of computer data or systems represent the core of cybercrime. Beyond this, however, computer-related acts for personal or financial gain or harm including forms of identity-related crime and computer content related acts (all of which fall within a wider meaning of the term 'cybercrime') do not lend themselves easily to efforts to arrive at legal definitions of the aggregate term.

Although, there exist firewalls, antivirus software, and other technological solutions for safeguarding the data and computer networks, but in India much needs to be done towards effective use of these technologies for safeguarding the precious data and in combating cybercrime. Even most of the seasoned users of IT tools may not be aware of cyber victimization. Along with the advancements in technology it is equally important to be aware of cybercrime and related issues thereof. The cyber safety depends on the knowledge of the technology and the care taken while using internet and that of preventive measures adopted by user and servers systems. It is well said that the problems created cannot be solved with the same level of awareness that created them. Hence there is need to enhance awareness about the cybercrime. The growing danger by cybercrime in India needs technological, behavioural and legal awareness; and proper education and training. Bhushan (2012) revealed that awareness of cybernetics in India is abysmally low and thus has gained a reputation as a country where foreign investors can do business in cyber security and have been investing heavily in cyber security. Pandey (2012) concluded that lack of awareness about internet and low level of internet security is fast making Indore a heaven for cybercriminals. There has been a steady increase in the number of cybercrimes as people are not aware about the rapid developments in the Cyber world. Increasing dependence of common citizens on cybernetics without proper security has made the job easy for cybercriminals. In the absence of experts and cyber sleuths; Indore has become more vulnerable to cybercriminals, the researcher concluded. Nappinai (2010) found that cybercrime prosecution is not resorted in many instances due to lack of awareness amongst both the victims and the enforcement authorities about the applicability of general laws to cybercrimes. Saxena et al. (2012) concluded that proactive actions on the part of Government and enhanced participation of education system in the cyber security awareness approach may lead to a strongly secured nation. Seth (2007) noticed that with increasing awareness and provision of training on the subject of cybercrime, enhanced technological and legislative steps being taken to further strengthen the IT laws and enforcement framework, India will effectively succeed in combating the problem of cybercrimes. Kumar (2013) emphasized that Cyber Laws and Information Security, Online Awareness Programs, Cyber Crime Cells, Inclusion of

Concept in the Syllabus, Media in creating Awareness and Academic Library has a major role in guiding its user community to prevent the white collar crimes. Mehta and Singh (2013) found that there is a significant difference between the awareness level of male and female users of internet services and it was established that the male citizens are more aware for Indian cyber laws in comparison to their female counterparts. Normative survey method has been used in the present investigation. Cluster sampling technique has been adopted in the selection of the sample of as many as 200 B.Ed. students studying in College of Education in Perambalur district of Tamilnadu, India. The finding of the study shows that the majority of B.Ed students are in low level of awareness on cyber forums. So it is suggested that B.Ed students should balance the cyber technology policy and maintain the order of online law to generate the cyber age students. Institutions are expected to move to launch awareness of cybercrime programme for students. Malhotra&Malhotra (2017) conducted a study on the Cybercrime awareness among teacher trainees. The study revealed that maximum no of pupil teachers having moderate level of awareness regarding cyber-crime. It also revealed a significant effect of gender and locality on level of awareness. Urban pupil teachers are more aware then the rural pupil teachers on cybercrime. On the other hand, male pupil teachers are more aware then female pupil teacher about cybercrime. Sulaiman&Sreeya (2019) conducted a study on the public awareness on cyber crime with special reference to Chennai. A sample of the study was 1540 person from the chennai. This study revealed that cyber-crime is directly related to age of a person, but no significant difference between main cause of cyber-crime and gender. Vajagathali et.al (2019) found that there is a moderate level of awareness about the cybercrime among students. They further found that maximum awareness was found in the science stream students. Chaudary(2020) showed that professional students having more awareness to words cybercrime as compare traditional students but not any difference on the basis of gender. The study also showed Average Cyber Crime Awareness among the college students.

Objectives

1. To study the cybercrime awareness among pupil teachers of Punjab.
2. To compare the cybercrime awareness among male and female pupil teachers of Punjab.
3. To compare the cybercrime awareness among pupil teachers belonging to rural and urban areas of Punjab.

Hypotheses

1. There is no significant difference in the cybercrime awareness among male and female pupil teachers of Punjab.
2. There is no significant difference in the cybercrime awareness among pupil teachers belonging to rural and urban areas of Punjab.

Sample

Purposive sampling technique was used to collect the data. Sample of the study comprised of 200 B.Ed. students of three different colleges of education i.e. D.A.N. College of Education for Women, K.C. College of Education and SAI College of Education, Jadhla of Nawanshahr District. Out of these 200 B.Ed. students, 50 were male and 150 were female. All the three colleges of education are affiliated to the Guru Nanak Dev University, Amritsar.

Tools

Scale of Cybercrime Awareness was developed by the researcher herself. This scale consists of 42 statements out of which 24 were positive statements and remaining 18 were negative statements. Each statement was set against five point scale of "Strongly Agree", "Agree", "Undecided", "Disagree", "Strongly Disagree", and weightage of 5,4,3,2 and 1 were given in reverse for the negative statements. An individual score is sum of all the scores of the 42 items. The scores in this scale ranges from 42 to 210 in the direction of the very low awareness to very high awareness on cybercrime.

Procedure of Data Collection

For the fulfilment of the requirement of the study, investigator selected three different colleges – D.A.N. College of Education for Women, K.C. College of Education and SAI College of Education, Jadhla of Nawanshahr District. One week before the collection of data the investigator contacted and requested all the principals of the colleges which were selected for this purpose. After meeting personally with principals, the investigator administered the Scale of Cybercrime Awareness on students of these colleges at the specific time and date obtained from them.

Analysis

Objective wise data analysis is as under:

- 1) The first objective of the study was, "to study the cybercrime awareness among pupil teachers of Punjab". Data related to this objective was analyzed by calculating mean, median, standard deviation, skewness and kurtosis of the scores of pupil teachers on the variable of cybercrime awareness.

Table: Showing Mean, Median Standard Deviation, Skewness and Kurtosis of scores of pupil teachers on the variable of Cyber Crime Awareness (N=200)

Group	Mean	Median	S.D.	Skewness	Kurtosis
Pupil Teachers	78.31	79	8.71	0.79	0.87

Table 1 shows that the values of mean and median of the scores of the variable of cybercrime awareness of pupil teachers are 78.31 and 79.00 respectively, which are quite proximate to each other. The values of skewness and kurtosis in case of pupil teachers are 0.79 and 0.87 respectively showing the distribution as positively skewed and leptokurtic. But these distortions are quite small. Therefore the distributions can be taken as normal. Further as the scores in this scale ranges from 42 to 210 in the direction of the very low awareness to very high awareness on cybercrime and average score was 78.31 which clearly shows that pupil teachers had low awareness about cybercrime.

- 2) The second objective was, "To compare the cybercrime awareness among male and female pupil teachers of Punjab". The data related to this objective was analyzed with the help of t-test. The results are given in table 2.

Table2 : Significance of the Difference between Mean Scores of Cyber Crime Awareness of Male and Female Pupil Teachers (N=200)

S.No.	Group	N	M	S.D	SE(M)	t-Value
1.	Female Pupil Teachers	150	69.17	9.25	1.05	8.751**
2.	Male Pupil Teachers	50	87.46	8.01	1.00	

* significant at 0.01 level.

Table 2 revealed that the mean scores of cybercrime awareness of female and male pupil teachers are 69.17 and 87.46 respectively and their standard deviation are 9.25 and 8.01 respectively. The t-value is 8.75 with $df=198$ which is significant at 0.01 level of confidence. This revealed that a significant difference exists between mean scores of cybercrime awareness of male and female pupil teachers. Therefore, the first hypothesis namely 'There is no significant difference in the mean scores of cybercrime awareness of male and female pupil teachers' is rejected. Further as the mean scores of male pupil teachers (87.46) is higher than that of female pupil teachers (69.17), therefore, it may be said that male pupil teachers have significantly higher cybercrime awareness than their female counterparts.

- 3) The third objective was, “To compare the cybercrime awareness among pupil teachers belonging to rural and urban areas of Punjab”. The data related to this objective was analyzed with the help of t-test. The results are given in table 3.

Table 3: Significance of the Difference between Mean Scores of Cyber Crime awareness of Rural and Urban Pupil Teachers (N=200)

S.No.	Group	N	M	S.D	SE _M	t-value
1.	Rural Pupil Teachers	100	60.30	8.67	1.16	13.76**
2.	Urban Pupil Teachers	100	96.32	13.17	0.91	

*significant at 00.01 level.

Table 3 revealed that the mean scores of cybercrime awareness of rural and urban pupil teachers are 60.30 and 96.32 respectively and their standard deviation are 8.67 and 13.17 respectively. The t-value is 13.76 with $df = 198$ which is significant at 0.01 level of confidence. This revealed that a significant difference exists between mean scores of cybercrime awareness of rural and urban secondary school teachers. Therefore, the second hypothesis namely ‘There is no significant difference in the mean scores of cybercrime awareness of rural and urban pupil teachers is rejected. As the mean score of urban pupil teachers (96.32) is higher than that of rural pupil teachers (60.30), therefore, it may be said that urban pupil teachers have significantly higher cybercrime awareness than their rural counterparts.

Findings

1. Pupils teachers had low awareness about the cybercrime.
2. Male pupil teachers have significantly higher cybercrime awareness than their female counterparts.
3. Urban pupil teachers have significantly higher cybercrime awareness than their rural counterparts.

Implications

The results of the study revealed that B.Ed. students studying in the Colleges of Education in Nawanshahr district are in a low level of awareness about cybercrime. This condition will not help them to become successful teacher. So it is suggested that B.Ed. students need to gain better information and awareness regarding cybercrime. Various cybercrimes and cyber laws should be included in the B.Ed. curriculum. Now a days the cybercrimes are increasing day by day but we can reduce these crimes by making people aware about the cybercrimes. This would only be possible if teachers themselves are cyber related consequences while using internet. The study also reveals that pupil

teachers of rural areas need more awareness than pupil teachers of urban areas because of rapid modernization and more utilization of the internet in urban areas, so there is an urgent need for introducing and strengthening the cybercrime awareness among pupil teachers of rural areas. This study also indicates that male pupil teachers are more aware than the female pupil teachers so there is need of special programs for female pupil teachers. It is important for government and institutions to make pupil teachers aware about cybercrime as the future of our youth is shaped by teachers, so the pupil teachers must be given proper awareness about this crime so that they should make the youth aware about it. Government should adhere some guideline related to that. Some seminars, workshops etc. should be organised to aware pupil teachers about cybercrimes.

References

1. Bhushan, K. (2012). *India ranks fifth among cybercrime affected country*. Retrieved from http://www.thinkdigit.com/Internet/India-ranks-fifth-among-cyber-crimeaffected_9476.html on September 5, 2014.
2. Choudhary, M. (2020). Cyber Crime Awareness among Higher Education Students from Haryana with respect to various demographical variables-Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(7), ISSN 1567-214x
3. International Tele-communication Union (2012). *Measuring the Information Society and World Telecommunication/ICT Indicators Database*.
4. Kumar, V.D. (2013). Cybercrime prevention and role of libraries. *International Journal of Information Dissemination and Technology*, 3(3), 222-224.
5. Malhotra, T. & Malhotra, M. (2017). Cyber crime awareness among teacher trainees. *Scholarly research journal for interdisciplinary studies*. 4(31), 5249-5259. Retrieved Nov 7, 2019 from <http://oaji.net/articles/2017/1174-1512040885.pdf>
6. Mehta, S. & Singh, V. (2013). A study of awareness about cyber laws in the Indian Society. *International Journal of Computing and Business Research (IJCBR)*, 4(1).
7. Nappinai, N.S. (2010). Cyber Crime law in India: *Has law kept pace with emerging trends? An empirical study*, n.s. *Journal of International Commercial Law and Technology*, 5(1).
8. Panday, K. (2012). *Low security makes netizens vulnerable to cybercrimes*. Retrieved from http://articles.timesofindia.indiatimes.com/indore.com/31863717_1_cyber-crimes-cyber-cellcyber-criminals on May 26, 2014.
9. Saxena, P. et al. (2012). A cyber era approach for building awareness in cyber security for educational systems in India, IACSIT, *International Journal of Information and Education Technology*, 2(2).
10. Seth K. (2007) *India – cyber crimes and the arm of law – An Indian perspective*. Retrieved from <http://www.sethassociates.com/%E2%80%9Ccyber-crimes-and-the-arm-of-law-an-indian-perspective.html> on August 22, 2014.
11. Singaravelu, S., & Pillai, S.K.P. (2014) B.Ed. students' awareness on Cyber Crimes in Perambalur district. *International Journal of Teacher Educational Research (IJTER)*, 3(3).
12. Sulaiman, S & Sreeya, B (2019) Public awareness on cyber-crime with special reference to Chennai. *International journal of innovative and exploring engineering*, 9(1), 3362-3364. ISSN: 2278-3075. Retrieved Dec 25, 2019 from <https://www.ijitee.org/wpcontent/uploads/papers/v9i1/A9187119119.pdf>
13. Vajagathali, M., Kumar, M., & Balaji, N. (2019). Cyber crime awareness among college students in Mangalore. 12.10.19080/JFSCI.2019.12.555828.