Quest Journals Journal of Research in Humanities and Social Science Volume 11 ~ Issue 3 (2023) pp: 96-100 ISSN(Online):2321-9467 www.questjournals.org

Research Paper



Does Modern Methods Of Technology In Teaching Affect The Quality Of Learning?

Mr Sarthak B. Surange

Master of Science in Chemistry, School of Advanced Sciences Vellore Institute of Technology, Vellore-632 014, Tamilnadu, India

Prof. G. Anburaj

Assistant Professor of English, School of Social Sciences and Languages Vellore Institute of Technology, Vellore-632 014, Tamilnadu, India

Prof R Venkateshwaran

Assistant Professor of English, St. John's College, Palayamkottai, Tirunelveli-627002

Abstract

The advancements and developments in technology has impacted our lives in variety of ways. The technology is used in almost all the sectors and education sector is no exception to it. Modern technology used in teaching has made the students life easier and it has helped to improve the quality of education. But these modern technology used in teaching is a 'double edged sword', though it has made the learning fun but it has created a lot of negative impacts on the life of the people especially students. Through this study we are going to analyze how modern of technology in teaching has affected the learning ability of the students using a pejorative viewpoint by considering how use of technology has affected their overall development. Use of Technology can be only successful in teaching process when it is used wisely and appropriately keeping in mind the demerits of it. **Keywords:** Modern technology, teaching, learning, education, technology influence.

Received 22 Feb., 2023; Revised 03 Mar., 2023; Accepted 05 Mar., 2023 © *The author(s) 2023. Published with open access at www.questjournals.org*

I. Introduction

In today's era of modern globalization, technology is advancing day by day. In earlier times the technology that was very limited, costly and could be accessed by only few sections of the society is now available to a large section of the society. Technology has created a footprint in all the sectors and education sector is no exception to it. In fact 21st century is popularly known as the 'Era of Modern Technology.' Especially during the period from COVID-19 we could observe that the laptops and mobiles have replaced our notebooks, PowerPoint presentations have replaced the chalk and board teaching method and our homes have turned into a classroom. There is no doubt that the use of technology in teaching has had a great impact on educational costs, less work load are some of the pros of use of technology in learning process but it has also had many negative effects as well. It has not only created distraction among learners but also it has affected their thinking capacity. The main goal of this report is to identify the thin line that separates good from the bad with technology use in teaching. This will help the future educators to effectively make use of technology in teaching process and increase the quality of education.

Problem Statement

In this era of 21st century, technology plays a significant role in our life and it is widely prevalent in various fields and the field of education is no exception to it. This study aims to find out how modern technology in teaching has affected the quality of education and through this, special emphasis will be given on how technology in teaching has affected the quality of learning in a negative way.

Research Gap

The latest research on Impact of modern technology in education was done in the month of May 2022 which mainly focused on the positive impacts of technology in teaching. Generally less emphasis is given on the negative aspects of technology in education. The fact that this study is carried out by a student rather than a research scientist an important component of it. Hence the result analysis is not only honest and fair but also easier to understand.

Result Analysis

The response obtained from the survey were collected and analysed. The result have been discussed below:we can see that most of the students are using Laptop and Mobile for educational purpose. This is because these two devices have become a necessity in the life of learners. Moreover they are very easy to use and convenient to carry and hence preferred by most of the students for their learning purpose. Moreover tablets are pricey and cannot be afforded by all people. Also very less students have said that they make use of Personal computer. This result was expected since using computer is found to be difficult. Also while using computer we have to spend a lot of time sitting down on a single place which might lead to health problem such as back pain. Keeping in mind these drawbacks of computer, mobiles and laptops come handy because of their portable nature.

Internet has become an integral part of our life. From the above data we can see that students spend a lot of time on the internet. It not only helps them to conduct research online but also saves their time and also the cost of education decreases. It was unexpected to learn that most of the students spend an average of 7-8 hours on the internet. This might be due to the fact that they have digital assignments to finish for which they might need some help from the internet. However every coin has two sides. Some students spend a lot of their valuable time on social media surfing inappropriate content. They become so dependent on it that it becomes difficult for them to understand the difference between the 'real' world and 'reel' world. This not only affects their grades but also has an impact on health and overall development of the personality.

This question helps to analyse that in spite of having internet connection, connectivity issues & higher costs of internet packages cause hindrance in their learning process. This difficulty was faced by a lot of students during the period of COVID-19. Several studies have found out that such hindrances occur most of the time regardless of pandemic situation. The fact that very handful of people lack access to internet service providers surprised me. According to the data presented in the LokSabha assembly it was found that even today over 25000 villages in India still lack internet connectivity. Also power failures affect the internet connection which in turns affects the learning process. In some schools due to power outage and due to unavailability of generator backup, technological methods can't be implemented and hence it has impeded the effectiveness of the teaching-learning process.

One of the peculiar and most obvious things students are given in this modern technology teaching method are the Digital assignments. There are only a handful of students who complete their assignment in time whereas some wait till the last moment, and they end up looking for solutions online. This question aims to find what kind of problems student face when they look up online and we can see that most of them chose unwanted cookies.We generally tend to ignore this but this is a matter of concern as unwanted cookies can infringe our privacy. Also a lot of false content is available on the internet which not only misguides them but also makes them confused and makes them question themselves regarding their true knowledge. Also various click bait distract them from what they are looking for. A lot of students have been redirected automatically to unwanted sites while they are looking for solutions on the internet. This wastes their time and also sometimes results in frustration. This question aims to find out how well professors are acquainted with the technology and we see that most of them are somewhat familiar with the use of technology in teaching. Also technology cannot be effective in the classroom unless the professors are well aware of it. In fact some of the professors feel that its use can cause distraction since students will be more focused on their gadgets instead of lesson plan and hence they make rarely use of technology. Some professors rarely use technology in their classes because they don't trust it and think conventional method of instruction are better for learners to understand. However the new generation teachers feel that making use of technology enables students to learn effectively and prefer using PowerPoint presentations, video clips during their teaching.

From the above understanding we can observe that distraction is the main issue faced by most of the learners. Notifications, urge to check social media accounts etc are causes of distraction. Students are more focused on their gadgets instead of focusing on their concept clearance or lesson plan. It was concerning to see that quite a few number of students admitted that they rely a lot on technology which has affected their overall development. Moreover lack of training is one the factors responsible for facing technical problem during e-learning process. Some students feel that use of modern methods in teaching has resulted in uneven quality of learning process. Students come from myriad backgrounds, which have great impact on their cognitive abilities, grasping power. Many find it difficult to understand what they are being taught. The teaching process might not

be understandable for them, leading to monotony and boredom, therefore distraction. Therefore there shouldn't be one yardstick for treating everyone same, so the learning and teaching process should evolve.

This study aims to find out the health problems students face when they spend too much time on their screens. It was found that a large chunk of population have poor sleep cycle which compromises their mental health and results in decrease in concentration which in turn affects their grade. According to some studies long exposure to screen, negatively affects the sleep hormone- 'Melatonin' causing a decrease in its level in the body, further reducing the duration and deteriorating the quality of the sleep. This kickstarts a host of other problems in the body like lack of concentration, lower energy etc. Headache is the most common issues faced by today's learners. Glaring at a screen for a longer time, poor lighting, and improper brightness of devices or a combination of all these elements are the reason behind having a headache. Staring at a power point presentation for a longer time, videos, data causes strain on your eyes, resulting in eye problems. It was comforting to note that very few people reported having stress issues. Though technology has helped us in many ways but it has created a negative effect on the personality development in students. Lack of focus is primarily faced by many learners. Students rely on technology a lot and they don't even think. The slides shown in the PowerPoint presentations lack specificity and details and it doesn't help to understand the concept in depth which has resulted in lack of critical thinking Also we can see that there is quite a number of students who feel that imparting technology teaching has led to deterioration of student teacher relationship. This is because students are failing to communicate with their professors and whenever they have any doubts regarding academic things instead of asking their professors they prefer finding solutions online.

From the above discussions we can see that most of the students are not facing any kind of issue which is a very good sign. This suggests us that the students are able to cope with the technology used in the teaching. Due to invention of new methods in learning, learners spend their most of the time typing than before, which has resulted their writing skills. While some feel that introduction of technology has made them to take up the habit of rote learning which has led to affecting their practical skills. This is ought to happen when you rely on technology a lot. Also their writing practice is affected which can be seen from that most of them are unable to complete their exam in time. Also excess reliance on technology, inability to think critically can attribute to the fact that few learners are not able to write answers in exam hence resulting in not able to complete exam in time. This was the last question asked in the questionnaire to find out which method if learning are they comfortable with and it was found that most students still prefer the old fashioned way of teaching- which is traditional classroom teaching or the chalk & board method of teaching. This method is suitable because it helps the learners to analyse the concept in depth. Moreover face to face interactions can help learners not only in acquiring facts but also to apply these facts to gain practical knowledge. We can infer from the data that the learners find group discussion useful since it not only helps them to increase their confidence but also it teaches to think and analyse critically. Only very few people chose to go forward with online course learning since they find it a useful method of getting the quality education.

II. Discussion on the Results

The students own subjective experiences should be used as the basis for their responses to survey questions. After analyzing the results we can see that most of the students are not satisfied with the modern technology used in teaching-learning process. They feel that it has affected the educational sector in a negative way. Use of Technology can be only successful in teaching process when it is used wisely and appropriately keeping in mind the demerits of it. No matter modern technology used in teaching is bridging the gaps between the teaching-learning process but it is also affecting their health, overall growth and personality and also it is not as par with the traditional method of teaching.

Unexpected Findings

It was surprising to find out that very less number of students are facing stress issues. Also many students are not facing any issues such as lack of practical skills, Unable to complete assignments etc. This suggests us that the students are able to cope with the technology used in the teaching. This is very fortunate and relieving aspect that has become known. Also very few number of professors are not familiar with the technology used in teaching. This tells us that the professors are trying their best to learn the technology in order to teach students in an interactive way. However it is concerning that some students spend more than 12 hours on the internet. This way they are wasting their valuable time.

Scope for further research

The findings of this study are limited only to the point that how modern technology has affected the learning in a negative way. Hence studies can be carried out to find ways to tackle this situation approaching to a student friendly solution before it becomes a major concern. Various studies and surveys can be carried out for

this. Also this is one of the burning issues since quality education shapes the life of the students, so utmost care should be taken in handling and gathering information since it's the students who we are concerned with.

III. Conclusion

Technology has a great impact on our daily life. Use of technology in teaching has bought immense benefits to the students but every coin has two sides. Along with the advantages there comes a disadvantage too. So through this study we come to know how technology used in teaching has affected the learning through a negative point of view. It has not only affected the students but also professors too. They are trying to keep up with the recent advances in the technology. Through this study we see that it has affected the quality of learning. Students are not to able to focus and it has affected their sleep cycle, health issues and overall development. Hence more training should be provided to both the professors and learners so as to make better use of technology in teaching. Several steps can be taken to handle the situation. The schools/colleges should focus more on traditional method of learning. They should help the learners to monitor them with their screen timings. If at all educators are using PPTs they should make sure that the students are made well aware about the topic through different angles by explain it in an efficient way. If these suggestions are followed then the modern technology and education can go hand-in-hand and help in blooming the sector of education.

References

- Adegoke, S. P. 2013. Socio economic background and access to internet correlates of students 'achievement in agricultural science. International Journal of evaluation and research in education. 2(3):123-128.
- [2]. Adeleke, D. S. 2016. Relationship between information literacy and use of electronic information resources by post graduate student of Ibadan.Library philosophy and practice.
- [3]. Anderson, T. & 2011. The three generations of distance education pedagy. International review of research in open & distance learning. 12(3):82-94.
- [4]. Awodele, O. K. 2011. A new dimension to learning system. World of computer science and information technology. 1(3): 71-78.
- [5]. Aydemir, M. O. 2015. A theoretical framework on open and distance learning.Procedia-social and behavioral sciences, 1750-1757.
- [6]. Bragdon, R. A. 2016. College student technology use and academic performance.International journal of humanities and social science. 6(1): 12-22.
- [7]. Diaz, J.C.T., Montoliu, J. M.D., & Becerra, M. H. 2018. Plagiarism, internet and academic success at the university. Journal of new approaches in educational research. 7(2): 98-104.
- [8]. Edem, M. B. 2010. Reading and internets use activities of undergraduate students of the University of Calabar. African journal of library, archives and information science. 20(1): 11.
- [9]. Ellore, S. B. 2014. The influence of internet usage on academic performance and face -to-face communication. Journal of psychology and behavioural science. 2(2): 163-186.
- [10]. Friesen, N. 2011. Rethink eLearning research. Retrieved from foundation method and practice [ebook] peter lang-education
- [11]. Garcia, E. E. 2015. Student use of Facebook for informal learning and peer support. The international journal of information and learning technology. 32(5): 286-299.
- [12]. Godlewska, A. B. 2019. Converting a lager lecture class to an active blended learning class. Journal of geography in higher education. 43(1): 115.
- [13]. Greitemeyer, 2014. A mental review of the effects of violent and prosocial videogame play. Personality and social psychology bulletin. 22(5): 578-589
- [14]. Healy, K. 2017. Public sociology in the age of social media.Perspectives on politics. 15(3): 771-780.
- [15]. Hsieh, J. Y. 2011. What influences internet-based learning? Social behavior and personality: an international journal. 39 (7): 887-896.
- [16]. Kakkar, N. A. 2014. Influence of internet addiction on the academic performance and mental health of college students. Scholarly research journal for interdisciplinary studies.3(21).
- [17]. Kirschner, P. A. 2010. Facebook and academic performance.Computer inhuman behaviour. 26(6):1237-1245.
- [18]. Kontinen, I. (ZL0) LCarng 1or development. Journal of development research. 22: 591-592.
- [19]. Kuss, D. J. 2012. Internet gaming addiction: a systematic review of empirical research. International journal of mental addiction. 10(32): 278-296.
- [20]. Lenhart, A. P. 2010. Social media and mobile internet use among teens and young adults.Retrieved from social-media- and youngadults.
- [21]. 21)Macharia, J. & 2011. Gender differences in internet use intentions for learning in higher education. Journal of language, technology & entrepreneurship in Africa. 3(1): 244-254.
- [22]. Merriam-Webster. (N.D). Internet in Merriam-Webster.com dictionary. Retrieved February 9, 2021,
- [23]. Ngoumandjoka, U. 2012. Correlation between internet use and academic performance among university students. Johannesburg: University of the Witwatersrand.
- [24]. Ngoumandjoka, U. T. 2014. Correlation between internet use and academic performance among university students.Canadian social science.7(5).
- [25]. Nwezeh, C. M. 2010. The impact of internet use on teaching, learning and research activities in nigeria universities. Electronic library. 28(5): 688-701.
- [26]. Ogedebe, P. M. 2012. Internet use and students' academic performance in Nigeria tertiary: a case study of university of maidugri Academic research international. 2(3): 334-343.
- [27]. Aris, S. R. 2010. Adolescent learning and internet. The education digest. 75(6): 10.
- [28]. Picciano, A. 2017. Theories and frameworks for online education: seeking an integrated model.
- [29]. Reinecke, L. A. 2017. The effects of communication load and internet multitasking on perceived stress and psychological health impairment in German probability sample. Media psychology. 20 (21), 90-115.
- [30]. Rouis S., L. M. 2011. Impact of Facebook use on student's academic achievement. Electronic journal of research in educational psychology. 9(3): 961-994.

- [31]. Rouis, S. 2012. Impact of cognitive absorption on Facebook on students 'achievement.Cyberpsychology, behaviour and social networking. 15(6): 296-303.
- [32]. Sefton-Green, J. 2016. The class: living and learning in the digital age. International journal of nyu press.1.
- [33]. Serrano, D.R., Dea-Ayuela, M. A., Gonzalez &Lalatsa. (2019). Technology enhanced learning in higher education. European journal of education. 54(2), 273-286.
- [34]. Siraj. H.H. 2015. Professional leaning community: literature review. The online journal of quality higher education. 2(2): 65-78.
- [35]. Siraj, H. H. 2015. Internet use and accademic performance. A study in Malaysian public university. International medical journal. 22(2), 83-86.
- [36]. Stover, W. J. 2019. Information technology in the third world: can information technology lead to humane national development? Routledge.
- [37]. Sushma M., P. D. 2014. The impact of internet addiction on university students and its effects on subsequently academic success. Issues on information systems. 15(1): 344-352.
- [38]. Tanis, C. J. 2020. The seven principles of online learning. Research in learning technology, 28.
- [39]. Torres-Díaz, 2016. Internet use and academic success in university students. Media education Research journal.61-70.
- [40]. Ullah, A. 2014. Electronic media on academic performance of female student.International journal of economics, commerce and management.2(9).
- [41]. Wikipedia. 2012. Retrieved fromhttp://en.wikipeidia.org/wiki/communications.
- [42]. Wikstrom. 2010. Young people's reading and writing in a new media. Landscape education inquiry, 41-56.
- [43]. Yesilyurt, E. B. 2014. The effect of technological devices on student's academic success. Journal of internet and application management. 5(1): 39-47.
- [44]. Zheng, L. Z. 2019. A literature review of trends of technology- supported collaborative learning settings. Journal of computers in education. 6(4): 529-561.
- [45]. Buabbas, A. J., Al-Mass, M. A., Al-Tawari, B. A., &Buabbas, M. A. (2020). The detrimental impacts of smart technology device overuse among school students in kuwait: a cross- sectional survey. Bmc Pediatrics, 20(1), 524–524.
- [46]. Corredor, J., &Olarte, F. A. (2019). Effects of school reform factors on students 'acceptance of technology. Journal of Educational Change, 20(4), 447–468.
- [47]. Dart, S., Cunningham-Nelson, S., & Dawes, L. (2020). Understanding student perceptions of worked example videos through the technology acceptance model. Computer Applications in Engineering Education, 28(5), 1278–1290.
- [48]. DiMartino, N. A., & Schultz, S. M. (2020). Students and Perceived Screen Time: How Often Are Students in a Rural School District Looking at Screened Devices? Rural Special Education Quarterly, 39(3), 128–137.
- [49]. Faught, E. L., Ekwaru, J. P., Gleddie, D., Storey, K. E., Asbridge, M., &Veugelers, P. J. (2017). The combined impact of diet, physical activity, sleep and screen time on academic achievement: a prospective study of elementary school students in nova scotia, canada. The International Journal of Behavioral Nutrition and Physical Activity, 14(1),
- [50]. Schwarz, C., & Zhu, Z. (2015). The impact of student expectations in using instructional tools on student engagement: A look through the expectation disconfirmation theory lens. Journal of Information Systems Education, 26(1), 47-58
- [51]. Fernández-Batanero José-María, Román-Graván Pedro, Reyes-Rebollo Miguel-María, & Montenegro-Rueda, M. (2021). Impact of educational technology on teacher stress and anxiety: a literature review. International Journal of Environmental Research and Public Health, 18(2), 548–548.
- [52]. Hampel, R., &Pleines, C. (2013). Fostering student interaction and engagement in a virtual learning environment: An investigation into activity design and implementation.CALICO Journal.
- [53]. Harvard University Health Department. (2012). Blue light has a dark side. Harvard Health Letter
- [54]. Hepplestone, S., Holden, G., Irwin, B., Parkin, H. J., & Thorpe, L. (2011). Using technology to encourage student engagement with feedback: A literature review: Association for learning technology journal.
- [55]. Ifip Technical Committee on Education, 23(3), 1069–1089. James, R. K., Lamb, C. E., Householder, D. L., & Bailey, M. A. (2000). Integrating Science, Mathematics, and Technology in Middle School Technology-Rich Environments: A Study of Implementation and Change. School Science and Mathematics,100(1), 27-35.
- [56]. Kawyannejad, R., Mirzaei, M., Valinejadi, A., Hemmatpour, B., Karimpour, H. A., AminiSaman, J., Ezzati, E., Vaziri, S., Safaeepour, M., &Mohammadi, S. (2019).General health of students of medical sciences and its relation to sleep quality, cell phone overuse, social networks and internet addiction.Biopsychosocial Medicine, 13(1), 1–7.
- [57]. Kardefelt-Winther, D., Rees, G., & Livingstone, S. (2020). Contextualizing the link between adolescents 'use of digital technology and their mental health: a multi-country study of time spent online and life satisfaction. Journal of Child Psychology and Psychiatry, 61(8), 875–889.
- [58]. Kelli, B. (2019). Perceptions of technology, curriculum, and reading strategies in one middle school intervention program.Rmle Online: Research in Middle Level Education, 42(3), 1–22.
- [59]. Wahab, S., Rahman, F. N., Hasan, W. M., Zamani, I. Z., Arbaiei, N. C., Khor, S. L., &Nawi, A. M. (2013). Stressors in secondary boarding school students: Association with stress, anxiety and depressive symptoms. Asia-Pacific Psychiatry, 5, 82-89.
- [60]. Yoo, Y.-S., Cho, O.-H., & Cha, K.-S. (2014). Associations between overuse of the internet and mental health in adolescents. Nursing & Health Sciences, 16(2), 193–200.
- [61]. S.H. Kim, K. Holmes, C. Mims Opening a dialogue on the new technologies in education TechTrends, 49 (3) (2005)
- [62]. G. Emmanuel, A. Sife. Challenges of managing information and communication technologies for education: Experiences from Sokoine National Agricultural Library. International journal of education and development using ICT, 4 (3) (2008)
- [63]. G. Kostopoulos, S. Kotsiantis. Exploiting semi-supervised learning in the education field: A critical survey Advances in Machine Learning/Deep Learning-Based Technologies (2022), pp. 79-94
- [64]. S. Akbaba-Altun. Complexity of integrating computer technologies into education in Turkey Journal of Educational Technology & Society, 9 (1) (2006), pp. 176-187
- [65]. F. Mikre. The roles of information communication technologies in education: Review article with emphasis to the computer and internet. Ethiopian Journal of Education and Sciences, 6 (2) (2011), pp. 109-126
- [66]. E. Bilotta, F. Bertacchini, L. Gabriele, S. Giglio, P.S. Pantano, T. Romita. Industry 4.0 technologies in tourism education: Nurturing students to think with technology. Journal of Hospitality, Leisure, Sport & Tourism Education, 29 (2021), Article 100275