

**INFLUENCE OF TECHNOSTRESS AND TEACHER
AUTONOMY ON BURNOUT AMONG UNAIDED
SECONDARY SCHOOL TEACHERS**

Thesis
Submitted for the Degree of
DOCTOR OF PHILOSOPHY IN EDUCATION

by
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2023

DECLARATION

I **SHAFEEK P.**, do hereby declare that this thesis entitled as **INFLUENCE OF TECHNOSTRESS AND TEACHER AUTONOMY ON BURNOUT AMONG UNAIDED SECONDARY SCHOOL TEACHERS** is a genuine record of research work done by me under the supervision of **Dr. HASSAN KOYA M.P.**, Associate Professor (Rtd.), Farook Training College, Research Centre in Education, University of Calicut, and that no part of the thesis has been presented earlier for the award of any Degree, Diploma and Associateship in any University.

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“**INFLUENCE OF TECHNOSTRESS AND TEACHER AUTONOMY ON
BURNOUT AMONG UNAIDED SECONDARY SCHOOL TEACHERS**” submitted
for the degree of Doctor of Philosophy in Education of the Farook Training
College, is a record of bonafide study and research carried out by
Mr. SHAFEEK P., under my supervision and guidance and that no part thereof
has been presented before for any other Degree, Diploma or Associateship in any
other university.

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A handwritten signature in black ink, appearing to be 'Hassan Koya'.

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INTRODUCTION

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- ❖ *Need and Significance*
- ❖ *Statement of the Problem*
- ❖ *Definition of key terms*
- ❖ *Objectives*
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“Teachers are the backbone of any country,
the pillar upon which all aspirations are converted into realities”

Dr. A P J Abdul Kalam

All education spectrums have undergone drastic changes irrespective of role of the teacher, place of the pupil, subject matter and methods of instruction. No matter how many educational system changes, the role of the teacher is paramount. The important and crucial role of the teacher in the learning process is generally recognized in all pedagogical sciences. There is a prevalent perception that teachers play a more important role in educational advancement than changing the physical facilities of the school or curriculum development. Teaching is such a profession that includes interaction with the burnt mind of the young, which is the most powerful resource above the earth, beneath the earth and on the earth. So, it is essential for the healthy mind of the future generation that their teachers should be psychologically, physically, emotionally and socially healthy people. But in the student-centred system there was a situation where teachers' problems knowingly or unknowingly were ignored. In a way, it is the negligence of the pupil's issue itself.

There is a notion that teachers are not getting due consideration in the new education system. Above that, unaided teachers are the most marginalised and overlooked among teachers. There is found less serious discussion on the various issues of unaided teachers. As per the report of Unified District Information on School Education (UDISE +) 2017-18 the numbers of unaided teachers in Kerala is 71202. This is almost the same as the number of government teachers in Kerala. In Kerala, 2.33% of teachers are working in aided sectors. Only 26.26 % teachers work in government sector and 26.20 % work in unaided sectors. So, the issues of unaided teachers are a vital matter of our education system.

Kumar (2020) invited the attention of stakeholders and public to the cruel reality that unaided teachers are working like slaves. The problems of private

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education sector and the teachers who work there are concealed in the enthusiasm shown by the government and the intellectual community in highlighting the public education sector in the mainstream media. There has been less discussion so far about the problems faced by teachers in the unaided sector. More than seventy percent of teachers in the unaided sector are women. Therefore, the problems in this area are also becoming the problems of women.

Peters (2001) indicates responsabilisation as one of the most powerful strategies of neoliberal economy. Unaided educational institutions put forward a very effective use of responsabilisation. Its nature is to warn teachers of self-assessment and self –warning through the constant conduct of examination and assessments among students. There are number of schools where teachers are not allowed to sit in classrooms or use toilets except at pre-arranged times and being fired as a matter of convenience to management.

Pithers and Sodden (1998) emphasised that role of overload is one of the main reason of teachers' stress. In the case of unaided sectors these issues of overload became a great mistreatment. The Workload of unaided teachers has increased by leaps and bounds and has turned into a huge exploitation. In addition to being overworked before and after the school hours, they are often twice as hard working compared to teachers in the public sector. Most unaided schools have strange rules that teacher can only teach in the classroom not outside the classroom. Classes in many places do not have chairs. There are some reports of incidents where the principal saw the teacher sitting in the chair in the classroom during the regular observations and severely abused in front of the students. There are lot of such issues that lead teachers to burnout. Here the investigator chooses two causes among them to check how it influences the teachers' burnout, that is technostress and teacher autonomy.

Time has witnessed that technology is causing great changes in all aspects of human life, both personal and social. The development of technology in an

unpredictable way is advancing day by day and it is having a huge impact on all interventions. Radical changes in society are taking place in a way that man could not have even imagined a few years ago. Due to the development of technology, the world today is in the palms of everyone. They can know what is happening in any corner of the world in real-time and interact with people in any part of the world. In other words, it can be said that the equality of interventions beyond nationality and status is made possible by new technology. The use of information technology enhances the effectiveness of learning and develops the motivation for learning, which makes the learning process more successful. Information technology not only opens opportunities for the variability of educational activities, their personalization and, diversity but also allows for a new way of organizing the communication of all subjects of learning and building an educational system. The all-education system, its pedagogy, content, transaction, and method of teaching transformed into technology-based one.

Man began to experience new problems due to the proliferation of technology. His career, family life, social life and work life were badly affected. The term technostress began to be used to describe the negative impact of technology on the emotional, and psychological levels. The 21st century is a century of advanced technology. The modern student lives in the world of electronic culture. The role of the teacher in information culture is changing. He should be the coordinator of the flow of information. A teacher who adapts to the times should be ready to use information technology scientifically and effectively. Otherwise, the unscientific use of technology in any profession will lead to severe problems like technostress.

When incorporating technology into education, teachers may encounter several challenges such as lack of training, limited access to technology, difficulty adapting lesson plans, technical difficulties, lack of support, and limited time. These challenges can range from teachers not being familiar with the technology to schools

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in low-income areas not having the resources to provide access, to teachers having to spend time adapting their lesson plans and dealing with technical difficulties which can take away from learning time. Additionally, some teachers may not have enough support from their administration, IT department, or other teachers, which can make it difficult to integrate technology effectively into their instruction, and with an increase in technology usage, teachers may have less time to focus on other aspects of teaching and learning.

As a result of this revolution, now teachers began to feel technostress. It may be due to the complexity and uncertainty of technology or the invasion of technology or the lack of technological facility. Technostress which has not been properly addressed may lead to the severe issue of burnout. All are concentrating on the advantages of technological advancements, but it should be studied and noted that the dark side of the technological invasion into the educational system. The word technostress was first used by Craig Brod in 1984. He explained it as “a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner”. Technostress is the undesirable psychological link between individuals and the introduction of novel technologies. “Technostress is a process that includes the presence of ‘technology environmental conditions; which are appraised as demands or ‘technostressors’ that are taxing on the individual and require a change; which set into motion coping responses; that lead to psychological, physical, and behavioural outcomes for the individual” (Tarafdar et al., 2019).

Although Brod (1984) has explained technostress as a disease, other scholars like Davis Millis (1998) described it as an incapability to adjust to changes, brought in by technology in his essay on ‘Techno-stress and the organization: A Davis Millis Manager’s Guide to Survival in the Information Age considers technostress’, “as a condition whereby a person has to adapt to new technology especially when there is

the inadequacy of the equipment, support, or the technology itself". After few years Weil and Rosen (1997) altered this explanation of Broad since they didn't accept that technostress as a disease. They elaborated the concept of technostress and defined it as "any negative impact on attitudes, thoughts, behaviour or psychology caused directly or indirectly by technology".

Though technostress has been given different labels such as computer anxiety and negative computer attitudes (Wang et al., 2008), it is characterized by the tenseness and anxiety that an individual feel when using technology. This negative emotion should be considered important because it tends to prevent one from further using the technology" (Joo, et al., 2016). There are other terms which have the same meaning with "technostress" used by other scholars contain technophobia, cyber phobia, computer phobia, computer anxiety, and computer stress. Further, the term digital depression has also been employed to recognise the mood of a worker when being dazed by technology (Chua et al 1999; Durndell & Haag, 2002; Mustaffa et al., 2007).

Another issue considered here as a reason for burnout of teacher is teacher autonomy. The very word Autonomy indicates the basic human requirement and capacity to perform independently. Exclusively in educational field teachers need right autonomy to act for the betterment of the teaching -learning process. NCERT (2014), mentioned, "The origin of Autonomy has been one of the central concerns of philosophers since ancient times. The concept first came into prominence in ancient Greece and was derived from the Greek words 'auto' (self) and 'nomos' (rule or law), meaning one who gives oneself their own laws". Immanuel Kant was the one of the chief exponents who expresses his views on the notion of autonomy which is based on his 'Moral theory' has great philosophical importance. To attaining self-sufficiency one can make himself free from external context that affects them. Autonomous individual has their own control and choice.

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Autonomy strengthens every profession. Freedom is essential in all occupations that require skill and involve personal interventions. Especially in the teaching process which leads to the radical development of the students, autonomy has a great role. Raya et al. (2017) explain autonomy as “the competence to develop as a self-determined, socially responsible and critically aware participant in (and beyond) educational environments, within a vision of education as (inter)personal empowerment and social transformation”.

The term burnout was first introduced in academic scenario by Freudenberger (1974), who defined it as “to fail, to wear out, or become exhausted by making excess demands on energy, strength or resources”. Matheny, et al. (2000) noted that earlier research in to the phenomenon described burnout as a loss of idealism and enthusiasm for work. Burnout, as a form of work-related strain, is the result of a significant accumulation of work-related stress. Maslach (1982) defined burnout as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do people work of some kind”.

According to the well-known definition of burnout given by Maslach and Jackson, (1981), burned out people suffer from emotional exhaustion, depersonalization and a reduced sense of personal accomplishment. Emotional exhaustion denotes to feelings of being emotionally strained and having depleted one’s emotional resources. Depersonalization refers to an undesirable, heartless and isolated attitude towards the people one works with, i.e. patients, clients or students. Reduced personal accomplishment refers to someone’s negative self-evaluation in relation to their job performance (Schaufeli, et al., 2009).

The influence of technostress and teacher autonomy on burnout among unaided secondary school teachers is a topic of growing concern as technology continues to play a larger role in the field of education. Technostress refers to the

negative psychological and physiological effects of prolonged exposure to technology, such as feelings of anxiety, frustration, and exhaustion. Teacher autonomy, on the other hand, refers to the degree of control and decision-making authority teachers have over their work, including use of technology in the classroom. Research suggests that unaided secondary school teachers who are exposed to high levels of technostress may be at a greater risk of burnout, a state of chronic emotional, physical, and mental exhaustion caused by prolonged stress. This is because they may feel overwhelmed and ill-equipped to deal with the constant demands of technology integration and the lack of autonomy in decision-making. Furthermore, a lack of autonomy in the decision-making process can also lead to a feeling of powerlessness and an increased risk of burnout among teachers, who may feel that their professional autonomy is being threatened. Overall, the influence of technostress and teacher autonomy on burnout among unaided secondary school teachers is an important area of research, as it can help to identify the technostress and autonomy, and how it contribute to burnout among teachers and inform interventions to support their well-being.

Need and Significance of the Study

During the student-centred education, we unintentionally ignored the concerns of teachers. Here the investigator tries to identify two major problems of teachers at present and how it become the giant reason for the burnout of teachers. In this techno pedagogical realm teachers suffering lot of glitches. Here the investigator selected two chief problems that is technostress and teacher autonomy. Technostress of teachers is an unexplored area. Technostress is defined as a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner. In all means, a teacher should get real and positive autonomy which makes him perfect in the devotion of guiding generation. Huang (2005) defined teacher autonomy as “teachers’ willingness, capacity and freedom to take control of

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their own teaching and learning”. These two issues become the main cause for burnout of teachers. Freudenberg (1980) identified burnout as a “state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward”.

In this postmodern world man start to realize the negative side of modern revolution in all areas of development. Like almost all other things under the sky, information technological revolution too has its own positive and negative impact. It helps a lot to contribute great changes in the education filed. Simultaneously, it brings some negative impacts on education system, students and teachers. Technostress is one of the main issue which affects both pupil and teacher. Teachers’ technostress a relevant topic due to the intensity of the integration of new technologies into teaching. Furthermore, technostress seems to influence teachers’ intentions to use technology (Joo et al., 2016), in general, high levels of technostress are found to be associated with lower job satisfaction and job performance, and even with intentions to quit (Pullins et al., 2020). “Indications about the relevance of better understanding technostress abound and include observations such as Facebook fatigue or employee burnout and studies suggesting that one in ten employee sick days are probably technostress related” (Maier, 2014).

Studies reveals that “technostress symptoms may lead to a poorer quality of social interaction between the teacher and pupils, and consequently to poorer learning. Moreover, there are only few studies focusing on teachers’ technostress” (Al-Fudail & Mellar, 2008; Yin et al., 2012; Joo et al., 2016). It lights on the relevance of the study of technostress among teachers.

Latest researches stated that “educators using novel technology in classrooms have felt technostress, which instigated opposing effects in the implementation of technology. For instance, Al-Fudail and Mellar (2008) observed that there exists numerous elements triggering technostress such as technological system failure,

inadequate technical and social backing for technology practice, increased time for setting up and preparing class lectures, and insufficient institutional culture for technology implementation. In a similar manner, Joo et al., (2016) stated that teachers' technostress levels increased after implementing digital textbooks in South Korea. He appealed that teachers felt disappointed when technological system fiascos happened, because they felt like they were incapable to control the condition. Also, the study stated that direction for teachers on how to incorporate digital textbooks into their instruction was imperfect, increasing teachers' psychological and physical overload for technology implementation." (Joo et al., 2016).

Findings of the studies highlight the relationship between work autonomy and technostress. Autonomy influence technostress more than demographics (Ragunathan et al., 2008; Tarafdar et al., 2011). Teacher autonomy has elevated as one of those attractive modern terms connected with educational excellence, innovation and devolution of schools across diverse nations. Yet, for a diversity of causes and in spite of its pervasive use, the notion of teacher autonomy and its implications for education and school patrons continue dense.

Now days "Teaching is far too complex to be reduced to a simple recipe (first do this, then do that') Or to be assigned a lock-step calendar ('if it's Tuesday, we must be on page 47'). Teachers need autonomy to respond to the highly individualised dynamics of the classroom, to re-teach using different strategies when student's struggle, and to divert from the lesson plan during those magic moments when student interest takes an idea in a new direction. They also should have the autonomy to pursues some topics and areas of study that are of particular interest to them" (Dufour, 1999).

Positive autonomy helps to teachers act freely and creatively. "They give more importance to update their knowledge and never use the same lecture notes in the class year after which were prepared by them or other teachers. They never spoil the students by spoon-feeding them. They never get satisfied with what they have learnt but find

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delight in enhancing their knowledge and techniques of fostering learner autonomy every day. They share what they have learnt with their colleagues. To summarize, autonomous teachers work with learners and not for learners.” (Raya & Vieiria, 2015).

Researchers highlighted the work autonomy as a main aspect of a person’s sensation of whether their profession is wearing or satisfying (Wharton, 1993; Moller et al., 2006). Ryan and Deci (2017) indicated the advantages of autonomy -supportive leadership in encouraging employee empowerment and self-initiation. There is a report as named A Nation at Risk, which is published in 1983 by United States National commission on excellence in education and it was the one of the first exertions that initiated school reform movement. Based on this report there are explosion of rules and regulations which published to empower the efforts to improve the education system. As part of school reform movement, there arise the need of competent individuals in the field of teaching. To achieve the quality numbers in the field should be upsurge the feeling of professionalism in the field. This could only be accomplished if autonomous of teachers was accepted and executed (Rudolph, 2006). If teachers are to be professionally empowered and uplifted, teachers must have the autonomy to recommend the best dealing for their pupils as doctors and lawyers do for their clients.

Recent studies have depicted teacher autonomy in a very positive way as, for instance, “it is positively correlated with job satisfaction, empowerment, engagement and professionalism and is negatively correlated to emotional exhaustion” (Erss et al., 2016; Wermke et al., 2019; Skaalvik & Skaalvik, 2014; Wilches, 2007). Job autonomy is considered a major factor in an individual’s assertion of whether their job is exhausting or satisfying (Wharton, 1993; Moller et al., 2006), and recent research has demonstrated the benefits of autonomy-supportive leadership in promoting worker empowerment and self-initiation (Ryan & Deci, 2017)

In examining factors that may lessen teacher stress and burnout, Collie (2021) collected data between March and May 2020 from 325 Australian teachers and found that autonomy-supportive leadership was associated with greater buoyancy and, in

turn, lower somatic burden, stress related to change, and emotional exhaustion. In contrast, autonomy-thwarting or controlling practices involve pressuring individuals to feel, act, and think in particular ways, and have been positively associated with emotional exhaustion (Ryan & Deci, 2017). Research on P-12 teachers has consistently identified positive outcomes associated with increased teacher autonomy.

A study of 251 South African teachers found increased job autonomy to be related to teachers' increased feelings of meaningfulness and engagement in their work (Peral & Geldenhuys, 2016). Similarly, teacher autonomy may be a viable means of increasing their well-being (Collie et al., 2018), as previous studies have reported decreased feelings of autonomy to be a common experience in the teaching profession (Greenville-Cleave & Boniwell, 2012).

Frostenson (2015) observed that autonomy is deteriorating due to new educational changes, resulting in the deprofessionalisation of teachers and concluded that autonomy is declining due to recent educational changes, resulting in the deprofessionalisation of teachers. While technology has made easy various everyday jobs, it also has affected people's well-being. Really it is a double edged sword. Subramanyam et al. (2000) claimed that technology have displaced activities that can affect individual's physical wellbeing. The authors underline those menaces such as overweightness, seizures, and hand wounds have been connected to the use of technology. As technology has used in a great extent, it is essential to do more studies on their influence on society in general.

Burnout can evident in several professions however is especially extensive among teachers (Iancu et al., 2018). In fact, teaching is regarded one of the most stressful job (Kyriacou, 2001). It maybe predictable that there are lot of demands and stressors that teachers experience on day-to day basis (Mccarthy, et al., 2016), consisting high workload, frequent performance evaluation and student misbehaviour (Kyriacou, 2001). All these elements together provide ample chances for teachers to

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be at menace of burnout (Schaufeli & Buunk, 2003). Gorden (2007) indicated that when stress is increasing the employees felt they are burnout.

While time passes the factors that affects the burnout of teachers also changes. The revolution of information technology horribly changed all walks of life in despite of professional and personal life. The need for a study on the influence of technostress and teacher autonomy on burnout among unaided secondary school teachers is important for several reasons. The study will aid in understanding how technology integration in education impacts the mental and emotional well-being of teachers, as technology continues to play a larger role in education, it is necessary to comprehend how it affects teachers and develop strategies to support them. Furthermore, the study will help in realizing the relationship between technostress, teacher autonomy, and burnout can help educators and policymakers develop targeted interventions to support teachers' mental and emotional well-being. Additionally, the study will provide insights into the experience of unaided secondary school teachers which is an important aspect of the education system in Kerala. Comprehending the challenges faced by these teachers and ways to mitigate them can help to improve the quality of education in the country. Lastly, the study will create awareness among teachers, policymakers, and the public about the importance of addressing the well-being of teachers in the context of technology integration in education. In conclusion, researching the influence of technostress and teacher autonomy on burnout among unaided secondary school teachers is vital as it can help to improve the well-being of teachers and the quality of education in the state. Through the literature the researcher learned about teacher autonomy and technostress but hasn't come across much research in attempting to relate technostress and teacher autonomy to teacher burnout. There for the researcher has decided to attempt to conduct a study on influence of technostress and teacher autonomy on teacher burnout.

Statement of the Problem

As technology becomes increasingly integrated into the classroom and workplace, teachers are facing new and unique challenges in the form of technostress. At the same time, many teachers feel that they lack autonomy in their work, which can lead to feelings of dissatisfaction and powerlessness. The combination of these factors can lead to burnout, which can negatively impact the well-being and effectiveness of teachers. Thus the problem for the present study is entitled “INFLUENCE OF TECHNOSTRESS AND TEACHER AUTONOMY ON BURNOUT AMONG UNAIDED SECONDARY SCHOOL TEACHERS”.

Definition of Key Terms

The various term used in the title have been operationally defined below

Influence

According to Merriam Webster dictionary ‘influence is the power or capacity of causing an effect in indirect or intangible ways.

In the present study, influence stands for the influence of the independent variable on the dependent variable.

Technostress

“Technostress is defined as a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner” (Brod, 1984).

In the present study, Technostress is the negative psychological link between unaided secondary school teachers and the introduction of new technologies.

Teacher Autonomy

“Teacher autonomy is not independence or isolation rather it involves teachers’ independence, responsibility, mutual support, professional discretion, and commitment to the educational community” (Wilches, 2007).

In this present study, Teacher autonomy is the freedom of teachers to take control of all activities related to their teaching. It includes freedom in the areas of establishing school identity and praxis, Teaching and assessment, Parental involvement, professional development, extracurricular subjects, and Curriculum development

Burnout

Burnout defined as a “state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward” (Freudenberger, 1980).

In this present study, teacher burnout is a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment which occur among unaided secondary school teachers.

Objectives of the Study

1. To find out the extent of technostress, teacher autonomy and burnout among unaided secondary school teachers of Kerala.
2. To find out whether there exists any significant difference in technostress, teacher autonomy and burnout among unaided secondary school teachers based on relevant subgroups viz. gender, locale, type of school, educational qualification, discipline of teaching and teaching experience.
3. To find out the main effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant subgroups.
4. To find out the first order interaction effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant subgroups.

5. To find out the individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.
6. To develop regression equation to predict teacher burnout from technostress and teacher autonomy.

Hypotheses of the Study

1. There exists significant gender difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
2. There exists significant locale difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
3. There exists significant school difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
4. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on educational qualification.
5. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers-based on subject of teaching.
6. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on teaching experience.

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7. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for total sample.
8. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school male teachers.
9. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school female teachers.
10. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers in rural area.
11. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers in urban area.
12. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for CBSE unaided secondary school teachers.
13. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the

dependent variable Teacher burnout for state syllabus unaided secondary school teachers.

14. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers with basic qualification.
15. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers with higher qualification.
16. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school language teachers.
17. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school social science teachers.
18. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school science teachers.
19. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the

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dependent variable Teacher burnout for unaided secondary school mathematics teachers.

20. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school novice teachers.
21. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school less experience teachers.
22. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school experienced teachers.
23. There is significant individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.

Variables Selected for the Study

. Independent Variables

- Technostress
- Teacher Autonomy

Dependent Variable

- Teacher Burnout

Methodology

The methods proposed for the present study is briefly described below:

Design of the Study

The investigator used survey method to study the influence of independent variables Technostress and Teacher Autonomy on dependent variable Teacher Burnout. The survey method comes under the preview of Descriptive study.

Population and Sample

The present study is conducted on a representative sample of 510 unaided secondary school teachers selected from Kerala. Due weightages were given to the relevant subgroups of the population such as gender, type of school, locale of the institution, educational qualification, subject of teaching and teaching experience. Stratified sampling technique is used for the present study.

Tools to be Used

The investigator proposed to construct a

1. Technostress Scale (Shafeek & Koya, 2019)
2. Teacher Autonomy Scale (Shafeek & Koya, 2019)
3. Teacher Burnout Inventory (Shafeek & Koya, 2019)

Statistical Techniques to be Used

The main statistical techniques employed for the present investigations are given below:

- Basic descriptive statistics.
- Percentile
- One sample t test

- Two tailed test of significance of difference between mean scores of large independent samples.
- One way ANOVA.
- Two way ANOVA with 3x3 factorial design.
- ANOVA followed by Scheffe's test of post hoc comparison
- Pearson's product moment coefficient of correlation.
- Multiple Regression Analysis

Limitations of the Study

Even though lot of endeavours have been made to make the study as accurate and generalizable as possible, some limitations were sneaked into the study as shown below:

- Many schools not give consent for conducting the survey. So only 510 responses from teachers were obtained due to this limitation.
- The sample of the study didn't include all level of teachers. The study was limited only to secondary level teachers due to the practical difficulties.

Scope and Delimitation

The main purpose of present investigation is to explore how technostress and teacher autonomy influence burnout of unaided secondary school teachers. For this study appropriate tools constructed and standardized by the investigator. With the help of suitable tools, the required data were collected from a stratified sampling of 510 unaided secondary school teachers of Kerala state to make the study more unbiased and precise. Analysis of the data was done with maximum care. Since the sample of the study comprises various teachers from different districts. The results

can be generalized. The influence of the study may provide valuable suggestions for teachers, educators and administrators.

Though possible precautions were taken to obtain reliable and generalizable results, the investigator would like to point out certain limitations likely to enter into the study.

The present study is delimited to the following aspects.

1. Selection of the independent variables for the study is confined to two major variables viz., technostress and teacher autonomy.
2. Selection of a few schools across the state intended for data collection may not be representative of all institutions in the state.
3. The generalizability of the study will be limited to the extent of the nature of the tools and sample selected.

Organization of the Research Report

The report of the study is organized in five chapters. The details incorporated in each chapter are as follows:

Chapter I includes a brief introduction of the problem, need and significance of the study, statement of the problem, definition of key terms, variables of the study, hypotheses and objectives methodology, scope and limitations of the study.

Chapter II presents a brief theoretical outline of variables and a summary of the review of related studies.

Chapter III includes the methodology of the study in detail. This chapter comprises description of method used, variables, tools used for the data collection, sample for the study, data collection procedure, and statistical techniques used for analysis.

Chapter IV deals with the statistical analysis of data and interpretation of the results.

Chapter V contains a brief view of summary of the study, major findings and conclusions of the study. It also presents detailed report on educational implications of the study and suggestions for further research.

Chapter VI presents the suggestions for further research and recommendations of the study in detail.

Report is followed by the references and a series of appendices pertaining to this study.

REVIEW OF RELATED LITERATURE

- ❖ *Theoretical overview of Technostress*
- ❖ *Studies related to Technostress*
- ❖ *Theoretical overview of Teacher Autonomy*
- ❖ *Studies related to Teacher Autonomy*
- ❖ *Theoretical overview of Teacher Burnout*
- ❖ *Studies related to Teacher Burnout*

Literature review is a portrayal of the literature pertinent to a particular topic or area. It gives an outline of what has been studied, who are the main scholars in the field, what are the dominant theories, what ways and means are apposite and beneficial. It is indispensable for any research and the researcher should comprehend up-to date data about what has been studied in the area. It is a crucial and important part of any research effort since it evades replication of research. Overall, the review of related literature will provide a comprehensive overview of the current state of knowledge on the topic and will serve as a foundation for the current study. It will also help to identify any gaps in the literature that the current study aims to address and provide a context for the research questions and hypotheses. This chapter deals with the theoretical background and review of related literature of technostress, teacher autonomy and teacher burnout. The literature reviewed in the present study has been classified into the following heads

- Theoretical overview of Technostress
- Studies related to Technostress
- Theoretical overview of Teacher Autonomy
- Studies related to Teacher Autonomy
- Theoretical overview of Teacher Burnout
- Studies related to Teacher Burnout

Theoretical Overview of Technostress

“Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important” (Bill Gates).

Time has witnessed that technology is instigating prodigious vicissitudes in all facets of human life, both personal and social. The development of technology in an unpredictable way is advancing day by day and it is having an enormous impact on all interventions. Deep-seated changes in society are taking place in a way that man could not have imagined a few years ago. Due to the advance of technology, the world today is in the hands of everyone. They can know what is happening in any nook and corner of the world in real time and communicate with people in any part of the world. In other words, equality of interventions beyond nationality and social status is made possible by

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new technology. In the so-called "Information Age" the growing practice of technology has become the pouring force in the way people learn, work and play (Drake, 2000). Information technology is a double-edged sword, producing assistances and issues.

The time period of digital transition is given below

Table 1

Time Period of Digital Transition

Name of the Period	Duration
Age of Mass Communication	1950 – 1990
Personalize Automation	1990 – 1994
Age of Information	1994 – 1996
Instant Interaction	2000 –continue

Table is prepared based on the data given by Al Shami, 2008

Emergence of the Concept of Technostress

Man began to experience new problems due to the proliferation of technology. His career, family life, social life and professional life were badly affected. The term technostress began to be used to describe the negative impact of technology on the emotional and psychological level. The word technostress was first used by Brod in 1984. He explained it as “a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner”. Technostress is the undesirable psychological link between individuals and the introduction of novel technologies. ‘Technostress is a process that includes the presence of ‘technology environmental conditions’; which are appraised as demands or ‘techno stressors’ that are taxing on the individual and require a change; which set into motion ‘coping responses’; that lead to psychological, physical, and behavioural ‘outcomes’ for the individual” (Tarafdar et al., 2017).

Evolution of Definitions

The issue of technostress has been started to explore since 1980s. Brod (1982) one of the famous American psychotherapist defined as “as a situation resulting in difficulty adapting, stemming from the use of a new technology by an

individual or organization” later he defined it as “a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner”. Jay (1981) explains risky forms technostress, i.e.; horrible fear of computers, and coined the term ‘computer phobia’.

Although Brod (1984) has explained techno-stress as a disease, other scholars like Davis Millis described it as an incapability to adjust to changes, brought in by technology in his essay on ‘Techno-stress and the 33 organization: A Davis Millis Manager’s Guide to Survival in the Information Age considers techno-stress’, “as a condition whereby a person has to adapt to new technology especially when there is the inadequacy of the equipment, support, or the technology itself”. After few years Weil and Rosen (1997) altered this explanation of Broad since they didn’t accept that technostress as a disease. They stated it as” any negative impact on attitudes, thoughts, behaviour or psychology caused directly or indirectly by technology”.

Weil and Rosen (1997) elaborated the concept of technostress, and defined it as “any negative impact on attitudes, thoughts, behaviours or psychology caused directly or indirectly by technology.” Clark and Kalin (1996) pointed out that technostress is a resistance to revolution. Technology should not be alone the key reason in technostress since technologies are mere apparatuses and the stress is a natural response. So, they have recommended that in order to control the technostress, it is the change of the user that has to be controlled not the technology. Champion (1988) expresses same view in his article ‘Techno-stress: Technology’s Toll’. The information era is all about different transformation like cultural and social, or to be more precise, a reaction to techno change, but not to adaptation of technical components such as gadgets, programs, web, or fibre optics. It has become an issue of adaptation due to individual’s incapability to adjust with or to get used to new technologies.

While technostress has been given diverse terms such as computer anxiety and negative computer attitudes (Wang et al., 2008), it is characterized by the tenseness and nervousness that an individual sense when using technology. “This undesirable emotion should be considered vital since it inclines to stop one from further using the technology” (Joo et al., 2016). Famous definitions of technostress are presented below.

Table 2*Definitions of Technostress*

Definer	Definition
Tarafdar et al. (2019)	“Technostress is the stress that individuals experience due to their use of Information Systems (IS).”
Salanova (2007)	“Techno-stress is anxiety, mental fatigue, scepticism and ineffectiveness resulting from the focusing on ICT use or its future use”
Bondanini et al. (2020)	“Technostress is the mental and psychological problems afflicting people with technologically dense work”
Weil & Rosen (1997)	“Technostress is any negative impact on attitudes, thoughts, behaviour or psychology caused directly or indirectly by technology”.
Champion (1988)	“Stated that rapidly changing technology would have a negative effect on future living, and thereby described technostress as “The Price of Using Technology”.
Brod (1984)	“Technostress is .a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner. It manifests itself in two distinct ways: in the struggle to accept computer technology, and in the more specialized form of over identification with computer technology.”
Caro & Sethi (1985)	“Technostress is a perceived, dynamic adaptive state between the person and the environment, mediated by socio psychological processes and influenced by the nature of the technological environment”
Brod (1982)	“Technostress is a situation resulting in difficulty adapting, stemming from the use of a new technology by an individual or organization.”
Wang et al. (2008)	“Reflection of one’s discomposure, fear, tenseness and anxiety when one is learning and using computer technology directly or indirectly that ultimately ends in psychological and emotional repulsion and prevents one from further learning or using computer technology.”
Salanova et al. (2013)	“Negative psychological state associated with the use or threat of ICT use in the future. They found that a technostress experience can be related to feelings of anxiety, mental fatigue, skepticism and inefficacy”
Wes (2007)	“Technostress is made up Technostress is a made-up word that describes a particular sort of reaction to technological change and expectations.”
Davis-Millis (2006)	“A condition resulting from having to adapt to the introduction and operation of new technology, particularly when equipment, support, or the technology itself is inadequate.”
Kupersmith (2006)	“ ‘Technostress’ (computer-related stress), a common problem for reference librarians in the 1990s, is a combination of performance anxiety, information overload, role conflicts, and organizational factors.”

Techno stress is the incompetence to adapt to or cope with new computer technologies which unveils itself in one of two means that is computer handlers struggle to accept the technologies and computer users' over-identification with the technology (Brod, 1984). There are other terms which have the same meaning with "technostress" used by other scholars contain technophobia, cyber phobia, computer phobia, computer anxiety, and computer stress. Further, the term digital depression has also been employed to recognise the mood of a worker when being dazed by technology (Chua et al., 1999; Durndell & Haag, 2002; Mustaffa et al., 2007).

Technostress is a disorder affected by the inefficiency of "people and professional areas to adapt to rapid changes in technology. In the study of Brod emerged as a factor of technostress also the level and the user's technical expertise, the pressure applied from the outside during use, and the atmosphere lived within the workplace" (Sahin, 2009).

The definition of technostress has evolved over time as research and understanding of the phenomenon has progressed. Initially, technostress was defined as the negative psychological and physiological effects that result from excessive or inadequate use of technology. Later, definitions began to focus on the specific sources of stress, such as the constant pressure to stay connected, the overwhelming amount of information, and the pressure to keep up with new technology. Some researchers have defined technostress as the "emotional, cognitive, and physiological responses to being overwhelmed by technology-related demands." Others have described it as "the negative impact of technology on an individual's psychological and physiological well-being." More recently, definitions of technostress have shifted to include not only the negative effects of technology but also the positive effects, such as increased productivity and connectivity. The definition of technostress now encompasses a balance between the positive and negative effects of technology, which is in line with the idea that technology can be a double-edged sword.

In summary, the definition of technostress has evolved over time to reflect the growing understanding of the phenomenon, and currently it is understood as the emotional, cognitive, and physiological response to the balance of positive and negative impacts of technology-related demands.

Dimensions of Technostress

According to Taraffdar et al. (2007) there are five components for techno stress which are techno-overload, techno-invasion, Techno insecurity, techno complexity and techno uncertainty.

Techno Insecurity

It is the one of the serious issues caused by technological devices. It is related with circumstances where individuals feel endangered about losing their data especially personal and official secrets. Techno-insecurity arises when a user minds nervous about losing his or her profession to other co-workers who have better knowledge of and skills with the technology compared to him or her. Techno-insecurity has been linked to situations where users face threats about technology due to automation from ICTs or other persons who have a improved understanding of ICTs.

Techno insecurity refers to the feeling of insecurity or anxiety that individuals may experience when using technology, particularly in the context of online security and privacy. It encompasses concerns about the safety and security of personal information, the potential for hackers to access sensitive information, and the fear of identity theft.

This insecurity can manifest in a number of ways, such as reluctance to share personal information online, avoidance of certain technology or social media platforms, or a lack of trust in the security of online transactions. It can also take the form of anxiety or stress when using technology, especially when dealing with sensitive information or conducting financial transactions online. Techno insecurity can be a significant barrier to the adoption and use of technology, particularly for

those who may not be as familiar with technology. It can also lead to reduced productivity and increased stress for individuals and organizations.

Techno Complexity

Techno complexity refers to the difficulty or complexity that individuals may experience when using technology. It encompasses the feeling of being overwhelmed by the amount of information, the number of options, or the complexity of the technology. This complexity can make it difficult for people to understand how to use technology effectively, which can lead to frustration, decreased productivity, and a reluctance to adopt new technology. It is the conditions where the complexity connected with ICTs can lead users to experience inadequacies with their computer skills and forces them to employ time and energy in learning and understanding ICTs. It indicates the complex technological arena including new updates in the field of technology which are force to teachers or any workers to use lot of time and energy in learning and acquiring the knowledge how to practice new applications and software. Besides, due to complication of the technology, teachers must apply more time to learn what way to practice technology in education process. Stress happens when they sense that the diversity of applications and functioning is threatening and they do not comprehend the necessity of practicing it. Additionally, persistent variations of technology being a reason to make users as strained and discontented with the whole system (Ibrahim & Yusoff, 2015).

Some of the sources of techno complexity include:

- The rapid pace of technological change, making it difficult for individuals to keep up with new developments and features.
- The large number of options and features available, making it difficult for individuals to determine which one best suits their needs.
- The complexity of the technology itself, with multiple layers of menus and options that can be difficult to navigate.

- The lack of clear instructions or explanations, which can make it difficult for individuals to understand how to use a particular technology.

Techno Invasion

It denotes a condition that users feel that they are never free from technology. They believe that technology has occupied their all interactions. (Ibrahim & Yusoff, 2015). Techno invasion refers to the extent to which technology intrudes into an individual's personal and professional life. It encompasses the feeling of being constantly connected and always available, as well as the pressure to respond to notifications and messages immediately, regardless of time or location. This constant connection can make it difficult for people to disconnect and engage in activities that do not involve technology, leading to feelings of stress, anxiety, and burnout. Techno invasion can have a negative impact on an individual's physical and mental well-being, as well as on personal and professional relationships. It can lead to decreased productivity, burnout, and a lack of work-life balance. Some of the sources of techno invasion include: The constant availability of technology, such as smartphones and laptops, which make it difficult for individuals to disconnect and unplug. Second one is the pressure to be always available, especially in the context of work, where employees may feel obligated to respond to emails and messages outside of normal working hours. Third one is the constant bombardment of notifications and messages, which can make it difficult for individuals to focus on other tasks or activities.

Techno Overload

It happens when users are incapable to recognise what is truly beneficial data. They use more time and energy in information handling because they transfer more information than is essential and obtain more data than they can efficiently process. Users also receive more information than they can process and use meritoriously (Ibrahim & Yusoff, 2015). Techno-overload describes situations

where ICTs force users to work faster and longer. Techno overload denotes a condition where teachers are forced to work quicker as a result of the use of connected ICTs each and every time, eventually they are compelled to be the part of increased workload. As a consequence of this overload teachers suffering work exhaustion and other health glitches. (Christian et al., 2020)

Techno overload refers to the feeling of being overwhelmed by the sheer volume of information and technology that is available. It encompasses the difficulty of handling, processing and making sense of the vast amount of information, options, and features that are available. This overload can make it difficult for people to focus, retain information, and make decisions, leading to feelings of stress, anxiety, and frustration. Techno overload can have a negative impact on an individual's productivity, mental well-being and decision-making ability. It can also lead to decreased job satisfaction and a lack of engagement.

Techno Uncertainty

Technological uncertainty refers to the lack of knowledge or understanding about the potential impacts and risks of new or emerging technologies. It can include uncertainty about the safety, efficacy, or long-term effects of a technology, as well as uncertainty about its economic, social, or political implications. Technological uncertainty can create challenges for decision-makers, businesses, and individuals, as they may have difficulty assessing the risks and benefits of a technology and determining how to best use or regulate it. It can also lead to public uncertainty about the technology and mistrust of the entities that develop or promote it.

Techno Overuse

Technological overuse refers to the excessive use of technology, such as smartphones, computers, and the internet, to the point where it negatively impacts a person's physical, mental, and social well-being. This can manifest in symptoms such as insomnia, eye strain, anxiety, depression, and social isolation. It can also

lead to a lack of physical activity, poor posture, and other health problems. Long-term overuse can also lead to addiction, making it difficult for a person to cut back on their technology use.

Types of Technostress (Fisher, 1996)

According to Fisher, there are two types of technostress which are the result of heavy and long term of use of new technologies.

Physical Forms of Technostress

Heavy use of new technologies may result into physical strain such as eyestrain, headaches, and backaches. Mainly two sub types physical forms are there.

- a) **Repetitive Strain Injuries.** Carpal tunnel syndrome, whose signs comprises ache, tingling and emotionlessness in the hand, wrist and arm, can be caused by constant hasty practice of the fingers, and is common those who use keyboards recurrently.
- b) **Overexposure to Visual Display Units (VDUs).** Headaches and muscular dysfunction may results from overexposure to computer terminals, while electromagnetic radiation produced by VDUs has been connected to failures and serious medical conditions including cancer (Coghill,1990).

Psychological Forms of Technostress

This form of technostress is more complex in nature. An individual feels technostress because of his milieu such as poor quality gadgets in workplace and need of the timely updating considering the rapid change

Symptoms of Technostress

Technostress always shows some symptoms which one can understand the intense of stress. There are mainly two types of symptoms such as psychological symptoms and Physical symptoms.

Psychological Symptoms

One of the primary psychological symptom is anxiety. This nervousness is articulated in various ways: petulance, headaches, incubus, and confrontation to learning new things. Techno anxiety most frequently troubles those who feel overstretched by employers, peers, or one who have feels somewhat a cultural lag to approach new technologies.

Physical Symptoms

Brillhart (2004), adding to psychological signs such as mental weariness, insomnia, restlessness, explains physical symptoms in the form of headaches, furor, stomach and duodenal difficulties, heart attack and high blood pressure. Wang and Shu (2005) point out that slump in professional competence is a sign of technostress. When someone work with technological devices, they may struggle from increase in adrenalin levels, headache, heart block, digestive complications, violence, sleeplessness, asthma, tonus, increase in heart rate and blood pressure, and in some unusual situations they may shows signs of diabetes and cancer.

- Emotional symptoms such as anxiety, depression, and irritability
- Behavioral symptoms such as procrastination, decreased productivity, and difficulty concentrating
- Cognitive symptoms such as forgetfulness, confusion, and difficulty making decisions
- Social symptoms such as isolation, difficulty communicating, and decreased face-to-face interactions
- Difficulty disconnecting from technology, leading to an inability to relax or enjoy leisure activities
- Difficulty in sleeping and insomnia as the constant use of technology disrupts the natural sleep pattern.

It's important to note that the symptoms of technostress can also be symptoms of other conditions, and it's essential to seek professional help if the symptoms persist or disrupt daily life.

Contributors for Technostress

Technostress is the dark side of technological usage. Like many other scientific intervention technological device has positive and negative aspects. Chiefly there are four contributors for technostress such as contributors of lack of professional development, contributors of software issues, contributors of hardware issues and contributors of lack of human relationship. Rosen et al. (1987) distributed the signs of technostress into three groups:-Anxious technophobe, Cognitive technophobe and Uncomfortable user.

Contributors of lack of professional development means each and every person who interact with technology in their profession should have essential knowledge and skill of practice in the field, only through the appropriate and timely training can achieve that expertise. Software issues includes difficulty in recall user names and passwords, too many email and complexity of terminology. Hardware issues consist connectivity problem, environment, high cost, power, hardware breakdowns, and computer breakdown. Technology devices affect human relationship in a great extent, low human interaction leads into great personal and social issues.

Normally technostress will happen in two contexts. First one is organisational context and second one is private context. In former situation people use the information technology for the purpose of profession while in the later context individual use the technology for the personal needs. In organisational context they may use different technologies such as network technologies, communication technologies, database and enterprise technologies and software application. In private usage an individual can easily reduce the usage of IT when he realize his technostress but in the case of work context it may lead into severe problems (Maier, 2014). In some cases both two context affect a person simultaneously.

Teachers and Technostress

The phenomena of technostress is presently getting attention in the educational milieu as novel technologies such as digital textbooks, cloud computing, interactive technology and even social media invaded new classrooms. Teachers are the vital part in the incorporation of technology to teaching-learning process. Law et al. (2008) indicated as teachers are the most prominent factor of educational technology in a research conducted in twenty-two countries and on 35000 teachers.

As in the case of every occupational group, techno-stress is as significant issue for teaching profession too. Because of the facilities it provides, ICTs have taken its place as a pedagogical tool in education in last few decades and been combined to all educational systems quickly. Instructors, who have a central part in the integration are affected from several elements. Techno-stress is one of these issues. Further to the shifting sense of learning, the nature of technology, technical assistance, incompetence to practise, idea of the school and social pressure are the reasons for technostress among teachers. Teachers specifically experience techno-stress in the practise of integrating novel technologies, which is a common situation come across with digital technologies. Furthermore, the continuation of the burden for technology incorporation in education both from the institutions and the public sphere, and the deficiency of awareness and support upshot in technostress among educators (Longman, 2013). “The digitalization of education can also be stressful for teachers. There might be various reasons for such technostress. First of all, the digitalization of work often creates a demand to learn new things and adopt new technologies, which requires extra effort and may lead to higher workload and time pressures. Thus, stress can also be seen as an indicator of learning. The digitalization of work might also force the teacher to change the way she or he works.” (Tarafdar et al., 2015)

In addition, it has been exposed that Technological Pedagogical Content Knowledge (TPACK) which is teacher’s capacity to combine content, pedagogy, and

technology meaningfully in schooling, and school support are connected with instructors' technostress. According to Joo's high level of TPACK and a high level of school support are connected with lower levels of technostress. According to Çoklar et al. (2016) there are five chief causes indicating technostress suffered by teachers such as individual problems, technical problems, education-oriented problems, health problems, Time problem. Teachers' technostress a relevant topic due to the intensity of the integration of new technologies into teaching. Furthermore, technostress seems to influence teachers' intentions to use technology (Joo, et. al., 2016), in general, high levels of technostress are found to be associated with lower job satisfaction and job performance, and even with intentions to quit (Tarafdar et al., 2015).

Earlier studies on the practise of computers for teaching and learning already stated that instructors are the key to technology implementation. For instance, educators' computer familiarities, teachers' apprehensions or approaches toward computer practise, and teachers' involvements with professional enlargement courses on computer use were important to technology incorporation in education (Joo et al., 2016).

Teachers are particularly susceptible to technostress due to the increased use of technology in education. Some of the factors that can contribute to technostress in teachers include: Inadequate training and support: Teachers may feel overwhelmed and stressed if they are not provided with adequate training and support in how to use technology effectively in their classrooms.

Technology Continuance

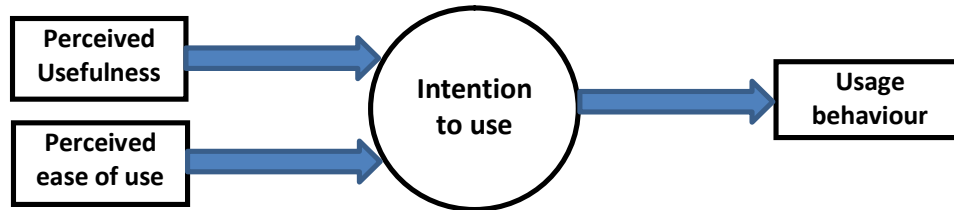
Technology continuance is an individual's long-term technology usage over a period of time. It is the one of the major reasons behind the issue of technostress which affect our day to day life unfavourably. Technology continuance refers to the ability of a technology or system to continue functioning without interruption. It can also refer to the process of maintaining and updating a technology to ensure its

continued operation. This includes regular maintenance and upgrades to hardware and software, as well as the development of contingency plans to minimize the impact of potential disruptions. The Integrative Framework of Technology Use (IFTU) (Kim and Malhotra 2005) ranges study in the stream of IT continuance by exploring the active interaction of beliefs, intents, and persistence conducts. Hence, IFTU follows four renowned mechanisms; (1) technology acceptance model, (2) sequential updating mechanism, (3) feedback mechanism, and (4) repeated behavioural patterns.

Technology Acceptance Model (TAM, Davis 1989)

The Technology Acceptance Model (TAM) is a theoretical framework that explains how users come to accept and use technology. It is based on the idea that an individual's perception of the usefulness and ease of use of a technology are the primary factors that determine their acceptance and use of that technology. The model proposes that perceived usefulness and perceived ease of use are the key factors that influence an individual's attitude towards a technology, and that attitude in turn influences the individual's intention to use the technology, which ultimately leads to actual use. The model also suggests that external factors such as social influence, and perceived behavioral control can also affect the adoption of technology, as they can change the perceived usefulness and ease of use of technology, and the attitude towards it. TAM is widely used as a theoretical framework to study the acceptance and use of information systems, and has been applied to a wide range of technologies including, but not limited to, computer systems, mobile devices, and the Internet.

Technology Acceptance Model (TAM) introduced by Davis (1989) tries to describe why individuals accept information technology and it covers the future social psychological concepts by presenting two technological characteristic grounded attitudinal beliefs (figure 1). First one is an individual's perceived usefulness, which is demarcated as "the degree to which a person believes that using a system would enhance his/her job performance" and perceived ease of use that denotes to "the degree to which a person believes that using a system would be free of effort" .

Figure 1*Technology Acceptance Model (Davis, 1989)*

Famous technologist John Kupersmith, reference librarian at the University of California, Berkeley, who has studied about technostress in libraries, analyses hitches comprised in technostress and reference librarians into five distinct kinds:

Performance Anxiety

Kupersmith says: “It is hard– and stressful– to suppress one’s anger at clumsy design when teaching a user how to get around in a frustrating system, yet we know that we must do this and project a positive attitude for the user’s sake.”

It is found in studies that ‘apprehension and fear of the consequences of being unable to perform a task or of performing it at a level that will raise expectations of even better task achievement. Test anxiety is a common example of performance anxiety. Other examples include fear of public speaking, participating in classes or meetings, playing a musical instrument in public, and eating in public. If the fear associated with performance anxiety is focused on negative evaluation by others, embarrassment, or humiliation, the anxiety may be classified as a social phobia.’ Here in this context being disturbed that you are being arbitrated by your skill to practice technology, particularly when trying to exhibit it to someone else.

Information Overload

This includes not just erudition about an ever-expanding set of novel resources and tools, but also hastily accomplishing a level of proficiency so that you can elucidate it to fresh or practised handlers.

Role Conflicts

It is a feeling that they are moving from traditional proficiency work to undertaking more wide-ranging tech based one, which appears like a downgrading of sorts of employees. Mainly there are two types of role conflict such as Intra-role conflict and Inter role conflict.

Organizational Factors

Institutions should have a clear policy on numbers of people desired and how much technology is required to support a specific task. When these numbers reduced or the lack of adequate technology happens, individuals feel overworked.

Pucci (2015) pointed out that “the symptoms caused by technostress often co-exist with other psychological and phenomena such as the syndrome of burnout derivative disorders from work alcoholism. These conditions are not disease but represent an important psychosocial risk factor. There is evidence that these factors can lead serious health consequences and produce in subjects’ certain disease. For this reason, the stress derived from technological dependence, which is still a 25 underestimated phenomenon, is diagnosed in a late stage, often after serious events related to health such as heart attacks, for which prescribed a long rest period away from work. Also on the relational level technostress has a strong impact: the techno stressed subject reacts with the isolation and emotional closure, he /she has bouts of anger, conflicts with colleagues and family. These conditions often result in a syndrome of internet addiction (IAD- internet Addiction Disorder), a disorder that is intertwined with technostress”. Karasek (1979) viewed that introduction of novel technology into the teaching area is creating stress by increasing professional responsibilities, while simultaneously dipping decision-making freedom.

Measurement Techniques for Technostress

There are few measurement tools related to technostress. Çoklar et al. (2017) describes the technostress scale levels and its Development’. The aim of the study is developing a likert type scale named as TTLDSC (“Teachers’ Techno stress Level

Defining Scale”) to find out the techno stress level of teachers. The sample of the study consist 395 teachers. The development of the scale included five steps such as, Forming the theoretical framework and pool of items, getting expert opinion, Testing validity and reliability, Factor analysis and Item discrimination. The tool consists 28 items based on five factors that is Learning –teaching process oriented, Profession oriented, Technical issue oriented, Personal oriented and Social oriented.

Diffusion of Innovations

Rogers (2003) introduced the term ‘Diffusion of Innovations’. According to this theory innovation means an idea, exercise, or thing that is observed as novel by an individual or other unit of acceptance. Diffusion of Innovations is a concept that look for to clarify how, why, and at what rate novel notions and technology spread through cultures. Rogers describes five intrinsic features such as relative advantage, compatibility, complexity or simplicity, trialability, observability of innovations that effect a person’s choice to accept or discard a novelty. Diffusion is the procedure by which an innovation is transferred through certain networks over time among the fellows of a public system.

The Diffusion of Innovation (DOI) theory is a model that explains how, why, and at what rate new ideas and technologies spread through a social system. it has been widely used to understand the adoption and implementation of new technologies and innovations in various fields. According to the DOI theory, the diffusion of an innovation occurs in five stages:

Knowledge

The first stage is when individuals become aware of the innovation and begin to learn about it.

Persuasion

The second stage is when individuals start to form an opinion about the innovation and decide whether or not to try it.

Decision

The third stage is when individuals make a commitment to adopt or reject the innovation.

Implementation

The fourth stage is when individuals put the innovation into use.

Confirmation

The final stage is when individuals evaluate the results of their adoption and decide whether to continue using the innovation or not.

DOI theory also introduces the concept of adopter categories, it identifies five categories of adopters: innovators, early adopters, early majority, late majority, and laggards. These adopter categories are based on their willingness to adopt new ideas and technologies, and they play a key role in the diffusion process. The DOI theory has been widely used in various fields such as marketing, sociology, and innovation management to understand how new products, services, and ideas spread in the market and society.

Studies Related to Technostress

Varanasi et al. (2021) conducted a study on technostress of teachers in low-income Indian schools. Findings of the study shows that even though smartphones help the teaching and organizational tasks, use of smartphone significantly forecasts burnout among teachers, with technostress contributing a chief clarification for this correlation.

Wang and Li (2019) tried to explore the issue of technostress among teachers in higher education. One of the main objectives of the study is to find out the relationship between multidimensional technostress and job performance were analysed. The sample of the study included 343 teachers from universities in China. The instrument used for the study is a multidimensional person-environment misfit

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frame work of techno stress. The findings of the study show that person - organization (P-O) misfit, Person - technology (P-T) misfit, person-people (P-P) misfit mostly captivated how teachers interfere with manifold facets of higher education context in a disparity way that seeds techno stress.

Dong et al. (2019) Exploring the structural relationship among teachers' technostress, technological pedagogical content knowledge (TPACK), computer self-efficacy and school support. The present study made a structural model among TPACK, computer self-efficacy, administration support, and collegial support, teachers' technostress which were observed through a combined tool modified from prior studies. The sample of the research consist 366K-12 in-service teachers in China.

Tarafdar et al. (2017) explains the technostress trifecta - techno eustress, techno distress, design and gives theoretical guidelines and an outline for research of technostress. It is a qualitative study to comprehend the existing academic explanations of technostress and examines the various causes.

Çoklar et al. (2017) describes the technostress scale levels and its Development'. The aim of the study is developing a likert type scale named as TTLDSC ("Teachers' Techno stress Level Defining Scale") to find out the techno stress level of teachers. The sample of the study consist 395 teachers. The development of the scale included five steps such as, Forming the theoretical framework and pool of items, getting expert opinion, Testing validity and reliability, Factor analysis and Item discrimination. The tool consists 28 items based on five factors that is Learning –teaching process oriented, Profession oriented, Technical issue oriented, Personal oriented and Social oriented.

Joo et al. (2016) conducted a study which targets to explore the structural associations between secondary school teachers and TPACK, their understanding of school backing for the practice of technology, technostress, and purpose to use

technology in Korea, where a SMART education programme has been declared newly for K-12 education. The study engaged structural equation modelling to find out the causal associations among the variables, and the sample of the study includes 312 secondary school teachers. The findings of the study point out that TPAK and school support had a significant impact on the Technostress. In addition, Technostress significantly influenced teachers' intentions to use technology.

Çoklar et al. (2016) conducted a study on determining the reasons of technostress experienced by teachers. It is a qualitative study. The objective of this research is to define the causes leading to technostress suffered by teachers, who are the addressee of an exhaustive use of technology as a consequence of an incorporation procedure to which they are exposed in this study. For this requirement, qualitative data were collected from 64 teachers, who advanced from the technology meticulously and themes were organised using 117 diverse thoughts after the content exploration.

Çoklar et al. (2016) conducted a study on Techno-Stress Levels of Teachers Who Were Included in Technology Integration Processes. This paper, which designed in survey mode, examines the techno-stress levels of teachers in the technology integration processes and try to define the technostress levels of teachers. The tool used for the study was technostress scale for teachers developed by the researchers and it contains of 5-point likert type items. All teachers who worked in central regions of Konya province of Turkey in 2015-2016 academic year are considered as the population of the study and the sample selected using stratified sample method and it consists 370 teachers from various level of education. As per the result of the present study, teachers had medium level of general techno stress and medium level of social oriented technostress, and low-level profession oriented and personal oriented techno-stress. It also found that general technostress levels didn't varied based on gender, length of service, and it varied by average internet use time variable.

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Syvänen et al. (2016) conducted a study to examine the relationship between ICT and technostress among Finnish teachers. The present study try to explore how demographics related with technostress and which elements cause to stress in Finnish school teachers. The investigators used the OPEKA online –self-evaluation questionnaire tool to collect the data and the sample consists of 2,741 school teachers in Finland. The results of the study point out, class teachers were less “technostressed” than Subject teachers, male teachers were less stressed than Females, teachers with 0–15 years of experience were less stressed than teachers with 16–30 years of working experience. The significant predictors of the techno stress were, ICT expertise, the concordance of the educational use of ICT with the teaching style, school support and Attitudes to the educational use of ICT. High amount of these predictors leads to the low level of technostress.

Harahap and Effiyanti (2015) found that high level of specific cognitive belief towards computer technology will decrease the level of technostress without being scared of having larger amount of workload and job uncertainty caused by their lack of computer skill. Sample of this study consists 152 vocational school teachers at a selected area in Indonesia. The result of the study recommended that technostress could be reduce by empowering teacher’s belief through the engagement of ICT in their educational service.

Booker et al. (2014) conducted a study entitled as “A Model for Testing Technostress in the Online Education Environment: An Exploratory Study.” It presents a tool to measure technology connected stress for virtual pupils. The study was conducted using a convenience population of pupils and the findings show there is an association among technostress and learner outcomes in the virtual milieu. The study explains the bivalent nature of their structural impact.

Maier (2014) conducted a study titled as “information technology as daily stressor: pinning down the causes of burnout”. It clearly depicts the amassed

dispersal and practise of information technology as main reason for employee's perception of work stress and burnout. The aforesaid, study goals to explore how technostress and work stress are interrelated and how workers respond to these stressors, and it theorizes the influence of technostressors and fatigue. In adding, this study tries to scrutinize the part of workers' professions and hence whether techno stress and its impacts are perceived inversely.

Rolon (2014) indicated that teachers still face the prime issue in integrating technology beyond different classroom activities. The growing use of ICT in the society also makes another burden for the teachers in satisfying their academic related -responsibilities assumed by administrators, to implement ICT at a top level of academic activities. The objective of this study is to explore the relationship among technology acceptance model, workloads, job insecurity and technostress in high school teachers in Indonesia.

Tarafdar et al. (2014) observed in their study that older people have felt less technostress than younger people due to maturity. The difference of results may be due to the level of technology used in their job and work environment.

Mahalakshmi et al. (2013) conducted a study on technostress among library professionals in India .The study reveals that younger people are more acquainted with new technology and so that they would experience a reduced amount of technostress'

Joo et al. (2012) observed that teachers' technostress levels raised up after implementing digital textbooks in South Korea. He explained that teachers felt exasperated when technological system let-downs happened, because they felt like they were incapable to regulate the condition. Also, the study described that direction for teachers on how to assimilate digital textbooks into their teaching was restricted, swelling teachers' psychological and physical overload for technology implementation.”

Coklar et al. (2011) tried to find out different levels of technostress among social network users. The sample of the study includes 287 social network users in

Turkey. In this study an online questionnaire is used for the collection of data. This study is to examine the level of technostress among social network users. The study found that social networking users have “medium technostress level”, and that social stress about the use of technology, remembering large amounts of passwords and usernames, anxiety about data loss, and the formation of a technology professional are the main causes of technostress. Adding, it was dogged that technostress altitudes differ grounded on gender, profession and age.

Fudail and Mellar (2008) employed 'teacher-technology environment interaction model' identify the problem of the stress affected by teachers while using ICT in the classroom. The chief findings of this research were the demonstration that teachers do suffer stress connected with the practise of technology in the classroom and the identification of reasons, indicators and managing tactics related with technostress in the schoolroom. This study, thus, opinions to another way of thinking about the glitches of applying e-learning by theorising some of these execution complications in terms of technostress and in specific of teacher-technology milieu fit.

Al-Fudail and Mellar (2008) conducted a qualitative study with nine in-service teachers to know their level of technostress. Observations of classroom teachings and face-to-face interviews discovered that there exists numerous elements instigating technostress such as technological system fiasco, inadequate technical and social support for technology practice, increased time for setting up and preparing class lectures, and inadequate institutional culture for technology implementation.

Murray and Rostis (2007) observed that the technology can create burnout and makes employees unproductive because of no interpersonal dealings.

Agut et al. (2001) explored the ‘technostress and Burnout among Spanish Workers’. The study explains a constant connection between Technostress and particular measures of employees' well-being, such as burnout. Thus, when familiarizing any new technology at work consideration should be given not only to organisational and work aspects, but also the psychosocial variables such as attitude

towards ICT or ICT self-efficacy as it is these psychosocial variables that play a part in the association between ICT and reduced well-being. Furthermore, and against hopes, gender does not play a central role in neither technostress nor burnout. This suggests that the traditional sex role stereotypes, which consider ICT to be more linked to men, may be disappearing.

Table 3

Research Studies on Technostress

Year	Author	Findings
2021	Varanasi et al.	Use of smartphone significantly predicts burnout among teachers, with technostress providing a chief clarification for this correlation.
2019	Wang & Li	Person - organization (P-O) misfit, Person - technology (P-T) misfit, person-people (P-P) misfit mostly captivated how teachers interfere with manifold facets of higher education context in a disparity way that seeds techno stress.
2016	Joo et al.	TPAK and school support had a significant impact on the Technostress. In addition, Technostress significantly influenced teachers' intentions to use technology.
2016	Çoklar et al.	Teachers had medium level of general techno stress and medium level of social oriented technostress, and low-level profession oriented and personal oriented techno-stress. It also found that general technostress levels didn't varied based on gender, length of service, and it varied by average internet use time variable.
2016	Syvanen et al.	Class teachers were less techno stressed than Subject teachers, male teachers were less stressed than Females, teachers with 0–15 years of experience were less stressed than teachers with 16–30 years of working experience. The significant predictors of the techno stress were, ICT expertise, the concordance of the educational use of ICT with the teaching style, school support and Attitudes to the educational use of ICT. High amount of these predictors leads to the low level of technostress.

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Year	Author	Findings
2015	Tarafdar et al.	high levels of technostress are found to be associated with lower job satisfaction and job performance, and even with intentions to quit
2015	Harhap & Effyanti	High level of specific cognitive belief towards computer technology will decrease the level of technostress. Technostress could be reduce by empowering teacher's belief through the engagement of ICT in their educational service.
2014	Tarafdar	older people have felt less technostress than younger people due to maturity
2013	Mahalakshmi et al.	Younger people are more acquainted with new technology and so that they would experience a reduced amount of technostress.
2011	Ahmet et al.	Social networking users have "medium technostress level", and that social stress about the use of technology, remembering large amounts of passwords and usernames, anxiety about data loss, and the formation of a technology professional are the main causes of technostress. Adding, it was dogged that technostress altitudes differ grounded on gender, profession and age.
2008	Fudail & Mellar	Teachers do suffer stress connected with the practise of technology in the classroom and the identification of reasons, indicators and managing tactics related with technostress in the schoolroom.
2007	Murray & Rostis	Technology can create burnout and makes employees unproductive because of no interpersonal dealings.
2001	Agut et al.	Constant connection between Technostress and particular measures of employees' well-being, such as burnout. Thus, when familiarizing any new technology at work consideration should be given not only to organisational and work aspects, but also the psychosocial variables such as attitude towards ICT or ICT self-efficacy as it is these psychosocial variables that play a part in the association between ICT and reduced well-being

The review of literature exposed that there are ongoing studies in the field of technostress in education all over the world. The majority of available research studies are from European countries. During the review procedure, the researchers witnessed the studies that controverted and supported each other.

Theoretical Overview of Teacher Autonomy

The very word Autonomy indicates the basic human requirement and capacity to perform independently. Exclusively in educational field teachers need right autonomy to act for the betterment of the teaching -learning process. NCERT (2014), mentioned, “The origin of Autonomy has been one of the central concerns of philosophers since ancient times. The concept first came into prominence in ancient Greece and was derived from the Greek words ‘auto’ (self) and ‘nomos’ (rule or law), meaning one who gives oneself their own laws”. Immanuel Kant was the one of the chief exponents who expresses his views on the notion of autonomy which is based on his ‘Moral theory’ has great philosophical importance. To attaining self-sufficiency one can make himself free from external context that affects them. Autonomous individual has their own control and choice.

Emerging the Concept of Autonomy

The word autonomy derived from ancient Greek which denoted the political status of occupied cities that were reigned according to their own rules rather than those of subjugators. Cockeram (1968) documented firstly the term in ‘English Dictionary: or an interpreter of hard English words,’ as the ‘liberty to live after one’s own law’. It appeared first as a political notion, then used as philosophical thought which applied to individuals. Apart from politics and philosophy the concept of autonomy is seen in various fields like: psychology, anthropology, medicine, sociology, bioethics, artificial intelligence, business and organizational development and so on.

The word autonomy means self-directing freedom particularly moral independence. Maloney (1997), defines the “Autonomous Teacher as one who is

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aware of why, when, where, and how pedagogical skills can be acquired in the self – conscious awareness of teaching practice itself”. Huang (2005) highlighted three words, namely, willingness, capacity, and freedom and defined teacher autonomy as “teachers’ willingness, capacity and freedom to take control of their own teaching and learning”. Pearson and Moomaw (2005) defines teacher autonomy as teacher’s freedom to make decisions concerning what is taught and how it is taught. Because teacher autonomy correlates with feelings of professionalism. Mausethagen and Mølstad (2015) stated teacher autonomy as pedagogical freedom and absence of control, the will and capacity to justify practices, and a local responsibility.

The concept of autonomy in education has been an area of increasing interest in recent years. The concept of autonomy in education is not new, but it has been more widely discussed and studied in recent years. The emergence of the concept of autonomy in education can be traced back to several factors, including:

Changes in the educational landscape: The increasing use of technology and the rise of online learning have led to a shift in the traditional model of education and have created new opportunities for teachers and students to have more control over their learning experiences.

The focus on student-centered learning: There has been a growing emphasis on student-centered learning, which emphasizes the importance of giving students more control over their own learning, and providing them with opportunities to take ownership of their education. The emphasis on teacher professionalism: The increasing emphasis on teacher professionalism has led to a greater focus on the importance of teachers having the knowledge, skills, and autonomy to make informed decisions about their teaching practice.

The increasing awareness of the importance of student well-being: There has been a growing awareness of the importance of student well-being, and the role that autonomy can play in promoting positive mental health and well-being among

students. The demand for more individualized and flexible education: With the growing diversity of students and their needs, the demand for more individualized and flexible education has increased, which in turn has led to more focus on giving teachers and students more autonomy in their learning.

All in all, the concept of autonomy in education has emerged as a response to the changing needs and demands of education in the 21st century, and it continues to be an important topic of research and discussion in the field of education.

European liberal democratic and liberal humanist believed the notion of individual autonomy as the central to their ideology (Lindley, 1986) and Kant regarded this autonomy as the basis of human dignity (Hill, 1991). “Teacher autonomy can be defined as teachers’ capacity to independently their actions within the given the given contextual frame of constraints in which they operate (Wermke & Höstfält 2014; Paulsrud & Wermke 2019).

Teacher Autonomy; Offshoot of Autonomy

The concept of teacher autonomy has rooted in the concept of freedom. It is a specific form of autonomy that refers to the freedom and authority that teachers have to make decisions and take actions in their classrooms without external interference. It is considered as an offshoot of the broader concept of autonomy in education, as it emphasizes the importance of giving teachers the autonomy to make informed decisions about their teaching practice. It includes autonomy over disciplinary practices, pedagogical autonomy, curricular autonomy, professional development, classroom environment, and assessment. Willner (1990) explains “an older concept of teacher autonomy, based on independence through isolationism and alienation, and a newer concept of teacher autonomy, based on collaborative decision making and the freedom to make prescriptive professional choice concerning the services rendered to students”.

Teacher autonomy is considered as a key aspect of teacher professionalism, as it allows teachers to use their professional knowledge and skills to make decisions

that best support student learning. It also allows teachers to take ownership of their teaching practice, which can lead to greater job satisfaction and motivation. There are several factors that can impact teacher autonomy, including school culture, school policies, and the level of trust and support provided by administrators and colleagues. Factors such as these can either support or constrain teacher autonomy. Research has shown that teacher autonomy can have positive effects on student learning and teacher well-being. Teachers who have autonomy in their classrooms tend to be more motivated, have a greater sense of job satisfaction and have better relationships with their students. However, it is worth noting that autonomy should be balanced with accountability, as teachers need to be held accountable for the decisions they make and the actions they take in their classrooms. It is also worth mentioning that providing autonomy does not mean that teachers should be left alone and unsupported, but rather that they should be provided with the necessary resources and support to make informed decisions and take effective actions.

There is clear difference between independence and autonomy. Independence is related with doing things by oneself or not depend on others, autonomy indicates “to act freely, with a sense of volition and choice” (Deci, 1995). According to Little (1995) “total independence is not autonomy but autism”. There is clear separation between teacher autonomy and teacher empowerment. While teacher empowerment labels the process of collective decision making that takes place when administrators of school empower teachers to involve in the cooperative process of participative leadership for the amalgamation of a more democratic and reasonable educational system (Short, 1994), teacher autonomy can be conceptualized as the perceived and real capacity to exercise control over teaching and assessment, curriculum development, school functioning, or professional development matters, within the limits of the educational goals accepted by the school community.

Teacher autonomy is not independence or isolation. It involves interdependence, responsibility, mutual support, professional discretion, and obligation to the educational community. Perceiving teacher autonomy as isolation

justifies educational policies that impose practices of collaborative work. Little (1995) explains the teacher autonomy “as exercise of continuous reflection and analysis of one’s own teaching process.” It has been defined by Lamb (2008) as a commitment to empower the learners by creating appropriate learning spaces”

A compilation of explanations presented in literature discloses an extensive diversity of views in teachers and scholars. While some researchers have delivered direct definitions taken from prevailing literature on student autonomy and well-defined teacher autonomy as freedom for control over instruction (Shaw, 2002) or as the promotion of student autonomy (Thavenius, 1999), other researchers have observed the notion in a more inclusive way. For example, Barfield et al. (2002, p.3) outline teacher autonomy as “a continual process of inquiry into how teaching can best promote autonomous learning for learners” which contains, among other doctrines, action, co-operation, understanding of restrictions, and collective support. On this line of thought, other scholars have enlarged on the idea and explained it as a multidimensional capacity connected with shared decision making grounded on pupils’ requirements and interests, teachers’ self-regulation, professional competence, and freedom from outwardly forced plans (Castle & Aichele, 1994).

According to the description in the learners’ dictionary “autonomy is the ability to make your own decision about what to do rather being influenced by someone else or told what to do rather than being influenced by someone else or told what to do (Sinclair, 1995). Anderson (1987) points out that teacher autonomy is a freedom from direction by others over professional action or growth.” National Policy on Education (1986) recommended in its ninth chapter about ‘The Teacher’, “the status of the teacher reflect the traditional cultural echoes of our society; it is said that no pupil can rise above the level of its teachers. The government and community should endeavour to create conditions, which will help motivate and inspire teachers on constructive and creative line. Teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant

to the needs and capabilities of and the concerns of the community”. Walker (2016), states that “Teachers believe their classroom autonomy suffered during the No child Left behind era. According to just-realised federal data from the National Centre for Education Statistics (NCES), educationalists informed fewer classroom autonomy in school year 2011-2012 compared to 2003-2004”.

Dealings between instructors and pupils was at the core of the educational practise; Enticing and retaining great eminence teachers was a prime requirement for education. The justification underlying this view was that upgrading the teaching profession led to enhancements in teachers’ show, which eventually led to progresses in pupil education (Rudolph, 2006). Teacher autonomy consists control over instructional practices which makes them creative and gave a sense of confidence and comfort in their teaching competencies. It includes control over discipline that keystone of effective classroom. Control over the curriculum is another area. (Rudolph, 2006).

Self-directed teachers do not oversee accountability. “They give more importance to update their knowledge and never use the same lecture notes in the class year after which were prepared by them or other teachers. They never spoil the students by spoon-feeding them. They never get satisfied with what they have learnt but find delight in enhancing their knowledge and techniques of fostering learner autonomy every day. They share what they have learnt with their colleagues. To summarize, autonomous teachers work with learners and not for learners.” (Raya & Vieiria, 2015)

Pedagogical autonomy refers to teachers’ choice to define instruction objectives, amass teaching materials, select instructional methods, utilising resources, and design student assessment that complies with teachers’ teaching philosophy and beliefs (Skaalvik & Skaalvik, 2014). According to this comprehensive definition, with the given autonomy, instructors do not only have the freedom to teach in the

style that matches their ethics and viewpoint, but also have the right to refuse the instructional materials, approaches, techniques and demands that they do not feel contented with. (Kameshwara et al., 2020)

According to Wilches (2007), the narrow pedagogical autonomy can be understood as teachers' liberty to design classroom instruction and pupil assessment, while other vital academic works, such as curriculum change and teachers' specialized training, fall out of these theoretical margins.

"Conditions of Autonomy" developed by Wallace and Little (1998)

Teacher autonomy refers to the extent to which teachers have the freedom and authority to make decisions and take actions in their classrooms without external interference. There are several theoretical frameworks that have been proposed to understand the concept of teacher autonomy. One of the most widely cited frameworks is the "Conditions of Autonomy" framework, developed by Wallace and Little (1998). This framework identifies four conditions that are necessary for teachers to have autonomy in their classrooms:

Professional Knowledge: Teachers must have the knowledge and skills to make informed decisions about their teaching practice. Professional trust: Teachers must be trusted by their colleagues, administrators, and the community to make professional judgments about their teaching. Professional community: Teachers must be part of a community of professionals who support and collaborate with one another. Professional autonomy: Teachers must have the authority to make decisions about their teaching practice and to be held accountable for the results of those decisions.

Self-Determination Theory

Another theoretical framework for understanding teacher autonomy is the "Self-Determination Theory" (SDT) developed by Deci and Ryan (1985). This theory posits that autonomy is a basic psychological need that leads to optimal

motivation and well-being. According to SDT, autonomy-supportive contexts (e.g. school) are those that allow individuals to experience their actions as self-determined, and those contexts that do not support autonomy lead to a decrease in motivation and well-being.

Additionally, the "Autonomy-Supportive Teaching" framework developed by Vansteenkiste, Simons, Lens, Sheldon, and Deci (2004) suggests that teacher autonomy can be increased by creating autonomy-supportive climates in the classroom, which includes providing choice and opportunities for personal relevance, fostering autonomy through autonomy-supportive communication, fostering autonomy through competence-supportive feedback, and promoting relatedness.

Overall, these theoretical frameworks suggest that teacher autonomy is a multi-dimensional concept that depends on various factors such as trust, knowledge, community, and autonomy-supportive teaching and learning contexts.

Types of Autonomy

There are three categories of autonomy according to Boson.

1. **Technical Autonomy.** The act of teaching a subject outside the framework of an educational institution and without the interference of an administrator.
2. **Psychological Autonomy.** It is a capacity which allows teachers to take more obligation of their own teaching; an internal transformation that may be supported by situational autonomy without being reliant on it.
3. **Political Autonomy.** Control over the methods and content of teaching. (Benson 1996)

There are some other types of autonomy, including:

- Behavioral autonomy, which refers to the ability of an entity to perform tasks without direct human supervision.

- Operational autonomy, which refers to the ability of an entity to operate independently and make decisions based on its environment.
- Situational autonomy, which refers to the ability of an entity to adapt its behavior to changing circumstances.
- Tactical autonomy, which refers to the ability of an entity to make decisions and take actions in pursuit of a specific goal.
- Strategic autonomy, which refers to the ability of an entity to set its own goals and objectives.
- Functional autonomy, which refers to the ability of an entity to perform specific functions without external direction.

Types of Teacher Autonomy

Teacher autonomy refers to the level of freedom and decision-making power that teachers have in their classrooms and in their professional lives. There are several types of teacher autonomy, including:

- Curricular autonomy, which refers to the ability of teachers to design and implement their own curriculum, lesson plans, and teaching methods.
- Assessment autonomy, which refers to the ability of teachers to design and administer their own assessments and evaluate student learning.
- Professional autonomy, which refers to the ability of teachers to make decisions about their own professional development and career paths.
- Classroom management autonomy, which refers to the ability of teachers to make decisions about classroom management and discipline.
- Decision-making autonomy, which refers to the ability of teachers to make decisions about the day-to-day operations of their classrooms and to have a voice in school-wide decisions.
- Pedagogical autonomy, which refers to the ability of teachers to design and implement their own teaching strategies, methods and approaches.

- Technological autonomy, which refers to the ability of teachers to use technology in their teaching and their classrooms.

Transformative Autonomy

Transformative autonomy is one of the main subdivision of autonomy. Willy Nel (2015) explains Transformative Autonomy as ‘the form of autonomy in which school role players, such as teachers, have the urge to be involved with fellow role players in education development initiative towards social reformation which contributes democracy’. Transformative autonomy refers to a type of autonomy that empowers individuals and communities to actively shape their own lives and the world around them. It is characterized by an emphasis on self-determination, agency, and the ability to make meaningful choices. In education, transformative autonomy refers to the ability of teachers and students to actively shape their own learning experiences, to engage in critical reflection, and to develop the skills and knowledge needed to participate in society as informed and active citizens. Transformative autonomy also emphasizes the need for social and political change, and aims to empower individuals and communities to challenge and transform oppressive systems and structures.

In practice, transformative autonomy is often associated with critical pedagogy, which aims to help students develop the critical thinking skills needed to question and challenge dominant power structures. It is also often associated with student-centered and constructivist approaches to teaching and learning, which prioritize student autonomy, agency, and self-direction in the learning process.

Stagnation in Professional Development

There is a report as named A Nation at Risk, which is published in 1983 and it was the one of the first exertions that initiated school reform movement. Based on this report there are explosion of rules and regulations which published to empower the efforts to improve the education system. As part of school reform movement,

there arise the need of competent individuals in the field of teaching. To achieve the quality numbers in the field should be upsurge the feeling of professionalism in the field. This could be only be recognised if autonomous of teachers was accepted and executed (Rudolph, 2006).

If teachers are to be professionally empowered and uplifted, teachers must have the autonomy to recommend the best dealing for their pupils as doctors and lawyers do for their clients.

While most research supports the use of intrinsic reward to encourage teachers, teachers and principals point out that their biggest shortcomings are safety and autonomy (Nero, 1986). Autonomy is one aspect of teacher motivation (Khmelkov, 2000; Losos, 2000; White, 1992). A 1997 research by the National Centre for Education Statistics and some other studies have established that the degree of autonomy perceived by teachers is suggestive of present job satisfaction (Charters, 1976; Franklin, 1988; Gnecco, 1983; Hall et al., 1989; Pearson & Hall, 1993). And a majority of latest literature backings this dogma (Brunetti, 2001; Kim & Loadman, 1994; Klecker & Loadman, 1996; Ulriksen, 1996).

The The Buona Scuola or The Good School reform (La Buona Scuola, 2015, Law 107/15) was introduced in 2015 to address the main issues in education and to convert it into an effective education system.” This reform suggests granting more autonomy to schools. “In fact, some studies have highlighted the negative effects of autonomy on other proximate factors such as teacher attendance, motivation, and stress which might, in turn, affect student achievement (Bardhan & Mookherjee, 2006; Lucia & Cristian, 2010). Empirical studies show ambiguous results concerning the effects of autonomy and its effective implementation is argued to be dependent on the context where it is implemented” (Hanushek et al., 2013; Faguet & Sanchez, 2008, Treisman, 2007).

A comprehensive explanation of educators’ academic autonomy denotes to teachers’ independence to explain instructional objectives, accumulate teaching

resources, select pedagogical methods, using resources, and plan pupil assessment that fulfils with teachers' teaching philosophy and principles (Skaalvik & Skaalvik, 2014). According to this comprehensive description, with the given autonomy, teachers do not only have the choice to teach in the style that equals their morals and thinking, but also have the right to reject the pedagogical resources, methods, and demands that they do not feel contented with."

Previous researches that observed the consequence of teachers' pedagogical autonomy on students' academic achievement have revealed some constructive outcomes. After studying the PISA 2015 data, Bédard (2015) stated that "teachers' pedagogical autonomy, together with school leaders' accountability, influence students' achievement scores across 65 nations. Likewise, Gurganious (2017) claimed that there was a positive relationship amid science teachers' perceptions of autonomy and district-level pupil achievement scores. Teachers who have a accountability in decision making at the classroom level are found to be more effective to advance students' academic performance (Khodabakhshzadeh et al., 2018; Berry et al., 2010; Hulpia et al., 2009)".

Teachers who works in Finland have high level autonomy, guaranteed by the lack of over control and unnecessary observations (Simola, 2005). Carlgren and Klette (2008) highlights "the influence of educational reforms on Nordic teachers' working conditions found that curricular documents in both Finland and Sweden place an emphasis on teachers as professional curriculum makers, provided with a large amount of flexibility and responsibility for creating a good learning environment".

Previous researches have shown that autonomy is indispensable for teachers to achieve intrinsic motivation and to withstand their emotional comfort (Skaalvik & Skaalvik, 2014).

Friedman (1999) introduced different levels of autonomy. They are as follows.

- a) **No Autonomy.** Teachers do not have any control to take any initiation to modify the curriculum or any other elements in the institution.
- b) **Scant–Autonomy.** Teachers have limited independence of choice within the clear margins of existing programs, rules and regulations as defined by the management.
- c) **Moderate Autonomy.** This is in way similar to the previous one where teachers are allowed or motivated to share and implement their ideas but are compelled to go through stern authorization procedures before executing.
- d) **High Autonomy.** teachers have freedom to innovate or modify the curriculum and methods, and execute them within the common boundaries which are previously granted upon principles and norms
- e) **Complete Autonomy.** Teachers are given complete freedom to innovate and employ new ideas, programs, or curriculum within generally accepted ethical and legal principles.

Teacher Autonomy and Learner Autonomy

There is a close a relationship between teacher autonomy and learner autonomy. Both are interdependent. Teacher autonomy enhances learner autonomy. Teacher autonomy refers to the degree of freedom and independence that a teacher has in making decisions related to their classroom and curriculum, while learner autonomy refers to the degree of independence and self-direction that a student has in their own learning process. Research suggests that increasing teacher autonomy can lead to increased learner autonomy, as teachers are better able to personalize instruction and create an environment that supports self-directed learning. On the other hand, when teachers have less autonomy and follow a more rigid curriculum, learners may have less opportunity to take ownership of their own learning.

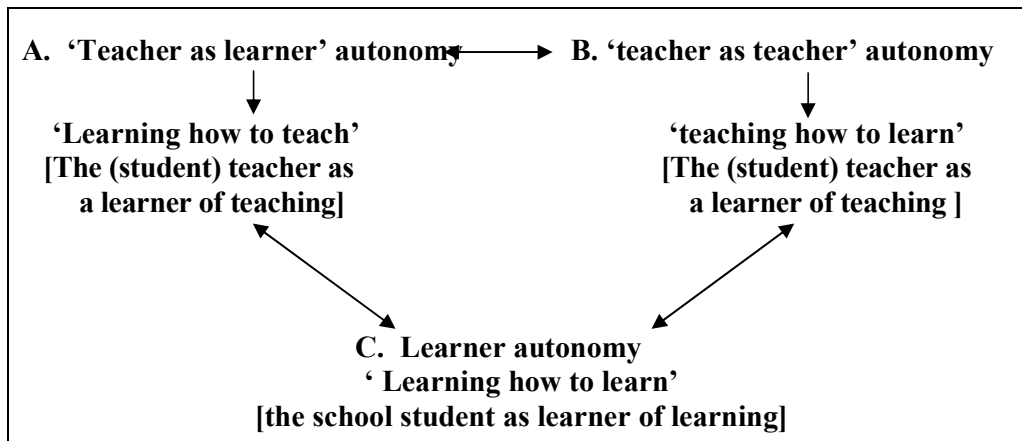
Additionally, when teachers give students autonomy, it helps them to become more self-directed learners and to develop the skills and confidence they need to

succeed in the classroom and in life. Teachers can do this by providing opportunities for students to make choices, set goals, and take responsibility for their own learning.

In summary, Teacher autonomy and Learner autonomy are related in the sense that when teachers have more autonomy, they can create an environment that supports self-directed learning, which in turn helps students become more autonomous learners.

Figure 2

The Autonomy Triangle (Vieria, 2008, p.200)



Studies Related to Teacher Autonomy

Lyle et al. (2022) conducted a comparative case study on instructionally focused education system (IFESs) in US. They investigated two IFESs in which efforts to advance instruction pushed against historic norms of teacher autonomy. The study found that these new systems are not at odds with teacher autonomy but rather these systems reflect a transition to move interdependent notions of teacher autonomy.

Elo (2021) conducted a study on perception of Finnish teachers on autonomy. Findings of the result reveals that upper secondary teachers experience high autonomy. Result also shows that teachers use their mutual autonomy from co-workers to make a school profile that chiefly improved their perceived individual autonomy.

Li and Allen (2021) conducted a study on “three–level hierarchical linear modelling analyses of the relationship between political culture and teacher autonomy”. The study investigates the relationship between teacher autonomy and political culture and how this association differs with teacher and school features. The study shows teacher autonomy associate positively to teacher work satisfaction and retention.

Collie (2021) collected data between March and May 2020 from 325 Australian teachers and found that autonomy-supportive leadership was associated with greater buoyancy and, in turn, lower somatic burden, stress related to change, and emotional exhaustion. In contrast, autonomy-thwarting or controlling practices involve pressuring individuals to feel, act, and think in particular ways, and have been positively associated with emotional exhaustion.

Salokangas et al. (2020) conducted a study on teacher autonomy among Irish and Finnish teachers. Results of the study show that teachers in both countries think themselves high independent in their teaching process and decision making.

Kameshwara et al. (2020) conducted a study on Teachers’ Pedagogical Autonomy, Professional Development and Students’ Digital Skills: This study was conducted in the context of the good school reforms, Italy with an attention only on the levels of autonomy and digital skills. The empirical analysis was conducted using the newest International Computer and Information Literacy Study (ICILS 2018) data to observe the relation between teachers’ academic autonomy and pupils’ digital skills. In this study the researchers used the survey method to collect data. The study was also concerned in viewing at how educators’ professional development interrelates with teachers’ autonomy in determining pupil achievement. In the finding of the study, teacher autonomy displays a statistically significant positive effect on student achievement but not statistically significant association with students’ digital skills performance.

Han (2020) conducted a study on the relationship between Teacher Autonomy and Learner Autonomy. This study indicates to foreign language learning

and teacher education in that language educators should modify their old-fashioned roles to ones catering and assisting the advance of learner autonomy, and teacher education and training programs should contain and plan courses, workshop to improve and endorse teacher-learner autonomy.

Paulsrud and Wermke (2020) conducted a study on perception of autonomy of Swedish and Finnish teachers. The survey method was used in this study. The sample of the study consists 708 Swedish and 1583 Finnish teachers. Result of the study shows Finnish teachers normally perceived themselves to be more individually autonomous, while Swedish teachers were more collegially oriented.

Paradise et al. (2019) conducted a study on “rational understanding of teacher autonomy: the role of trust for Canadian and Finnish teachers”. The study explores the role of trust regarding teachers’ perceptions of their own autonomy, entrenched in diverse milieus and dealings. The sample of the study consists upper-secondary school mathematics teachers in Canada and Finnish. The results of the study shows “that trust plays a significant role in whether teachers feel autonomous or not, and that trust plays a central role in relationships teachers have to work. Furthermore, trust is articulated differently according to the teachers’ context. Based on findings, a reconceptualization of teacher autonomy is needed. A relational conceptualisation of teacher autonomy, highlights its inherent rationality and contextual sensitivity, provides new insight into the teachers’ work, and supports more empowering ways for teachers to exert a proactive influence on their autonomy”.

Prichard and Moore (2016) conducted a study on the balance of Teacher Autonomy and top down coordination in ESOL programs. The main objectives of the study is to recognize the levels of teacher autonomy. The survey method used for the collection of data from the sample which is included core faculty members from 130 programmes. The researchers used validated teacher autonomy scale by Pearson & Hall (1993), which measures both Curricular Autonomy (CA) General Autonomy

(GA). The findings of the study shows the much lower level of agreement in Curricular Autonomy constructs and teachers have General Autonomy (GA)

Oberfield (2016) conducted a study on “teacher autonomy and accountability in traditional public schools and public charter schools”. The study compares teachers’ perceptions of autonomy and accountability in public charter schools and traditional public schools and in EMO-run (educational management organizations) and non- EMO – run PCS. It displays that PCS stated better autonomy than teachers in TPS; similarly, teachers in non-EMO-run schools indicated better autonomy than teachers in EMO-run schools. On the other hand there is no variance in perceptions of accountability across these various school types.

Wang and Zhang (2014) conducted a study on “promoting teacher autonomy through university-school collaborative action research”. The study reports on collaborative action research project done by a group of university researchers with a group of senior secondary school English teachers in an effort to encourage teacher autonomy in the Chinese context.

According to Wilches (2007), the narrow pedagogical autonomy can be understood as teachers’ liberty to design classroom instruction and pupil assessment, while other vital academic works, such as curriculum change and teachers’ specialized training, fall out of these theoretical margins.

Rudolph and Supovitz (2006) conducted a study on types of teacher autonomy and tried to find out how it associated with job satisfaction. Four public school districts located in Michigan, New York, and Pennsylvania was included in the investigation. One of the main objective of the study is to know the extent does a leader allowing autonomy to teacher’s influence teacher job satisfaction. The design of the study consisted the use of a survey along with interviews of heads of the institution and teachers. The study explored the succeeding areas of autonomy: freedom over curriculum, how leaders allowed independence to instructors, and what characteristics were considered to decide how much freedom was agreed to educators.

Pearson and Mooma (2005) conducted a study on the relationship between teacher autonomy and stress, work satisfaction, empowerment, and professionalism. Objective of this research was to check the connection between teacher autonomy and on-the-job stress, work satisfaction, empowerment, and professionalism. The assessment tool used for the study is a reliable and valid Teacher Autonomy Scale (TAS) which include curricular autonomy and general autonomy. The result of the study shows when the curriculum autonomy increased, the job stress reduced. The findings of this study also show that autonomy does not vary across teaching level (elementary, middle, high school).

Table 4

Recent Research Studies on Teacher Autonomy

Year	Author	Findings
2022	Lyle et al.	New systems of education are not at odds with teacher autonomy but rather these systems reflect a transition to move interdependent notions of teacher autonomy.
2021	Elo	Teachers use their mutual autonomy from co-workers to make a school profile that chiefly improved their perceived individual autonomy.
2021	Li & Allen	Teacher autonomy associate positively to teacher work satisfaction and retention.
2021	Collie	Autonomy-supportive leadership was associated with greater buoyancy and, in turn, lower somatic burden, stress related to change, and emotional exhaustion. In contrast, autonomy-thwarting or controlling practices involve pressuring individuals to feel, act, and think in particular ways, and have been positively associated with emotional exhaustion.
2020	Salokangas et al.	Teachers in Irish and Finnish think themselves high independent in their teaching process and decision making.
2020	Kameshwara et al.	Teacher autonomy displays a statistically significant positive effect on student achievement but not statistically significant association with students' digital skills performance.

Year	Author	Findings
2020	Paulsrud and Wermke	Finnish teachers normally perceived themselves to be more individually autonomous, while Swedish teachers were more collegially oriented.
2019	Paradise et al.	Trust plays an important role in whether teachers feel autonomous or not, and that trust plays a chief role in relationships teachers have to work. In addition, trust is expressed differently according to the teachers' milieu.
2016	Prichard & Moore	Lower level of agreement in Curricular Autonomy constructs and teachers have General Autonomy (GA).
2016	Oberfield	PCS stated better autonomy than teachers in TPS; similarly, teachers in non-EMO-run schools indicated better autonomy than teachers in EMO-run schools. On the other hand there is no variance in perceptions of accountability across these various school types.
2005	Pearson & Mooma	When the curriculum autonomy increased, the job stress reduced. The findings of this study also show that autonomy does not vary across teaching level (elementary, middle, high school).

Theoretical Overview of Teacher Burnout

Burnout is a burning issue in all professions. It is not only the issues of present but also it was a big problem in past and will be in future. The difference lays in the causes. Causes, components and levels of burnout may vary based on the nature of profession and whole environment of society. Burn-out is a condition conceptualized as consequential from long-lasting stress that has not been effectively coped or another word it is uncontrolled stress.

Definitional Aspect of Burnout

There is no one single definition of burnout which is collectively accepted. One central point that academics approve on is that burnout is a response to long-

standing stress at work. It is very useful to analyse the various definition of burnout to make this concept as clear as day light.

Table 5

Definitions of Burnout

Definer	Definition
Merriam Webster's Dictionaries	"Exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration"
Freudenberger (1977)	"Physical and emotional exhaustion resulting from the excessive demands on energy strength or resources".
Fadden, M.C. (1980)	"Organizational burnout is a collection of symptoms which are characterized by low morale in the workers, declining in rates of overall production elevated levels of work absenteeism. Poor or in adequate communication among workers and increased level of job attribution."
Maslach (1976)	"Loss of concern for the people with whom one is working"
Cherniss (1980)	"A process in which a previously committed professional disengaged from his or her work in response to stress and strain experienced in the job."
Maslach (1982)	"An accumulation of intensive negative feeling that is so debilitating that a person withdraws from the situation in which those feelings are generated."
Maslach (1982)	"A condition produced by working too hard and too long in a high-pressure environment."
Maslach (1982)	"A process in which a professional's attitude and behaviour changes in negative ways in response to job strain."
Daley (1979)	"Burnout is the inability to handle stress on the job that results in demoralization, frustration and reduced efficiency".
(Maslach, 1976).	"A reaction to job related stress that results in the workers becoming emotionally detached from clients, treating clients in dehumanizing ways and becoming less effective on the job"

Maslach and Jackson (1981)	“Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among persons who do “people work” of some kind and often results in the development of negative, cynical attitude and feelings about the client”
Paine (1982)	“Burnout Stress Syndrome (BOSS), the consequences of high level of job stress personal frustration and inadequate coping skills, has major personal organisational and social costs and these costs are probably increasing”.
Maslach (1983)	“Burnout is physiological Syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with other people in some capacity.”
Suran and Sheridan (1985)	“Burnout, is the feeling of personal/emotional depletion that arises from the stress that seems to be inherent in many professional careers.”
Pines and Aronson (1988)	“Burnout is a condition of physical, emotional and mental exhaustion that is the result of chronic emotional strain.”
Gaster and Schaubrock (1991)	“burnout is a type of stress - a chronic effective response pattern to stressful work conditions that features high level of interpersonal contact”
Brouwers & Tomic, 2000).	“It is a psychological syndrome of cynicism, emotional exhaustion, and reduced personal accomplishment which occurs among individuals working with other people”.
Pareek (1983)	“Burnout is the end result of stress experienced, but not properly coped up, resulting in symptoms of exhaustion, irritation, ineffectiveness, inaction and several health problems”.

Oranje (2001) divides studies on burnout into three categories. First, burnout is considered to be a coping problem (the interaction model), i.e. burnout derives from the negative outcome of an individual’s judgment of their own abilities in relation to real or imagined stressors in their environment (Eskridge and Coker, 1985). Second, some studies view burnout as a state of both physical and mental

exhaustion that strikes the individuals involved for a long time. Third, some studies take the view that it is the environment that produces stressors responsible for the onset of burnout. Examples of such environmental stressors are the social relationships of the teachers with students, colleagues and principals (Brouwers & Tomic, 1999), and the organizational working circumstances (Van-Dierendonck et al., 1998). There are some general reasons for burnout which are may be seen in individuals' different profession and some specific reasons.

General Causes of Burnout

General causes can be classified into two; as environmental factors and personal or career factors. Freudenberg (1977) points out some environmental or organizational reasons such as over commitment, Extreme commitment, Lack of awareness of one's restriction. In addition to this reason, Cunningham, (1983) indicates few other general reasons like, Result of role vagueness, Workmate stress, unfitting incentive systems, Lack of promotional opportunities, Excessive work hours, insufficient monetary rewards, client overload, etc. (Cunningham, 1983; Edelwich, 1980; Glicken, 1983). Pareek used the word glow up to state the after effect of the stress and add some other contributors of burnout like level of stress, type of stress, non-work life, life style and coping style.

Specific Causes of Burnout

There are lot of specific causes of burnout. Farber, (1984) describes some of them as Impractical or excessive need for accomplishment, High principles, Workaholic propensities, Failure to make productive use of leisure, Idealistic prospects, Obligation without authority or resources to accomplish tasks, Depleting relationships with others and isolation (Farber, 1984; Glicken, 1983; Meier, 1983). Personality, Nature of the job or the role, Role style. Organizational climate are other contributors of burnout mentioned by Pareek.

Emotional exhaustion denotes to the state of mind of being emotionally worn out and strained. "Energy is lacking and low mood prevails. Depersonalization

characterizes a distant and callous attitude toward one’s job and the people connected to it (e.g., students, patients, clients). The worker shows weakened motivation and withdraws from an occupation that once sustained a great deal more interest for him or her. Lastly, reduced personal accomplishment includes feelings of inadequacy and incompetence associated with loss of self-confidence. This third dimension, however, was not present in the original working definition of burnout and its belonging to the burnout syndrome is doubtful (Hakanen & Schaufeli, 2012; Schaufeli & Taris, 2005).

Burnout as a Transactional Process

Burnout has been described as a transactional process, meaning that it is the result of the interactions between the individual and their work environment. This transactional process model suggests that burnout occurs when the demands of the work environment exceed the resources and coping mechanisms of the individual. Burnout is not an incident, on the other hand it is a process, a transactional process involving of phases. Cherniss (1980) suggested a three step Transactional model of Burnout as presented in Fig.

Figure 3

Transactional Model of Burnout [Cherniss, 1980]

STRAIN
Tension Fatigue Irritability
JOB STRESS
Demand Resources
DEFENSIVE COPING
Emotional Detachment Withdrawal Cynicism Rigidity

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The initial phase titled as job stress consist of a disparity between resources and demand. The next step is an abrupt, short-term emotional reaction to this disparity. This phase which is known as Strain stage is featured by feelings of nervousness, pressure, weariness and exhaustion .The third phase which is known as defensive coping, involves of a number of variations in attitude and behaviour, such as, trend to deal clients in an isolated and mechanical style or a sceptical pre-occupation with indulgence of one's own requirements . Hence, Burnout is a transactional process comprising of Occupation stress, Employee strain and psychological coping.

Teacher Burnout

Professionals who related with human beings vastly happened to this burnout issue. Teaching profession highly related with students. So there are great possibility of burnout among teachers. Numerous reasons are there which can result in burnout among teachers. Pareek (1983) has pointed out nine factors which lead to burnout that is level of stress, type of stress, personality, and organizational climate, nature of job, life style, role style, coping style, and non-working life. Above these common reasons there are some specific reasons for burnout of unaided teachers.

Fiscal

One of the keen issue of unaided teachers are their low salary. Economic status of unaided teachers are in pitiable state. They are fighting to meet both ends of their life.

Lack of Training

Another stress is related to lack of training. Every year more than one thousand prospective teachers are completing their course. Most of them working in the field of unaided section. However it should be noted that sufficient in-service training are not available in the unaided sector. Problem of autonomy, problem related parents, issues related to pupils, issues of management and problem of attitude are other causes which lead into burnout.

High workload. Teachers often have heavy workloads, including lesson planning, grading, and administrative tasks, which can be overwhelming and contribute to burnout.

Role Conflict and Ambiguity. When teachers experience conflicting demands or unclear expectations in their work, they may experience feelings of confusion and frustration, which can lead to burnout.

Poor Work-life Balance. When teachers are unable to balance their work and personal responsibilities, they may experience feelings of exhaustion and burnout.

Organizational Culture. Organizational culture can contribute to burnout when there is a lack of trust, poor communication, and low levels of support and recognition.

Stages of Teacher Burnout

Teacher burnout can have negative consequences for both the individual teacher and the education system as a whole, such as decreased job satisfaction, lower job performance, increased absenteeism and high turnover. Burnout is not an instant phenomenon; somewhat it is gradual in nature, comprising lot of steps or paces. Clouse and Whitekar (1981) indicated three phase of teacher burnout:

Phase I-Loss of Enthusiasm

Every teachers enter to their profession with great passion. But when their expectation and can't fulfil, then starts loss of interest.

Phase II-Frustration

Frustration or desperation out of the nervousness of the profession is one of major staring sign of burnout.

Phase III-Alienation

Alienation is the third stage of burnout, where the teachers try to be detached from the students and co-workers.

Neuroticism

Neuroticism is a personality attribute; the word is used to explain persons who “express more negative emotions, emotional instability and stress reaction and, therefore, they become more vulnerable to both burnout and the majority of psychopathological disturbances” (Cano- García et al., 2005, p. 937; Watson et al., 1994)

Measurement Tools for Teacher Burnout

Teacher burnout scale was developed by the investigator with the help of her supervising teacher based on study by Steven A. Seidman (1986). Based on this theory there are four components for teacher burnout which are career satisfaction, perceived administrative support, career satisfaction and attitude towards students. Here the investigator selected the aforesaid components for his tool. In fact Maslach Burnout Inventory is very popular but it is meant for general workers. So it didn't include the specific components related to teachers such as administrative and leadership skills. So that Steven A. Seidman developed teacher burnout scale which consists four components such as Career satisfaction, Perceived administrative support, Coping with job related stress, Attitude towards students.

Oldenburg Burnout Inventory (OLBI)

This measure assesses burnout in four dimensions: exhaustion, detachment, personal accomplishment, and self-esteem. The Copenhagen Burnout Inventory (CBI): This measure assesses burnout in three dimensions: emotional exhaustion, cynicism and inefficiency.

Studies Related to Teacher Burnout

Tian and Guo (2022) conducted a study entitled as “how does transformational leadership relieve teacher burnout: the role of self-efficacy and emotional intelligence.” The study explained the basic mechanisms and boundary environments of the association between transformational leadership and teacher burnout. It explored the intermediating part of teacher self-efficacy and the regulating part of emotional

intelligence in this connection. The design of the study was structural equation model and hierarchical regression. The sample consists 539 primary and secondary school teachers. The result of the study showed that transformational leadership predicted teacher burnout negatively, self-efficacy mediated the relationship of transformational leadership with burnout partially, and emotional intelligence strengthened the relationship between transformational leadership and burnout.

Saloviita and Pakarinen (2021) conducted a study on teacher burnout in related to student and organisation-level variables consisting category of teacher, size of class, number of pupil. The sample of the study consist of 4567 primary school teachers in Finland. The findings of the study shows that the extent of burnout is different among various categories. Subject teachers possess highest level of burnout and size of class had a slight relation with teachers' burnout. It also pointed out that additional help was connected with lesser level of burnout.

Hassan and Ibourk (2021) conducted a study on “burnout, self-efficacy and job satisfaction among primary school teachers in Morocco”. The present study objects the analysis the constructions of the scales including burnout scale. Sample of the study consists 404 teachers from El Kalaa Des Sraghna city. The result of the study established the two-dimensionality of the burnout measurement scale, depersonalisation and emotional exhaustion.

Sokmen and Kilic (2019) conducted a study to find out the relationship between between primary school teachers' autonomy and burnout variables. the research design used for the study consists quantitative research method and a correlational model. The sample of the study consists of 716 primary teachers. convenient sampling method was used. The findings of the study are shows that teaching self-efficacy predicted, job satisfaction, teacher engagement and teacher autonomy positively while it predicted burnout negatively at significant levels. As for teacher autonomy, it predicted teacher engagement positively.

76 INFLUENCE OF TECHNOSTRESS & TEACHER AUTONOMY ON BURNOUT

Perrone et al. (2019) conducted a study on “administrative climate, early career teacher burnout and turnover.” The study explores the relationship between administrative climate and early career teacher burnout. The sample of the study includes 184 early career teachers from Michigan Indiana. The result of the study shows that higher measures of administrative climate are strongly connected with lower levels of burnout.

Onal and Tatar (2017) conducted a study on Teacher burnout and participation in professional learning activities. This study try to find out the burnout and participation in professional learning activities among Trukish EFL (English as a foreign language). The sample of the study were collected from 224 Turkish EFL teachers through a questionnaire containing three segments, comprising the Maslach Burnout Inventory for Educators. The study revealed that “state university English Preparatory Program instructors (SUEPPI) and private university instructors (PUEPPI) significantly differ in terms of the levels of sense of personal accomplishment and participation in professional learning activities. Results of the study suggest that, SUEPPI did not feel as accomplished and did not participate in professional learning activities as repeatedly as PUEPPI, and instructors’ sense of personal accomplishment is positively associated with their better participation in professional learning activities.”

Esfandiari and Kamali (2016) conducted a study on the relationship between job satisfaction, teacher burnout, and teacher autonomy. The present study try to find out the association between teacher burnout, teacher autonomy and job satisfaction. The sample of the study includes two hundred and seven teachers and institute in Karaj and Tehran, they were given three tools for the study. The sampling method used in the study is convenience sampling. According to the result of this study teacher autonomy correlated negatively with job satisfaction and job satisfaction had a negative relationship with teacher burnout.

Jacobson (2016) conducted a study on Causes and effects of teacher burnout. The aim of this case study was to investigate teacher burnout, its potential causes, and effects at an urban high school in the northeastern United States. The study's framework was based on Vygotsky's social development theory and the research questions focused on identifying the factors that contribute to teacher burnout and understanding teachers' perceptions of how burnout affects instruction and relationships with parents, colleagues, and administrators. The study used in-depth interviews with five high school teachers who had experienced burnout as a method of data collection. The interview data was analysed and coded to identify recurring themes and patterns. A narrative was developed for each of the five teachers, and a cross-case analysis of the data was conducted. The results suggest that teacher burnout may be caused by various factors such as educational mandates, classroom discipline issues and it affects classroom instruction and interactions with all educational stakeholders. The study's implications for positive social change focus on identifying and eliminating the factors that contribute to teacher burnout in order to retain highly qualified and motivated teachers who will provide students with consistent, high-quality and equal educational opportunities that help them reach their full academic potential.

Bianchi et al. (2014) conducted a study entitled as "Is burnout a depressive disorder? A re-examination with special focus on atypical depression." The study examines the relationship between burnout and depression. The sample of the survey included .The present study proposes that the burnout–despair overlay has been largely misjudged. Atypical depression may account for a considerable part of this overlay. Generally, findings indicate to depressive indicators and depressive disorders as vital apprehensions in controlling of burnout. The experimental research on behaviours for depression propose resolutions that may support labours recognised as burned out.

Antoniou et al. (2013) explore the levels of occupational stress and professional burnout of teachers of primary and secondary education. It also objects to

investigate the coping strategies that they adopt, and the relationship between them. The survey involved 388 teachers who teach in public schools in Attica. Three instruments were administered to teachers: “Teachers’ Occupational Stress” (Antoniou et al., 2006), the Maslach Burnout Inventory (Maslach & Jackson, 1986) and the “Stress Coping Strategies Scale” (Cooper, Sloan, & Williams, 1988). The findings showed that teachers of Primary Education experience higher levels of stress compared to the teachers of Secondary Education. Female teachers experience more stress and lower personal accomplishment than men. Rational coping behaviours are a resource which help teachers overcome work-related stressors and burnout and achieve their valued outcomes with students, while avoidance coping predicted high level of stress and burnout.

Antoniou et al. (2013) conducted a study entitled as “Occupational Stress and Professional Burnout in Teachers of Primary and Secondary Education: The Role of Coping Strategies”. The study tried to find out the levels of occupational stress and professional burnout of primary and secondary education. It also analyse the coping strategies that they adopt and the link between them. The sample of survey included 388 teachers who work in public schools in Africa. Three instruments were administered to teachers: Teachers’ Occupational Stress” (Antoniou, et al. 2006), the Maslach Burnout Inventory (Maslach & Jackson, 1986) and the “Stress Coping Strategies Scale” (Cooper et al., 1988). The study found that primary teachers experience higher levels of stress compared to the secondary teachers. Male teachers experience less stress and higher personal accomplishment than female.

Pandey (2012) conducted “a comparative study of teacher burnout, job satisfaction and job involvement among private and government school teachers”. Main objectives of the study are to compare burnout of secondary school teachers with respect to their age, experience, gender, and educational qualification. The study find out that private school teachers sense more emotionally exhausted and depersonalized in contrast to government school teachers.

Jude (2011) studied the collaborative and comparative effect of emotional intelligence and locus of control on burnout among secondary school teachers. The design of the study was ex-post facto research design. Sample of the study consists 300 secondary school teachers which collected using stratified random sampling technique. Three tools were used for the study namely emotional intelligence scale, locus of control scale and teacher burnout scale. The result of the study showed that locus of control and emotional intelligence when taken as a complete significantly forecast the burnout.

Shukla (2009) conducted a study to know the level of teacher burnout in relation to job satisfaction among unaided engineering college teachers in Jalgaon District. The investigator used the burnout inventory and job satisfaction scale. The study shows that workers with burnout signs have a tendency to take away emotionally from the demands of the job.

Patricia (2009) examined the burnout of teachers in the public schools affecting the value of education the pupils were receiving. The objective of the study was to know the relationship between creativity and the intensity of the indicators of burnout in teachers. The result of the study shows there were no correlation between creativity and burnout components. On the other hand, there was a negative relationship between years of experience and depersonalization.

Pillay et al., (2005) conducted a study on Well-Being, Burnout and Competence: Implications for Teachers. This study is about the relationship between burnout and expertise for a sample of mid-career teachers in primary and secondary schools in Queensland. The findings break new ground in reporting a negative association between the MBI subscale Depersonalization and competence that may be attributed to a distancing mechanism in difficult human interactions. Overall, the assumptions of this study hold implications for teacher training courses and the well-being and competence of teachers.

Seidman and Zager (1986) developed a 21-item Likert scale to measure burnout among public school teachers. The validity of the Teacher Burnout Scale is

supported by the results of a factor analysis of data from 365 teachers in which the 4 factors that emerged are consistent with the theoretical constructs believed to underlie burnout. The factor analysis determined the subscales of the instrument: (1) Career Satisfaction, (2) Perceived Administrative Support, (3) Coping with Job-Related Stress, and (4) Attitudes towards Students. Additional analyses with 490 teachers indicated that the Teacher Burnout Scale has good internal consistency, test-retest reliability, and construct and predictive validity.

Conclusion

Analysis on related literature exposed a number of studies on teacher autonomy and teacher burnout. But review shows that there are only few studies on the variable technostress of teachers that too are conducted in other countries especially European countries. Studies on technostress among teachers are very rare in India. Especially the studies to know the relationship between technostress and burnout are less. Therefore the investigator claims that the present study is a relevant one. The above reviews of related literature give a broader outlook of the present problem. Various studies disclose the nature of the research. There are studies to explore the relationship of self-efficacy, leadership, locus of control, and emotional intelligence to the burnout (Jude, 2011; Tian & Guo, 2022; Hassan & Ibourk, 2021; Sokmen & Kilic, 2019). However there are found less studies know the relationship of technostress and teacher autonomy on burnout. These reviews of related literature made the investigator to feel a necessity to explore the influence of technostress and teacher autonomy on burnout among teachers.

From the review of literature related to the variables, it is apparent that most of the studies on technostress, teacher autonomy were conducted abroad. Apart from these, the investigator could not locate any study showing the interaction of technostress and teacher autonomy on burnout among unaided secondary school teachers. In this context the present study is found significant.

METHODOLOGY

- ❖ *Variables of the study*
- ❖ *Objectives of the study*
- ❖ *Hypotheses of the study*
- ❖ *Tool used for data collection*
- ❖ *Sample for the study*
- ❖ *Data collection procedure, scoring and consolidation of data*
- ❖ *Statistical Techniques used for analysis of data*

The present study is an attempt to find out the influence of Technostress and Teacher Autonomy on Burnout among unaided secondary school teachers of Kerala. It efforts to study the influence of two independent variables on the dependent variable burnout of teachers. The major purpose of the study is to identify the main effect and interaction effect of Techno stress and Teacher autonomy on burnout among unaided secondary school teachers of Kerala.

The study also aims to identify the individual and joint contributions of the independent variables (techno stress and teacher autonomy) on the dependent variable, teacher burnout. The methodology adopted by the investigator for the present study is described under the following heading viz,

- Variables
- Objectives
- Hypotheses
- Method used
- Tools used
- Sample selected for the study
- Data collection procedure, scoring and consolidation of data
- Statistical techniques used for analysis of data

The details of each of the above are given in the following.

Variables

The independent and dependent variables selected for the present study are the following.

Independent Variables

Two independent variables were selected for the study. They are.

- Techno Stress
- Teacher Autonomy

Dependent Variables

- Teacher burnout

Categorical Variables

Categorical variables selected for the study are gender, locale, type of school, educational qualification, subjects of teaching, and teaching experience

Variables are diagrammatically represented in the following

Figure 4

Variables Selected for the Study

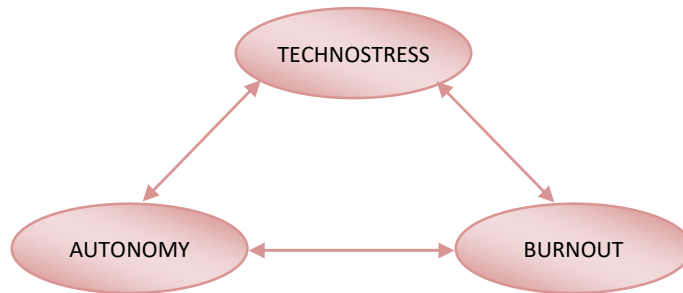
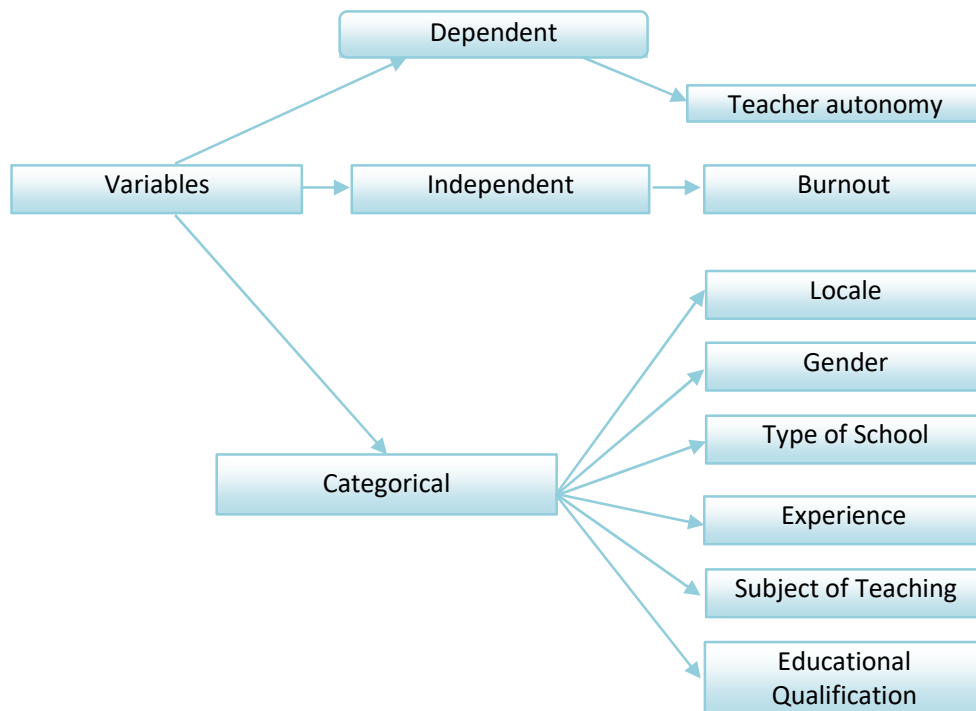


Figure 5

Diagrammatic Representation of Variables



Objectives of the Study

1. To find out the extent of technostress, teacher autonomy and burnout among unaided secondary school teachers of Kerala.
2. To find out whether there exists any significant difference in technostress, teacher autonomy and burnout among unaided secondary school teachers based on relevant sub groups viz. gender, locale, type of management and subject of teaching.
3. To find out the main effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant sub groups.
4. To find out the first order interaction effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant sub groups.
5. To find out the individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.
6. To develop regression equation to predict teacher burnout from technostress and teacher autonomy.

Hypotheses of the Study

1. There exists significant gender difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
2. There exists significant locale difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
3. There exists significant school difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.

4. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on educational qualification.
5. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers-based subject of teaching.
6. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on teaching experience.
7. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for total sample.
8. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for male unaided secondary school teachers.
9. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for female unaided secondary school teachers.
10. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for rural unaided secondary school teachers.
11. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for urban unaided secondary school teachers.
12. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for CBSE unaided secondary school teachers.

13. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for state syllabus unaided secondary school teachers.
14. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for basic qualification unaided secondary school teachers.
15. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for highly qualified unaided secondary school teachers.
16. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for language unaided secondary school teachers.
17. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for social science unaided secondary school teachers.
18. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for science unaided secondary school teachers.
19. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for mathematics unaided secondary school teachers.

20. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for novice unaided secondary school teachers.
21. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for less experience unaided secondary school teachers.
22. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for more experienced unaided secondary school teachers.
23. There is significant individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.

Method of Study

The present study is aimed to investigate the influence of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala. Survey method was used by the investigator to find out the influence of independent variables on dependent variable.

Tools Used for Data Collection

The selection and design of suitable instrument and Collection of appropriate data is a chief part of any research work and indispensable for a successful research. The data required for the study was collected by using three tools. All of them are constructed and standardized by the investigator. The tools used for the present study are the following.

1. Technostress Scale (Shafeek & Koya, 2019)
2. Teacher Autonomy Scale (Shafeek & Koya, 2019)
3. Teacher Burnout Inventory (Shafeek & Koya, 2019)

Detailed description of the construction of each scale is given below under the following headings.

- Planning of the scale
- Preparation of the scale
- Try out of the preliminary scale
- Item analysis
- Finalization of the scale

Technostress Scale

Planning of the Scale

The first step of the construction of scale is planning. The present study is an attempt to find out the level of technostress among secondary school teachers. Hence the investigator attempts to develop a scale on technostress for unaided secondary school teachers on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of review of related literature. From the review investigator identified the theoretical constructs of technostress. Investigator also searched existing tools for measuring technostress. Studies used interview, opinionnaire, scale etc. It was found that most of them were developed and used for measuring technostress in IT professional context. The investigator could not find out appropriate instrument used for technostress among teachers in Kerala. So, the investigator himself developed a technostress scale. It includes two parts. Part A consists of personal information and Part B consists of 47 questions.

Preparation

The draft scale composed of two parts. Section A and section B. Section A contains personal information which is prepared to collect general data that is name of the teacher, name of the school, locale, type of school, subject, teaching

experience, educational qualification and gender. Section B consists of 47 items. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The brief report on the two sections described under below

Technostress scale was developed by the investigator with the help of his supervising teacher based on the study by Tarafdar et al. (2007). Based on this theory there are five components for techno stress which are techno-overload, techno-invasion, Techno insecurity, techno complexity and techno uncertainty. Here the investigator through the discussion with experts sum up the dimensions of technostress of teachers as

- Techno Insecurity
- Techno Complexity
- Techno Invasion
- Techno Awareness
- Techno Facility

Description of each of these components is given in the following.

Techno Insecurity. Techno insecurity is the one of the serious issues caused by technological devices. It is related with circumstances where individuals feel endangered about losing their data especially personal and official secrets. Techno-insecurity arises when a user minds nervous about losing his or her profession to other co-workers who have better knowledge and skills with the technology compared to him or her. Techno-insecurity has been linked to situations where users face threats about technology due to automation from ICTs or other persons who have a improved understanding of ICTs.

Techno insecurity outlines a condition where teachers feel doubtful about the existence of technology because it is dreaded that it can substitute the part of

teachers in educational process. It comprises intimidations to the profession, promotion skill sets to evade being interchanged, co-teachers as a menace, anxiety of being substituted by contemporaries, self-assurance in using technology to teach, nervousness in using technology to teach, and familiarity in functioning instruction plans. (Christian et al., 2020)

Item numbers 7, 8, 9,10,11,19 come under this category. 6 positive items prepared for this component.

Illustration.

- I have lot of concerns about the loss of privacy through online systems.
- I am afraid of cyber-attacks like hacking

Techno Complexity. Techno-complexity defines conditions where the complexity connected with ICTs can lead users to experience inadequacies with their computer skills and forces them to employ time and energy in learning and understanding ICTs. It indicates the complex technological arena including new updates in the field of technology which are force to teachers or any workers to use lot of time and energy in learning and acquiring the knowledge how to practice new applications and software. Besides, due to complication of the technology, teachers must apply more time to learn what way to practice technology in education process. Stress happens when they sense that the diversity of applications and functioning is threatening and they do not comprehend the necessity of practicing it. Additionally, persistent variations of technology being a reason to make users as strained and discontented with the whole system (Ibrahim et al., 2015).

Techno complexity includes complex to comprehend, complex to practise efficiently, and an ample amount of time and endeavour. Educational practices with the use of technology turn into more convoluted than traditional approaches where there is only human interaction. There are several complicated issues relating to the

integration of technology with education. (Christian, M., Purwanto, E., & Wibowo, S. (2020). Techno complexity includes techno uncertainty too. Techno-uncertainty refers to contexts where continuing ICT changes and upgrades unsettle users and create uncertainty so that they must constantly learn and educate themselves about new ICTs.

Item numbers 2, 3, 4, 18, 20, 23, 30, 41 come under this category. 8 positive items are prepared for this component.

Illustration.

- I am forced to make changes in teaching preparation to adapt new technology.
- I think that the information received through the internet is not reliable

Techno Invasion. Techno-invasion denotes a condition that users feel that they are never free from technology. They believe that technology has occupied their all interactions. (Ibrahim et al., 2015). Here it includes techno overload and techno overuse. Techno overload denotes a condition where teachers are forced to work quicker as a result of the use of connected ICTs each and every time, eventually they are compelled to be the part of increased workload. As a consequence of this overload teachers suffering work exhaustion and other health glitches. (Christian et al., 2020).

Techno invasion denotes a situation in which technology invaded all life of a person. We concentrate on techno-invasion as a special factor of technostress, which describes the excessive use of ICT, a state in which employees can be reached at any time and are compelled to always be connected (Tarafdar et al., 2010; Tarafdar et al., 2011). Techno-invasion describes the invasive effect of ICTs in situations where employees can be reached anytime and feel the need to be constantly connected, thus blurring non-personal and personal contexts.

Techno overload happens when users are incapable to recognise what is truly beneficial data. They use more time and energy in information handling because they transfer more information than is essential and obtain more data than they can efficiently process. Users also receive more information than they can process and use meritoriously. (Ibrahim, & Yusoff, 2015) Techno-overload describes situations where ICTs force users to work faster and longer.

Item numbers 5, 6, 12, 13, 14, 15, 16, 21, 22, 29, 45 come under this category. 1 negative item and 10 positive items are prepared for this component.

Illustration.

- My personal life has become chaotic due to new technology
- I felt some physical difficulties when using technology for a long time

Techno Awareness. Techno awareness refers to a person's understanding and knowledge of technology and its capabilities. It includes understanding the potential benefits and drawbacks of technology, as well as the ability to use technology effectively and safely. Being techno aware also includes keeping up-to-date with new developments in technology and understanding how to use new technologies for personal and professional benefit. Everyone who lives in this tech-world should have good awareness on different types of technology and should have a positive attitude.

Item numbers 1, 24, 25, 26, 31, 32, 33, 34, 36, 37, 39, 40 come under this category. 5 negative items (1, 26, 33, 34, 40) and 7 positive items are prepared for this component.

Illustration.

- In my opinion technology-based teaching is better than any other method of teaching.
- I think that the teaching method using technology adversely affects the creativity of the teacher

Techno Facility. It is related to the technological facility available for the teachers. Lack of adequate facility for the integration of technology is one of the big issue of teachers who want to adapt new ways of teaching. Even now most of the schools have only nominal facilities.

Item numbers 17, 27,28,35,38, 42, 43, 44,46,47 come under this category. 10 items are prepared for this component.

Illustration.

- The availability of apps and software related to my subject is low
- I didn't get adequate facility in classrooms for practicing technology - based teaching methods.

Preparation

The draft scale composed of two parts namely personal information, statements part. Personal information is meant to collect general data name of the teacher, name of the school, locale, type of school, work experience, educational qualifications, IT literacy, subject and gender. Second part consists statements based upon the above-mentioned components. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The draft scale consists of 47 items of which 37 items are positive and 10 items are negative. Positive and negative items listed below.

Table 6

Details of Negative and Positive Items in Technostress Scale

Type of items	Question numbers
Positive items	2,3,4,5,6,7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,23,24,25,27,28,29,30,31,32,36,37,39,44,45,46,47
Negative items	1,12,26,33,34,35,38,40,42,43

Scoring Procedure

As the present scale is a Likert type scale, responses should be made in a five-point scale as strongly agree, Agree, Undecided, Disagree and strongly disagree. For the positive statements the respective score of the five responses are 5,4,3,2, and 1. For the negative statements the scoring is done in the reverse order. The scores on all the items are added to get the total score on Technostress.

Pilot Testing

The draft scale was administered to representative group of 395 unaided secondary school teachers. Due representation was given to different subsample while selecting the sample and some of them are partially completed the scale. So Incomplete response sheets were cast-off. After random rejection, the sample size was fixed as 370. The response of each item by all the teachers in the sample were scored and subjected to item analysis. The draft version of the Technostress Scale (Malayalam) is presented as Appendix I.

Item Analysis

Item analysis is done using the method suggested by Likert(1932). The responses collected from the 370 teachers were first organized in ascending order from low scoring teachers to higher scoring teachers. The upper 27 percentages and lower 27 percentage of teachers' responses sheet were taken separately for item analysis. The number of teachers in lower and upper 27 percentages is 100 each. The responses for each item in lower and upper group were scored and subjected to item analysis. For this the t value for each item were calculated. The mean and standard deviation of each item were calculated separately for lower and upper groups. Items having the t value above 2.58 were selected for the final version of technostress Scale. The t values were calculated using the following formula

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}}$$

Where,

\bar{X}_1 = Mean for the first group

\bar{X}_2 = Mean for the second group

SD_1 = Standard deviation for the first group

SD_2 = Standard deviation for the second group

N_1 = Size of the sample for the first group

N_2 = Size of the sample for the second group. (Best & Kahn, 2011)

The t values of each item are presented in Table 7

Table 7

Data and Results of Item Analysis for Technostress Scale

Sl. No.	High Group		Low Group		t value	Status (Accepted/ Rejected)
	Mean	SD	Mean	SD		
1	1.98	1.00	1.37	0.72	4.935	Accepted
2	4.41	0.82	4.32	0.80	.786	Rejected
3	4.46	0.58	3.95	0.89	4.804	Accepted
4	4.34	0.67	3.72	0.95	5.317	Accepted
5	4.54	0.58	3.95	1.14	4.618	Accepted
6	4.18	0.77	3.39	1.20	5.551	Accepted
7	4.31	0.76	3.12	1.24	8.172	Accepted
8	4.25	0.76	3.60	1.04	5.039	Accepted
9	4.40	0.62	3.88	0.96	4.563	Accepted
10	4.79	5.02	3.41	1.06	2.692	Accepted
11	3.53	0.97	2.40	0.98	8.180	Accepted
12	2.40	1.12	1.95	0.93	3.099	Accepted
13	4.29	0.71	3.29	1.22	7.086	Accepted
14	4.17	0.85	3.38	1.14	5.535	Accepted
15	3.91	0.96	2.40	0.96	11.070	Accepted
16	4.02	0.89	2.62	1.17	9.533	Accepted
17	3.89	0.97	2.84	1.19	6.841	Accepted

Sl. No.	High Group		Low Group		t value	Status (Accepted/ Rejected)
	Mean	SD	Mean	SD		
18	3.69	0.93	2.10	0.85	12.651	Accepted
19	3.51	0.96	2.07	0.83	11.345	Accepted
20	3.34	1.03	2.17	0.92	8.478	Accepted
21	4.12	0.82	2.85	1.28	8.345	Accepted
22	4.44	0.76	4.15	1.02	2.286	Rejected
23	4.18	0.86	2.84	1.06	9.824	Accepted
24	3.33	0.97	2.24	0.92	8.121	Accepted
25	3.57	0.99	2.24	0.92	9.843	Accepted
26	2.09	0.89	1.86	0.79	1.933	Rejected
27	3.25	1.07	2.12	0.89	8.129	Accepted
28	3.60	1.08	2.10	0.95	10.424	Accepted
29	4.11	0.86	3.22	1.30	5.705	Accepted
30	3.70	0.85	2.58	1.01	8.513	Accepted
31	3.83	1.01	2.86	1.13	6.418	Accepted
32	3.17	1.14	2.25	0.94	6.245	Accepted
33	2.21	0.88	1.62	0.69	5.269	Accepted
34	1.70	0.56	1.56	0.74	1.505	Rejected
35	2.29	0.89	1.80	0.82	4.055	Accepted
36	3.90	0.88	2.36	0.96	11.820	Accepted
37	3.98	0.95	2.59	1.08	9.633	Accepted
38	2.15	0.90	1.74	0.76	3.473	Accepted
39	3.64	0.87	2.39	0.92	9.869	Accepted
40	1.98	0.92	1.70	0.82	2.267	Rejected
41	3.59	1.00	2.30	1.01	9.094	Accepted
42	2.47	0.96	1.90	0.86	4.430	Accepted
43	2.00	0.89	1.81	0.97	1.444	Rejected
44	3.49	1.12	2.44	1.10	6.666	Accepted
45	4.11	0.87	2.87	1.18	8.452	Accepted
46	3.85	0.90	2.67	1.05	8.498	Accepted
47	3.87	0.86	2.47	1.01	10.554	Accepted

Finalization of the Scale

Item which critical ratio greater than 2.58 the tabled value of 't' required for significance level at .01 were selected for the final scale. Thus, from the total 47 items, 41 items were selected for the final scale. A copy of the final version of the tool Technostress Scale (Malayalam and English version) are Appended as Appendices II and III respectively.

Establishment of Validity and Reliability. Burney points out that “validity is an indication of accuracy in terms of the extent to which a research conclusion corresponds with reality. “Validity of the present scale was ensured using face validity”. A test is said to have face validity when it appears to measure whatever the author mind, what he thought he was measuring (Garret, 2005, p.355). Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity, the scores obtained for a representative group of 40 unaided secondary school teachers were correlated with an external independent criteria technostress scale (Ragunathan, 2002) which is appropriate for teachers. The validity coefficient obtained is 0.64

The reliability of the scale was established using Cronbach's alpha, α which is the most common measure of reliability. Cronbach's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to Cronbach's alpha. The Cronbach's alpha obtained for the technostress is 0.76. Also, reliability of technostress Scale established using test retest method. The reliability value of technostress scale is 0.68.

Teacher Autonomy Scale

The tool Teacher Autonomy scale is constructed and standardized by the investigator with the help of supervising teacher. Detailed description of the construction of the scale is given below.

Planning of the Scale

The first step in the construction of the scale is planning. The present study is an attempt to find out the level of teacher autonomy among unaided secondary school teachers. Hence the investigator attempts to develop a scale on teacher autonomy among secondary school teachers on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of review of related literature. From the review investigator identified the theoretical constructs of teacher autonomy. Investigator also searched existing tools for measuring teacher autonomy. Studies used questionnaire, scale etc. It was found that in the last decade we unconsciously neglected the autonomy of teachers while it became a serious issue. There are some tools to measure the autonomy but that is not fully appropriate in the present scenario of Kerala. So, the investigator himself developed a teacher autonomy scale. It includes two parts. Part A consists of personal information and Part B consists of 44 questions

Preparation

The draft scale composed of two parts namely personal information, and Section B. Personal information is meant to collect general data name of the teacher, name of the school, locale, and type of management, experience, educational qualifications, subject and gender. Section B consists of 44 items. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The brief report on the two sections described under below

Teacher autonomy scale was developed by the investigator with the help of his supervising teacher based on the study by Friedman. Based on this theory there are six components for teacher autonomy which are establishing school identity and praxis, Teaching and achievement evaluation, Parental involvement, Staff development, extracurricular subjects and Curriculum change and development.

Here the investigator selected the aforesaid components for his tool. Description of each of these components is given in the following

Establishing School Identity and Praxis. Praxis denotes doing or action: the exercise or practice of an art, skill, or science (Chapman, 1999). School identity refers to the unique characteristics and qualities that distinguish a school from others. This can include things like the school's mission and values, its educational philosophy, and the types of programs and activities offered. A school's identity is often shaped by the community it serves, as well as the vision and goals of the school's leadership and staff. Praxis refers to the practical application of a school's educational philosophy and mission.

Item numbers 10, 11, 12,13,14,15,16,29,34 are comes under this component.

Teaching and Assessment. It refers to the ability of teachers to make decisions about the methods, techniques, and materials they use in the classroom, as well as the ability to evaluate student learning in ways that align with their own teaching philosophy and the school's mission and values. This can include things like designing lesson plans, and selecting assessment tools. Allowing teacher's autonomy in teaching and assessment can lead to more creativity, innovation and ownership among teachers.

Item numbers 1,2,6,7,17,20,21,28,30,31,40 are comes under this component.

Parental Involvement. Some parents may become overly involved in their child's education, which can lead to lack of autonomy for teachers and students. In unaided schools, the involvement of parents is extensive, which forces teachers to cater to their demands. As a result, the authority does not permit teachers to share or discuss the actual issues of students with their parents. Teachers are only allowed to highlight the positive traits of students. In unaided schools, parents are the source of funding, and as a result, they exhibit an overbearing attitude towards teachers, lacking respect.

Item numbers 3, 22, 23, 43, 44 are comes under this component.

Professional Development. It refers to the ability of teachers to pursue ongoing education and training to improve their skills and knowledge in their field. This can include attending workshops, conferences, and other professional development opportunities, as well as participating in online learning and self-directed study. Having freedom for professional development allows teachers to stay current with the latest teaching methods, technologies, and educational research.

Item numbers 9, 18, 19, 24, 35, 39, 42, are comes under this component.

Extracurricular Subjects. Teachers should have the necessary freedom to conduct extracurricular activities in order to promote the overall development of students. These activities enliven the academic experience. It refers to the level of independence and decision-making power that teachers have in organizing and running extracurricular activities. This can include clubs, sports teams, and other activities.

Item number 4, 8, 32, 38, 27, 33 are comes under this component.

Curriculum Development. Teachers should be granted the appropriate liberty to impart the curriculum in its entirety, in order to achieve the desired results. The opinions of teachers should be taken into account when any curriculum changes or developments occur. Keeping pace with the rapidly changing social, technological, and cultural landscape is crucial in the evolution of the curriculum.

Item numbers 25, 26,36,37,41 are come under this component

Preparation

The draft scale composed of two parts namely personal information, statements part. Personal information is meant to collect general data name of the teacher, name of the school, locale, type of school, teaching experience, educational qualifications, IT literacy, subject and gender. Statements based upon the above-mentioned components. The investigator wrote all items by the help of supervising

teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The draft scale consists of 44.

Items of which 31 items are positive and 13 items are negative. Positive and negative items listed below.

Table 8

Details of Negative and Positive Items in Teacher Autonomy Scale

Type of Items	Question Numbers
Positive items	1,3,4,6,8,9,11,12,13,14,15,16,17,18,20,21,23,27,28,31,32,33,34,35,36,37,38,39,40,41,42
Negative items	2,5,7,10,19,22,24,25,26,29,30,43,44

Scoring Procedure

As the present scale is a Likert type scale, responses should be made in a five-point scale as strongly agree, Agree, Undecided, Disagree and strongly disagree. For the positive statements the respective score of the five responses are 5,4,3,2, and 1. For the negative statements the scoring is done in the reverse order. The scores on all the items are added to get the total score on Teacher autonomy.

Pilot Testing

The draft scale was administered to representative group of 395 unaided secondary school teachers. Due representation was given to different subsample while selecting the sample and some of them are partially completed the scale. So Incomplete response sheets were cast-off. After random rejection, the sample size was fixed as 370. The response of each item by all the teachers in the sample were scored and subjected to item analysis. The draft version of the teacher autonomy scale (Malayalam) is presented as Appendix IV.

Item Analysis

Item analysis is done using the method suggested by Likert (1932). The responses collected from the 370 teachers were first organized in ascending order from low scoring teachers to higher scoring teachers. The upper 27 percentages and lower 27 percentage of teachers' responses sheet were taken separately for item analysis. The number of teachers in lower and upper 27 percentages is 100 each. The responses for each item in lower and upper group were scored and subjected to item analysis. For this the t value for each item were calculated. The mean and standard deviation of each item were calculated separately for lower and upper groups. Items having the t value above 2.58 were selected for the final version of teacher autonomy Scale. The t values were calculated using the following formula

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}}$$

Where,

\bar{X}_1 = Mean for the first group

\bar{X}_2 = Mean for the second group

SD_1 = Standard deviation for the first group

SD_2 = Standard deviation for the second group

N_1 = Size of the sample for the first group

N_2 = Size of the sample for the second group. (Best & Kahn, 2011)

The t values of each item are presented in Table 9

Table 9*Data and Results of Item Analysis for Teacher Autonomy Scale*

Sl. No.	High Group		Low Group		t value	Status (Accepted/Rejected)
	Mean	SD	Mean	SD		
1	4.47	0.66	3.83	0.92	5.65	Accepted
2	3.78	1.01	3.35	0.97	3.07	Accepted
3	4.40	0.74	3.31	1.08	8.33	Accepted
4	4.27	0.75	3.13	1.03	8.94	Accepted
5	3.25	1.23	2.53	1.07	4.43	Accepted
6	4.18	0.76	3.02	1.04	8.99	Accepted
7	3.67	0.95	3.00	1.08	4.64	Accepted
8	4.58	0.62	3.63	0.97	8.24	Accepted
9	4.13	0.87	2.77	1.06	9.90	Accepted
10	3.45	1.10	2.63	1.10	5.29	Accepted
11	3.87	0.66	2.80	0.89	9.67	Accepted
12	3.65	0.95	2.76	1.04	6.34	Accepted
13	4.15	0.90	2.89	1.12	4.02	Accepted
14	3.55	1.08	2.56	1.07	6.53	Accepted
15	3.94	0.79	2.89	1.12	7.67	Accepted
16	3.77	0.83	2.73	0.95	8.25	Accepted
17	4.20	0.91	3.06	1.03	8.28	Accepted
18	3.99	0.93	3.18	1.05	5.79	Accepted
19	3.67	1.01	2.84	1.10	5.57	Accepted
20	3.40	1.10	2.62	0.95	5.36	Accepted
21	4.40	0.74	3.62	0.87	6.82	Accepted
22	2.78	1.12	2.41	1.07	2.38	Rejected
23	3.60	0.92	2.74	0.79	7.10	Accepted
24	3.23	0.83	2.65	0.91	4.71	Accepted
25	3.50	0.97	2.75	1.09	5.15	Accepted
26	3.03	1.00	2.55	0.93	3.52	Accepted
27	3.97	0.81	3.37	0.92	4.90	Accepted
28	4.10	0.97	3.33	0.91	5.79	Accepted
29	3.57	0.99	2.70	0.99	6.22	Accepted
30	3.26	1.12	2.45	0.95	5.54	Accepted

Sl. No.	High Group		Low Group		t value	Status (Accepted/Rejected)
	Mean	SD	Mean	SD		
31	4.12	0.86	3.40	0.94	5.65	Accepted
32	4.29	0.76	2.92	1.02	10.78	Accepted
33	3.48	1.11	2.64	0.98	5.66	Accepted
34	3.12	1.03	2.29	0.83	6.28	Accepted
35	3.25	0.98	2.59	0.82	5.18	Accepted
36	3.60	0.98	2.47	0.87	8.60	Accepted
37	4.53	0.63	3.67	0.85	8.12	Accepted
38	4.20	0.80	2.65	0.88	13.00	Accepted
39	4.43	0.57	3.28	0.92	10.59	Accepted
40	4.38	0.65	3.00	0.89	12.56	Accepted
41	4.40	0.62	3.54	0.87	8.06	Accepted
42	4.35	0.74	3.38	1.09	7.35	Accepted
43	3.87	0.66	2.80	0.89	9.67	Accepted
44	3.65	0.95	2.76	1.04	6.34	Accepted

Finalization of the Scale

Item which critical ratio greater than 2.58 the tabled value of ‘t’ required for significance level at .01 were selected for the final scale. Thus, from the total 44 items, 43 items were selected for the final scale. A copy of the final version of the tool teacher autonomy scale (Malayalam and English version) are appended as Appendices V and VI respectively.

Establishment of Validity and Reliability. Donald H Mc Burney points out that “validity is an indication of accuracy in terms of the extent to which a research conclusion corresponds with reality. “Validity of the present scale was ensured using face validity”. A test is said to have face validity when it appears to measure whatever the author mind, what he thought he was measuring (Garret, 2005, p.355). Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity, the scores obtained for a representative group of 40 unaided secondary

school teachers were correlated with an external independent criteria teacher autonomy scale (Friedman, 1999) which is suitable for teachers. The validity coefficient obtained is 0.78.

The reliability of the scale was established using Cronbach's alpha, α which is the most common measure of reliability. Cronbach's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to cronbach's alpha. The cronbach's alpha obtained for the teacher autonomy is 0.781. Also, reliability of teacher autonomy Scale established using test retest method. The reliability value of teacher autonomy scale is 0.72.

Teacher Burnout Inventory

The tool Teacher Burnout inventory is constructed and standardized by the investigator with the help of supervising teacher. Detailed description of the construction of the inventory is given below.

Planning of the Inventory

The first step of the construction of inventory is planning. The present study is an attempt to find out the level of teacher burnout among unaided secondary school teachers. Hence the investigator attempts to develop an inventory on teacher burnout among secondary school teachers on the basis of objectives of the study by discussing with the supervising teacher, informal discussion with teachers, practitioner and experts in the field of education and after a crucial analysis of review of related literature. From the review investigator identified the theoretical constructs of teacher burnout. Investigator also searched existing tools for measuring teacher burnout. Studies used inventory, scale etc. It was found that in the last decade we unconsciously neglected the burnout of teachers while there are raised lot of new burnout creators. There are some tools to measure the burnout but that is not fully apt in the present scenario of Kerala. So, the investigator himself developed a teacher burnout inventory based on famous

Maslach Inventory. It includes two parts. Part A consists of personal information and Part B consists of 28 items.

Preparation

The draft inventory composed of two parts namely personal information, and Section B. Personal information is meant to collect general data name of the teacher, name of the school, locale, type of management, subject and gender. Section B consists of 28 item. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The brief report on the two sections described under below.

Teacher burnout inventory was developed by the investigator with the help of his supervising teacher based on the Maslach Burnout Inventory – Educator’s Survey (MBI-ES, 1986). Based on this theory there are three components for burnout which are emotional exhaustion (EE), Depersonalization (DP), and Perished Personal Accomplishment (PA). Description of each of these components is given in the following.

Emotional Exhaustion (EE). Emotional exhaustion denotes to state of mind of being emotionally drained and exhausted of one’s emotional strength consequence of long-term stress in private or work life. People undergoing emotional exhaustion feel like they have no control over what happens in their daily life. Lack of motivation, sleeplessness, and struggle in attention, nervousness and depression are the symptoms of emotional exhaustion.

Item numbers 1, 2, 3,4,8,13,20,25,26,28 are come under this component

Depersonalization (DP). Depersonalization denotes to an undesirable, insensitive, or extremely detached reaction to other people who are regularly the receivers of one’s services or interaction. Depersonalization lead to heartless and destructive approach towards their clients and subsequently treat them impersonally by separating from them (Maslach et al., 2001).

Item numbers 5,6,7,9,10,11,12,14,18,22 are come under this component.

Inefficacy/Reduced Personal Accomplishment. Reduced personal accomplishment denotes to a decay in an individual's feelings of competence and affluent achievement in his or her work. Individuals those who suffers from diminished personal accomplishment feels a general discontent and frustration with themselves, their specialized skills, and their efficiency (Maslach et al., 2001).

Item numbers 15,16,17,19,21,23,24,27 are come under this component

Preparation

The draft inventory composed of two parts namely personal information, statements part. Personal information is meant to collect general data name of the teacher, name of the school, locale, type of management, work experience, educational qualifications, subject and gender. Statements based upon the above-mentioned components. The investigator wrote all items by the help of supervising teacher. The items were subjected to expert criticism. Then some of the items were deleted and some were modified. The draft scale consists of 28 items of which 23 items are positive and 5 items are negative. Positive and negative items listed below.

Table 10

Details of Negative and Positive Items in Teacher Burnout Inventory

Type of Items	Question numbers
Positive items	2,3,4,5,6,7,8,9,10,11,12,14,15,16,17,18,19,20,21,23,24,25,26
Negative items	1,13,22,27,28

Scoring Procedure

The present inventory is a five-point scale in which items can be responded as strongly agree, Agree, Undecided, Disagree and strongly disagree. For the positive statements the respective score of the five responses are 5,4,3,2, and 1. For the negative statements the scoring is done in the reverse order. The scores on all the items are added to get the total score on Teacher Burnout.

Pilot Testing

The draft scale was administered to representative group of 395 unaided secondary school teachers. Due representation was given to different subsample while selecting the sample and some of them are partially completed the scale. So Incomplete response sheets were cast-off. After random rejection, the sample size was fixed as 370. The response of each item by all the teachers in the sample were scored and subjected to item analysis. A copy of the Burnout Inventory (Malayalam) is presented as Appendix VII.

Item Analysis

Item analysis is done using the method suggested by Likert (1932). The responses collected from the 370 teachers were first organized in ascending order from low scoring teachers to higher scoring teachers. The upper 27 percentages and lower 27 percentage of teachers' responses sheet were taken separately for item analysis. The number of teachers in lower and upper 27 percentages is 100 each. The responses for each item in lower and upper group were scored and subjected to item analysis. For this the t value for each item were calculated. The mean and standard deviation of each item were calculated separately for lower and upper groups. Items having the t value above 2.58 were selected for the final version of technostress Scale. The t values were calculated using the following formula

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}}$$

Where,

\bar{X}_1 = Mean for the first group

\bar{X}_2 = Mean for the second group

SD₁ = Standard deviation for the first group

SD₂ = Standard deviation for the second group

N₁ = Size of the sample for the first group

N_2 = Size of the sample for the second group. (Best & Kahn, 2011)

The t values of each item are presented in Table 11

Table 11

Data and Result of Item Analysis for Teacher Burnout Inventory

Sl. No.	High Group		Low Group		t value	Status Accepted /rejected
	Mean	SD	Mean	SD		
1	1.74	0.97	1.23	0.42	4.82	Accepted
2	4.32	0.82	3.22	1.18	7.68	Accepted
3	4.05	0.94	2.40	0.94	12.42	Accepted
4	4.01	0.95	2.25	0.90	13.44	Accepted
5	2.69	1.06	1.77	0.63	7.45	Accepted
6	3.58	1.07	1.68	0.60	15.53	Accepted
7	4.09	0.83	3.04	1.20	7.21	Accepted
8	3.09	1.19	1.71	0.76	9.79	Accepted
9	2.55	1.00	1.52	0.64	8.67	Accepted
10	2.64	1.10	1.52	0.59	8.98	Accepted
11	2.41	0.91	1.57	0.64	7.55	Accepted
12	2.69	1.03	1.70	0.85	7.42	Accepted
13	2.47	1.04	1.98	0.94	3.49	Accepted
14	2.65	0.90	1.68	0.66	8.65	Accepted
15	2.74	1.09	1.54	0.63	9.56	Accepted
16	3.31	1.01	1.68	0.72	13.11	Accepted
17	4.45	0.76	3.60	1.31	5.62	Accepted
18	2.73	1.01	1.79	0.70	7.63	Accepted
19	3.10	0.99	1.88	0.84	9.38	Accepted
20	4.35	0.90	3.40	1.32	5.95	Accepted
21	2.26	1.00	1.62	0.74	5.15	Accepted
22	3.52	1.08	4.10	1.04	3.87	Accepted
23	3.72	0.98	2.21	1.01	10.77	Accepted
24	3.77	0.99	2.30	0.95	10.70	Accepted
25	3.69	0.97	1.86	0.77	14.80	Accepted
26	3.40	0.99	2.13	0.97	9.14	Accepted
27	2.79	1.07	1.56	0.61	10.02	Accepted
28	2.37	0.88	1.44	0.66	8.45	Accepted

Finalization of the Tool

Item which critical ratio greater than 2.58 the tabled value of 't' required for significance level at .01 were selected for the final tool. Thus, from the total 28 items, all of them were selected for the final tool. A copy of the tool Teacher Burnout Inventory (English version) are appended as Appendix VIII.

Establishment of Validity and Reliability. Initially validity of the tool was established using face validity and content validity were established in consultation with experts. For establishing criterion related validity, the scores obtained for a representative group of 40 unaided secondary school teachers were correlated with an external independent criteria teacher burnout scale (Seidman, 1986) which is suitable for teachers. The validity coefficient obtained is 0.52.

The reliability of the inventory was established using Cronbach's alpha, α which is the most common measure of reliability. Cronbach's alpha is calculated measuring splitting data into every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to Cronbach's alpha. The Cronbach's alpha obtained for the teacher burnout inventory is 0.81. Also, reliability of teacher burnout inventory established using test retest method. The reliability value of teacher burnout inventory is 0.71.

Sample Selected for the Study

Unaided Secondary school teachers of Kerala are the population of the study and the sample for the present study is collected from this population. As it is impossible to collect data from a large number of populations the study was limited to 540 unaided secondary school teachers. Investigator made all effort to make the sample the true representation of the population.

Schools from Northern, Central and Southern part of the Kerala state were included in order to get a cross section of the Kerala state. Stratified sampling

technique was used to select the participants of the study. The participants were selected from 58 schools of ten districts of Kerala state. Thirteen schools from Kannur, three schools from Palakkad, four schools from Trivandrum, fifteen schools from Kozhikode, fourteen schools from Malappuram, four schools from Thrissur, two schools from Kollam, one school from Pathanamthitta, one from Ernakulum and one school from Kasaragod were selected randomly. Care was taken to include schools from urban and rural areas as well as government and aided schools.

Due representation as given to strata such as Gender, locale, and Stream of study. Samples were drawn from all districts of Kerala. Stratified random sampling techniques were used to select the sample. Data was collected from 560 unaided secondary school teachers. Some responses were not complete thus it reduced to 510. The details of the sample presented in table 12

Table 12

List of Schools and Number of Students for Each Category

Sl. No.	Name of Unaided School	Male	Female	Urban/Rural	Type of School
1	Majlis English Medium Uliyil (Kannur)	3	9	Rural	CBSE
2	Cordova Public School (Trivandrum)	2	13	Urban	CBSE
3	Thunjan Smaraka School (Trivandrum)	2	10	Urban	State
4	KEMS Manjery (Malappuram)	4	4	Urban	CBSE
5	Majmau Therattammal (Malappuram)	3	7	Rural	State
6	Al Farook Residential School (Calicut)	5	10	Urban	CBSE
7	Chinmaya Vidyalaya (Trivandrum)	1	4	Urban	CBSE
8	Qadisssiyya English Medium School Feroke (Calicut)	1	9	Urban	State
9	Al-Azhar English Medium school, Manakkody (Trissur)	2	5	Urban	CBSE
10	Hidaya Public School, Manakkadav (Calicut)	1	8	Urban	CBSE

Sl. No.	Name of Unaided School	Male	Female	Urban/ Rural	Type of School
11	The Oxford School (Trivandrum)	1	7	Rural	CBSE
12	V.M.M. English Medium School, Palottupally (Kannur)	2	9	Urban	State
13	Little Flower E.M. H.S. Kelakam (Kannur)	2	13	Rural	State
14	Tha-E-Leemul Islam Orphanage High School (Malappuram)	2	3	Rural	State
15	MET English Medium School(Palakkad)	1	7	Rural	CBSE
16	Al-Falah AMM English School Kakkidippuram (Malappuram)	1	3	Rural	CBSE
17	Ma'din Public School (Malappuram)	1	4	Urban	CBSE
18	Irshad English School Melattoor (Malappuram)	2	3	Urban	CBSE
19	Apex international school (Calicut)	3	6	Urban	CBSE
20	Al Maqar English Medium,(Kannur)	2	6	Rural	CBSE
21	Quadisiya Engliish Medium School, Thazuthala (Kollam)	2	8	Urban	CBSE
22	Oxford Pantheerankavu (Calicut)	2	13	Urban	CBSE
23	Gurudeva Public School Varakara (Trissur)	2	4	Urban	CBSE
24	Iqrah JDT Public School (Calicut)	2	8	Urban	State
25	Little Flower, (Calicut)	1	7	Urban	CBSE
26	DHEMS Nadapuram (Calicut)	2	14	Urban	CBSE
27	Hidaya Vellila (Malappuram)	2	8	Rural	State
28	St Paul's English Medium Higher Secondary School, Kohinoor (Malappuram)	1	8	Urban	State
29	MEMS School Chelari (Malappuram)	3	7	Rural	CBSE
30	Bhavan's Vidya Mandir (Pathanamthitta)	1	4	Urban	CBSE
31	White International School, PERUMANNA (Calicut)	Nil	5	Urban	CBSE
32	Bavan's Vidya Peedam, Chelembra (Malappuram)	2	15	Rural	CBSE
33	Markaz Public School, Aikarapadi (MPSA) (Malappuram)	1	8	Rural	State
34	Nivedita Vidya Peedam, Ramanattukara (Calicut)	2	13	Urban	State
35	Sappaire Olavanna (Calicut)	3	17	Rural	CBSE

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Sl. No.	Name of Unaided School	Male	Female	Urban/Rural	Type of School
36	C I R H S S (Calicut)	2	10	Urban	State
37	Mount Flower, Narayanpara (Kannur)	3	12	Rural	CBSE
38	Malabar English Medium School (Kannur)	1	9	Urban	CBSE
39	Sree Vidya Matttanur (Kannur)	3	9	Urban	State
40	Global Public School Vilakkod (Kannur)	2	11	Rural	CBSE
41	Niveditha Vidyalayam Punnad (Kannur)	1	5	Rural	State
42	Benhill (Kannur)	3	12	Rural	CBSE
43	MGM Kelakam (Kannur)	2	12	Rural	CBSE
44	Shanthinikethan English School, Peravoor (Kannur)	2	6	Rural	CBSE
45	Crescent Public School Chaliyam (Calicut)	3	10	Urban	CBSE
46	Al Hidayath English Medium School Kondotty (Malappuram)	2	5	Rural	State
47	MES English Medium School, Kannanallur (Kollam)	4	7	Urban	State
48	Alhuda EM H S Panaikulam (Eranakulam)	1	7	Rural	State
49	Islamic Central School Ottappalam (Palakkad)	2	Nil	Rural	CBSE
50	Izzathul Islam H S S Kuzhimanna (Malappuram)	2	Nil	Urban	State
51	Bukari English School Kondotty (Malappuram)	1	Nil	Urban	CBSE
52	St. Paul's HSS Kurichira (Thrissur)	2	Nil	Rural	State
53	Saadiya English Medium Residential Senior Secondary School, Deli (Kasargod)	1	Nil	Urban	CBSE
54	Moloor Central School Nellaya (Palakkad)	Nil	2	Rural	CBSE
55	Sri Sri Ravishankar Vidyamandir (Trissur)	Nil	1	Urban	CBSE
56	Safa English Medium School, Mattool (Kannur)	Nil	1	Rural	CBSE
57	Crescent Public school Mavoor (Calicut)	3	5	Urban	State
58	Ilahiya HSS Kappad (Calicut)	1	NIL	Rural	State

Out of the total sample of 510, 107 were male and 403 were female. 230 teachers belong to rural schools and 280 teachers belongs to urban schools. 325 secondary

school teachers were selected from CBSE schools while 185 samples were selected from state syllabus unaided schools. The final break-up of the sample is presented in Table 13.

Table 13

Final Break-up of the Sample

Total Sample 510					
Gender		Locale		Type of School	
Male	Female	Rural	Urban	CBSE	State syllbus
107	403	230	280	325	185

Data Collection Procedure

The data were collected from the sample drawn. As the first step investigator visited the proposed school to sought permission for data collection, data were collected from each school. The mode of responding to the tools was briefed to the principal of the school before administering. All the three tools were administered to secondary school teachers. Necessary directions were given to teachers. It was difficult to administer all the three tools at a stretch. Hence, the investigator distributed the tools to teachers. Two days are allowed them to fill their response and collected it. Sometimes it took more than one week to administer all the tools in a single school. The data collected were consolidated and codified suitably for the analysis.

Statistical Techniques used for the Study

For testing the hypotheses formulated, different statistical techniques were used. As the first step of analysis, the independent variables were classified into various levels.

Classification Techniques

Two independent variables were selected for the present study. These variables were classified into three levels each. The classification technique of each independent variable is presented in the following selection.

Classification of Technostress

The data collected using scales were classified in to three groups namely high technostress group, moderate technostress group and low technostress group. For this the mean and standard deviation of the scores obtained in the technostress scale were calculated first. teachers who fall above the mean + $\frac{1}{2}$ SD were considered as high technostress group, students who scores under mean - $\frac{1}{2}$ SD were considered as low technostress group and students coming in between mean - $\frac{1}{2}$ SD and mean + $\frac{1}{2}$ SD were categorized as moderate technostress group.

Classification of Teacher Autonomy

The data collected using scale were classified in to three groups namely scant autonomy group, moderate autonomy group and high autonomy group. For this the mean and standard deviation of the scores obtained in the technostress scale were calculated first. teachers who fall above the mean + $\frac{1}{2}$ SD were considered as high autonomy group, students who scores under mean - $\frac{1}{2}$ SD were considered as low autonomy group and students coming in between mean - $\frac{1}{2}$ SD and mean + $\frac{1}{2}$ SD were categorized as moderate autonomy group.

Statistical Techniques Used for Analysis

For analysing the data, different statistical techniques were used. The statistical techniques used in the present study can be divided into four types. The statistical techniques used in the present study is summarised as figure basic descriptive statistics such as mean, median, mode, SD, skeweness and kurtosis of each of the independent variables and dependent variables were calculated. Descriptive Statistics were calculated for total sample and distinctly for male, female, CBSE, State, rural and urban secondary school teachers. Descriptive statistics were calculated to identify the nature of the distribution of independent variables and dependent variables. Mean difference analysis As a preliminary

analysis gender difference, locality difference and difference based on type of schools were calculated for technostress, teacher autonomy and teacher burnout. Test of significance of difference between two means of large independent sample were used to compare the mean scores.

3x3 Factorial ANOVA

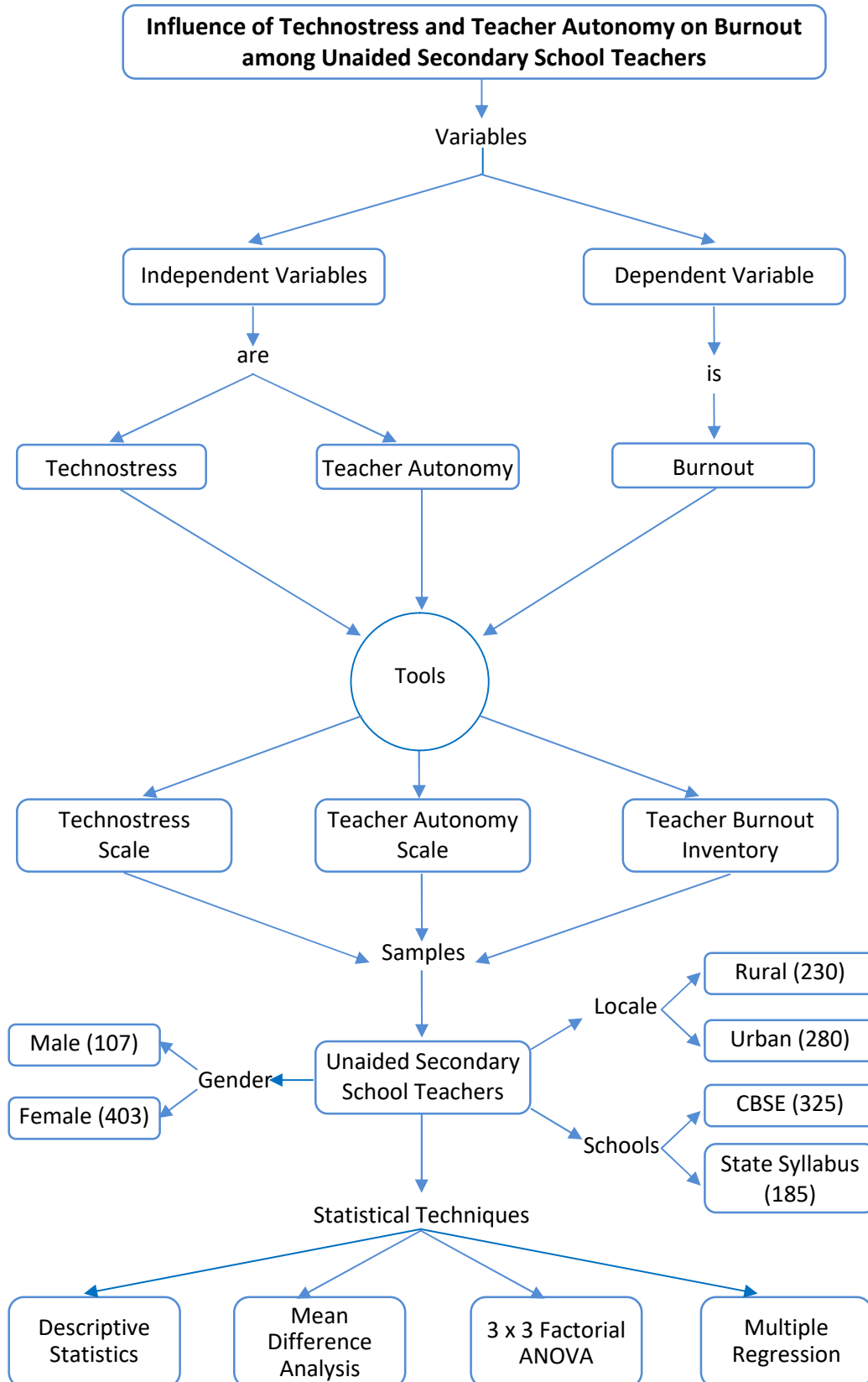
The main effect and interaction effect of two independent variables on the dependent variable were estimated using three-way analysis of variance. Three fixed factors were identified for each of the independent variable. technostress were classified into high, average and low category. The levels of teacher autonomy were high, moderate and slant autonomy. Hence 3x3 ANOVA, in which two independent variables at three levels, were used to analyse data. Data were analysed for total sample and separately for male, female, urban, rural, CBSE, and State Syllabus secondary school teachers. The significant F value were subjected to Scheffe's test of post hoc comparison. Multiple Regression Analysis To predict the individual and joint contribution of independent variables on the dependent variables, multiple regression analysis was used. Multiple regression was done using enter method in which all independent variables were entered simultaneously. A regression equation was also developed to predict the dependent variable from the select independent variables.

All statistical analysis has been done using SPSS for windows version 21.

A summary of the methodology used in the present study is presented in a concept map as figure 6.

Figure 6

Summary of the Methodology



ANALYSIS AND INTERPRETATION

- ❖ *Preliminary Analysis*
- ❖ *Investigation of Group Difference*
- ❖ *Analysis of Variance*
- ❖ *Multiple Regression Analysis*

ANALYSIS AND INTERPRETATION

The present study is envisioned to find out the influence of technostress and teacher autonomy on burnout among unaided secondary school teachers. For the analysis of the present data, suitable statistical techniques such as basic descriptive statistics, test of significance of difference between two means, 3x3 factorial ANOVA and multiple regression analysis were performed. The statistical analysis was carried out based on the objectives and hypotheses framed for the present study.

The entire analysis done for the present study is elucidated under the following titles.

- Preliminary analysis
- Investigation of group difference
- Analysis of variance
- Multiple regression analysis

Preliminary Analysis

Preliminary analysis was conducted to find the distribution of scores of Teacher Burnout, Technostress and Teacher Autonomy.

The relevant statistical constants for the distribution of the variable Technostress and its components of total sample were calculated and presented in table 14

Table 14

Statistical Constants for the Distribution of Scores of Technostress and its Components for Total Sample

Statistical Constants	Techno Insecurity	Techno Complexity	Techno Invasion	Techno Awareness	Techno Facility	Techno stress
N	510	510	510	510	510	510
Mean	21.29	23.28	34.87	25.25	24.92	129.60
Median	22.00	23.00	35.00	25.50	25.00	130.00
Mode	23.00	25.00	39.00	28.00	27.00	142.00
Std. Deviation	4.43	3.79	5.73	5.17	4.56	18.29
Skewness	3.38	.271	-.266	-.040	-.372	.052
Kurtosis	4.15	.078	.213	.066	.011	.580

Mean (129.60) and median (130) of Technostress for total sample are approximately equal. Mode (142) of Technostress for total sample is slightly deviated from mean and median. The indices of skewness (.052) and kurtosis (0.580) indicate positively skewed, leptokurtic distribution of Technostress. Mean (21.29), median (22), and mode (23) of techno insecurity for total sample are approximately equal. The indices of skewness (3.38) and kurtosis (4.15) indicate positively skewed, leptokurtic distribution of techno insecurity. Mean (23.28), median (23), and mode (25) of techno complexity for total sample are approximately equal. The indices of skewness (.271) and kurtosis (.078) indicate positively skewed, leptokurtic distribution of techno complexity. Mean (34.87), median (35), and mode (39) of techno invasion for total sample are approximately equal. The indices of skewness (-.266) and kurtosis (.213) indicate negatively skewed, leptokurtic distribution of techno invasion. Mean (25.25), median (25.50), and mode (28) of techno awareness for total sample are approximately equal. The indices of skewness (-.040) and kurtosis (.066) indicate negatively skewed, leptokurtic distribution of techno awareness. Mean (24.92), median (25), and mode (27) of techno facility for total sample are approximately equal. The indices of skewness (-.372) and kurtosis (.011) indicate negatively skewed, leptokurtic distribution of techno facility. Obtained values of mean, median, mode, skewness and kurtosis for Technostress and its components indicate that the distribution is approximately normal.

The histogram with normal plot and p-p plot of variable Technostress for total sample is presented in figure 7 and figure 8 respectively

Figure 7

Histogram with Normal Plot of Variable Technostress for Total Sample

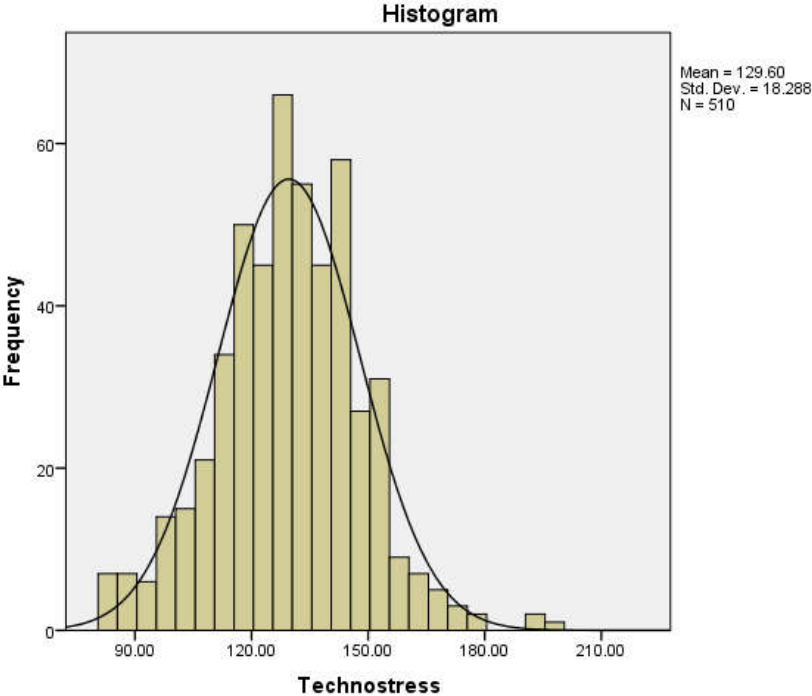
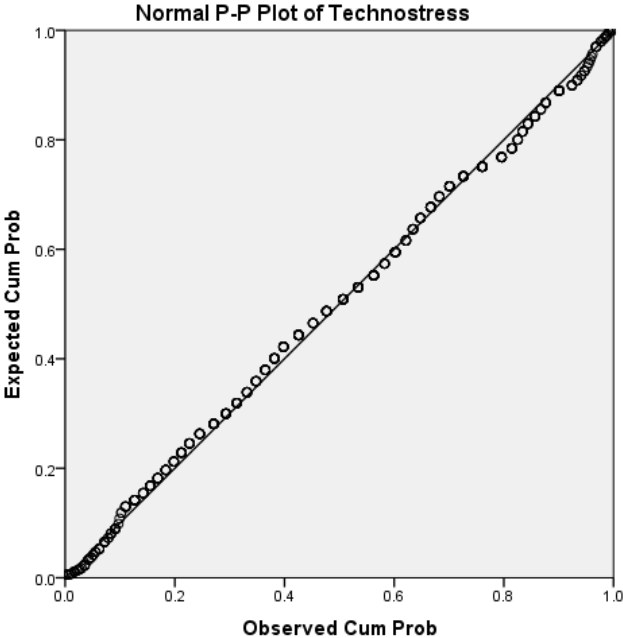


Figure 8

P-P Plot of Variable Technostress for Total Sample



From indices of statistical constants, histogram with normal plots and P-P plot, it is clear that the variable Technostress is not deviated largely from normality.

The pertinent statistical constants of the distribution of the variable Teacher Autonomy and its components of total sample were calculated and presented in table 15

Table 15

Statistical Constants for the Distribution of Scores of Teacher Autonomy and its Components for Total Sample

Statistical Constants	Establishing School Identity	Teaching and Assessment	Parental Involvement	Professional Development	Extra Curricular Subjects	Curriculum development	Teacher Autonomy
N	510	510	510	510	510	510	510
Mean	30.14	35.66	14.37	24.52	21.96	15.62	142.26
Median	30.00	36.00	14.00	24.00	22.00	16.00	143.00
Mode	29.00	34.00	13.00	23.00	23.00	15.00	148.00
Std. Deviation	4.43	4.46	2.54	3.75	2.77	2.78	14.74
Skewness	-.110	-.138	.281	-.192	.038	-.423	.073
Kurtosis	.254	.940	.035	.444	-.022	1.13	.636

Mean (142.26) and median (143) of Teacher Autonomy for total sample are approximately equal. Mode (148) of Teacher Autonomy for total sample is slightly deviated from mean and median. The indices of skewness (.073) and kurtosis (0.636) indicate positively skewed, leptokurtic distribution of Teacher Autonomy. Mean (30.14), median (30), and mode (29) of establishing school identity for total sample are approximately equal. The indices of skewness (-.110) and kurtosis (.254) indicate negatively skewed, leptokurtic distribution of establishing school identity. Mean (35.66), median (36), and mode (34) of Teaching and assessment for total sample are approximately equal. The indices of skewness (-.138) and kurtosis (.940) indicate negatively skewed, leptokurtic distribution of Teaching and assessment. Mean (14.37), median (14), and mode (13) of parental involvement for total sample

are approximately equal. The indices of skewness (.281) and kurtosis (.035) indicate positively skewed, leptokurtic distribution of parental involvement. Mean (24.52), median (24), and mode (23) of professional development for total sample are approximately equal. The indices of skewness (-.192) and kurtosis (.444) indicate negatively skewed, leptokurtic distribution of parental involvement. Mean (21.96), median (22), and mode (23) of extra curricular subjects for total sample are approximately equal. The indices of skewness (.038) and kurtosis (-.022) indicate positively skewed, platykurtic distribution of extra curricular subjects. Mean (15.62), median (16), and mode (15) of Curriculum development for total sample are approximately equal. The indices of skewness (-.423) and kurtosis (1.13) indicate negatively skewed, leptokurtic distribution of Curriculum development. Obtained values of mean, median, mode, skewness and kurtosis for Teacher Autonomy and its components indicate that the distribution is approximately normal.

The histogram with normal plot and p-p plot of variable Teacher Autonomy for total sample is presented in figure 9 and figure 10 respectively.

Figure 9

Histogram with Normal Plot of Variable Teacher Autonomy for Total Sample

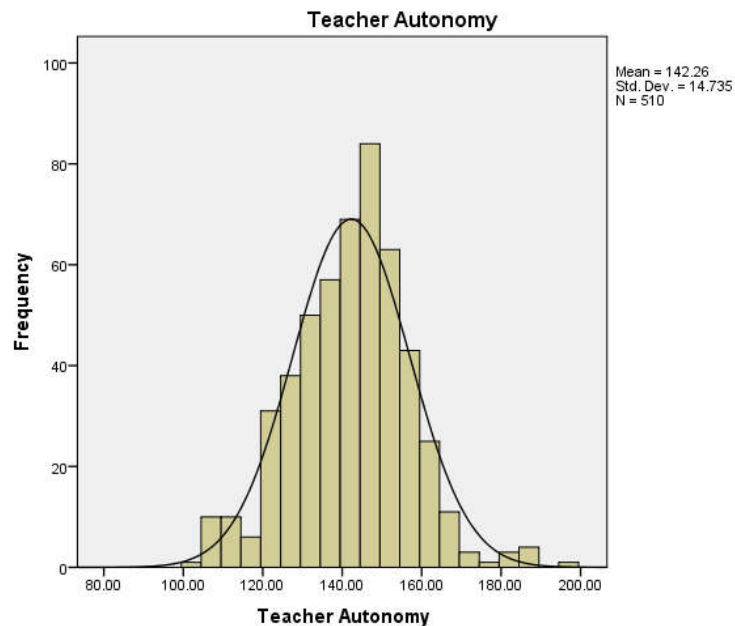
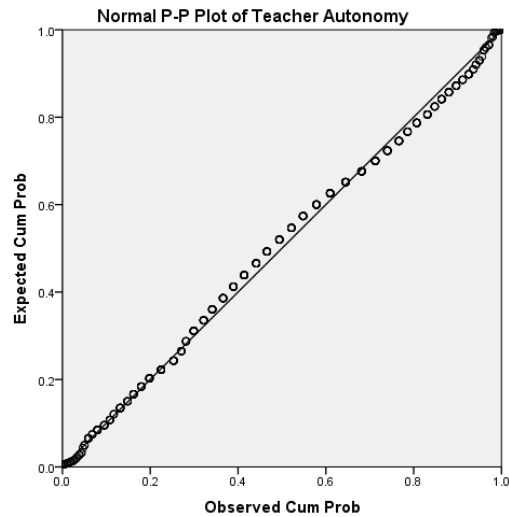


Figure 10

P-P plot of variable Teacher Autonomy for Total Sample



From indices of statistical constants, histogram with normal plots and P-P plot, it is clear that the variable Teacher Autonomy is not deviated largely from normality.

The significant statistical constants for the distribution of the variable Teacher Burnout and its components of total sample were calculated and presented in table 16

Table 16

Statistical Constants for the Distribution of Scores of Teacher Burnout and its Components for Total Sample

Statistical Constants	Emotional Exhaustion	Depersonalization	Reduced Personal Accomplishment	Teacher Burnout
N	510	510	510	510
Mean	27.65	24.60	21.32	73.56
Median	27.00	24.00	21.00	73.00
Mode	26.00	24.00	22.00	73.00
Std. Deviation	5.64	4.96	4.72	13.13
Skewness	-.030	.710	.327	.156
Kurtosis	.288	1.320	.803	.609

Mean (73.56), median (73), and mode (73) of Teacher Burnout for total sample are approximately equal. The indices of skewness (.156) and kurtosis (0.609) indicate positively skewed, leptokurtic distribution of Teacher Burnout. Mean (27.65), median (27), and mode (26) of emotional exhaustion for total sample are approximately equal. The indices of skewness (-.030) and kurtosis (0.288) indicate negatively skewed, leptokurtic distribution of emotional exhaustion. Mean (24.60), median (24), and mode (24) of depersonalization for total sample are approximately equal. The indices of skewness (.710) and kurtosis (1.320) indicate positively skewed, leptokurtic distribution of depersonalization. Mean (21.32), median (21), and mode (22) of reduced personal accomplishment for total sample are approximately equal. The indices of skewness (.327) and kurtosis (.803) indicate positively skewed, leptokurtic distribution of reduced personal accomplishment. Obtained values of mean, median, mode, skewness and kurtosis for Teacher Burnout and its components indicate that the distribution is approximately normal.

The histogram with normal plot and p-p plot of variable Teacher Burnout for total sample is presented in figure 11 and figure 12 respectively

Figure 11

Histogram with Normal Plot of Variable Teacher Burnout for Total Sample

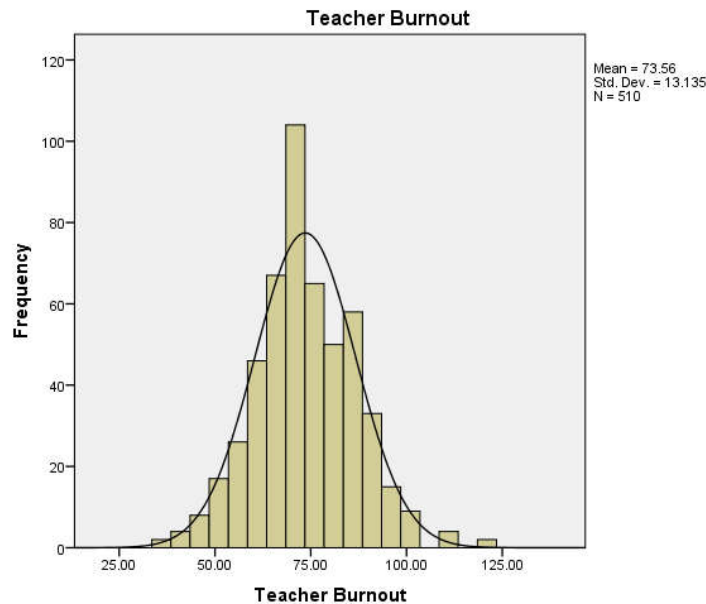
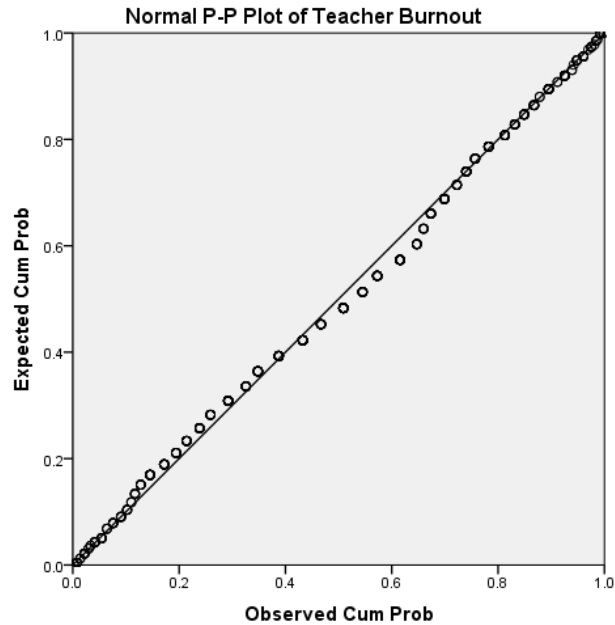


Figure 12*P-P Plot of Variable Teacher Burnout for Total Sample*

From indices of statistical constants, histogram with normal plots and P-P plot, it is clear that the variable Teacher Burnout is not deviated largely from normality.

Extent of Technostress, Teacher Autonomy and Teacher Burnout

To find the extent of Technostress, Teacher Autonomy and Teacher Burnout among unaided secondary school teachers of Kerala percentile analysis and one sample t test were used.

To know the extent of Technostress and its components percentiles of obtained data were calculated. Data and results of percentile calculation for total sample is presented in Table 17.

Table 17

Data and Results of Percentile Calculation of Technostress and its Components for Total Sample

Percentiles	Techno Insecurity	Techno Complexity	Techno Invasion	Techno Awareness	Techno Facility	Technostress
10	16.0	18.1	28.0	19.0	19.0	107.1
20	18.0	20.0	30.0	21.0	21.0	115.0
30	19.0	21.0	32.0	22.3	23.0	120.0
40	20.4	22.0	34.0	24.0	24.0	126.0
50	22.0	23.0	35.0	25.5	25.0	130.0
60	22.6	24.0	37.0	27.0	27.0	134.0
70	23.0	25.0	38.0	28.0	27.0	140.0
80	24.0	27.0	39.0	29.0	29.0	143.0
90	25.0	28.0	41.0	32.0	30.0	152.0

From the table 17, it is clear that for total sample 10th Percentile of the scores of Technostress is 107.1. That means only 10 percent of the unaided school teachers scores less than 107.1 on the Technostress. 50th Percentile of the scores of Technostress is 130. That means 50 percent of the unaided school teachers scores less than 130 and 50 percent scores higher than 130. 50th Percentile of the scores of techno insecurity is 22. That means 50 percent of the unaided school teachers scores less than 22 and 50 percent scores higher than 22. 50th Percentile of the scores of techno complexity is 23. That means 50 percent of the unaided school teachers scores less than 23 and 50 percent scores higher than 23. 50th Percentile of the scores of techno invasion is 35. That means 50 percent of the unaided school teachers scores less than 35 and 50 percent scores higher than 35. 50th Percentile of the scores of techno awareness is 25.5. That means 50 percent of the unaided school teachers scores less than 25.5 and 50 percent scores higher than 25.5. 50th Percentile of the scores of techno facility is 25. That means 50 percent of the unaided school teachers scores less than 25 and 50 percent scores higher than 25.

To assess the extent of Technostress among unaided school teachers one sample t test was also used. Mid score of the tool was used as the test value for the calculation t value. The maximum score obtainable for Technostress scale is 205 and minimum score obtainable is 41. Mid score of the tool is 123, and it is taken as the test value in one sample t test. Similarly, mid score of each component were calculated and used as test value. Results of the one sample t test conducted for Technostress and its components are presented in table 18

Table 18

One Sample t test for the Variable Technostress and its Components

Variable	N	Mean	Std. Deviation	Test value	t-value
Techno Insecurity	510	21.29	4.43	18	16.77**
Techno Complexity	510	23.28	3.79	21	13.57**
Techno Invasion	510	34.87	5.73	30	19.17**
Techno Awareness	510	25.25	5.17	27	7.65**
Techno Facility	510	24.92	4.56	27	10.13**
Technostress	510	129.60	18.29	123	8.15**

**Significant at 0.01 level

Table 18 reveals that there exists a significant difference in the mean Technostress score (129.60) and mid score (123) of unaided school teachers ($t=8.15$, $p<0.01$). Mean Technostress score is higher than the mid score. It means that Technostress scores of the unaided school teachers are significantly higher than the mid score. From the result it can be concluded that the unaided school teachers possess above average level of Technostress.

Components wise analysis shows that there exists significant difference in the mean scores of components of Technostress such as techno insecurity ($t=16.77$, $p<0.01$), techno complexity ($t=13.57$, $p<0.01$), techno invasion ($t=19.17$, $p<0.01$), techno awareness ($t=7.65$, $p<0.01$) and techno facility ($t=10.13$, $p<0.01$) and corresponding mid values of unaided school teachers. Mean scores of techno

insecurity, techno complexity and techno invasion are higher than corresponding mid values. It means that mean scores of techno insecurity, techno complexity and techno invasion are significantly higher than mid values. Mean scores of techno awareness and techno facility are lower than corresponding mid values. It means that mean scores of techno awareness and techno facility are significantly lower than mid values. From results it can be concluded that unaided school teachers possess above average level of techno insecurity, techno complexity and techno invasion and below average level of techno awareness and techno facility.

To know the extent of Teacher Autonomy and its components percentiles of obtained data were calculated. Data and results of percentile calculation for total sample is presented in table 19.

Table 19

Data and Results of Percentile Calculation of Teacher Autonomy and its Components for Total Sample

Percentiles	Establishing School Identity	Teaching and assessment	Parental Involvement	Professional Development	Extra Curricular Subjects	Curriculum development	Teacher Autonomy
10	25.00	30.00	11.00	20.00	18.00	12.00	123.00
20	26.00	32.00	12.00	22.00	20.00	14.00	130.00
30	28.00	34.00	13.00	23.00	21.00	15.00	135.00
40	29.00	35.00	14.00	23.00	21.00	15.00	140.00
50	30.00	36.00	14.00	24.00	22.00	16.00	143.00
60	31.00	37.00	15.00	25.00	23.00	16.00	147.00
70	32.70	38.00	16.00	26.00	23.00	17.00	150.00
80	34.00	39.00	16.00	27.00	24.00	18.00	154.00
90	35.00	41.00	18.00	30.00	26.00	19.00	159.00

From the table it is clear that for total sample 10th Percentile of the scores of Teacher Autonomy is 123.00. That means only 10 percent of the unaided school teachers

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scores less than 123.00 on the Teacher Autonomy. 50th Percentile of the scores of Teacher Autonomy is 143.00. That means 50 percent of the unaided school teachers scores less than 143 and 50 percent scores higher than 143. 50th Percentile of the scores of establishing school identity is 30. That means 50 percent of the unaided school teachers scores less than 30 and 50 percent scores higher than 30. 50th Percentile of the scores of Teaching and assessment is 36. That means 50 percent of the unaided school teachers scores less than 36 and 50 percent scores higher than 36. 50th Percentile of the scores of parental involvement is 14. That means 50 percent of the unaided school teachers scores less than 14 and 50 percent scores higher than 14. 50th Percentile of the scores of professional development is 24. That means 50 percent of the unaided school teachers scores less than 24 and 50 percent scores higher than 24. 50th Percentile of the scores of extra-curricular subjects is 22. That means 50 percent of the unaided school teachers scores less than 22 and 50 percent scores higher than 22. 50th Percentile of the scores of Curriculum development is 16. That means 50 percent of the unaided school teachers scores less than 16 and 50 percent scores higher than 16.

To assess the extent of Teacher Autonomy among unaided school teachers one sample t test was also used. Mid score of the tool was used as the test value for the calculation t value. The maximum score obtainable for Teacher Autonomy is 215 and minimum score obtainable is 43. Mid score of the tool is 126, and it is taken as the test value in one sample t test. Similarly, mid score of each component were calculated and used as test value. Results of the one sample t test conducted for Teacher Autonomy and its components are presented in table 20

Table 20*One Sample t test for the Variable Teacher Autonomy and its Components*

Variables	N	Mean	Std. Deviation	Test value	t
Establishing School Identity	510	30.14	4.43	27	16.01**
Teaching and assessment	510	35.66	4.46	30	28.62**
Parental Involvement	510	14.37	2.54	15	5.58**
Professional Development	510	24.52	3.75	21	21.17**
Extra-Curricular Subjects	510	21.96	2.77	18	32.33**
Curriculum development	510	15.62	2.78	15	4.99**
Teacher Autonomy	510	142.26	14.74	126	195.04**

**significant at 0.01 level

Table 20 conveys there exists a significant difference in the mean Teacher Autonomy score (142.26) and mid score (126) of unaided school teachers ($t=195.04$, $p<0.01$). Mean Teacher Autonomy score is higher than the mid score. It means that Teacher Autonomy scores of the unaided school teachers are significantly higher than the mid score. From the result it can be concluded that the unaided school teachers possess above average level of Teacher Autonomy.

Components wise analysis shows that there exists significant difference in the mean scores of components of Teacher Autonomy such as establishing school identity ($t=16.01$, $p<0.01$), Teaching and assessment evaluation ($t=28.62$, $p<0.01$), parental involvement ($t=5.38$, $p<0.01$), professional development ($t=21.17$, $p<0.01$) extra-curricular subjects ($t=32.33$, $p<0.01$) and curriculum development ($t=4.99$, $p<0.01$) and corresponding mid values of unaided school teachers. Mean scores of establishing school identity, Teaching and assessment evaluation, professional development, extra-curricular subjects and Curriculum development are higher than corresponding mid values. It means that mean scores establishing school identity, Teaching and assessment evaluation, professional development, extra-curricular subjects and Curriculum development and development are significantly higher than

mid values. Mean score of parental involvement is lower than corresponding mid value. It means that mean scores of parental involvement is significantly lower than mid value. From results it can be concluded that unaided school teachers possess above average level of establishing school identity, Teaching and assessment evaluation, professional development, extra-curricular subjects and Curriculum development and development and below average level of parental involvement.

To know the extent of Teacher Burnout and its components percentiles of obtained data were calculated. Data and results of percentile calculation for total sample is presented in table 21.

Table 21

Data and Results of Percentile Calculation of Teacher Burnout and its Components for Total Sample

Percentiles	Teacher Burnout	Emotional Exhaustion	Depersonalization	Reduced personal Accomplishment
10	57.0	21.0	18.1	15.0
20	63.0	23.0	20.0	18.0
30	67.0	25.0	22.0	19.0
40	70.0	26.0	23.0	20.0
50	73.0	27.0	24.0	21.0
60	76.0	29.0	25.0	22.0
70	80.0	30.0	26.0	23.0
80	84.0	32.0	28.0	25.0
90	90.0	35.0	31.0	27.0

From the table 21 it is clear that for total sample 10th Percentile of the scores of Teacher Burnout is 57.0 that means only 10 percent of the unaided school teachers scores less than 57 on the Teacher Burnout. 50th Percentile of the scores of Teacher Burnout is 73. That means 50 percent of the unaided school teachers scores less than 73 and 50 percent scores higher than 73. 50th Percentile of the score of emotional

exhaustion is 27. That means 50 percent of the unaided school teachers scores less than 27 and 50 percent scores higher than 27. 50th Percentile of the scores of depersonalization is 24. That means 50 percent of the unaided school teachers scores less than 24 and 50 percent scores higher than 24. 50th Percentile of the score of reduced personal accomplishment is 21. That means 50 percent of the unaided school teachers scores less than 21 and 50 percent scores higher than 21.

To assess the extent of Teacher Burnout among unaided school teachers one sample t test was also used. Mid score of the tool was used as the test value for the calculation t value. The maximum score obtainable for Teacher Burnout inventory is 140 and minimum score obtainable is 28. Mid score of the tool is 84, and it is taken as the test value in one sample t test. Similarly, mid score of each component were calculated and used as test value. Results of the one sample t test conducted for Teacher Burnout and its components are presented in table 22.

Table 22

One Sample t test for the Variable Teacher Burnout and its Components

Variables	N	Mean	Std. Deviation	Test value	t-value
Emotional Exhaustion	510	27.65	5.64	30	9.41**
Depersonalization	510	24.60	4.96	30	24.59**
Reduced personal accomplishment	510	21.32	4.72	24	12.82**
Teacher Burnout	510	73.56	13.13	84	17.94**

**Significant at 0.01 level

Table 22 discloses that there exists a significant difference in the mean Teacher Burnout score (73.56) and mid score (84) of unaided school teachers ($t= 17.94$, $p<0.01$). Mean Teacher Burnout score is lower than the mid score. It means that Teacher Burnout scores of the unaided school teachers are significantly lower than the mid score. From the result it can be concluded that the unaided school teachers possess below average level of Teacher Burnout.

Components wise analysis shows that there exists significant difference in the mean scores of components of Teacher Burnout such as emotional exhaustion ($t=9.41$, $p<0.01$), depersonalization ($t=24.59$, $p<0.01$), and reduced personal accomplishment ($t=12.82$, $p<0.01$), and corresponding mid values of unaided school teachers. Mean scores of emotional exhaustions, depersonalization, and reduced personal accomplishment are lower than corresponding mid values. It means that mean scores emotional exhaustion, depersonalization, and reduced personal accomplishment are significantly lower than mid values. From results it can be concluded that unaided school teachers possess below average level of emotional exhaustion, depersonalization, and reduced personal accomplishment.

Mean Difference Analysis

Comparison of technostress, teacher autonomy and teacher burnout of unaided school teachers based on Gender, Type of school, Experience, Locality, subject, computer course and educational qualification were conducted and presented under relevant headings. Detailed discussions of comparison are presented below.

Investigation of Mean Difference based on Gender

The test of significance difference between mean scores of male and female aided school teachers for the variables technostress, teacher autonomy and teacher burnout were calculated to find gender difference.

The details of results of mean difference analysis of technostress and its components are presented in table 23

Table 23*Results of Mean Difference Analysis of Technostress and its Components*

Variables	Gender	N	Mean	Std. Deviation	t-value
Techno Insecurity	Male	107	22.35	3.73	2.80**
	Female	403	21.01	4.56	
Techno Complexity	Male	107	24.31	3.65	3.19**
	Female	403	23.01	3.79	
Techno Invasion	Male	107	35.86	5.91	2.02*
	Female	403	34.60	5.66	
Techno Awareness	Male	107	25.81	5.80	1.27
	Female	403	25.10	4.98	
Techno Facility	Male	107	24.73	4.98	.481
	Female	403	24.97	4.45	
Technostress	Male	107	133.06	20.23	2.21*
	Female	403	128.68	17.65	

**Significant at 0.01 level, *Significant at 0.05 level

Table 23 shows that, mean scores of technostress of the unaided school male teachers and female teachers differ significantly [$t = 2.21$; $p < .05$]. Mean score showed that male teachers ($M = 133.06$) have higher technostress than female teachers ($M = 128.68$).

Table explains that, mean scores of techno insecurity [$t = 2.80$; $p < .01$], techno complexity [$t = 3.19$; $p < .01$] and techno invasion [$t = 2.02$; $p < .05$] of the unaided school male teachers and female teachers differ significantly. Mean score showed that male teachers have higher techno insecurity ($M = 22.35$), techno complexity ($M = 24.31$) and techno invasion ($M = 35.86$) than female teachers ($M = 21.01$).

Mean scores of techno awareness [$t = 1.27$; $p > .05$] and techno facility [$t = .481$; $p > .05$] of the unaided school male teachers and female teachers do not differ significantly.

The details of results of mean difference analysis of Teacher autonomy and its components are presented in table 24.

Table 24*Results of Mean Difference Analysis of Teacher Autonomy and its Components*

Variables	Gender	N	Mean	Std. Deviation	t-value
Establishing School Identity	Male	107	29.08	4.95	2.55*
	Female	403	30.42	4.24	
Teaching and assessment	Male	107	35.62	5.31	.091
	Female	403	35.67	4.22	
Parental Involvement	Male	107	14.26	2.64	.508
	Female	403	14.40	2.51	
Professional Development	Male	107	24.59	4.35	.203
	Female	403	24.50	3.58	
Extra-Curricular Subjects	Male	107	21.45	3.13	1.97*
	Female	403	22.10	2.65	
Curriculum development	Male	107	15.92	2.62	1.26
	Female	403	15.54	2.82	
Teacher Autonomy	Male	107	140.92	17.07	.951
	Female	403	142.62	14.05	

*Significant at 0.05 level

Table 24 reveals that, mean scores of Teacher autonomy of the unaided school male teachers and female teachers do not differ significantly [$t = .951$; $p > .05$].

Table explains that, mean scores of Establishing School Identity [$t = 2.55$; $p < .05$] and extra-curricular subjects [$t = 1.97$; $p < .05$] of the unaided school male teachers and female teachers differ significantly. Mean score of Establishing School Identity ($M = 30.42$) and extra-curricular subjects ($M = 22.10$) indicated that female teachers have higher mean scores than male teachers.

Mean scores of Teaching and assessment [$t = .091$; $p > .05$], parental involvement [$t = .508$; $p > .05$] and, Curriculum development [$t = 1.26$; $p > .05$] of the unaided school male teachers and female teachers do not differ significantly.

The details of results of mean difference analysis of Teacher burnout and its components are presented in table 25

Table 25*Results of Mean Difference Analysis of Teacher Burnout and its Components*

Variable	Gender	N	Mean	Std. Deviation	t-value
Emotional Exhaustion	Male	107	29.64	6.28	3.79**
	Female	403	27.12	5.35	
Depersonalization	Male	107	25.71	5.04	2.63**
	Female	403	24.30	4.90	
Reduced personal accomplishment	Male	107	23.33	5.47	4.44**
	Female	403	20.79	4.35	
Teacher Burnout	Male	107	78.67	14.40	4.24**
	Female	403	72.21	12.45	

**Significant at 0.05 level

Table 25 conveys that, mean scores of Teacher burnout of the unaided school male teachers and female teachers differ significantly [$t = 4.24$; $p < .05$]. Mean score showed that male teachers ($M = 78.07$) have higher mean scores than female teachers ($M = 72.21$).

Table describes that, mean scores of emotional exhaustion [$t = 3.79$; $p < .05$], depersonalization [$t = 2.63$; $p < .05$] and reduced personal accomplishment [$t = 4.44$; $p < .05$] of the unaided school male teachers and female teachers differ significantly. Mean scores indicated that male teachers have higher emotional exhaustion (Male = 29.64; Female = 27.12), depersonalization (Male = 25.71; Female = 24.30) and reduced personal accomplishment (Male = 23.33; Female = 20.79) than female teachers.

Investigation of mean difference based on Locale

The test of significance difference between mean scores of urban and rural unaided school teachers for the variables technostress, teacher autonomy and teacher burnout were calculated to find locale difference

The details of results of mean difference analysis of technostress and its components are presented in table 26.

Table 26

Results of Mean Difference Analysis of Technostress and its Components

Variables	Locality	N	Mean	Std. Deviation	t-value
Techno Insecurity	Rural	228	21.40	3.61	.528
	Urban	282	21.20	5.00	
Techno Complexity	Rural	228	23.38	3.87	.552
	Urban	282	23.20	3.74	
Techno Invasion	Rural	228	34.88	5.39	.037
	Urban	282	34.86	6.00	
Techno Awareness	Rural	228	25.42	5.32	.676
	Urban	282	25.11	5.04	
Techno Facility	Rural	228	25.36	4.41	1.95
	Urban	282	24.56	4.66	
Technostress	Rural	228	130.44	17.54	.931
	Urban	282	128.92	18.88	

Table 26 explains that, mean scores of technostress of the rural and urban unaided secondary school teachers do not differ significantly [$t = .931$, $p > .05$].

Table reveals that, mean scores of techno insecurity [$t = .528$; $p > .05$], techno complexity [$t = .552$; $p > .05$], techno invasion [$t = .037$, $p > .05$], techno awareness [$t = .676$; $p > .05$] and techno facility [$t = 1.95$; $p < .05$] of rural and urban unaided secondary school teachers do not differ significantly.

The details of results of mean difference analysis of Teacher autonomy and its components are presented in table 27

Table 27*Results of Mean Difference Analysis of Teacher Autonomy and its Components*

Variables	Locality	N	Mean	Std. Deviation	t-value
Establishing School Identity	Rural	228	30.60	4.53	2.12*
	Urban	282	29.77	4.32	
Teaching and assessment	Rural	228	36.02	4.30	1.64
	Urban	282	35.37	4.58	
Parental Involvement	Rural	228	14.31	2.62	.524
	Urban	282	14.43	2.47	
Professional Development	Rural	228	25.06	3.64	2.97**
	Urban	282	24.07	3.79	
Extra Curricular Subjects	Rural	228	22.38	2.84	3.10**
	Urban	282	21.62	2.67	
Curriculum development	Rural	228	15.89	2.77	2.04*
	Urban	282	15.39	2.78	
Teacher Autonomy	Rural	228	144.26	14.86	2.77**
	Urban	282	140.65	14.46	

**Significant at 0.01 level, *Significant at 0.05 level

Table 27 reveals that, mean scores of Teacher autonomy of the rural and urban unaided secondary school teachers differ significantly [$t = 2.77$; $p < .01$]. Mean score revealed that rural teachers ($M = 144.26$) have higher mean scores than urban teachers ($M = 140.65$).

Table elucidates that, the mean scores of Establishing School Identity [$t = 2.12$; $p < .05$], professional development [$t = 2.97$; $p < .05$], extra-curricular subjects [$t = 3.10$; $p < .01$] and Curriculum development [$t = 2.04$; $p < .01$] of the rural and urban unaided secondary school teachers differ significantly. Mean score revealed that rural teachers have higher autonomy of establishing school identity (rural = 30.60; urban = 29.77), professional development (rural = 25.06; urban = 24.07), extra-curricular subjects (rural = 22.38; urban = 21.62) and Curriculum development ($M = 15.89$; $M = 15.39$) than urban teachers.

Mean scores of Teaching and assessment [$t= 1.64$; $p>.05$] and parental involvement [$t=.524$; $p>.05$] of the rural and urban unaided secondary school teachers do not differ significantly.

The details of results of mean difference analysis of Teacher burnout and its components are presented in table 28.

Table 28

Results of Mean Difference Analysis of Teacher Burnout and its Components

Variables	Locality	N	Mean	Std. Deviation	t-value
Emotional Exhaustion	Rural	228	26.79	5.09	3.18**
	Urban	282	28.34	5.97	
Depersonalization	Rural	228	24.52	4.85	.321
	Urban	282	24.66	5.05	
Reduced personal accomplishment	Rural	228	20.68	4.47	2.78**
	Urban	282	21.84	4.85	
Teacher Burnout	Rural	228	71.98	12.21	2.46*
	Urban	282	74.84	13.72	

**Significant at 0.01 level, *Significant at 0.05 level

Table 28 reveals that, critical ratio gained for rural and urban teachers for burnout is 2.46 which is significant at 0.05 level. So the level of burnout of unaided secondary school teachers differ significantly with respect to locale [$t = 2.46$; $p<.05$]. Mean score exhibited that unaided school teachers in urban area ($M = 74.84$) have higher level of burnout than unaided school teachers in rural area ($M = 71.98$).

Table explicates that, emotional exhaustion of the rural and urban unaided secondary school teachers differ significantly [$t = 3.18$; $p<.05$]. Mean score revealed that urban teachers ($M = 28.34$) have higher mean scores than rural teachers ($M = 26.79$). Mean scores of depersonalization of the rural and urban unaided secondary school teachers do not differ significantly [$t = .321$; $p>.05$]. Mean scores of reduced personal accomplishment of the rural and urban unaided secondary school teachers

differ significantly [$t = 2.78$; $p < .01$]. Mean score exposed that urban teachers ($M = 21.84$) have higher mean scores than rural teachers ($M = 20.68$).

Investigation of Mean difference based on Type of School

The test of significance difference between mean scores of CBSE and unaided State syllabus school teachers for the variables technostress, teacher autonomy and teacher burnout were calculated to find school difference.

The details of results of mean difference analysis of technostress and its components are presented in table 29.

Table 29

Results of Mean Difference Analysis of Technostress and its Components

Variables	Type of School	N	Mean	Std. Deviation	t-value
Techno Insecurity	CBSE	325	21.22	4.98	.504
	State syllabus	185	21.41	3.25	
Techno Complexity	CBSE	325	23.22	3.68	.473
	State syllabus	185	23.38	3.98	
Techno Invasion	CBSE	325	34.97	6.02	.551
	State syllabus	185	34.68	5.20	
Techno Awareness	CBSE	325	24.98	5.35	1.55
	State syllabus	185	25.72	4.81	
Techno Facility	CBSE	325	24.51	4.74	2.69**
	State syllabus	185	25.63	4.15	
Technostress	CBSE	325	128.90	19.16	1.14
	State syllabus	185	130.82	16.63	

**Significant at 0.05 level

Table 29 conveys that, mean scores of technostress of the CBSE and state syllabus teachers do not differ significantly [$t = 1.14$; $p > .05$].

Table explains that, mean scores of techno insecurity [$t = .504$; $p > .05$], techno complexity [$t = .473$; $p > .05$], techno invasion [$t = .551$; $p > .05$] and techno awareness [$t = 1.55$; $p > .05$] of the CBSE and state syllabus unaided teachers do not differ

significantly. Mean scores of techno facility of the CBSE and state syllabus teachers differ significantly [$t = 2.69$; $p < 0.05$]. Mean score revealed that state syllabus teachers ($M = 25.63$) have higher techno facility stress than CBSE teachers ($M = 24.51$).

The details of results of mean difference analysis of Teacher autonomy and its components are presented in table 30

Table 30

Results of Mean Difference Analysis of Teacher Autonomy and its Components

Variables	Type of School	N	Mean	Std. Deviation	t-value
Establishing School Identity	CBSE	325	30.08	4.42	.421
	State syllabus	185	30.25	4.46	
Teaching and assessment	CBSE	325	35.54	4.55	.814
	State syllabus	185	35.87	4.31	
Parental Involvement	CBSE	325	14.54	2.51	1.93
	State syllabus	185	14.09	2.55	
Professional Development	CBSE	325	24.27	3.89	1.93
	State syllabus	185	24.94	3.47	
Extra Curricular Subjects	CBSE	325	22.02	2.76	.635
	State syllabus	185	21.86	2.79	
Curriculum development	CBSE	325	15.56	2.75	.565
	State syllabus	185	15.71	2.85	
Teacher Autonomy	CBSE	325	142.01	15.26	.521
	State syllabus	185	142.71	13.79	

Table 30 conveys that, mean scores of Teacher autonomy of the unaided CBSE and state syllabus unaided teachers do not differ significantly [$t = .521$; $p > .05$].

Table explains that, mean scores of Establishing School Identity [$t = .421$; $p > .05$], Teaching and assessment [$t = .814$; $p > .05$], parental involvement [$t = 1.93$; $p > .05$], professional development [$t = 1.93$; $p > .05$], extra-curricular subjects [$t = .635$; $p > .05$] and Curriculum development [$t = .565$; $p > .05$] of the CBSE and state syllabus unaided teachers do not differ significantly. The details of results of mean difference analysis of Teacher burnout and its components are presented in table 31

Table 31

Results of Mean Difference Analysis of Teacher Burnout and its Components

Variables	Type of School	N	Mean	Std. Deviation	t-value
Emotional Exhaustion	CBSE	325	27.66	5.87	.093
	State syllabus	185	27.62	5.25	
Depersonalization	CBSE	325	24.39	4.71	-1.259
	State syllabus	185	24.96	5.36	
Reduced personal accomplishment	CBSE	325	21.54	4.78	1.377
	State syllabus	185	20.94	4.60	
Teacher Burnout	CBSE	325	73.59	13.21	.059
	State syllabus	185	73.52	13.04	

Table 31 reveals that, mean scores of Teacher burnout of the CBSE and unaided State syllabus teachers do not differ significantly [$t = .059$; $p > .05$].

Table describes that, mean scores of depersonalization of the CBSE and unaided State syllabus teachers differ significantly [$t = 1.259$; $p > .05$]. Mean scores of emotional exhaustion [$t = 0.93$; $p > .05$], reduced personal accomplishment [$t = 0.59$; $p > .05$] of the CBSE and state syllabus unaided teachers do not differ significantly.

Investigation on Mean Difference based on Qualification

The test of significance difference between mean scores of highly qualified unaided school teachers and unaided teachers with basic qualification for the variables technostress, teacher autonomy and teacher burnout were calculated to find qualification difference.

The details of results of mean difference analysis of technostress and its components are presented in table 32.

Table 32*Results of Mean Difference Analysis of Technostress and its Components*

Variables	Educational Qualification	N	Mean	Std. Deviation	t-value
Techno Insecurity	Basic Qualification	295	21.33	3.54	.262
	Highly qualified	215	21.23	5.42	
Techno Complexity	Basic Qualification	295	23.56	3.72	1.98*
	Higher Qualification	215	22.89	3.86	
Techno Invasion	Basic Qualification	295	34.97	5.81	.474
	Higher Qualification	215	34.73	5.63	
Techno Awareness	Basic Qualification	295	25.68	5.26	2.20*
	Higher Qualification	215	24.66	4.99	
Techno Facility	Basic Qualification	295	25.36	4.39	2.58**
	Higher Qualification	215	24.31	4.74	
Technostress	Basic Qualification	295	130.90	17.91	1.88
	Higher Qualification	215	127.81	18.69	

**Significant at 0.01 level, *Significant at 0.05 level

Table 32 conveys that, mean scores of technostress of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly [$t = 1.88$; $p > .05$].

Table explains that, mean scores of techno complexity [$t = 1.98$; $p < .01$], techno awareness [$t = 2.20$; $p < .05$] and techno facility [$t = 2.58$; $p < .05$] of unaided secondary school teachers with higher qualification and teachers with basic qualification differ significantly. Mean score revealed that teachers with basic qualification have higher techno complexity ($M = 23.56$), techno awareness ($M = 25.68$) and techno facility ($M = 24.31$) than teachers with higher qualification. Mean scores of techno insecurity [$t = .262$; $p > .05$] and techno invasion [$t = .474$; $p > .05$] of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly.

The details of results of mean difference analysis of Teacher autonomy and its components are presented in table 33.

Table 33

Results of Mean Difference Analysis of Teacher Autonomy and its Components

Variables	Educational Qualification	N	Mean	Std. Deviation	t-value
Establishing School Identity	Basic Qualification	295	30.34	4.53	1.19
	Higher Qualification	215	29.87	4.29	
Teaching and assessment	Basic Qualification	295	35.96	4.52	1.82
	Higher Qualification	215	35.24	4.36	
Parental Involvement	Basic Qualification	295	14.11	2.60	2.81**
	Higher Qualification	215	14.74	2.41	
Professional Development	Basic Qualification	295	24.81	3.62	2.08*
	Higher Qualification	215	24.11	3.89	
Extra Curricular Subjects	Basic Qualification	295	22.01	2.81	.420
	Higher Qualification	215	21.90	2.71	
Curriculum development	Basic Qualification	295	15.90	2.69	2.73**
	Higher Qualification	215	15.22	2.86	
Teacher Autonomy	Basic Qualification	295	143.13	14.72	1.55
	Higher Qualification	215	141.08	14.71	

**Significant at 0.01 level, *Significant at 0.05 level

Table 33 discloses that, mean scores of Teacher autonomy of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly [$t = 1.55; p > .01$].

Table elucidates that, mean scores of parental involvement [$t = 2.81; p < .01$], professional development [$t = 2.08; p < .05$] and Curriculum development [$t = 2.73; p < .01$] of unaided secondary school teachers with higher qualification and teachers with basic qualification differ significantly. Mean score revealed that teachers with basic qualification have higher professional development ($M = 24.81$), and Curriculum development ($M = 15.90$) than teachers with higher qualification. Mean score revealed that teachers with higher qualification have higher parental involvement ($M = 14.741$) than teachers with basic qualification.

Mean scores of Establishing School Identity [$t = 1.19$; $p > .05$], Teaching and assessment [$t = 1.82$; $p > .05$] and extra-curricular subjects [$t = .420$; $p > .05$] of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly.

The details of results of mean difference analysis of Teacher burnout and its components are presented in table 34.

Table 34

Results of Mean Difference Analysis of Teacher Burnout and its Components

Variables	Educational Qualification	N	Mean	Std. Deviation	t-value
Emotional Exhaustion	Basic Qualification	295	27.43	5.61	.999
	Higher Qualification	215	27.94	5.69	
Depersonalization	Basic Qualification	295	24.51	5.12	.485
	Higher Qualification	215	24.72	4.74	
Reduced personal accomplishment	Basic Qualification	295	21.22	4.89	.548
	Higher Qualification	215	21.46	4.48	
Teacher Burnout	Basic Qualification	295	73.16	13.45	.809
	Higher Qualification	215	74.12	12.70	

Table 34 conveys that, mean scores of burnout of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly [$t = .809$; $p > .05$].

Table explicates that, mean scores of emotional exhaustion [$t = .999$; $p > .05$], depersonalization [$t = .485$; $p > .05$] and reduced personal accomplishment [$t = .548$; $p > .05$] of unaided secondary school teachers with higher qualification and teachers with basic qualification do not differ significantly.

Investigation of Mean Difference based on Subject

To find whether the subject of unaided school teachers (language, social science, science and mathematics) can significantly affect the technostress, teacher autonomy, teacher burnout and its components, one-way ANOVA was employed.

Results of the one-way ANOVA of technostress and its components are given in table 35

Table 35

Results of the One-way ANOVA of Technostress and its Components

Variables	Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Techno Insecurity	Between Groups	53.321	3	17.774	.906	.438
	Within Groups	9921.309	506	19.607		
	Total	9974.629	509			
Techno Complexity	Between Groups	77.276	3	25.759	1.800	.146
	Within Groups	7241.187	506	14.311		
	Total	7318.463	509			
Techno Invasion	Between Groups	152.773	3	50.924	1.555	.199
	Within Groups	16570.160	506	32.747		
	Total	16722.933	509			
Techno Awareness	Between Groups	102.327	3	34.109	1.279	.281
	Within Groups	13489.048	506	26.658		
	Total	13591.375	509			
Techno Facility	Between Groups	161.294	3	53.765	2.609	.051
	Within Groups	10429.248	506	20.611		
	Total	10590.541	509			
Technostress	Between Groups	1835.991	3	611.997	1.839	.139
	Within Groups	168408.409	506	332.823		
	Total	170244.400	509			

Table 35 conveys that there is no significant effect of subject on technostress of unaided school teachers ($F(3, 506) = .139, p > .05$). There is no significant effect of subject on techno insecurity of unaided school teachers ($F(3, 506) = .438, p > .05$). There is no significant effect of subject on techno complexity of unaided school teachers ($F(3, 506) = .146, p > .05$). There is no significant effect of subject on techno invasion of unaided school teachers ($F(3, 506) = .199, p > .05$). There is no significant effect of subject on techno awareness of unaided school teachers ($F(3, 506) = .281, p > .05$). There is no significant effect of subject on techno facility of unaided school teachers ($F(3, 506) = .051, p > .05$).

Results of the one-way ANOVA of teacher autonomy and its components are given in table 36.

Table 36

Results of the One-way ANOVA of Teacher Autonomy and its Components

Variables	Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Establishing School Identity	Between Groups	72.032	3	24.011	1.226	.300
	Within Groups	9913.083	506	19.591		
	Total	9985.116	509			
Teaching and assessment	Between Groups	72.846	3	24.282	1.220	.302
	Within Groups	10070.104	506	19.901		
	Total	10142.951	509			
Parental Involvement	Between Groups	16.666	3	5.555	.863	.460
	Within Groups	3256.550	506	6.436		
	Total	3273.216	509			
Professional Development	Between Groups	90.732	3	30.244	2.165	.091
	Within Groups	7068.642	506	13.970		
	Total	7159.375	509			
Extra Curricular Subjects	Between Groups	35.351	3	11.784	1.543	.203
	Within Groups	3864.942	506	7.638		
	Total	3900.292	509			
Curriculum Development	Between Groups	47.262	3	15.754	2.046	.106
	Within Groups	3895.413	506	7.698		
	Total	3942.675	509			
Teacher Autonomy	Between Groups	392.317	3	130.772	.601	.615
	Within Groups	110126.475	506	217.641		
	Total	110518.792	509			

Table 36 reveals that there is no significant effect of subject on teacher autonomy of unaided school teachers ($F(3, 506) = .615, p > .05$).

Table describes that there is no significant effect of subject on component establishing school identity of unaided school teachers ($F(3, 506) = .300, p > .05$). There is no significant effect of subject on component Teaching and assessment of unaided school teachers ($F(3, 506) = .302, p > .05$). There is no significant effect of subject on

component parental involvement of unaided school teachers ($F(3, 506) = 0.460, p > .05$). There is no significant effect of subject on component professional development of unaided school teachers ($F(3, 506) = .091, p > .05$). There is no significant effect of subject on component extracurricular subjects of unaided school teachers ($F(3, 506) = .203, p > .05$). There is no significant effect of subject on component Curriculum development of unaided school teachers ($F(3, 506) = 0.106, p > .05$).

Results of the one-way ANOVA of teacher burnout and its components are given in table 37.

Table 37

Results of the One-way ANOVA of Teacher Burnout and its Components

Variables	Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Emotional Exhaustion	Between Groups	72.394	3	24.131	.756	.519
	Within Groups	16144.077	506	31.905		
	Total	16216.471	509			
Depersonalization	Between Groups	47.975	3	15.992	.649	.584
	Within Groups	12458.817	506	24.622		
	Total	12506.792	509			
Reduced Personal Accomplishment	Between Groups	142.216	3	47.405	2.144	.094
	Within Groups	11187.047	506	22.109		
	Total	11329.263	509			
Teacher Burnout	Between Groups	717.148	3	239.049	1.389	.245
	Within Groups	87094.217	506	172.123		
	Total	87811.365	509			

Table 37 reveals that there is no significant effect of subject on teacher burnout of unaided school teachers ($F(3, 506) = .245, p > .01$).

Table explains that there is a significant effect of subject on emotional exhaustion of unaided school teachers ($F(3, 506) = .519, p > .01$). There is no significant effect of subject on component depersonalization of unaided school teachers ($F(3, 506) = .584, p > .05$). There is a significant effect of subject on component reduced personal accomplishment of unaided school teachers ($F(3, 506)$

=.094, $p < .01$). Mean scores of reduced personal accomplishment differs significantly among novice, less experienced and experienced groups.

Investigation of Mean Difference based on Experience

To find whether the experience of unaided school teachers (Novice, less experienced and experienced) can significantly affect the technostress, teacher autonomy, teacher burnout and its components, one-way ANOVA was employed.

Results of the one-way ANOVA of technostress and its components are given in table 38

Table 38

Results of the One-way ANOVA of Technostress and its Components

Variables	Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Techno Insecurity	Between Groups	9.450	2	4.725	.240	.786
	Within Groups	9965.179	507	19.655		
	Total	9974.629	509			
Techno Complexity	Between Groups	23.758	2	11.879	.826	.439
	Within Groups	7294.705	507	14.388		
	Total	7318.463	509			
Techno Invasion	Between Groups	8.777	2	4.388	.133	.875
	Within Groups	16714.157	507	32.967		
	Total	16722.933	509			
Techno Awareness	Between Groups	53.730	2	26.865	1.01	.366
	Within Groups	13537.645	507	26.701		
	Total	13591.375	509			
Techno Facility	Between Groups	4.239	2	2.119	.102	.903
	Within Groups	10586.302	507	20.880		
	Total	10590.541	509			
Technostress	Between Groups	174.128	2	87.064	.260	.772
	Within Groups	170070.272	507	335.444		
	Total	170244.400	509			

Table 38 conveys that there is no significant effect of experience on technostress of unaided school teachers ($F(2, 507) = .260, p > .05$). There is no significant effect of

experience on techno insecurity of unaided school teachers ($F(2, 507) = .240, p > .05$). There is no significant effect of experience on techno complexity of unaided school teachers ($F(2, 507) = 826, p > .05$). There is no significant effect of experience on techno invasion of unaided school teachers ($F(2, 507) = .875, p > .05$). There is no significant effect of experience on techno awareness of unaided school teachers ($F(2, 507) = 1.01, p > .05$). There is no significant effect of experience on techno facility of unaided school teachers ($F(2, 507) = .102, p > .05$).

Results of the one-way ANOVA of teacher autonomy and its components are given in table 39.

Table 39

Results of the One-way ANOVA of Teacher Autonomy and its Components

Variables	Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Establishing School Identity	Between Groups	55.098	2	27.549	1.41	.246
	Within Groups	9930.018	507	19.586		
	Total	9985.116	509			
Teaching and assessment	Between Groups	279.289	2	139.644	7.18	.001
	Within Groups	9863.662	507	19.455		
	Total	10142.951	509			
Parental Involvement	Between Groups	.695	2	.348	.054	.948
	Within Groups	3272.521	507	6.455		
	Total	3273.216	509			
Professional Development	Between Groups	247.649	2	123.824	9.08	.001
	Within Groups	6911.726	507	13.633		
	Total	7159.375	509			
Extra Curricular Subjects	Between Groups	55.859	2	27.929	3.68	.026
	Within Groups	3844.433	507	7.583		
	Total	3900.292	509			
Curriculum development	Between Groups	38.243	2	19.122	2.48	.085
	Within Groups	3904.431	507	7.701		
	Total	3942.675	509			
Teacher Autonomy	Between Groups	2752.917	2	1376.458	6.48	.002
	Within Groups	107765.876	507	212.556		
	Total	110518.792	509			

Table 39 reveals that there is a significant effect of experience on teacher autonomy of unaided school teachers ($F(2, 507) = 6.48, p < .01$). Mean scores of teacher autonomy differs significantly among novice, less experienced and experienced groups.

Table describes that there is no significant effect of experience on component establishing school identity of unaided school teachers ($F(2, 507) = 1.41, p > .05$). There is a significant effect of experience on component Teaching and assessment of unaided school teachers ($F(2, 507) = 7.18, p < .01$). Mean scores of Teaching and assessment differs significantly among novice, less experienced and experienced groups. There is no significant effect of experience on component parental involvement of unaided school teachers ($F(2, 507) = 0.054, p > .05$). There is a significant effect of experience on component professional development of unaided school teachers ($F(2, 507) = 9.08, p < .01$). Mean scores of professional development differs significantly among novice, less experienced and experienced groups. There is a significant effect of experience on component extracurricular subjects of unaided school teachers ($F(2, 507) = 3.68, p < .05$). Mean scores of extracurricular subjects differs significantly among novice, less experienced and experienced groups. There is no significant effect of experience on component Curriculum development of unaided school teachers ($F(2, 507) = 0.085, p > .05$).

To check the significance of difference of scores between the Groups, Post Hoc tests were carried out Teacher Autonomy and its components viz., Teaching and assessment, professional development and extracurricular subjects. Results of the Post Hoc tests are presented in table 40

Table 40

Summary of Post Hoc test for Teacher Autonomy and its Components viz., Teaching and assessment, Professional Development and Extracurricular Subjects by Experience

Variable	Type of Management		Mean Difference	Std. Error	P
Teaching and assessment	Novice (M = 34.2)	Less Experienced (M = 35.9)	1.672	0.550	.010
	Novice	Experienced (M = 36.1)	1.941	0.523	.001
	Less Experienced	Experienced	0.269	0.442	.831
Professional Development	Novice (M = 23.1)	Less Experienced (M = 24.9)	1.815	0.460	.000
	Novice	Experienced (M = 24.8)	1.676	0.438	.001
	Less Experienced	Experienced	0.139	0.370	.932
Extra Curricular Subjects	Novice (M = 21.3)	Less Experienced (M = 22.3)	0.920	0.343	.028
	Novice	Experienced (M = 22)	0.688	0.327	.110
	Less Experienced	Experienced	0.232	0.276	.703
Teacher Autonomy	Novice (M = 137.6)	Less Experienced (M = 143.6)	6.005	1.818	.005
	Novice	Experienced (M = 143.3)	5.638	1.730	.005
	Less Experienced	Experienced	0.367	1.459	.969

Table 40 conveys that there is a significant difference in teacher autonomy for teachers with novice and less experience (MD = 6.005, $p < 0.01$) at .01 level of significance. There is a significant difference in teacher autonomy for teachers with novice and experienced (MD = 5.638, $p < 0.01$) at .01 level of significance. There is no significant difference in teacher autonomy for teachers with less experience and experienced.

Table explains that there is a significant difference in Teaching and assessment for teachers with novice and less experience (MD = 1.672, $p < 0.01$) at .01 level of significance. There is a significant difference in Teaching and assessment for teachers with novice and experienced (MD = 1.941, $p < 0.01$) at .01 level of significance. There is no significant difference in Teaching and assessment for

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teachers with less experience and experienced. There is a significant difference in professional development for teachers with novice and less experience (MD = 1.815, $p < 0.01$) at .01 level of significance. There is a significant difference in professional development for teachers with novice and experienced (MD = 1.676, $p < 0.01$) at .01 level of significance. There is no significant difference in professional development for teachers with less experience and experienced. There is a significant difference in extracurricular subjects for teachers with novice and less experience (MD = .920, $p < 0.05$) at .05 level of significance. There is no significant difference in extracurricular subjects for teachers with novice & experienced and less experience & experienced.

Results of the one-way ANOVA of teacher burnout and its components are given in table 41

Table 41

Results of the One-way ANOVA of Teacher Burnout and its Components

Variables	Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Emotional Exhaustion	Between Groups	396.642	2	198.321	6.356	.002
	Within Groups	15819.829	507	31.203		
	Total	16216.471	509			
Depersonalization	Between Groups	69.535	2	34.768	1.417	.243
	Within Groups	12437.257	507	24.531		
	Total	12506.792	509			
Reduced Personal Accomplishment	Between Groups	231.147	2	115.574	5.280	.005
	Within Groups	11098.115	507	21.890		
	Total	11329.263	509			
Teacher Burnout	Between Groups	1845.422	2	922.711	5.442	.005
	Within Groups	85965.942	507	169.558		
	Total	87811.365	509			

Table 41 discloses that there is a significant effect of experience on teacher burnout of unaided school teachers ($F(2, 507) = 5.442, p < 0.01$). Mean scores of teacher burnout differs significantly among novice, less experienced and experienced groups.

Table describes that there is a significant effect of experience on emotional exhaustion of unaided school teachers ($F(2, 507) = 6.356, p < .01$). Mean scores of emotional exhaustion differs significantly among novice, less experienced and experienced groups. There is no significant effect of experience on component depersonalization of unaided school teachers ($F(2, 507) = 1.417, p > .05$). There is a significant effect of experience on component reduced personal accomplishment of unaided school teachers ($F(2, 507) = 5.280, p < .01$). Mean scores of reduced personal accomplishment differs significantly among novice, less experienced and experienced groups.

To check the significance of difference of scores between the Groups, Post Hoc tests were carried out Teacher Burnout and its components viz., emotional exhaustion and reduced personal accomplishment. Results of the Post Hoc tests are presented in table 42

Table 42

Summary of Post Hoc Test for Teacher Burnout and its Components viz., Emotional Exhaustion and Reduced Personal Accomplishment by Experience

Variable	Type of management		Mean difference	Std. Error	P
Emotional Exhaustion	Novice (M= 29.1)	Less Experienced (M= 27.9)	1.274	0.697	.189
	Novice	Experienced (M= 26.8)	2.322	0.663	.002
	Less Experienced	Experienced	1.049	0.559	.173
Reduced Personal Accomplishment	Novice (M= 22.6)	Less Experienced (M= 21.2)	1.459	0.583	.045
	Novice	Experienced (M= 20.8)	1.783	0.555	.006
	Less Experienced	Experienced	0.323	0.468	.788
Teacher Burnout	Novice (M= 77)	Less Experienced (M= 73.7)	3.365	1.624	.118
	Novice	Experienced (M= 71.9)	5.092	1.545	.005
	Less Experienced	Experienced	1.727	1.303	.417

Table 42 conveys that there is no significant difference in teacher burnout for teachers with novice and less experience. There is a significant difference teacher burnout for teachers with novice and experienced (MD = 5.092, $p < 0.01$) at .01 level of significance. There is no significant difference in teacher burnout for teachers with less experience and experienced.

Table explains that there is no significant difference in emotional exhaustion for teachers with novice and less experience. There is a significant difference in emotional exhaustion for teachers with novice and experienced (MD = 2.322, $p < 0.01$) at .01 level of significance. There is no significant difference in emotional exhaustion for teachers with less experience and experienced. There a significant difference in reduced personal accomplishment for teachers with novice and less experience (MD = 1.459, $p < 0.01$) at .01 level of significance. There is a significant difference in reduced personal accomplishment for teachers with novice and experienced (MD = 1.783, $p < 0.01$) at .01 level of significance. There is no significant difference in reduced personal accomplishment for teachers with less experience and experienced.

Analysis of Variance

The major objective of the study is to find out the influence of Technostress and Teacher Autonomy on Teacher Burnout of unaided school teachers. The main effect and interaction effect of two independent variables on the dependent variable, Teacher Burnout is studied for this purpose. Two-way ANOVA with 3x3 factorial design was carried out separately for the total sample and subgroups on the basis of Gender, Type of School, Experience, Locality, Subject, Computer Course and Educational Qualification. The 3 x 3 factorial design of two-way ANOVA includes three levels of Technostress and three levels of Teacher Autonomy. Technostress was classified as low level stress, moderate level stress and high level stress.

Teacher Autonomy was categorized as scant autonomy, moderate autonomy and high autonomy group.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for Total Sample

Main and interaction effect of Technostress and Teacher Autonomy on the Teacher Burnout for total sample was computed. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for total sample are presented in table 43

Table 43

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Unaided School Teachers for Total Sample

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Technostress	12726.528	2	6363.264	50.878	.001
Teacher Autonomy	7494.138	2	3747.069	29.96	.001
Technostress - Teacher Autonomy	2350.543	4	587.636	4.70	.001
Error	62660.723	501	125.071		

Main Effects

Influence of Technostress on Teacher Burnout for Total Sample

Table 43 presents that F value for Technostress is 50.88 which is significant at .01 level with $df = 2/501$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for total sample.

Scheffés test was used for the of post hoc comparison to know which group's mean score of Teacher Burnout is significantly higher. The results of Scheffés test of post hoc comparison of mean scores of Teacher Burnout of unaided school teachers for total sample among three groups of technostress are presented in Table 44

Table 44

Summary of Post Hoc Test for Teacher Burnout for Total Sample by Technostress Group

Variable	Technostress group		Mean difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 66.56)	Moderate Level Stress(M= 73.58)	7.013	1.209	.001
	Low Level Stress	High Level Stress(M= 80.12)	13.557	1.254	.001
	Moderate Level Stress	High Level Stress	6.543	1.189	.001

From the table 44 it is evident that mean difference scores of low level stress group and moderate level stress group is 7.013, which is significant at .01 level. This point outs that there is significant difference in the Teacher Burnout of unaided school teachers with low and moderate level of technostress. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low level stress group and high level stress group is 13.557, which is significant at .01 level. This describes that there is significant difference in the Teacher Burnout of unaided school teachers with low and high level of technostress. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 6.543, which is significant at .01 level. This illustrates that there is significant difference in the Teacher Burnout of unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for total sample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Total Sample

Table 43 explains that F value for Teacher Autonomy is 29.96 which is significant at .01 level with $df= 2/501$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for total sample.

Scheffés test was used for post hoc comparison to know which group’s mean score of Teacher Burnout is significantly higher. The results of analysis are presented in Table 45.

Table 45

Summary of Post Hoc test for Teacher Burnout for Total Sample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	p
Teacher Burnout	Scant Autonomy (M= 78.68)	Moderate Autonomy (M = 74.51)	4.168	1.205	.003
	Scant Autonomy	High Autonomy (M = 67.43)	11.249	1.291	.001
	Moderate Autonomy	High Autonomy	7.081	1.186	.001

From the table 45 it is observed that mean difference scores of scant autonomy group and moderate autonomy group is 4.168, which is significant at .01 level. This displays that there is significant difference in the Teacher Burnout of unaided school teachers with scant and moderate level of autonomy. Mean Teacher

Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 11.249, which is significant at .01 level. This indicates that there is significant difference in the Teacher Burnout of unaided school teachers with scant and high level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 7.081, which is significant at .01 level. This explains that there is significant difference in the Teacher Burnout of unaided school teachers with high and moderate level of autonomy. Mean Teacher Burnout score is high for moderate autonomy group than high autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for total sample of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for Total Sample

Table 43 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for total sample is 4.70 which is significant at 0.01 level. It indicates that there exists significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 501) = 4.70, p < .01$, for total sample at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of total sample. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for unaided school teachers.

In order to know the trend of interaction between Technostress and Teacher Autonomy on Teacher Burnout for total sample, Profile Plot has been plotted and presented in Figure 13

Figure 13

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Total Sample

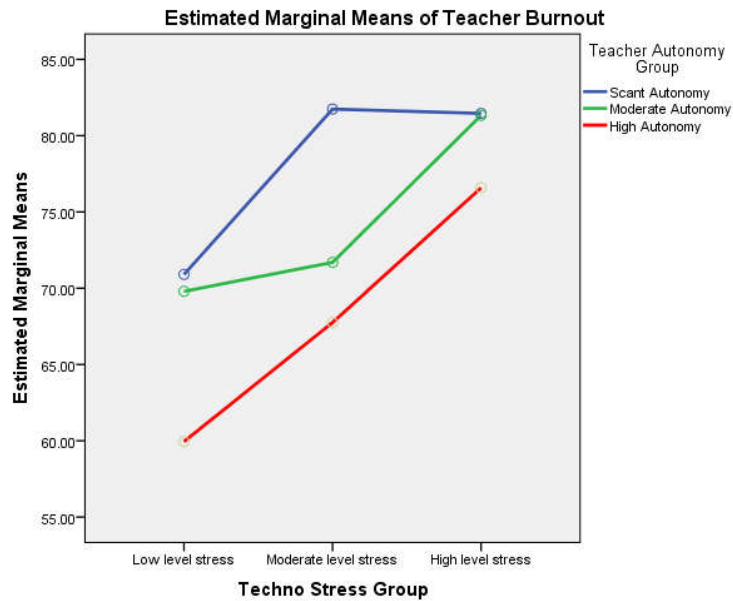


Figure 13 represents the mean scores of low level, moderate level and high level stress groups belonging to scant autonomy class is higher than moderate and high autonomy groups. This is an explicit indication of the reliance of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for total sample.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Male Unaided School Teachers

Influence of the Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample male was computed. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress

and Teacher Autonomy on Teacher Burnout for subsample male are displayed in table 46

Table 46

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Male Unaided School Teachers

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Technostress	2924.304	2	1462.152	10.106	.001
Teacher Autonomy	1570.027	2	785.013	5.426	.006
Technostress - Teacher Autonomy	2837.936	4	709.484	4.904	.001
Error	14178.367	98	144.677		

Main Effects

Influence of Technostress on Teacher Burnout for Male Subsample

Table 46, reveals that F value for Technostress is 10.106 which is significant at .01 level with $df= 2/98$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of male unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for male teachers.

Scheffés test was used for post hoc comparison to identify which group's mean score of Teacher Burnout is significantly higher. The results are presented in Table 47

Table 47

Summary of Post Hoc Test for Teacher Burnout for the Male Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 68.74)	Moderate Level Stress (M= 80.07)	11.33	3.27	.004
	Low Level Stress	High Level Stress (M= 83.02)	14.28	2.84	.001
	Moderate Level Stress	High Level Stress	2.94	2.84	.587

From the table 47, it is clear that mean difference scores of low-level and moderate level stress groups is 11.33, which is significant at .01 level.

This indicates that Teacher Burnout of unaided teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low level and high level stress groups is 14.28, which is significant at .01 level. This reveals that Teacher Burnout of male unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level and moderate level stress groups is 2.94, which is not significant at.05 level. This reveals that teacher Burnout of male unaided school teachers with high and moderate level of technostress do not differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for male subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for male subsample

Table 46 indicates that F value for Teacher Autonomy is 5.426 which is significant at .01 level with $df= 2/98$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the male teachers.

Scheffé's test was used for post hoc comparison to recognize which group's mean score of Teacher Burnout is significantly higher. The results are exhibited in Table 48

Table 48

Summary of Post Hoc test for Teacher Burnout for Male Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 81.65)	Moderate Autonomy (M= 81.49)	.170	2.74	.998
	Scant Autonomy	High Autonomy (M= 71.23)	10.42	2.94	.003
	Moderate Autonomy	High Autonomy	10.25	2.92	.003

Table 48 displays that mean difference scores of scant and moderate autonomy groups is .170, which is not significant at .01 level. This illustrates that Teacher Burnout of male teachers with scant and moderate levels of autonomy do not differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant and high autonomy groups is 10.42, which is significant at .01 level. This indicates that Teacher Burnout of male unaided school teachers with scant and high levels of autonomy differ significantly. Mean Teacher

Burnout score is high for scant autonomy group. Mean difference scores of high and moderate autonomy groups is 10.25, which is significant at .01 level. This reveals that Teacher Burnout of male teachers with high and moderate levels of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy groups differ significantly in Teacher Burnout for male unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Male

Table 46 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample male is 4.904 which is significant at 0.01 level. It indicates that there exists significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 98) = 4.904, p < .01$, for subsample male at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample male. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for male unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for total sample, Profile Plot has been plotted and presented in Figure 14.

Figure 14

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Male Subsample

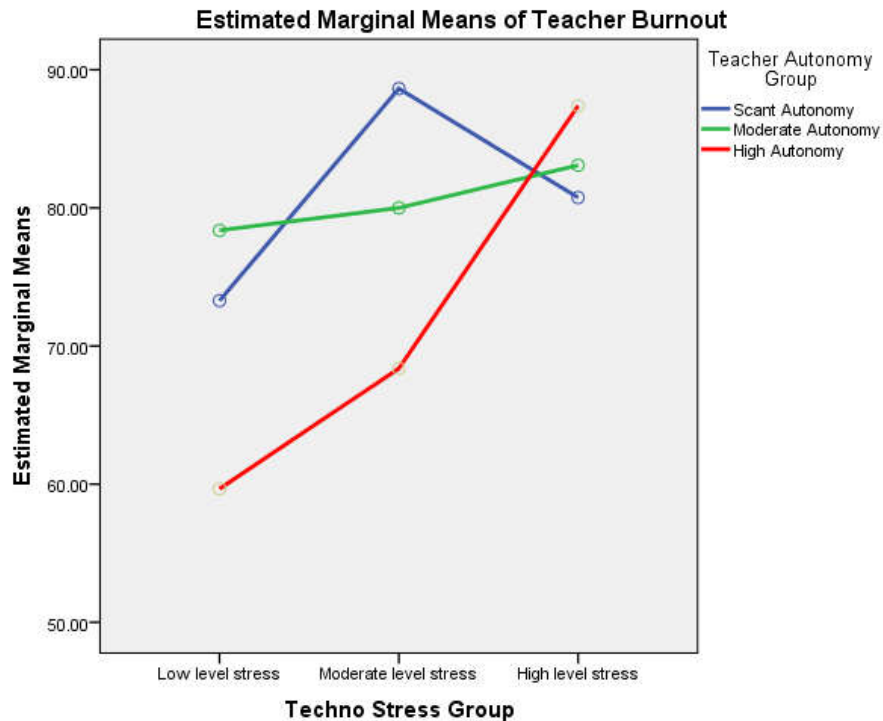


Figure 14 displays that the mean scores of low level stress group belonging to scant autonomy category is higher than high autonomy group but lower than moderate group. In the case of moderate level stress group, the mean score of scant autonomy is higher than moderate and high autonomy groups. The mean scores of high level stress group belonging to high autonomy is higher than moderate and scant autonomy. This is an indication of the dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for male teachers.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Female unaided school teachers.

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample female

was calculated. The results of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample female are displayed in table 49.

Table 49

Summary of 3x3 factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Female Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	8637.365	2	4318.683	37.946	.001
Teacher Autonomy	6333.584	2	3166.792	27.825	.001
Technostress - Teacher Autonomy	1041.651	4	260.413	2.288	.059
Error	44841.482	394	113.811		

Main Effects

Influence of Technostress on Teacher Burnout for Female Subsample

Table 49 reveals that F value for Technostress is 37.946 which is significant at .01 level with df= 2/394. Therefore, there exists significant difference in the mean scores of Teacher Burnout of female unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for female teachers.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are exhibited in Table 50

Table 50

Summary of Post Hoc Test for Teacher Burnout for the Female Subsample by Technostress Group

Variable	Technostress group		Mean difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 66.10)	Moderate Level Stress (M= 72.51)	6.41	1.26	.001
	Low Level Stress	High Level Stress (M= 78.74)	12.64	1.39	.001
	Moderate Level Stress	High Level Stress	6.22	1.31	.001

From the table 50, it is evident that mean difference scores of low-level stress group and moderate level stress group is 6.41, which is significant at .01. This indicates that Teacher Burnout of female unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 12.648, which is significant at .01 level. This displays that Teacher Burnout of female unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 1.31, which is not significant at .01 level. This shows that there no significant difference in the Teacher Burnout of female unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for female subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Female Subsample

Table 49, reveals F value for Teacher Autonomy is 27.8256 which is significant at .01 level with $df= 2/394$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of female unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the female subsample.

Scheffé's test was used for post hoc comparison to find out mean score which of Teacher Burnout groups is significantly higher. The results are presented in Table 51

Table 51

Summary of Post Hoc Test for Teacher Burnout the Female Su sample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 77.63)	Moderate Autonomy (M= 72.92)	4.71	1.31	.002
	Scant Autonomy	High Autonomy (M= 66.51)	11.12	1.40	.001
	Moderate Autonomy	High Autonomy	6.41	1.26	.001

Table 51, presents that mean difference scores of scant autonomy and moderate autonomy groups is 4.71, which is significant at .01 level. This shows that there is a significant difference in the Teacher Burnout of female unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 11.12, which is significant at .01 level. This reveals that Teacher Burnout of female unaided school teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant

autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 6.41, which is significant at .01 level. This indicates Teacher Burnout of male unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample female of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Female

Table 49 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample male is 2.288 which is not significant at 0.05 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 394) = 2.288, p > 0.05$, for subsample female at 0.05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample female. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for female unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for female subsample, Profile Plot has been plotted and presented in Figure 15.

Figure 15

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Female Subsample

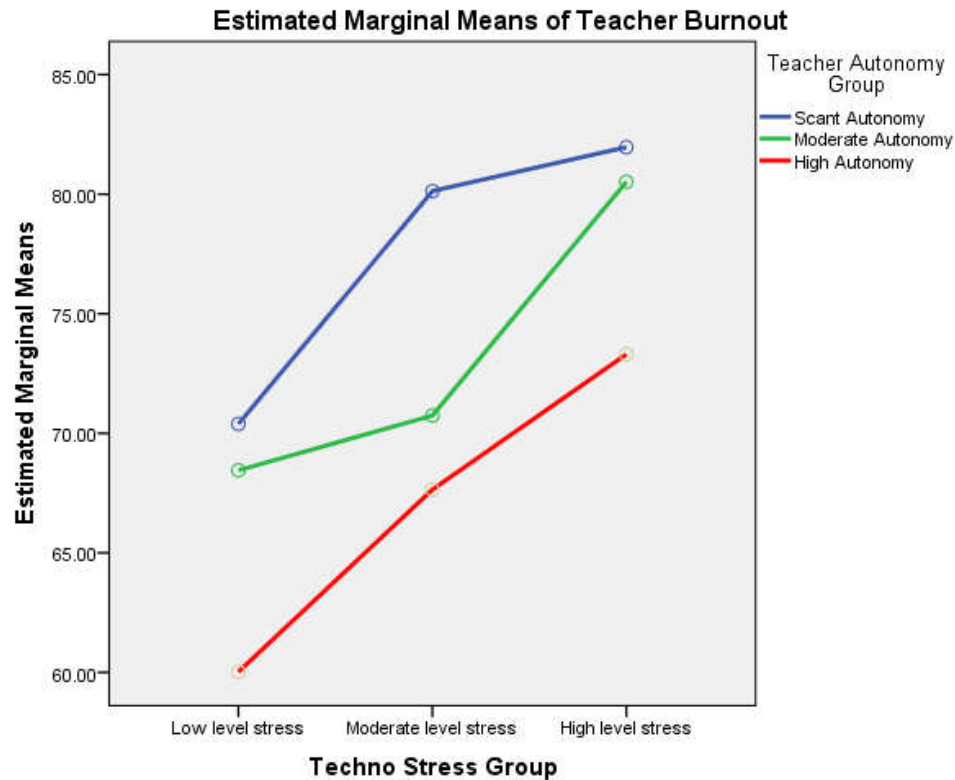


Figure 15 displays that the mean scores of low level stress group, moderate level stress group and high level stress group belonging to scant autonomy category is higher than moderate and high autonomy groups. This is a sign of the dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for female teachers.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Rural Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample rural teacher was calculated. The results are exhibited in table 52

Table 52

Summary of 3x3 factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Rural Unaided School Teachers

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	3138.516	2	1569.258	12.914	.001
Teacher Autonomy	2940.898	2	1470.449	12.101	.001
Technostress * Teacher Autonomy	743.246	4	185.812	1.529	.195
Error	26612.192	219	121.517		

Main Effects***Influence of Technostress on Teacher Burnout for Rural Teacher Subsample***

Table 52 shows F value for Technostress is 12.914 which is significant at .01 level with $df = 2/219$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of rural unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there exists significant influence of Technostress on Teacher Burnout for rural teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout groups is significantly higher. The results are displayed in Table 53

Table 53

Summary of Post Hoc test for Teacher Burnout for the Rural Teacher Subsample by Technostress Group

Variable	Technostress group		Mean difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 67.45)	Moderate Level Stress (M= 70.91)	3.46	1.81	.163
	Low Level Stress	High Level Stress (M= 77.05)	9.60	1.83	.001
	Moderate Level Stress	High Level Stress	6.14	1.74	.002

From the table 53, it is evident that mean difference scores of low-level stress group and moderate level stress group is 1.81, which is not significant at .05 level. This indicates that Teacher Burnout of rural teachers with low and moderate level of technostress do not differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 1.83 which is significant at .01 level. This displays that Teacher Burnout of rural teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 1.74, which is significant at .01 level. This exhibits that Teacher Burnout of rural teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for rural subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Rural Subsample

Table 52, reveals F value for Teacher Autonomy is 12.101 which is significant at .01 level with $df= 2/219$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of rural unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the rural teacher subsample.

Scheffé's test was used for post hoc comparison to identify mean scores of which Teacher Burnout group is significantly higher. The results are displayed in Table 54

Table 54

Summary of Post Hoc Test for Teacher Burnout the Rural Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 76.19)	Moderate Autonomy (M= 73.51)	2.68	1.84	.349
	Scant Autonomy	High Autonomy (M= 66.97)	9.21	1.91	.001
	Moderate Autonomy	High Autonomy	6.53	1.69	.001

Table 54 presents that mean difference scores of scant autonomy and moderate autonomy group is 2.68, which is not significant at .01 level. This points out that Teacher Burnout of rural teachers with scant and moderate level of autonomy do not differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 9.21, which is significant at .01 level. This indicates that Teacher Burnout of rural teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 6.53, which is significant at .01 level. This reveals that Teacher Burnout of rural unaided teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample rural unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Rural

Table 52 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample

rural is 1.529 which is not significant at 0.05 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 219) = 1.529, p > .05$, for subsample less experienced teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample rural teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for rural unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for rural teacher subsample , Profile Plot has been plotted and presented in Figure 16

Figure 16

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Rural Teacher Subsample

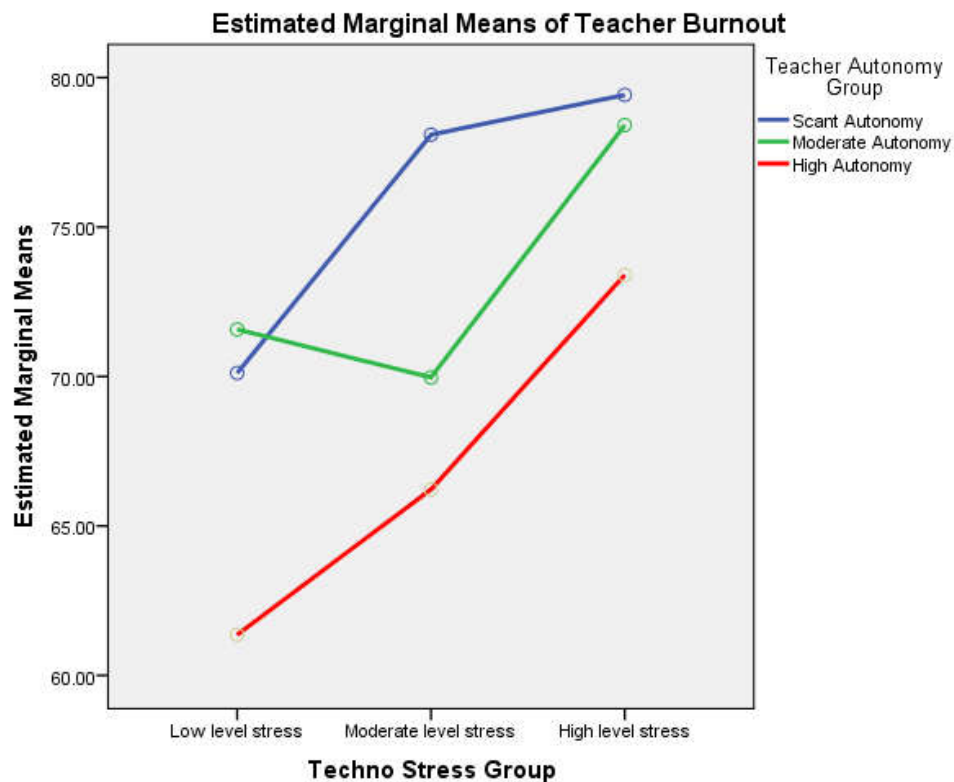


Figure 16 shows that the mean scores of low level stress group belonging to scant autonomy category is higher than high autonomy group but lower than moderate group. Moderate level, and high level stress group belonging to scant autonomy is higher than moderate and high autonomy groups. This indicates the dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for rural teacher.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Urban unaided school teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample urban teacher was calculated, the results are exhibited in table 55

Table 55

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Urban Unaided School Teachers

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	10896.272	2	5448.136	19.734	.001
Teacher Autonomy	3750.077	2	1875.039	15.166	.001
Technostress * Teacher Autonomy	2010.323	4	502.581	4.065	.003
Error	33751.123	273	123.630		

Main Effects

Influence of Technostress on Teacher Burnout for Urban Teacher Subsample

Table 55 exposes that F value for Technostress is 19.734 which is significant at .01 level with $df= 2/273$. Therefore, mean scores of Teacher Burnout of urban unaided school teachers for the technostress groups differ significantly i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus,

there exists significant influence of Technostress on Teacher Burnout for urban teacher subsample.

Scheffés test was used for post hoc comparison to recognize mean score of which Teacher Burnout group is significantly higher. The results are displayed in Table 56

Table 56

Summary of Post Hoc Test for Teacher Burnout for the Urban Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 65.86)	Moderate Level Stress(M= 75.56)	9.70	1.60	.001
	Low Level Stress	High Level Stress(M= 82.91)	17.05	1.69	.001
	Moderate Level Stress	High Level Stress	7.34	1.60	.001

From the table 56, it is evident that mean difference scores of low-level stress group and moderate level stress group is 9.70, which is significant at .01 level. This indicates that the Teacher Burnout of urban teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 17.05, which is significant at .01 level. This displays that Teacher Burnout of urban unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 7.34, which is significant at .01 level. This shows that Teacher Burnout of urban unaided school teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for urban subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for urban subsample

Table 55 shows F value for Teacher Autonomy is 15.166 which is significant at .01 level with $df= 2/273$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of urban unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the urban teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The outcomes of post hoc comparison of mean scores of Teacher Burnout of unaided school teachers for the subsample urban teacher among three groups of Teacher Autonomy are presented in Table 57

Table 57

Summary of Post Hoc Test for Teacher Burnout the Urban Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 80.32)	Moderate Autonomy (M= 75.31)	5.01	1.57	.007
	Scant Autonomy	High Autonomy (M= 67.88)	12.43	1.73	.001
	Moderate Autonomy	High Autonomy	7.42	1.63	.001

Table 57 displays that mean difference scores of scant autonomy and moderate autonomy groups is 5.01, which is significant at .01. This points out

Teacher Burnout of urban unaided teachers with scant and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 12.43, which is significant at .01. This presents Teacher Burnout of urban unaided teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 7.42, which is significant at .01. This presents Teacher Burnout of urban unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scant autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample urban unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Urban

Table 55 reveals F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample urban is .4.065 which is significant at 0.01 level. It indicates that there exists significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 273) = 4.065, p < .01$, for subsample urban teacher at .01 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample urban teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for urban unaided school teachers.

In order to know the trend of interaction between Technostress and Teacher Autonomy on Teacher Burnout for urban teacher subsample, Profile Plot has been plotted and presented in Figure 17.

Figure 17

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Urban Teacher Subsample

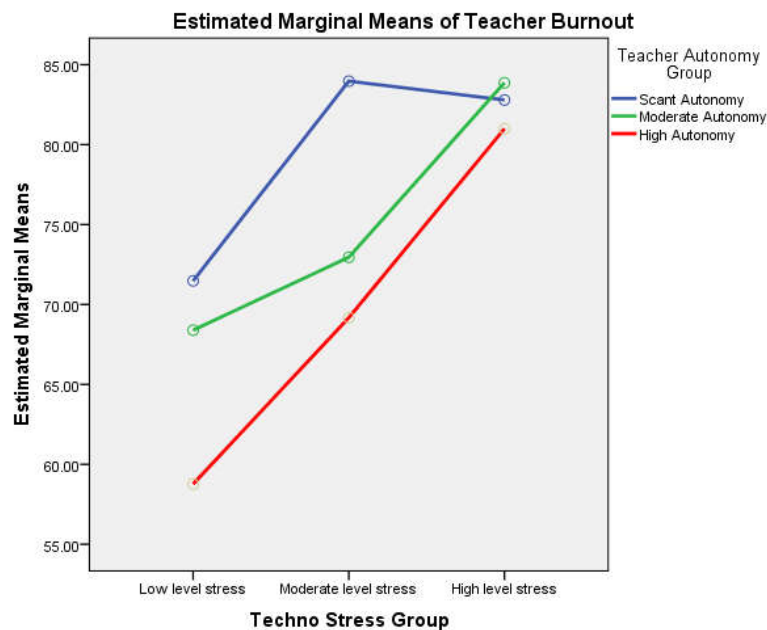


Figure 17 shows that the mean scores of low level stress and moderate level stress groups belonging to scant autonomy group is higher than moderate and high autonomy groups. The mean scores of high level stress group belonging to scant autonomy is higher than high autonomy group but lower than moderate group. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample urban teacher.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of CBSE Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample CBSE was calculated. The outcomes are displayed in table 58.

Table 58

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of CBSE Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	7937.051	2	3968.526	30.722	.001
Teacher Autonomy	4535.358	2	2267.679	17.555	.001
Technostress * Teacher Autonomy	1344.690	4	336.173	2.602	.036
Error	40819.217	316	129.175		

Main Effects

Influence of Technostress on Teacher Burnout for CBSE Subsample

Table 58 reveals F value for Technostress is 30.722 which is significant at .01 level with $df= 2/316$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of CBSE unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for teachers in CBSE School.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The outcomes are exhibited in Table 59

Table 59

Summary of Post Hoc Test for Teacher Burnout for the CBSE Subsample by Technostress Group

Variable	Technostress Group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 66.86)	Moderate Level Stress (M= 74.24)	7.38	1.50	.001
	Low Level Stress	High Level Stress (M= 80.17)	13.31	1.62	.001
	Moderate Level Stress	High Level Stress	5.93	1.55	.001

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From the table 59, it is clear that mean difference scores of low-level stress group and moderate level stress group is 7.38, which is significant at .01. This displays Teacher Burnout of CBSE School teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 13.31, which is significant at .01. This Teacher Burnout of CBSE school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 5.93, which is significant at .01. This reveals that there is a significant difference in the Teacher Burnout of CBSE school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for CBSE subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for CBSE Subsample

Table 58 discloses F value for Teacher Autonomy is 17.555 which is significant at .01 level with $df= 2/316$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of CBSE unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the CBSE subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The outcomes are exhibited in Table 60

Table 60

Summary of Post Hoc Test for Teacher Burnout the CBSE Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std.Error	P
Teacher Burnout	Scant Autonomy (M= 79.43)	Moderate Autonomy (M= 73.67)	5.75	1.54	.001
	Scant Autonomy	High Autonomy (M= 68.05)	11.38	1.64	.001
	Moderate Autonomy	High Autonomy	5.62	1.51	.001

Table 60 displays that mean difference scores of scant autonomy group and moderate autonomy group is 5.75, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of CBSE school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy and high autonomy groups is 11.38, which is significant at .01. This illustrates Teacher Burnout of female CBSE School teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 5.62, which is significant at .01. This states Teacher Burnout of CBSE unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample CBSE of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample CBSE

Table 58 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample

male is 2.602 which is significant at 0.05 level. It indicates that there exists significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 316) = 2.602, p < .01$, for subsample CBSE at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample CBSE. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for CBSE unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for CBSE subsample, Profile Plot has been plotted and presented in Figure 18

Figure 18

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for CBSE Subsample

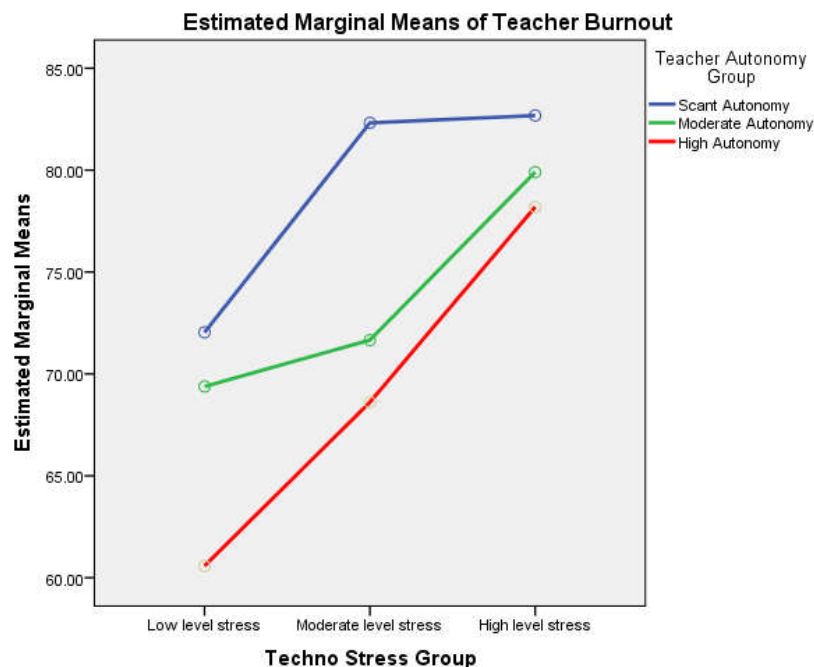


Figure 18 displays that the mean scores of low level stress, moderate level stress and high level stress groups belonging to scant autonomy category is higher

than moderate and high autonomy groups. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample CBSE.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of State Syllabus Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample State syllabus was calculated. The outcomes are presented in table 61.

Table 61

Summary of 3x3 factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of State Syllabus Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	4992.274	2	2496.137	20.837	.001
Teacher Autonomy	3358.840	2	1679.420	14.019	.001
Technostress * Teacher Autonomy	993.561	4	248.390	2.073	.086
Error	21083.938	176	119.795		

Main Effects

Influence of Technostress on Teacher Burnout for State Syllabus Subsample

Table 61 reveals F value for Technostress is 20.837 which is significant at .01 level with df= 2/176. Therefore, there exists significant difference in the mean scores of Teacher Burnout of State syllabus unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for teachers in State syllabus school.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 62

Table 62

Summary of Post Hoc test for Teacher Burnout for the State Syllabus Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 65.96)	Moderate Level Stress (M= 72.29)	6.33	2.05	.010
	Low Level Stress	High Level Stress (M= 80.06)	14.09	2.02	.001
	Moderate Level Stress	High Level Stress	7.76	1.88	.001

From the table 62, it is clear that mean difference scores of low-level stress group and moderate level stress group is 6.33, which is significant at .01. This displays Teacher Burnout of State syllabus school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 14.09, which is significant at .01. This indicates Teacher Burnout of State syllabus unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level and moderate level stress groups is 7.76, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of State syllabus unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for State syllabus subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for State Syllabus Subsample

Table 61 displays F value for Teacher Autonomy is 14.019 which is significant at .01 level with $df= 2/176$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of State syllabus unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the State syllabus subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 63.

Table 63

Summary of Post Hoc Test for Teacher Burnout the State Syllabus Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 77.35)	Moderate Autonomy (M= 75.92)	1.43	1.95	.763
	Scant Autonomy	High Autonomy (M= 66.28)	11.08	2.12	.001
	Moderate Autonomy	High Autonomy	9.64	1.93	.001

Table 63 represents mean difference scores of scant autonomy and moderate autonomy groups is 1.43, which is not significant at .05. This displays that there is no significant difference in the Teacher Burnout of State syllabus unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 11.08, which is significant at .01. This indicates Teacher Burnout of State syllabus unaided school teachers with scant and high level of autonomy differ

significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 9.64, which is significant at .01. This describes Teacher Burnout of State syllabus unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample State syllabus of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample State Syllabus

Table 61 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample male is 2.073 which is not significant at 0.05 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 176) = 2.073, p > .05$, for subsample State syllabus at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample State syllabus. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for State syllabus unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for State syllabus subsample , Profile Plot has been plotted and presented in Figure 19

Figure 19

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for State Syllabus Subsample

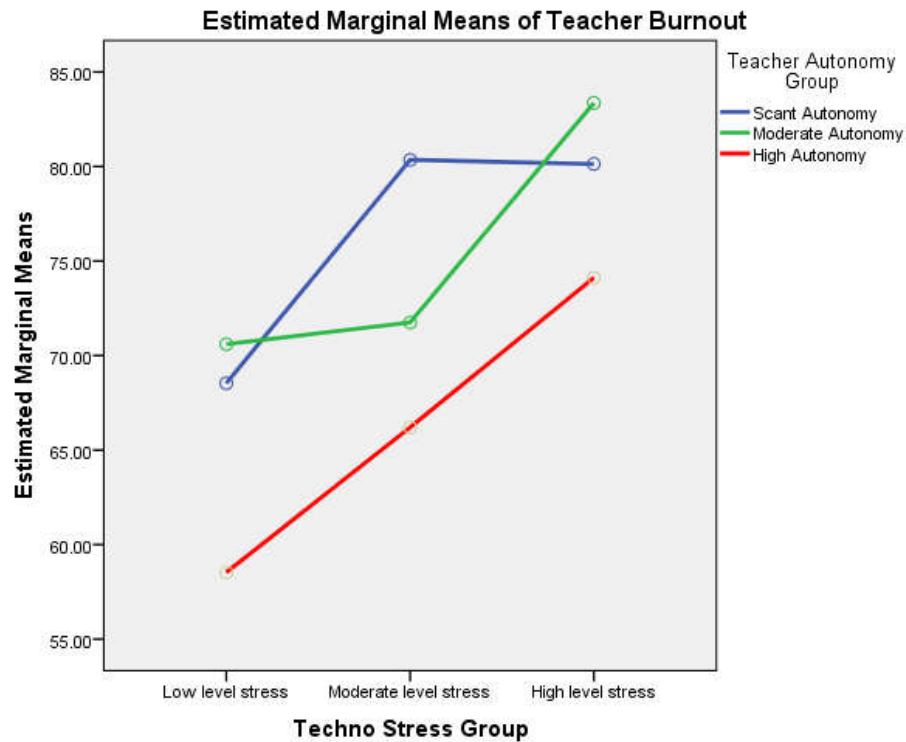


Figure 19 shows that the mean scores of low level stress and high level stress groups belonging to scant autonomy category is higher than high autonomy group but lower than moderate group. Moderate level stress group, the mean score of scant autonomy is higher than moderate and high autonomy groups. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample State syllabus.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers with Basic Qualification

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample basic qualification teacher was calculated first and their interaction effect on dependent

variable was also found out. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample basic qualification are presented in table 64

Table 64

Summary of 3x3 factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of basic Qualification Unaided School Teachers

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	5471.890	2	2735.945	22.288	.001
Teacher Autonomy	7891.089	2	3945.545	32.141	.001
Technostress * Teacher Autonomy	2049.669	4	512.417	4.174	.003
Error	35108.097	286	122.756		

Main Effects

Influence of Technostress on Teacher Burnout for basic Qualification Teacher Subsample

Table 64 presents F value for Technostress is 22.288 which is significant at .01 level with $df= 2/286$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of basic qualification unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. So, there is significant influence of Technostress on Teacher Burnout for basic qualification teacher subsample.

Scheffés test was used for post hoc comparison. The results are presented in Table 65

Table 65

Summary of Post Hoc test for Teacher Burnout for the basic Qualification Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	p
Teacher Burnout	Low Level Stress (M= 66.64)	Moderate Level Stress (M= 72)	5.37	1.63	.005
	Low Level Stress	High Level Stress (M= 79.31)	12.67	1.65	.001
	Moderate Level Stress	High Level Stress	7.29	1.50	.001

From the table 65 shows that mean difference scores of low-level stress group and moderate level stress group is 5.37, which is significant at .01. This displays Teacher Burnout of basic qualification unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 12.67, which is significant at .01. This points out Teacher Burnout of basic qualified unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress and moderate level stress groups is 7.29, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of basic qualification unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for basic qualification subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for basic Qualification Subsample

Table 64 indicates F value for Teacher Autonomy is 32.141 which is significant at .01 level with $df= 2/286$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of basic qualification unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the basic qualification teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 66

Table 66

Summary of Post Hoc Test for Teacher Burnout the basic Qualification Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	p
Teacher Burnout	Scant Autonomy (M= 80.04)	Moderate Autonomy (M= 74.81)	5.26	1.59	.005
	Scant Autonomy	High Autonomy (M= 65.04)	15.03	1.67	.001
	Moderate Autonomy	High Autonomy	9.77	1.52	.001

Table 66 displays that mean difference scores of scant autonomy and moderate autonomy group is 2.02, which is significant at .01. This indicates Teacher Burnout of basic qualified unaided school teachers with scant and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 10.41, which is significant at .01. This presents Teacher Burnout

of basic qualified unaided school teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 8.39, which is significant at .01 level of significance. This shows that there is significant difference in the Teacher Burnout of basic qualification unaided school teachers with high and moderate level of autonomy. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample basic qualification of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample basic Qualification

Table 64 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample basic qualification is 4.174 which is significant at 0.01 level. It indicates that there exists a significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 286) = 4.174, p < .01$, for subsample basic qualification teacher at .01 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample basic qualification teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for basic qualification unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for basic qualification teacher subsample, Profile Plot has been plotted and presented in Figure 20

Figure 20

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for basic Qualified Teacher Subsample

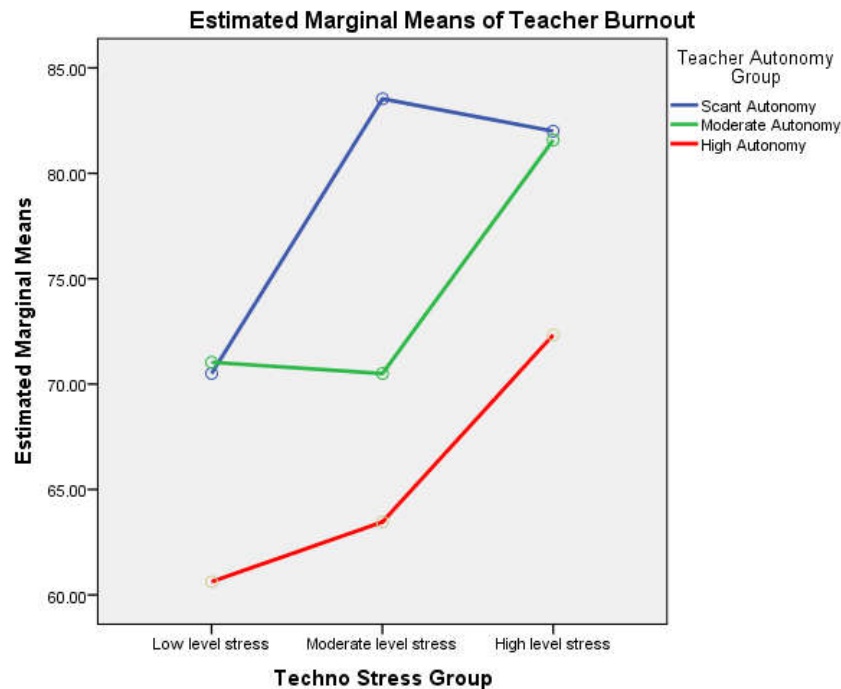


Figure 20 displays that the mean scores of low-level stress, moderate level stress and of high level stress groups belonging to scant autonomy category is higher than high autonomy group and lower than moderate group. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for the subsample basic qualification.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Highly Qualified Unaided Secondary School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample highly

qualified teacher was calculated first and their interaction effect on dependent variable was also found out. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample highly qualified are exhibited in table 67

Table 67

Summary of 3x3 factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Highly Qualified Unaided School Teachers

Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Technostress	7999.472	2	3999.736	34.364	.001
Teacher Autonomy	619.949	2	309.975	2.663	.072
Technostress * Teacher Autonomy	1671.193	4	417.798	3.590	.007
Error	23977.235	206	116.394		

Main Effects

Influence of Technostress on Teacher Burnout for Highly Qualified Teacher Subsample

Table 67 states F value for Technostress is 34.364 which is significant at .01 level with $df = 2/206$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of highly qualified unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. So, there is significant influence of Technostress on Teacher Burnout for highly qualified teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 68

Table 68

Summary of Post Hoc Test for Teacher Burnout for the Highly Qualified Teacher Subsample by Technostress Group

Variable	Technostress Group		Mean Difference	Std. Error	p
	Low Level Stress (M= 66.48)	Moderate Level Stress (M= 75.82)	9.33	1.73	.001
Teacher Burnout	Low Level Stress	High Level Stress (M= 81.53)	15.05	1.86	.001
	Moderate Level Stress	High Level Stress	5.71	1.85	.009

From the table 68, it is evident that mean difference scores of low-level stress group and moderate level stress group is 9.33, which is significant at .01. This displays Teacher Burnout of highly qualified unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 15.05, which is significant at .01. This Teacher Burnout of highly qualified unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress and moderate level stress group is 5.71, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of highly qualified unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for highly qualified subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Highly Qualified Subsample

Table 67 reveals F value for Teacher Autonomy is 2.663 which is not significant at .05 level with $df = 2/206$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of highly qualified unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the highly qualified teacher subsample.

Scheffé's test was used of post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The outcomes are presented in Table 69

Table 69

Summary of Post Hoc Test for Teacher Burnout the Highly Qualified Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 76.89)	Moderate Autonomy (M= 74.10)	2.78	1.76	.289
	Scant Autonomy	High Autonomy (M= 71.17)	5.72	1.94	.014
	Moderate Autonomy	High Autonomy	2.94	1.79	.263

Table 69 displays mean difference scores of scant autonomy and moderate autonomy group is 2.78, which is not significant at .01. This indicates Teacher Burnout of highly qualified unaided school teachers with scant and moderate level of autonomy do not differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 5.72, which is significant at .05 level of significance. This shows that there is significant difference in the Teacher Burnout of highly qualified

unaided school teachers with scant and high level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy and moderate autonomy groups is 2.94, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of highly qualified unaided school teachers with high and moderate level of autonomy. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample highly qualified of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Highly Qualified

Table 67 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample highly qualified is 3.590 which is significant at 0.01 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 206) = .417.798$ $p < .01$, for subsample highly qualified teacher at .01 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample highly qualified teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for highly qualified unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for highly qualified teacher subsample , Profile Plot has been plotted and presented in Figure 21

Figure 21

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Highly Qualified Teacher Subsample

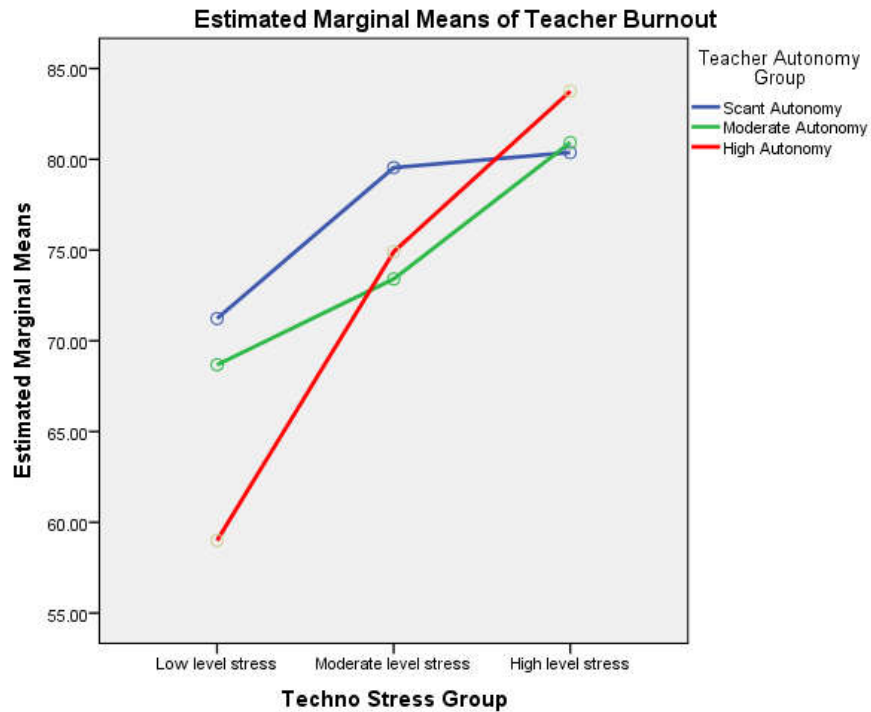


Figure 21 displays that the mean scores of low-level stress moderate level stress groups belonging to scant autonomy category is higher than moderate and high autonomy groups. The mean scores of high level stress group belonging to scant autonomy is lower than moderate and high autonomy. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for the subsample highly qualified teachers.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Language Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample language teacher was calculated. The results are exhibited in table 70

Table 70

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Language Unaided School Teachers

Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Technostress	2366.254	2	1183.127	10.578	.001
Teacher Autonomy	1526.841	2	763.420	6.825	.002
Technostress * Teacher Autonomy	307.330	4	76.833	.687	.602
Error	14652.199	131	111.849		

Main Effects

Influence of Technostress on Teacher Burnout for Language Teacher Subsample

Table 70 reveals F value for Technostress is 10.578 which is significant at .05 level with $df = 2/131$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of language unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for language teachers.

Scheffé's test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 71

Table 71

Summary of Post Hoc test for Teacher Burnout for the Language Teacher Subsample by Technostress Group

Variable	Technostress Group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 67.07)	Moderate Level Stress (M= 70.77)	3.69	2.19	.245
	Low Level Stress	High Level Stress (M= 78.28)	11.21	2.25	.001
	Moderate Level Stress	High Level Stress	7.51	2.14	.003

The table 71 shows that mean difference scores of low-level stress group and moderate level stress group is 3.69, which is not significant at .01 level of significance. This shows that there is no significant difference in the Teacher Burnout of language unaided school teachers with low and moderate level of technostress. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 11.21, which is significant at .01. This displays Teacher Burnout of language unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 7.51, which is significant at .01. This displays Teacher Burnout of language unaided school teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for language subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Language Subsample

Table 70 reveals F value for Teacher Autonomy is 6.825 which is significant at .01 level with $df= 2/131$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of language unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the language teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 72.

Table 72

Summary of Post Hoc Test for Teacher Burnout the Language Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 77.61)	Moderate Autonomy (M= 72.13)	5.48	2.24	.054
	Scant Autonomy	High Autonomy (M= 67.75)	9.86	2.27	.001
	Moderate Autonomy	High Autonomy	4.38	2.10	.119

Table 72 displays that mean difference scores of scant autonomy and moderate autonomy groups is 5.48, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of language unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 9.86, which is significant at .01. This indicates Teacher Burnout of language unaided school teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy and moderate autonomy groups is 4.38, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of language unaided school teachers with high and moderate level of autonomy. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample language unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Language

Table 70 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample

language is .687 which is not significant at 0.01 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 131) = .918, p > .01$, for subsample language teacher at .01 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample language teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for language unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for language teacher subsample, Profile Plot has been plotted and presented in Figure 22

Figure 22

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Language Teacher Subsample

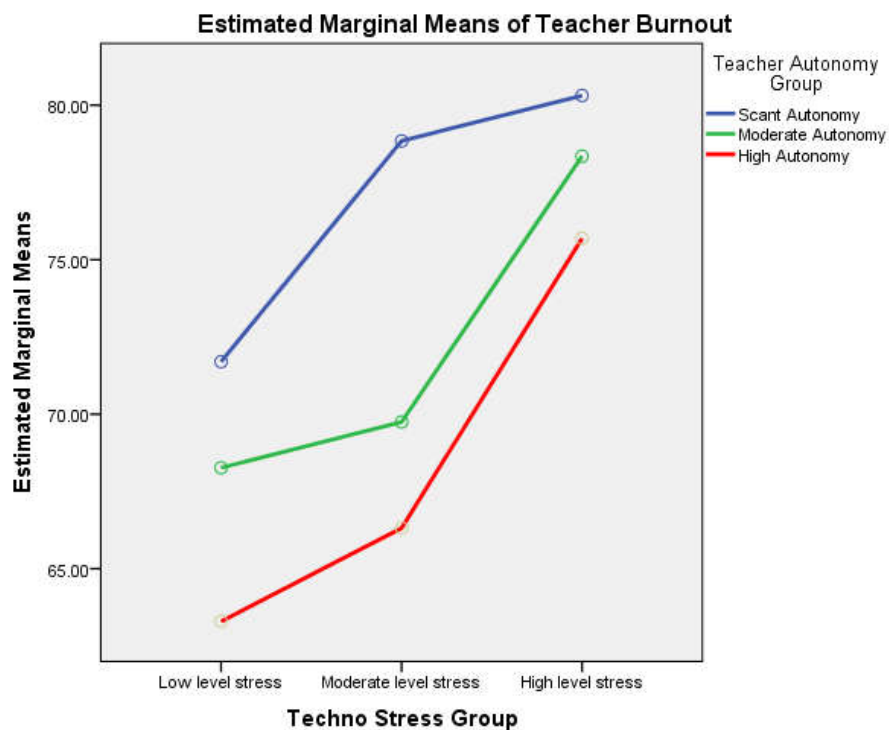


Figure 22 displays that the mean scores of low level stress, moderate level stress and high level stress groups belonging to scant autonomy category is higher than moderate and high autonomy groups. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample language teacher.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Social Science Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample social science teacher was calculated first and their interaction effect on dependent variable was also found out. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample social science are exhibited in table 73

Table 73

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Social Science Unaided School Teachers

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	2853.315	2	1426.657	11.704	.001
Teacher Autonomy	1106.121	2	553.060	4.537	.013
Technostress * Teacher Autonomy	2314.961	4	578.740	4.748	.001
Error	14506.030	119	121.899		

Main Effects

Influence of Technostress on Teacher Burnout for Social Science Teacher Subsample

Table 73 points out F value for Technostress is 11.704 which is significant at .05 level with $df = 2/119$. Therefore, there exists significant difference in the mean

scores of Teacher Burnout of social science unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. So, there is significant influence of Technostress on Teacher Burnout for social science teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 74.

Table 74

Summary of Post Hoc Test for Teacher Burnout for the Social Science Teacher Subsample by Technostress Group

Variable	Technostress Group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 67.09)	Moderate Level Stress (M= 74.91)	7.82	2.49	.009
	Low Level Stress	High Level Stress (M= 81.28)	14.18	2.51	.001
	Moderate Level Stress	High Level Stress	6.36	2.26	.022

The table 74 shows that mean difference scores of low-level stress group and moderate level stress group is 7.82, which is significant at .01. This indicates Teacher Burnout of social science unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 14.18, which is significant at .01. This indicates Teacher Burnout of social science unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress and moderate level stress groups is 6.36, which is significant at .01. This shows Teacher Burnout of social science unaided school teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for social science subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Social Science Subsample

Table 73 displays F value for Teacher Autonomy is 4.537 which is significant at .05 level with $df = 2/119$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of social science unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the social science teacher subsample.

Scheffé's test was used for post hoc comparison to identify mean score of which Teacher burnout group is significantly higher. The results are presented in Table 75

Table 75

Summary of Post Hoc Test for Teacher Burnout the Social Science Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 79.51)	Moderate Autonomy (M= 76.22)	3.29	2.36	.384
	Scant Autonomy	High Autonomy (M= 69.68)	9.83	2.54	.001
	Moderate Autonomy	High Autonomy	6.54	2.34	.023

Table 75 displays that mean difference scores of scant autonomy and moderate autonomy groups is 2.29, which is not significant at .01. This indicates

Teacher Burnout of social science unaided school teachers with scant and moderate level of autonomy do not differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 9.83, which is significant at .01. This displays Teacher Burnout of social science unaided school teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 6.54, which is significant at .01. This displays Teacher Burnout of social science unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample unaided school social science teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Social Science

Table 73 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample social science is 4.748 which is significant at 0.01 level. It indicates that there exists a significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 119) = 4.748$ $p > .01$, for subsample social science teacher at .01 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample social science teacher. Therefore, the Teacher

Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for social science unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for social science teacher subsample, Profile Plot has been plotted and presented in Figure 23

Figure 23

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Social Science Teacher Subsample

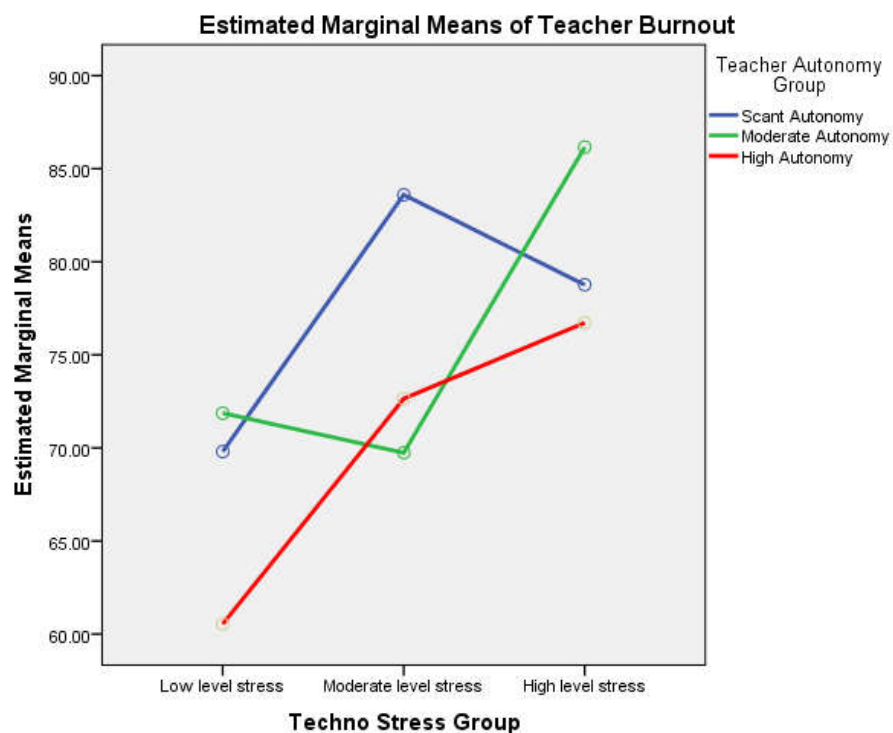


Figure 23 shows that the mean scores of low level stress and high level stress groups belonging to scant autonomy category is higher than high autonomy group and lower than moderate group. Moderate level stress group, the mean score of scant autonomy is higher than moderate and high autonomy groups.. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample social science.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Science Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample science teacher was calculated. The results are presented in table 76.

Table 76

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Science Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	3745.978	2	1872.989	16.031	.001
Teacher Autonomy	2092.947	2	1046.474	8.957	.001
Technostress * Teacher Autonomy	1405.282	4	351.321	3.007	.021
Error	13669.912	117	116.837		

Main Effects

Influence of Technostress on Teacher Burnout for Science Teacher Subsample

Table 76 displays F value for Technostress is 16.031 which is significant at .05 level with $df = 2/165$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of science unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for science teachers.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 77.

Table 77

Summary of Post Hoc Test for Teacher Burnout for the Science Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 66.89)	Moderate Level Stress (M= 74.95)	8.07	2.27	.002
	Low Level Stress	High Level Stress (M= 82)	15.11	2.44	.001
	Moderate Level Stress	High Level Stress	7.04	2.42	.017

From the table 77, it is evident that mean difference scores of low-level stress group and moderate level stress group is 8.07, which is significant at .01. This indicates Teacher Burnout of science unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 15.11, which is significant at .01. This displays Teacher Burnout of science unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 7.04, which is significant at .01. This displays Teacher Burnout of science unaided school teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for science subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Science Subsample

Table 76 exposes F value for Teacher Autonomy is 8.957 which is significant at .01 level with $df = 2/117$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of science unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. Thus, there is significant influence of Teacher Autonomy on Teacher Burnout for the science teachers.

Scheffés test was used for post hoc comparison to identify mean scores of which Teacher Burnout group is significantly higher. The results are presented in Table 78.

Table 78

Summary of Post Hoc Test for Teacher Burnout the Science Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 78.22)	Moderate Autonomy (M= 76.34)	1.87	2.298	.719
	Scant Autonomy	High Autonomy (M= 65.73)	12.48	2.56	.001
	Moderate Autonomy	High Autonomy	10.61	2.35	.001

Table 78 describes mean difference scores of scant autonomy and moderate autonomy groups is 1.87, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of science unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 12.48, which is significant at .01. This displays Teacher Burnout of unaided school science teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean

difference scores of high autonomy group and moderate autonomy group is 10.61, which is significant at .01. This displays Teacher Burnout of science unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample science of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Science

Table 76 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample science is 3.007 which is significant at 0.05 level. It indicates that there exists a significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 117) = 3.007, p > .01$, for subsample science teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample science teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for science unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for science teacher subsample , Profile Plot has been plotted and presented in Figure 24

Figure 24

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Science Teacher Subsample

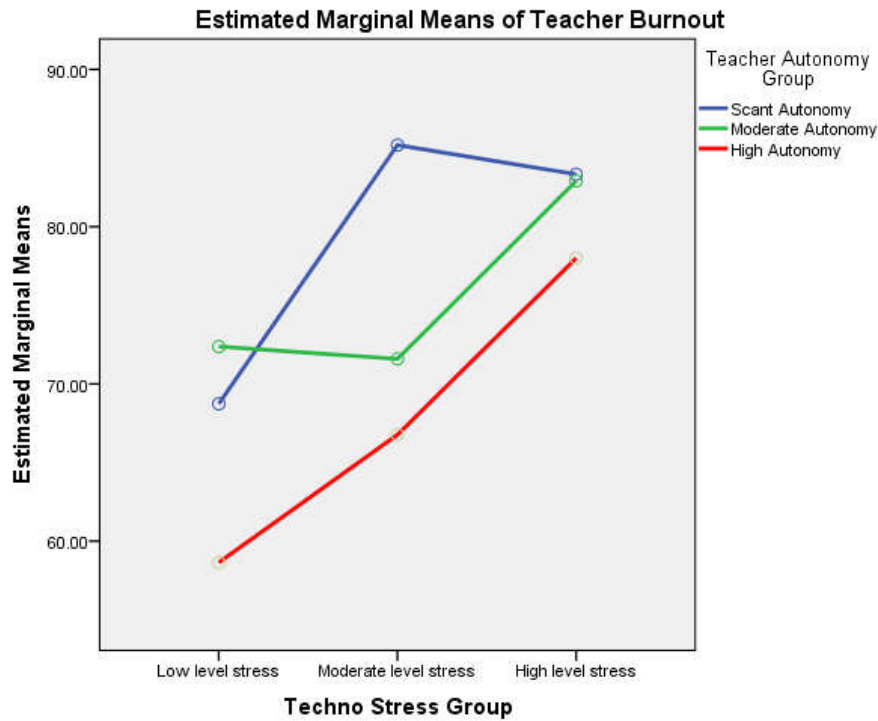


Figure 24 shows that the mean scores of low level stress group belonging to scant autonomy category is higher than high autonomy group and lower than moderate group. Moderate level stress and high level stress groups, the mean score of scant autonomy is higher than moderate and high autonomy groups.. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample science teacher.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Mathematics Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample mathematics teacher was calculated. The results are presented in table 79.

Table 79

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Mathematics Unaided School Teachers

Source of variance	Sum of Squares	Df	Mean Square	F	Sig.
Technostress	3753.776	2	1876.888	12.607	.001
Teacher Autonomy	3248.890	2	1624.445	10.912	.001
Technostress * Teacher Autonomy	611.282	4	152.820	1.027	.397
Error	15929.195	107	148.871		

Main Effects***Influence of Technostress on Teacher Burnout for Mathematics Teacher Subsample***

Table 79 displays F value for Technostress is 12.607 which is significant at .01 level with $df= 2/107$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of mathematics unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for mathematics teachers.

Scheffés test was used for post hoc comparison to identify mean scores of which Teacher Burnout group is significantly higher. The results are presented in Table 80

Table 80

Summary of Post Hoc Test for Teacher Burnout for the Mathematics Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 65)	Moderate Level Stress (M= 73.98)	8.98	2.75	.006
	Low Level Stress	High Level Stress (M= 79.14)	14.14	2.92	.001
	Moderate Level Stress	High Level Stress	5.16	2.71	.169

From the table 80 it is clear that mean difference scores of low-level stress group and moderate level stress group is 8.98, which is significant at .01. This displays Teacher Burnout of mathematics teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 14.14, which is significant at .01. This indicates Teacher Burnout of mathematics teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 5.16, which is not significant at .05 level of significance. This shows that there is a significant difference in the Teacher Burnout of mathematics unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for mathematics subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Mathematics Subsample

Table 79 shows F value for Teacher Autonomy is 10.912 which is significant at .01 level with $df= 2/107$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of mathematics unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the mathematics teacher subsample.

Scheffés test was used for post hoc comparison to identify mean scores of which Teacher Burnout group is significantly higher. The results are presented in Table 81

Table 81

Summary of Post Hoc Test for Teacher Burnout the Mathematics Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 79.51)	Moderate Autonomy (M= 73.14)	6.37	2.74	.071
	Scant Autonomy	High Autonomy (M= 66.09)	13.42	3.00	.001
	Moderate Autonomy	High Autonomy	7.05	2.73	.040

Table 81 displays that mean difference scores of scant autonomy and moderate autonomy groups is 6.37, which is not significant at .05. This indicates Teacher Burnout of mathematics unaided school teachers with scant and moderate level of autonomy do not differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 13.42, which is significant at .01 level of significance. This shows that there is significant difference in the Teacher Burnout of mathematics unaided school teachers with scant and high level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 7.05, which is significant at .01. This displays Teacher Burnout of mathematics teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample mathematics of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Mathematics

Table 79 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample

mathematics is 1.027 which is not significant at 0.05 level. It indicates that there is exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 107) = 1.027$ $p < .05$, for subsample mathematics teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample less experienced teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for mathematics unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for mathematics teacher subsample, Profile Plot has been plotted and presented in Figure 25.

Figure 25

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Mathematics Teacher Subsample

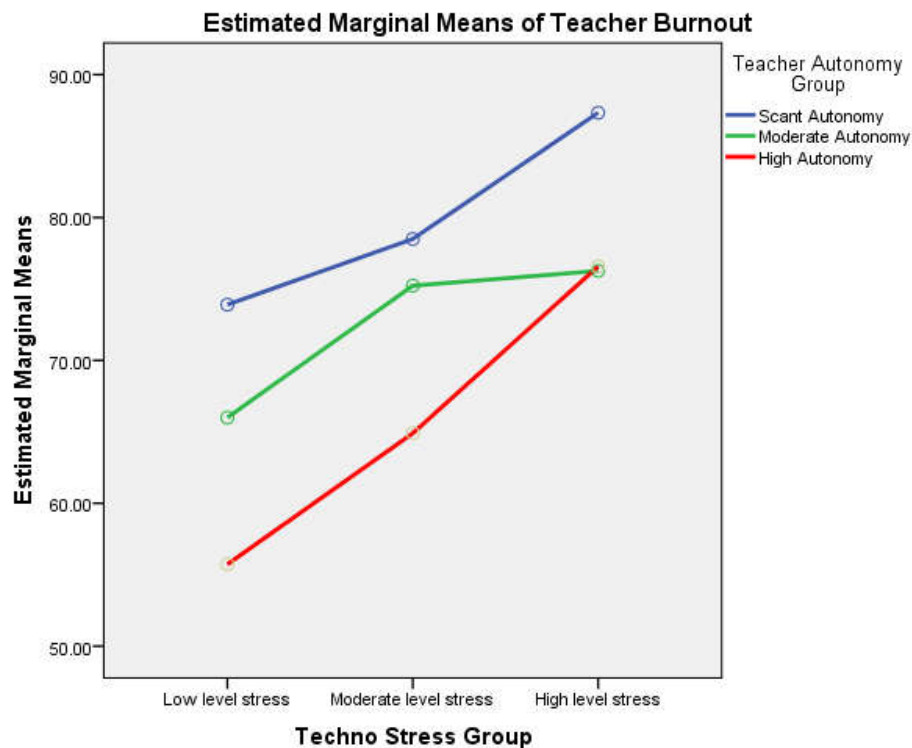


Figure 25 displays that the mean scores of low level stress, moderate level stress and high level stress groups belonging to scant autonomy category is higher than moderate and high autonomy groups. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample mathematics teacher

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Novice Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample novice teacher was calculated. The results are presented in table 82

Table 82

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Novice Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	1027.177	2	513.588	4.280	.017
Teacher Autonomy	1908.935	2	954.468	7.953	.001
Technostress * Teacher Autonomy	1157.985	4	289.496	2.412	.055
Error	11160.740	93	120.008		

Main Effects

Influence of technostress on Teacher Burnout for Novice Teacher Subsample

Table 82, presents that F value for Technostress is 4.280 which is significant at .05 level with $df = 2/93$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of novice unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. Thus, there is significant influence of Technostress on Teacher Burnout for novice teachers.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 83

Table 83

Summary of Post Hoc test for Teacher Burnout for the Novice Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 69.76)	Moderate Level Stress (M= 78.13)	8.37	2.61	.008
	Low Level Stress	High Level Stress (M= 82.86)	13.09	2.90	.001
	Moderate Level Stress	High Level Stress	4.72	2.64	.206

From the table 83 shows that mean difference scores of low-level stress group and moderate level stress group is 8.37, which is significant at .01. This displays Teacher Burnout of novice teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 13.09, which is significant at .01. This indicates Teacher Burnout of novice teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 4.72, which is not significant at .01 level of significance. This shows that there is no significant difference in the Teacher Burnout of novice unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for novice subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Novice Subsample

Table 69 reveals F value for Teacher Autonomy is 7.953 which is significant at .01 level with $df= 2/93$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of novice unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the novice teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 84

Table 84

Summary of Post Hoc Test for Teacher Burnout the Novice Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 83.14)	Moderate Autonomy (M= 76.60)	6.54	2.45	.033
	Scant Autonomy	High Autonomy (M= 66.18)	16.96	2.88	.001
	Moderate Autonomy	High Autonomy	10.42	2.93	.003

Table 84 displays that mean difference scores of scant autonomy and moderate autonomy groups is 6.54, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of novice unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 16.96, which is significant at .01. This displays Teacher Burnout of novice unaided school teachers with scant and high level of autonomy differ

significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 10.42, which is significant at .01. This displays Teacher Burnout of novice unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample novice of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Novice Teachers

Table 82 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample novice is 2.412 which is not significant at 0.05 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 93) = 2.412, p > .05$, for subsample novice teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample novice teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for novice unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for novice teacher subsample, Profile Plot has been plotted and presented in Figure 26.

Figure 26

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Novice Teacher Subsample

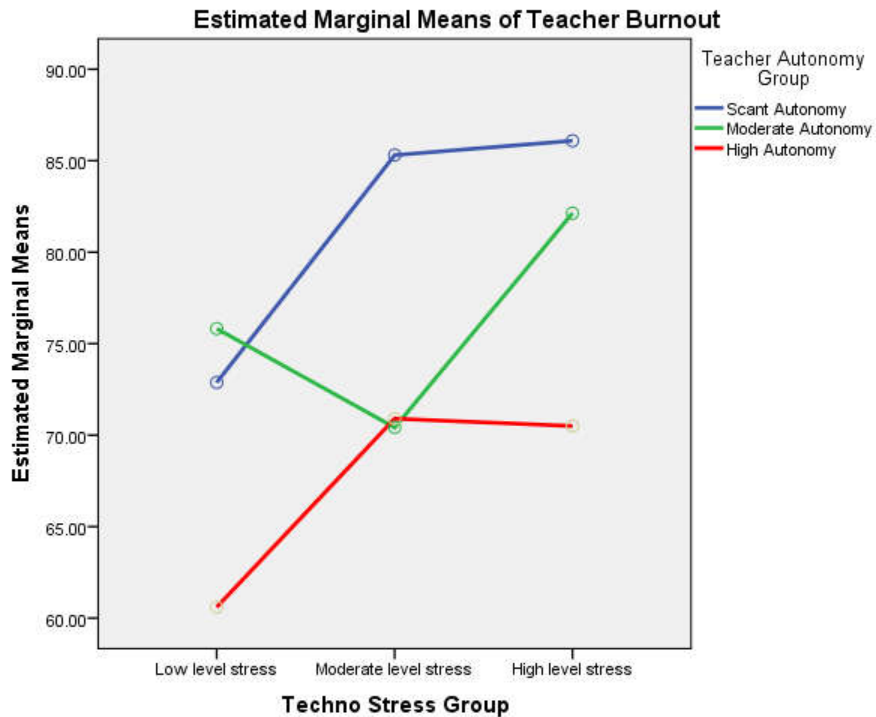


Figure 26 shows that the mean scores of low level stress group belonging to scant autonomy category is higher than high autonomy group but lower than moderate group. The mean scores of moderate level stress and high level stress groups belonging to scant autonomy is higher than moderate and high autonomy. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample novice teacher.

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Less Experienced Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample less experienced teacher was calculated first and their interaction effect on dependent

variable was also found out. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample less experienced are presented in table 85

Table 85

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Less Experienced Unaided School Teachers

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	4543.219	2	2271.610	19.734	.000
Teacher Autonomy	2949.387	2	1474.694	12.811	.001
Technostress * Teacher Autonomy	422.856	4	105.714	.918	.455
Error	18993.077	165	115.110		

Main Effects

Influence of Technostress on Teacher Burnout for Less Experienced Teacher Subsample

Table 85 discloses F value for Technostress is 19.734 which is significant at .05 level with df= 2/165. Therefore, there exists significant difference in the mean scores of Teacher Burnout of less experienced unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. So, there is significant influence of Technostress on Teacher Burnout for less experienced teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 86

Table 86

Summary of Post Hoc Test for Teacher Burnout for the Less Experienced Teacher Subsample by Technostress Group

Variable	Technostress Group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 66.94)	Moderate Level Stress (M= 73.54)	6.59	1.96	.004
	Low Level Stress	High Level Stress (M= 80.72)	13.78	2.05	.001
	Moderate Level Stress	High Level Stress	7.18	1.97	.002

From the table 86, it is clear that mean difference scores of low-level stress group and moderate level stress group is 6.59, which is significant at .01. This indicates Teacher Burnout of less experienced unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 13.78, which is significant at .01. This displays Teacher Burnout of less experienced unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress and moderate level stress group is 7.18, which is significant at .01. This shows that there is a significant difference in the Teacher Burnout of less experienced unaided school teachers with high and moderate level of technostress. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for less experienced subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Less Experienced Subsample

Table 85 reveals F value for Teacher Autonomy is 12.811 which is significant at .01 level with $df= 2/165$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of less experienced unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the less experienced teacher subsample.

Scheffés test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 87

Table 87

Summary of Post Hoc test for Teacher Burnout the Less Experienced Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 78.27)	Moderate Autonomy (M= 76.25)	2.02	2.08	.625
	Scant Autonomy	High Autonomy (M= 67.86)	10.41	2.09	.001
	Moderate Autonomy	High Autonomy	8.39	1.89	.001

Table 87 expresses that mean difference scores of scant autonomy and moderate autonomy group is 2.02, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of less experienced unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 10.41, which is significant at .01. This indicates Teacher Burnout of less experienced unaided school teachers with scant and high level of

autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 8.39, which is significant at .01. This displays Teacher Burnout of less experienced unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample less experienced unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of unaided school teachers for the subsample less experienced

Table 85 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample less experienced is .918 which is not significant at 0.05 level. It indicates that there exists no significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 165) = .918, p > .05$, for subsample less experienced teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample less experienced teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for less experienced unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for less experienced teacher subsample, Profile Plot has been plotted and presented in Figure 27

Figure 27

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Less Experienced Teacher Subsample

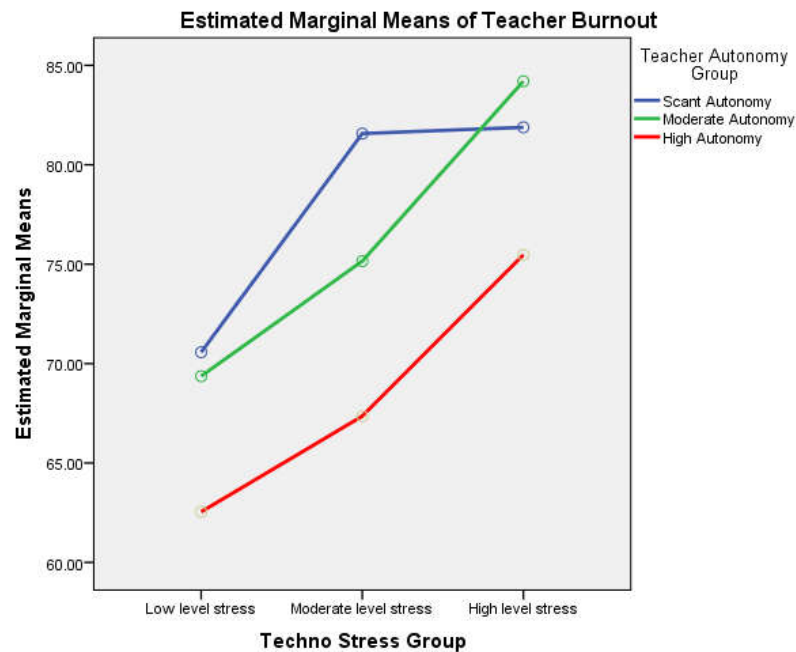


Figure 27 shows that the mean scores of low level stress and moderate level stress groups belonging to scant autonomy category is higher than moderate and high autonomy groups. The mean scores of high level stress group belonging to scant autonomy is higher than high autonomy but lower than moderate group. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample less experienced teacher

Influence of Technostress and Teacher Autonomy on Teacher Burnout of Experienced Unaided School Teachers

Influence of the independent variables, viz., Technostress and Teacher Autonomy on the dependent variable, Teacher Burnout for the subsample experienced teacher was calculated first and their interaction effect on dependent variable was also found out. The results of 3x3 factorial design ANOVA of the main effect and interaction effects of Technostress and Teacher Autonomy on Teacher Burnout for subs sample experienced are presented in table 88

Table 88

Summary of 3x3 Factorial Design ANOVA of Teacher Burnout by Technostress and Teacher Autonomy of Experienced Unaided School Teachers

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Technostress	6610.249	2	3305.124	25.137	.001
Teacher Autonomy	2277.856	2	1138.928	8.662	.001
Technostress * Teacher Autonomy	1397.520	4	349.380	2.657	.034
Error	29583.762	225	131.483		

Main Effects***Influence of Technostress on Teacher Burnout for Experienced Teacher Subsample***

Table 88, presents F value for Technostress is 25.137 which is significant at .05 level with $df = 2/225$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of experienced unaided school teachers for the technostress groups i.e., low level stress, moderate level stress and high-level stress group differ significantly. So, there is significant influence of Technostress on Teacher Burnout for experienced teacher subsample.

Scheffé's test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 89.

Table 89

Summary of Post Hoc Test for Teacher Burnout for the Experienced Teacher Subsample by Technostress Group

Variable	Technostress group		Mean Difference	Std. Error	P
Teacher Burnout	Low Level Stress (M= 64.94)	Moderate Level Stress (M= 71.11)	6.17	1.86	.005
	Low Level Stress	High Level Stress (M= 78.79)	13.85	1.86	.001
	Moderate Level Stress	High Level Stress	7.68	1.79	.001

Table 89 shows that mean difference scores of low-level stress group and moderate level stress group is 6.17, which is significant at .01. This displays Teacher Burnout of experienced unaided school teachers with low and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for moderate level stress group. Mean difference scores of low-level stress group and high level stress group is 13.85, which is significant at .01. This displays Teacher Burnout of experienced unaided school teachers with low and high level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group. Mean difference scores of high level stress group and moderate level stress group is 7.68, which is significant at .01. This Teacher Burnout of experienced unaided school teachers with high and moderate level of technostress differ significantly. Mean Teacher Burnout score is high for high level stress group.

Therefore, it is evident that low level stress, moderate level stress and high level stress group differ significantly in teacher burnout for experienced subsample of unaided school teachers. Mean Teacher Burnout score of high level stress group is significantly higher than that of moderate and low stress level groups.

Influence of Teacher Autonomy on Teacher Burnout for Experienced Subsample

Table 78 points out F value for Teacher Autonomy is 8.622 which is significant at .01 level with $df= 2/225$. Therefore, there exists significant difference in the mean scores of Teacher Burnout of experienced unaided school teachers for the Teacher Autonomy groups i.e., scant autonomy, moderate autonomy and high autonomy group differ significantly. So, there is significant influence of Teacher Autonomy on Teacher Burnout for the experienced teacher subsample.

Scheffé's test was used for post hoc comparison to identify mean score of which Teacher Burnout group is significantly higher. The results are presented in Table 90

Table 90

Summary of Post Hoc Test for Teacher Burnout the Experienced Teacher Subsample by Teacher Autonomy Group

Variable	Teacher Autonomy Group		Mean Difference	Std. Error	P
Teacher Burnout	Scant Autonomy (M= 75.81)	Moderate Autonomy (M= 72.71)	3.10	1.86	.251
	Scant Autonomy	High Autonomy (M= 67.43)	8.39	2.04	.000
	Moderate Autonomy	High Autonomy	5.28	1.77	.013

Table 90 displays mean difference scores of scant autonomy and moderate autonomy group is 1.86, which is not significant at .01. This shows that there is no significant difference in the Teacher Burnout of experienced unaided school teachers with scant and moderate level of autonomy. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of scant autonomy group and high autonomy group is 8.39, which is significant at .01. This indicates Teacher Burnout of experienced unaided school teachers with scant and high level of autonomy differ significantly. Mean Teacher Burnout score is high for scant autonomy group. Mean difference scores of high autonomy group and moderate autonomy group is 5.28, which is significant at .01. This displays Teacher Burnout of experienced unaided school teachers with high and moderate level of autonomy differ significantly. Mean Teacher Burnout score is high for moderate autonomy group.

Therefore, it is evident that scanty autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for subsample experienced e of unaided school teachers. Mean Teacher Burnout score of scant autonomy group is significantly higher than that of moderate and high autonomy groups.

Interaction Effects

Interaction Effect of Technostress and Teacher Autonomy on Teacher Burnout of Unaided School Teachers for the Subsample Experienced

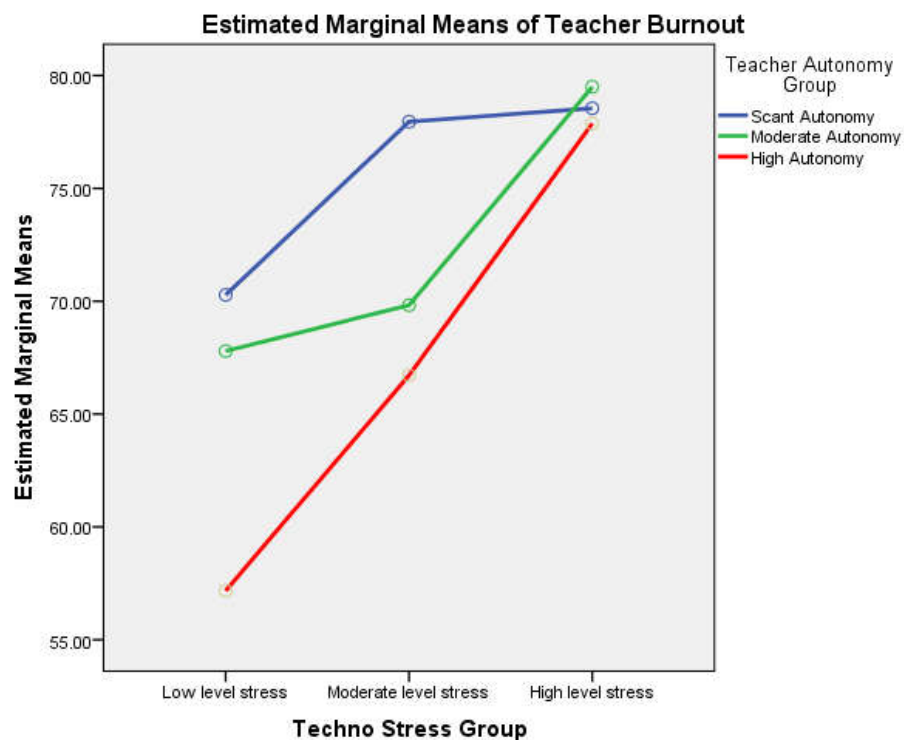
Table 88 reveals that the F value obtained for influence of interaction between Technostress and Teacher Autonomy on Teacher Burnout for subsample experienced

is 2.657 which is significant at 0.05 level. It indicates that there exists a significant interaction between Technostress and Teacher Autonomy on Teacher Burnout, $F(4, 225) = 2.657, p < .01$, for subsample experienced teacher at .05 level. This means that the mean scores of Teacher Burnout for low level stress, moderate level stress and high level stress groups not vary significantly with scant autonomy, moderate autonomy and high autonomy group of the subsample experienced teacher. Therefore, the Teacher Burnout is found to be dependent of interaction between Technostress and Teacher Autonomy for experienced unaided school teachers.

In order to know the trend of interaction between A Technostress and Teacher Autonomy on Teacher Burnout for experienced teacher subsample, Profile Plot has been plotted and presented in Figure 28.

Figure 28

Profile Plot of Interaction between Technostress and Teacher Autonomy on Teacher Burnout for Experienced Teacher Subsample



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Figure 28 displays that the mean scores of low level stress and moderate level stress groups belonging to scant autonomy category is higher than moderate and high autonomy groups. The mean scores of high level stress group belonging to scant autonomy is higher than high autonomy group but lower than moderate group. This indicates dependency of Teacher Burnout on the interaction between Technostress and Teacher Autonomy for subsample experienced teacher.

Multiple Regression Analysis

Multiple correlation and regression analysis has been used to know the individual and joint contributions of Technostress, Teacher Autonomy and its components in predicting Teacher Burnout of unaided secondary school teachers.

Influence of Technostress and its components and Teacher Burnout was found by conducting Pearson's product moment correlation. Correlation coefficient for Technostress and its components and Teacher Burnout were calculated and details are presented in table 91.

Table 91

Pearson's Product Moment Coefficient of Correlation for Technostress and its Components and Teacher Burnout

Variables	Emotional Exhaustion	Depersonalization	Reduced Personal Accomplishment	Teacher Burnout
Techno Insecurity	.306**	.169**	.202**	.268**
Techno Complexity	.309**	.314**	.297**	.358**
Techno Invasion	.388**	.215**	.317**	.361**
Techno Awareness	.230**	.184**	.226**	.249**
Techno Facility	.252**	.284**	.272**	.313**
Technostress	.387**	.296**	.341**	.401**

**Significant at 0.01 level

From the table 91, it is clear that Pearson’s product moment coefficient of correlation between Technostress and Teacher Burnout is 0.401 ($P < 0.01$). It means that there is a significant positive correlation between Technostress and Teacher Burnout. There is significant increase in Technostress score for increase in Teacher Burnout. Magnitude of correlation coefficient showed that there exists moderate relationship between Technostress and Teacher Burnout. Table also shows that all the dimensions of the Technostress such as Techno Insecurity ($r = .268, p < .01$), Techno Complexity ($r = .358, p < .01$), Techno Invasion ($r = .361, p < .01$), Techno Awareness ($r = .249, p < .01$) and Techno Facility ($r = .313, p < .01$) are positively significantly correlated with Teacher Burnout score.

Influence of Teacher Autonomy and its components and Teacher Burnout was found by conducting Pearson’s product moment correlation. Correlation coefficient for Teacher Autonomy and its components and Teacher Burnout were calculated and details are presented in table 92

Table 92

Pearson’s Product Moment Coefficient of Correlation for Teacher Autonomy and its Components and Teacher Burnout

Variables	Emotional Exhaustion	Depersonalization	Reduced Personal Accomplishment	Teacher Burnout
Establishing School Identity	-.266**	-.099*	-.216**	-.229**
Teaching and assessment	-.367**	-.309**	-.319**	-.389**
Parental Involvement	-.094*	-.089*	-.173**	-.136**
Professional Development	-.335**	-.120**	-.278**	-.289**
Extra Curricular Subjects	-.227**	-.157**	-.249**	-.246**
Curriculum development	-.136**	.032	-.121**	-.090*
Teacher Autonomy	-.361**	-.193**	-.332**	-.347**

**Significant at 0.01 level, *Significant at 0.05 level

From the table 92, it is clear that Pearson's product moment coefficient of correlation between Teacher Autonomy and Teacher Burnout is -0.347 ($P < 0.01$). It means that there is a significant negative correlation between Teacher Autonomy and Teacher Burnout. There is significant decrease in Teacher Burnout score for increase in Teacher Autonomy score. Magnitude of correlation coefficient showed that there exists moderate relationship between Teacher Autonomy and Teacher Burnout. Table also shows that all the dimensions of the Teacher Autonomy such as establishing school identity ($r = -.229$, $p < .01$), Teaching and assessment ($r = -.389$, $p < .01$), parental involvement ($r = -.136$, $p < .01$), professional development ($r = -.289$, $p < .01$), extra curricular subjects ($r = -.246$, $p < .01$) and Curriculum development ($r = -.090$, $p < .05$) are negatively significantly correlated with Teacher Burnout score.

Regression Analysis

Multiple regression analysis was done for Teacher Burnout with the predictor variables Teacher Autonomy and Technostress. The model summary of multiple regression analysis is exhibited in table 93

Table 93

R, R² and Adjusted R² for Model

R	R Square	Adjusted R Square
.509	.260	.257

Pearson correlation coefficient between the scores predicted by the regression model (i.e., the predicted scores) and the actual values of the dependent variable (i.e., Teacher Burnout) is 0.509 indicate a moderate strong level of association. R^2 for the overall model was 0.260 with an adjusted R^2 0.257 . which indicates that 26 percent of the variation in the Teacher Burnout can be explained by the regression model developed with predictor variables Teacher Autonomy and Technostress.

The statistical significance of the overall model (i.e., the model containing all independent variables) is presented in the table 94

Table 94

Statistical Significance of the Overall Model

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	22792.694	2	11396.347	88.87	.001
Residual	65018.671	507	128.242		
Total	87811.365	509			

From the table 94, it is clear that the predicted variables Technostress and Teacher Autonomy statistically significantly predicted Teacher Burnout, $F(2, 507) = 88.87, p < 0.01$.

Data and details of regression coefficients and individual contribution are presented in table 95

Table 95

Details of Regression Coefficients and Individual Contribution

Predictor	Unstandardized Coefficients (b)	Standardized Coefficients (β)	t	Sig.	Percentage of Individual Contribution
(Constant)	78.75		12.525	.001	
Technostress	.269	.374	9.762	.001	14.99
Teacher Autonomy	-.281	-.316	-8.233	.001	10.96

Table 95 gives t-values in each predictor variable, which shows that the b-values obtained differ significantly from zero. Hence the variables Technostress and Teacher Autonomy are significant predictors of Teacher Burnout.

The regression model using obtained b value can be expressed as

$$Y^1 = 78.75 + .269 X_1 + -.281 X_2$$

Where Y^1 is the predicted value of Teacher Burnout, X_1 score on Technostress and X_2 score on Teacher Autonomy.

The standardized Beta values for the predictors were used to derive the equation for predicting the standardized value of Teacher Burnout.

The equation of the model is $Z^1 = .374 Z_1 + -.316 Z_2$

Where Z_1 is the predicted standard score of Teacher Burnout, Z_1 and Z_2 being the standard scores of Technostress and Teacher Autonomy respectively.

From table it is clear that b value obtained for the Technostress is .269, it means that the increase in the score of Teacher Burnout is 0.269 for increase in each unit of Technostress score. A β value of 0.374 indicates that as Technostress score increases by one standard deviation, Teacher Burnout increases by 0.374 standard deviation, provided the effects of other predictor is kept constant. The individual contribution of Technostress to the model is 14.99 % ($0.374 \times 0.401 \times 100$).

b value obtained for the Teacher Autonomy is -0.281, it means that the decrease in the score of Teacher Burnout is 0.281 for increase in each unit of Teacher Autonomy score. A β value of -0.316 indicates that as Teacher Autonomy increases by one standard deviation, Teacher Burnout decreases by 0.316 standard deviation, provided the effects of other predictor is kept constant. The individual contribution of Teacher Autonomy to the model is 10.96 % ($-0.316 \times -0.347 \times 100$).

Multiple regression analysis was done for Teacher Burnout with the predictors components of Technostress and Teacher Autonomy. The details of regression analysis are given as table

The model summary of multiple regression analysis are presented in table 96

Table 96

R, R² and Adjusted R² for Model 1

Model	R	R Square	Adjusted R Square
1	.560	.314	.299

Table 97

Details of Regression Coefficients for Model 1

Model	Predictor	Unstandardized Coefficients (b)	Standardized Coefficients (β)	t	Sig.
	(Constant)	71.409		10.44	.001
	Techno Insecurity	.133	.045	.995	.320
	Techno Complexity	.672	.194	3.40	.001
	Techno Invasion	.337	.147	2.92	.004
	Techno Awareness	-.238	-.094	1.71	.087
	Techno Facility	.574	.199	3.72	.001
1	Establishing School Identity	-.368	-.124	2.64	.009
	Teaching and assessment	-.489	-.166	3.03	.003
	Parental Involvement	.289	.056	1.36	.173
	Professional Development	-.724	-.207	3.65	.001
	Extra Curricular Subjects	-.071	-.015	.306	.760
	Curriculum development	.468	.099	2.22	.027

In this model the unstandardized regression coefficient for the components Techno Insecurity, Techno Awareness, Parental Involvement and Extra-curricular subjects are found to be not significantly different from zero as the t value obtained is less than 1.96. Hence another model 2 was tried excluding the components, the details of the regression analysis with the other predictors is given as table 97

Table 97*Values of R, R² and Adjusted R² of Model 2*

Model	R	R Square	Adjusted R Square
2	.553	.305	.296

Pearson correlation coefficient between the scores predicted by the regression model (i.e., the predicted scores) and the actual values of the dependent variable (i.e., academic goal orientation) is 0.553 indicate a moderate strong level of association. R² for the overall model was 0.305 with an adjusted R² 0.296. This indicates that 30.5 percent of the variation in the Teacher Burnout can be explained by the regression model developed with predictor variables Techno Complexity, Techno Invasion, Techno Facility, Establishing School Identity, Teaching and assessment, Professional Development and Curriculum development. The statistical significance of the overall model (i.e., the model containing all independent variables) is presented in the table 98

Table 98*Statistical Significance of the Overall Model*

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	26816.013	7	3830.859	31.53	.001
2	Residual	60995.352	502	121.505		
	Total	87811.365	509			

From the table 98, it is clear that the predicted variables Techno Complexity, Techno Invasion, Techno Facility, Establishing School Identity, Teaching and assessment, Professional Development and Curriculum development statistically significantly predicted Teacher Burnout, $F(7, 502) = 31.53, p < 0.01$.

Data and details of regression coefficients and individual contribution are presented in table 99

Table 99

Details of Regression Coefficients and Individual Contribution

Model	Predictor	Unstandardized Coefficients (b)	Standardized Coefficients (β)	t	Sig.	Percentage of Individual Contribution
	(Constant)	75.26		12.36	.001	
	Techno Complexity	.606	.175	3.33	.001	6.26
	Techno Invasion	.366	.160	3.31	.001	5.78
	Techno Facility	.404	.140	3.07	.002	4.38
2	Establishing School Identity	-.366	-.123	2.84	.005	2.82
	Teaching and assessment	-.470	-.160	3.02	.003	6.22
	Professional Development	-.715	-.204	3.68	.001	5.90
	Curriculum development	.428	.091	2.04	.041	0.82

Table 99 gives t-values in each predictor variable, which shows that the b-values obtained differ significantly from zero. Hence the components Techno Complexity, Techno Invasion, Techno Facility, Establishing School Identity, Teaching and assessment, Professional Development and Curriculum development are significant predictors of Teacher Burnout.

The regression model using obtained b value can be expressed as

$$Y^1 = 75.26 + .606 X_1 + .366 X_2 + .404 X_3 + -.366 X_4 + -.470 X_5 + -.715 X_6 + .428 X_7$$

Where Y^1 is the predicted value of Teacher Burnout, X_1 score on Techno Complexity, X_2 score on Techno Invasion, X_3 score on Techno Facility, X_4 score on

Establishing School Identity, X_5 score on Teaching and assessment, X_6 score on Professional Development and X_7 score on Curriculum development.

The standardized Beta values for the predictors were used to derive the equation for predicting the standardized value of Teacher Burnout.

The equation of the model is

$$Z^1 = .175 Z_1 + .160 Z_2 + .140 Z_3 + -.123 Z_4 + -.160 Z_5 + -.204 Z_6 + .091 Z_7$$

Where Z^1 is the predicted standard score of Teacher Burnout, $Z_1, Z_2, Z_3, Z_4, Z_5, Z_6$ and Z_7 being the standard scores of Techno Complexity, Techno Invasion, Techno Facility, Establishing School Identity, Teaching and assessment, Professional Development and Curriculum development respectively.

From table 100, it is clear that b value obtained for the Techno complexity is 0.606, it means that the increase in the score of Teacher Burnout is 0.606 for increase in each unit of techno complexity score. A β value of 0.175 indicates that as techno complexity score increases by one standard deviation, Teacher Burnout increases by 0.175 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of techno complexity to the model is 6.26 %.

b value obtained for the Techno invasion is 0.366, it means that the increase in the score of Teacher Burnout is 0.366 for increase in each unit of techno invasion score. A β value of 0.160 indicates that as techno invasion score increases by one standard deviation, Teacher Burnout increases by 0.160 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of techno invasion to the model is 5.78%.

b value obtained for the Techno facility is 0.404, it means that the increase in the score of Teacher Burnout is 0.404 for increase in each unit of techno

facility score. A β value of 0.140 indicates that as techno facility score increases by one standard deviation, Teacher Burnout increases by 0.140 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of techno facility to the model is 4.38%.

b value obtained for the establishing school identity is -0.366, it means that the decrease in the score of Teacher Burnout is 0.366 for increase in each unit of establishing school identity score. A β value of -0.123 indicates that as establishing school identity increases by one standard deviation, Teacher Burnout decreases by 0.123 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of establishing school identity to the model is 2.82 %.

b value obtained for the Teaching and assessment is -0.470, it means that the decrease in the score of Teacher Burnout is 0.470 for increase in each unit of Teaching and assessment score. A β value of -0.160 indicates that as Teaching and assessment increases by one standard deviation, Teacher Burnout decreases by 0.160 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of Teaching and assessment to the model is 6.22 %.

b value obtained for the professional development is -0.715, it means that the decrease in the score of Teacher Burnout is 0.715 for increase in each unit of professional development score. A β value of -0.204 indicates that as professional development increases by one standard deviation, Teacher Burnout decreases by 0.204 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of professional development to the model is 5.90 %.

b value obtained for the Curriculum development is 0.428, it means that the increase in the score of Teacher Burnout is 0.428 for increase in each unit of Curriculum development score. A β value of 0.091 indicates that as Curriculum development score increases by one standard deviation, Teacher Burnout increases by 0.091 standard deviation, provided the effects of other predictors are kept constant. The individual contribution of Curriculum development to the model is 0.82%.

**SUMMARY OF FINDINGS
&
CONCLUSIONS**

- ❖ *Study in retrospect*
- ❖ *Major findings of the study*
- ❖ *Tenability of hypothesis*
- ❖ *Conclusions*

In this chapter an overview of the vital aspects of the executing the phases of the study, the major findings of the study and their educational significance, suggestion for improving educational practices and suggestions for further research are presented in brief. This chapter is organized under the following headings

- Study in retrospect
- Major findings of the study
- Tenability of hypothesis
- Conclusions

Study in Retrospect

The diverse aspects in the different stage of the present investigations like the Title, variables, objectives, hypotheses, methodology used are viewed retrospectively.

Restatement of the Problem

The present study is planned to find out the influence of two independent variables technostress and teacher autonomy on dependent variable teacher burnout among unaided secondary school teachers. Hence the present study entitled as **“Influence of Technostress and Teacher Autonomy and Burnout of Unaided Secondary School Teachers of Kerala”**

Objectives of the Study

1. To find out the extent of technostress, teacher autonomy and burnout among unaided secondary school teachers of Kerala
2. To find out whether there exists any significant difference in technostress, teacher autonomy and burnout among unaided secondary school teachers based on relevant sub groups viz. gender, locale, type of management and subject of teaching.

3. To find out the main effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant sub groups.
4. To find out the first order interaction effects of technostress and teacher autonomy on burnout among unaided secondary school teachers for the total sample and relevant sub groups.
5. To find out the individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.
6. To develop regression equation to predict teacher burnout from technostress and teacher autonomy.

Hypotheses of the Study

1. There exists significant gender difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
2. There exists significant locale difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
3. There exists significant school difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers.
4. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on educational qualification.
5. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers-based on subject of teaching.

6. There exists significant difference in the mean scores of technostress and teacher autonomy (total score and component wise) and burnout among unaided secondary school teachers based on teaching experience.
7. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for total sample.
8. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school male teachers.
9. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school female teachers.
10. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers in rural area.
11. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers in urban area.
12. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for CBSE unaided secondary school teachers.
13. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for state syllabus unaided secondary school teachers.

14. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers with basic qualification.
15. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school teachers with higher qualification.
16. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school language teachers.
17. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school social science teachers.
18. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school science teachers.
19. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school mathematics teachers.
20. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the

dependent variable Teacher burnout for unaided secondary school novice teachers.

21. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school less experience teachers.
22. There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for unaided secondary school experienced teachers.
23. There is significant individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample.

Major Findings of the Study

The findings of the study are summarized as the findings of the mean difference analysis of the independent and dependent variables based on gender, locale, type of school, discipline of teaching and educational qualification. The main effects of two independent variables technostress and teacher autonomy on dependent variable teacher burnout, the first order interaction effects of two independent variance on dependent variable.

Mean Difference Analysis

Mean difference analysis was done to know whether there exists any significance difference between male and female, rural and urban, discipline of subject in their technostress, teacher autonomy and teacher burnout.

Difference based on Gender

- There exists significant difference in technostress ($t=2.21$, $P<.05$) and teacher burnout ($t=4.24$, $P<.01$) of male and female unaided secondary school teachers. Male teachers have higher technostress and burnout than female teachers.
- There exists no significant difference in teacher autonomy of male and female unaided secondary school teachers.
- Techno insecurity ($t=2.80$, $P<.01$), techno complexity ($t=3.19$, $P<.01$) and techno invasion ($t=2.02$) of male and female teachers differ significantly. Techno awareness and techno facility of male and female teachers do not differ significantly.
- There exists significant difference in establishing school identity ($t=2.55$, $P<.01$) and extracurricular subjects ($t=1.97$, $P<.01$) of male and female teachers. Teaching and assessment, parental involvement, professional development and curriculum transaction of male and female teachers do not differ significantly.
- There exists significant difference in emotional exhaustion ($t=3.79$, $P<.01$), depersonalisation ($t=2.63$, $P<.01$) and reduced personal accomplishment ($t=4.44$, $P<.01$) of male and female unaided secondary school teachers

Difference based on Locale

- There exists significant difference in teacher autonomy ($t=2.77$, $P<.01$) and teacher burnout ($t=2.46$, $P<.05$) of rural and urban unaided secondary school teachers. Rural teachers have higher teacher autonomy and lower burnout than urban teachers.
- There exists no significant difference in technostress of rural and urban unaided secondary school teachers.

- There exists no significant difference in techno insecurity, techno complexity, techno invasion techno awareness and techno facility of rural and urban unaided secondary school teachers.
- There exists significant difference in establishing school identity ($t=2.12$, $P<.05$), professional development ($t=2.46$, $P<.05$), extracurricular subjects ($t=3.10$, $P<.01$) and curriculum transaction ($t= 2.04$, $P<.05$) of rural and urban unaided secondary school teachers. There exists no significant difference in teaching and assessment and parental involvement of rural and urban unaided secondary school teachers.
- There exists significant difference in emotional exhaustion ($t=3.18$, $P<.01$), and reduced personal accomplishment ($t=2.78$, $P<.01$) of rural and urban unaided secondary school teachers. There exists no significant difference depersonalisation of rural and urban unaided secondary school teachers

Difference based on Type of School

- There exists no significant difference in technostress, teacher autonomy and teacher burnout of CBSE and urban State syllabus secondary school teachers.
- There exists significant difference in techno facility ($t=2.69$, $P<.01$) of CBSE and urban State syllabus secondary School teachers.
- There exists no significant difference in techno insecurity, techno complexity, techno invasion and techno awareness of CBSE and urban State syllabus secondary school teachers.
- There exists no significant difference in establishing school identity, Teaching and assessment, parental involvement, professional development, extracurricular subjects and curriculum transaction of CBSE and urban State syllabus secondary school teachers.

- There exists no significant difference in emotional exhaustion, depersonalisation and reduced personal accomplishment of CBSE and urban State syllabus secondary school teachers.

Difference based on Qualification

- There exists no significant difference in technostress, teacher autonomy and teacher burnout of teachers with basic qualification and secondary school teachers with higher qualification.
- There exists significant difference in techno complexity ($t=1.98$, $P<.05$), techno awareness ($t=2.20$, $P<.05$) and techno facility ($t=2.69$, $P<.01$) of teachers with basic qualification and highly qualified secondary school teachers. There exists no significant difference in techno insecurity and techno invasion of teachers with basic qualification and secondary school teachers with higher qualification.
- There exists significant difference in parental involvement ($t=2.81$, $P<.01$), professional development ($t=2.08$, $P<.05$) and curriculum transaction ($t=2.73$, $P<.01$) of teachers with basic qualification and secondary school teachers with higher qualification. There exists no significant difference in establishing school identity, teaching and assessment and extracurricular subjects of teachers with basic qualification and highly qualified secondary school teachers.
- There exists no significant difference in emotional exhaustion, depersonalisation and reduced personal accomplishment of teachers with basic qualification and highly qualified secondary school teachers.

Difference based on Subject of Teaching

- There exists no significant difference in technostress, teacher autonomy and teacher burnout based on subject of teaching for total sample and component wise.

Difference based on Teaching Experience

- There exists no significant effect of experience on technostress of unaided secondary school teachers.
- There exists no significant effect in techno insecurity, techno complexity, techno invasion, techno awareness and techno facility of unaided secondary school teachers based on teaching experience.
- There exists significant effect of experience on teacher autonomy and teacher burnout of unaided secondary school teachers.
- There exists significant effect in teaching and assessment, professional development and extracurricular subjects of unaided secondary school teachers based on experience. There exists no significant effect in establishing school identity, parental involvement and curriculum transaction of unaided secondary school teachers based on experience.

Main Effect of Select Independent Variable on Teacher Burnout

Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers was calculated and the summary of the findings is presented below:

Main Effect of Select Independent Variable on Teacher Burnout for Total Sample

Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for total sample are presented below:

- The F value obtained indicates that influence of Technostress ($F(2,501) = 50.878, p < .01$), and Teacher autonomy ($F(2,501) = 29.96, p < .01$) on teacher burnout is significant for total sample. There exists significant difference in the

mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for total sample.

- The comparison of mean scores of Technostress groups indicated that that mean teacher burnout score of high-level stress group (M=80.12) is higher than that of moderate (M=73.58) and low stress level groups (M= 66.56) for total sample.
- The Scheffés Post Hoc analysis shown that low level stress, moderate level stress and high level stress group differ significantly in Teacher Burnout for total sample of unaided secondary school teachers. Those unaided school teachers group who are with high level stress (M=80.12) scores high on teacher burnout than those of moderate level stress group (M=73.58) and low level stress group (M=66.56) for total sample. Those unaided secondary school teachers group who are with moderate level stress scores high on teacher burnout than those teachers of level stress group.
- The comparison of mean scores of teacher autonomy groups indicated that that mean teacher burnout score of scant autonomy group (M=78.68) is higher than that of moderate autonomy (M=74.51) and high autonomy groups (M= 67.43) for total sample.
- The Scheffés test exposed that scant autonomy, moderate autonomy and high autonomy group differ significantly in Teacher Burnout for total sample of unaided secondary school teachers. Those unaided school teachers group who are with scant autonomy (M=78.68) scores high on teacher burnout than those of moderate autonomy group (M=74.51) and high autonomy group (M=67.43) for total sample. Those unaided secondary school teachers group who are with moderate autonomy scores high on teacher burnout than those teachers of high autonomy group.

Main Effect of Select Independent Variable on Teacher Burnout for Male Subsample

Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for male sub sample are presented below:

- The F value obtained indicates that influence of Technostress ($F(2,98) = 10.106, p < .01$), and Teacher autonomy ($F(2,98) = 5.426, p < .01$) on teacher burnout is significant for male sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for male sub sample.
- The comparison of mean scores of Technostress groups indicated that that mean teacher burnout score of high-level stress group ($M=83.02$) is higher than that of moderate ($M=80.07$) and low stress level groups ($M= 68.74$) for male sub sample.
- The Scheffés test described that low level stress, moderate level stress and high-level stress group differ significantly in Teacher Burnout for male sub sample of unaided secondary school teachers. Those unaided school teachers group who are with high level stress ($M=83.02$) scores high on teacher burnout than those of moderate level stress group ($M=80.07$) and low level stress group ($M=68.74$) for sub sample. Those unaided secondary school teachers group who are with moderate level stress scores high on teacher burnout than those teachers of level stress group.

Main Effect of Select Independent Variable on Teacher Burnout for Female Subsample

Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for female sub sample are presented below:

Variable	F value	Level of Significance
Technostress	37.946	0.01
Teacher autonomy	27.825	0.01

- The F value obtained indicates that influence of Technostress ($F (2,394) = 37.946$, $p < .01$), and Teacher autonomy ($F (2,394) = 27.825$, $p < .01$) on teacher burnout is significant for female sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for female sub sample.
- The post hoc analysis discloses a significant difference between low and moderate, low and high, moderate and high-level technostress groups. Also, there exist significant difference between scant and moderate, scant and high, moderate and high autonomy groups for female sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Rural Subsample

Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for rural sub sample are presented below:

Variable	F value	Level of Significance
Technostress	12.914	0.01
Teacher autonomy	12.101	0.01

- The F value obtained indicates that influence of Technostress ($F (2,219) = 12.914$, $p < .01$), and Teacher autonomy ($F (2,219) = 12.101$, $p < .01$) on teacher burnout is significant for rural sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for rural sub sample.
- The post hoc analysis exposes low and moderate technostress groups do not differ significantly. There exists significant difference between low and high,

moderate and high-level technostress groups. Also, there exist significant difference between scant and high, moderate and high autonomy groups for rural sub sample. But there exists no significant difference between scant and moderate autonomy groups.

Main Effect of Select Independent Variable on Teacher Burnout for Urban Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for urban sub sample are presented below:

Variable	F value	Level of Significance
Technostress	19.734	0.01
Teacher autonomy	15.166	0.01

- The *F* value obtained indicates that influence of Technostress ($F_{(2,273)} = 19.734, p < .01$), and Teacher autonomy ($F_{(2,273)} = 15.166, p < .01$) on teacher burnout is significant for urban sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for urban sub sample.
- The post hoc analysis discloses low and moderate, low and high, moderate and high-level technostress groups differ significantly. Also, there exist significant difference between scant and moderate, scant and high, moderate and high autonomy groups for urban sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for CBSE Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for CBSE sub sample are presented below:

Variable	F value	Level of Significance
Technostress	30.722	0.01
Teacher autonomy	17.555	0.01

- The F value obtained indicates that influence of Technostress ($F_{(2,316)} = 30.722$, $p < .01$), and Teacher autonomy ($F_{(2,316)} = 17.555$, $p < .01$) on teacher burnout is significant for urban sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for CBSE sub sample.
- The post hoc analysis discloses low and moderate, low and high, moderate and high-level technostress groups differ significantly. Also, there exist significant difference between scant and moderate, scant and high, moderate and high autonomy groups for CBSE sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for State Syllabus Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for State syllabus sub sample are presented below:

Variable	F value	Level of Significance
Technostress	20.837	0.01
Teacher autonomy	14.019	0.01

- The F value obtained indicates that influence of Technostress ($F_{(2,176)} = 20.837$, $p < .01$), and Teacher autonomy ($F_{(2,176)} = 14.019$, $p < .01$) on teacher burnout is significant for urban sample. There exists significant difference in the mean scores of Teacher burnout for technostress and

teacher autonomy groups of unaided secondary school teachers for State syllabus sub sample.

- The post hoc analysis discloses that low and moderate, low and high, moderate and high-level technostress groups differ significantly. Also, there exist significant difference between moderate and high autonomy groups for State syllabus sub sample. But there exists no significant difference between scant and moderate autonomy groups.

Main Effect of Select Independent Variable on Teacher Burnout for Basic Qualification Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for basic qualification sub sample are presented below:

Variable	F value	Level of Significance
Technostress	22.288	0.01
Teacher autonomy	32.141	0.01

- The *F* value obtained indicates that influence of Technostress ($F(2,286) = 22.288, p < .01$), and Teacher autonomy ($F(2,286) = 32.141, p < .01$) on teacher burnout is significant for basic qualification sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for basic qualification sub sample.
- The post hoc analysis discloses low and moderate, low and high, moderate and high-level technostress groups differ significantly. Also, there exist significant difference between scant and moderate, scant and high, moderate and high autonomy groups for basic qualification sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Higher Qualification Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for higher qualification sub sample are presented below:

Variable	F value	Level of Significance
Technostress	34.364	0.01
Teacher autonomy	2.663	NS

- The F value obtained indicates that influence of Technostress ($F(2, 206) = 34.364, p < .01$) on teacher burnout is significant for higher qualification sample. The F value obtained indicates that influence of Teacher autonomy ($F(2, 206) = 2.663, p > .01$) on teacher burnout is not significant for higher qualification sample. There exists significant difference in the mean scores of Teacher burnout for technostress groups of unaided secondary school teachers for higher qualification sub sample.
- The post hoc analysis discloses low and moderate, low and high, moderate and high-level technostress groups differ significantly. Also, there exists significant difference between scant and high autonomy. But there exists no significant difference between scant and moderate, moderate and high autonomy groups for highly qualified teacher sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Language Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for language sub sample are presented below:

Variable	F value	Level of Significance
Technostress	10.578	0.01
Teacher autonomy	6.825	0.01

- The F value obtained indicates that influence of Technostress (F ,131) =10.578, $p < .01$), and Teacher autonomy (F (2,131) =6.825, $p < .01$) on teacher burnout is significant for language sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for language sub sample.
- The post hoc analysis discloses that low and high, moderate and high-level technostress groups differ significantly. But that there exists no significant difference between low and moderate level technostress groups. Also, there exists significant difference between scant and high autonomy. But there exists no significant difference between scant and moderate, moderate and high autonomy groups for language teacher sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Social Science Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for social science sub sample are presented below:

Variable	F value	Level of Significance
Technostress	11.704	0.01
Teacher autonomy	4.537	0.05

- The F value obtained indicates that influence of Technostress (F ,119) =11.704, $p < .01$), and Teacher autonomy (F (2,119) =4.537, $p < .05$) on

teacher burnout is significant for social science sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for social science sub sample

- The post hoc analysis discloses that low and high, low and moderate, moderate and high-level technostress groups differ significantly. Also, there exists significant difference between scant and high autonomy, moderate and high autonomy groups for social science teacher sub sample. But there exists no significant difference between scant and moderate level groups for social science group.

Main Effect of Select Independent Variable on Teacher Burnout for Science Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for science sub sample are presented below:

Variable	F value	Level of Significance
Technostress	16.031	0.01
Teacher autonomy	8.957	0.01

- The F value obtained indicates that influence of Technostress ($F_{(2,117)} = 16.031$, $p < .01$), and Teacher autonomy ($F_{(2,117)} = 8.957$, $p < .01$) on teacher burnout is significant for science sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for science sub sample.
- The post hoc analysis discloses that low and high, low and moderate, moderate and high-level technostress groups differ significantly. Also, there

exists significant difference between scant and high, moderate and high autonomy groups for science teacher sub sample. But there exists no significant difference between scant and moderate level groups for science group.

Main Effect of Select Independent Variable on Teacher Burnout for Mathematics Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for mathematics sub sample are presented below:

Variable	F value	Level of Significance
Technostress	12.607	0.01
Teacher autonomy	10.912	0.01

- The F value obtained indicates that influence of Technostress ($F_{(2,107)} = 12.607, p < .01$), and Teacher autonomy ($F_{(2,117)} = 10.912, p < .01$) on teacher burnout is significant for mathematics sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for mathematics subsample
- The post hoc analysis discloses that low and high, low and moderate level technostress groups differ significantly. But there exists no significant difference between moderate and high-level technostress groups. Also, there exists significant difference between scant and high, moderate and high autonomy groups for mathematics teacher sub sample. But there exists no significant difference between scant and moderate level groups for mathematics group.

Main Effect of Select Independent Variable on Teacher Burnout for Novice Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for novice sub sample are presented below:

Variable	F value	Level of Significance
Technostress	4.280	0.05
Teacher autonomy	7.953	0.01

- The F value obtained indicates that influence of Technostress ($F, 93$) =4.280, $p < .05$), and Teacher autonomy ($F (2, 93) =7.953, p < .01$) on teacher burnout is significant for novice sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for novice sub sample
- The post hoc analysis discloses that low and high, low and moderate level technostress groups differ significantly. But there exists no significant difference between moderate and high-level technostress groups. Also, there exists significant difference between scant and high autonomy, scant and moderate, moderate and high autonomy groups for novice teacher sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Less Experienced Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for less experienced sub sample are presented below:

Variable	F value	Level of Significance
Technostress	19.734	0.01
Teacher autonomy	12.811	0.01

- The F value obtained indicates that influence of Technostress ($F, 165$) =19.734, $p<.01$), and Teacher autonomy ($F (2,165) =12.811, p <.01$) on teacher burnout is significant for less experienced sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for less experienced sub sample
- The post hoc analysis discloses that low and high, low and moderate, moderate and high-level technostress groups differ significantly. Also, there exists significant difference between scant and high, moderate and high autonomy groups for less experienced teacher sub sample. But there exists no significant difference between scant and moderate level groups for less experienced sub sample.

Main Effect of Select Independent Variable on Teacher Burnout for Experienced Subsample

- Main effect of two independent variables namely, Technostress and Teacher autonomy on dependent variable, Teacher burnout of unaided secondary school teachers for experienced sub sample are presented below:

Variable	F value	Level of Significance
Technostress	25.137	0.01
Teacher autonomy	8.662	0.01

- The F value obtained indicates that influence of Technostress ($F, 225$) =25.137, $p<.01$), and Teacher autonomy ($F (2,225) =8.662, p <.01$) on

teacher burnout is significant for experienced sample. There exists significant difference in the mean scores of Teacher burnout for technostress and teacher autonomy groups of unaided secondary school teachers for experienced sub sample

- The post hoc analysis discloses that low and high, low and moderate, moderate and high-level technostress groups differ significantly. Also, there exists significant difference between scant and high, moderate and high autonomy groups for experienced teacher sub sample. But there exists no significant difference between scant and moderate level groups for experienced sub sample.

Interaction Effect of Independent Variable

Interaction effects of independent variables technostress and teacher autonomy on the dependent variable teacher burnout were estimated for total sample and relevant sub groups based on gender, locale, type of school, educational qualification, subject of teaching and teaching experience. Summary of the first order interaction effects are presented.

Interaction Effect of Independent Variable for Total Sample

The first order Interaction effects of independent variables technostress and teacher autonomy on the dependent variable teacher burnout for total sample were estimated and presented below.

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,501, $F=4.70$, $p<0.01$) is significant for total sample

Interaction Effect of Independent Variable for Male Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,98, $F=4.904$, $p<0.01$) is significant for male sub sample

Interaction Effect of Independent Variable for Female Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,394, $F=4.904$, $p>0.05$) is not significant for female sub sample

Interaction Effect of Independent Variable for CBSE Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,316, $F=2.602$, $p<0.05$) is significant for CBSE sub sample

Interaction Effect of Independent Variable for State Syllabus Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,176, $F=2.073$, $p>0.05$) is not significant for State syllabus sub sample

Interaction Effect of Independent Variable for Novice Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,93, $F=2.412$, $p>0.05$) is not significant for novice sub sample

Interaction Effect of Independent Variable for Less Experienced Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,165, $F=.918$, $p>0.05$) is not significant for less experienced sub sample

Interaction Effect of Independent Variable for Experienced Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,225, $F=2.657$, $p<0.05$) is significant for experienced sub sample

Interaction Effect of Independent Variable for Rural Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,219, $F=1.529$, $p>0.05$) is not significant for rural sub sample

Interaction Effect of Independent Variable for Urban Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,273, $F=4.065$, $p<0.01$) is significant for urban sub sample

Interaction Effect of Independent Variable for Language Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,219, $F=1.529$, $p>0.05$) is not significant for rural sub sample

Interaction Effect of Independent Variable for Social Science Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,119, $F=4.748$, $p<0.01$) is significant for social science sub sample

Interaction Effect of Independent Variable for Science Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,117, $F=3.007$, $p<0.05$) is significant for science subsample

Interaction Effect of Independent Variable for Mathematics Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,107, $F=1.027$, $p>0.05$) is not significant for mathematics sub sample

Interaction Effect of Independent Variable for basic Qualification Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,286, $F=4.174$, $p<0.01$) is significant for basic qualification sub sample

Interaction Effect of Independent Variable for Highly Qualified Subsample

- The F value obtained for the interaction of Technostress and Teacher autonomy (4,206, $F=3.590$, $p<0.01$) is significant for highly qualified sub sample

Individual and Combined Contribution of Technostress and Teacher Autonomy on Teacher Burnout

- Multiple correlation and regression analysis has been applied to find out the individual and joint contributions of Technostress and Teacher Autonomy and its components in predicting Teacher Burnout of unaided secondary school teachers.
- Pearson's product moment coefficient of correlation between Technostress and Teacher Burnout is 0.401 ($P<0.01$). It means that there is a significant positive correlation between Technostress and Teacher Burnout. There is significant increase in Technostress score for increase in Teacher Burnout. Magnitude of correlation coefficient showed that there exists moderate relationship between Technostress and Teacher Burnout. Study also found that all the dimensions of the Technostress are positively significantly correlated with Teacher Burnout score.
- Pearson's product moment coefficient of correlation between Teacher Autonomy and Teacher Burnout is -0.347 ($P<0.01$). It means that there is a significant negative correlation between Teacher Autonomy and Teacher Burnout. There is significant decrease in Teacher Burnout score for increase in Teacher Autonomy score. Magnitude of correlation coefficient showed that there exists moderate relationship between Teacher Autonomy and Teacher Burnout
- Technostress and Teacher Autonomy statistically significantly predicted Teacher Burnout, $F(2,507) = 88.87$, $p<0.01$.

Tenability of Hypotheses

- The **first hypothesis** states “*There is significant gender difference in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers.*” – Partially accepted.

The findings of the study disclose that male and female teachers of unaided secondary school differ significantly in their mean scores of technostress and teacher burnout for total score.

- There exists no significant difference between male and female teachers in the mean scores of teacher autonomy for total score.
- There exists significant difference between male and female teachers of unaided secondary school in their mean scores of techno insecurity, techno complexity and techno invasion.
- There exists no significant difference between male and female teachers of unaided secondary school in their mean scores of techno awareness and techno facility.
- There exists significant difference between male and female teachers of unaided secondary school in their mean scores of establishing school identity.
- There exists no significant difference between male and female teachers of unaided secondary school in their mean scores of Teaching and assessment, parental involvement, professional development, extra-curricular subjects and curriculum transaction.
- There exists significant difference between male and female teachers of unaided secondary school in their mean scores of emotional exhaustion, depersonalisation and reduced personal accomplishment.

- The **second hypothesis** states “*There is significant locale difference in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers*”- partially accepted

The findings of the study disclose that rural and urban teachers of unaided secondary school differ significantly in their mean scores of teacher autonomy and teacher burnout for total score.

- There exists no significant difference between rural and urban teachers of unaided secondary school in their mean scores of technostress for total score and component wise.
 - There exists significant difference between rural and urban teachers of unaided secondary school in their mean scores of establishing school identity, professional development, extra-curricular subjects and curriculum transaction.
 - There exists no significant difference between rural and urban teachers of unaided secondary school in their mean scores of Teaching and assessment and parental involvement.
- The **third hypothesis** states “*There is significant school difference in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers*”. The findings of the study disclose that there exists no significant difference between CBSE and State syllabus teachers of unaided secondary school in their mean scores of technostress and teacher burnout for total score and component wise. Thus, the third hypothesis is completely rejected.
 - The **fourth hypothesis** states “*There is significant qualification difference in the mean scores of technostress, teacher autonomy (total score and*

component wise) and teacher burnout of unaided secondary school teachers”. -partially accepted. The findings of the study disclose that basic qualified and highly qualified teachers of unaided secondary school do not differ in their mean scores of technostress and teacher burnout for total score. There exists significant difference between basic qualified and highly qualified teachers of unaided secondary school in their mean scores of techno complexity, techno awareness and techno facility. There exists significant difference between basic qualified and highly qualified teachers of unaided secondary school in their mean scores of parental involvement, professional development and curriculum transaction.

- The **fifth hypothesis** states “*There is significant qualification difference in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers*”. The findings of the study disclose that there exists no significant difference between the subject of teaching in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers. *Thus, the fifth hypothesis is completely rejected.*
- The **sixth hypothesis** states “*There is significant experience difference in the mean scores of technostress, teacher autonomy (total score and component wise) and teacher burnout of unaided secondary school teachers*”. There exists significant difference between the novice, less experienced and experienced teachers in the mean scores of teacher autonomy and teacher burnout. There exists no significant difference between the novice, less experienced and experienced teachers in the mean scores of technostress. There exists significant difference between the novices, less experienced and

experienced teachers in the mean scores of Teaching and assessment, professional development and extra-curricular subjects. *Thus, the fifth hypothesis is completely rejected.*

- The **seventh hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for total sample*”. The results of the study disclose that the main effect of technostress and teacher autonomy on teacher burnout is significant for total sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for total sample. Thus, the seventh hypothesis is completely accepted.
- The **eighth hypothesis** states that “*there is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for male unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for male sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for male sub sample. Thus, the eight hypothesis is entirely accepted.
- The **ninth hypothesis** states “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for female unaided secondary school teachers*”. The results of the study reveal that the main

effect of technostress and teacher autonomy on teacher burnout is significant for female sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for female sub sample. Thus, the ninth hypothesis is partially accepted.

- The **tenth hypothesis** states “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for rural unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for rural sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for rural sub sample. Thus, the tenth hypothesis is partially accepted.
- The **eleventh hypothesis** states “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for urban unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for urban sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for urban sub sample. Thus, the eleventh hypothesis is completely accepted.

- The **twelfth hypothesis** states “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for CBSE unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for CBSE sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for CBSE sub sample. Thus, the twelfth hypothesis is completely accepted.
- The **thirteenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for State syllabus unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for State syllabus sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for State syllabus sub sample. Thus, the thirteenth hypothesis is partially accepted.
- The **fourteenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for basic qualification unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for basic qualification sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided

secondary school teachers is significant for basic qualification sub sample. Thus, the fourteenth hypothesis is entirely accepted.

- The **fifteenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for highly qualified unaided secondary school teachers*”. The study reveals that the main effect of technostress on teacher burnout is significant for highly qualified sub sample of unaided secondary school teachers. It also reveals the main effect of teacher autonomy on teacher burnout is not significant for highly qualified sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for highly qualified sub sample. Thus, the fifteenth hypothesis is partially accepted.
- The **sixteenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for language unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for language sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for language sub sample. Thus, the sixteenth hypothesis is partially accepted.
- The **seventeenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for social science unaided secondary school teachers*”. The results of the study reveal

that the main effect of technostress and teacher autonomy on teacher burnout is significant for social science sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers significant for social science sub sample. Thus, the seventeenth hypothesis is entirely accepted.

- The **eighteenth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for science unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for science sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for science sub sample. Thus, the eighteenth hypothesis is totally accepted.
- The **nineteenth hypothesis** states “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for mathematics unaided secondary school teachers*”. The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for mathematics sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for mathematics sub sample. Thus, the nineteenth hypothesis is partially accepted.
- The **twentieth hypothesis** states that “*There is significant main effect and interaction effect of each of the independent variable namely, Technostress*

and Teacher autonomy on the dependent variable Teacher burnout for novice unaided secondary school teachers". The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for novice sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for novice sub sample. Thus, the twentieth hypothesis is partially accepted.

- The **twenty first hypothesis** states that "*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for less experienced unaided secondary school teachers*". The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for less experienced sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is not significant for less experienced sub sample. Thus, the twenty first hypothesis is partially accepted.
- The **twenty second hypothesis** states that "*There is significant main effect and interaction effect of each of the independent variable namely, Technostress and Teacher autonomy on the dependent variable Teacher burnout for experienced unaided secondary school teachers*". The results of the study reveal that the main effect of technostress and teacher autonomy on teacher burnout is significant for experienced sub sample of unaided secondary school teachers. In the case of interaction effects, the interaction effect of technostress and teacher autonomy on teacher burnout of unaided secondary school teachers is significant for experienced sub sample. Thus, the twenty second hypothesis is completely accepted.

- The **twenty third hypothesis** states “*There is significant individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary school teachers of Kerala for total sample*”. The result reveals that there is significant individual and combined contribution of technostress and teacher autonomy on burnout among unaided secondary teachers of Kerala.

The results of the study reveal that there is significant individual and joint contribution of Technostress, Teacher Autonomy on teacher burnout of unaided secondary school teachers.

Conclusions

The major objectives of the study were to find out the significant difference in technostress, teacher autonomy and burnout of unaided teachers, to find out the main and interaction effects of technostress, teacher autonomy on burnout among unaided teachers, and to develop regression equation to predict teacher burnout from technostress and teacher autonomy.

The results concludes that unaided secondary school teachers possess above average levels of technostress, techno insecurity, techno complexity, and techno invasion, but below average levels of techno awareness and techno facility. Additionally, unaided teachers have above average levels of teacher autonomy and above average level of autonomy in several areas, such as, autonomy for establishing school identity, autonomy for teaching and assessment, autonomy for professional development, autonomy for extra-curricular subjects, and curriculum development autonomy. However, they possess below average levels of autonomy for parental involvement. Furthermore, unaided teachers experience below average levels of teacher burnout, emotional exhaustion, depersonalization, and reduced personal accomplishment. Overall, the findings indicate that unaided teachers face

challenges in their use of technology and autonomy in certain aspect of their profession, and also experience negative effects on their well-being.

The results of this study indicate that technostress, teacher burnout, techno insecurity, techno complexity, and techno invasion differ significantly between male and female unaided secondary school teachers, with male teachers having higher levels of these challenges than female teachers. However, these findings contrast with the results of previous studies, such as Coklar et al. (2016), which found that general technostress levels did not vary based on gender and Syvanen et al. (2016) which found that male teachers were less stressed than female teachers. Furthermore, the study found that techno facility stress differs significantly between CBSE and urban State syllabus secondary school teachers, with State syllabus teachers having higher levels of techno facility stress, indicating a lack of technological facility in state syllabus schools. Additionally, the study revealed that there is a significant difference in techno complexity and techno awareness between teachers with basic qualifications and highly qualified secondary school teachers, with teachers with basic qualifications having higher levels of techno complexity and techno awareness issues. However, there was no significant effect of experience on technostress of unaided secondary school teachers, which differs from the findings of Syvanen et al. (2016) and Tarafdar (2014) Overall, the findings of this study should be interpreted with caution due to the conflicting results with previous studies and highlight the need for further research on the topic.

The results of the study indicate that there is no significant difference in technostress, teacher autonomy, and teacher burnout between CBSE and State syllabus secondary school teachers. Additionally, there is no significant difference in these factors based on the teachers' qualifications or subject of teaching. However, the study found that there is no significant effect of experience on technostress of unaided secondary school teachers, but there is a significant effect of experience on

teacher autonomy and teacher burnout. The study also shows that there is a significant influence of technostress and teacher autonomy on teacher burnout, with high levels of technostress being associated with high levels of teacher burnout. This aligns with previous research, such as Tarafdar et al. (2015) which found that high levels of technostress and teacher burnout are positively correlated. Furthermore, the study found that teacher autonomy is negatively correlated with burnout in all its dimensions, such as emotional exhaustion, depersonalization, and reduced personal accomplishment. This is consistent with recent studies that have found that teacher autonomy is positively correlated with job satisfaction, empowerment, engagement, and professionalism, and negatively correlated to emotional exhaustion (Erss et al., 2016; Wermke et al., 2019; Skaalvik & Skaalvik, 2014; Wilches, 2007).

The results of the study indicate that the influence of technostress and teacher autonomy on teacher burnout is significant for the total sample, male sample, female sample, rural sample, urban sample, teachers with basic qualifications, higher qualifications, language teachers, social science teachers, science teachers, mathematics teachers, novice teachers, less experienced teachers, and experienced teachers. This suggests that the relationship between technostress, teacher autonomy, and teacher burnout is consistent across different subgroups of unaided secondary school teachers. The study supports the findings of previous research that states that high levels of technostress and low levels of teacher autonomy are associated with high levels of teacher burnout.

The results of the study indicate that the interaction effect of technostress and teacher autonomy on teacher burnout is significant for the total sample, male sample, CBSE sample, experienced sample, and urban sample. The study also found that the interaction effect is significant for social science sample, science sample and basic qualification sample and highly qualified sample. However, the interaction effect was not significant for the female sample, State syllabus sample, novice

sample, less experienced sample, rural sample, language sample, and mathematics sample. These findings suggest that the relationship between technostress, teacher autonomy, and teacher burnout is complex and may vary depending on the subgroup of teachers being considered. The study supports the findings of previous research that states that high levels of technostress and low levels of teacher autonomy are associated with high levels of teacher burnout, but this relationship may be moderated by factors such as gender, qualification, subject of teaching, and experience. The study emphasizes that reducing technostress and increasing teacher autonomy can help to reduce teacher burnout, but the specific strategies used may need to be tailored to the unique needs of different subgroups of teachers.

The results of the study indicate that there is a significant positive correlation between technostress and teacher burnout, with an increase in technostress leading to an increase in teacher burnout. Additionally, there is a significant negative correlation between teacher autonomy and teacher burnout, with an increase in teacher autonomy leading to a decrease in teacher burnout. The study found that the dimensions of technostress are positively and significantly correlated with teacher burnout. Furthermore, multiple correlation and regression analysis were applied to find out the individual and joint contributions of technostress and teacher autonomy in predicting teacher burnout of unaided secondary school teachers. The results show that technostress and teacher autonomy statistically significantly predicted teacher burnout. These findings suggest that reducing technostress and increasing teacher autonomy can help to reduce teacher burnout among unaided secondary school teachers.

SUGGESTIONS & RECOMMENDATIONS

- ❖ *Recommendations*
- ❖ *Educational Implications*
- ❖ *Suggestions for Further Studies*

Suggestions and recommendations are the vital part of every research. It is the part where the contribution of the research is summarized. Every research in the discipline of education should have some educational implications which may help to make our education system to a more competitive and productive one. The recommendations presented in this chapter are intended to serve as a guide for schools and educational leaders as they work to address the challenges of technostress, autonomy, and burnout and promote teacher well-being in the age of technology.

Recommendations

The present study has several recommendations in different dimensions of teachers and teaching. To mitigate the negative effects of technostress and promote teacher autonomy in unaided secondary schools, the following recommendations can be considered:

- Provide teachers with training and support in the use of technology: Teachers should be given training on how to use technology effectively in their teaching and provided with ongoing support as needed. This will help to reduce feelings of technostress and increase teachers' confidence in using technology.
- Encourage collaboration among teachers: Teachers should be encouraged to collaborate with one another to share ideas and strategies for using technology in their teaching. This can help to reduce feelings of isolation and increase job satisfaction.
- Foster a culture of autonomy: Schools should respect and support teachers' autonomy in decision-making related to their teaching and professional development. This can help to promote job satisfaction and reduce feelings of burnout.

- Encourage balance between technology use and face-to-face interaction: While technology can be a useful tool in teaching, it should not be overused. Teachers should be encouraged to balance the use of technology with face-to-face interaction with their students.
- Provide opportunities for self-care: Teachers should be encouraged to prioritize their own well-being and provided with opportunities for self-care.
- Monitor and review teacher's workload and expectations: It is important to ensure that teachers are not overwhelmed by unrealistic workloads or expectations, and that the technology is used to enhance their teaching and not creating additional workload.
- Provide mentorship and supervision: Mentorship and supervision can provide teachers with support and guidance as they navigate the challenges of using technology in their teaching.

By implementing these recommendations, schools can help to reduce the negative effects of technostress and promote teacher autonomy, which can in turn lead to reduced burnout among unaided secondary school teachers.

Educational Implications

The present study has numerous implications in various dimensions of teachers and teaching. The findings of the present study would support in throwing light into certain ignored fields like education, daily requirements of teachers in relation to their teaching environment and all their profession. Based on the results, it appears that technostress and a lack of teacher autonomy can contribute to burnout among unaided secondary school teachers. Technostress, which is the psychological response to the use of technology in the workplace, can lead to feelings of frustration, overload, and a lack of control. A lack of teacher autonomy may lead to feelings of powerlessness and dissatisfaction. Together, these factors can contribute

to burnout, which is characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. It is important for schools and educational organizations to address these issues in order to support the well-being and effectiveness of their teachers.

- The result of the study shows teachers possess above average level of technostress. So steps should be initiated to reduce the technostress among teachers.

Techniques to Reduce Technostress

Techniques can be categorized as general techniques and specific techniques. General techniques can be used by different types of people regardless of age, work, gender, region and education. Specific techniques are those strategies which are intended for each profession like software engineers, office workers, teachers and librarians.

Providing teachers training and professional development opportunities to help them effectively integrate technology into their instruction help them to manage technostress.

Hogge (2006) examined that “to minimize technostress, some coping strategies should be formulated and implemented. The main factor which gives rise to the problem of technostress is the improper implementation of technological innovations. To prevent and manage technostress, teachers need to be provided with adequate training, support, and resources to effectively integrate technology into their classrooms, and to be able to disconnect and balance their online and offline activities.

To reduce technostress the following strategies are suggested

- **Techno Club.** Create a platform for the teachers, which gives proper technological support programme with the collaboration of IT department.

- ***KITE***. Kerala infrastructure and technology for education (KITE) is a government of Kerala initiative established to endorse and implement novice technology in the state of Kerala. Its concern only concentrated in government sector. It should be extended in the unaided sector also.
- ***KOOL***. KITE's Open Online Learning (KOOL) is online training programme for teachers to improve their technical skills. It should extend to unaided teachers too.
- ***Positive Technology***. Make the teachers aware about the positive technology, which is the one of the general tactics to overcome the technostress and it "is the scientific and applied approach to the use of technology for improving the quality of our experience" (Riva et al., 2012). Positive technology affects all three domains of personal experience. First one is Hedonic- It is the way of using technology for positive experience. It help reduce techno anxiety and technostress. It also helps to avoid techno overload by choosing right work device and time. Second one is Eudaimonic- it is a Greek word which means state or condition of 'good spirit 'and usually denotes as happiness or welfare. According to Aristotle the term Eudaimonic means highest human virtuous. Third one is social/interpersonal domain.
- ***Digital Wellbeing***. Digital wellbeing is another strategy to overcome issue of technostress. Give appropriate training in preservice and in-service period to make the teachers a good digital wellbeing personalities. Digital wellness (digital wellbeing) is the practise of technology to ensure the physical and emotional health of a person. Although workers rely on their digital tools and the internet to do their tasks, the goal of digital wellness is to design technology in such a way that it indorses healthy use and dynamically supports the handler to keep a healthy lifestyle. A common instance of technology that can have an undesirable consequence on workers is the misuse of social media throughout the workday.

- **Digital Detox.** Train the teachers digital detox which means get available gadget free time to one's life. It is most popular technique to reduce technostress specifically issue of techno invasion. Other methods to overcome technostress are identify the signs, be purposeful, in another word keep objectivity in every action, stay away from distractions; this is also known as issue of multiscreen, Controlled use, Prepare a not to list, be elective and specific, update the changes, Become more mindful of your interactions, Switch off notifications from social media apps and other non-essential apps during working hours, Avoid using work-related tools/software during your leisure time or with family and friends, Introduce technological innovations.
- **Techno-eustress.** Inculcate the idea of techno-eustress among teachers. It is a, "positive technique to overcome technostress that causes satisfaction, joy, increases vitality, does not cause imbalances and helps facilitate people's decision making" (Tarafdar et al., 2019). Eustress, happens mainly as a results from positive interpretations of stressors (Le Fevere et al., 2003)
- **Make the Teachers as Technosavy.** Technosavy means a person who is well informed about or proficient in the use of modern technology. Make the teachers as technosavy persons which help them to overcome issue of technostress to some extent. "IT professionals reduce the technostress by understanding the functionalities of the technology and training vigorously." (Scott & Timmerman, 2005)
- **Make the teachers as Digital native.** Students of the 21st century known as digital native whereas the teachers are migrant into the digital world. So it is very important that make the teachers as digital native persons which help them to overcome issue of technostress to some extent.
- **Techno Ethics.** Make the teachers aware of techno ethics which is very essential when we deal with modern technology, which may secure us different types of technological issues.

Other Ways of Coping with Techno Stress

There are several techniques that can help to alleviate technostress:

- ***Establish Boundaries.*** Set specific times during the day to check and respond to emails, messages and other digital communications. Turn off notifications that are not urgent, and avoid checking your phone or computer outside of designated times.
- ***Prioritize Self-care.*** Make sure to take regular breaks, get enough sleep, exercise, and eat healthy.
- ***Unplug.*** Take a complete break from technology at least once a week to give your mind and body a rest.
- ***Practice Mindfulness.*** Mindfulness techniques such as meditation and deep breathing can help to reduce stress and anxiety.
- ***Keep a Balance.*** Don't let technology take over your life. Make sure you have enough time for activities and people that are important to you.
- ***Seek Professional Help.*** If technostress is affecting your work or personal life, seek help from a mental health professional.
- ***Manage Your Time.*** Plan your day and set up reminders to stay focused and on task.
- ***Learn to Say No.*** Saying no to non-important task can help in reducing the workload which can cause technostress.
- ***Use Technology to Your Advantage.*** Use technology to organize your schedule and manage your time efficiently, so you don't feel overwhelmed by it.
- Get adequate, user friendly software
- Create better communication within the environment
- Create a level of reassurance, patience, and stability within the environment
- Maintain an ever-present system of training and education to new and old technologies

- Foster sharing of computer related knowledge within the organization.
- A responsive and easily reached help-desk can allay managers' anxiety and concerns, guide them in using and familiarizing with new applications and assure them in case of problems
- Keep teachers "involved" in the general scheme of things in the context of new computer systems. The more involved and familiar they are, the less techno - stressed they would be.
- Encourage people to "experiment" and innovate in the context of technology use
- Encourage teachers to communicate, discuss, and share their knowledge about new technologies.
- To address techno insecurity, it's important to educate individuals about online security and privacy, as well as the steps they can take to protect their personal information. This can include using strong passwords, avoiding public Wi-Fi networks, and being mindful of the information shared online. Additionally, organizations can implement security measures such as encryption and multi-factor authentication to protect sensitive information and provide peace of mind for users.
- To address techno complexity, it's important to provide clear instructions, documentation and training that can help people understand how to use technology effectively.
- Teachers with basic qualifications have higher levels of techno complexity than teachers with higher qualifications. So give proper directions and motivations to gain higher qualifications.
- To address techno invasion, it's important for individuals to set boundaries and establish a healthy relationship with technology. This can include setting specific times for checking email or social media, and making sure to take breaks and engage in activities that do not involve technology. Additionally,

organizations can implement policies and practices that promote a healthy work-life balance, such as not expecting teachers to be available outside of normal working hours.

- The study indicates a lack of technological facilities in state syllabus unaided schools. So government take the initiative to make available the facilities.

Techniques to Strengthen Autonomy

Findings of the study highlight the importance of improving autonomy of teachers. Autonomy could be increased through various types of training and programmes.

Teacher autonomy refers to the degree of control teachers have over their own work. Empowering teachers with autonomy can lead to increased job satisfaction, motivation, and commitment, as well as improved student outcomes. Here are some strategies that can help to empower teacher autonomy:

- ***Encourage Professional Development.*** Provide teachers with opportunities for professional development and training to enhance their skills and knowledge, and to stay current with new teaching methods and technologies.
- ***Provide Autonomy in the Classroom.*** Give teachers the freedom to design and implement their own lesson plans, assessments, and classroom management strategies.
- ***Encourage Collaboration and Teamwork.*** Create opportunities for teachers to work together, share ideas and best practices, and provide constructive feedback to one another.
- ***Emphasize the Importance of Teacher Input.*** Encourage teachers to share their thoughts, ideas and concerns, and take them into consideration when making decisions that affect them and their students.
- ***Provide Resources and Support.*** Provide teachers with the necessary resources and support they need to be effective in their work, such as access to technology, instructional materials and professional development opportunities.

- ***Encourage Creativity and Innovation.*** Create an environment that encourages teachers to think outside the box and to be creative and innovative in their teaching methods.
- ***Provide Opportunities for Leadership.*** Give teachers the opportunity to take on leadership roles and responsibilities, such as mentoring new teachers or leading professional development workshops.
- ***Recognize and Reward Good Work.*** Recognize and reward teachers for their hard work, dedication and achievements, which will help to build their confidence and motivation.
- ***Teachers' Hub.*** Form the teachers hub, which lead to conduct different types of faculty development programmes to strengthen autonomy of teachers and reduce burnout.
- ***Make the Teachers Enthusiastic.*** “Teacher Enthusiasm, also positively associated with teachers’ overall work gratification, and low levels of emotional exhaustion” (Kunter et al., 2008, 2011, 2013). In addition, Cobb and Foeller (1992) also observed positive relations between teacher enthusiasm and autonomy.
- ***Educational Policies.*** Educational policies should aid the autonomy of teachers as indicated by Li & Allen “As teacher autonomy relates positively to teacher job satisfaction and retention, this study suggests that policy makers consider a moralistic approach in creating educational policies” (Li & Allen, 2021).
- ***Implement Guidelines.*** The study shows the issue of excess parental involvement in school. Implement guidelines to avoid unnecessary interference of parents.

By implementing these strategies, schools and educational organizations can empower teachers with autonomy and support them in becoming more effective and satisfied in their work.

Strategies to Overcome Teacher Burnout

Here are some strategies that can help teachers overcome burnout

- **Conduct Teachers SEL Programmes.** Social Emotional Learning programmes would help to overcome the issues of burnout among teachers.
- Increasing teacher's autonomy would help to reduce the burnout of them.
- Comprehensive policy to protect teachers' right.
- **Prioritize Self-care.** Make sure to take regular breaks, get enough sleep, exercise, and eat healthy.
- **Establish Boundaries.** Set specific times during the day to disconnect from work and focus on your personal life and hobbies.
- **Seek Support.** Connect with colleagues and other teachers to share ideas and strategies for dealing with stress.
- **Practice Mindfulness.** Mindfulness techniques such as meditation and deep breathing can help to reduce stress and anxiety.
- **Take Time Off.** Take a leave of absence if necessary, to recharge and come back with renewed energy.
- **Manage Your Time.** Plan your day and set up reminders to stay focused and on task.
- **Get Professional Help.** If burnout is affecting your work or personal life, seek help from a mental health professional.
- **Reflect on Your Goals and Values.** Reflecting on your goals, values and why you choose teaching as a profession can help to keep things in perspective and refocus on what is important.

- ***Make Use of Available Resources.*** Make use of any programs, resources and support available through your school district or professional organizations to help with managing stress.
- ***Learn to Delegate.*** Learn to delegate tasks and responsibilities to other colleagues, students or family members.
- ***Practice Emotion Regulation.*** In observing ways to control teacher burnout, scholars have recognized emotion regulation and coping as effective means to reduce the emotional exhaustion associated with burnout (Brackett et al., 2010; Chang, 2013; Durr et al., 2014).

Earlier studies has observed that teachers use a diversity of stratagems to adjust their emotions while schooling, comprising cognitive reappraisals, which have been recognized as protective against burnout (Sutton et al., 2009; Yin et al., 2016; Taxer & Gross, 2018; Chang & Taxer, 2021) . Some other suggestions are given below.

- Increasing teacher autonomy by involving teachers in decision-making processes related to technology integration in the classroom.
- Providing teachers with access to resources and support, such as technical assistance and mental health services, to help them manage the demands of technology integration and prevent burnout.
- Developing and implementing policies and practices that support teachers' well-being and work-life balance, such as reducing workload, providing flexible scheduling, and promoting self-care.
- Encouraging collaboration and community building among teachers to foster a sense of support and camaraderie.
- Encourage regular monitoring and evaluation of the impact of technology integration on teachers' well-being and make necessary adjustments.

By implementing these strategies, teachers can reduce the risk of burnout and improve their overall well-being. It's important to keep in mind that burnout is a

gradual process, so it's important to be mindful of the signs and take steps to prevent it before it becomes a more serious problem.

Suggestions for Further Studies

Succeeding the completion of the study, the investigator recognized certain areas that have need of further research, which are listed below as suggestions for upcoming research.

- Further study can be conducted on development and standardisation of digital wellbeing package for teachers.
- Replication of the study among the primary, higher secondary and college teachers.
- Replication of the study among the government and aided sectors.
- Further studies can be carried out to identify the factors affecting technostress of teachers.
- Further research can be conducted to explore the impact of technology integration on the well-being of teachers in different contexts and cultures.
- Further research can be conducted to identify the factors affecting technostress of students of different stages.
- Further study can be conducted to evaluate the moderating effects of coping strategies on the relationship between technostress and burnout among unaided secondary school teachers in Kerala.
- Conduct a qualitative study to gain a deeper understanding of the experiences and perceptions of unaided secondary school teachers in Kerala regarding technostress and burnout.
- Investigate the specific role of school culture and leadership in influencing technostress and burnout among unaided secondary school teachers in Kerala.
- Conduct a study to compare the level of technostress and burnout among unaided secondary school teachers in Kerala with those in other states or countries.

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APPENDICES

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1	ΘpcCABM OMEC ©Eci POMB, IEABMBA ak oab I xa oab ABM { APZ ≠ CcpEEJ BEi. na μoi PA i					
2	ΘpcCABM OMEC ©Eci POMB, aU ≠ CcpEE oABA i CPOB {c A ± pæuz aMamuZ OOCI PA i.					
3	EaABi ΘpcCABM OMEC ObamuBA acOPZ ≠ CcpEE oABA MZ I PXPX EBI -t BA æMz ak a i					
4	EaABi ΘpcCABM OMEC ai pi B APBPV cc dEPÉBA ak ABÉpi B ≠ CcpEE A ± pæuz aMamu { BW I PxB Z O oaj P X EBI -t BAÉpi B					
5	EaV- cEoc æzmicEP { 1/4B ©EmoABZ ©Eci POMB acOPZ OPoabM I ai BI aGam { ai POpuai i					
6	EaABi ΘpcCABM OMEC 2PVNOMiAB mauA ak a.					
7	μPOuait am { BW ΘpcCABM OMEC ©Eci POMB ak Ai OBI AcPvj BM { BW ΘpcCABM OMEC i æz Ea oAEci POMB ÖV- i BAPX μPOA I PmaKa.					
8	2PY ææUX OCOBCEB { BUæz ObmpocAMZ E-xi zæMz ak a ® KA i OCI ai PA ak a.					
9	UpA BBi cEPæUi aU ææOI V μi A B æ { A ai ub, i IaABi ai i					
10	cOp-xw IaABi, I xa MamZ Aaz B BI O ©Eci POMB, i OcmiABEoi pi OBOB Z ° a x A c æ° ± æMz ak a i					
11	OF BA æMz ac I P ® KI I I KI ≠ ub OamuZ 2PY ææÜ- ÈBW EC æOA puB.					
12	EaABi ΘpcCABM OMEC μPOA c ° a oab BI O I I J B EaU BW ma z a AW c 1/4 PUæ° ± PX OpcBA puai i					
13	æExOVA i UpVA i æOI V, cOpE ki æOI V Aaz B BI - OI ai pi BI -t æMG dE OEB Z ma z a AW O I I E-xic OI PA puai i					
14	EAE OPU° ocJ bæU I PxB æ { A ai ub, i ma Ac I pi CPOA ai cOI B ≠ OCMEROB Z Ac 1/4 CA I BO- o a Ka.					
15	μPOi uait BW æzmicEP { 1/4B ©Eci POMB acOPZ O I I - I -t BA I pi B EPA I POMB EaVJ BI BAPX OpcBA ak B.					

Sl. No.	ἰ ΕΘΙΑΡΘΕ	ΕΑΥΗΠΙ ἄτ çí Þ¼ΒΑ ἄΚ ἄ	çí Þ¼ΒΑ ἄΚ ἄ	≠-ΓΜΕΠΙ ἰβ	Όθçí Þ¼ΒΑ ἄΚ ἄ	ΕΑΥΗΠΙ ἄτ Όθçí Þ¼ΒΑ ἄΚ ἄ
16	ἘἄἈΒἱ ὈÞçCÄβμ ὌΒΕç μÞðÃ ç ὌçμἰἈΒ¼ἄὌΒἈç ðμἱ- øÛΒἈἱ Þἱ ἔ.					
17	æçμἰçÈÞç¼β ὈμΒWØἰ ὌβμὌΒΜΒΑ ÞX ἱ ὌὌçἱ Þἱ øἄἈΒἱ ΒÛἄU ὚XØVØἄØἰ ææççÈΒΒἱ ÛἱΒΑ ἄΚ Β					
18	æ® çβ ἘἈçÈÞçÉμøÃ Β Ζ ὌCἄVHὌἄç ἘøØἰÉøç ©. Ἐçἱ ÞἱΒΑ ÞX ὈÞçCΒΑ ÞJ Ἀἄἱ Þἱ Β ≠ Ἐἄἱ ὌæMçἄΚ ἄ.					
19	≠ ÇçÞçÈÈJ ΒW ²øἄ ὌἈἱøç ἱἄ× Ἀ Βἱ Þἱ Β æçμἰçÈÞç- ¼β ἱ ÞἱἄΚ ἄ.					
20	ὈÞçCÄβμ ὌΒΕç ©Ἐçἱ ÞἱΒΑ ἄΚ ἄæἱ CΒÛἄç ≠ Ἀἱ ὌΒÛ- ἱ ὌΒΕἱ ≠ Ἐἄçἱ Þ¼çἱ ÞὌÞἱἄ					
21	ἘἄἈΒἱ ὈÞçCÄβμ ὌΒΕç μÞðÃ ç μἄἰE Ὄἱἱ ç ἱ ÞἱἈçἱ μἄçἄçἱ Ὄἄἱ Þἱ Β æ° ÛὌYΒΑ ÞX μYΒἱ ἄΚ ἄU ἄ.					
22	ἘἄἈΒἱ ὈÞçCÄβμ ὌΒΕçἱ ἄæç ©Ἐçἱ ÞἱΒἱ ἘἄὌἰἈμ ὌÞ- ἱ ἘὌἄUæJ ἱ Þçβ, ΒGἱ ἱ					
23	ἘἄἈΒἱ ὈÞçCÄβμ ὌΒΕç ææμμÞðç æ° çἄΚ ἈΒW μἄGἱ μZἈἱ ≠ ÇçÞçÈçøA ÞZ ≠ ὌἱÞἱἱ ἄæἱ Κ çἈÞΚ W ἰἘὌἰç Ὄἄ×çΒΑ Þἱἄἱ ἱ					
24	ὈÞçCÄβμ ὌΒΕçἱ ἱæÛ ≠ ἱβὌἰ Ὄçæø μἄἰὌÞἈἱ					
25	ἘἈΒΜΒΑ ἄΚ Ὄβ×ἱ Ὄἄἱ Þἱ Β ἱ -t æMG ἱ Μἄμçἄç çØÞçÈææὌἱ ἱἄμçἄç ©Ἐçἱ ÞἱΒΑ ἄΚ ἈΒÛἄU Ἐøἱ- ἱ ç μἄἰὌÞἈἱ					
26	ὌΒΕçÞἱçÞø øçγ ἱ ὌÞçCÄβμ ὌΒΕçἱ ἄæç ἘἄἈΒἱ ὈÞçCÄμæç μἄἰἱ, ἱ ≠ çÈἱ× ΒΑ Þἱἄἱ ἱ					
27	®æἄ Ὄἱ ἱ¼μçἄἱ Þἱ Β ἱ -t æMG ἱ Μἄμçἄç çØÞçÈææ- æὌἱ ἱἄμçἄæçἱ ἄç ÛἱçἈ μἄἰὌÞἈἱ					
28	ὈÞçCÄβμ ὌΒΕç ©Ἐçἱ ÞἱΒἱ ἄU ≠ ÇçÞçÈÈ øἄἈβ μÞøἄ- ἱ ἄἱἱμçἄβW ἰἘçἱ ÞἱΒΑ ÞÈἄU ≠ Ὄøøç ÛἱΒΑ Þἱἄ					
29	æἱÞææἱ W çÈÞY, ÛÞÈççÞMἱ Ἀἄç Β Βἱ Ὄἱ ἄæç ©Ἐ- çἱ ÞἱΒἱ μÞðÃ ç Ὄἱ ἄÛὌἱ Þἱ ἄU ἱ -t ç μἄἱἱ ἄΚ ἄ.					
30	὚ἈVæÈ×ΒW ÈΒΚἱ μΒGἄΚ ὌἱὌøΒ Ζ ἱ ÇβμÞøβμἱ ®Κ çἈÞΚ W ©ἱ ἱ					
31	® ἈἄçA× Ἀ W ἱ ΜἄμZ, ²ÞY ææÛX μÞøἄμZἈἄ- ç Β Βἱ Ὄ μἄçἄἈÛÞἱ Β ὌΚ çἈÞæç μÞøἄἱç ἘἈÈç ÈΒÛ- ὌÞøἈμV, çÈøçἄΚ ἄἱ ἱ					

Sl. No.	dÉØĀPÖÈ	EāVHĪ pī āc çĭ p¼BA āK ā	çĭ p¼BA āK ā	≠ĪŃE pī ĪB̃	ÖŃçĭ p¼BA āK ā	EāVHĪ pī āc ÖŃçĭ p¼BA āK ā
32	ÉøOøpŁĀ øĀĀBĪ BW ÉĀBMBĀ āK ĀBĒPĀ Ī dÉPÇcpĒcĉ æm pçĀ PūāU Āi					
33	māGpμ{āæç ÉĀÉ ÈBŪÖpøç ØpçCĀBμÖBĒcĭ BŪāæç ÖV- i BMBĀ pX μYBĪ āc					
34	ÉāĀBĪ ØpçCĀBμÖBĒc ÉĀBA PĒāc ≠Āi ≠ÇcpĒÉĒ- J BW çŌĪ ÖBÇç dÉçĭ PŁBA PĒāc ĀPŪĒēøcĉ μpĀ B A PūāĪ Ī					
35	æ° ÜŌi māūE øĀĀBĪ BW ØpçCĀBμ ÖBĒc dÉçĭ p¼Ē- æMçĀJ PūāĪ Ī					
36	ØpçCĀBμ ÖBĒc ©Éçĭ PŁB, āU ≠ÇcpĒÉøĀĀB ≠Çcp- Émæa dμBĪ pV μĀæĪ dÉĀBμāŪĪ pī BĪ pçBA āK ā.					
37	μPØĀĪ āūBμ{BW æçμçĒP{¼B ©Éçĭ PŁBA āçOPZ ≠ÇcpĒÉμēÖBĒcpVj BĪ t ç Ē-xçæMçĀK ā.					
38	ÖçĀçØĀĪ PæĪ pøā ÉĀĒPĒĀĪ Öç ØpçCĀBμÖBĒcĭ BŪā- æç ØpççĪ pμāK ā.					
39	ØpçCĀBμÖBĒc ©Éçĭ PŁB, āU ÉĀĒç ¼āÖBĀŁ-t B Ī PĪ ÖBĒcpĪ cpØĪ ĩ ®K ÇpøĀĪ āĪ Ī					
40	ÉāĀBĪ ÖBĒcpVj BμZ æçμçĒP{¼B çμdWāμāĀĪ pī ÉĀ- ÉØPŪ° øçB ç{pçĭ ®çāM-J BW æĒPøāJ æM çĀK ā.					
41	μPØĪ ūāĪ BW æçμçĒP{¼B ©Éçĭ PŁBA āçOPZ μPØĪ ūāç Ī pçĒ¼æĪ ai ÉBĪ dL Ā ÖBççĪ Ī ĩ pĀBμāK ā.					
42	ØĪ pVGI ūāĪ pμZ çŌĪ ÖBçç BW ©Éçĭ PŁBA P- ūāĪ Ī					
43	ØĪ pVGI ūāĪ pæŪ μPØĪ μç{pçĭ ÖBĒcpVj BμZ Ī ĀPŪĪ Éøcĉ μāçĀĀPĀ Ī					
44	μPØĪ ūāĪ BW ≠ÇcpĒÉmæa ØĪĀPĒç æm pçĀ P X ØpçCĀBμÖBĒc Ī μYBĪ āc.					
45	ÉāĀBĪ ØpçCĀBμ ÖBĒc μpøĀç ° āøāB BĪ ØĪĪ J B ÉāU BW μāçĀĀW ç¼PŪBæ° †pX ÈBVI t BA æMçĀ K āĪ Ī					
46	æçμçĒP{¼B ØμBWØĪ ÖBμØBMBĀ P X ; ÖççĪ pī ØĪĪ ç mæĪ J P X μYBĪ āK B̃.					
47	ÉāĀBĪ ØpçCĀBμ ÖBĒc μPØĪ ūāĪ BW È ŪdÉĀĪ pī B ©Éçĭ PŁBA P X μYBĪ āçĪ P ®K ; Öç çĪ PÖPūāĪ Ī					

Appendix II
FAROOK TRAINING COLLEGE
Affiliated to University of Calicut
TECHNO STRESS SCALE
 MALAYALAM (FINAL)

Dr. Hassan Koya M.P
 Associate Professor

Shafeek P
 Senior Research Fellow

Personal Information

- ഘടനാപരമായ ചോദ്യങ്ങൾ :
 (ഒരു തീർപ്പ്)
 ഉള്ളിലുള്ള ചോദ്യങ്ങൾ :
 തീർപ്പ് (മുദ്ര)
 മുദ്ര S E C : മിറ്റി / മിറ്റി / കേരള സ്റ്റേറ്റ് സിലബസ്
 മുദ്ര A Ü C : ഷെർട്ടിഫിക്കറ്റ് / ഡിഗ്രി / ഡിഗ്രി വേർഷൻ
 ഉള്ളിൽ : | Y / ഷെഡ്യൂൾ
 ഘടനാപരമായ ചോദ്യങ്ങൾ : 5 ഓവർ-ജി / 10 ഓവർ-ജി / 10 ഓവർ-ജി / 10 ഓവർ-ജി
 മുദ്രാപരമായ
 മുദ്ര A Ü C : മിറ്റി / മിറ്റി
 മിറ്റി : | മിറ്റി / മിറ്റി / മിറ്റി / മിറ്റി / മിറ്റി / മിറ്റി / മിറ്റി / മിറ്റി
 മുദ്ര A Ü C : D.Ed. / B.Ed. / Degree / M.A / MS.C / M.COM / M.ED / Ph.D. / NET
 മുദ്ര A Ü C : PGDCA / DCA / Other / No Courses

ഉപയോഗം

മൂല്യനിർണ്ണയം നടത്താൻ രണ്ടു ഭാഗങ്ങളിലായി ചോദ്യങ്ങൾ ഉൾപ്പെടുത്തിയിരിക്കുന്നു. 1. എല്ലാ ചോദ്യങ്ങളും ശരിയെന്ന് കരുതിക്കൊണ്ട് ഉത്തരം നൽകുക. 2. ചോദ്യങ്ങളുടെ 1/4 ഭാഗം ശരിയെന്ന് കരുതിക്കൊണ്ട് ഉത്തരം നൽകുക. 3. ചോദ്യങ്ങളുടെ 1/2 ഭാഗം ശരിയെന്ന് കരുതിക്കൊണ്ട് ഉത്തരം നൽകുക. 4. ചോദ്യങ്ങളുടെ 3/4 ഭാഗം ശരിയെന്ന് കരുതിക്കൊണ്ട് ഉത്തരം നൽകുക. 5. എല്ലാ ചോദ്യങ്ങളും തെറ്റെന്ന് കരുതിക്കൊണ്ട് ഉത്തരം നൽകുക.

രണ്ടു ഭാഗങ്ങളിലായി ചോദ്യങ്ങൾ ഉൾപ്പെടുത്തിയിരിക്കുന്നു. മൂല്യനിർണ്ണയം നടത്താൻ രണ്ടു ഭാഗങ്ങളിലായി ചോദ്യങ്ങൾ ഉൾപ്പെടുത്തിയിരിക്കുന്നു.

Sl. No.	ἰ Εὐαγγέλιον	Εὐαγγέλιον ἡ πρῶτη ἀπόκρυφος	ἡ δευτέρα ἀπόκρυφος	ἡ τρίτη ἀπόκρυφος	Ὁ βιβλίου πρῶτη ἀπόκρυφος	Εὐαγγέλιον Ὁ βιβλίου πρῶτη ἀπόκρυφος
1	Ὁ θεὸς ἀπέσταλεν τὸν υἱὸν αὐτοῦ, τὸν ἀγαπῶντα τὸν κόσμον, ἵνα ἅπαντες οἱ υἱοὶ αὐτοῦ ἐκτισθῶσιν διὰ τὸ ἰσχυρῶς ἀγαπᾶν αὐτὸν.					
2	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
3	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
4	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
5	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
6	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
7	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
8	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
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13	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
14	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					
15	Ἐάν τις ἀγαπᾷ τὸν υἱὸν ἀγαπᾷ καὶ τὸν ἀποστείλαντά αὐτόν, ὁ θεὸς ἀγαπᾷ αὐτὸν καὶ τὸν υἱόν αὐτοῦ καὶ τὸν ἀποστείλαντά αὐτόν.					

Sl. No.	dÉØÁÞÖÈ	EáVHIÞÍ áC çÍ Þ¼BA áK á	çÍ Þ¼BA áK á	≠-IÞEÞÍ IÞ	ÖfçÍ Þ¼BA áK á	EáVHIÞÍ áC ÖfçÍ Þ¼BA áK á
16	æçµçÈÞç¼B ØµBWBØi ØµØBMBa ÞX ÖÖcI ÞÍ ðáÁBÍ BÚáU SXØVÖáØi ææççÈBBI ÚÍBA áK B.					
17	æ® çB ÈÁÇÈPÉµøÃ B Z ØCáVHÖáC ÈøØiÉøC ©. ÉçÍ ÞóBA ÞX ØÞçBA ÞJ ÁáI ÞÍ B ≠ ÉáI ÖæMçáK á.					
18	≠ÇçPÉÈJ BW ²ðá ØiÁBøC Íá× ÁBÍ ÞÍ B æçµçÈÞç¼B IÞáU áK á.					
19	ØÞçCÁBµÖBEC ©ÉçÍ ÞóBA áK áæI CBÚáC ≠ Ái ØBÚ. I ØBÉi ≠ ÉáçÍ Þ¼çI ÞÖÞúB.					
20	ÉáÁBÍ ØÞçCÁBµ ÖBEC µÞøÃ ç µáUÈ ØÍI ç IÞáUçI µáçáçI ÖáI ÞÍ B æ° ÜÖYBA ÞX µYBÍ áK áU á.					
21	ÉáÁBÍ ØÞçCÁBµÖBEC ææµµÞøC æ° çáK ÁBW µáGß µZÁi ≠ ÇçPÉµçøA ÞZ ≠ ÖóÞÚI áæI K çÁÞK W dÉÖiÈç Øá× çBA ÞúáI i					
22	ØÞçCÁBµ ÖBECI BæÜ ≠ úBÖi Ö{æø µáUÖÞÁ i					
23	ÉÁBMBa áK ÖB×I ÖáI ÞÍ B I -t æMG MáµçáC çøÞÈ BæøÖI úáµçáC ©ÉçÍ ÞóBA áK ÁBÚáU ÈøB. I ç µáUÖÞÁ i					
24	®æa ØI Þ¼µçáI ÞÍ B I -t æMG MáµçáC çøÞÈ Bæ- æøI úáµçáæçI áC ÚIçÁ µáUÖÞÁ i					
25	ØÞçCÁBµÖBEC ©ÉçÍ ÞóB, áU ≠ ÇçPÉÈ ðáÁB µÞøá- I áUµçBWB dÉçÍ ÞóBA ÞÉáU ≠ ÖøøC ÚÍBA ÞúB.					
26	æIÞææI W çÈÞY, ÚPÉççPMi ÁáçB BÍ ÖI áæç ©É- çÍ ÞóC µÞøÃ ç ØI áUÖáI ÞÍ áU I -t ç µáUÍ áK á.					
27	SáVæÈ×BW ÈBK i µBáK ÖBÖøB Z ÇBµÞøBµI ®K çÁÞKW ©I i					
28	®ÁçA×ÁW MáµZ, ²PY ææÜX µÞøáµZÁá- çB BÍ Ö µáçáÁÚÞÍ B ÖK çÁÞæç µÞøúáC ÉÁÈç ÈBÚ- ÖÞøÁµV, çÈøçáK áI i					
29	ÈøOøÞóÁ ðáÁBÍ BW ÉÁBMBa áK ÁBÉÞÁ i dÉÞççPÉçC æµÞçáA ÞúáU Ái					
30	µáGßµçáæç ÉÁÈ ÈBÚÖÞøC ØÞçCÁBµÖBECI BÚáæç ÖV- i BMBa ÞX µYBÍ áC					
31	æ° ÜÖi µáUÈ ðáÁBÍ BW ØÞçCÁBµ ÖBEC dÉçÍ Þ¼È- æMçáJ ÞúáI i					

Appendix III
FAROOK TRAINING COLLEGE
Affiliated to University of Calicut
TECHNO STRESS SCALE
ENGLISH (FINAL)

Dr. Hassan Koya M.P
Associate Professor

Shafeek P
Senior Research Fellow

Personal Information

Name of the Teacher :
(Optional)

Name of the School :
District (School) :
Type of School : CBSE/ Kerala State Syllabus
Level of School : Primary/Secondary/Higher Secondary
Sex : Male/Female
Teaching Experience : Below 5 years/ Below 10 years/ Above 20 years
Locale : Rural/Urban
Subject : Language/ Social Science/ Science/ Mathematics/ IT
Educational Qualifications: D.Ed. /B.Ed./Degree/ M.A/MS.C/M.COM/M.ED/ Ph.D./NET
Computer Courses : PGDCA/DCA/Other/ No Courses

Instructions

Five responses are given to each of the following Statements. 1. Strongly Agree, 2. Agree, 3. No Opinion, 4. Disagree and 5. Strongly Disagree.

Place a ✓ in the appropriate column to indicate how true each statement is for you.

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	I think technology based teaching is better than any other method of teaching					
2	My teaching methods are forced to change as new technology is adapted.					
3	I forced to make changes in teaching preparation to adapt new technology.					
4	Physical difficulties can occur when using technology for a long time.					
5	I think new technology reduces memory.					
6	In my opinion the use of technology in classrooms leads to increased misuse of technology among students.					
7	I have lot of concerns about the loss of privacy through online systems					
8	I am afraid of cyber-attacks like hacking.					
9	My personal information is being exploited through social media and other apps.					
10	I didn't share my knowledge through online for fear of being cheated.					
11	New technology helps me to do more work in less time.					
12	Problems related to network, hardware and software cost me more time.					
13	I have to sacrifice my holidays for a better understanding of the changes in the learning environment.					
14	When technology is used in the classroom, I am unable to complete the lessons on time.					
15	My personal life has become chaotic due to new technology.					

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
16	Not getting the in-service training required to develop technology skills.					
17	I feel that IT learning tools are complex and difficult to use.					
18	I think technology is becoming a constant threat in teaching.					
19	I use the technology in teaching but it does not fit the syllabus.					
20	Due to new technology, I am able to spend less time with my family.					
21	Teachers feel that students are savvier than teachers in dealing with new technology.					
22	My knowledge of technology is limited.					
23	I have little experience in using apps and software related to the subject being taught.					
24	The availability of apps and software related to my subject is low.					
25	I didn't get adequate facility in classrooms for practicing technology -based teaching methods.					
26	My communication with the community is decreasing due to the use of devices such as mobile phones and laptops.					
27	I think that the information received through the internet is not reliable.					
28	I feel classroom learning is declining with the advent of educational apps and online classes.					
29	I emphasize teaching in traditional style.					

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
30	I think the level of learning of children can be enhanced through technology.					
31	I try to use technology in a cost effective manner.					
32	I think that the teaching method using technology adversely affects the creativity of the teacher.					
33	I think the teacher-student relationship decreases when technology is used in the classroom.					
34	A different learning experience is possible through technology.					
35	There is a perception that learning with technology is not a life-affirming education.					
36	Classroom management becomes uncontrollable when technology is used in the classroom.					
37	I use smart classrooms effectively.					
38	I think technology can take the place of the teacher in the classroom.					
39	Due to new technology, people are forced to work more in less time.					
40	I can't find enough time to develop technology skills.					
41	I have concerns about whether new technology can be used effectively in the classroom.					

Appendix IV
FAROOK TRAINING COLLEGE
Affiliated to University of Calicut
TEACHER AUTONOMY SCALE
MALAYALAM (DRAFT)

Dr. Hassan Koya M.P
 Associate Professor

Shafeek P
 Senior Research Fellow

Personal Information

ഏഴുചുവടുകൾ :
 (എൻ.എസ്.സി.)
 ഓരോ വർഷം :
 വർഷം (എസ്.എസ്.സി.) :
 എസ്.എസ്.സി. : - ഓരോ വർഷം / കേരള സ്റ്റേറ്റ് സിലബസ്
 എസ്.എസ്.സി. : ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം
 ഉൾപ്പെടെ : | Y / ഏയ്
 ഏഴുചുവടുകൾ : 5 ഓരോ വർഷം / 10 ഓരോ വർഷം / 10 ഓരോ വർഷം / 10
 വർഷം
 ഏഴുചുവടുകൾ : ഓരോ വർഷം / ഏയ്
 ഓരോ വർഷം : | പഠനം / ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം / ഓരോ വർഷം
 ഏഴുചുവടുകൾ : D.Ed. / B.Ed. / Degree / M.A / MS.C / M.COM / M.ED / Ph.D. / NET
 ഏഴുചുവടുകൾ : PGDCA / DCA / Other / No Courses

എൻ്റെ പേര്

ഏഴുചുവടുകൾ പേര് ക്കായിട്ടുള്ളവർക്ക് 2000 ഏഴുചുവടുകൾ 1. എൻ്റെ പേര് എൻ്റെ പേര്
 എൻ്റെ പേര് 2. എൻ്റെ പേര് 3. ഏഴുചുവടുകൾ 4. ഏഴുചുവടുകൾ 5. എൻ്റെ പേര്
 എൻ്റെ പേര് 6. എൻ്റെ പേര് 7. എൻ്റെ പേര് 8. എൻ്റെ പേര് 9. എൻ്റെ പേര് 10. എൻ്റെ പേര്

2000 ഏഴുചുവടുകൾ എൻ്റെ പേര് 1. എൻ്റെ പേര് 2. എൻ്റെ പേര് 3. എൻ്റെ പേര് 4. എൻ്റെ പേര് 5. എൻ്റെ പേര് 6. എൻ്റെ പേര് 7. എൻ്റെ പേര് 8. എൻ്റെ പേര് 9. എൻ്റെ പേര് 10. എൻ്റെ പേര്

Sl. No.	I ÉØÄPÖÈ	EÄVHIPI ÆÇI P¼BA áK á	ÇI P¼BA áK á	ÆI MEPI I B	ÖÇI P¼BA áK á	EÄVHIPI ÆÇI P¼BA áK á
17	ÖBæcPvj Bμ{ææz æÉøáI P x ° GB {æc ÈBÍ I B {æc øäÉäμøBA áK Äi ÆÇcPÉμøPÄi					
18	ÆÇcPÉμøææz æÉøáI P x ÈI B Z ÄäøáI PÈBA áK Äi ÆÇcPÉμøææzI æc I PÇÉ¼æI aBaI æc μáGPi ° V, I BÜææzI PÄi					
19	ØØæÉX x X, ÉBøB, äÖBz W Ääz B BÍ μPøcB Z A i I PæÄPøá I PÈÆm B {æc ÉPÜBA áK B					
20	ÖBæcPvj Bμ{ææz ÖBf P ÈI B Z øäÉäμøBA áK Äi ÆÇcPÉμøPÄi					
21	μáGBμ{ææz ØI dσI PÍ I äÜcc ÈBVÄI J BW 2PÇøP ÆÇcPÉμVA æc ÆVÜI PÍ ÉCi ÆÉäÖÆB, ä ÈWμá K áI i					
22	ÉäÄBÍ Äæc °ÉμPødÉÆÖáI PÍ ÇI PÇÇÉPÉμøÄ B Z °ÉÇI PσBA áK Äi ÈBøar PÜæMz äJ áμI æc Äz T æMz äJ áμI æc æ° †áK á.					
23	øf μVÄä ØÜμøÄ ÈI B Z ÄäøáI PÈBA áK Äi ÆÇcPÉμøPÄi					
24	S X æØVÖäØi æz I BÈBσi ÆÇcPÉμçøPz i çÖI dÄ μázBÍ PÇÜP° ÈÇI Pæz I ~ Èz J áK Äi					
25	μøBA áÜc ÈBVN PÄ J BW Æi cPÉμVA i ÉCi μáü ÖPÄi					
26	μøBA áÜJ BW dÉPÇÆÖBμ ÖcÄBøBμi ÄÄÄ ÈäØøB, á U æÄøæE z áMáμZ A i ÆÖØøI B					
27	ÆÇcPÉμøPÄi ÉPÇÄcÄø dÉÖVJ ÈB Z I æc K P G á æÖA áK Äi					
28	ÖBæcPvj Bμ{ææz ÉáçøPσÄB ÖBÜI BøAJ PÈäU dÉPÇI PσBμ I PVPB Z ÄäøáI PÈBA áK Äi Æi cPÉ μøPÄi					
29	Øμá{Bæa I i ÄBμ ØPÜ° øc ØcÖBÇPÈJ BW (Physical Environment) ÆÇcPÉμVA i I PæÄPøá ÉCáI B					
30	μPØi üæc dÉÖVJ ÈB Z Èz MBÜP A áK ÄBW ÆÇcP ÉμVA i ÉBØI BÄBμ{áI i					

Sl. No.	ἸΕΘΙΑΡΘΕ	ΕΑΥΗΠΙ ἄρ çì Þ¼ΒΑ ἄΚ ἄ	çì Þ¼ΒΑ ἄΚ ἄ	≠ΓΜΕΠΗ ἴΒ	Όρçì Þ¼ΒΑ ἄΚ ἄ	ΕΑΥΗΠΙ ἄρ Όρçì Þ¼ΒΑ ἄΚ ἄ
31	μῦθῶι ὑὰç ἰΕὸVJ ἘθᾶΑβ Ἀὰθᾶτ ἰἘΒΑ ἄΚ Ἀί ≠ ÇçΠÉ μὀÞÃί					
32	ἘΒVἰ t ΒἈ ὀΒῦἰ ὀΒἘi Ἐᾶὑᾶἰ ° Βῦ ἰΕçÄçμ ὀβ× ἰ Β ΖΑi μῦθῶι ἘWμῖX ≠ ÇçΠÉμVΑi ὀβÞἈἰL c ἰ ἄl ἰ					
33	ἰΕἰXὀΒMῦἰᾶᾶ ὀNἈἰΒ ἰᾶᾶ ὀΒἘçΠVj ἰμZΑi ὀNἰἘç ἘWμῖX ≠ ÇçΠÉμVΑi ὀβÞἈἰL c ἰ ἄl ἰ					
34	ὀμᾶZ ὀΠOJ ἰμ Ἐἰ ç ὀᾶἘᾶMçᾶJ ἄK ἈB W ≠ ÇçΠÉμVΑi ἘCᾶl ἰ					
35	ᾶἰἘἰἘ × Ἀ W ὀβμὀἘJ ΒἘiçὀi Βi ἄU ᾶἘἰἈᾶ ἰἰἘἘm Β Z Ἀἰἰἰἰἰἰἰἰ ἄK Ἀi ≠ ÇçΠÉμὀÞÃί					
36	ἘᾶVἈ ἰἰi ἄç ἘᾶἈἰi μὀβA ἄUç ὀβμὀB M B A ἰX ≠ ÇçΠÉμVΑi ≠ ὀὀὀἰ ἄl ἰ					
37	ὀΒἘçΠVj ἰμZΑi ἘᾶἈἰi ἘἈçἘἰἘμὀἈ Β Z ἘὀḞ ἰ ᾶMçᾶJ ἰX ≠ ÇçΠÉμVΑi ≠ Ἐᾶὀἰἰἰ ἄl ἰ					
38	ὀΒἘçΠVj ἰμZΑi ; ὀὀçἰἰi μçΠOᾶμZ ὀç, çἰ M B A ἰX ≠ ÇçΠÉμVΑi ὀβÞἈἰL c ἰ ἄl ἰ					
39	≠ ÇçΠÉμçὀ×β ὀVç M B A ἰἘἰἰὀὀçἰἰi ᾶἰἘἰἰ-μçᾶμZ ᾶ° ἰἰX ≠ ÇçΠÉμVΑi ὀβÞἈἰL c ἰ ἄl ἰ					
40	ἰᾶUçἘἰVἰἰ J B W ὀçÄçὀiἈἰἰi ὀᾶἈἰμZ °Ἐçἰ ἰ ἰἰA ἰX ≠ ÇçΠÉμVΑi ὀβÞἈἰL c ἰ ἄl ἰ					
41	Ἐὀἰἰἰἰçἰ ἰçἘἘ Β Z ; ὀὀçἰἘᾶὀὀἈç ἘçJ ἰ ἘᾶU ὀβÞἈἰL cç ≠ ÇçΠÉμVΑi ἄl ἰ					
42	≠ ÇçΠÉμὀᾶçç çἘGB ᾶç ἰἰçἘ¼ᾶἰ ἄç ὀἰἰἘ ἄç çὀi ὀἰçJ B W ≠ Ἐᾶçἰἰἰἰ ἰἰᾶl ἰ					
43	ὀμᾶçἰᾶᾶ Ἐἰi ἰç, Ἐἰi ἰL Ἀç Ἀᾶç B ἰi μἰἰçB çἰ ᾶἰ ὀç ἰἰA ἰçᾶçç SçᾶἘççUᾶμZ ἰΕὸἘἰἰὀἰἰᾶl ἰ					
44	μᾶçἰᾶçç ὀβμὀἘJ ΒἘMᾶἰç ὀç ἰἰA ἰçᾶçç ὀç ἈᾶἘἰἰi ἰἰἰἰçἘ¼ᾶἰ ἄçᾶᾶ ὀç çᾶἰ K i çἈἰçἰ ἰἰᾶl ἰ					

Appendix V

FAROOK TRAINING COLLEGE
Affiliated to University of Calicut

TEACHER AUTONOMY SCALE
MALAYALAM (FINAL)

Dr. Hassan Koya M.P
Associate Professor

Shafeek P
Senior Research Fellow

Personal Information

ഏഴുവർഷത്തെ പഠനം :
 (എസ്.എസ്.സി. ത്ത) :
 ഔദ്യോഗികമായി ജോലി ചെയ്ത സ്ഥലങ്ങൾ :
 വർഷം (എസ്.എസ്.സി.) :
 ഔദ്യോഗികമായി ജോലി ചെയ്ത സ്ഥലങ്ങൾ : - ഔദ്യോഗികമായി ജോലി ചെയ്ത സ്ഥലങ്ങൾ
 ഔദ്യോഗികമായി ജോലി ചെയ്ത സ്ഥലങ്ങൾ : ജോലി ചെയ്ത സ്ഥലങ്ങൾ / വർഷം വേർതിരിച്ച്
 ഉദ്യോഗസ്ഥൻ : | Y / ജോലി
 ഏഴുവർഷത്തെ പഠനം : 5 വർഷം - 10 വർഷം - 10 വർഷം - 10 വർഷം - 10 വർഷം
 മാതൃഭാഷ :
 മതം :
 വർഷം : | പഠനം / വർഷം വേർതിരിച്ച് / വർഷം വേർതിരിച്ച് / വർഷം വേർതിരിച്ച്
 ഷിപ്റ്റൽ : D.Ed. / B.Ed. / Degree / M.A / MS.C / M.COM / M.ED / Ph.D. / NET
 പഠിച്ച കോഴ്സുകൾ : PGDCA / DCA / Other / No Courses

ഭവനങ്ങൾ

പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 1. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 2. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 3. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 4. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 5. പഠനം ചെയ്ത സ്ഥലങ്ങൾ :
 പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 6. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 7. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 8. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 9. പഠനം ചെയ്ത സ്ഥലങ്ങൾ :

പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 10. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 11. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 12. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 13. പഠനം ചെയ്ത സ്ഥലങ്ങൾ :
 പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 14. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 15. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 16. പഠനം ചെയ്ത സ്ഥലങ്ങൾ : 17. പഠനം ചെയ്ത സ്ഥലങ്ങൾ :

Sl. No.	ἰ ΕΘΙΛΠΟΕ	ΕΑΥΗΠΙ ἄρ çì Þ¼ΒΑ ἄΚ ἄ	çì Þ¼ΒΑ ἄΚ ἄ	≠ΓΜΕΠΙ ἴθ	Ότçì Þ¼ΒΑ ἄΚ ἄ	ΕΑΥΗΠΙ ἄρ Ότçì Þ¼ΒΑ ἄΚ ἄ
1	ÈÒἄÈÒἄç ðμβί Þν μÒἄἴÞí ≠ÇçÞÉÈ ὀἄἈβμΖ ΘβἄμὀΒΑ ÞΧ ΘβÞἈδL cÒἄç çðÉÞr ÞÙÈÒἄἴ ἄλ ἰ					
2	øf ΒἈÞΑ {ἄæç ≠ΓΒἈ SçæÉçW ἴ ἄι βἴ ἄΓἄμΖ Θἄ×çΒΑ ἄΚ ἄλ ἰ					
3	ΘκÞÉἴἴἄχβΒ ἄμ {βæÜ ≠ΓΜΕΠΙ Β ΖΑἰ ≠VÜ ἴÞí Èὀβἵἄ È ἴἴΒΑ Þἴἄλ ἰ					
4	ΘÞἴ ἄÜβμ çØÖÈ ðÉÖVJ ÈΒ {βW ἴ çἈ×çç ἴÞἵ ἴÞÖÞΧ ΘÞçΒΑ ἄΚ ἄ.					
5	ÕΒΕçÞVj βμ {ἄæç ÕΒF Ἀ ἴÞἵἴÞí Þ çἄἄ ÈçÈçβ ®çἄA ÞÈἄç ≠ÇçÞÉμÈἰΘβÞἈδL çἴβ.					
6	μÞØβÜἄç ÉἄἵJ ἄἴÞí β ἴ çἈ×çç ÉἈÈðÉÖVJ È Β Ζ ÈçJ ÞΧ ΘÞçΒΑ Þἴἄλ ἰ					
7	ðÉÇÞÉÞÇçÞÉμæἄ ÈβØL ø Èβἄf Ἀç μÞØβæἄ ΘβÞἴÞÖβμἈæἴ ἴ ÞçΒΑ Þἴἄλ ἰ					
8	ÕΒΕçÞVj βμ {ἄæç È ἄWἈἴçβMἄμ {ἄç ØκἈβ çἄἴἄμ {ἄç ÉἄVἈ ἴÞí ἄç ≠ÇçÞÉμὀæç Èβἴ ðL Ἀ J ΒÜÞἈἴ ÈçA ἄΚ Ἀἴ					
9	ÉἄἈβἴ çì ÞἵçἈμΖ çÈçβ ðÉçἴÞ×X çÈçÞΧ ≠çÈμç ≠ÕØøΒ {ἄλ ἰ					
10	≠ÇçÞÉμὀæç ≠ÕÇβ Õβ×ἴ J βW ≠ÈÞçøÞἵçμ- øἴÞí Èβἴ ðL Ἀ Β {ἄλ ἰ					
11	Øμἄ {βæἄ çἴ ÞçÈÖÞØἴἈç ἈἄὀἴÞÈΒΑ ἄΚ Ἀἴ ≠ÇçÞÉμὀÞἈἴ					
12	ÕΒΕçÞVj βμ {ἄæç ≠Ἀἴβ×X ἴÞÈÆm ç ἈἄὀἴÞÈΒ- A ἄΚ ἈβW ≠ÇçÞÉμVA ἄç ÉCἄλ ἰ					
13	μÞØἰἴἄἴ βW ÕΒΕçÞVj βμ {ἄæç ØβββἴØçÕβçÞÈç ἈἄὀἴÞÈΒΑ ἄΚ Ἀἴ ≠ÇçÞÉμὀÞἈἴ					
14	Øμἄ {βæἄ Èβἴ ἴç, Èβἴ ðL Ἀ ç ἈἄçB βἴ μÞøçB ΖΑἴὀἴÉç æμÞçἄA ἄΚ Ἀἴ ≠ÇçÞÉμὀÞἈἴ					
15	Øμἄ {βæἄ μὀΒΑ ἄÜV Üf çB {ἄç ἴἄXἵἄ È ðμἴ Β {ἄç ἈἄὀἴÞÈΒΑ ἄΚ Ἀἴ ≠ÇçÞÉμὀÞἈἴ					
16	ÕΒΕçÞἴçÞØἴἴÞí βἴ t æMG ÕçἈçØἴἈ ἴ ÞÜç Èἴ ὀἴÉἄμὀἈ ὀβ¼XØβμ {ἄἴÞí βἴ t æMçÞΧ ≠ÇçÞÉμV ἴἄXææμ ®çἄA ἄΚ ἄ.					

Sl. No.	ἸΕΘΥΑΡΘΕ	ΕΑΥΗΠΙ ἄρ ἰ ΠΥΑ ἄΚ ἄ	ἰ ΠΥΑ ἄΚ ἄ	≠ ΓΜΕΠΙ ἴβ	Όρἰ ΠΥΑ ἄΚ ἄ	ΕΑΥΗΠΙ ἄρ Όρἰ ΠΥΑ ἄΚ ἄ
17	ΌΒεϰVj βμ{ἄεζ ἄΕῶἄΠx ° GB {ἄρ Ἐβί ἴB {ἄρ ὀἄἘἄμῶΒ ἄΚ ἄi ≠ ἘϰϰἘμῶΠ ἄi					
18	≠ ἘϰϰἘμῶἄεζ ἄΕῶἄΠx Ἐἴ B Z ἈἄῶἄΠἘΒ ἄΚ ἄi ≠ ἘϰϰἘμῶἄεζ ἄρ ἴβϰἘ¼ἄἘἄ ἄβἄἄ ἄρ μἄΓΠ ἄ V, ἴ ΒΥἄεζ ἴ Π ἄi					
19	ΌϑἄἘx × X, Ἐἄῶ, ἄΌβζ W Ἀἄζ Β βί μἄῶϰ B Z ἄi ἴ Πἄἄῶἄ ἴ ΠἘἄm B {ἄρ ἘΠΥΒ ἄΚ β					
20	ΌΒεϰVj βμ{ἄεζ Όβf Π Ἐἴ B Z ὀἄἘἄμῶΒ ἄΚ ἄi ≠ ἘϰϰἘμῶΠ ἄi					
21	μἄΓβμ{ἄεζ ΌἴἄῶἄΠ ἴ ἄUἄρ ἘΒ ἄi J ΒW ἄῶϰῶΠ ≠ ἘϰϰἘμῶV ἄρ ≠ VUἴΠ ἘC ἄρ ἘἄΌἄΒ, ἄ ἘWμἄ K ἄi ἄi					
22	ῶf μV ἄ ΌUμῶ Ἐἴ B Z ἈἄῶἄΠἘΒ ἄΚ ἄi ≠ ἘϰϰἘμῶΠ ἄi					
23	SX ἄϑVῶἄῶἄἄἄἄ ἄἘἄῶἄἄ ≠ ἘϰϰἘμῶϰζἰϰῶ ἄ ἄ μἄζβί ϰῶUἄ Ἐἰ ἄεζ ἄ ἘζJ ἄΚ ἄi					
24	μῶΒ ἄUἄ ἘΒNΠ ἄ J ΒW ≠ ἄi ϰἘμῶV ἄ ἘC ἄ μἄU ῶΠ ἄi					
25	μῶΒ ἄUJ ΒW ἄἘἄϰἄῶβμ ῶC ἄῶῶβμ ἄἄἄ Ἐἄῶῶ, ἄ U ἄἄῶῶE ζ ἄM ἄμZ ἄi ≠ ῶῶῶῶῶ					
26	≠ ἘϰϰἘμῶΠ ἄ Ἐἄϰἄἄῶ ἄἘῶVJ ἘB Z ἴ ἄϰ K ΠG ἄ ἄῶ ἄΚ ἄi					
27	ΌΒεϰVj βμ{ἄεζ ἘἄϰῶΠ ἄῶ ῶβUἴ ῶἄJ ΠἘἄU ἄἘἄἰ Πῶβμ ἴ ΠVPB Z ἈἄῶἄΠἘΒ ἄΚ ἄi ≠ ἄi ϰἘ μῶΠ ἄi					
28	ῶμἄ{ἄea ἴ ἄβμ ῶΠῶ ῶρ ῶῶῶῶῶῶ J ΒW (Physical Environment) ≠ ἘϰϰἘμῶV ἄ ἴ Πἄἄῶἄ ἘC ἄ ἴ β					
29	μῶῶἄ ἄἄρ ἄἘῶVJ ἘB Z ἘζMῶβΠ ἄΚ ἄβW ≠ ἘϰϰἘ μῶV ἄ Ἐῶβἴ Β ἄβμ{ἄ ἄi					
30	μῶῶἄ ἄἄρ ἄἘῶVJ ἘῶἄἄΒ ἈἄῶἄΠἘΒ ἄΚ ἄi ≠ ἘϰϰἘ μῶΠ ἄi					
31	ἘβV ἄ Β ἄ ῶβUἴ ῶβἘἄ Ἐἄἄἄ ῶ βU ἄἘἄἄμ ῶβ × ἴ B Z ἄi μῶῶἄ ἘWμῶX ≠ ἘϰϰἘμῶV ἄ ῶβΠ ἄ ἄL c ἴ ἄ ἄi					

Sl. No.	දේශීයවිෂය	ඒකකය ප්‍රතිශතය	ප්‍රතිශතය	ප්‍රතිශතය	ප්‍රතිශතය	ප්‍රතිශතය
32	දේශීයවිෂයයක් නොමැතිව පැවැත්වෙන ආයතනික ව්‍යාපාරික ක්‍රියාකාරීත්වය					
33	ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
34	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
35	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
36	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
37	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
38	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
39	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
40	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
41	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
42	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					
43	විදේශීය ව්‍යාපාරික ක්‍රියාකාරීත්වයේ ප්‍රතිඵලයක් ලෙසින් සිදු වන වෙනස්කම්					

Appendix VI
FAROOK TRAINING COLLEGE
Affiliated to University of Calicut
TEACHER AUTONOMY SCALE
ENGLISH (FINAL)

Dr. Hassan Koya M.P
Associate Professor

Shafeek P
Senior Research Fellow

Personal Information

Name of the Teacher :
(Optional)

Name of the School :
District (School) :
Type of School : CBSE/Kerala State Syllabus
Level of School : Primary/Secondary/Higher Secondary
Sex : Male/Female
Teaching Experience : Below 5 years/ Below 10 years/ Above 20 years
Locale : Rural/Urban
Subject : Language/ Social Science/ Science/ Mathematics/ IT
Educational Qualifications: D.Ed. /B.Ed./Degree/ M.A/MS.C/M.COM/M.ED/ Ph.D./NET
Computer Courses : PGDCA/DCA/Other/ No Courses

Instructions

Five responses are given to each of the following Statements. 1. Strongly Agree, 2. Agree, 3. No Opinion, 4. Disagree and 5. Strongly Disagree.

Place a ✓ in the appropriate column to indicate how true each statement is for you.

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	There is freedom and encouragement to adopt innovative and creative teaching methods.					
2	Excessive parental involvement creates difficulties.					
3	I think opinions in staff meetings receive due consideration.					
4	I can be a part of community service activities as much as.					
5	The teacher is not free to take any action as part of disciplining students.					
6	It is possible to conduct learning activities in and out of the classroom.					
7	The constant observation of the headmaster affects the naturalness of my class.					
8	Student field trips and study tours are conducted under the complete control of the teachers.					
9	There are many opportunities for teachers to get new qualifications and get promotion.					
10	There are unhealthy restrictions on the subject of teachers' leave.					
11	The pedagogy of the school is decided by the teachers.					
12	Teachers also play a role in determining the admission criteria of students.					
13	Teachers decide the seating arrangement of students in the classroom.					
14	Teachers form rules and regulations of the school.					
15	Teachers decide the curriculum goals and priorities of the school					
16	Teachers take the initiative to liaise with various external policy-making agencies related to education.					

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
17	Teachers frame rules and rules of conduct for students.					
18	Teachers' behavioral policies are decided through a joint discussion between teachers and management.					
19	There are no criteria for suspension or dismissal of teachers.					
20	Teachers formulate punishment policies for students.					
21	Each teacher has great role in determining the comprehensive evaluation of the student.					
22	Teachers decide parents - Co-operation Policies.					
23	In-service training is conducted without adequate discussion with the teachers.					
24	The role of teachers in curriculum development is less.					
25	There is no provision for local discrimination in the curriculum.					
26	Teachers suggest and guide extracurricular activities.					
27	Teachers decide practical ways to assess students' progress.					
28	Teachers have no role to play in the physical environment of the school.					
29	Teachers have limitations in carrying out classroom activities.					
30	Classroom functioning is decided by the teachers.					
31	Teachers are free to give classes on certain subjects in addition to the compulsory syllabus.					
32	Teachers are free to give gifts to students without the consent of the principal.					

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
33	Teachers have a role to play in shaping school economic policy.					
34	Teachers set general criteria for professional development.					
35	Teachers have the opportunity to develop a completely new curriculum.					
36	Teachers are allowed to introduce new learning materials to students.					
37	Teachers are free to organize camps for students.					
38	Teachers are free to carry out projects required to enhance their teaching skills.					
39	Teachers are free to use different methods in evaluation.					
40	Teachers have the freedom to make solutions as they see fit.					
41	Teachers' achievements are adequately commended by management and staff.					
42	I think parental involvement in school rules and regulations is problematic.					
43	Parents' satisfaction seems to be the goal of management rather than children's development.					

Sl. No.	I ÉØÄPÖÈ	EÄVHIPI äc çI P¼BA äK á	çI P¼BA äK á	≠I MEPI I B	Öfc: I P¼BA äK á	EÄVHIPI äc Öfc: I P¼BA äK á
1	≠ÇcPÉÈc 2øä ç¼PÜB I B Øbàµøb, ÄBW ¾PX ØçL P-x ÖPÈPÄ i					
2	®æa ç¼PÜBA i ≠ÈäçI P¼cI PI çÖÄÈc ®ÈBA i Ü-ÍBA äK B					
3	®ÈBA i ç¼PÜB i äI PI B I -t æMGI È I PÈØBµ Ø-NVgc ©I PÖPüáI i					
4	ç¼PÜB ØNVgc µPøÄ c ®ÈBA i ÖPøøBµ ≠ÈPçøP scc ©I PÖPüáI i					
5	®æa ØÜdÉÖVJ µV çdÉPr PÜBMBA äK ÄBçÈ-A PZ ÖB VÖBA PÜPÄ i ÉÄBÖI					
6	≠ÇcPÉÈI I P-J I æPøä ç¼PÜB æÄøæE çäA PI P-I BøäK äæÖK i ¾PX çÜP° BA PüáI i					
7	≠ÇcPÉµçøP çäU ÖBçPVj Bµ{ææj I ÜáI PÈ-J BW µäüÖi ÖøäK äæI Ki ®ÈBA i çÄPK PüáI i					
8	2PçøP ÄBÖØÖäc µYB i äçL PüáI ≠ÇcPÉÈçJ P çä-U ®æa ÄPÜÈøc µäüE äÖøäK á.					
9	¾PX ©J øÖPÆB B {BW ÈBK äc 2YBE äI PüPX S-x çæM çäK á.					
10	µä çäÄW ÖTI c æµPL ÈPI B SØBA PÈPÄ i ¾PX S-x çæM çäK ÁI					
11	ÖBçPVj Bµ{ææj dÉÖÈB æ{ ≠I B i äI µøBA PX ®ÈBA i ØPçBA äK B					
12	ØÜdÉÖVJ µçøP ç¼PÜB ØCI -t I PI °V, µZ ÈçJ äK ÁI 2YBÖBA PX ¾PX S-x çæM çäK á.					
13	≠ÇcPÉÈ-çI PøcÄÈøäF µZ ≠ÇcPÉÈÖäJ BA i ©° BÄI PæÄ Ki ®ÈBA i çÄPK PüáI i					
14	¾PX ÉÄBMBA äK ÁI µäGBµZA i I È-T BÜPÖäK B ®Ki ®ÈBA i çÄPK PüáI i					
15	®ÈBA i È øäÄB BW ÉÄBMBA PX ØPçBA äK B ®Ki ®ÈBA i çÄPK PüáI i					
16	I PüBÖøäK ÉøäF ØdOÄPI B {äc ØBÜI Øäc µPøÄ c ¾PX ≠ØBÖÄÈPÖPüáI i					

Sl. No.	dÉØÄPÖÈ	EAVHÍPI æc çì P¼BA áK á	çì P¼BA áK á	≠-IMEPI ÍB	Öfcì P¼BA áK á	EAVHÍPI æc Öfcì P¼BA áK á
17	≠Y ®í iÁÁi ≠ÇcpÉμoáæz dÉÖÈB æ{μáúß, í oac çÖI dÁ çì pÇÖPXÍpø~ ®Ki®ÈBAiçÄp- K púal í					
18	çÍPÖÍPI ßæÈøáÍPúáK ÖMEcpVj ßμæ{ ¾PX ÍÈ- ÉáVCEç ÍpXBÈBVJ Púal í					
19	SA PÜJ iÖMEcpVj ßμ{æz dÉÖÈB {ßW μázáÄ- ÜPI ß SzæÉzPÄßßA ÜPÄiÉ~ Äi®Ki®ÈBAi çÄpK púal í					
20	≠Y ®í iÁÁi ≠ÇcpÉμVAi 2øá ÖBÇJ BÜáU æÄpÝßW Øæof BÄÄbÖac ÜÍBA áK B~ ®Ki®ÈBAi çÄpK púal í					
21	ÉáÄßÍ ÄÜÍáúí ßæÜ μáGßμæ{ ÍÈ-T BÜpA pX ®ÈB- AíμÝßÍ áK B~.					
22	≠ÇcpÉμ ÖMEcpVj ß Í t c SçMPÝac ©i-xñ{ÍP- Í ß ÈBÜÈBWA áK áí i®Ki®ÈBAiçÄpK áK á.					
23	ÖMEcpÍcpØ-J ßæa ÖpÄ B¼cÖÄjμøÄ c μpøÄ c ®- ÈBAi ≠ÇcpÉÉç¼pÜßçí Pzi ≠ØcÄáÉiÄßçÄp- K áK á.					
24	2pçøp ≠Ççí ÈÖV-x c Äáz-B açOPÝac Øjμáz ÍPçÈ- ¼æÍ ai ≠ÇcpÉμVAi ≠ÍBÄç¼pÜßÍ pøc ÈWμáK Äi ÖÜßÍ dÉÖÈÉÍPI ß ®ÈBAiçÄpK púal í					
25	≠ÇcpÉÈÖáj ßÍ ßæÜ ØNVgB Z ®æa μázáçí - ¼áÖBÄæJ ØpøÍPI ßÍ PÇBA áK áí í					
26	ÖMEcpVj ßçμdWáμáÄ ÖMEcpÍcpØ-ØÍOÆPI J ßW ≠ÇcpÉÈc ÍÈ:ØNVgç ©U ç¼pÜßÍ PÄi®ÈBAi çÄpK púal í					
27	≠ÇcpÉÈ¼áÖBÄc ®ÈBAi dÉÄáf B, ÄßçÈA ppZ ØcÄáÉiÄß ÈWμáK áí í					
28	≠ÇcpÉÈÖáj ßÍ ßçÜAiØpX dørÜBA áK ÖV- Ai ÖÖcÍPI ÈBVçÆÖB Z ÈWμß ¾PX çdÉPr P- ÜBVBÁ púal í					

Appendix VIII
FAROOK TRAINING COLLEGE
Affiliated to University of Calicut
TEACHER BURNOUT INVENTORY
ENGLISH

Dr. Hassan Koya M.P
Associate Professor

Shafeek P
Senior Research Fellow

Personal Information

Name of the Teacher :
(Optional)

Name of the School :
District (School) :
Type of School : CBSE/Kerala State Syllabus
Level of School : Primary/Secondary/Higher Secondary
Sex : Male/Female
Teaching Experience : Below 5 years/ Below 10 years/ Above 20 years
Locale : Rural/Urban
Subject : Language/ Social Science/ Science/ Mathematics/ IT
Educational Qualifications: D.Ed. /B.Ed./Degree/ M.A/MS.C/M.COM/M.ED/ Ph.D./NET
Computer Courses : PGDCA/DCA/Other/ No Courses

Instructions

Five responses are given to each of the following Statements. 1. Strongly Agree, 2. Agree, 3. No Opinion, 4. Disagree and 5. Strongly Disagree.

Place a ✓ in the appropriate column to indicate how true each statement is for you.

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	I am happy to have preferred teaching as a career.					
2	I didn't get any appropriate salary for my job					
3	I feel stressed related to my profession					
4	I felt some physical illness due to job-related matters.					
5	My colleagues constantly criticize me than encouraging					
6	I think I could have chosen any other job other than teaching					
7	I think there is a devaluation in the behavior of students toward teachers					
8	I lose my composure every day with teaching.					
9	I like to avoid responsibilities					
10	I like to be alone most of the time					
11	I couldn't address the students' problems					
12	I try to avoid work-related discussions with co-teachers					
13	I think Teacher Eligibility Tests are suitable for teaching.					
14	I can't understand the taste of new-generation students					
15	I think I couldn't teach well					
16	I feel irritated due to changing syllabus and examination system					
17	I think no one is bothered about the issues of unaided teachers					
18	I try to keep away from misbehaving students					

Sl. No.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
19	I think teachers do not get involved in student issues					
20	I think unaided teachers do not get any job security					
21	I think that students didn't get what I have taught					
22	I think the teacher-student relationship is still warm					
23	I feel dissatisfied with the teaching profession due to the commercialization of education					
24	I feel overwork of teachers given by school management at the beginning of each academic year is a big problem					
25	Stress in the teaching profession significantly affects my family life					
26	I feel that teaching in student-cantered education is a stressful job					
27	Teaching life is more satisfying than I expected					
28	I always encourage those who want to enter the teaching profession by giving the necessary instruction					