# To Study The Role Of Modern Technologies

Dr. Sonia Sharma<sup>1</sup>, Monika<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Education, Lovely Professional University, Phagwara, Punjab, India

<sup>2</sup>Research Scholar, Department of Education, Lovely Professional University, Phagwara, Punjab (India)

Email: <sup>1</sup>soniasharma7oct@gmail,com Reg. no: - 11701019

#### Abstract:

This present paper examines role of modern technologies on student's achievement. A sample of 104 students was collected. Of them 73 female and 31 male. Modern technology inventory developed by Anup kumar Das and Sanjaya Mishra (2016) was used for data collection. Data were collected by using the questionnaire from which contains 14 items to check on the basis of modern technologies level modern technology inventory developed by the finding of the paper revealed that there was significant difference seen in the student's achievement level among students with respect to their gender and location. Female were found more achievement as compared to male. The students who living in rural area are found more achievement level as compared urban students. In addition, there was significant difference seen in the modern technologies among students with respect to their gender. It means females have good achievement. There was significant difference seem in the modern technologies of students with respects to their location.

**Keyword:** Modern Technologies, students Achievement.

#### 1. INTRODUCTION:

The position of technology in within side there global of instruction possesses survived always improving. Extensively previously technology to retains survived a brand recent exhibition to assist motivates distinguish and permit learners to obtain and exceed in methods that they have got by no means been capable of previously. According to Johnson (2003) the computer system and technology if the taken advantage of correctly in retains their capacity to "invoke dream within side the intellects of the academic instructors who are noticed countless ability for the changing conventional beliefs of coaching and learning". Two beyond presidents have noticed the want for essential extrude in instruction to maintain American people learners in opposition with a technology with different learners from a across the international. In 1994, President Bill Clinton signed The Goals 2000: Educate America Act (Goals 2000: Educate America Act, 1994). There have been many components of this invoice that concerned technology and instruction. The Goals 2000: Educate America Act, Leadership in Technology, calls upon the Department of Education to establish a countrywide approach to contain technology into all academic packages and the nation and neighborhood organization systems fostering knowledge of ways technology may be used to enhance coaching and learning display how technology may be used to establish an identical possibility for all college students to achieve success at the same time as assembly nation schooling requirements and establish high-quality expert education possibilities for educators with the capacity to combine technology into their instruction (Goals 2000: Educate America Act, 1994). After President Bill Clinton signed this invoice into action, President George W. Bush driven one step similarly with education and technology whilst he exceeded the No Child Left behind (NCLB) Act in 2001. This invoice sought to shut the success hole in education whilst additionally developing accountability among faculties and states alike and preference and versatility so no infant is left behind in education. (No Child Left Behind Act of 2001, 2002). The purpose of Part D of the No Child Left behind Act was to enhance student educational achievement through using technology. The most important factors of Enhancing Education through Technology Act of 2001

3746

include, help to states for the implementation of technology into schools basic and secondary, to sell and encourage student educational achievement set up and increase technology projects with regard to access to technology help for acquisition of technology which will increase the quantity of students who've accessibility to technology expert improvement projects for teachers and supervisors assists for endeavors to contain households in education and to assist in information (No Child Left Behind Act of 2001, 2002). The No Child Left behind Act additionally sought to lower the virtual divide among students and to additionally use quality exercises whilst combining technology with teacher education to set up research-based educational techniques.

# 2. MODERN TECHNOLOGY:

All of us together are surging through the maximum profound revolution in human history. It effects is personal, national, worldwide and in lots of ways unlimited. Yes, it's far the effect of education. He new network age makes it pressing to reconsider absolutely what we suggest through education gaining knowledge of coaching and schooling. For instruction is converting extern than a it's remembers for their reason that innovation of the printing of press over the 500 years ago, as now the arena is your study room and gaining knowledge of his lifelong. Already billion students spend four-fifths in their operating hour's outdoors school, in an iPod, YouTube, Google, Wikipedia etc. our institutes network schools and universities need to be incubators of investigation and invention. Instructors must be observers in gaining knowledge of searching for new understanding and continuously and obtaining new abilities along their learners. Education authorities must set an ingeniousnd prescient for accumulatingating gaining knowledge of reviews that offer the proper equipment and helps for all inexperienced persons to thrive. Technology has impacted nearly each issue of existence today and of course education is not any exception in that. It has affected and impacted the manner matters are provided and taught within side the study room to the students. It has in large part impacted at the substance which can be used and manner we those substance to educate students within side the schools.

# **Objective:**

- To study the aim of modern technologies in teaching.
- To study the use of modern technologies in teaching with respect to location.
- To study the use of modern technologies in teaching with respect to gender.

# **Research hypothesis:**

- There is a significant mean difference seen in the scores of modern technologies with respect to gender.
- There is a significant mean different seen in the mean scores of modern technologies with respect to location.

# **Review of literature:**

- Educational technology isn't always constrained to person pc use. It can incorporate exceptional tool and programs, which incorporates videoconferencing, virtual TV (permitting learners to have interaction with packages at their personal pace), digital whiteboards and digital cameras (Jackson, 2008, education week, 2007, Mc Campbell, 2002, marshall2002). Educators have struggled with selections concerning what kinds of technology to use and way to use those (Culp et al., 2003). Researchers agree there isn't always one right form of technology or one "right" manner to use it, rather it need to healthy school gaining knowledge and coaching desires and be appropriate for the scholars who use it (sivin-kachala & Bialo, 2000).
- Apple computer (2005) tested tendencies in student's use of technology. They reviewed 30 researches on academic technology programs and assumed that students used laptops are usually for statement, taking notes, finishing reading assignments establishing their own work, speaking with friends and educators and learning subjects at the internet. They browsers and email to platform those tasks. Those students who used their laptops to complete extra complicated projects have been maximum tools, including demonstration software and software for bringing about and enhancing digital photographs and movies.
- Goldberg, Russell and cook (2003) accomplished a meta-evolution of 26 researches focusing on the effect of technology on the quantity and brilliant of learners writing. They find out that students who wrote with word processors tended to offer longer passages and better exceptional passage than students

3747

who wrote with paper and pencil. The effect of writing with computer systems come to be large for center and high school students of educational achievement and keyboarding information did now no longer play a considerable position in both the exceptional or quantity of writing.

- Wenglinsky (1998) investigated the National Assessment of Educational Progress (NAEP) math ratings of fourth and 8th grade learners from throughout the U.S. He managed for elements thought to involve achievement, including learners' socioeconomic status, grade size, and educator schooling status and occurrence. Wenglinsky discovered that 8th grade learners whose instructors obtained computer systems usually for "simulations and applications" (commonly related to better-order thinking) obtained better NAEP ratings than learners who's educators expended computers generally for "drill and practice" (typically related with decrease-order thinking). Fourth level learners who's educators utilized computers especially for "math/studying games" achieved better than learners who's educators performed now no longer utilize the events. No organization became observed among fourth graders' NAEP ratings and educators' use of "simulations and applications" versus "drill and practice." The facts additionally suggested that the scholars whole spent a extra duration on computers achieved barely decrease at the NAEP. Wenglinsky assumed that the manner technology become utilized become extra critical than how to frequently learners utilized computers. Wenglinsky ultimately replicated those results with NAEP studying and technology ratings (Wenglinsky, 2005).
- Wenglinsky (2005) study at the impact of technology on level 12 learners' NAEP record achieves
  discovered that various learners accomplished now no longer possess the technology abilities had to
  use computer systems within side the classroom. For example, maximum 12th grade students have been
  talented in phrase processing; however limited included charting and graphing abilities. Wenglinsky
  assumed that faculties need to capitalize education to learners whole lack critical laptop abilities earlier
  than technology may be successfully included into the curriculum.
- Z Fuchs and Woessman (2004) examined the Programme for International Student Assessment (PISA) studying and mathematics ratings of learners from 32 specific countries. They are observed that each the studying and math ratings of learners with Internet way have been significantly better than the ratings of students without Internet get entry to. In improvement, analyzing and math ratings expanded because the regularity with which learners utilized email and internet panes improved. Learners whole retained instructional software program at domestic obtained substantially better mathematics, however now no longer studying and ratings. Fuchs and Woessman counseled that the use of computers at domestic for effective purposes brought about will increase in learners' overall achievement, however that the impact of domestic laptop purpose on the learner accomplishment expected on the particular methods in which the computers have been utilized.
- Vecology of technology and their overall achievement at the English/Language Arts (E/LA) subtest of the Massachusetts Comprehensive Assessment System. The investigators analyzed by facts from learners in 25 organizations across 9 states and managed for learners' previous accomplishment and socioeconomic significance. They observed that learners who mentioned better regularities of computer function for the modifying articles managed to acquire better E/LA ratings, even as learners who suggested better regularities of laptop use for developing exhibitions tended to acquire decrease E/LA ratings. The investigators recommended that scholars who expended extra duration developing exhibitions may also have consumed much less duration employed in studying and inscribing. The regularity with which instructors suggested the use of technology became now no longer an important visionary of learners' E/LA ratings. The investigators assumed that their observe furnished proof that extraordinary makes use of of technology dramatic success in exclusive methods.

# Research design:

In the research design, the study was done to explore the use of modern technologies in teaching with respect to gender and areas .

# Tools and measurement of data:

The data was collected by using Google form questionnaire's and it was used to check the role of modern technology in teaching with respect to gender and area. The questioner consists of 14 statement and participants indicate on the five points how often they experienced the felling they describe in each statement.

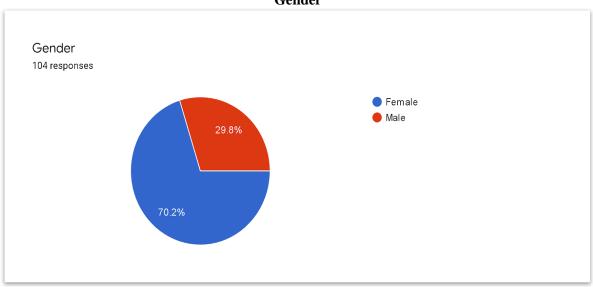
#### **Data collection:**

The data was circulated through Google from among the various colleges of district jalandhar. Participants who gave consent to participate in the study were given a brief explanation about the study. The Google from was circulated through WhatsApp, email id. Social media platform is used for the purpose of data collection. The data were collected over a two week period. Data was collected through Google form. The total number of items was 14 and participants were 104. Total 104 responses were received. Of them 73 female and 31 were male. Due to covid-19, online plate from was used to collect the data.

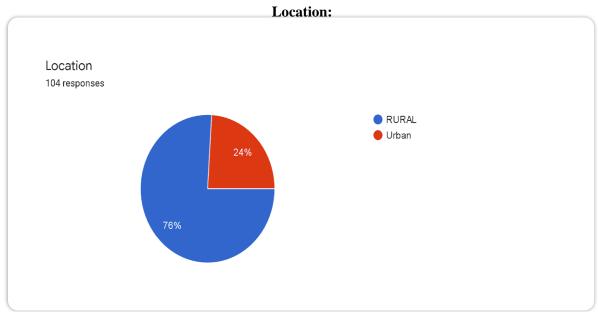
# Analysis of collected data:

This is how I have collected all the data in which I have received a total of 104 answers. There were 74 females and 31 males. It can be inferred from this data that of total population 70.2% are females and 29.8% are males. So it can be said that most of the respondents are females in this study.

ANALYSIS AND INTERPRETATION ON THE BASIS OF DEMOGRAPHIC VARIABLES: Gender

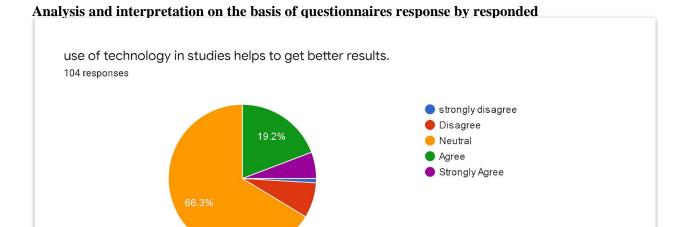


This pie chart 1 depicts responses on the basis of their gender. In this, total 104 responses were collected. Of them 73 female and 31 male. It can be inferred from this data that of total population 70.2% female and 29.8% are male.

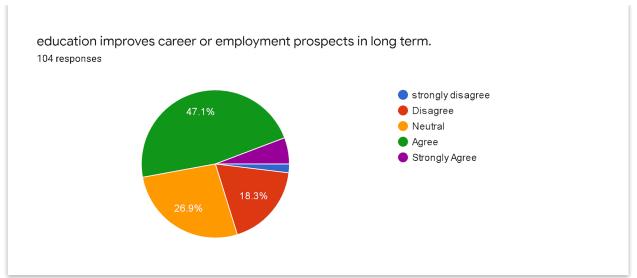


3749

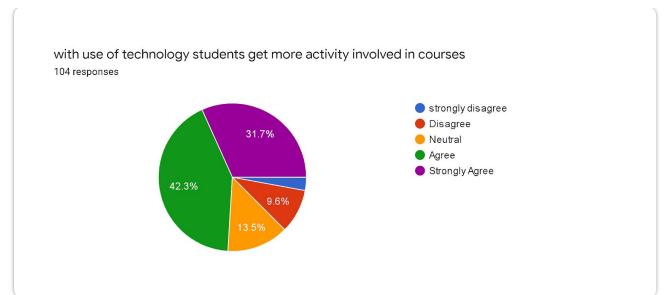
• This pie chart depicts 2 responses on the basis of their location. In these total 104 responses were collected. Of them 78 rural and 26 urban. It can be inferred from this data that of total population 76% are rural and 24% are urban.



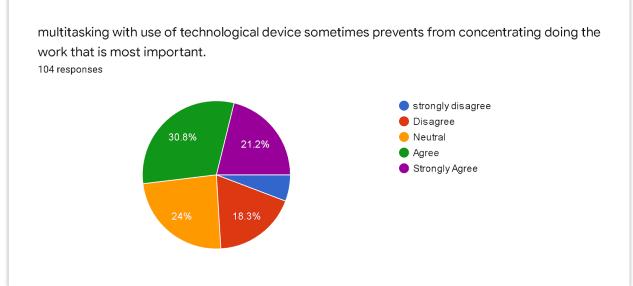
This pie chart 3 shows use of technology in studies helps to get better results. In this paper 1% people choosing strongly disagree, 7.7% people choosing disagree, 66.3% people choosing neutral options, 19.2% people choosing agree options and 5.8% people strongly agree. This means technology helps us get better results.



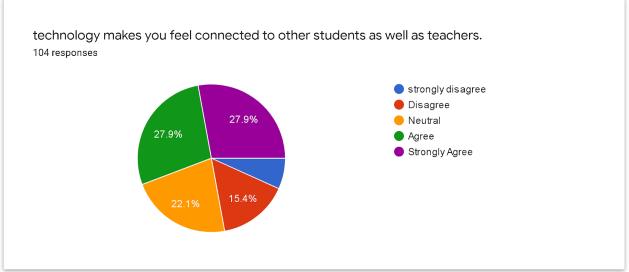
This pie chart 4 depicts education improves or employment prospects in long term. Choosing options 47.1% people agree 26.9% people choosing neutral and 18.3% people choosing disagree. Its means education help us for good career.



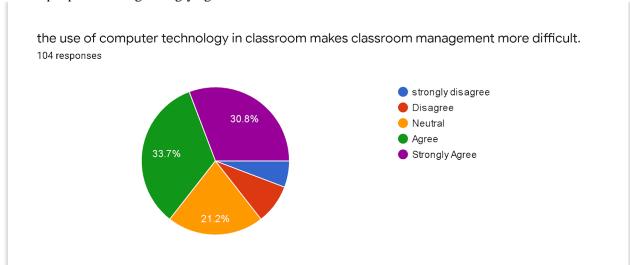
In it is pie chart 5 snows that technology nelps students to engage in new activities. 9.6% people choosing disagree, 13.5% people choosing neutral 42.3% people choosing agree and 31.7% people strongly agree. Most are people agree that students who are technology savvy learn new activities.



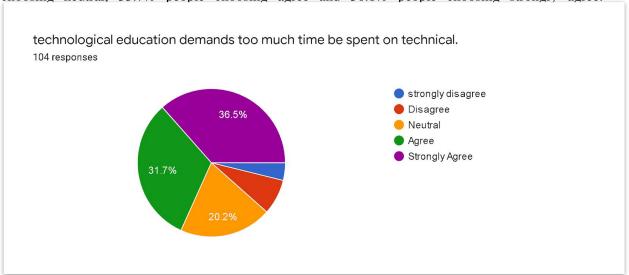
This pie chart 6 shows that people pay more attention to their work through technology. 18.3% people choosing disagree, 24% people choosing neutral, 30.8% people choosing agree and 21.2% people choosing strongly agree. All people are barbaric with the fact that they are in favor of it or not.



This pie chart 7 represents technology makes you feel connected to other students as well as teachers. 15.4% people selecting disagree, 22.1% people selecting neutral, 27.9% people selecting agree and 27.9% people choosing strongly agree.

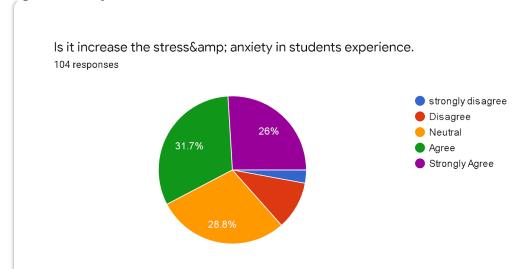


This pie chart 8 represents computer technology use in classrooms management difficult. 21.2% people choosing neutral, 33.7% people choosing agree and 30.8% people choosing strongly agree.

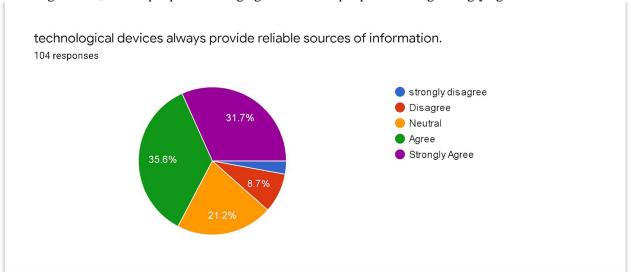


This pie chart 9 shows technology demands too much time spent on technical. 20.2% people neutral,

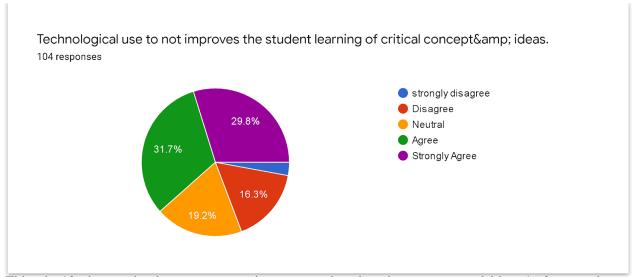
31.7% people choosing agree and 36.5% people choosing strongly agree. Most are people choosing agree for this question.



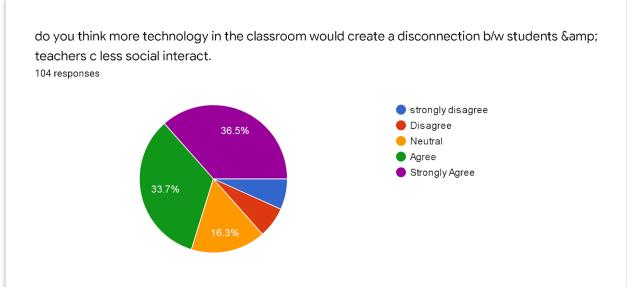
This pie chart 10 represents is it increase the stress amp; anxiety in students experience. 28.8% people choosing neutral, 31.7% people choosing agree and 26% people choosing strongly agree.



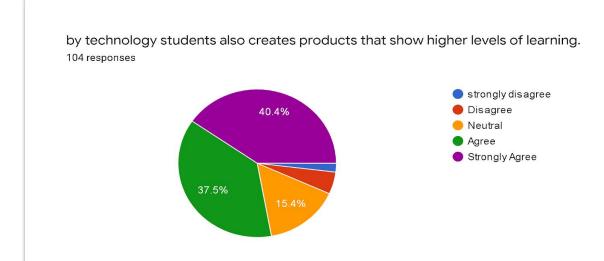
This pie chart 11 shows technology devices always provides reliable sources of information. 8.7% people choosing disagree, 21.2% people choosing neutral, 35.6% people choosing agree and 31.7% people choosing strongly agree.



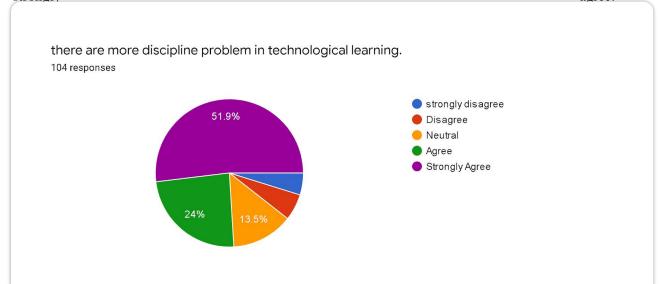
This pie 12 chart technology use to not improve student learning concept and idea. 16.3% people choosing disagree, 19.2% people choosing neutral, 31.7% people choosing agree and 29.8% people choosing strongly agree.



This pie chart13 shows technology create disconnected students teachers social interact. 16.3% people choosing neutral 33.7% people choosing agree and 36.5% people choosing strongly agree.



Inis pie cnart 14 represents by technology students also create products that show higher level of learning 15.4% people choosing neutral, 37.5% people choosing agree and 40.4% people choosing strongly



Inis pie cnart 15 represents there are discipline problem in technology learning. 15.5% people choosing neutral, 24% people choosing agree and 51.9% people choosing strongly agree.

# ANALYSIS AND INTERPRETATION ON THE BASIS OF MEAN DIFFERENCE THE SCORES OF MODERN TECHNOLOGIES:

Table 1: Showing mean difference on modern technologies scores of male and female

Table 1. Showing mean difference on modern technologies scores of male and female								
Gender	Mean difference of modern technologies scores on male and female							
	Mean	N	SD	MD	T-Test			
Male	45.58	31	8.00	6.94	5.20**			
Female	52.52	73	5.30					

p>0.01

The information presented in table 1 indicates that male recorded a less achievement 45.58 while the female were slightly high level 52.52. To find out the level of achievement among male and female t-test scale was used to find the t-test value that is 5.20. Results indicate that value of t-test was signicient. Therefore the hypothesis I "There is significant mean difference seen in the mean scores of modern technologies with respect to their gender is rejected".

# 2: Showing mean difference on modern technologies of rural and urban

Location	Mean difference of modern technologies scores on rural and urban							
	Mean	N	SD	MD	T-Test			
Rural	52.26	79	5.90	4.78	3.47**			
Urban	47.48	25	6.30					

p > 0.01

The data reveals in table 2 depicts that the urban areas students recorded as less level of impact 47.48. Where as in rural area student's high level of modern technologies noticed 52.26. And the t- test 3.47 got by using t-test scale. And by seeing the value of t-test studied that it is significant.

Therefore the hypothesis I "There is a significant mean difference seen in the mean scores of modern technologies with respect to their gender is rejected".

#### 3. FINDING & DISCUSSION

Findings on basis of analysis and interpretation through demographic variable, it has found that are following:

- The males recorded less modern technologies is 45.58where as the females were slightly at high level 52.52. the mean difference on the scores of achievement in which the males recorded less achievement where as on the other hand females were slightly at high level as compared to males achievement.
- The urban areas students recorded as less level of achievement is 47.48 while on the other hand high level of achievement noticed in rural areas students is 52.26. Through mean difference on scores of achievement in which found that the urban areas students recorded as less level of achievement whereas level of achievement noticed in rural areas students as compared to urban students.

Apple computer (2005) tested tendencies in student's use of technology. They reviewed 30 researches on academic technology programs and conclude students used laptops usually for writing, taking notes, finishing homework assignments establishing their work, speaking with friends and teachers and learning subjects at the internet. They browsers and email to platform those tasks. Those learners who utilized their laptops to complete extra complicated projects have been maximum tools, including presentation software and software for making and enhancing digital photographs and movies. Goldberg, Russell and cook (2003) accomplished a meta-evolution of 26 researches focusing on the effect of technology on the quantity and brilliant of learners writing. They find out that students who wrote with word processors tended to offer longer passages and better exceptional passage than learners who wrote with paper and pencil. The effect of writing with computer systems come to be large for center and high school learners of educational achievement and keyboarding information did now no longer play a considerable position in both the exceptional or quantity of writing.

# 4. CONCLUSION:

Results of this study vividly indicate that there was significant difference seen in the technologies level among students with respect to their gender and location. Females were found more than males. The students who living in rural area are found more technologies level as compared urban students. In addition, there was significant difference seen in the modern technologies among students with respect to their gender. It means females have good achievement. There was significant difference seem in modern technologies of students with respects to their location.

# Based on the finding of the study, the following recommendations are suggested:

- Encourage the students to do meditation and yoga which enables to lesson boost their modern technologies.
- To avoid undue stress at the students, examinations and non-prevent assessment exams should be well planned which maximum probable triggers achievement.
- Providing social help very own circle of relatives monetary and inspiring to participation in social activities are encouraged to lower achievement for students.
- Beneficial resources are provided students who are living in rural areas.

# **REFERENCE:**

- 1. Blazer, C. (2008). Literature Review: Educational Technology. Research Services, Miami-Dade County Public Schools.
- 2. Christensen, R., & Knezek, G. (2001). Instruments for assessing the impact of technology in education. Computers in the Schools, 18(2-3), 5-25.
- 3. Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. Journal of Applied and Advanced Research, 3(1), 33-35.
- 4. Facer, K. (2011). Learning futures: Education, technology and social change. Taylor & Francis.

- 5. Gilakjani, A. P. (2017). A review of the literature on the integration of technology into the learning and teaching of English language skills. International Journal of English Linguistics, 7(5), 95-106.
- 6. Schindler, L. A., Burkholder, G. J., Morad, O. A., & Marsh, C. (2017). Computer-based technology and student engagement: a critical review of the literature. International Journal of Educational Technology in Higher Education, 14(1), 1-28.
- 7. Zawacki-Richter, Olaf, and Colin Latchem. "Exploring four decades of research in Computers & Education." Computers & Education 122 (2018): 136-152.
- 8. Krendl, Kathy A., and Ginger Clark. "The impact of computers on learning: Research on inschool and out-of-school settings." Journal of Computing in Higher Education 5.2 (1994): 85-112.
- 9. De Jesus Gomes, A., Mendes, A. J., & Marcelino, M. J. (2015). Computer Science Education Research: An Overview and Some Proposals. In Innovative Teaching Strategies and New Learning Paradigms in Computer Programming (pp. 1-29). IGI Global.
- 10. Schindler, L. A., Burkholder, G. J., Morad, O. A., & Marsh, C. (2017). Computer-based technology and student engagement: a critical review of the literature. International Journal of Educational Technology in Higher Education, 14(1), 1-28.
- 11. Ringstaff, C., & Kelley, L. (2002). The learning return on our educational technology investment: A review of findings from research.
- 12. Wenglinsky, H. (2005). Technology and Achievement: The Bottom Line. Educational Leadership, 63(4), 29-32.
- 13. Zhang, Y. (2005). A Collaborative Professional Development Model: Focusing on Universal Design for Technology Utilization. ERS Spectrum, Summer 2005, 31-38.
- 14. Gulek, J.C., & Demirtas, H. (2005). Learning with Technology: The Impact of Laptop Use on Student Achievement. ERS Spectrum, Fall 2005, 4-20.
- 15. Haugland, S.W. (2000). What role Should Technology Play in Young Children's Learning? Part II: Early Childhood Classrooms in the 21st Century. Young Children, 55(1), 12-18.
- 16. Hawkes, M., & Cambre, M. (2001). Educational Technology: Identifying the Effects. Principal Leadership, 1(9), 48-51.
- 17. Jackson, L.A., von Eye, A., Biocca, F.A., Barbatsis, G., Zhao, Y., & Fitzgerald, H.E. (2006). Does Home Internet Use Influence the Academic Performance of Low-Income Children? Developmental Psychology, 42(3), 429-435.
- 18. McCampbell, B. (2002). Technology Education vs. Education Technology: Do You Know the Difference? Principal Leadership, 2(9), 55-57.
- 19. Marshall, J. (2004). Implementation and Web-Based Learning: The Unimplemented Program Yields Few Results. Computers in Schools, 21(3-4), 119-129.
- 20. Means, B. (2000). Technology Use in Tomorrow's Schools. Educational Leadership, 58(4), 57-61.
- 21. Wenglinsky, H. (2005). Technology and Achievement: The Bottom Line. Educational Leadership, 63(4), 29-32.
- 22. O'Dwyer, L.M., Russell, M., Bebell, D., & Tucker-Seeley, K.R. (2005). Examining the Relationship Between Home and School Computer Use and Students' English/Language Arts Test Scores. The Journal of Technology, Learning, and Assessment, 3(3). Retrieved from http://escholarship.bc.edu/cgi/viewcontent.cgi? Article=1053&context=jtla.
- **23.** Fuchs, T., & Woessmann, L. (2004). Computers and Student Learning: Bivariate and Multivariate Evidence on the Availability and Use of Computers at Home and at School. CESifo Working Paper No. 1321.