

Computer Phobia, Teaching Competence, Teaching Aptitude & Locus Of Control Among Prospective Teachers: A Comparative Study

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Abstract

This comparative study was undertaken to examine the computer phobia, teaching competency, teaching aptitude & locus of control on the basis of gender. 600 prospective teachers were chosen using multi-stage random sampling technique. Mean, SD & t-test were applied to examine significant difference in computer phobia, teaching competency, teaching aptitude & locus of control with respect to their gender. It was found that maximum prospective teachers (50%) reported neutral level of computer phobia, 14% reported high level of computer Phobia and 9% reported very high level of computer phobia, whereas 15% of total number reported low level of computer phobia and 12% reported very low level of computer phobia. Significant difference was exists in computer phobia, teaching competency, teaching aptitude & locus of control on the basis of gender.

Keywords: *Computer Phobia, Teaching Competence, Teaching Aptitude, Locus of Control, Prospective Teachers.*

INTRODUCTION

We belong to the 21st century, the century of science, research, discovery, investigation and high-tech society. Over the past decades, many researchers, scientists and engineers all around the world have been working to improve human life and living conditions through new discoveries and adaptations in technology. All these inventions and technologies are very important and distinguished compared to the past. Especially the remarkable inventions in engineering and technology such as television, radio, computer, laptop and mobile phones. Especially the inventions and discoveries like computer, mobiles and high speed internet connectivity have brought drastic changes in personal and social life. In this digital or information technology age, the development and invention by humans have gone beyond expectation, belief and imagination. Technology has become an important component of life in this 21st century. Every day there are some new gadgets or software which makes our lives easier. Technology is playing an increasing role in education also. Mobile devices and tablets are being used by students to learn. Technology has made it easier for teachers to teach their pupils and has enabled students to study from an infinite number of resources. The complete success of the teaching-learning process depends on the skills of using the technology in an

interactive and appropriate way. Technology, by virtue of its capacity, has enormous promise for improving teaching and learning outcomes. The teacher's ability to realise this potential is highly dependent on how he or she employs technology. Every aspect of human existence has benefited from computer-based technologies. Computers have become a vital instrument in educational institutions for making teaching-learning processes more effective. As a result, computer literacy is significant in all institutions, including education. Without a doubt, a person's attitude toward computers is influenced by his or her ability to work successfully with computers, which in turn influences his or her professional effectiveness, yet some people have an illogical dread of working with computers. Feeling nervous or apprehensive about anything computer-related is a symptom of cyber phobia, a kind of technophobia. Some teachers are also averse to using computers. They are wary of computers and are afraid of them. They have an uneasy feeling about it which can be called 'computer phobia'.

The term 'computer phobia' is sometimes known as 'cyber phobia.' It's an aversion to computers & working with them. The word was coined in 1985 to describe an aversion to or uneasiness generated by technology. Computer phobia refers to a variety of fears that a teacher encounter in their everyday work. The need of the hour is for teachers to make use of advanced technologies in order to keep students' attention. As a result, there is a need to investigate Computer Phobia in relation to new technologies. Extreme computer phobia can create substantial issues because technology plays a major role in modern life & computers are ubiquitous. People who are severely afraid of computers may avoid going to work, school, or public locations where computers are present. People with this disease might benefit from therapy to help them control their symptoms & learn to embrace & use technology.

“A competency is more than just knowledge & skills; it involves the ability to meet complex demands by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. Competency is essential to an educator’s pursuit of excellence. To maximize student learning, teachers must have expertise in a wide-ranging array of competencies in an especially complex environment where hundreds of critical decisions are required each day (Jackson, 1990). Research confirms this common perception of a link and reveals that of all factors under the control of a school, teachers are the most powerful influence on student success (Babu & Mendro, 2003; Sanders & Rivers, 1996). Teachers’ professional competence greatly influences their teaching, as well as the academic achievement and future development of their students. Teachers need a wide range of competencies in order to face the complex challenges of today’s world. Teaching competency is an inherent element of an effective training process, one that aspires to contribute to the welfare of a particular country or the world, itself”.

The 21st century is a technological era in which students may surf the internet, consult numerous resources, & obtain information. When the teacher enters the classroom, one must understand what the kids anticipate. A teacher has to have competent, commitment and persistence to become an effective teacher who is able to

solve problems related to teaching and learning. Teachers who themselves have balanced locus of control can only help the students to develop their personalities. Maaleki (2018) stated, “Competency is measurable and could be developed through training. It is also breakable into the smaller criteria” Teaching competency is one of the crucial indicators of the teaching profession. Competent teachers understand the process of learning effectively and productivity. A competent teacher has a better plan, uses diverse techniques and execution in teaching and creates a congenial atmosphere for students learning. Teacher's role is imperative with internal and external dealings of school in growth and development in a proper way. Competent teachers believe in the organization of the teaching profession and perform each and every activity in the institution like academic area and non-academic area effectively. Actually, competencies demand knowledge, attitude, aptitude, skills and a clear & thoughtful understanding of the term as well the means for its assessment.

Teaching aptitude denotes an individual's ability to teach in the field of education after receiving comprehensive training & a variety of opportunities It also denotes the tutor's creativity in teaching, guiding, and advising students. Dave & Raval, (2015) described the “teaching aptitude as a set of conditions and characteristics occupied by individual and his ability or skills not only include the subject matter but also include his aims and schooling”. Teaching aptitude, attitude, and locus of control are attributes of a successful teacher that play a vital part in a student's life, such as leadership, ability, patience, discipline, creativity, and other qualities that aid in predicting an individual's future success. Jan.et al., (2015) described “A right aptitude is mainly source of create the competitive advantageousness for educational institutions or organizations, hence we should mainly focus on right policies and strategies those helpful for evaluate, develop a right aptitude among teachers”.

Locus of Control means people's belief that they have control over their own destiny. People are classified as having an internal or external locus of control, based on whether they are more self-reliant and independent or more oriented & dependent on others. In this way teachers must be knowledgeable, professionally educated, and enthusiastic to teach at this level. In fact, the teaching profession need a defined set of objectives, a passion for the job, and most importantly, a more favourable attitude toward the profession to become more competent. Directly or indirectly the computer has affected every individual in its own ways and became a useful tool to fulfill the purpose of education, management, information, entertainment and administration. The craziness and trend to use the computer has been increasing day by day. The professionals of various fields, students, teachers, executives' administrators, businessmen, doctors, housewives and executive officials highly depend on computers. Therefore, it is extremely essential for them to have a practical knowledge of the computer. Keeping this in mind, the investigator visualized a need to study the Computer Phobia, Teaching Competence, Teaching Aptitude and Locus of Control among Prospective Teachers.

Review of the related Literature

Review of literature have shown that computer phobia is associated with a no. of variables. Kira & Saade (2009) concluded that frustration, worry, disappointment affect the use of computer as well as the productivity of individual's learning social relations and welfare. Literature also explained that teacher' attitudes towards computer attributes and competence result of their vision towards technology that consequently scattering educational practice. Alaba and Biodun (2003) indicated that computer use and efficacy significantly play role in reducing phobia towards accomplishing given academic tasks via the computer. Vithalrao (2009) found that 30% college teachers have the computer phobia. Salih Birisci and Karakas (2009) found no significant contrasts in genders, secondary school type, monthly pay, computer preferring, computer anxiety and utilization of computers in training/guidance. Further they revealed that teachers' attitudes towards computer enjoying and utilization of computers in training/guidance were at mid-level and computer anxiety was at abnormal state. Ursavas and Karal (2009) assessed the levels of computer phobia levels among pre-service teachers & found that "computer phobia of male pre-service teachers does not statistically depends on their gender and there is a negative and intensive relative between computer experience and computer anxiety". Mona (2010) indicated that most of the teacher possessed moderately low levels of computer phobia. Chen (2012) found that lower computer phobia among elementary EFL teachers of Taiwan who frequently used computers. Qasim and Huri (2014) investigated a significant gender and board (CBSE, U.P.& I.C.S.E board) difference among higher school teachers regarding computer phobia.

Research studies show that computer phobia is a barrier for effective teaching in modern era of education where teaching-learning is not bound within the walls. So, the current investigation is significant for those teachers who have some kind of computer phobia. It is important to know the abilities and issues related to utilization of computer as educationalists. The finding of the study may help the school administrations to solve the computer related problems of teachers as well as to provide them opportunities to computer training.

OBJECTIVES OF THE STUDY

1. "To assess the level of Computer Phobia among Prospective Teachers.
2. To compare the (a) Computer Phobia, (b) Teaching Competence, (c) Teaching Aptitude and (d) Locus of Control among Prospective Teachers on the basis of Gender".

HYPOTHESIS OF THE STUDY

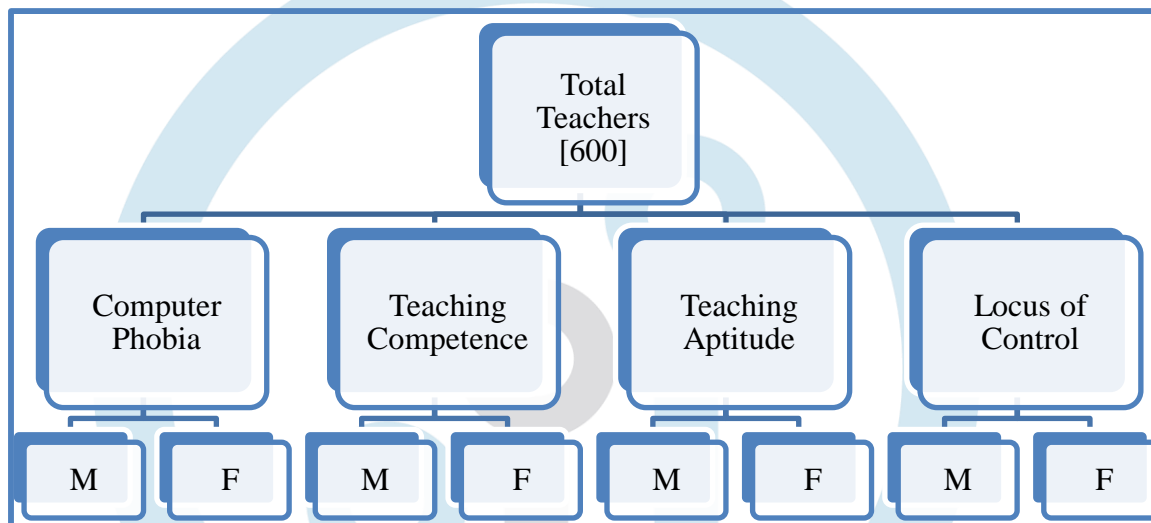
H₀₁ "There is no significant difference in (a) Computer Phobia, (b) Teaching Competence, (c) Teaching Aptitude and (d) Locus of Control among Prospective Teachers on the basis of Gender".

RESEARCH METHODOLOGY

“To achieve the objective of the study the 'Descriptive Survey Method' was the best suited method and therefore, applied by the researchers”.

SAMPLE

Multi-stage random sampling technique applied to select a sample of 600 prospective teachers. The Layout of sample was given through this graph:



STATISTICAL TECHNIQUES

Mean, SD, and 't-' test as statistical measures were employed.

DATA ANALYSIS AND INTERPRETATION

“The collected data was analyzed both quantitatively as well as qualitatively. In order to verify the objectives and to test the null hypotheses, the present study has been analyzed as given below”:

Objective 1: To assess the level of Computer Phobia among Prospective Teachers.

The data of Computer Phobia among prospective teachers have been analysed using Percentage Method which is given in table-1.

Table-1
Computer Phobia among Prospective Teachers
(N=600)

No. of Prospective Teachers	Percentage	Level of Computer Phobia
54	9%	Very High Computer Phobia
84	14%	High Computer Phobia
300	50%	Netural Computer Phobia
90	15%	Low Computer Phobia
72	12%	Very Low Computer Phobia

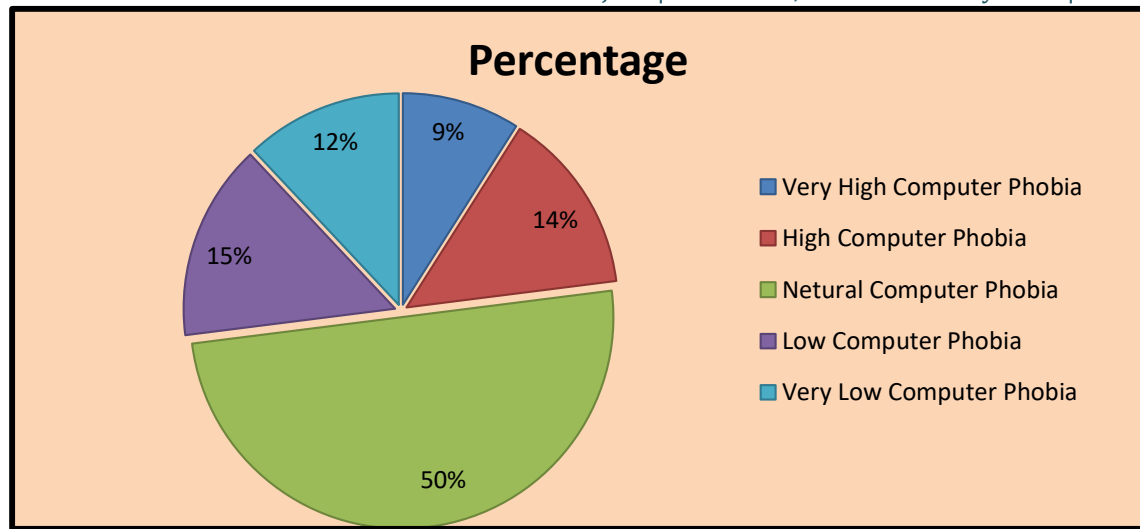


Fig. 1: Computer Phobia among Prospective Teachers

Table-1 and fig.1 indicated the level of computer phobia among 600 prospective teachers. It is palpable from table that the maximum prospective teachers (50%) reported neutral level of computer phobia, 14% reported high level of computer Phobia and 9% reported very high level of computer phobia, whereas 15% of total number reported low level of computer phobia and 12% reported very low level of computer phobia. This shows that majority of prospective teachers have neutral computer phobia. Similarly Mittal & Kaur (2018) also indicated that most of teachers reported neutral computer phobia.

Objective 2: To compare the (a) Computer Phobia, (b) Teaching Competence, (c) Teaching Aptitude and (d) Locus of Control among Prospective Teachers on the basis of Gender.

For the purpose of studying the significance difference in (a) Computer Phobia, (b) Teaching Competence, (c) Teaching Aptitude and (d) Locus of Control among Prospective Teachers on the basis of Gender, the following null hypothesis was formulated:

H₀₁ There is no significant difference in (a) Computer Phobia, (b) Teaching Competence, (c) Teaching Aptitude and (d) Locus of Control among Prospective Teachers on the basis of Gender.

To test the null hypothesis, Mean, SD, t-value & level of significance of the scores obtained from their perspective scales were calculated. The results are presented in Table-2.

Table -2

Descriptive statistics related to the Computer Phobia, Teaching Competence, Teaching Aptitude and Locus of Control among Prospective Teachers on the basis of Gender

Sr. No.	Dependent Variable	Groups	N	Mean	SD	't' value	Level of Significance
1.	Computer Phobia	Male	295	65.13	18.98	5.97	Significant at 0.01
		Female	305	73.97	17.45		
2.	Teaching Competence	Male	290	77.65	16.30	5.36	Significant at 0.01
		Female	310	85.21	18.34		
3.	Teaching Aptitude	Male	291	44.89	11.78	7.70	Significant at 0.01
		Female	309	38.19	9.32		
4.	Locus of Control	Male	285	75.56	10.89	11.08	Significant at 0.01
		Female	315	86.64	13.78		

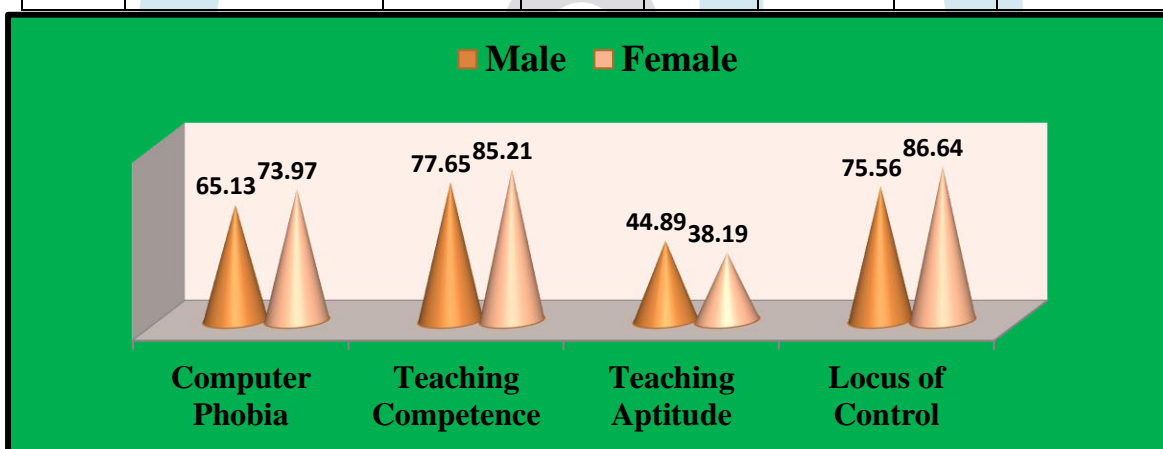


Fig. 2: Mean Scores of Computer Phobia, Teaching Competence, Teaching Aptitude & Locus of Control among Prospective Teachers on the basis of Gender

“It can be observed from table-2 and fig. 2 that the t-value (5.97) indicated a significant difference in computer phobia among male and female prospective teachers at 0.01 level. So, the null hypothesis $H_{01}(a)$ is rejected. In terms of means scores, it can be concluded that female prospective teachers possess high level of computer phobia (73.97 ± 17.45) than male prospective teachers (65.13 ± 18.98). So, it can be concluded that female prospective teachers have higher computer phobia than their counterpart male prospective teachers. Similar result was found by (Saxena, Bala and Upadhyay, 2014; Prakash, 2016) that female teachers have higher computer phobia than their male counterparts. Mittal and Kaur (2018) found a significant difference in computer phobia among teachers with the reference of gender. The finding of the study in the contrast with the findings of Ursavas & Karal (2009) who found that computer phobia of male pre-service teachers does not statistically depends on their gender”.

“It can also be observed from table-2 and fig. 2 that the t-value (5.36) indicated a significant difference in teaching competence among male and female prospective teachers at 0.01 levels leading to the inference that teaching competence among male and female differ significantly. So, the null hypothesis $H_{01}(b)$ is rejected.

In terms of means scores, it can be concluded that female prospective teachers possess higher teaching competence (85.21 ± 18.34) as compared to male prospective teachers (77.65 ± 16.30). So, it can be concluded that female prospective teachers have higher teaching competence than their counterpart male prospective teachers”.

“It can be seen from table-2 and fig. 2 that the t-value (7.70 at 598 degree of freedom) indicated a significant difference in teaching aptitude among male and female prospective teachers at 0.01 level. So, the null hypothesis $H_{01}(c)$ is rejected. In the context of means scores, it can be concluded that male prospective teachers have higher teaching aptitude (44.89 ± 11.78) than female prospective teachers (38.19 ± 9.32). So, it can be concluded that male prospective teachers had more teaching aptitude than their counterpart female prospective teachers”.

“Finally, it is palpable table-2 and fig.2 that the t-value (11.08) indicated a significant difference in locus of control among male and female prospective teachers at 0.01 level. So, the null hypothesis $H_{01}(d)$ is rejected. In terms of means scores, it can be concluded that female prospective teachers possess high locus of control (86.64 ± 13.78) than male prospective teachers (75.56 ± 10.89). So, it can be concluded that female prospective teachers have higher locus of control as compare to male prospective teachers. Present result is in contrast with the result of Naveed, et.al. (2020) who also found that male university/college teachers would have a higher locus of influence than female university/college teachers”.

RECOMMENDATION

On the basis of findings, it is recommended that computer training should be must for the teachers and increase the opportunities; support and computer facilities as well as computer based teaching may reduce the computer phobia among teachers.

CONCLUSION

Technology has become an important component of life in this 21st century. Every day there are some new gadgets or software which makes our lives easier. Technology is playing an increasing role in education also. The complete success of the teaching-learning process depends on the skills of using the technology in an interactive and appropriate way. Technology has made it easier for teachers to teach their pupils and has enabled students to study from an infinite number of resources. The teacher's ability to realise this potential is highly dependent on how he or she employs technology. The use of computers in the classroom, the use of the internet for long-distance learning, and the use of social media to connect pupils with professors are just a few of the most prominent technical developments that have transformed the face of education. According to the findings of this study, female teachers possess more computer phobia as compared to male teachers. These new technologies make teaching student-centered. Teachers' roles have evolved and will continue to evolve from being instructors to constructors, facilitators, coaches, and creators of learning environments. A competent teacher may lead his or her students along the right road and help them succeed. Teaching aptitude,

attitude, and locus of control are the attributes of a successful teacher that play a vital part in a student's life, such as leadership, ability, patience, discipline, creativity, and other qualities that aid in predicting an individual's future success.

A competent teacher should possess qualities such as self-awareness building rapport, cooperative, motivating, empathetic and to keep balanced on distributive emotions besides the knowledge and the avid repertoire of teaching skills they possess in their subject.

REFERENCES

- Babu, S., & Mendro, R. (2003). Teacher accountability: HLM-based teacher effectiveness indices in the investigation of teacher effects on student achievement in a state assessment program. *Presented at the annual meeting of the American Educational Research Association (AERA)*, Chicago, IL, April.
- Bajaj, S. (2012). Locus of control in relation to various differential variables of B.Ed.students. *Journal of Environmental Research and Development*, 7(1).
- Batanero, et. al. (2021). Impact of Educational Technology on Teacher Stress and Anxiety: A Literature Review. *International Journal of Environmental Research and Public Health*, 18(2), 548.
- Bhumika Achhnani and Amarin Amareliya (2020). Locus of control of school teachers. *Journal of Management Research and Analysis*, January-March, 2020;7(1):40-45.
- Bulus, M. (2011). Goal orientations, locus of control and academic achievement in prospective teachers: an individual differences perspective. *Kuramve Uygulamada Egitim Bilimleri*, 41 (2) 110-122.
- Chen, K. (2012). Elementary efl teachers' computer phobia and computer self-efficacy in Taiwan. *Turkish Online Journal of Educational Technology*, 11(2):100-107.
- Chiang, Y.T. et. al. (2019) Locus of Control : The Mediation Effect between Emotional Stability and Pro-Environmental Behavior. *Sustainability* , 11, 820.
- Cornelius. (2000). Teacher competence associated with intelligence. *Attitude towards teaching profession and academic achievement of teacher trainees*, Unpublished M.Phil Thesis, University of Kerala.
- Devi, K. and Sharma, S. K. (2017) A study of teaching aptitude and attitude of prospective primary school teachers towards teaching profession in relation to their gender, type of institution and stream of study. *International Journal of Applied Research* ,3 (8),668-673.
- Guru, N. (2020) A Study on Teaching Aptitude and Academic Achievement of Under Sambalpur University. *European Journal of Molecular & Clinical Medicine*, 07(11),7438-7444.
- Hans, A. et. al.(2017). A Study on Self-Efficacy, Locus of Control and Commitment in Select Private Management Colleges in Oman. *Amity Journal of Management Research*,2 (1), 1-09.
- Hans., Arvind., Mubeen, S.A., &Ghabshi, S.A. (2014). A study on locus of control and job satisfaction in private international schools in sultanate of Oman. *Journal of Application or Innovation in Engineering & Management*, 3(1),2319 – 4847.
- Jackson, P. W. (1990). *Life in classrooms*. New York, NY: Teachers College Press.
- Jan F. et. al., (2015), The factors affecting the teachers self-esteem in Higher Educational institutions. *Journal of research on humanities and social science*, 5(9).
- Kant, R. (2011). A Study of Teaching Aptitude and Responsibility Feeling of Secondary School Teachers in Relation to Their Sex and Locale. *Academic Research International*, 2, 254-259.

- Kaur, P. and Sethi, R. (2019). A comparative study of cyber phobia among rural and urban primary and secondary school teachers of Punjab. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 6(3), 49-52.
- Kayis, A.R.; Satici, S.A.; Yilmaz, M.F.; Ceyhan, E. & Bakiooglu, F. (2016). Big five personality trait and internet addiction: A meta-analysis. *Computers in Human Behavior*, 63, 35-40. Available at <https://www.sciencedirect.com/science/article/pii/S0747563216303363>.
- Krushna, H.P. and Benjongkumba (2019) Teaching Aptitude Of B.Ed. Student-Teachers Of The Institute Of Advanced Studies In Education And College Of Teacher Education In Odisha. *International Journal of Research in Social Sciences*, 9 (2).
- Mehmet, Ü., Hasan, D., & Melike, C. (2009). The Attitudes of Prospective Teachers Towards the Profession of Teaching. *Education and Science*, 34,140-155.
- Mittal H. and Kaur. J.(2018) A Study of Computer Phobia among School Teachers. *Journal of Advances and Scholarly Researches in Allied Education [JASRAE]*, 15(12). DOI: 10.29070/JASRAE.
- Mona, S. (2010). *A study of aversion to computer usage among secondary school teachers*. Available at <http://ccemohali.org/img/Ch%2010%20Samriti%20Mona.pdf>.
- Parkash, V. (2016). A study of computer phobia among senior secondary school teachers. *International Journal of Advanced Education and Research*, 1(4), 51-53.
- Patel, M. (2021). A Study of Teaching Competency of Primary School Teachers. *International Journal of Research in all Subjects in Multi Languages (IJRSML)*, 4(8), 60-64.
- Poole, B. J. (1995). *Education for an information age: Teaching in the computerized classroom*. Dubuque, IA; Wm. C. Brown Communications.
- Qasim, S.H. & Huri, A.S. (2014). Computer phobia in higher secondary school teachers of U.P, C.B.S.E. and I.C.S.E. Board Schools. *Indo-Indian Journal of Social Science Researches*, 10(2)70-77.
- Rahimi, M. and Yadollahi, S. (2011) Computer anxiety and ICT integration in English classes among Iranian EFL teachers. *Procedia Computer Science*, 3, 203-209.
- Rajasekar, S. & Vaiyapuri, R. (2006). Computer Phobia of higher secondary teachers. *Anweshika: Indian Journal of Teacher Education*, 38-42.
- Rani, S. (2021) A Study Of Teaching Aptitude Among B.Ed Students. *EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal*, 7 (3), 123-128.
- Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement. Knoxville, TN: University of Tennessee. *Value-Added Research and Assessment Center*. Retrieved from <http://heartland.org/policy-documents/cumulative-and-residual-effects-teachers-future-student-academic-achievement>.
- Saxena, M. K. , Bala, R. and Upadhyay, M. (2014) A Study of Computer Phobia among Prospective Teachers. *Learning Community*: 5(2 and 3), 129-136.
- Sharma ,P.and Pathak, J. (2017). A study of computer phobia among higher secondary school teachers of different gender and board. *International Education and Research Journal*, 3(8), 130-132.
- Sharma, P. (2006). A study of teaching aptitude in relation to General teaching competency. Professional teaching and academic achievements of B.Ed. pupil teachers. *Ph.D. Thesis*, Jamia Millia Islamia, central University, New Delhi.
- Singh, M., & Singh, S. (2015). A study of teaching competence of school teachers in relation to their attitude towards ICT and teacher effectiveness. *International Journal of Information Technology & Computer Sciences Perspectives*, 4(3), 1630-1634.
- Siri, A. et.al. (2020). Does teacher competence and commitment improve teacher's professionalism. *Cogent Business & Management*, 7(1).

- Sumaryanta, et.al. (2018). Assessing Teacher Competence and Its Follow-up to Support Professional Development Sustainability. *Journal of Teacher Education for Sustainability*, 20 (1), 106-123.
- Sushil K Rohiwal(2018) Home – Environment and Teaching Aptitude among Male and Female College Students. *IJRAR-International Journal of Research and Analytical Reviews*, 5 (2), 303-307.
- Suvera, P. and Tailor, P.R. (2020). Computer phobia: a comparative study of male and female B.Ed. trainees. *The International Journal of Indian Psychology*, 8(1), DIP: 18.01.049/20200801 DOI: 10.25215/0801.04
- Symeonidis , V.(2019) Teacher competence frameworks in Hungary: A case study on the continuum of teacher learning. *European Journal of Education*, 54 (3), 400-412.
- Ursavaş O.F. and Karal,H. (2009) Assessing Pre-Service Teachers' Computer Phobia Levels in terms of Gender and Experience, Turkish Sample. *International Journal of Behavioral, Cognitive, Educational and Psychological Sciences* 1:1,71-75.
- Vaiyapuri Raja P . (2007). Higher secondary teachers' computer knowledge and their attitude. *Journal of All India Association for Educational Research*, 19 (1&2), 8-69.
- Vithalrao, M.S. (2009). *Computer phobia of college teachers- A study*.43rd IATE Framework.
- Wali O, Vanka S, Vanka A, et al. (2021). Locus of control - a dental student perspective. *J Evolution Med Dent Sci*, 10(09):573- 576, DOI: 10.14260/jemds/2021/124
- Zhang, Y. Ye, F.and Liu, X.(2021). Teaching Competencies of Language Teachers in Research Universities in Beijing: Perspectives from SoTL and Institutional Theory. *Sustainability*, 13, 4943. Retrieved From : <https://doi.org/10.3390/su13094943>.

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