

Digital Literacy and Academic Performance at Higher Education: Effects and Challenges

Dr. Jyotsana Thakur

Associate Professor, Media Studies at Amity University Haryana

ABSTRACT

The aim of the current study is to explore the effect of digital literacy on academic performance of the students at higher education in Delhi. The study was interview method where data was collected with a semi structured interview. The population of comprised the students of M.A., M. Phil, and PhD. A sample of 50 was selected through random selection from two colleges/universities. Results revealed that digital literacy had a significant effect on communication skills, research skills, self-reliance and the CGPA of the students. But there is a demand of ICT enabled infrastructure and ICT trained faculty members in colleges/universities of Delhi to promote research and development in higher education.

Key Words: Digital Literacy, Academic Performance, Higher Education, ICT infrastructure

Introduction

The development of internet in the last decade has essentially transformed the way in which students pursue and discuss information for academic use and for research. With infinite access to the internet and social networks students have more control over the information they are looking for and the method of their use and exchange (Booth & Matic, 2011). Internet is now recognized as the most effective tool in creating information pool, while allowing to understand the needs. Children born after 1990 are called Net Generation and highly experience in digital technologies. Therefore, students living in this environment would have broad abilities in using these technologies (Prensky, 2001a; Oblinger & Oblinger, 2005). Therefore, in addition to above statement Oblinger and Oblinger (2005) said that the students of this generation as “digitally literate” remained connected regularly to others, instant in nature, pragmatic learners and socially centered creatures. Additionally, Prensky (2001) stated that instructive structure of this time period was not designed to educate the students of that time.

Martin and Madigan (2006) underlined digital literacy as to determine a blend of concepts and philosophies of digital learning and how these ideas are invested and persistent in disparate people. ALA (2011) termed as digital literacy is one’s skills about practice of ICTs to find out, evaluate, create, and transfer acquired information, by means of academic and technical aptitudes. According to Jacobson and Mackey (2013) digital literacy is associated with cognitive intellect.

Higher education institutions have a crucial role to play in the development of the society as a dominant representatives of providing skilled and trained human resource. The aim of generating trained and skilled human resource can be achieved by implementing research oriented educational programs in a very innovative manner of using ICT and various other platforms of Internet which gives the students to explore, discover and gain knowledge to innovate for the betterment of the society. The objectives of the current study is to investigate the effect of digital literacy on the educational performance of the students in higher education.

Methodology

The study was survey method where data was collected with a questionnaire of semi structured questions. The population consist of the students of M.A., M. Phil, and PhD at higher education in Delhi. A sample of 50 was selected through random sampling technique from two colleges of Delhi. Where 25 students with low digital literacy level and high CGPA and 25 with high digital literacy level and low CGPA were interviewed. The semi-structured interview was used as the research instrument for the purpose of qualitative study.

Data Analysis

The data was analyzed by thematic analysis where there were seven themes:

(A). Theme 1: The meaning of digital literacy

Q.1. How do you describe digital literacy?

Maximum number of respondents described digital literacy as when people use smartphones, computers and other digital devices whereas a very few number of respondents described it as the when people study the course on ICT.

(B). Theme 2: Transfer of Information

Q.2. How do you transfer information to various platforms?

All of the respondents said that they post and/or share information through social media platforms such as Facebook, Whatsapp, Twitter, and Linkdin and through e-mails.

Q.3. Do you create content for others to help disseminating information?

Maximum of the respondents said that they create audio, video files and write blogs and some of them also participate in online forum discussions.

(C). Theme 3: Enhancement of Communication Skills

Q.4. Did digital literacy improve your communication skills?

Maximum number of respondents believed that Digital literacy was tremendously useful in terms of improvement in their communication skills. They get various ideas to innovate in their communication and writing skills using digital platforms.

(D). Theme 4: Enrichment of Research Skills

Q.5. Did digital literacy improve your research skills?

Almost all respondents said that they get various resources such as online published research papers, books, articles, reports and other information which help them enrich their research abilities and improved their academic performance.

(E). Theme 5: Digital Literacy and Self-Reliance

Q.6. Did digital literacy improve self-reliance in you in comparison to others?

Maximum number of respondents stated that they feel independence while sharing their opinions, views and even their work on digital platforms. They can connect with different people with different opinions on digital platforms where they can have two-way communication and they can interact with different social groups which makes them self-sufficient and improves their confidence level.

(F). Theme 6: Challenges and Recommendation for Digital Literacy

Q.7. What are the recommendations for learning and implementing digital literacy?

Majority of the respondents responded that the colleges should provide well equipped campuses for Net Generation and teachers must be trained in ICT tools to guide their students. Digital libraries equipped with digital devices and implementation of digital literacy program in educational system in higher education institutions.

(G). Theme 7: Educational/Academic Performance

Q.8. Do you accept as true that your CGPA is due to digital media literacy skills or any other factor? Explain.

Maximum of the respondents responded that their CGPA is a result of mixed method study. They indicate that the course and the lectures were the major part of their preparation but no doubt that they use digital media and devices for research and studies which has tremendously improved their performance in higher education. Many of them said that they also follow their teacher's advice for in-depth study from internet and due to regular reading in the digital library resources and research papers and books available on various digital platforms.

DISCUSSION

The study exposed that most of the students had a high scores due to the expert guidance from their teachers and incredible availability of resources on Internet which is very easily accessible to them and the students support the positive role of digital media literacy by admitting that they belong to Net Generation who understand and implement digital literacy in getting information and innovative ideas and analytically assessing information, online discussions, and even using digital tools to write and share information on various platforms for research and

development. Additionally, the study uncovered that digital literacy had significant effects on communication skills, research skills, self-reliance and significant effect on the CGPA of the students. The findings of the present study also supports that there is a positive relationship between digital literacy and the academic/educational performance of the students.

CONCLUSION

The present study concluded that the majority of the students had a high scores i.e. CGPA due to the advice and directions of their teachers and resources available on internet. They admitted that they have a good understanding of digital literacy to find out information, they use digital platforms to enhance their critical thinking while interacting and debating with various groups and they are able to evaluate information published online and make use of that information to develop concepts for research and innovation. The present study also concluded that digital literacy had significant effects on communication skills, research skills and self-reliance while improving their CGPA. The current study also concluded that though the students are Net Generation and have knowledge and access to use ICT and digital platforms but our higher education institutions are not well equipped with these facilities. They suggested to promote self-reliance and confidence in students the institutions must provide ICT infrastructure and ICT trained faculty members to successfully run the digital literacy programs in higher education. The Higher Education Institutions are integral part of research and development and the students need ICT enabled infrastructure for research. The study recommends that the higher education colleges and universities should also organize various types of training programs, workshops, and seminars to enhance interest in digital literacy. The study suggested that the higher education institutions should make it mandatory to include the digital literacy learning and practicing program in their syllabus.

References

- Adams-Becker, S., Pasquini, L.A., and Zentner, A. (2017). Digital Literacy Impact Study: An NMC Horizon Project Strategic Brief. Volume 3.5, Austin, Texas: The New Media Consortium.
- ALA Digital Literacy Taskforce (2011). Office of information technology: retrieved from <http://connect.ala.org/files/94226/what%20is%20digitil%20%282%29.pdf>
- Amiri, S. (2009). The effects of information and communication technology on at risk children of low economic status: Make It-Take It After-School Case Study, International Journal of Education and Development using Information and Communication Technology, 5(3), 141-147.
- Bawden, D. (2001). Progress in documentation; Information and digital literacies: A review of concepts. Journal of Documentation, 57(2), 218-259.
- Bawden, D. (2008). Origins and concepts of digital literacy. Digital literacies: Concepts, policies and practices, 17-32.
- Belshaw, D. A. J. (2011). What is digital literacy? A pragmatic investigation. (Doctor Dissertation) Durham University. Retrieved from <http://neverendingthesis.com/doug-belshaw-edd-thesis-final.pdf>.
- Brown, B. C. (2009). An examination of the relationship between digital literacy and student achievement in Texas elementary schools (Doctoral dissertation, The University of Oklahoma, United States). Retrieved from <https://pqdtopen.proquest.com/doc/304978655.html?FMT=AI>.
- Brown, J.A. (1998). Media literacy perspectives. Journal of Commun., 48, 44-58.
- Gillen, J. & Barton, D. (2009) 'Digital Literacies. A discussion document for TLRP-TEL' Teaching and Learning Research Programme - Technology Enhanced Learning workshop on digital literacies. Lancaster University, retrieved from <http://www.tlrp.org/tel/files/2009/02/digital-literacies-gillen-barton-2009.pdf> Gilster, P. (1997). Digital literacy. New York, NY: John Wiley & Sons.
- Gui, M. & Argentin, G. (2011). Digital skills of internet natives: Different forms of digital literacy in a random sample of northern Italian high school students, New Media & Society. 13(6) <http://nms.sagepub.com/content/13/6/963>.
- Gui, M. (2007). Formal and substantial Internet information skills: The role of sociodemographic differences on the possession of different components of digital literacy. 12 (9), retrieved from https://www.researchgate.net/25173891_Digital_skills_of_internt

- International Telecommunication Unit (2018). Digital Skills Toolkit. Switzerland: Geneva Retrieved from www.itu.int/en/ITU-D/Digital-Inclusion/Documents/ITU%20Digital%20Skills%20Toolkit.pdf
- Jacobson, T.E & Mackey, T.P. (2013). Proposing a meta literacy model to redefine information literacy, *Communications in Information Literacy*, 7(2), retrieved from <https://files.eric.ed.gov/fulltext/EJ1089056.pdf>.
- Martin, A. & Madigan, D. (2006). *Digital Literacies for Learning*. London: Facet Publishing
- Martin, A. (2008). Digital Literacy and the 'Digital Society' in C. Lankshear, M. Knobel, (2008c) *Digital Literacies: Concepts, Policies and Practices* New York: Peter Lang
- O'Reilly, T. (2005). What is Web 2.0: Design patterns and business models for the next generation of software? Retrieved June 20, 2018, from <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web20.html>
- Oblinger, D. G., & Oblinger, J. (2005). *Educating the Net Generation*. EDUCAUSE Online book. Retrieved from: <http://www.educause.edu/ir/library/pdf/pub7101.pdf>
- Lopez-Islas & Jose, R.(2013). Digital literacy and academic success in online education for underprivileged communities: the prep@net case', The University of Texas at Austin, retrieved from <http://hdl.handle.net/2152/20948>
- Ozdamar-Keskin, N., Ozata, F.Z & Banar, K (2015). 'Examining Digital Literacy Competences and Learning Habits of Open and Distance Learners', *CONTEMPORARY EDUCATIONAL TECHNOLOG*, 6(1), pp. 74-90.
- Prensky, M. (2001a). Digital Natives, Digital Immigrants. *On the Horizon*, 9(5), 1-6.
- Shopova, T. (2014). "Digital Literacy of Students and Its Improvement at the University", *Journal on Efficiency and Responsibility in Education and Science*, Vol. 7, No. 2, pp. 26-32
- Ainin, S (2013). Facebook usage, socialization and academic performance. Faculty of Business and Accountancy, University of Malaya, Malaysia.
- E. G. G. S. Rojas Kramer, (2015) *Educational Use Of Facebook In Higher-Education Environments: Current Practices And Guidelines*. Universidad Cristóbal Colón, Universidad Veracruzana, Mexico.
- G. B. S. W. Matthew Stodaet, (2015). The Experience of using Facebook as an Educational Tool.
- Junco, R (2014). Student class standing, Facebook use, and academic performance. School of Education and Human Computer Interaction Program, Iowa State University, Ames, IA 50011, USA.
- Kaya, T and Bicen, H (2016). The effects of social media on students' behaviors; Facebook as a case study. Faculty of Economics and Administrative Sciences, Near East University, North Cyprus, Via Mersin 10, Turkey.
- Lambic, D (2016). Correlation between Facebook use for educational purposes and academic performance of students. *Computers in Human Behavior*.
- M Shariff, S (2013). Assessment of Project Management Skills and Learning Outcomes in Students' Projects. Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia.
- P. M. Caven Masuku, (2014). Assessment to the use of Facebook as a Communication tool by Midlands State University students from 2012 to 2013. Midlands State University, Zimbabwe.