

Special Issue - Feast of St. John De Britto

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Inclusive Teacher  
Personality

Online Teaching  
Students' Perception

Language an Element  
of Culture

Educational Support  
and Performance  
of Tribals

Mindfulness Meditation  
in Controlling  
Test Anxiety

Educational Video  
Games and Achievement  
in Mathematics

Women  
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Challenges of  
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Educational  
Aspirations and  
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Emotional Intelligence  
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Perception of  
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Teaching Competency  
and Cognitive Style

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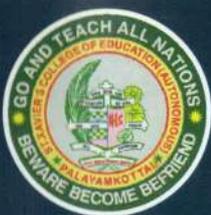
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Mental Stress  
and Suicidal Ideation



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**Dear Readers!**

**Greetings from the team of RRE.**



*With joy and gratitude to God, we are bringing out this special issue while we celebrate the 500<sup>th</sup> year of the conversion of St. Ignatius of Loyola, the 400<sup>th</sup> year of canonization of the two giants of our congregation, namely St. Ignatius of Loyola and St. Francis Xavier of the Society of Jesus and finally the 375<sup>th</sup> birth anniversary of St. John De Britto, a Portugal missionary, offering his life for the sake of his faith in Oriyur, Tamil Nadu, India. More about John De Britto's life line, you will find in the next page. He could be easily viewed as the best teacher, employing every strategy of making the little children and elders remember the life of Christian tradition.*

*Reflecting on the approaches and pedagogy followed by the above missionaries, one major element flashes immediately is the simple approach of nearing the people, based on their life style; to put in another word, they first made a study of the people, understood the context and then designed the content to be delivered in a simple and informal setup. Thus, they were able to win over the hearts of the people, creating an indelible mark with regard to their life style and communication along with inroads in their emotional needs. Originating from distant countries, practising a complete alien habit and owning different outlook, the missionaries were able to give up all the above and wear a new culture, life style and attitude which eventually led them closer to people. This is directly relevant to today's teachers who encounter new set of students in the beginning; then the teachers have to know the context of students and change themselves. The individual differences of the students have to be kept in mind and accordingly the pedagogy has to be innovated. Therefore, the teacher personality needs to be inclusive minded and duly enriched with ethics of teaching profession.*

*This issue has twenty five papers, some dealing with prospective teachers and their competence, mind-set, attitude and preparedness for teaching, another group of papers on higher secondary students focusing on their anxiety, perception of online teaching-learning and aspirations and finally the rest of papers centring on digital education, NEP and mindful meditation. In total, all the papers have deeper reflections on various issues which will certainly, we believe, add strength to our teaching profession; for, only when we have the bank of modern concepts, knowledge and pedagogies, will we be able to transact our reflections in a meaningful way.*

*While we thank our authors for their steadfast respect and love for our journal, we also implore them to be little more cautious in the presentations, especially the language so that the standard is safeguarded. Do write to us your comments, dear readers and we assure our quality read in the days to come.*

*Thanking you*

**Editorial Team**



## **RESEARCH AND REFLECTIONS ON EDUCATION**

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### **Who is John De Britto?**

*John de Britto (1647-1693) was one of the earliest Jesuit missionaries in India to adopt elements of the local culture in his evangelization. He was born of Portuguese aristocracy and became a member of the royal court at age nine and a companion to the young prince later to become King Peter II. When de Britto was young, he almost died of an illness and his mother vowed he would wear a Jesuit cassock for a year if he were spared. He regained his health and walked around court like a miniature Jesuit, but there was nothing small about his heart or the desire that grew to actually become a Jesuit. Despite pressure from the prince and the king, he entered the Jesuit novitiate in Lisbon Dec. 17, 1662 when he was only 15 years-old. He studied classics, with an interruption because of health problems, then philosophy. He wrote to the superior general in 1668 asking to be sent to the east as a missionary, but had to finish theology first. He was ordained in February 1673 and left Lisbon for Goa in mid-March, arriving the following September. He studied more theology in Goa and was asked to remain as a teacher but he desired to be a missionary and to seek the glory of martyrdom.*

*Father de Britto worked in Madura, in the regions of Kolei and Tattuvanchery. He became an Indian ascetic, a pandaraswami. He was made superior in Madura after 11 years on the mission. He and some catechists were captured by soldiers in 1686 and bound in heavy chains and after spending a month in prison, he was released. When he got back to Madura and he was forced to go to Lisbon. De Britto sailed again to Goa and returned to the mission in Madura when he arrived in November 1690.*

*His success in converting Prince Tadayya Theva indirectly led to his death. The prince was interested in Christianity even before the prayers of a catechist helped him recover from a serious illness. De Britto insisted that the prince could keep only one of his several wives after his baptism; he agreed to this condition, but one of the rejected wives complained to her uncle, the raja of Marava who sent soldiers to arrest the missionary on January 28, 1690. Twenty days later the raja exiled de Britto to Oriyur, a neighboring province his brother governed. The raja instructed his brother to execute the troublesome Jesuit who was taken from prison on February 4 and led to a knoll overlooking a river where an executioner decapitated him with a schimitar.*

# INCLUSIVE TEACHER PERSONALITY FOR AN EXTRAORDINARY CENTURY

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## ABSTRACT

*This paper emphasises the need for shaping the teachers to be inclusive in their thinking and lifestyle, indicating the challenges of the 21st century. Inclusive does not mean having special children every day, instead creating values of equality and brotherhood so that everyone's right to live is democratically affirmed. Similarly, the teachers who work in normal schools need to be inclusive in their mindset, attitude, and behaviour to have a new social outlook, student-affirming behaviour and dynamic thinking for lifelong learning. The characteristics of inclusive teachers are: affirming the individual differences in the classroom, focusing on the integral personality of the learner, effective teaching strategies for heterogeneous learners, stress on the professional development of teachers and rapport with stakeholders.*

**Key Words:** *Quality, inclusive, exclusive, teacher personality, information technology, benchmarking, 21st century, empowerment, industrialists, educationists, openness, behaviour, youth, student community, neighbour, system, bureaucrats, professionalism, humanness.*

## Introduction

Quality is the buzzword of today's society in all the fields of action. Every subsystem of the society embarks on quality measures so that the benchmarking is well-accomplished; the teacher education is no exception to the same. They produce a group of promising prospective teachers involved in planning and teachers who remain professional and humane in the classrooms. A swift reading of today's society informs that we are at the crossroads; there is an expectation of social change as more and more enslaving structures, and dehumanizing situations engulf humans, from birth to death. There is a longing that the sub-system of education has to wake up and assert its presence; it needs to effectively exploit the teacher professionals to awaken, leading to the birth of a new society. Therefore the teaching community has to rise to the occasion. What sort of personality should they become? How are they to display their professionalism and humaneness? How should they respond to the new challenges of this century? We need to plunge into a discussion in the pages below.

## The 21st Century: Amazing and Appalling

The sharp and rapid changes that have occupied our day-to-day lives stimulate our minds to ponder causes for the same: What do we do? Where are we up to? How

shall we cope? The social system has accommodated so many positive and negative deviations in its subsystems, leading to a complete turnaround of humans' lives. The fruits of it are experienced by the community in its own people's thinking, expressions, and behaviours. In today society's, brains are digital, knowledge-ridden and information-laden; technology has crept into every life, making the ns utterly dependent on machines.

Squeezing the whole world into a global village, the technology has shortened the distance and increased the frequency of communications. Doing the work easily helps in the time element. The comfort the life has been the main focus of technology. The ever-intrusive technology has replaced hard manual labour on a child to the aged; the technology has become user-friendly. The industry has become more innovative in gratifying the needs of an ordinary man. Modern inventions and discoveries remain as the basis for transitions and turning points in the lives of human beings. Since the beginning of the 21st century, the world has witnessed the emergence of social media, smart phones, self-driving cars, and auto normal flying vehicles.

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Quick and straightforward health treatments, tele-mode advisories, affordable and pain-free surgeries have become part of the curing process of complex diseases in the health centres. Integrating technology in pedagogy in educational institutions has become a must and, educationists are expected to be in touch with modern developments in terms of interactive equipment. The socialization process has been strengthened through technology, and communication has become easy and fast; hence, many social problems and altercations have been avoided. Politically, the technology assists the bureaucrats in reaching out to the unreached with the Government schemes. Thus the development of information and communication technology has contributed to the empowerment of people and the enhancement of life standards in society.

On the other hand, despite the up-gradation of life standards, it happened only in a small sector of the population and has adversely affected poor socio-economic groups in different parts of the world (Gambheera, 2016). Further, the economic status of rural, specifically the farmers, small industries and casual workers, have not risen at par with urban citizens. The social fabric of the nations have been drastically torn apart, and the risk factors for common mental illness have increased (Gambheera, 2016). Regarding the impact of technology, many eminent critics feel that technology, especially automation, machine learning and artificial intelligence, will drastically reduce the number of available jobs shortly, perhaps within 20 years (Gleeson, 2018). Hence unemployment will be the major challenge to be reckoned with. Individualism has become the order of the day, and the youth especially seem to be on 'touch-me-not' policy, which amply describes the attitude of 'leave-me-alone' but perfect freedom, without any botheration of or concern for one's neighbouring community. While modern industrialists blame the current educational system as impotent and routine, the educationists point at the corrupt and unstable political system for the meaningless and stereotyped educational process. Ultimately, the so-called future generation or citizens harvest nothing but a bad practice of 'easy-going' life, which must be looked into. Culturally, the transitions have made some genuine people silent, and a few raise their voices in support of neo-culture, which shatters the family structure; for example, given the

tradition of India and the recent hue and cry raised for the marriage of same-sex. Men and women have mapped the human genome and are grappling with the ramifications of biotechnology and gene editing.

Rampant casteism, unfettered crony capitalism, fascist fundamentalism and alarming environmental degradation in our country stare at us defiantly. Discrimination and violence of varied forms have become almost the order of the day. The corporatisation of health care and education coupled with the denial of other basic human needs present a dismal picture of our society. The disadvantaged groups such as women, tribals, Dalits, refugees, migrants and vulnerable adolescents feel helpless and hopeless; even those who raise their voices against the oppressors in favour of the oppressed are silenced and smothered.

On the whole, the appalling factors seem to be overweighing against the amazing elements of the 21st century, which has witnessed the advent of technology and information explosion. Therefore is there a way out?

#### **Education: The Ultimate Remedy**

Aristotle was once asked, "How much better-educated men were than those who were uneducated?"; he responded by saying, "as much as the living are then the dead". Education is an investment in human resources and contributes to socio-economic change; it is an instrument of development and strengthening of democratic values (Alexander, 2018; Goel. & Goel, 2010). Tagore would say, "I do not put my faith in any new institution but in the individuals all over the world, who think clearly, feel noble and act rightly, thus becoming channels of moral truth; education must build a harmonious and self-confident personality, namely the whole man" ( Goel & Goel, 2010). Long (2011) and Piper (2006) would say, "Education is the only solution for social problems". Thinkers of most of the countries very much affirm this. Hence, all the nations strive hard to improve the educational system, particularly the resourceful teachers who are expected to innovate and invigorate the young student community. Chesterton says, "Education is simply the soul of a society as it passes from one generation to another." – Chesterton); Education should prepare young people for life, work and citizenship (Bupinder Singh, 2015).

## New Educational Paradigm for 21st Century

The advent of LPG, whose impact is experienced in all walks of life, has culminated in the characterisations of the twenty-first century with the elements of knowledge explosion, the impact of globalisation, presence of ICT in every walks of life, individualism and consumerism, survival of the fittest, instant solution and deviation of moral certitude among the people. The 21st century is a century of information and communication technology; the immediate task of education is not the creation of science engineers but human engineers who would connect the gap between technology and humanism. This Means has to be envisioned in education. New outlook, approach, pedagogy, innovation and evaluation of students would occupy the mainstream of the teaching-learning process to sow the seeds of brotherhood, love, justice and equality. Carter G. Woodson once said, "For me, education means to inspire people to live more abundantly, to learn to begin with life as they find it and make it better." (Bupinder Singh, 2015).

As it stands today, the paradigm is the window or approach through which we penetrant problems, needs, status and characteristics of the students so that there would be better guidance made available for further possible growth; we will also recognize the students with new outlooks, along with receptivity for the modern thinking process. The new paradigm is the shift from lesson-based to structure-based approaches, supported by analyzing embedded curriculum delivered through structures. It turns out structures deliver thinking skills, character virtues, social skills, leadership skills and teamwork skills. Hence the new paradigm will receive the individuals with an open and positive mindset recognizing the potentials and enthusiasm, enabling the person to actualize themselves completely with full respect for other persons. Education must, through its curriculum, "aim at the development of balanced personalities who are culturally refined, emotionally stable, ethically sound, intellectually alert, socially efficient, spiritually upright and physically strong" (Coleridge, 1827). This new paradigm will undoubtedly offer a sense of a successful life journey despite the challenges and hardships that everyone goes through. Thus, a new paradigm will not only exalt the younger generation with better attitudes and actions but create them as the proud handlers of contemporary human society, transcending the narrow artificial boundaries,

madness on materialism, individualism, etc. But where do we begin to sculpt the student community? The classroom awaits our attention.

## Elements of Classroom Ecology

Ecology is considered to be the interaction between people and the environment. For students, the learning and behavior occur in the context of the classroom where a lot of interfaces are transposed among students, staff and classroom infrastructure in the background of other background variables such as the family, the socio-economic background, religion, gender, race, etc. ( Sussman, 2012). It is supported by the research findings of Wang, Haertel, and Walberg (1994). They reveal that the classroom ecology has the most significant effect on student learning over the home environment, parental support, curriculum design, school culture, and school demographics. Thus, the classroom ecology, which is the combination of efforts of the person and the prevailing environment, maintains its essential role in making the personality. Classroom ecology encompasses several components: teacher, student and his background, content, pedagogy, infrastructure, and teaching aids. Essentially, the teacher undertakes the significant roles of inspiring, communicating, provoking, facilitating, insight, comprehending, paving the way for deeper sharing and reflection. Therefore the teacher's profile is essential and ought to be focused on reshaping and inclusive personality. Elaborating a teacher profile as an inclusive person requires a proper understanding of inclusive education and its underlying principles.

## Principles of Inclusive Education

Inclusive education, a slogan heard everywhere, seems to have been narrowed down in most of our minds to the inclusion of special children in the normal schools; it is true, special children are included in all aspects of curriculum along with normal, but it has other basic principles to be imprinted in our minds. Firstly, all children can learn; every child has the right to learn in their neighborhood school. It also confirms the opportunity to participate in the learning process with active involvement and choice at an equal platform. Consequently, individual strengths or 'learning potential' should not be pre-determined (Väyrynen, 2016). Inclusive education invites the younger generation to respect each other through positive interaction, irrespective of backgrounds, culture, talents and

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aspiration; there is an equal space for the development of attitude, skill and knowledge so that the 'social cohesion, democratic values, active citizenship, intercultural dialogue' (European Agency for Development in Special Needs Education, 2012). Having indicated the principles of inclusive education in a broad perspective, we have to describe the teacher's profile as an inclusive personality. Who is an inclusive teacher personality? How do you make them inclusive? What are the challenges? What are the ways and means available to us? The following paragraphs would help in responding to those questions.

### **Teacher Personality as Inclusive Person**

As we trickle down from the above discussion, one thing is clear: the teachers have to be responsive individuals to the challenges so that the sub-system of education can respond to the situation. There are two types of personalities: one as inclusive and another as exclusive. Inclusivity encompasses everyone and is a broad term to attach to the group, whereas exclusivity stands for specific like 'this' or 'that', leaving out someone outside the group. According to Lisa Loeffler (2016), Peter Walsh says: "It is how you talk to, behave toward, and deal with each other [as humans]." The present younger generation or students tend to be secluded and independent; they are short-tempered and expect immediate solutions with less labour. They also undergo a lot of mental agony due to parents' uncaring, forcing or pampering attitude; the external influencing forces like social media, economic and political instability, and tilting social and cultural structures impact students' behaviours. In this context, the teacher has to interact with students of different backgrounds and expectations; the need of the hour is to motivate the student community and follow them in their journey. This means the teacher has to be an inclusive personality to understand and encourage them; need to design the strategies for teamwork and collaboration along with empowerment process in interpersonal skills and social perspectives, which would eventually prepare them to mingle with wider society. Only an inclusive personality who is open to variety in the class, ready to experiment with creative pedagogy, committed to unraveling the hidden talents from the students, integrating modernity with the traditional teaching-learning process, being aware of the divinity within and without and finally

express concern

for the excluded, will be able to succeed in moulding the students.

Therefore, the need of the hour will be an unbiased and open teacher personality who can embrace everyone and be involved in guiding the students.

### **Who is an Inclusive Teacher Personality?**

A person may be inclusive or exclusive, but they become more inclusive or exclusive; a teacher's personality is expected to be more inclusive than exclusive on certain components. The vocabulary of an inclusive thinker remains with "and" and 'both' whereas an exclusive thinker maintains the vocabulary of "either-or the other" (Wickham, either-or thus, the teacher's personality traits are primarily seen as inclusive or exclusive). The European Agency for Development in Special Needs Education (2012) expounds the inclusive teacher personality profile into four major characteristics or core values: critical thinking, creativity, collaboration, and communication.

### **Affirming the Individual Differences in Classroom**

The inclusive teacher values the individual differences in the classroom as a treasure to be cherished; the diversity of the class reinforces the quality of learning. Where there is diversity, in terms of intelligence, thinking, language, culture, behaviour, expression, etc., the competence of the individual and group gets enhanced. Due to the diversity of students, a participatory and interactive platform that will produce a variety of thoughts in the classroom is ensured. Every learner becomes a resource person for others to grow with; it provides an occasion to examine one's own beliefs, attitudes, and behaviour in the presence of varied personalities with different experiences. The teacher needs to be open so that the individual is respected and appreciated for their potential and uniqueness. In other words, the profile of an inclusive teacher attains its culmination only in its treatment of all the learners in an unbiased manner; transcending the narrow mind of branding and categorising the students must be the character of the teacher. Listening to the voices of the ordinary in the classroom and thus affirming the relationship would boost the morality of the backward group. Equal and sufficient time spent on each student will enhance the teacher's image. A careful reading of



the profile of the learners in the classroom would enable the teacher to acquire the support of the talented and efficient so that the academically deserving students may be assisted. The efficiency and deficiencies of different students would undoubtedly help the inclusive teacher identify the positives and negatives of the teaching process; a lot of improvement could be made on account of this revelation.

#### **Focus on Integral Personality of the Learner**

How do you define a teacher in one word? What do you mean by teaching? Can you say it in one word? Yes, teaching is nothing but reaching; reaching out to students in all the ways possible. An essential dimension of an inclusive teacher will be attending learners the overall one, focussing on integral personality. A practical and inclusive teacher aims not only at academic excellence but also equal growth in physical, emotional, spiritual, social, cultural, economic and political dimensions so that the learner can assert their existence in the society in a meaningful manner. An efficient teacher breaks the content into understandable pieces, whereas an effective teacher affects the student in all possible ways. Maybe the student is good in academics but may be poor in social and emotional relationships, which means they have to be refocused on the need for human connections and social analysis. Probably there may be a need for spiritual guidance, which is to be undertaken by the teacher. It may also include if needed, some economic support too. Thus, comprehensive care is to be paid towards the learner by the inclusive teacher.

#### **Effective Teaching Strategies for Heterogeneous Learners**

‘Nobody is useless rather precious’- this should be the attitude of an inclusive teacher; based on the level of grasping and communicating, due effort in planning the classroom instruction is to be undertaken by the teacher. Whatever the level of abilities of students, inclusive teachers would always design creative ways of reaching out to the students so that the heterogeneous group of students would profit from the sharing. Discovering and actualising new methods and strategies in order to communicate the content and enable dents to construct new knowledge becomes the prime responsibility of an inclusive teacher. Creative methods, student-centred approaches and result-oriented classroom techniques become the hallmarks of an inclusive teacher. Effective teachers always depend on their innovative minds, micro-planning, and suitable

instructional strategies. On the whole, the teaching experiences of the teacher will certainly stand by him in the process.

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#### **Stress on Professional Development of Teacher**

In the context of a fast-changing world, the inclusive teacher has to be a continuous learner to remain updated; not necessarily only related to the content, even to vibrate with discoveries and inventions, to acclimatise with a new culture of thinking, to understand the new civilisations lifestyle, to cope with rapid technological amusements and its appalling intrusions in humans life, and to keep pace with changing scenario in all the other aspects of life, the inclusive teacher should possess an open mind to learn, unlearn and relearn certain ideas and new vistas. Teachers are to remain reflective of current social reality, analyzing them and dreaming of a new society. “Teaching is a problem-solving activity that requires on-going and systematic planning, evaluation, reflection and then modified action” (European Agency for Development in Special Needs Education, 2012). The inclusive teacher has to be a dynamic learner by assessing the situation, learning new skills and equipping oneself for the future. Working in teams, collaborating with the same professionals, establishing a mutual understanding with new and young professionals, and continuously searching for new knowledge through discussion and deliberations would always characterise an inclusive teacher.

#### **Rapport with Stakeholders**

Inclusive teaching is founded on the values of cooperation and family spirit; a close rapport with parents and well-wishers help the teacher to have a better understanding of the learners. Inclusive teachers keep themselves well-informed about students and remain well-connected with parents and families. It is that inter-connectedness and inter-dependence between teacher and parents produce the desired results. While the younger generation falls victim and is addicted to social media, the collaborative effort of parents and teachers wailed out our younger learners to a real-life and stand focused on a bright future. An inclusive teacher has unique experiences interacting with diverse stakeholders of various cultures, backgrounds, behaviours, and lifestyles; this adds a feather to their teaching-learning profession. An inclusive teacher cannot remain property of one particular religion, caste,

colour, creed and community. Instead, they are world-affirming personalities, meaning the inclusive teacher stands for brotherhood and justice wider society. This conviction has to be reflected in their relationship with classroom learners. The relationship between teacher and student is a partnership.

**What are the Challenges for an Inclusive teacher?**

To be an inclusive teacher of the above discussion, there are several challenges. Most of the time, it becomes the teaching fraternity's destructive, discouraging, and defaming comments; secondly, the immediate family and community circle make fun of their natural and sacrificial life. Thirdly, the unjust structures, including the higher Government officials and politicians who demotivate the inclusive teachers not to be committed in the service. Fourthly, the conservative opinions spread around the institutions that inclusive teachers are neo-predators and destroyers of the society; they forget that education is the only means of social change and teachers of inclusive thinking are the instruments of liberation. Yet another challenge comes from the older adults who compare and contrast their schooldays with the present and pass destructive comments on new thinking, especially about the inclusive teacher.

**How Do You Make a Teacher Inclusive?**

Though there may be numerous suggestions available, the first means will be each teacher who must strive for being inclusive; for this, the person has to be convinced of an inclusive teacher in one's life despite humiliations and loss of name and fame. The teacher will be trained in a UDL (Universal Design for Learning) approach. Through workshops and seminars on being an inclusive teacher, the minds may be retrained, and some common motivating discussions and deliberations could be conducted. The Government must undertake all efforts to acknowledge the honest services of inclusive teachers with proper incentives or awards; honesty should be protected and honoured. Similarly, more input sessions on various cultures, religions, discoveries, technology and new methodologies and approaches must be imparted to the teachers so that they remain updated and refreshed. A constant evaluation of the school curriculum and evaluation of teacher performance by students must be undertaken; this might

create some opportunities for improvement and involvement.

**Conclusion**

Situating ourselves in the context of changing socio-political, economic and cultural situations to be an inclusive teacher is challenging; however, the very life of being a teacher is not to run away from reality, instead of face the situation and submit for value-based life. The inclusive teacher's life is one of values and meaning; only in principles and ethical life the teaching community is appreciated and acknowledged. Hence let us aim at being inclusive teachers to uphold the values of equality, brotherhood and justice.

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# ONLINE TEACHING DURING PANDEMIC: STUDENTS' PERCEPTION

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## ABSTRACT

*The study was conducted during the Covid pandemic when educational institutions were temporarily shut down and there was a sudden unplanned shifting of teaching from an offline to an online mode. The present study surveyed 1125 college students to gain insight into their perception of online teaching during this difficult time. Aspects like the technology access to the students, technological skills of the students, different online platforms adopted by the teachers and their ease of use, effectiveness of online classes and problems faced by the students were studied.*

**Key Words:** Online teaching, Pandemic, online classes

## Introduction

The COVID 19 pandemic jolted the world in December 2019. The first case in India was reported on 30th January 2020. Within the next few months, there was a huge spike in the COVID 19 cases, which led to the announcement of countrywide lockdown by the government and hence the temporary closure of educational institutions, commercial establishments and other offices. As this lockdown stretched, the teachers and students had no choice but to shift to online teaching mode. Since it was a sudden shift, neither the teachers nor the students were prepared and not technically well trained. Without any formal training, the teachers themselves made an effort to learn the use of platforms like Google Meet, Zoom, WebEx so that they could conduct the classes online. The same has been confirmed for the students as well. Almost the entire 2020-21 was run online mode, and the next session started online.

The present study has been conducted to understand the students' reaction to online teaching. The paper attempts to study the aspects like: the technology access to the students, technological skills of the students, different online platforms adopted by the teachers and their ease of use, effectiveness of online classes and problems faced by the students.

## Review of Literature

Mansour and Mupinga (2007) conducted a case study of 41 undergraduate students from a US college who were enrolled in a blended course. Twelve students took the hybrid classes and thirty four students took only online

classes. Convenience and instructors availability were cited as positive experiences while technological glitches and feeling of being lost in cyber space were forwarded as the negative experiences of the online classes. Though both hybrid as well as online students agreed that their course expectations were met, however higher percentage of negative experiences were expressed for online classes. Blackmon and Major (2012) made an attempt to explore different student experiences in the online classroom (as published in various studies) in order to understand how various internal and external factors impact the online classroom. It was concluded that several factors influence student's experience, and some of these were student controlled while others were faculty controlled. The major student controlled themes that were identified were: balancing the classes and life; time management; and accepting personal responsibility to learn. The faculty controlled themes that were identified were: accessibility of instructors; and creating a sense of connection with peers.

Nguyen (2015) in the meta-analytical study on the effectiveness of online learning, found strong evidence indicating that online learning is as effective as the traditional learning. However, Platt, Raile & Yu (2014) in their investigation on the students' perceptions regarding equivalence of online classes and face-to-face

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classes, stated that participants did not find online classes to be equivalent to face-to-face classes in the general sense. However the perceived equivalence was found to increase and positively related to previous exposure to online classes. Patricia (2020) too found that students strongly preferred face to face learning as compared to online. Moreover those who preferred face-to-face learning had difficulty in adapting to online method of teaching. Students reported a decline in skills of assignment completion, ability to discuss with peers and teachers, and time management. However, they reported an increase in knowledge of new learning tools. Students further reported a decline in their concentration, level of engagement and interest in the class. Chakraborty, Mittal, Gupta, Yadav & Arora (2020) studied the opinions of 358 undergraduate students regarding various aspects of online education. Students opined that physical classrooms and MOOCs provide better learning than online classes. Students reported that teachers had improved their online skills within a few months. Students reported experience of stress and other health-related issues due to online teaching-learning. Muthuprasad, Aiswarya, Aditya & Jha (2021) found that most students perceived online classes to be less effective for communication with physical classes. Most of the students were using smartphones to attend online classes. Students preferred to have access to recorded lectures in order to improve learning. Connectivity issues in rural areas were found to be an essential issue.

Anna Sun and Xiufang Chen (2016) reviewed 49 research studies on online teaching and learning. Deriving from the review, they stated that the online course's effectiveness depends on its design, teacher-learner interaction, and well-prepared instructors. In their study, Chih-Hsiung Tu & Marina McIsaac (2002) found social context, online communication, and interactivity to be important elements for establishing a sense of community among online learners. They suggested that improving the level of social presence increases online interaction. Bao (2020) suggested instructional strategies for enhancing the student learning and engagement during online learning. These include breaking the content in the form of smaller modules, slowing the pace of speech, assignments for outside class learning.

Based on the findings of the reviewed studies, it can be concluded that the students prefer face to face teaching over the online teaching. A multiplicity of factors affect the effectiveness of online teaching, such as teacher-learner interaction, students' engagement in class, acceptance of personal responsibility and time management by students. There is a scope to undertake research related to online teaching

#### **The objectives of the present study were to**

- Determine the students' technology access and technological skills, availability of personal space for online study, and interference from home.
- Study perceptions of students regarding online teaching with respect to different platforms used for online education and their ease of use, interaction with teachers and peers, involvement in class discussions, various teaching tools and instructional resources used, student engagement and learning.
- Identify the problems faced by students in online teaching.
- Suggest strategies to improve upon the effectiveness of online teaching.

#### **Design of the Study**

A survey research design was used to undertake the study as the purpose was to study the perceptions of students.

#### **Sample of the Study**

A purposive sampling technique was used to select samples for the study. The sample comprised 1125 students studying in undergraduate or postgraduate programmes of eight colleges of Chandigarh. The students were in the age range of 17-24 years. Out of 1125 students, 56.3% were males, and 43.7% were females. 88% of the students were enrolled in the undergraduate programmes, and 12.3% were postgraduate students.

#### **Tools Used**

A survey questionnaire consisting of 25 items was designed to seek relevant information. The significant aspect covered included: Access to Technology, Technology skills, Availability of personal space, Level

of comfort in online interaction, User-friendliness of platforms used by teachers, Audio/Video quality in the classes, Various tools used in the online classes, Student engagement and activities, Use of other instructional resources by students, Interaction with teacher and other students and Learning in the class.

### **Major Findings of the Study**

The major findings of the study are discussed below:

#### **Access to Technology**

97.2% of the students stated that they had access to a computer/laptop/smartphone for attending online classes. Only 88% of the students reported that they had reliable internet connection.

#### **Technology skills**

85% of the students stated that they have knowledge about the basic functions of computer hardware and peripherals, ranging from average to adequate. Rest of the students felt that they have either little or no knowledge about computer hardware and peripherals. 93% of the students stated that they have the knowledge ranging from average to adequate, to browse, open and download files from internet. All students, except four percent, stated that they can open/send e-mails with attachment.

#### **Availability of personal space**

About 48% of the students reported that they, either often or always, have quiet personal space for studying online without distractions. Rest of the students reported that they sometimes or rarely had a personal quiet space at home for studying online.

#### **Level of comfort in online interaction**

41.2% of the students reported that they were comfortable to interact using the online medium while 24% of the students did not find it comfortable. 35% of students were neutral.

#### **User friendliness of platforms used by teachers**

Teachers used different platforms to organize online classes. The platforms used included: Google Meet, WebEx, Zoom, Google Classroom, Jio Meet and Microsoft Teams. However, Google Meet was the most

preferred platform for organizing online classes. 58% of the students found the platforms as user friendly.

However, only 11% did not find the platforms user friendly. Rest of students found it moderately friendly. The students (86%) found the platforms easy or moderately easy for interaction. However 14% of the students did not find it easy to interact through the platform being used by the teacher.

#### **Audio/Video quality in the classes**

The quality of audio and video during the online classes was found to be good by 50% of the students, of average quality by 31% and rest of the students found the quality of audio/video poor.

#### **Various tools used in the online classes**

As per students, teachers used various tools during their online classes. These included power points (77%), white board (42%), videos (30%), text documents (41%) and internet sites (20%).

#### **Student engagement and activities/tasks**

The students (80%) found the online classes engaging while 20% did not find the classes engaging. 94% of the students who found the online classes engaging, were of the opinion that teachers used questioning and involved them in class discussion. 36% of the students reported that teachers engaged them through activities during the online teaching. 88% of these students stated that teachers provided assignments to the students after the class. Only 20% of these students reported that quizzes were given to them. In addition, students were asked to make presentations.

#### **Use of other instructional resources by students**

Students primarily used class notes (74%), You Tube videos (49%), and educational internet sites (37%), e- books (26%), and library e-resources (8%) for independent study or to supplement online teaching learning.

#### **Interaction with teacher and other students**

93% of the students felt that they could interact with the teachers during online classes and 69% of the students stated that they could carry out discussions with other students during online classes. Rest of the students,

however stated, that they had rarely an opportunity to discuss with other students.

### **Learning**

Though 72% of the students were of the opinion that online teaching is effective for learning theoretical subjects, but only 59% of the students reported that they were able to understand the concepts taught online, while 41% of the students could not understand the concept taught. 52% of the students found online teaching effective for practical subjects while rest of 48% felt it was less effective.

### **Teaching proficiency**

91% of the students found their teachers to be proficient in handling online classes and managing discipline in the class. 59% of the students were of the opinion that they prefer online teaching while 41% were in disagreement.

### **Problems Faced by Learners**

#### **Internet and technical issues**

- Although 88% of students stated that they had a reliable internet connection, but when asked about problems faced during online classes, 44% students reported to have faced network issues such as slow internet speed and breaking up of connectivity. The students in the rural areas faced this problem more than the students in the urban area.
- Due to slow speed of the internet, around 11% students complained of low audio or breaking of the voice in the classes and some reported audio lags. 5% of the students reported poor quality of video –blurred and fluctuating video.
- A few students faced the problem of power cuts in their areas, and hence could not attend classes online.
- Students reported that sometimes they were not able to log in or join the class due to technical glitches and hence could not attend the classes.
- About 4% of the students reported technical issues like microphone or camera not working, low device battery etc. thus causing interruptions in attending the online class.

### **Learner related issues**

- The students attending classes using their mobile phones faced problem due to small screen size. They reported strain and pain in the eyes. The other health issues faced included headache, back pain, tiredness and stress.
- A few students did not have independent mobile phones or computers and had to share the system with their siblings. Some students reported to have limited data packages and hence the inability to attend regular classes.
- Students also considered long hours of teaching and scheduling of back to back classes online hampering their concentration.
- Students further reported problems relating to home environment, i.e. non availability of personal space, disturbance at home and interference from home.
- A few students reported indiscipline problems created by other students during online classes. These included unmuted of their microphones, playing music in the background and sharing class links with outsiders.

### **Teaching related issues**

- Different platforms were used for online classes by different teachers, leading to download of various applications by the students.
- Teachers mainly used power point presentations and those were overloaded with information. There was limited use of white board.
- Students also felt the lack of individual attention in online classes. Some students felt that when the teachers do not switch on their camera, they feel disconnected.
- Some students, especially the foreign nationals did not have the access to the books.

### **Suggestions**

In order to improve the quality and effectiveness of online teaching, the following suggestions were put forth by the students.



- Training should be provided to both the teachers and students to create awareness regarding the various platforms and tools that can be used for online teaching, for generating interaction between teachers and students and among students, as well as for evaluating student performance.
- Proper scheduling of online classes should be done and religiously followed. Each class should not be more than 40-45 minutes. In between the classes, a short break should be given.
- Rather than just using power point slides, white board should be used to explain the concepts, processes etc. Teachers should provide power point slides, class notes and list of other e- resources to the students. Only the main important points should be dealt in the class and details should be left for independent study.
- Instead of online teaching, blended mode should be adopted. Face to face teaching should be conducted 2-3 days in a week, which will provide opportunity to students to interact with teachers and peers, clarify their doubts, solve their problems and undertake collaborative activities.

The above given suggestions need to be taken into consideration by the teachers and managements of different institutions in order to enhance the effectiveness of online teaching. The situation, as it exists, calls forth for adopting blended learning approach rather than organizing fully online teaching.

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**LANGUAGE AS AN ELEMENT OF CULTURE:  
REDESIGNING ENGLISH EDUCATION IN THE CONTEXT  
OF NATIONAL EDUCATION POLICY 2020**

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**ABSTRACT**

*Each individual has the inborn potential to think, and education helps a child strengthen this capacity and encourage intellectual curiosity. A child first gets the foundation of his/her education from school. Through education, a child receives a handful of knowledge about the world they live in. It can change people's perspectives on looking at life, helps in the development of their lifestyles and even influences their imagination. In the early stages of their school life, a child should learn things in their mother tongue as the concepts learned must be inside their heart. This is why the current education policy of India, that is, National Education Policy 2020, gave much importance to the use of vernacular and mother tongue languages. According to the policy, when a child is taught in their mother tongue, it would be straightforward for them to grasp what is being taught, and rote learning will not happen in such a situation. The development of any country depends on its culture. India is a diverse country that is symbolised for its plurality in culture. Cultural transmission occurs when individuals transfer their beliefs, norms, culture, and tradition from one generation to another through teaching, imitation, or language. English is a blessing for the world of technology, and it led to the invention of the internet. The transmission of one's thoughts likes, in turn, being the part of the culture they transmit, are mainly augmented with the help of technology through the link language English; thus, English becomes in discussion everywhere even though it is a foreign language. NEP gives a favourable situation in promoting meaningful English learning if appropriately implemented.*

**Key Words:** *Language an element of Culture, Redesigning English Education, NEP 2020.*

**Introduction**

In India, education is an important constitutional right of every citizen, and it prepares individuals to play their roles as experienced members of society. It is an integral part of human life and a fundamental aspect of growth and development. It occurs from womb to tomb and is a never-ending process. One can say that it is a process that helps to ease out learning and procurement of knowledge, skills, values, morals, and beliefs required to develop an individual within a society. It does not show any kind of differences like Caste, creed, race, sex, and helps in the overall development. Jiddu Krishnamurti quotes, "There is no end to education. It is not that you read a book, pass an examination, and finish with education. From the moment you are born to the moment you die, the whole of life is a process of

learning". Each individual has the inborn potential to think, and education helps a child strengthen this capacity and encourage intellectual curiosity. A child first gets the foundation of their education from school. Through education, a child receives a handful of knowledge about the world they live in. It can change people's perspectives on looking at life, helps in the development of their lifestyles and even influences their imagination.

The twenty-first century encourages students to be acquainted with different kinds of vocational skills,

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which helps them gain confidence and succeed in today's world. It also provides more focus to the economic and social aspects of education. Along with the traditional education model, much preference is given to vocational skills-based education as it helps individuals become entrepreneurs to meet their needs in life. Compared to the education found in ancient India, now the development is distant from our imagination. There has been a lot of improvement in technology, and we can bring it into our classrooms to make the class interesting for the learners.

### **Ancient Indian Education System**

Indian civilisation is considered one of the oldest civilisations in the world. This civilisation had a strong base in science and technology and has set up the highest multidisciplinary teaching and research standards. It has evolved and focused on the holistic development of individuals by giving due importance to both the inner and outer self. It started from the time of Rigveda and emphasised moral, physical, ethical development along with humanity, truthfulness, self-reliance and respect for others. The ancient Indian education was mainly provided by the Vedas, Brahmanas, Upanishads and Dharmasutras. Dr A. S. Altekar quoted that the Brahmanic education aimed at “Infusion of a spirit of piety and religiousness, formation of character, development of personality, inculcation of civil and social sense, promotion of social efficacy, and preservation and spread of national culture”. They focused on philosophy, mathematics, logic, psychology, grammar, art, astronomy, and religious texts. The education at that time had multifaceted nature as they integrated arts, science and culture into their teaching, which can be seen from the curriculum of Buddhist education. They had subjects like philosophy, painting, medicine, Ayurveda, surgery, etc. Some of the universities were Taxila (Takshashila), Mithila, Telhara, Sharada Peeth, Nalanda, Vallabhi, Pushpagiri, Odantapuri, Vikramshila, Bikampur, Somapura, Nadia, Nagarjuna Vidyapeeth, etc. Taxila was regarded as the centre of medicine at that time. During the Vedic and Buddhist periods, the medium education was Sanskrit and Pali during the Vedic and Buddhist periods, respectively.

### **Language Learning**

Nelson Mandela quotes that “If you talk to a man in a language he understands, that goes into his head. If you talk to him in his language, that goes to his heart”. In the early stages of their school life, a child should learn things in their mother tongue as the concepts learned must be inside their heart. This is why our current education policy, National Education Policy 2020, gave much importance to the use of vernacular and mother tongue languages. According to the policy, when a child is taught in their mother tongue, it would be straightforward for them to grasp what is being taught, and rote learning will not happen in such a situation. Noam Chomsky quoted that “A language is not just words. It's a culture, a tradition, a unification of a community, a whole history that creates what a community is. It's all embodied in a language”. In a language, one can see how it originated, the difficulties it faces, and different cultures. Language plays a crucial role in transmitting cultures from one nation to another.

### **Cultural Transmission and Cultural Heritage**

The development of any country depends on its culture. India is a diverse country that is symbolised for its plurality in culture. As quoted by Rita Mae Brown, an American writer, “Language is the road map of a culture. It tells you where its people come from and where they are going”. It is accurate, and we can see that in our country itself. As already said, India is a country with diverse cultures and traditions, and when we move from one place to another, we get to see different languages, and each of them does have a culture of its own. Indian culture can see a harmonious blend of art, philosophy, and religion. Cultural transmission occurs when individuals transfer their beliefs, norms, culture, and tradition from one generation to another through teaching, imitation, or using a language. It can happen in various ways through language and festivals and different art forms like dance, music, etc. If a writer writes a story or a novel, they would depict their culture through the characters, and cultural transmission can occur when a person from another country reads it.



## English: The language of the Tech world

English is a blessing for the world of technology, and it led to the invention of the internet. This technology helps give access to various information to people through the internet. With the invention of the internet in America, the concepts related to it were introduced in English and, in turn, helped in the booming of technology. Technology is used in both ways- to improve and help in learning a language. Social networking sites like Facebook, YouTube, Twitter, Instagram, LinkedIn, etc., use English as their official language. When we compare it with the past, many changes have happened to the English language. Technology has brought ever-changing effects not only on the English language but also on teaching. It has gained a unique position in present-day classrooms. Blended mode of teaching and learning is the outcome of integrating technology in our education. Through this, a teacher can develop learners' knowledge and skills by providing them equity of opportunity regardless of their background.

ICT has got an essential role in improving language learning and teaching. It helps improve communication skills - listening, speaking, reading and writing. It has also played a crucial role in changing teaching methods from teacher-centred to learner-centred. The way of writing is changing day-by-day by the influence of technology, and users mostly go for short forms as it makes them easy to type the content on their minds. The internet has metamorphosed the English language by creating misspellings and ordering faster, creating a unique behaviour where they ignore the importance of proper language (The Guardian).

David Crystal, a British linguist and author, quotes that "language itself changes slowly, but the internet has speeded up the process of those changes, so you notice them more quickly". English has been changing drastically since the internet era. The invention of new words and phrases is a part of this evolution.

### Commissions on Language education

The first education commission of post-independent India is the University Education Commission, 1948-49, also known as Radhakrishnan Commission, after its chairman Dr Sarvepalli

Radhakrishnan. The main focus was on collegiate as well as university education. They aimed to develop a new India and get acquainted with the cultural heritage, thereby imparting vocational and professional training to the coming generations. According to them, the mother tongue should be given importance and learning, teaching, and examinations should be in one's regional language. Textbooks should also be provided in the mother tongue. By incorporating regional language into textbooks and teaching-learning, the students will not feel much burden in grasping the contents they have learned. Rote learning can be avoided up to an extent because learners are allowed to write their examinations in the federal language. Even though they give more significance to their mother tongue, they also try to maintain the gravity of English. The medium of instruction at higher education should not be English and Sanskrit, as both are difficult to learn and understand. A model for the three language formula was set up by this commission at the higher secondary and university level, where the regional language, the national language and English are to be taught.

Next comes the Secondary Education Commission or the Mudaliar Commission (1952-53), headed by Dr A Lakshmanaswami Mudaliar. It aimed to enquire into the problems of secondary education. Like Radhakrishnan Commission, this commission also emphasised three languages to be taught: the national language, the mother tongue or the regional language, and a foreign language (English). The medium of instruction should either be the mother tongue or the regional language. Hindi and English are to be taught in middle school in such a way that both of them should not be taught in the same year. Hindi, the official language of the centre, should be made compulsory to promote national unity and integrity among the students. In the secondary stage, English is made a compulsory subject in each State because it is a language that is universally used among the educated flocks. It brings about national integrity along with Hindi. This commission gave equal importance to all the languages.

The government of India set up the National Education Commission or Kothari Commission

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(1964-66) to universalise primary education. They introduced the three-language formula – Hindi, English and regional language (mother tongue). It gave importance to language education by keeping in mind that the learners should be taught other languages and their mother tongue. Hindi and English have equal importance as one is the country's official language, and the other is the official and the international language. A student should be well-versed in different languages to help them attain their dreams and bring about many changes in their thinking and view of the world.

The first National Education Policy was released in 1968 under the recommendation of the Kothari Commission. This policy was also known as the National School System as it provided education to all the sections of the society irrespective of their caste, creed, race and sex. It also supported the view that the mother tongue or regional language should be made the medium of instruction.

#### **Language Education in the Light of NEP 1986**

National Policy of Education (1986) was enacted for vocational secondary education, specialisation higher education and universalisation of primary education. Free and compulsory education was provided to all children up to 14. Along with formal education, technical and medical education was also given importance and established diverse polytechnics, ITI's, medical and dental colleges, IIT's, NIT's, IIM's, agricultural universities, etc. Prior importance was given to the education of women. They also emphasised regional language as the medium of instruction at the university level. Hindi can be used as a link language, and there should be a continuation of the three-language formula as it helps the students be linguistically competent. Even at the university level, learners tend to go for rote learning without knowing the meaning of what they are learning; if we introduce regional language as the medium of instruction, they would know the concepts.

#### **Language Education and the Cultural Diversity of Our Country**

After 34 years, a new National Education Policy (NEP) 2020 was developed under K. Kasturirangan. This policy aims to introduce various changes in the

educational system, both school and college level, by 2040 and create an India, a global knowledge



superpower. It is the third major revision of the framework of education since independence. The two earlier were in 1986 and 1992. The Union Cabinet approved it on 29th July 2020. This policy was renamed the Ministry of Human Resource and Development into the Ministry of Education. According to this, the current educational system, that is, 10+2 will be replaced by a 5+3+3+4 curricular structure, and it includes age groups 3-8, 8-11, 11-14, and finally 14-18 years respectively. More importance will be given to regional languages and the mother tongue of each state. From the foundation stage onwards, all the curriculum and pedagogy will be restructured so that India's culture, heritage, traditions, customs, languages, etc., would be given importance.

More importance is given to promoting vernacular languages and mother tongues among the students and teachers. Vocational education is made compulsory within the school level in both rural and urban. They encourage holistic and multidisciplinary teaching and also the flexibility of subjects. They focus on adopting universal education to the primary and secondary level and all the levels, i.e., an extension of the Right to Education Act (RTE) from class 8th to class 12th. Inclusive education at all levels by giving importance to equality and learning for all. The main focus of NEP 2020 is the promotion of Indian languages, arts, and culture among the students and to make them well aware of their society. It prioritised Indian languages but did not make any of them compulsory. Coding and vocational activities should be started for students from class 6th onwards.

The recommendation of using mother tongue as the medium instruction was influenced by the Radhakrishnan Commission, where it already recommended using regional language as the medium of instruction. Education through the mother tongue provides the most profound knowledge to learners. English words can link scientific terms and concepts like velocity, ohm, acceleration, chemical compounds, etc., in the textbooks. Only then a transition can happen for the learners.

India has got a variety of languages, and in such a situation, we should give importance to our mother tongue as it can help us avoid rote learning up to a level. At the same time, we should use English as a bridge language. It means that transferring the content into the English language but scientific and mathematical concepts have to be transferred to the concerned language. If a textbook contains words like gravity, diffraction, doppler Effect, inertia, and so on in the local language, then provide the English words in brackets so that learners at every stage can catch up with the terms, which are very important in understanding the creative functioning of the thoughts.

In the current scenario of Covid-19, the migration of labourers is happening in large numbers. In such a situation, the language can affect the children of the labourers more than the labourers themselves. The foremost important thing is that they lose their tenacity in their language, especially their mother tongue. In this situation, they are forced to learn a new language (mother tongue) of that concerned state where they have migrated. For this, we can introduce multi-language textbooks, especially to supplement the words, as the acquisition of new vocabulary occurs; later on, acquisition of that particular language can also happen.

Mother tongue as a medium of instruction in the primary stages can help the learners learn those simple things straightforwardly. They would be able to understand everything easily. Learners at the early age of school would have a stable language only in their mother tongue, so it will be straightforward for a teacher to transact their ideas. Ample examples can be given to them in their regional language to understand. Children will learn faster, adjust better, and easily show what they have gained so far. If a child learner's mother tongue is at their primary stage, it would be easy to learn any other language gradually.

**English as a Bridge Language**

The status of the English language in the Indian education system is very high and deep-rooted. A country with large masses had conquered even outer space because of the quality education provided in different languages over centuries. When the different languages

get their position, the English language acted as the bridge between all the other languages contributed significantly high in its application. Our country has many languages and even different dialects within a language. To make things happen or function without any language barrier, the contributions of English are very high. The focus on National Education Policy to think, rationalise and act in our mother tongue is historical and very much needed. At the same time, due to large migration, even our children are losing their mother tongue or the language of the parents at this point, steps have to be taken to strengthen their acquisition of English along with their proper understanding in their mother tongue will create a significant positive influence in our education system.

**Conclusion**

India is a treasure grove of culture manifested in arts, literature, customs, traditions, artifacts, heritage sites, and so on. The preservation and promotion of this cultural wealth must be considered a high priority, as it is truly important for its identity and economy. NEP 2020 focuses on preserving them and the different varieties of vernacular and classical languages found across India. All these commissions and policies give equal importance to the mother tongue as the medium of instruction. English can be used as a bridge language to connect vocabularies. By continuously using the mother tongue in instruction, we will increase the pass percentage and eliminate rote learning as students understand what is being taught. The policy abstains from the English-Hindi approach and provides a choice for the states to decide the languages that fit the needs of the learners of the respective regions. The Indian education system can get closer to international standards by implementing this policy.

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**ASSESSMENT OF EDUCATIONAL SUPPORT AND PERFORMANCE  
AMONG TRIBAL– COMPARATIVE INSIGHTS OF SCHOOL  
EDUCATION IN ODISHA**



**ABSTRACT**

*Tribal education and empowerment was always under the direct purview of government and other specialised agencies due to poor coverage and performances. India's community wise literacy status shows the gap created due to various economic and non-economic factors. Odisha is among the tribal-dominated state, and their concentration in the Southwest region show a significant correlation with poverty and backwardness. The present paper tries to make an educational development assessment through a comparative comparison between tribal and non-tribal districts based on several associated parameters and suggest development through making equal or extra effort/increase in suggested indices.*

**Keywords:** Tribal, Enrolment, District Educational Index and Educational Attainment Index

**Introduction**

Education is a statistically and socially proven development indicator. Various studies statistically established a positive correlation between educational development with economic growth and utilisation of resources. The government of India has taken numerous steps both horizontally and vertically to meet the desired goal of balanced regional, religious, and community development. Yet certain loopholes and limitations have restricted this overall development and community crisis.

Even after 75 years of Independence, the educational attainment indicators don't significantly improve among tribal communities throughout India, i.e. 59 percent against 66 percent of SC and 73 percent overall (Census, 2011). In India, there exist about 550 tribes who primarily reside in or nearby hilly and forest regions. In an absolute sense, the composition of the tribal population is higher in Madhya Pradesh (153 lakh), followed by Maharashtra (105 lakh), Odisha (96 lakh) and Rajasthan (92 lakhs). In contrast, in relative terms (i.e. the percentage of state population) highest presence of tribal were observed in north-eastern states, i.e. Mizoram (94 percent), Nagaland (85 percent), Meghalaya (81 percent) and Arunachal Pradesh (68 percent). Sarkar et al. (2006) applied major developmental

measures, i.e. HDI, HPI, GDI and GEM, to compare the development and deprivation of scheduled Tribes and observed around 30 percent gap in HDI and HPI comparing all India indices.

The composition finds an increase in the overall literacy rate of ST's because of the significant contribution of the states of the north-eastern region. Further, during 1961, the male-female literacy rate among tribal was 13.8 percent and 3.16 percent, respectively and the gap increased in 2011 by 17.3 percent (male literacy 71.7 percent while female literacy 54.4 percent). Ten states of India have shown poor ST's literacy status, i.e. the percentage of ST having a literacy rate lower than ST's national average with the worst position in Andhra Pradesh (49.21 percent), Madhya Pradesh (50.55 percent) and Jammu & Kashmir (50.56 percent). Table 1 reveals the comparative status of ST's on various developmental parameters and finds the poor status of ST's on each sub-dimensions under educational and health parameters.

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**Table 1**  
**COMPARATIVE COMMUNITY**  
**PERFORMANCE INDEX**

Parameters	Scheduled Tribes	Scheduled Caste	All Category
<b>Educational Parameters</b>			
Literacy (%) 2011	59	66	73
GER (XI-XII) 2015	38.8	54.3	54.2
GPI (XI-XII) 2016	0.97	1.04	1.01
Drop Out Rate 2017 (XI-XII)	24.68	19.36	17.06
<b>Health Parameters (2017)</b>			
Parameters	Scheduled Tribes	Scheduled Caste	General
Children Under weight (under 5	45	39	29
Stunted (under 5	44	43	31
Institutional Birth	68	78	84
Immunization	56	63	64
<i>Source: Ministry of Welfare (2017), U-DISE, AISHE, NUEPA and Higher education survey report</i>			

### Background of the Study

The study was taken purposively so as to comment on the impact of various indicators upon development of tribals in Odisha. Since various studies show poor performance of tribal dominated districts in accessing the benefits of government schemes as basic infrastructures availability. The assessment of primary education becomes important so as to comment on serious issues and shortcoming on macro scales. Odisha is among one of the tribal dominated districts of India and their status is well known to many of us after publication of estimates of the modified expert group of Planning Commission in 2000. The percentage of population living below poverty line (BPL) in KBK region was 89.14 percent as compared that of state 47.15 percent and India of 26.4 percent.

### Objectives of the study

The study tries to assess the comparative performance in terms structure, pattern and growth of primary education in tribal and non-tribal districts of Odisha.

### Methodology

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The present study tries to compare the performance of the primary educational program majorly in terms of educational infrastructure (including teachers availability) and male – female enrollment. Various other parameters such as literacy, male-female population, number of schools, poverty and infrastructural availability was taken into consideration for building educational attainment index for all districts of the state. The districts having tribal population more than state average is referred as tribal dominated district and rest non-tribal districts (refer table 2 for tribal and non-tribal districts composition). Thus, as per our methodological assessment 14 districts are tribal dominated while 16 districts stands as non-tribal dominated districts. Though all districts of Odisha holds some proportion of tribal population with lowest percentage composition in Cuttack, Khorda, Ganjan, Jagatsinghpur and Kendrapara (less than 10 percent of population) while highest in Malkangiri (57 percent) and Mayurbhanj (56 percent).

### Period of Study

The study has tried to assess the above parameters taking into consideration the reports of OPEPA (2016), OSEPA, school and mass education department and Economic survey reports(2019).

### Analysis and Interpretation

#### Educational Infrastructure in Odisha

Sarkar et.al. (2006) finds serious situation of deprivation in Odisha with low HDI values along with major concentration at tribal belt i.e. south and south-west region. Even the average literacy is found to be significantly higher in non-tribal districts. Further, none of the non-tribal districts have average literacy less than tribal district and none of the tribal districts have average literacy more than or equal of non-tribal districts. No differences were observed in terms of mean as well as median number of teachers availability and teacher – students ratio in each school of both tribal as well as non- tribal dominated districts (4 teachers per school and students-teacher ratio 21:1).

**Table 2**

**CATEGORY AND COMPONENTS WISE STRUCTURE**



Tribal Dominated Districts					Non-Tribal Dominated Districts				
District	Literacy	No. of Schools	Students enrolment	Teachers	District	Literacy	No. of Schools	Students enrolment	Teachers
Deogarh	72.6	722	48943	2793	Anugul	77.5	1982	179547	8013
Gajapati	53.5	1444	106817	4782	Balasore	79.8	3328	340487	14755
Jharsuguda	78.9	910	72892	3967	Bhadrak	82.8	2214	227112	9691
Kalahandi	59.2	2736	237563	9727	Boudh	71.6	910	63271	2942
Phulbani	64.1	2080	147878	6811	Cuttack	85.5	3403	253790	14670
Keonjhar	68.2	3178	263070	11762	Dhenkanal	78.8	1855	165169	8110
Koraput	49.2	2666	180194	7869	Jajpur	80.1	2772	266729	12217
Malkangiri	48.5	1432	66677	3937	Ganjam	71.1	4286	527595	17727
Mayurbhanj	63.2	4946	405938	18132	Jagatsinghpur	86.6	1884	145908	8086
Nabarangpur	46.4	2032	208370	6529	Kendrapara	85.2	2365	183380	9932
Nuapada	57.3	1225	104212	4589	Khurda	86.9	2229	264510	8428
Rayagada	49.8	2326	140896	7179	Nayagarh	80.4	1578	118005	6343
Sambalpur	76.2	1662	86908	6679	Puri	84.7	2464	200862	10571
Sundergarh	73.3	3171	216809	13041	Sonepur	74.4	1123	65462	3763
					Bolangir	64.7	2624	224569	10237
					Bargarh	74.6	2124	128259	8184
<b>Mean</b>	<b>61.4</b>	<b>2181</b>	<b>16339</b>	<b>7700</b>	<b>Mean</b>	<b>79</b>	<b>2321</b>	<b>209666</b>	<b>9604</b>
<b>Median</b>	<b>61.2</b>	<b>2056</b>	<b>144387</b>	<b>6745</b>	<b>Median</b>	<b>79.8</b>	<b>2221</b>	<b>192121</b>	<b>9059</b>

Source: OPEPA, 2016

Further, highest numbers of schools, students enrolment as well as teachers were observed in non-tribal dominated districts as compared to tribal dominated districts. The highest teacher – students ratio is observed in six schools of tribal districts while eight schools of non-tribal districts. For further assessment categorical index is

developed in table 3 through incorporating important indices and scaling them with giving equal importance to each indices. The average number of villages per district of Odisha is 1708 in non-tribal district while that in tribal district is 1690. The comparison with the number of schools in each section shows village – school availability of 1:1.35 in non-tribal districts and 1:1.28 among tribal districts.

**Table 3**  
**Scaling Broad Educational Supportive Indicators**

Literacy	Avg. village dependency per school	Student teacher ratio	Average teachers per school	Avg. student enrolment per school	Children enrolment Gap (under 6 – 14) in %	Scaling
40 - 50	2 and above	30 and above	Less than 3	120 and Above	Above 15	1
50 - 60	2 – 1.5	25 – 30	3.0 – 3.5	100 - 120	Nov-15	2
60 - 70	1.5 - 1	20 – 25	3.5 – 4.0	80 - 100	06-Oct	3
70 - 80	1 – 0.5	15 – 20	4.0 – 4.5	60 - 80	01-May	4
above 80	less than 0.5	10 – 15	4.5 and above	40 - 60	0	5
Score Analysis						
Less than 2.5		Very poor		3.5 – 4.0		Good
2.5 – 3.0		Poor		4.0 – 4.5		Very Good
3.0 – 3.5		Average		Above 4.5		Excellent

(Source: Authors Own Calculation)

Based upon literature review and summing up all indicators ranking data the general kind of DEI (District Educational Index) is developed.

$$DSI = \frac{\sum_{j=1}^5 \square(1 \leq DSI \leq 5)}{5}$$

Based upon the following indicators the average score of tribal districts is 3.21 while that of non-tribal districts is 3.53. Though both selected sections show more or less equal performance yet significant improvement in average teachers availability and average enrolment per school in non-tribal districts is observed (tribal districts score is 2.7 and 3.6 while non-tribal districts score – 3.6 and 3.2 respectively). Further, non-tribal districts are in superior status as compared to tribal districts of Odisha in terms of percentage of enrolment compared to child population (0 – 14 years of age).

Source: Authors Own Calculation

The above table clearly shows the poor performance of tribal districts as compared to non-tribal districts on various indicators. The tribal districts have shown good and average performance only in case of dependency of villages on single school and student teacher ratio while on all other parameters their status is poor. Further, overall performance shows average status of tribal districts while good performance of non-tribal districts. In terms of student teacher ratio, the non-tribal districts are in very good position while tribal districts are in average position. For understanding the district wise position same parameters are applied and final scores are reflected in table 5 as Educational Attainment Index (EAI).

**Table 4**  
**Indicator-wise Segmentation and**



Indicators	Non-Tribal Districts Score	Result	Tribal Districts Score	Result
Avg. village dependency per school	3.9	Good	3.5	Good
Student teacher ratio	4	Very Good	3.3	Average
Average teachers per school	3.3	Average	2.7	Poor
Avg. student enrolment per school	3.6	Good	2.7	Poor
Children enrolment Gap (under 6 – 14) in %	3.3	Average	2.6	Poor
Total	<b>3.53</b>	<b>Good</b>	<b>3.21</b>	<b>Average</b>

**Table 5**  
**District – wise Performance based on EAI**

Tribal Dominated Districts							Non-Tribal Dominated Districts						
District	EPC	AVD	STR	ATS	ASE	Score	District	EPC	AVD	STR	ATS	ASE	Score
Deogarh	5	3	4	3	4	3.8	Anugul	3	5	4	3	4	3.8
Gajapati	4	3	3	2	4	3.2	Balasore	2	5	4	3	4	3.6
Jharsuguda	5	5	4	4	3	4.2	Bhadrak	2	3	4	3	4	3.2
Kalahandi	2	4	3	3	3	3	Boudh	4	2	5	3	2	3.2
Phulbani	5	3	3	2	4	3.4	Cuttack	4	4	4	4	4	4
Keonjhar	3	4	3	3	3	3.2	Dhenkanal	3	5	4	3	4	3.8
Koraput	1	54	3	2	4	2.8	Jajpur	3	5	4	4	4	4
Malkangiri	1	4	4	1	5	3	Ganjam	1	5	4	2	4	3.2
Mayurbhanj	3	4	3	3	3	3.2	Orissa	4	5	4	4	4	4.2
Nabarangpur	3	5	1	2	2	2.6	Kendrapara	4	3	4	4	4	3.8
Nuapada	1	4	3	3	3	2.8	Khurda	2	3	4	1	3	2.6
Rayagada	1	3	3	2	4	2.6	Nayagarh	4	4	3	4	4	3.8
Sambalpur	1	4	5	4	5	3.8	Puri	4	3	4	4	4	3.8
Sundergarh	1	4	4	4	4	3.4	Sonepur	5	1	4	4	2	3.2
							Bolangir	3	2	4	3	3	3
							Bargarh	4	1	4	4	3	3.2
							STR	Students – Teacher Ratio					
EPC	Enrolment percentage of children population						ATS	Average Teachers Per School					
AVD	Average village dependency						ASE	Average Student enrolment per school					

(Source : Authors Own Calculation)

The score analysis (based on table 3) shows that among non-tribal dominated districts Jagatsinghpur, Jajpur and Cuttack are in very good performer category (based upon index) followed by Anugul, Dhenkanal, Kendrapara, Nayagarh, Puri and Balasore are under good performer category and Bhadrak, Boudh, Ganjam, Sonepur, Bolangir and Bargarh under average performer category. Only Khurda district shows poor performance under non-tribal district category. In case of tribal districts only Jharsuguda district occupies position at very good category and Deogarh and Sambalpur under good performer category as per EAI. Further, districts like Sundergarh, Phulbani, Gajapati, Mayurbhanj, Keonjhar, Kalahandi and Malkangiri are average performer while Koraput, Nabarangpur, Nuapada and Rayagada are poor performer as per EAI.

### Conclusion

The education scenario has improved tremendously both vertically as well as horizontally during last two decades. The infrastructure availability as per DISE report such as availability of drinking water, sanitation, building, all seasons roads are almost available in maximum schools of Odisha. Therefore other significant aspects being calculated for attaining Educational Attainment/Supportive Index on districts performance. The study estimates significant difference in performance of non-tribal districts as compared to tribal districts of Odisha as whole. The comparative comparison between non-tribal and tribal districts reveals 3:1 ratio of very good EAI, 6:2 ratio of good EAI, 6:7 average EAI while 1:4 poor EAI. Thus taking into consideration each sub index massive intervention in teachers appointment, students enrolment (compared with children population) and additional chances of qualifying exam are suggested for school education improvement in tribal districts.

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# EFFECTIVENESS OF MINDFULNESS MEDITATION IN CONTROLLING TEST ANXIETY OF SECONDARY SCHOOL STUDENTS

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## ABSTRACT

*This study aims to determine the effectiveness of mindfulness meditation in controlling test anxiety among secondary school students. A pre-test post-test control group design was employed wherein four intact classes of ninth-grade students were assigned to waitlist control group and treatment group, intervened with a 4-weeks extended mindfulness meditation programme, viz., the Brief Mindfulness-Based Stress Reduction Programme (BMBSRP). Pre-test and post-test measurements of test anxiety were made with the Test Anxiety Scale for Secondary School Students. One-way ANCOVA revealed a significant reduction of test anxiety in the experimental group compared to the control group. While gender and socio-economic status were found to have no significant differential effect on the effectiveness of BMBSRP in controlling test anxiety, the level of academic achievement was found to be decisive.*

**Keywords:** *Mindfulness meditation, Test anxiety, BMBSRP, Secondary school students.*

## Introduction

Test anxiety is one of the common problems causing poor academic performance and psychological problems among students worldwide. The negative effects of test anxiety are too many, ranging from poor academic performance (Gilavand, Moezzi&Gilavand, 2019), impairment of working memory, confused reasoning, increased mistakes(Huberty, 2010), increased rates of dropout, substance abuse, and suicide (Brenneisen et al., 2016)to poor psychological wellbeing (Steinmayr, Crede, McElvany, &Wirthwein, 2016). Studies have reported that test anxiety is pervasive in the student population, especially among adolescent learners (Arjunan&Joxy, 2016). An estimated 10-15% of learners in any given classroom experience severe or high examination anxiety and roughly 30% of learners in our secondary schools are not performing at their maximum capacity due to test anxiety (Cassady, 2010). basis. The search for a brief and simple psychopedagogic intervention that is easy for teachers to practice in classroom situation, prompted the investigators to study the effectiveness of mindfulness meditation for controlling test anxiety among adolescent learners.

## Objectives

1. To study the efficacy of mindfulness meditation in controlling test anxiety of secondary school students.
2. To find out the differential effectiveness of gender, academic achievement and socio-economic status on the efficacy of mindfulness meditation in controlling test anxiety of secondary school students.

## Hypotheses

1. Mindfulness meditation significantly reduces test anxiety of experimental group compared to that of control group.
2. Socio-demographic factors like gender, level of achievement and socio-economic status have no significant differential effect on the efficacy of mindfulness meditation in controlling test anxiety of secondary school students.

## Methodology

Research design: The study adopted quasi-

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experimental method with pretest-posttest control group design, where four intact classes of ninth grade students were assigned to non-equivalent control group and experimental group.

### Population and Sample

Students of secondary schools (grades 8-10) affiliated to Kerala Board of Secondary Education (Govt. of Kerala, India) constituted the population of the study. Four intact classes of ninth grade students (n = 182) of St. Ephrem's Higher Secondary School, Mannanam, Kottayam were selected as the sample. They were assigned to two control groups (n = 89) and two experimental groups (n = 93) having different proportion of boys and girls.

### Tools used

The pre-test and post-test data pertaining to test anxiety of the participants were measured by administering the Test Anxiety Scale for Secondary School Students [TAS] (Babu Thomas & Paneer Selvam, 2019). The TAS is a 5-point Likert scale, consisting of fifty items covering physical, mental, emotional, and behavioural dimensions test anxiety. The TAS was reported to have a criterion validity of 0.74 and split-half reliability of 0.84.

### Experimental intervention

The experimental groups were exposed to a brief version of Kabat-Zin's Mindfulness-Based Stress Reduction Program (Kabat-Zin, 2003), abridged and adapted to Indian cultural context by Suresh and Pushkala (2013) which is named as the Brief Mindfulness-Based Stress Reduction Programme (BMBSRP). The BMBSRP consists of four weekly sessions each of 1½ hour duration, involving techniques such as body scan meditation, sitting meditation, hatha yoga, and loving-kindness meditation, with 20-25 minutes practice of formal meditation daily, 6 days per week.

### Analysis and Interpretation

The major descriptive statistics estimated from the pre-test, post-test and gainscores of test anxiety of control group (CG) and experimental group (EG) are presented in Table 1.

**Table 1**  
**Descriptive statistics of pre-test, post-test and gain scores of test anxiety of control group and experimental group**



Testing	Groups	N	Range	M	Mdn	$\sigma$	Sk	Ku	SE <sub>M</sub>
Pre-test	CG	89	103	153	155	26.39	-0.211	-0.82	2.79
	EG	93	100	150.42	149	28.53	0.121	-1.238	2.95
Post-test	CG	89	99	152.9	154	26.92	-0.163	-0.9	2.85
	EG	93	93	144.66	141	27.47	0.128	-1.253	2.85
Gain Score	CG	89	9	-0.1	0	2.62	0.054	-1.43	0.277
	EG	93	11	-5.76	-6	2.55	0.468	-0.49	0.265

The results presented in Table 1 shows that the distributions of pre-test scores and post-test scores of test anxiety in both the control group and experimental group are normal as the values of skewness estimated for the groups lie between -0.5 and +0.5. In order to find out the effectiveness of the BMBSRP in controlling test anxiety of higher secondary school students, the post-test scores of test anxiety of control group and experimental group were compared after partialling out the effect of pre-test scores by employing ANCOVA. The data and result of the tests of between subjects effect performed in this context is given in Table 2.

**Table 2**  
**Result of the ANCOVA of the post-test scores of test anxiety of control group and experimental group**

Dependent Variable: Post-test scores of test anxiety						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	135133.891 <sup>a</sup>	2	67566.945	1.034E4	0	0.991
Intercept	2.203	1	2.203	0.337	0.562	0.002
Pre-test	132043.822	1	132043.822	2.021E4	0	0.991
Group	1475.154	1	1475.154	225.829	0	0.558
Error	1169.258	179	6.532			
Total	4159917	182				
Corrected Total	136303.148	181				
a. R Squared = .991 (Adjusted R Squared = .991)						

The F-ratio obtained on comparing the control group and experimental group with respect to the post-test scores of test anxiety, after controlling for the effect of the pre-test scores, is significant ( $F(1,179) = 225.829$ ;  $p < .001$ ). It reveals that there is significant difference between control group and experimental group in the post-test score of test anxiety when adjusted for the pre-test scores. In another words, there is an overall statistically significant difference in post-intervention score of test anxiety between the control group and experimental group when their means had been adjusted for pre-intervention score of test anxiety.

Table 3, Table 4 and Table 5 present the data and result of the t-test and one way ANOVA performed to find out the significance of the differential effect of gender, level of academic achievement and socio-economic status (SES) on the effectiveness of BMBSRP on test anxiety.

**Table 3**

**Comparison of gender based sub-samples of the experimental group with respect to the gain scores of test anxiety**

Sub Samples	N	M	SD	Calculated 't' value	Remark
Boys	49	5.51	2.64	1.010	NS
Girls	44	6.05	2.45		

The t-value estimated is not significant ( $t = 1.010$ ;  $p > .05$ ), revealing that gender of the participants is not a significant factor affecting the effectiveness of mindfulness meditation in controlling test anxiety of secondary school students.

**Table 4**

**Comparison of high, average and low achievers in experimental group with respect to the gain scores of test anxiety (Summary of ANOVA)**

Test anxiety	Sum of Squares	df	Mean Square	Calculated 'F' value	Remark
Between Groups	193.351	2	96.675	21.460	S
Within Groups	405.445	90	4.505		

The F-value estimated on comparing high, average and low achievers in the experimental group with respect to the gain scores of their test anxiety is significant beyond 99% confidence interval ( $F = 21.460$ ;  $p < .001$ ). It exposes that high-, average-, and low achievers in experimental group differ significantly regarding their gain scores of test anxiety. In another words, mindfulness meditation enabled high, average and low achievers in significantly different degrees to control their test anxiety. The subsequent post-hoc test revealed that mindfulness meditation is significantly more effective in controlling the test anxiety of low achievers, and its effectiveness decreases with increasing level of academic achievement.

**Table 5**

**Comparison of students from high, average and low SES in experimental group with respect to the gain scores of test anxiety (Summary of ANOVA)**

Test anxiety	Sum of Squares	df	Mean Square	Calculated 'F' Value	Remark
Between Groups	8.289	2	4.144	0.632	NS
Within Groups	590.507	90	6.561		

The F-ratio estimated on comparing the gain scores of test anxiety for students from high, average and low socio-economic status in the treatment group is not significant ( $F = 0.632$ ;  $p > .05$ ). It shows that mindfulness meditation reduced the test anxiety of students in the experimental group irrespective of the socio-economic status of their family.

**Conclusion**

The ANCOVA performed to find out the effectiveness of mindfulness meditation in controlling test anxiety of secondary school students produced an F-ratio which is significant beyond 99% confidence interval ( $F = 225.825$ ;  $p < .001$ ). It shows that the

mindfulness meditation is effective in controlling test anxiety of secondary school students. Hypothesis-1 (mindfulness meditation significantly reduces test anxiety of experimental group compared to that of control group) is, hence, accepted. No significant difference was found to exist between boys and girls in the experimental group with respect to the mean gain scores of test anxiety ( $t = 1.010$ ;  $p > .05$ ). Gender is not a significant factor affecting the effectiveness of mindfulness meditation in controlling test anxiety of secondary school students. Students from high, average and low levels of academic achievement differed significantly in their mean gain scores of test anxiety as a result of experimental treatment ( $F = 21.460$ ;  $p < .01$ ). Level of academic achievement is a significant decisive factor that discriminates secondary school students on the basis of the effectiveness of mindfulness meditation in controlling their test anxiety. Mindfulness meditation is significantly more effective in controlling the test anxiety of low achievers compared to average achievers, who in turn excels the high achievers in the efficacy of mindfulness meditation in mitigating test anxiety. No true difference was found among secondary school students from high, average and low SES in the experimental group regarding their mean gain scores of test anxiety ( $F = 0.632$ ;  $p > .05$ ). The mindfulness treatment enables participants from different socio-economic status to control their test anxiety almost equally. Hypothesis-2 (socio-demographic factors like gender, level of achievement and socio-economic status have no significant differential effect on the efficacy of mindfulness meditation in controlling test anxiety of secondary school students) is, therefore, partially substantiated.

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# USING EDUCATIONAL VIDEO GAMES TO ENHANCE ACADEMIC ACHIEVEMENT IN MATHEMATICS AMONG SECONDARY SCHOOL STUDENTS

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## ABSTRACT

*The study investigates the effects of educational video games on students' academic achievement in mathematics. The study was carried out on 62 students in class 9th at Alagappa Model Higher Secondary School, Karaikudi, Sivagangai, Tamil Nadu. The purposive sampling technique was used to select the samples. The Achievement Test on Mathematics (ATM) was used to collect relevant data. The intervention programme for five weeks was given to the experimental group students. The analysis was done after the intervention programme and found that the experimental group achieved more academically than the control group*

**Keywords:** Educational video games, academic achievement, mathematics, secondary school students.

## Introduction

An Educational Video Game (EVG) is a video game that provides learning or training value to the player. Video games have the potential to contribute to all three major fields of psychology: affective (awakening feelings), cognate (aggressive or impulsive behavior), and cognitive (learning-related skills) (Miguel de Aguilera, 2003). Video games have been demonstrated to improve working memory, mental rotation skills, and geometry performance (Elena Novak, 2015). Some valuable features of educational video games include a clear goal, an adequate difficulty level, quick-moving stimuli, and integrated instructions (Robillard M, 2014).

The rapid penetration of increasingly sophisticated technologies into every facet of society is causing significant shifts in how, when, and where we work, how individuals, companies, and even nations understand and organize themselves, and how educational systems should be structured to prepare students effectively for life in the 21st century. School-aged children worldwide are growing up immersed in a media-rich, ubiquitous, "always connected" world. Concerns over the need to reform the educational system to effectively prepare students for a much more technology-driven, interconnected and competitive "flat world" are being voiced by politicians, educators, parents, and others across the globe (Reimers, 2008; Burke, 2010). Continuing to provide the same types of

education to students as the world continues to change will not serve them well.

Present-day men have attained the status of e-civilization, which may have a significant impact on society in general and students in particular. Instructors, parents, and public authorities are astonished by how dropout rates have grown in education at all levels for years. This alarming trend suggests a drastic decrease in the motivation of students towards learning. Several hypotheses have been formulated to explain this controversial issue. In this line, several authors like Prensky (Prensky, 2001) argue there is a clear disconnection between students' expectations and what they receive in the classroom. According to Prensky, current students are digital natives—people used to interacting with rich interactive digital media such as computers, mobile devices, or video game consoles; this differs from the typical pedagogical strategies in terms of content and interaction. (Prensky, 2001; Aldrich, 2005).

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To tackle this issue, a deep reform should come to the educational system, updating the content and interactivity used to support learning. One of the proposals is the use of video games and other kinds of interactive technological content. The application of games in education is a trend on the rise. There is a belief that video games have the potential to enhance the learning process in multiple ways. One of the most frequently discussed is the ability of games to increase students' motivation towards learning as they can capture their attention and keep them engaged and immersed (Gee, 2003; Malone, 1981). Other interesting traits of educational video games are that they provide immersive in-game worlds that can be explored freely by the students, promoting self-directed learning (Squire, 2003), their short feedback cycles with a perception of progress (Freitas and Oliver, 2006), or their relation to constructivist theories and support of scaffolded learning (Prensky, 2001).

Since educational video games made their "breakthrough" towards the attention of teachers and scientists alike, many researchers have tried to evaluate the usefulness of specific game play characteristics for educational purposes (Dickey, 2005). So the investigator decided to conduct a study on the effect of educational video games on enhancing academic achievement in mathematics among secondary school students.

**Objective**

To study the effectiveness of using educational video games on academic achievement in mathematics among secondary school students.

**Hypotheses of the study**

1. There is no significant difference between control and experimental group students in their pre test scores on achievement in mathematics.
2. There is no significant difference between control and experimental group students in their post test scores on achievement in mathematics.

**Method**

**Design of the study**

This research was conducted with 62 secondary school students in class 9th who were being educated in

the 2019-2020 academic session. In the mathematics subject, an intervention programme based on educational video game learning is used. There are two groups: experimental groups comprised of 31 secondary school students and control groups of 31 students. The lessons were carried out in the experimental group by using educational video games and traditional methods in the control group. The achievement test in mathematics is applied before and after the intervention programme to both groups.

**Tools used**

In this study, an Achievement Test in Mathematics (ATM) constructed and validated by the investigator was used. It consists of 40 questions. The respondents were awarded 1 point for each correct answer and 0 for the wrong answer. The pilot study was done on 50 students, and the Cronbach alpha reliability coefficient was calculated. The reliability was found to be 0.65.

**Analysis and interpretation**

**Hypothesis 1:** There is no significance difference between control and experimental group students in their pre test scores on achievement in mathematics.

**Table 1**  
**Difference between control group and experimental group students in their pre test scores on achievement in mathematics**

Groups	N	Mean	SD	calculated value of 't'	Remark at 5% level
<b>Control</b>	31	44.65	5.65	0.36	NS
<b>Experimental</b>	31	44.62	6.28		

Table 1 reveals that the mean scores of control and experimental group students in the pre-test on achievement in mathematics are 44.65 and 44.62, respectively, with SDs of 5.652 and 6.28. The calculated 't' value is 0.36, which is not significant both at the 0.01 and 0.05 level of significance. That means there is no significant difference between the scores gained by

control and experimental group students on achievement in mathematics before the intervention programme.

**Hypothesis 2:** There is no significance difference between control and experimental group students in their post test scores on achievement in mathematics.

**Table 2**

**Difference between control group and experimental groups students in their post test scores on achievement in mathematics**

Groups	N	Mean	SD	Calculated value of 't'	Remark at 5% level
Control	31	43.98	5.92	2.14	S
Experimental	31	45.43	5.831		

It is revealed from table 2 that the mean scores of the control and experimental groups are found to be 43.98 and 45.43, respectively, with a standard deviation of 5.92 and 5.831. The calculated 't' value is found to be 2.14 which is significant at the 0.01 level of significance. That means educational video games have a significant effect on the achievement in mathematics of secondary school students. Hence, the hypothesis that there is no significant difference between control and experimental group students in their scores on the achievement in mathematics test in the post-test is retained.

**Discussion and conclusion**

Educational video games are considered interactive, user-oriented, and motivating learning instruments, allowing the delivery of tailored learning experiences. Designing and implementing adaptive and personalised educational video games can become a suitable tool for teachers in the student-centric teaching and learning process. Even though video games are rarely considered by teachers and educators, some of them could be stimulating texts in promoting gender equality. One of the most influential and recent media to promote gender standards to children, young adults, and adults is video games. Despite this, research on the portrayal of gender identity in video games, and their influence on gender education is still in its early stages. For this reason, some of the pedagogical potentials of

video games have been explored in this contribution, focusing mainly on gender socialization.

The implementation of educational video games in education has been a priority trend in educational reform today. As a result, schools and government institutions should engage in active participation, initiatives, and goodwill in order to implement and improve learning through educational video games. The findings of this study revealed a positive effect of using educational video games on student achievement in mathematics among secondary school students. Students who were taught through educational video games were better than students taught through the traditional method of teaching.

This educational video game learning method allows students to make connections between everyday events and various mathematical concepts. This type of study should also be conducted on other subjects and presented to teachers for their use. Prior knowledge of the teachers' about the students is essential for effective teaching. Teachers may be trained to develop educational video games for teaching and learning. Since this teaching through educational video games is efficient, it can be more emphasised in the curriculum..

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# WOMEN LEADERSHIP: CHALLENGES OF WOMEN LEADERS IN SECONDARY SCHOOLS

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## ABSTRACT

*Women have significantly contributed to society through their leadership skills in various organisations and institutions. They played a significant role as leaders in educational institutions. This paper focus to find out the challenges of women leaders in secondary schools where data is collected through purposive sampling technique, with the help of interview scheduled. The women leaders in the study are female principals working in co-educational secondary schools. The findings include the challenges encountered and how the women leaders effectively handle and overcome their challenges.*

**Keywords:** women leaders, problems, secondary school

## Introduction

Earlier, in India, women are not encouraged to seek knowledge and education, to undertake white-collar jobs. They do not take up leadership roles yet. But as time passed, people were gradually moving on to civilise themselves and change their mindset to rational thinking about the function and responsibility of women. There has been better support for enhancing women's role to move forward and be educated and promoted to even higher positions in government and private offices, educational institutions, and political fields. Besides domestic chores, they managed careers and supported their family's expenses. This generation of women breakdown the traditional belief and practice of homemaker to another chapter of life. They realise their goals and reach their inner talents, dreams, and capabilities. Women are trying to move forward for equalisation at home and outside (Chin, 2011).

## The rationale for the study

Now, women occupy and delve into almost every aspect of professional careers and employment and are even in the forefront to lead others. Therefore, it is interesting to study and know that women are empowered, playing the role of leaders in educational organisations and institutions despite barriers faced. Hence, the researchers desire to Conduct the study on the problems encountered by women leaders in educational institutions.

## Review of literature

Women are more concerned about the well-being of the student's staff and love to spend more time with people to counsel and motivate them, which realise that women leaders are productive and effective to run educational institutions (Shakeshaft, 1987). It is an ambition that acts as an asset to promote women in achieving educational administrative positions, despite the obstacles that still exist that bound them to progress to such a higher position (Brown, 2004). On the other hand, Helter bran and Rieg (2004) highlighted the various barriers that women leaders face continuously in an attempt to fulfil effective leadership in educational administration, such as long working hours, lack of encouragement, lack of mentors in the field, lack of the desire for power, lack of cooperation with male, better qualification than male, fail to discipline older students, especially males etc. Gobena (2014) said that the lack of exceptional support to females from the town's higher official and educational system hinders women's representation in academic leadership positions. Also, Mythili (2017) found out that women leadership in education is still less in number. Therefore, despite

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finding their ways to lead, women still have many obstacles.

### **Objectives**

The study's objectives are (1) to find out the challenges that women leaders encountered in secondary schools and (2) to find out the way they handle and overcome the challenges they encounter in the pathway.

### **Research Question**

The research questions put forward are: (1) What challenges do women leaders encounter in educational institutions? (2) How do women leaders handle and overcome these challenges?

### **Methodology**

A qualitative approach was adopted to study the objectives. A semi-structured interview schedule was used to collect data, and a purposive sampling method was used to study the problem. The data were collected from nine women holding the principal and vice-principal of the secondary school located in Mawlai Block. The participants were willing to contribute and share their journey and experiences as leaders in educational setup.

### **Results**

After the transcription, coding and categorisation of interview data, the result is highlighted as follows:

#### **Challenges to reaching a leadership position**

Most women leaders did not encounter difficulties getting the current situation. They expressed that their promotion was due to long term service and required qualifications. Whereas, some women leaders shared challenges and revealed that they have to work hard to get to the position as a leader, despite the criticism encountered with their colleagues.

The above responses showed that women underwent smooth progress to the school leader position even though some participants encountered challenges in their journey of progression.

#### **Challenges encountered with the School Management Committee**

Nearly all participants expressed that they face

no with the School Management Committee. The smooth sailing was because of teamwork amongst all the members who were ready to help the school principal at any time. The decision-making process is always in consensus with the school management committee. Except for one participant who conveyed that it is sometimes very difficult to make the school management committee members understand the work to take up for overall improvement and development of the school.

The responses gathered showed that most participants work hand in hand with the school management committee for the smooth functioning of the school.

#### **Challenges with the students**

Women leaders encountered many problems in dealing with students for shaping and moulding their behaviour and helping with their academic achievement. Some participants stated that students are rebellious, unrespectable, lazy, lack honesty, responsibilities and cooperation, and have no passion for their studies. One participant expressed that some students are too pampered by their parents; and further expressed that girls are shy, quiet and do not want to seek attention, whereas boys are active and like to be recognised by everyone. Some expressed that students lack parental understanding, while others expressed that students are in the habit of using a substance like chewing of bettle nut and bettle leave and other related substances. Another participant mentioned that students are influenced by outside factors that obstruct their concentration and studies. Some participants revealed that students have pride and feel like they know everything, which rejects guidance and counselling. Hence, teachers find it difficult to mould and impart knowledge to such students.

From the above result, it is found that all principals encountered problems in dealing with students. Some expressed that only God's grace can turn a child on the right track.

#### **Challenges with the human resources**

Mainly the principals emphasised that teaching and



non-teaching staffs are cooperative and always consults on complicated issues. Hence, there are no problems in operating the various functions of the school. In contrast, others reported that they always have to motivate and remind teachers about the sense of duty and responsibility from time to time to ensure the smooth functioning of the school.

From the above responses, women leaders have certain challenges in dealing with the human resources in their institutions.

### **Challenges with physical resources**

Some women leaders expressed that there is no playground in their school, so they have to take students outside if the playground is needed. Some participants also said the lack of laboratories, libraries and common rooms for boys and girls. While three participants expressed that there is no problem regarding physical resources.

From the responses, we might say that the school head's management of a playground for the students is one main problem. At the same time, most have to make better arrangements for laboratories, libraries and common rooms.

### **Challenges dealing with carrying out the activities of the school**

Some women leaders revealed that they have no problem with carrying out the school's activities. Whereas some revealed that financial difficulties obstruct them from holding activities since students come from low-income family backgrounds, one participant responded that "Students are outspoken, brilliant and always show their talent."

On account of the responses drawn together, it might be concluded that most of the activities can be easily held stated the school heads. Though finance is a constraint yet, the talents of the student are identified.

### **Challenges with academics**

Regarding the students' academics, women leaders expressed that some students are first-generation learners, and coaching class is conducted to help students, deficient average students, excel in their studies. Also, because of the poor background of the

students, they do not even have a book to read or a proper time to study because of pending household work.

For some, there is a lack of parental support.

The women leaders perceive low academic achievement and that the students have their struggles. Other school leaders are satisfied with the academic achievement of students.

### **Work-home balance**

When asked about their work-home balance, most participants expressed that they can easily adjust to work and family.

### **Overcoming challenges**

Women leaders expressed that they work very hard, display patience and self-sacrifice, and counsel when needed. Women leaders use different ways to overcome the challenges they encounter towards achieving progress in their careers as school leaders.

### **Discussion**

Women, who previously were considered insignificant towards the development of the society and nation, have shown to be influential leaders, especially in teaching-learning. The study's findings reveal that women leaders need hard work, long-term service, and trust to reach these highest positions in educational institutions besides fulfilling required qualifications. This shows that women are competitive enough to attain a higher position in society. It was found that women's leaders in educational settings encountered lesser problems in their administration and academic mechanism, which makes them cultivate achievements in their profession. However, women leaders came across several issues in dealing with the students, especially when moulding and shaping their students' behaviour and personality. However, they get full support from the staff and non-teaching staff. Though, some women leaders are faced with the problem of uncooperative staff. But this is not a barrier to discontinuing their effort to work for the goodness of the educational institution as a whole.

Interestingly, it was found out that they explore and exercise ways and means to overcome their

problems through various skills and creativity. Besides the substantial work they carried out in the school, it is also stimulating to know that they can also easily balance and adjust their work and family. Women's progress in knowledge helps them balance and raise their family life and climb to the top for outstanding achievements (Elmuti, Jia, & Davis, 2009).

As mothers and leaders, women are naturally entrusted with the skill of taking care. Thus, the students and society need more love and compassion to be led and guided in their career and personalities. The work of Zulu (2016) revealed that a dysfunctional school could be altered into an excellent performing school through caring of woman leaders' as part of transformational leadership with inspirational motivation, individual consideration, charisma and intellectual stimulation. Considering society's enthusiasm, education is the main essence that should be acknowledged constantly.

### Conclusion

In conclusion, women play an important role in the contribution to the growth of the organisation that they lead, for the well-being of the students, which contributed to the welfare of society to a great extent. 'She' is the one who acts as a pillar and a basic source of all the goodness of the family, school and society as a whole. It is because a woman's responsibility, commitment, obligation, dedication and surplus talent are handed over to her by nature. It is worthy of empowering her with a great reputation and honour in every aspect of her endeavour. Knowledge and wisdom are inherited and passed on throughout society and to the future generation and will never remain in the same position. For that reason, it is important to recognise the role played by women in different aspects. Therefore, it can be concluded that a woman is a set apart creature of God to build and support the prosperity of the school, the society and the expanded nation as a whole.

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# ADVANTAGES, ISSUES AND CHALLENGES IN THE IMPLEMENTATION OF DIGITAL EDUCATION IN INDIA

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## ABSTRACT

*COVID-19 has affected every walk of life as history has never seen before. The permeation has never left anything untouched, leaving behind a footprint that will linger a long time, if not forever. People's routine is now dependent on online services, ranging from essential daily needs to information on the coronavirus. The person-to-person spread of COVID-19 has resulted in unprecedented levels of lockdown, social distancing and individual distancing across the world, forcing people to stay inside their homes. This has driven all sectors to turn to online technology to fill this prevailing gap. The spread of COVID-19 abruptly interrupted the education of students. Since all education must necessarily be online, various classes from kindergarten to research studies take place on video conferencing. The development of teaching and learning using technology or e-Learning over the past two decades is now widespread even in primary education. E-learning occurs through information communication tools, including Google Meet, Zoom, webinars, Skype, and Adobe Connect. Online learning technology continues to improve by leaps and bounds through channels like e-learning, mobile learning, artificial intelligence, virtual learning, augmented reality, and immersive learning. An ongoing debate in education is whether these instruments can change traditional education or occupy its place. At this juncture, this study aims to analyse the challenges, complexities and changes that can be expected and looked forward to in e-learning. There is also an opinion that India's education sector has not reached its expected standard, considering that even the adequate infrastructure of schools is still underdeveloped. In an unequal society where the internet and digital technology are not yet accessible to all, it appears that it may take time for e-learning to create the expected benefits. At the same time, the current scenario also clarifies that educators need to familiarise themselves with online learning tools.*

**Keywords:** Digital education, e-learning, m-learning, ICT, Teaching, Learning.

## Introduction

Traditional teacher-student-classroom teaching has reached new dimensions with the advent of computer-aided technology. Before the Industrial Revolution, the tradition of bringing students to a single place to teach them originated in Europe. The same method is widespread in the world. The concept of distance education, where the teacher and student are in different places, happened only in the latter part of 1800 in the University of Chicago in the United States. Introduced by William Harper in the 1890s, distance education faced much criticism. Conceived for those who could not afford a full-time education, distance learning was considered a step below traditional classroom education. After the First World War, the newly discovered radio and television were used as the new tools for distance education. The proactive

initiatives of the International Council for Distance Education since 1982 helped popularise distance education across the world.

In 1843, Isaac Pitman introduced the mailing shorthand teaching notes to students. After a long gap, Professor B.F. Skinner of Harvard discovered the teaching machine in 1954. Further to this, online education started gaining popularity in the 1970s. The

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Indira Gandhi National Open University (IGNOU) introduced distance education in 1985 in India. The Mac computer introduced in 1980 enhanced online teaching and learning. Online learning became widespread in schools, colleges and universities after the 1990s. After 1999, online learning and virtual learning further popularised distance learning. Today, these have morphed and developed into e-learning, mobile learning, and multimedia learning. Recent research studies confirm that e-learning, which is laying the foundation for bright changes in education, combines texts, audio and video along with 2D and 3D graphics to introduce animated learning to enhance students' learning experience.

The launch of a satellite in 1970 helped usher in technology for education. The concept of teaching through radio was introduced in the Satellite Instructional Television Experiment (SITE) communications project of 1975-76. Radio broadcasting was limited to one-way interaction. In the 1980s, two-way interactions became more routines as the telephone network developed in the 1980s. The launch of the EDUSAT satellite paved the way for the widespread use of technology in education. Efforts to connect technology to India's education system have continued for the past decade. The National Council for Educational Research and Training (NCERT) has published educational books on audio, video and text via pathshala, an online portal. The National Repository of Open Educational Resources, Swayam, Swayam Prabha, and the National Digital Library (NDL) produce and offer multimedia educational programmes. Further, web platforms like Massive Open Online Courses (MOOCs) help professors prepare and present digital content online.

**Emerging technological advancements in the digital education sphere**

The accessibility of high-speed internet, new gadgets, exclusive software, and its applications have facilitated the users to be information-rich and induced them to stay connected with the digital world. The unprecedented growth of information communication technology (ICT) in education necessitates the stakeholders to adopt techno-pedagogy skills in teaching and learning. The ICT has made drastic changes in the

learning pattern of the students in terms of access, retention, storage, sharing, and presentation of information which have made the teaching-learning experience more and more interactive. Knowing the inevitability of technology, the educational sector realised its pressing need to incorporate them into the curriculum and syllabi.

As the digital presence, adoption, possessions have been realised in all the sectors; digital consumption has reached an incredible stage in India. According to the Digital in India (2020) report that 687.6 million active internet users were there in India in January 2020, 128 million users with 1.06 billion mobile connections augmented internet services in India. The report also finds that 70 percent of the internet population in India daily consumes internet services. Nine internet users out of 10 urban India access the internet at least once a week. It is relevant to note that mobile phones remain the device of choice for accessing internet connections in urban and rural India. Further, the Internet & Mobile Association of India (IAMAI) report predicts that “India will have around 2.1 billion internet-connected devices in the year 2023. The key reason for the eventual growth of internet users in India is increasing the number of smartphone users.”

The increase of digital technologies has made conventional teaching structures outmoded and constrained to take on technology to the classrooms for superior reach in the delivery of instructions. Online digital education offers new avenues to teachers and students and ensures active participation in the overall teaching-learning process. The influxes of the latest technology-blended learning tools have transformed the edifice of education in schools and colleges. The technological tools enable the stakeholders to engage their learning tradition with the help of online collaboration tools, presentation software, course management tools, and audio-video equipment. According to studies, technologically blended youngsters seemingly preferred more online courses in the recent past.

The latest features of interactive educational tools

enable flipped classroom learning, game-based learning, personalised learning, and social learning in education. More particularly, the use of interactive learning tools in digital classrooms increases the students' attentiveness as it is done in a visual explanation of the text. A notable study reiterated that “use of technology in education contributes a lot in the pedagogical aspects in which the application of ICT will lead to effective learning with the help and supports from ICT elements and components” (Jamieson-Procter et al., 2013). Further, it has been ensured that “ICT provides the help and complementary supports for both teachers and students where it involves effective learning with the help of the computers to serve the purpose of learning aids” (Jorge et al., 2003). The introduction of new gadgets, innovative tools, and cutting edge modern audio-video production equipment have enabled the facilitators to create new e-learning experiences in the delivery of instructional materials.

The latest technological ventures like Virtual Reality (VR), Augmented Reality (AR), Artificial Intelligence (AI), Big Data, Machine Learning, and Wearable devices have made tremendous changes in the delivery of educational instructions to students. Virtual Reality (VR) enables the user to realise the virtual presence of the physical environment and creates a simulated experience that can be similar to the real world. This technology will generate realistic sounds, images, and other sensations that enable the users to realise their physical presence in imaginary or virtual environs. This incredible technology engages students in a deeper educational environment in the digital learning streams.

Augmented Reality (AR) creates an interactive real-world experience that includes real-world sensory input like video, graphics, and sound. Learners can virtually observe the visual objects of the subject matter that enable them to understand the subject easier way. For instance, if one wants to learn about the planets, it is possible to have a virtual tour of planets in the computer-based system. Artificial Intelligence (AI) enables the users to simulate human intelligence into machines and create more realistic experiences compared to traditional linear pre-programmed lessons.

Big Data allows e-learning producers to understand how the users consume the encoded information.



Upon realising the learning patterns of the user's instructors can predict where learners may struggle. Based on the inputs extracted from the machine, instructors can improve their e-learning modules so that the learners get a fair opportunity to accomplish the best possible outcome.

Machine learning, yet another application of Artificial Intelligence and wearable devices, have gained a remarkable space in the teaching-learning process and enabled the users to make learning solutions much more exciting and understandable. The latest technological advancements will have an incredible improvement in the learners' learning experiences and, unfortunately, yet to be found their place in the digital space of India. However, the embedded creative applications of information communication technology and the Internet consumption culture have created an urgent need to increase the usage of gadgets in the pedagogy.

#### **Review of Related studies**

Research studies have confirmed that technology can be used as a powerful tool to transform the learning scenario and advance interactions between educators and students to provide outcome-based learning experiences to meet the emerging requirements of modern learners. They are reimagining the role of technology report (2017) of US education department precludes that “Technology increasingly is being used to personalise learning and offer students more choice over what and how they learn and at what pace”.

Many research studies have authentically declared the benefits of ICT tools in pedagogy. The notable commentator Vinay Goyal (2017) highlighted that “Information and Communication Technologies have recently garnered massive interest and are recommended by many scholars worldwide”. Further, he added that “the creative use of ICT in education can increase the quality of people's lives by enhancing teaching and learning”. It has been observed that integration of “ICT improves the quality of instruction and encourages collaborative learning. ICT facilitates fast and accurate

feedback to learners” (Becta, 2003) and also “It promotes deep learning and allows educators to respond better to different needs of different learners” (Lau & Sim, 2008). There are no differences of opinion in the positive outcome of technology-based education.

The overwhelming reception of online digital education worldwide will have inadequacies in its domain. Accessibility, affordability, behaviours of the stakeholders, policy of the government, and infrastructural set-up are the major source for the implementation of ICT based education in India. Sharma (2005) has identified that “uncertain power supply may have a strong impact on the delivery of digital education in India”. Similarly, in his research work, Dawinder Mann (2009) pointed out that “the limited access to technology makes it difficult to provide education to many Indians”. Above all, “there is hardly any quality training regularly imparted to teachers involved in ICT education” (Arnab Kundu, 2018). Nijhum Rudra (2016), in his research findings, concluded that “lack of technology, internet access, and qualified trainers act as the biggest challenges in providing ICT-based educational services to the masses, especially to the rural masses”.

At the start of 2020, e-learning has had major significance among educational sectors bridging students and teachers. Especially, the development and widespread use of mobile technology has led to its integration into the education sectors, resulting in the concept of mobile application (m-App) based learning or m-learning. Teachers, academic staff, and students are increasingly using m-learning to access information quickly and conveniently. They are pushed to adopt this method into the mainstream during this crisis. Alsaadat (2009) stated that m-learning has become unavoidable in getting young students to engage more in learning, where more traditional methods have either failed or are impossible. Mobile and online learning are often seen as supplements to more traditional learning approaches because of the rich learning experiences. (Martin et al., 2013).

M-learning offers a sophisticated way to blend the learning process that infuses online learning

experiences through mobile devices (Mehdipour & Zerehkafi, 2013).

Learners can be of any age, at any time or place to participate in m-learning or e-learning opportunities (Behera, 2013). M-learning can shift the learning pedagogy from a teacher-centric approach to a learner-centric approach (Garg 2013; Martin et al., 2013). M-learning can make learning genuinely personalised to choose learning content depending on their interest, or assemble virtually under the teacher's instruction, thus creating a rich experience and highly learner-centric (Narayanasamy& Mohamed, 2013). M-learning allows collaborative work in which students and teachers can e-mail, cut, copy and paste text, and pass the device around a group (Nassuora, 2012). Inexpensive, employing multimedia and creative images, low-cost training, a large number of participants at one go, integrating media or texts, exporting audio files from a learning platform to any mobile phone devices are relative benefits of app-based learning (Elias, 2011; Crescente and Lee, 2011).

Although there are benefits to mobile learning, several researchers have found limitations to its total usage and adoption. M-apps activities could create a sense of isolation for students, especially those who are not knowledgeable using modern technologies and may tend to deviate to personal communication during active learning. Lack of motivation from educational institutions providing full support and access to the students and faculty members is a question. Difficulty in monitoring weak students outside the classrooms can be considered a disadvantage of using m-learning (Mehdipour&Zerehkafi, 2013).

The available literature has reiterated the urgent need to address the general issues and challenges in India. Learning without computer-aided technology will not survive in the digital era; hence, integrating technology and building the capacity of the stallholders are paramount to materialise the goal of reaching digital education in India.

#### **Advantages and benefits of digital education**

There is an acute shortage of teachers from primary to research level education in India. In



particular, private schools and colleges employ teachers who do not have the appropriate educational qualifications on low salaries. Students are therefore forced to learn based on the teacher's knowledge. The online teaching system of multidisciplinary subjects with competent and experienced teachers is gradually developing in this context. This empowers students to choose high-quality curriculum, educational materials and the ability to acquire cognitive knowledge through eminent teachers. Practice lessons for competitive exams in medicine and engineering are being shared live and published as e-learning packages for sale. Students prefer to buy and study these materials.

E-Learning, an online education system, ensures freedom for both teachers and students. It liberates them from the monotonous routine of the classroom, scheduled lessons and specific teachers of the traditional learning method and provides them independence in education. The teacher can create the desired lesson in the required format and present it to students. This allows students to choose the course, understand the contents, absorb the teaching methodology, and then study the lesson. This system ensures that both teachers and students have sufficient independence. Having the right to choose the teacher and lesson creates a democratic and pleasant learning experience.

Online learning creates a flexible environment and can be done anywhere, anytime. Once the teacher has prepared and uploaded the course, students can study it and raise questions. This is in contrast to the classroom teaching method where education is imparted at a specific place, at a specific point in time. Digital learning makes it possible to learn the appropriate course at the appropriate time by studying from digital archives. This has resulted in saving time and money. Many research studies confirm that traditional teaching methods follow the same pattern with no innovation and do not substantially differ in how students imbibe knowledge and cognitive abilities. For this reason, more students are starting to choose an education that combines new technology and innovation.

#### **Potential issues and challenges of digital education in India**

There are several reasons why online learning is

widely welcomed but not widely received. The prime reason is that technology and the internet do not have a balanced reach across all strata of society. Further, knowledge about computers is not yet widely available to the public. Therefore, there is a need to prepare students for computer technology. In addition, uninterrupted power supply and internet access are not fully available in countries like India. These technical barriers are the key obstacles to online learning. Similarly, the lack of adequate technical structures and frameworks for online lesson preparation hinders the development of practical online courses.



Since all aspects of information technology development necessarily involve computers, the education system cannot be separated from the new online teaching technique. Information communication technology offers unique opportunities for online teaching, including e-learning, mobile learning, artificial intelligence, virtual learning, augmented reality, and immersive learning. Therefore, various integrated platforms need to be considered and understood to improve the benefits of online learning.

The most essential and first step is developing and implementing a standardised technology framework to make e-learning widely accessible. Just as 'education for all' is being implemented, 'technology for all' should also be possible. Similarly, equal internet access should be made available for all. While the internet and mobile phones are rising in India, there is a discouraging answer to whether free internet service is open to everyone. Statistics confirm that there is still a significant gap in equal internet access to the masses. It is critical to ensure the availability of a free, abundant, cost-effective internet service and a robust technology framework for e-learning. When this happens, beneficiary students will increasingly be able to apply themselves to the online learning system.

There is a need to train teachers and students in technology. The full benefits of e-learning can be realised only when teachers and students fully understand the ongoing developments in online technology, the influx of new platforms, and their various technical

improvements. Traditional teachers with many years of expertise must adapt to a technical environment. School, college, and university teachers are encouraged to autonomously design and present lessons online. It is essential to realise that teachers cannot avoid technology, including e-learning. Teachers must therefore change their mindset regarding online technology. Teachers should also be provided with appropriate training to ensure the widespread reach of the online teaching system.

The traditional model in front of the camera should be completely avoided in online learning. Instead, different multimedia techniques available through various tools should be fully utilised and lessons taught. Recent technologies like HD and 3D have created major changes in audience perception and viewing behaviour. These trends should be taken into account before developing online lessons.

There are four types of learners among students. Visual learners prefer to learn by sight and display; auditory learners learn better through hearing; reading/writing learners prefer to learn by reading and writing; and kinesthetic learners who learn by doing. Online lessons for students should be created, considering this. Students with learning disabilities can be identified in the traditional model of classroom teaching. Therefore, the psychological issues of students with learning disabilities should be taken into account when using online methods of teaching. There are four layers among learners: Fast learners, bright learners, average learners and slow learners. Online lessons should be designed and prepared based on the context of these learners.

The instruction language in online learning may play an important role. While English is the medium of instruction in India, students may interact with their teacher and clarify doubts in their mother tongue in a traditional classroom. Therefore, when the local language is used, at least in text and English, one can expect a tremendous change in students' learning environment.

If the benefits of information technology need to create significant changes in the learning environment, we need to see beyond the latest technological

development. There is no doubt that online learning will reach new heights if we ensure its widespread availability, make it attractive, and ensure beneficially.

### Conclusion

The education system faces constant changes over time. In India, the gurukul education system where students searched for the teacher gave way to the public school system and has today transformed into online teaching that reaches students directly in their homes. It is natural for every new initiative to face both positive and negative commentaries. Although online learning existed for more than two decades, a critical need did not exist. The unprecedented crisis created by COVID-19 has helped us understand the importance of online learning.

Factors including climate, weather, social standing, economic status, and psychological environment have emerged as necessary for determining the teaching-learning environment. Therefore, it is essential to understand the needs of the time and changes in student psychology and combine technological innovation with teaching methods to ensure the survival of traditional teaching for at least some time. Otherwise, if traditional teaching remains stagnant without using technology, the role of the teacher will be diminished and give rise to private operators who will take over learning and move it to another dimension. This will lead to an erosion of ethics, character, values, discipline, and the true flavour of education will be lost. Teachers, therefore, need to embrace the technical mainstream, strengthen the online framework and ensure a new dimension of online teaching and learning.

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# A STUDY ON INTERRELATION OF EDUCATIONAL ASPIRATIONS WITH SCHOOL CLIMATE OF HIGHER SECONDARY STUDENTS

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## ABSTRACT

*The present study was assumed to study educational aspirations of higher secondary students in relation to their school climate and to find out the difference between educational aspirations and school climate of higher secondary students on the basis of gender, locality and types of management. This study was conducted on a sample of 976 students studying in higher secondary schools of Salem district. The result showed that the male and female higher secondary students do differ in the personal dimension factor and total score of educational aspirations, and male and female higher secondary students do not differ in the dimension environmental factors of educational aspirations, rural and urban higher secondary students do differ in the dimensions personal factors, environmental factors and total score of educational aspirations, higher secondary students from different types of management do differ in the dimensions personal factors, environmental factors and total score of educational aspirations. However, male and female, rural and urban higher secondary students do differ in their school climate, higher secondary students from different types of management do differ in their school climate. Further, the results indicated a significant positive relationship between higher secondary students educational aspirations and school climate.*

**Keywords:** educational aspirations, school climate, higher secondary students

## Introduction

Education is a procedure and kind of movement in relation to human beings. It is a continuous effort to develop all dimensions of the students to control their neighbouring situation and achieve their needs. Though education is a part of human life, it cannot help the followers unless they have the actual number of educational aspirations. The term level of aspiration is best clarified as a set of situations relating to self-esteem. When the level of aspiration is centred on the field of education, we may refer to it as the level of educational aspirations. It is measured as a thought, referring direction towards educational goals spaced in a range of difficulty and social status and arranged in an educational grading. Garg et al. (2002) investigated that family influences affected formative students' educational aspirations through their impression on attitudes, extra-curricular reading towards homework, school, and observations of students of their parent's educational aspirations.

School Climate, the focus of this is evident in the feelings and attitudes about a school expressed by students, teachers, staff, and parents the way students and staff "feel" about being at school each day. The physical and psychological features of the school provide the conditions essential for teaching and learning to take place. School climate states the quality and atmosphere of school life. It is based on designs of school life knowledge and reflects standards, goals, morals, interpersonal relations, teaching, learning and leadership performance, and organisational structures. School

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climate is stated as determining structural features in and exclusive to a specific school (Hoy, Tarter, & Bliss, 1990; Tagiuri & Litwin, 1968). The term has been used interchangeably with school principals, school atmosphere, school situation, learning environment, sense of public and academic climate (Hoy & Hannum, 1997).

### Need and Significance of the Study

School is the safest place, and the teachers are the persons who could ensure that safety over there. It was conceptualised previously by Froebel stated that the school is an important social institution. He regarded school as a miniature society where children get training in essential things of life. They learn the qualities of co-operation, understanding, fellow-feeling, accountability, etc. Froebel considered the school a garden, the teacher a grower, and the students loving plants. Here it is worth mentioning the mandate that if one school door is opened, a thousand prison doors would be closed. The national curriculum framework for school education makes a critical remark that schools across the country are obsessed with basic infrastructure and a good school climate.

All efforts taken in the field of education in the learning process are concentrated on cognitive skills alone. This limited focus on the cognitive to the total disregard of the affective aspect in the learning process has long been recognized as a pedagogic aberration. Many strategies implemented by the state government became additional benefits in improving children's cognitive skills. The students at the higher secondary stage should be mentally and physically healthy to cope with life situations. School climate, as perceived by Students has the advantage of characterising the setting through the eyes of the actual participants. Students have a benefit point to make decisions about classrooms because they have encountered some learning atmospheres and have sufficient time in a class to form precise imitations. Creating a healthy school environment for students begins with supportive, healthy associations among the staff. Healthy relationships yield a climate favourable to morality, open announcement, and risk-taking. In an accurate learning public, cooperative

learning and common respect are predictable of faculty and students. Developing a productive environment conducive to learning involves establishing a school atmosphere that promotes cooperation, trust, loyalty, openness, pride, and commitment.

School climate is also connected with academic achievement, faculty confidence, and student performance. An effective school establishes a climate that cultivates respectful and supportive relationships. Close, believing relationships with adults and aristocrats create a climate that provisions personal and academic growth. The school environment must be structured to support teachers in developing meaningful relationships with each student. Adult counsellors provide modified provisions to contribute to students creating goals, preparing areas of study, and involving parents in the procedure. Students are satisfied in schools where they feel reasonably preserved, innocent, and maintained by teachers.

Therefore, the higher secondary stage students should be mentally and physically healthy to cope with life situations. Thus, the present study may prove to be of great value for students and teachers in dealing effectively with the various problems arising from the students' educational aspirations. During the higher secondary level, their Educational Aspirations is supposed to be based on the school climate and by the study habits of the students.

On the other hand, study habits and school climate significantly impact the educational aspirations of higher secondary students. Hence, considering the above three variables would have a close relationship, the investigator wanted to determine the relationship among these suitable variables.

### Objectives

1. To study the significant differences in the educational aspirations of higher secondary students in terms of gender, location of the school and Type of Management.
2. To study the significant differences in the school climate of higher secondary students in terms of

gender, location of the school and Type of Management.

3. To find out the significant relationship between educational aspirations and school climate of higher secondary students.

**Hypotheses**

1. There is no significant difference in the educational aspirations of higher secondary
  - a) Gender (Male/Female)
  - b) Location of the school (Rural/Urban)
  - c) Types of Management (Government/Aided/Private)
2. There is no significant difference in the school climate of higher secondary students based on the select sub-samples
  - a) Gender (Male/Female)
  - b) Location of the school (Rural/Urban)
  - c) Types of Management (Government/Aided/Private)
3. There is no relationship between educational aspirations and the school climate of higher secondary students.

**Methods and Sample**

Descriptive survey method of research was used. The study sample consisted of 976 higher secondary students from the Salem district of Tamil Nadu, India. Male and female, rural and urban students from different school management types were selected as a sample using a stratified random sampling technique.

**Tools**

The Educational aspirations scale was developed by the investigator for higher secondary students containing fifty items about the educational aspirations scale and two dimensions viz, personal and environmental factors. The maximum scale value was 250, and the Minimum value was 50. The estimated reliability of the scale in the present study is very high (Cronbach’s alpha 0.852).

The School climate tool was developed by Devi and Panneer Selvam (2016). According to the current situation, the investigator adopted and revalidated the school climate tool. The tool consisted of forty items

with five alternatives to respond as (Never, Rarely, Sometimes, Often, and Always). Marks were given accordingly. The estimated reliability of the scale in the present study is very high (Cronbach’s alpha 0.874), with a Maximum value as 200 and a Minimum value of 40.

**Statistical Techniques**

In this study t-test, F- test and Pearson's correlation were used.

**Results and Interpretations**

**Table 1**

**Difference in educational aspirations between male and female higher secondary students**

Educational Aspirations	Gender	N	Mean	S D	t value	p-value
Personal Factors	Male	396	62.64	9.021	3.185	0.001**
	Female	580	64.52	9.116		
Environmental Factors	Male	396	104.76	13.292	1.029	0.304*
	Female	580	105.73	15.982		
Educational Aspirations	Male	396	167.38	19.416	2.128	0.034**
	Female	580	170.25	22.451		

The table 1 shows that male and female higher secondary students differ in the dimension personal factor and educational aspirations. But male and female higher secondary students do not differ in the dimension environmental factors.

**Table 2**

**Difference in educational aspirations between rural and urban higher secondary students**

Educational Aspirations	Locality	N	Mean	S D	t value	p-value
Personal Factors	Rural	518	67.67	9.335	16.341	0.000**
	Urban	458	59.34	6.477		
Environmental Factors	Rural	518	114.09	14.655	25.828	0.000**
	Urban	458	95.44	6.991		
Educational Aspirations	Rural	518	181.74	20.756	26.456	0.000**
	Urban	458	154.78	9.732		

The table 2 shows that rural and urban higher secondary students differ in the dimensions personal factors, environmental factors and educational aspirations.

**Table 3**

**F' values of educational aspirations of higher secondary students with reference to types of management**

Dimen sions	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Personal Factors	Between	5966.02	2	2983.01	38.634	0.000**
	Within	75126.397	973	77.211		
Environ mental Factors	Between	27824.077	2	13912.039	71.219	0.000**
	Within	190068.345	973	195.343		
Educa tional Aspiration	Between	58990.643	2	29495.321	74.795	0.000**
	Within	383699.779	973	394.347		

The table 3 shows that higher secondary students from different types of management differ in the dimensions personal factors, environmental factors and educational aspirations.

**Table 4**

**Difference in school climate between male and female, rural and urban higher secondary students**

Variable	Gender	N	Mean	S D	t value	p-value
School Climate	Male	396	124.47	18.249	3.944	0.000**
	Female	580	129.41	19.785		
	Rural	518	134.15	23.237	2.498	0.000**
	Urban	458	119.77	8.684		

The table 4 shows that male and female, rural and urban higher secondary students differ in their school climate.

**Table 5**

**'F' Values of School Climate of Higher Secondary Students with reference to Types of Management**

Dimen sions	Source of Variance	Sum of Squares	df	Mean Square	F	p
School Climate	Between	17329.108	2	8664.554	24.325	0.000**
	Within	34657.03	973	356.195		

The table 5 shows that higher secondary students from different types of management differ in their school climate.

**Table 6**

**Relationship between of Educational Aspirations and School Climate of Higher Secondary Students**

Variables	Pearson Correlation 'γ' Value	P value	Remarks
Educational Aspirations & School Climate	0.73	0.000**	Significant at 1% level

The table 6 shows that there is a significant positive relationship between the educational aspirations and school climate of higher secondary students.

**Findings**

1. Male and female higher secondary students differ in the dimension of personal factors and educational aspirations.
2. Rural and urban higher secondary students differ in the dimensions of personal factors, environmental factors and educational aspirations.
3. Higher secondary students from different types of management do differ in the dimensions of personal factors, environmental factors and educational aspirations.
4. Male and female higher secondary students differ in their school climate.
5. Rural and urban higher secondary students differ in their school climate.
6. Higher secondary students from different types of management do differ in their school climate.
7. There is a significant positive relationship between higher secondary students' educational aspirations and school climate.

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**ADVANTAGES, ISSUES AND CHALLENGES...**

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# EMOTIONAL INTELLIGENCE AND ACADEMIC ACHIEVEMENT AMONG HIGHER SECONDARY SCHOOL STUDENTS

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## ABSTRACT

*As indicated by Indian Culture, a kid accepts his actual birth from the guardians and second birth due to the educator. The instructor is given a higher position than the guardian since he imparts information and shapes character. In this way, schools should adapt to the situation by establishing school environments that encourage passionate abilities to appreciate individuals for imparting enthusiastic education into the standard educational plan. However, accepting the significance to understand people on a profound level in schools has delayed fusing enthusiastic proficiency into their design. This may have to do with the stuffed school educational plans and attention on a tight scope of scholastic results regarding an assessment-driven framework. Consequently, the ability to appreciate people on a deeper level has been incorporated as a significant element for understanding its impact on the accomplishments of the understudy educators. The researcher has taken a study to identify the role of educators and the achievement of students.*

**Keywords:** Emotional Intelligence [EI ], Academic achievement [AA]

## Introduction

Schooling today is under bunch requirements and challenges as the instructor training. It calls forward setting and settling different human resources and tests into a portion of the essential issues of human illumination. Educator schooling is more stood up to arranging and altogether addressing the universe of instructing learning than just managing obligations and homeroom tasks. It is presently at the fork of the totality of vision in an intrigued universe of prompt addition in each attempt and stresses and disappointments in pointless educating without bliss, opportunity, and innovative experience. As a result, the difficulties of educator instruction today for tending to harder ones for tomorrow stays an undeniably exciting experience to be all the more commendably embraced (Chakrabarti, 2008). As a vital part of the instructive framework, educator schooling is personally associated with society and is adapted by the ethos, culture, and character. The established objectives, the standards of the state, the financial issues and the development of the information, the arising assumptions and work changes in schools and so on require a fitting reaction from a cutting-edge instruction framework and give the viewpoint inside which educator training programs should be seen.

Educators' instruction needs to fortify and push upon the primary credits of a calling, like the systematic hypothesis, thorough preparing over a predefined span, authority, local area endorse, moral code and culture, creating information through exploration and specialisation. It is now recognised that proper expert preparation on persistent premises is vital for becoming a decent educator. It obliges the advancement of one's character and honing relational abilities and obligation to a set of accepted rules (Verma, 2006).

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### Need and significance of the study

In yester years, schooling was basically for learning. Today, the principle motivation behind instruction is for procuring. Schooling has become profoundly business, and scholastic greatness has been acquired through extreme rivalries. The educational status of an individual is exceptionally portrayed through scholastic accomplishment. At present, this pattern has been seriously felt by the academics, guardians and understudies. Strikingly, scholarly accomplishment has turned into an impending list in deciding a kid's future. This talks a great deal about the meaning of taking up the current examination. Going higher up in the societal position through scholastic accomplishment is generally acknowledged, and the main determinant of an individual's grown-up status is his vocation. The portrayal of a school and its impact on the existence of a local area relies upon the sort of educators working in it. The report of the Education Commission (1964-66) likewise gives accentuation to the above point by saying that of the relative multitude of various elements which impact the nature of instruction, and its commitment to public turn of events, the quality, ability and character of instructors are without a doubt the most huge. A successful instructor, in this manner, is an unquestionable requirement for instructive improvement, which we are endeavouring hard to achieve. An educator is considered ahead of learning, a companion and a teacher of students, an individual from a group of expert individuals, and a resident partaking in different local area exercises. Though instructive changes and endeavours have been made to work on scholarly accomplishment, deficient understudy execution remains an issue. Outstanding academic records in school construct confidence and fearlessness, prompting better change with groups or society. Scholarly accomplishment overall alludes to the scores acquired in the yearly assessment or alludes to the degree or level of progress or capability achieved in some region concerning educational or academic work. Scholastic accomplishment is the achieved capacity or capability in school errands generally estimated by state-administered tests (Torres, 1994).

### Statement of the problem

Emotional intelligence is the psychological

influence that is expected to increase students' learning efficiency.

Academic achievement refers to the success or proficiency attained in specific areas concerning scholarly or academic work. Concise Dictionary of Education (1982) explained academic achievement as successful accomplishment or performances; in subjects, areas, or courses usually, by reasons of skill, hard work and interest typically summarised in various types of grades, marks, scores, or descriptive commentary. Since the study deals with the effect of the variables, 'emotional intelligence and 'academic achievement' of higher secondary students, the study is entitled "Emotional Intelligence and Academic Achievement of higher secondary Students"

### Objectives of the study

The following are the objectives of the present study

1. To find out whether there is any significant difference between men and women students in their Emotional Intelligence and Academic Achievement.
2. To find out whether there is any significant difference between XI and XII students in their Emotional Intelligence and Academic Achievement.
3. To find out whether there is any significant difference between students' rural and urban locality in their Emotional Intelligence and Academic Achievement.
4. To find out whether there is any significant relationship between Emotional Intelligence and Academic Achievement of higher secondary students.

### Hypotheses of the study

The following are the hypotheses of study

1. There is no significant difference between male and female students in their Emotional Intelligence.
2. There is no significant difference between male and female students in their Academic Achievement.
3. There is no significant difference between XI and XII students in their Emotional Intelligence.
4. There is no significant difference between XI and XII students in their Academic Achievement.

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- 5. There is no significant difference between rural and urban students in their Emotional Intelligence
- 6. There is no significant difference between rural and urban students in their Academic Achievement.
- 7. There is no significant relationship between Emotional Intelligence and Academic Achievement of higher secondary students.

**Methodology**

In educational research, the researcher adopts the survey method as the study is a descriptive one. It is the most popular and widely used method for collecting and analysing the data obtained from many respondents representing a specific population through detailed tools. When a scholar wishes to determine or compare the present educational trends or conditions with the past or evaluate them on some sort of rating scale, he turns to the survey.

**Area:** The present stud area was Cuddalore District of Tamil Nadu State, India.

**Population**

The higher secondary school students of Cuddalore District of Tamil Nadu State, India.

**Sample**

The investigator used stratified random sampling technique for selecting the sample from the population. The stratification was done based on students Gender, Standard Studying and Locality. The sample consists of 540 students, Cuddalore District of Tamil Nadu State, India.

**Tools used**

The investigator used the following tools for the collection of samples.

- 1. Emotional Intelligence Inventory of Mangal and Shubhra Mangal were used to collect information regarding the emotional intelligence of the teacher trainees.
- 2. Information Bank was used to collect the academic scores and other details, which was prepared by the investigator.

**Statistical techniques**

For the present study, the Investigator used the Mean, Standard Deviation, ‘t-test, Analysis of Variance and Pearson Product Moment Correlation as statistical techniques.

**ANALYSIS OF DATA**

**Hypothesis 1:** There is no significant difference between male and female students in their emotional intelligence.

**Table 1**  
**Difference between male and female students in their emotional intelligence**

Variables	Sub Variables	Mean	SD	Calculated ‘t’-value	Re mark
Emotional Intelligence	Male	92.8	9.81	4.12	S
	Female	99.02	12.56		

It is inferred from the above table that there is a significant difference between male and female students in their emotional intelligence. The mean scores of female students are higher in their level of emotional intelligence than male.

**Hypothesis 2:** There is no significant difference between male and female students in their academic achievement.

**Table 2**  
**Difference between male and female students in their academic achievement**

Variable	Sub Variable	Mean	SD	Calculated ‘t’-value	Re marks
Academic Achievement	Male	84.3	9.81	2.36	S
	Female	98.49	10.12		

It is inferred from the above table that there is a significant difference between male and female students in their academic achievement. The mean scores of female students are higher in their level of academic achievement than male.

**Hypothesis 3:** There is no significant difference between XI and XII Students in their Emotional Intelligence.

**Table 3**  
**Difference between XI and XII students in their Emotional Intelligence**

Variable	Sub Variable	Mean	SD	Calculated 't'-value	Remark
Emotional Intelligence	XI	88.69	8.28	1.62	NS
	XII	94.37	8.94		

It is inferred from the above table that there is no significant difference between XI and XII students in their Emotional Intelligence.

**Hypothesis 4:** There is no significant difference between XI and XII students in their Academic Achievement

**Table 4**

**Difference between XI and XII students in their Academic Achievement**

Variable	Sub Variable	Mean	SD	Calculated 't'-value	Remark
Academic Achievement	XI	98.78	9.93	3.08	S
	XII	108.46	11.84		

It is inferred from the above table that there is a significant difference between XI and XII students in their Academic Achievement. While comparing the mean scores XII students are higher in their level of Academic Achievement to XI counterparts.

**Hypothesis 5:** There is no significant difference between rural and urban students in their Emotional Intelligence.

**Table 5**

**Difference between rural and urban students in their Emotional Intelligence**

Variable	Sub Variable	Mean	SD	Calculated 't'-value	Remark
Emotional Intelligence	Rural	74.46	6.58	1.81	NS
	Urban	75.2	5.85		

It is inferred from the above table that there is no significant difference between rural and urban students in their Emotional Intelligence.

**Hypothesis 6:** There is no significant difference between rural and urban students in their Academic Achievement.

**Table 6**

**Difference between rural and urban students in their Academic Achievement**

Variable	Sub Variables	Mean	SD	Calculated 't'-value	Remark
Academic Achievement	Rural	74.89	6.41	1.08	NS
	Urban	74.96	5.36		

It is inferred from the above table that there is no significant difference between rural and urban locality of students in their Academic Achievement.

**Hypothesis 7:** There is no significant relationship between Emotional Intelligence and Academic Achievement of Higher Secondary Students.

**Table 7**

**Relationship between Emotional Intelligence and Academic Achievement of Higher Secondary Students**

Variables	Academic Achievement	Remark
Emotional Intelligence	0.578	S

**(At 5% level of significance for 935df, the table value of is 0.062)**

It is inferred from the above table that there is significant relationship between Emotional Intelligence and Academic Achievement of higher secondary students.

#### Findings

The following are the findings of the present study

1. There is significant difference between male and female students in their Emotional Intelligence and Academic Achievement.

2. There is no significant difference between XI and XII students in their Emotional Intelligence.
3. There is significant difference between XI and XII Students in their Academic Achievement.
4. There is no significant difference between rural and urban locality in their Emotional Intelligence and Academic Achievement.
5. There is significant positive correlation between Emotional Intelligence and Academic Achievement of higher secondary students.

### Conclusion

The investigation concludes that emotional intelligence is important factors that promote the academic achievement of higher secondary students. The study clearly proves the effect of emotional intelligence on the academic achievement of students. The results of the study may prompt the teacher educators and the teacher trainees alike to instill in the minds of their students the importance of emotional intelligence to achieve success in their academic life and professional sphere.

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# ANXIETY AMONG HIGHER SECONDARY STUDENTS OF IMPHAL DISTRICTS OF MANIPUR : COMPARISONS OF ANXIETY LEVELS ACROSS GENDER

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## ABSTRACT

*Anxiety is the least understood and most extensively studied of all the emotions. The twentieth century has been called the age of anxiety. Therefore, the present study was undertaken in the Imphal districts of Manipur to compare anxiety levels across gender. Five hundred samples were taken, and the Comprehensive Anxiety Test (CAT) developed by Bharadwaj, Sharma and Bhargava was adopted to test their anxiety levels. It was found that there exist significant differences in comprehensive anxiety or anxiety levels of boys and girls higher secondary students as the calculated t-value (4.85) is greater than the tabulated t-value at both levels of significance. Higher Secondary girl students (mean = 36.72) were more anxious than boy students (mean = 35.07).*

**Keywords:** Anxiety, Comprehensive Anxiety Test (CAT), gender

## Introduction

Our existing social environment has contributed to giving birth to the problem of anxiety and stress among people of all ages in every corner of the world.

There is stiff competition among the persons in every sphere of life, leading to mental conflict. The environment dramatically influences anxiety. Our state Manipur also has such an environment that has created a problem of anxiety and depression among individuals. An imbalance in law and order conditions has created a severe threat to all state citizens. In all these affairs, students, the nation's future generation, have to be part of it.

Anxiety problems have affected the current teaching-learning processes carried out in schools, colleges, and universities. Every individual faces this problem, but the only difference is the degree. Anxiety is related to achievement, and achievement refers to a person's success on their test of knowledge or skill. More intelligently understood achievement means learning attainment, accomplishment, proficiencies, etc. Since very few studies have addressed anxiety among higher secondary students in Manipur, and because of the seriousness of its adverse consequences, it was considered essential to explore this issue further. The

study was carried out to compare the anxiety levels of the higher secondary students in the Imphal East and Imphal West Districts of Manipur State across genders in the two districts.

## Method

**Site:** The study was conducted in the two most populous districts of Manipur, India, i.e. Imphal East and Imphal West, where best considered educational institutions of Manipur are established. Moreover, at the secondary school level, students from most Manipur districts are enrolled in these institutes situated in the two districts to get the best facilities to shape their future.

**Sample:** Participants in the study consisted of 500 students from five schools of Imphal East and Imphal West Districts of Manipur, of which 255 were boys, and the remaining 245 were girls.

**Tools:** After carefully analysing the objectives of the study, availability of time and availability of a suitable test to find out the results, the investigator used the following standardised questionnaire:

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a) Comprehensive Anxiety Test (CAT) developed by Bharadwaj, Sharma, and Bhargava

Test for local adaptability of the scale: To test whether the standardised tools to be used were locally applicable or not, the present investigator made a tryout of the tools to a small sample consisting of 10 highly anxious students. The questionnaires were tested on the sample anxious students at the Department of Psychiatry, Regional Institute of Medical Sciences, Imphal. The results obtained indicate that majority of sample anxious students fall in high anxiety level or category. The reliabilities and the validities of the accepted test were similar to the original one. Therefore, the scales were considered to be locally adapted and can be used to measure the level of anxieties to fulfil the objectives of the present study.

For the present study, the data obtained after utilising the Anxiety Scales, i.e. Comprehensive Anxiety Test (CAT), were analysed using the following statistical techniques:

(a) For finding out the levels of anxiety- the percentile method has been used.

(b) For finding out the significant differences between boy and girl students and students studying in higher secondary schools, the t-test method has been employed.

**Result**

From the given table 1, it can be interpreted that out of the total sample selected from Imphal East and West Districts of Manipur State, two hundred students were found to have normal anxiety with their percentile score lying between 27.96 and 39.68 and their percentile values from 155 to 300. The percentile values ranged from 80 to 150, with their percentile score from 21.21 to 27.51 were labelled as low anxiety group, and 150 students fell in this low anxiety category. One hundred and forty (140) students were found in the high anxiety group with percentile scores ranging from 40.14 to

44.27, and their percentile values ranged from 305 to 350. Five students fall in the very high anxiety group, with their percentile score ranging from 44.72 to 69.50. Similarly, another five students also fall in the very low anxiety group, with their percentile score ranging from 10 to 20.76. Related past studies done by Kumar N.J. (2012) and Sharma M. (2012) had concluded that maximum students had been accompanied with everyday anxiety. Here in the present study, it can also be supposed that 40% of the higher secondary school students had normal pressure. The most significant number of students falls in the low anxiety group and occupy 30 % of the sample selected for the present study. In the high anxiety category, 28 % of the students only 1% were found in both very high and deficient anxiety category groups. Therefore, the present study can be highlighted that generally, students studying in higher secondary schools have normal anxiety levels, and only a few students sometimes have very low and high anxiety levels.

**Table 1**  
**Anxiety Levels of Higher Secondary Students of Imphal East and West Districts of Manipur State**

Percentile	Percentile Value	Percentile Score	Score-Category	N	%
P <sub>99</sub>	495	69.5	Very High Anxiety	5	1
P <sub>71</sub>	350	44.72			
P <sub>70</sub>	300	44.27	High Anxiety	140	28
P <sub>61</sub>	155	40.14			
P <sub>60</sub>	300	39.68	Normal Anxiety	150	30
P <sub>31</sub>	155	27.96			
P <sub>30</sub>	150	27.51	Low Anxiety	150	30
P <sub>16</sub>	80	21.21			
P <sub>15</sub>	75	20.76	Very Low Anxiety	5	1
P <sub>1</sub>	5	10			

**Table 2**

**Percentile, Percentile Value, Percentile Score, Frequency and Percentage of Student based on Comprehensive Anxiety Test (CAT) score for Boys.**

Percentile	Percentile Value	Percentile Score	Category	N	%
P <sub>99</sub>	68.53	Very High Anxiety	3	1.17	
P <sub>71</sub>	43.99	High Anxiety			
P <sub>70</sub>	43.55	High Anxiety			
P <sub>61</sub>	39.59	Normal Anxiety	71	27.84	
P <sub>56</sub>	39.18	Normal Anxiety			
P <sub>60</sub>	39.18	Normal Anxiety	72	40	
P <sub>79</sub>	27.15	Normal Anxiety			
P <sub>30</sub>	26.68	Low Anxiety	76	29.8	
P <sub>16</sub>	20.19	Low Anxiety			
P <sub>15</sub>	19.73	Very Low Anxiety			
P <sub>1</sub>	9.66	Very Low Anxiety	3	1.17	

From table 2, it can be interpreted that out of the sample selected from higher secondary school students of Imphal East and West districts of Manipur, 102 boys were found having normal anxiety with percentile score starting from 27.15 to 39.18. Seventy-six (76) students with percentile scores of 20.19 to 27.15 and percentile values from 41 to 77 fall in the low anxiety group. In the high anxiety category, altogether seventy-one students with their percentile scores of 39.59 to 43.55 were found. Three students with a percentile score of 43.99 to 68.53 had very high anxiety, and the same numbers of students were also found in low anxiety levels. It can be concluded that 40% of boy students had normal anxiety while 29% of the boys were found to have low anxiety. Only one percent of the students were found in very low anxiety groups. 28% of the boy who was selected as a sample of the present study comprises the high anxious category. As per the table above, it can be concluded that most higher secondary boys were found to have normal anxiety.

**Table 3**

**Percentile, Percentile Value, Percentile Score, Frequency and Percentage of Student based on Comprehensive Anxiety Test (CAT) score for Girls.**

Percentile	Percentile Value	Percentile Score	Category	N	%
P <sub>99</sub>	74.67	Very High Anxiety	2	0.81	
P <sub>71</sub>	45.57	High Anxiety			
P <sub>70</sub>	45.09	High Anxiety	69	28.16	
P <sub>60</sub>	40.76	High Anxiety			
P <sub>61</sub>	40.28	Average Anxiety	98	40	
P <sub>31</sub>	28.95	Average Anxiety			
P <sub>30</sub>	28.50	Low Anxiety			
P <sub>16</sub>	22.26	Low Anxiety	74	30.2	
P <sub>15</sub>	21.82	Very Low Anxiety			
P <sub>15</sub>	21.82	Very Low Anxiety	2	0.81	

From table 3, it can be interpreted that ninety-eight (98) girls studying in higher secondary schools were found having average anxiety with their percentile score ranging from 28.95 to 40.28. Seventy-four girls with percentile scores between 22.26 and 28.50 were identified as having low anxiety, while sixty-nine students with percentile scores ranging from 40.76 to 45.09 were labelled as high anxiety groups.

Only two students were found in very high and very low anxiety groups. It was found that 40% of the girls studying in higher secondary schools had average anxiety. 30% had low anxiety, while 28% were found to have anxiety. Only a few students fall into two extreme groups. Out of 245 higher secondary girls sample students, 98 have normal anxiety.

**Table 4**  
**Mean, SD and t-test value of CAT scores**  
**for Boys and Girls Higher Secondary School**  
**Students of Imphal East and Imphal**  
**West Districts of Manipur State.**

Variable	Stream	N	Mean	SD	SED	df	Calculated t-value	Remark
Comprehensive Anxiety Test (CAT)	Boys	255	35.07	14.26	0.33	498	4.85**	S
	Girls	245	36.72	13.91				

\*\* - Significant at 0.05 and 0.01 level respectively.

Comparing the scores of boys and girls students studying in Higher Secondary School (table 4), the calculated t-value (4.85) is greater than the tabulated t-value at both 5% and 1% levels of significance. It indicates a significant difference in comprehensive anxiety among boys and girls. Girls with their mean (36.72) have higher anxiety than boys, whose means were 35.07. In the present study, it can be concluded that girls had more comprehensive anxiety than boys.

#### Discussion and conclusion

In a nutshell, the result indicated that Gender was found to impact the anxiety scores of higher secondary students of the present study. There exist significant differences in comprehensive anxiety or anxiety levels of boys and girls higher secondary students as the calculated t-value (4.85) is greater than the tabulated t-value at both levels of significance. Higher Secondary girl students (mean= 36.72) were more anxious than boy students (mean = 35.07).

The result of the study has been able to find the proportions of students according to the levels of anxiety across gender, i.e. boys and girl students of higher secondary students of Imphal districts of Manipur. The girl students were comparatively more anxious than the boys, similar to the reports given by Campbell & Rapee, 1994; Costello; Poulton et al. 2001; Weiss & Last, 2001 Leii H. and Homayoun K (2013).

It also appears that women show more biological stress reactivity than men (Olf et al. 2007), perhaps

due to cultural and psychological influences. Anxiety disorders among the female folk are mainly due to stress which is twice as much as anxiety disorder among men. Women are under lots of pressure these days, and therefore they are more likely to be attacked by an extreme level of anxiety. Extreme anxiety, however, evokes overreaction that, if not dealt with, can lead to misery in women. Women are twice as likely as men to be diagnosed with anxiety disorder. Therefore, the management of anxiety among students, particularly the girl students in higher secondary level can be considered the need of the hour.

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# RELATIONSHIP BETWEEN SCHOOL ENVIRONMENT AND ACHIEVEMENT IN BIOLOGY OF HIGHER SECONDARY STUDENTS

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## ABSTRACT

*This paper finds a relationship between the school environment and achievement in the biology of higher secondary students. The population for the present study consists of students studying in higher secondary schools in Madurai District. The study sample is limited to 200 XI standard students studying Biology. The researcher used a simple random technique to select the sample. The investigator used a normative survey method for the study. The School Environment Inventory (2020) and Achievement Tests in Biology (2020) constructed and validated by Sabina Jose and Edward William Benjamin were used to collect data. Statistical techniques such as the t-test, ANOVA, and Pearson product-moment correlation were used for testing the data. The study's findings revealed no significant difference in perception of the school environment and achievement in biology in terms of gender, type of school, and type of management.*

**Keywords:** School Environment, Achievement in Biology, Higher Secondary Level

## Introduction

Education is a chief component in developing any human society or nation. Education transmits knowledge, values, and heritage from one generation to another through formal and non-formal learning. Education brings a permanent change in one's attitude, thinking and behaviour. It cultivates a positive environment and creates learning-related relationships. Humans need social institutions through which a society's children are educated with basic academic knowledge, learning skills, and cultural norms. As a result, the learning process must occur in society's physical, social, cultural, and psychological environments. School as a social system serves the purpose of moulding the nation's future within the walls of the classroom. The quality of education depends on the environment in which an educant grows and develops.

## School Environment

The physical, social, cultural, and emotional environments are holistically called the school environment. A healthy school environment is every student, teacher, parent, and stakeholder in the community's right. It offers a rich, dynamic environment with enormous possibilities for constructive work, creative expression of ideas, teamwork and community-

based service opportunities.

The quality of a healthy school environment is comprised of

1. Well-planned, spacious classroom, lightning, ventilation, desks, blackboard, teaching aids, and benches proper for the age group.
2. The aesthetic surroundings of the school buildings with eco-friendly nature, a playground, and educative school campus for curricular and co-curricular activities.
3. Student-center teaching methods and methodologies with a well-equipped laboratory, library, and digital educational resources.
4. Trained teachers who are efficient at guiding the students in the teaching and learning processes.
5. An excellent administrative body oversees staff in-service training, maintains a student-teacher ratio,

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and provides amenities such as safe drinking water, nutritious food, and health services.

6. The teacher, student, parents, and stakeholders are all involved in the frequent assessment of the school environment.

### **Achievement in Biology**

Biology is a natural science that deals with the living world; how the world is structured, how it functions, and what these functions are, how it develops, how living things come into existence, and how they react to one another and with their environment (Umar, 2011). Learning biology at the higher secondary level is a prerequisite to taking up professional studies like medicine, pharmacy, nursing, agriculture, forestry, biotechnology, nanotechnology, and many other areas. Since biology is a living science, teaching must reflect the stimulating nature of the subject and its surroundings. Biology students need to be facilitated to study biology lessons in a practical and learner-centred method.

The health of a nation is in the hands of future biologists who can prevent and cure illness with their inventions. With these objectives, biology students are ex-schools expected to achieve highly. For this achievement, the school environment is essential, and it can promote students' control over their acquisition of knowledge and skills in biology.

### **Review of Literature**

The study on school environment and academic achievement of standard IX students in terms of gender and medium of instruction by Arul Lawrence (2012) revealed that the urban students had a better school environment than the rural students. Odeh, R. C. et al. (2015) conducted a study on the influence of the school environment on the academic achievement of students in secondary schools. The result revealed that climate, discipline, and physical facilities had a significant effect on the academic achievement of secondary school students.

A study on the impact of the school environment on the academic achievement of secondary school students by Harinarayanan and Pazhanivelu (2018) revealed that female students had a better perception of

the school environment than male students. Saheed Ayodeji Adejimi et al. (2020) studied the relationship between age, gender, verbal ability, and achievement in biology among senior secondary school students. The study revealed a significant difference in students' achievement in biology based on age, gender, and verbal ability. The study on the influence of gender and school location on senior secondary school students' achievement in biology by Grace Ezechi and BibianChinyere (2018) revealed a significant difference in the achievement mean scores of students in a rural and urban school located areas. OvansaJimoh Umar (2017) compared the facilities and students' performance in biology in urban and rural schools. The result indicated that most rural schools lack adequate facilities for the teaching and learning of biology, which brings about a disparity in students' academic performance.

### **Significance of the Study**

We live in a highly competitive world where everyone wants to perform exceptionally well. Students of today are forced to attain their academic achievement in biology to groom their future as doctors, biologists, scientists, agriculturists, etc. Thus, the education system provides ample opportunities in school, creating an environment to achieve students' educational goals. The school environment is ideal, with all its physical and social settings playing an integral role in moulding students' character. The teacher's role in the student's achievement is dynamic and irreplaceable. Teachers felicitate the learning of the students with the student-centred methods in biology, making use of the facilities offered in the school environment. Since the environment in the school influences the achievement in the biology of the students, the investigator selected the topic for this study as "Relationship between School Environment and Achievement in Biology of Higher Secondary students."

### **Objectives of Study**

1. To discover a statistically significant difference in high-school students' perceptions of the school environment based on selected demographic variables.



2. To determine whether there is a significant difference in higher secondary students' biology achievement based on selected demographic variables.
3. To investigate the relationship between the school environment and upper secondary students' achievement in biology,

**Hypotheses of Study**

1. There is no significant difference in male and female higher secondary students' perceptions of the school environment.
2. There is no significant difference in private and government school higher secondary students' perceptions of the school environment
3. There is no significant difference in boys, girls and co-education school higher secondary students' perceptions of the school environment
4. There is no significant difference in male and female higher secondary students achievement in biology.
5. There is no significant difference in private and government school higher secondary students achievement in biology.
6. There is no significant difference in higher secondary students' biology achievements in boys, girls, and co-education schools.
7. There is no relationship between school environment and achievement in the biology of higher secondary students.

**Methodology**

The investigator adopted a survey method. A sample of 200 students from private schools (50 boys and 50 girls) and government schools (50 boys and 50 girls) were selected through a simple random sampling technique from three higher secondary schools in Madurai District.

The School Environment Inventory by Sabina Jose and Edward William Benjamin (2020) was used for the data collection. The tool has 42 statements on a five-point rating scale based on Likert's type. The scoring procedure of the tool's options is strongly disagreed with score 1, disagree with score 2, undecided score 3, agree with score 4, strongly disagree with score 5. The

minimum score for the tool is 42, and the maximum score for the tool is 210. The intrinsic validity of the school environment inventory is 0.83. Achievement in Biology test constructed and validated by the investigator that consists of 50 objective-type questions taken from the first two units of the 11th standard Tamil Nadu Government textbook was used in this study.

**Data Analysis**

**Hypothesis 1:** There is no significant difference in male and female higher secondary students' perceptions of the school environment.

**Table 1**

**Difference in the female higher secondary students' perceptions of the school environment with respect to Gender**

Gender	N	Mean	S.D.	Calculated 't' value	Remark
Male	100	196.8	6.442	0.818	NS
Female	100	196.59	6.417		

The above table 1 shows that the calculated 't' value of students' perceptions of the school environment 0.818 is less than the table value 1.96 at 0.05 level of significance. Hence the hypothesis is accepted. It is concluded that there is no significant difference between male and female higher secondary students' perceptions of the school environment.

**Hypothesis 2:** There is no significant difference in private and government school higher secondary students' perceptions of the school environment

**Table 2**

**Difference in the female higher secondary students' perceptions of the school environment with respect to the type of school**

Type of School	N	Mean	S.D.	Calculated 't' value	Remark
Private	100	196.7	6.444	0.991	NS
Government	100	196.69	6.416		

The above table 2 shows that the calculated 't' value of students' perceptions of the school environment 0.991 is less than the table value 1.96 at 0.05 level of significance. Hence the hypothesis is accepted. It is concluded that there is no significant difference between Private and Government school higher secondary students' perceptions of the school environment.

**Hypothesis 3:** There is no significant difference in boys, girls and co-education school higher secondary students' perceptions of the school environment

**Table 3**

**Difference in the female higher secondary students' perceptions of the school environment with respect to nature of school**

Source of Variance	Sum of Squares	df	Mean Square	Calculated 'F' Value	p-value	Remark
Between	20.924	2	10.462	0.252	0.777	NS
Within	8165.471	197	41.449			

The above table 3 shows that the calculated 'F' value of students' perceptions of the school environment 0.252 is less than the table value 3.0 at 0.05 levels of significance. Hence the hypothesis is accepted. It is concluded that there is no significant difference among boys, girls and co-education school higher secondary students' perceptions of the school environment.

**Hypothesis 4:** There is no significant difference in male and female higher secondary students' achievement in biology.

**Table 4**

**Difference in the female higher secondary students' achievement in biology with respect to gender**

Gender	N	Mean	S.D.	Calculated 't' value	Remark
Male	100	45.11	3.892	0.839	NS
Female	100	45	3.774		

The above table 4 shows that the calculated 't' value of students' of achievement in biology 0.839 is less than the table value 1.96 at 0.05 level of significance. Hence the hypothesis is accepted. It is

concluded that there is no significant difference between male and female higher secondary students' achievement in biology.

**Hypothesis 5:** There is no significant difference in private and government school higher secondary students' achievement in biology.

**Table 5**

**Difference in the female higher secondary students' achievement in biology with respect to type of school**

Type of school	N	Mean	S.D.	Calculated 't' value	Remark
Private	100	45	3.9	0.839	NS
Government	100	45.11	3.766		

The above table 5 shows that the calculated 't' value of students' achievement in biology 0.839 is less than the table value 1.96 at 0.05 level of significance. Hence the hypothesis is accepted. It is concluded that there is no significant difference between Private and Government school higher secondary students' achievement in biology.

**Hypothesis 6:** There is no significant difference in boys, girls and co-education school higher secondary students' achievement in biology.

**Table 6**

**Difference in the female higher secondary students' achievement in biology with respect to nature of school**

Source of Variance	Sum of Squares	df	Mean Square	Calculated 'F' Value	p-value	Remark
Between	2.752	2	1.376	0.093	0.911	NS
Within	2907.643	197	14.76			

The above table 6 shows that the calculated 'F' value of students' achievement in biology 0.093 is less than the table value 3.04 at 0.05 level of significance. Hence the hypothesis is accepted. It is concluded that there is no significant difference among boys, girls and co-education school higher secondary students' achievement in biology.

**Hypothesis 7:** There is no relationship between school environment and achievement in biology of higher secondary students.

negative correlation between the school environment and academic achievement. Hence, to achieve a high level, efforts must be made to strengthen the school environment. The school's management and stakeholders need to take steps to provide safe school buildings, classrooms, accommodation, libraries, laboratories, furniture, recreational equipment, apparatus, and other instructional materials to influence achievement. The teachers should cultivate intrinsic factors in the students to develop intrinsic factors like interest, motivation, and drive for future goals in biology. The teachers must be given regular in-service training to use the laboratory effectively, making use of the educative school environment for biology-related activities and projects.

**Table 7**

**Significant relationship between school environment and achievement in biology of higher secondary students**

		School Environment	Achievement in Biology
<b>School Environment</b>	Pearson Correlation	1	-0.045
	Sig. (2-tailed)		0.527
	N	200	200
<b>Academic Achievement in Biology</b>	Pearson Correlation	-0.045	1
	Sig. (2-tailed)	0.527	
	N	200	200

The above table7 shows that the calculated ‘t’ value 0.045 is less than the table value 0.147 at 0.05 level of significance. Hence the null hypothesis is accepted.

It is evident that there is no correlation between School Environment and Achievement in Biology of higher secondary students.

**Findings**

1. There is no significant difference in higher secondary students' perceptions of the school environment in term of their gender, type of school and nature of school.
2. There is no significant difference in higher secondary students' achievement in biology in term of their gender, type of school and nature of school.
3. There is no significant correlation between School Environment and Achievement in Biology of higher secondary students.

**Conclusion**

The school environment plays a significant role in achievement in biology of the students. It provides them with opportunities, possibilities, and resources needed for the students. The present study, shows a

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# IMPACT OF SLM IN TEACHING CHEMISTRY AT THE HIGHER SECONDARY LEVEL

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## ABSTRACT

The study aimed to find out the impact of SLM (Self Learning Module) in teaching chemistry at the higher secondary level. SLM in education is a powerful tool that may be used effectively and efficiently within the classroom to create a more exciting learning environment and deliver a higher level of educational expertise to students. An experimental method has been used for the present study. The sample of this study consisted of 20 XI standard students in the Control group 20 XI standard students in the Experimental group. The currently sent experiment brings out a clear-cut idea about the impact of SLM in teaching chemistry for the XI Standard Students. The data were collected using appropriate tools, and suitable statistical techniques were analysed. The finding is that the experimental group students' achievement scores were higher than the Control group Students.

**Key Words :** Impact of SLM, Achievement in chemistry, XI Standard Students

## Introduction

Traditionally, teachers used traditional tactics that emphasised a deep mastery of the chemistry subject. While disseminating material to students, they attempted to link the imparted knowledge in a novel method. With the advancement of technology, new educational teaching, learning theories and modern resources, particularly multimedia-oriented resources, traditional teaching methodologies are no longer viable and adequate to support the chemistry teaching-learning process and the mass education system. For meaningful and joyful chemistry learning, a teacher must not only have a solid understanding of the teaching content to be taught but also a well-developed understanding of how students learn the chemistry subject, i.e. New pedagogical approaches that are appropriate to their specific requirements and also commensurate with students' learning abilities. They should be familiar with their students' developmental stages and critical, caring, and active knowledge importers who can contribute to educational improvement and social change. As a result, the emphasis should be placed on process-oriented skills connected to chemistry pedagogy rather than product-related skills associated with mastering chemistry.

## Need and significance of the study

The quality of education are heavily influenced

by the quality of teachers. It is a well-known truth that great teachers choose to innovate by using technology in classroom instruction to provide the best possible education to their students. To be effective in the classroom, teachers must acquire the knowledge and skills to use new challenges in promoting innovative teaching strategies that are student-centred, collaborative, engaging, authentic, self-directed, and based on the development of higher-order thinking skills with regard to handling classes for students who strive for high academic standards. Education technology can significantly improve the teaching-learning process. Educational technology is creating, applying, and assessing systems, techniques, and assistance in human learning. Individualised instruction, which allows us to employ self-instruction programming, is one of the critical contributions of educational technology. Teachers, in general, are unable to satisfy a diverse set of students in learning using traditional instructional processes. This issue could be solved with the use of

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innovative educational technologies. Individualised instruction via SLM was used as an alternative to the conventional model in this study. This strategy allows students to proceed and learn at their own pace, based on their talents and performance. It also encourages students to learn on their own.

### Objectives of Study

1. To find out the significant difference between mean scores of control group on achievement in chemistry in the Pre test and Post test.
2. To find out the significant difference between mean scores of experimental group on achievement in chemistry in the Pre test and Post test.
3. To find out the significant difference between low achievers in their mean scores on achievement in chemistry in the pre-test and post test.

### Hypotheses of study

1. There is no significant difference between the pre and post-test mean scores on achievement in chemistry of control group.
2. There is no significant difference between the pre and post-test mean scores on achievement in chemistry of experimental group.
3. There is no significant difference between low achievers in the control group in their mean scores on achievement in chemistry in the pre-test.
4. There is no significant difference between low achievers in the experimental group in their mean scores on achievement in chemistry in the post-test.

### Experimental design of the study

In the present study, Parallel group, the investigator applies experimental design (Pre test-Post test Equivalent-groups design).

### Population and sample

All the students studying at the higher secondary schools in Cuddalore district constitute the population for the present study. The investigator has chosen the standard eleventh standard students of Government Higher Secondary School, functioning in Virudahachalam educational district as a sample by using a purposive

sampling technique. This group has 65 students on roll. The investigator has chosen 40 students based on their marks obtained in the II term-end examinations. A homogenous group is formed according to their achievements through randomisation. Randomisation reduces systematic error. Equivalence of the groups is also considered while choosing the samples from the population. Twenty students are treated as experimental groups, and the other 20 students formed the control group

### Tools used for the study

The following research tools are used in the present study;

1. Self Learning Module (SLM) for teaching chemistry at higher secondary school constructed and validated by the investigator.
2. Academic Achievement test in Chemistry constructed and validated by the investigator.

### Testing the hypotheses

**Hypothesis 1:** There is no significant difference between the pre and post-test mean scores on achievement in chemistry of control group.

**Table 1**  
**Difference between the pre and post-test mean scores on achievement in chemistry of control group**

Test	N	Mean	S.D	Mean difference	't' value	df	Re mark
C-group Pre-test	20	21.41	5.74	3.14	1.612	38	NS
C-group Post-test	20	24.53	6.49				

The mean scores of the control group in the pre-test is found to be 21.41 with an SD 5.74. The mean scores of the control group in the post-test is found to be 24.53 with an SD 6.49. The mean difference 3.14 is found to be not significant for the 't' value 1.612 for 38 degrees of freedom at 1% level of significance. Therefore, the hypothesis is accepted.

**Hypothesis 2:** There is no significant difference between the pre and post-test mean scores on achievement in chemistry of experimental group.

**Table 2**

**Difference between the pre and post-test mean scores on achievement in chemistry of experimental group**

Test	N	Mean	S.D	Mean difference	't' value	df	Re mark
E-group Pre-test	20	21.4	5.97	17.29	9.15	38	S
E-group Post-test	20	38.85	6.01				

The mean scores of the experimental group in the pre-test is found to be 21.40 with an SD 5.97. The mean scores of the experimental group in the post study is found to be 38.85 with an SD 6.01. The mean difference 17.29 is found to be significant for the 't' value 9.15 for 38 degrees of freedom at 1% level of significance. Therefore, the hypothesis is rejected.

**Hypothesis 3:** There is no significant difference between low achievers in the control group in their mean scores on achievement in chemistry in the pre-test.

**Table 3**

**Difference between low achievers in the control group in their mean scores on achievement in chemistry in the pre-test**

Test	N	Mean	S.D	Mean difference	't' value	df	Re mark
C-group Pre-test	8	14.45	1.48	2.34	1.58	10	NS
C-group Post-test	8	16.8	1.51				

The mean scores in the pre test of the achievement in chemistry of the low achievers in control group is found to be 14.45 with an SD 1.48. The mean scores in the post test of the achievement in chemistry of the low achievers in control group is found to be 16.80 with an SD 1.51. The mean difference 2.34 is found to be not significant for the 't' value 1.58 for 10 degrees of freedom at 1% level of significance. Therefore, the hypothesis is accepted.

**Hypothesis 4:** There is no significant difference between low achievers in the experimental group in their mean scores on achievement in chemistry in the post-test.

**Table 4**

**Difference between low achievers in the experimental group in their mean scores on achievement in chemistry in the post-test**

Test	N	Mean	S.D	Mean difference	't' value	df	Re mark
E-group Pre-test	8	14.32	1.79	16.75	12.15	10	S
E-group Post-test	8	31.43	2.85				

The mean scores in the pre test on achievement in chemistry of the low achievers in experimental group is found to be 14.32 with an SD 1.79. The mean scores in the post test on achievement in chemistry of the low achievers in experimental group is found to be 31.43 with an SD 2.85. The mean difference 16.75 is found to be significant for the 't' value 12.15 for 10 degrees of freedom at 1% level of significance. Therefore, the hypothesis is accepted.

**Conclusion**

On the basis of research findings, it is concluded that SLM learning promotes critical and active learning. With self-learning materials, the student and instructor will recognize that they are shifting from a provider of facts to a facilitator of a learning environment. This inquiry seeks to design a new teaching technique using the SLM approach based on this premise. This empirical investigation has shown that SLM improves students' achievement at the higher secondary level.

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**Continued on Page 69**

# TEACHERS' MOTIVATION AND SELF-CONCEPT DEVELOPMENT AMONG HIGHER SECONDARY STUDENTS

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## ABSTRACT

*The present study, Teachers' Motivation and Self-Concept Development among Higher Secondary Students, was investigated to find the relationship between self-concept and teachers motivation of higher secondary students. The researcher used a stratified random sampling technique for selecting the sample. The sample consists of 923 higher secondary students. For analysing data, Percentage Analysis, 't-test, ANOVA and Pearson's product-moment coefficient correlation were used. The study's findings revealed a significant relationship between self-concept and teachers motivation of higher secondary students.*

**Keywords:** *Self-concept, Teachers Motivation, Higher Secondary Students*

## Introduction

Adolescence is the period of discriminating sympathetic for knowledge and serious achievements that regulate the universal style of adult life. Adolescence is the past of adjustment from a temperately independent childhood to a popular's expressive, public and financial self-sufficiency (Shubhangi Kamble, 2009). There is a substantial indication to provide the argument that constructive academic self-concept donates to academic achievement by beautiful the motivation to achieve (Riffat-Un-Nisa Awan, Ghazala Noureen & Anjum Naz, (2011). Only if an adolescent has good teacher motivation and self-concept can he succeed in life. Self-concept is measured by many researchers as the central theme of life, which changes all relationships, performances and achievements either positively or negatively. Academic success or failure appears to be as intensely rooted in the concept of self as measured mental ability. According to Labenne and Green (1969), self-concept is the total individual assessment of his appearance, circumstantial and backgrounds, abilities and sources, attitudes and feelings, which terminate as a directing asset in behaviour.

## Teacher Motivation

refers to the internal and external factors that revitalise desire and energy in teachers to be frequently interested and carry out making their best effort to help student learning goals. Sinclair (2008) defined teacher motivation as attraction, protection and concentration as something that orders what attracts individuals to

teach, how long they continue in their initial teacher education courses and subsequently the teaching profession and the extent to which they involve with their courses and the teaching profession.

## The rationale for the Study

Motivation is generally defined as an internal state that inspires points and continues the behaviour. There is a relationship between knowledge and inspiration. According to Abraham Maslow, when the need for love and belongingness has happened, different can then focus on higher-level needs of intellectual attainment. Lack of motivation is a big hurdle in learning and a relevant cause of the deterioration of education standards. Teacher motivation has become an imperative problem given their concern to impart information and assistance to learners. It is maintained that content teachers are frequently more creative and can influence students' achievement (Mertler, 1992). However, measuring the factors and significances of work inspiration is composite because these psychological events are not directly noticeable. Many organisational and

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conservational difficulties can affect goal attainment.

Baumeister (1999) stated that the self-concept is the person's confidence about them, with their structures and who and what the self is. Self-concept revealed as thought about individuals own self-evaluation of himself, compassion that one has around himself” (Prasad and Thakur, 1977). Self-concept is the individual’s perceptions about their physical, social, temperamental and academic ability. It covers opinions, convictions and values the person holds. It also includes attitudes of themselves as a person, their worth, their right to have their feelings and opinions and making their own decisions (Sood, 2006).

**Objective of study**

1. To assess the level of self-concept and teachers motivation of higher secondary students
2. To find the significant differences between higher secondary students in their self-concept and teachers motivation with reference to their gender, locality and type of school.
3. To find the relationship between self-concept and teachers motivation of higher secondary students.

**Hypotheses**

1. There is no significant difference between male and female higher secondary students in their self-concept.
2. There is no significant difference between rural and urban higher secondary students in their self-concept.
3. There is no significant difference among government, aided and private school higher secondary students in their self-concept.
4. There is no significant difference between male and female higher secondary students in their teachers’ motivation.
5. There is no significant difference between rural and urban higher secondary students in their teachers’ motivation.
6. There is no significant difference among government, aided and private school higher secondary students in their teachers’ motivation.

7. There is no significant relationship between the self-concept and teachers’ motivation of higher secondary students.

**Method**

The researcher has adopted a survey method for this study. The population for this study was students studying XI standards in higher secondary schools in the Salem district. The researcher used a stratified random sampling technique to select the study sample. The sample consists of 923 higher secondary students. Among them 379 are male, and 544 are female.

**Tools used for the study**

Self-concept Scale developed by Haleshappa (2017) and Teachers’ Motivation Scale developed by the investigator were used to collect data. The reliability of the self-concept scale and teachers Motivation scale were 0.932 and 0.871 respectively.

**Statistical Techniques used for the study**

Percentage analysis, t-test, ANOVA, and Pearson's product-moment coefficient correlation were used as the statistical techniques.

**Data analysis and findings**

Findings based on the objectives and followed by data analysis are given as follows;

**Table1**  
**Level of Self-Concept and Teachers Motivation of Higher Secondary Students**

Dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Physical	114	12.35	657	71.18	152	16.46
Social	98	10.61	682	73.88	143	15.49
Temperamental	111	12.02	662	71.72	150	16.25
Educational	93	10.07	703	76.16	127	13.75
Moral	84	9.1	710	76.92	129	13.97
Intellectual	93	10.07	651	70.53	179	19.39
Self-Concept	90	9.75	712	77.13	121	13.1
Teachers Motivation	96	10.4	698	75.62	129	13.97

- ❖ Among the sample 152 (16.46%) are at a high level in the dimension physical self-concept, where as 114 (12.35%) are at a low level.
- ❖ Among the sample 143 (15.49%) are at a high level in the dimension social self-concept, whereas 98 (10.61%) are at a low level.
- ❖ Among the sample 150 (16.25%) are at a high level in the dimension temperamental self-concept where as 111 (12.02%) are at a low level.
- ❖ Among the sample 127 (13.75%) are at a high level in the dimension educational self-concept, where as 93 (10.07%) are at a low level.
- ❖ Among the sample 129 (13.97. %) are at a high level in the dimension moral self concept, whereas, 84 (9.100%) are at a low level.
- ❖ Among the sample 179 (19.39. %) are at a high level in the dimension intellectual self concept, whereas, 93 (10.07%) are at a low level.
- ❖ Among the sample 129 (13.10%) are at a high level in self concept in total, whereas 90(9.750) are at a low level.
- ❖ Among the sample 129 (13.97%) have high level of teachers' motivation, where as 96(10.40%) have low level of s level while have a low level of teachers' motivation.

Findings based on the hypotheses and followed by data analysis are given as follows;

**Hypothesis 1:** There is no significant difference between male and female higher secondary students in their self-concept.

**Table 2**  
**Difference between male and female higher secondary students in their self-concept**

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Dimen sions	Gender	N	Mean	S D	t value	p-value
Physical	Male	379	28	4.619	2.241	0.025**
	Female	544	28.72	4.92		
Social	Male	379	21.8	3.271	2.502	0.013**
	Female	544	22.45	4.522		
Tempera mental	Male	379	16.57	3.559	2.543	0.011**
	Female	544	17.27	4.771		
Educational	Male	379	24.16	4.643	0.259	0.795*
	Female	544	24.25	4.937		
Moral	Male	379	16.46	3.364	2.157	0.031**
	Female	544	16.99	4.042		
Intellectual	Male	379	22.38	4.558	3.163	0.002**
	Female	544	23.41	5.299		
Self-concept	Male	379	129.13	13.56	3.342	0.001**
	Female	544	132.72	18.983		

The above table 2 shows that male and female higher secondary students do not differ in the dimension educational self-concept. But male and female higher secondary students differ in the dimensions physical, social, temperamental, moral, intellectual and self-concept.

**Hypothesis 2:** There is no significant difference between rural and urban higher secondary students in their self-concept.

**Table 3**  
**Difference between rural and urban higher secondary students in their self-concept**

Dimensions	Locality	N	Mean	S D	t value	p-value
Physical	Rural	465	30.83	5.295	17.86	.000**
	Urban	458	25.97	2.505		
Social	Rural	465	21.29	4.155	6.877	.000**
	Urban	458	23.09	3.767		
Tempera mental	Rural	465	18.13	4.288	8.443	.000**
	Urban	458	15.82	4.047		
Educational	Rural	465	26.25	3.912	14.287	.000**
	Urban	458	22.14	4.769		
Moral	Rural	465	18.6	3.748	16.997	.000**
	Urban	458	14.91	2.787		
Intellectual	Rural	465	25.25	4.521	15.464	.000**
	Urban	458	20.69	4.45		
Self-concept	Rural	465	140.13	18.146	18.823	.000**
	Urban	458	122.22	9.501		

The above table 3 shows that rural and urban higher secondary students differ in the dimensions physical, social, temperamental, educational, moral, intellectual, and overall self-concept.

**Hypothesis 3:** There is no significant difference among government, aided and private school higher secondary students in their self-concept.

**Table 4**  
**Difference among government, aided and private school higher secondary students in their self-concept**

Dimensions	Source of Variance	Sum of Squares	df	Mean Square	F	p-value
Physical	Between	1860.677	2	930.339	43.973	0.000**
	Within	19464.378	920	21.157		
Social	Between	372.703	2	186.351	11.53	0.000**
	Within	14869.354	920	16.162		
Temperamental	Between	557.514	2	278.757	15.359	0.000**
	Within	16697.242	920	18.149		
Educational	Between	1679.386	2	839.693	39.208	0.000**
	Within	19702.993	920	21.416		
Moral	Between	618.864	2	309.432	22.603	0.000**
	Within	12594.443	920	13.69		
Intellectual	Between	810.085	2	405.042	16.539	0.000**
	Within	22530.784	920	24.49		
Self-concept	Between	22006.079	2	11003.04	41.144	0.000**
	Within	246032.584	920	267.427		

The above table 4 shows that higher secondary students from different types of management differ in the in the dimensions physical, social, temperamental, educational, moral, intellectual, and overall self-concept

**Hypothesis 4:** There is no significant difference between male and female higher secondary students in their Teacher Motivation.

**Table 5**  
**Difference between male and female higher secondary students in their teachers' motivation.**

Variable	Gender	N	Mean	SD	't' value	p value
Teachers Motivation	Male	379	119.22	14.096	2.809	0.005
	Female	544	121.59	10.217		

The above table 5 shows that male and female higher secondary students differ in their teachers' motivation

**Hypothesis 5:** There is no significant difference between rural and urban higher secondary school students in their teachers' motivation.

**Table 6**  
**Difference between rural and urban higher secondary students in their teachers' motivation**

Variable	Locality	N	Mean	SD	't' value	p value
Teachers Motivation	Rural	465	121.71	14.846	2.799	0.005
	Urban	458	119.51	8.059		

The above table 6 shows that rural and urban higher secondary students differ in their teachers' motivation.

**Hypothesis 6:** There is no significant difference among government, aided and private school higher secondary students in their Teachers motivation.

**Table 7**  
**Difference among government, aided and private school higher secondary students in their teachers' motivation**

Variable	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Teachers Motivation	Between	1648.122	2	824.061	5.769	0.003
	Within	131405.87	920	142.832		

The above table 7 shows that higher secondary students from different types of management differ in their teachers' motivation.

**Hypothesis 7:** There is no significant relationship between self-concept and teachers' motivation of higher secondary students.

**Table 8**  
**Relationship between self-concept and teachers' motivation of higher secondary Students**

Variables	Pearson Correlation 'γ' Value	P value	Level of Significance
Self-concept and Teachers motivation	0.674	0.000**	Significant at 1% level

The above table 8 shows that there is a significant positive correlation between self-concept and teachers' motivation of higher secondary students.

### Findings and Discussions

1. The finding of the study shows that there is significant difference in the self-concept of higher secondary students in terms of gender, locality and type of school and there is significant difference between in the teachers' motivation of higher secondary students in terms of gender, locality and type of school.
2. There is significant relationship between the self-concept and teachers' motivation of higher secondary students.
3. The female students (M=132.72) are better than male students (M=129.13) in their self-concept. This may be due to the fact that female are given much more importance than the male in family and society. Nowadays they are receiving equal chances and they occupy high situations in nearly all fields.
4. The students studying in the urban schools (M=122.22) are better than the students from rural (M=140.13) schools in their self-concept. This may be due to the element that the students from urban schools are having great conveniences in acquiring rich knowledge. This may help them to outshine in their self-concept.
5. The private school (M=136.85) students are better than the government school (M=128.76) and government aided school (M=124.11) students in their self-concept. This is outstanding to the circumstance that the government aided school students have complete economic support to meet their basic requirements and they essence more on their studies. They may have satisfactory autonomy and inspiration to gain knowledge. In their schools, the teachers may also attribute their exertions to influence the favorite goals.
6. The female students (M=121.59) are better than the male students (M=119.22) in their teachers motivation. This may be due to the fact that female are careful, involve in studies, have less disruption

of the modern technology than the male.



7. The students studying in rural schools (M=12.71) are better than students from urban (M=119.51) schools in their teachers' motivation. This may be due to the fact that the rural schools have more experienced and dedicated teachers who may motivate the students community.
8. The private school (M=122.23) students are better than the government school (M=119.68) and government aided school (M=119.15) students in their teachers motivation. This may be due to the fact that the private schools are conducting extra coaching classes, life skills programme to the students in order to bring their talents out. Private school students realize the importance of studies and the teachers also guide them properly.
9. There is a significant relationship between self-concept and teachers motivation of higher secondary school students. The students with high self-concept are conscious of their assets and weaknesses and distinguish about their capabilities. Consequently, they are able to correct their weaknesses and advance their assets to attain higher in this modest world.

### Conclusion

From the present study it is found that the self-concept and teachers motivation of higher secondary school students is moderate. It is found out that there is a positive relationship between the self-concept and teachers motivation of higher secondary school students. To recover the self-concept of higher secondary school students, exertions must be taken by the teachers and parents to deliver a good situation both inside and outside the school. By this method, they will progress their self-concept which will additional lead to considerate of their competences, strengths, weaknesses, benefits, attitude, ability, emotions, information etc. this will finally lead them to develop a high level of teachers motivation.

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# IS THERE ANY RELATION BETWEEN FEELINGS OF DEPRESSION AND PERSONALITY DIMENSIONS AMONG POST GRADUATE STUDENTS OF TRIPURA? AN EXPLORATORY STUDY

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## ABSTRACT

The study tried to examine the relationship between depression and personality among PG students of Tripura. Further, it attempted to find gender and community differences in both mental health variables. It was carried out on 250 PG students of tribal and non-tribal communities. Again, there were both male and female students in each group. Beck Depression Inventory-II (BDI II) and Eysenck Personality Questionnaire-Revised (EPQR) were used for data collection. Findings revealed significant gender and community differences in depression and certain personality dispositions. Finally, the current study indicates that depression has a significant positive correlation with Psychoticism and Neuroticism.

**Keywords:** Personality, Depression, Mental Health, Psychoticism, Neuroticism

## Introduction

The relationship between personality traits and mental health issues have been a prime focus for psychologists for decades. There is a strong association between specific personality types and severe psychopathology among individuals (Krueger et al., 1996). Studies have proved that certain personality traits like negative emotionality and low constraint during late adolescence can lead to mental disorders like anxiety, depression, substance dependence and antisocial personality disorder in early adulthood (Krueger, 1999; Hicks et al., 2004).

According to Gaiha et al. (2020), 7.3% of Indian youths suffer from mental disorders, but hardly anyone gets themselves treated due to associated stigma and misunderstanding. It has become a subject of concern. The prevalence of mental disorders has increased from 1990 till 2017, from 2.5% to 4.7% in India. One in seven Indians are affected by a mental disorder (Sagar et al., 2020). Mental health issues like ADHD, depression, substance abuse also increase absenteeism among young students and affect their academic achievement (McLeod, Uemura&Rohrman, 2012; Ruz, Al-Akash, &Jarrah, 2018). World Health Organization (2020) has estimated that due to poor mental health conditions between 2012 to 2030, there will be an economic loss of 1.03 trillion dollars in India.

## Rationale for the Study

The most prevalent mental disorder is a depressive

disorder. Depression is a common mental disorder characterised by a feeling of sadness that negatively affects the way a person feels, thinks, or acts (Tolentino & Schmidt, 2018). Numerous studies have focused on the relationship between personality traits and depression and other psychological disorders. Several studies reported the association of mental disorders with different facets of personality traits among people undergoing psychiatric treatment (Alizadeh et al., 2018; Vujicic&Randelovic, 2017). National Mental Health Survey investigated the lifetime prevalence of major depressive disorder was 5.2% and 4.43% in Madhya Pradesh and Sehere, India, respectively (Gururaj et al., 2016; Shidhaye et al., 2017). Twenge et al. (2019) revealed that with increasing rates of depressive disorders in India, there is also a hike in suicide-related issues like suicidal ideation, planning, attempts and even suicide deaths, especially within 18 to 25 years. Tripura, being a small hilly state, ranks 7th among all the states of India and 2nd in the North-Eastern region for its suicide rate (NCRB, 2019). It depicts the prevalence of depression and other mental disorders in Tripura.

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## Objectives

1. To study the prevalence of depression among PG students of Tripura.
2. To examine gender and community differences in depression and personality among PG students.
3. To determine the correlation between depression and personality among PG students.

## Methodology

### Sample and Sampling Technique

The sample consisted of 250 PG students. Among them, 124 were male students, while 126 were female students. Further out of 250 PG students, 99 were tribal students, and the rest were non-tribal students.

A random sampling technique was followed for selecting PG students from Tripura. The survey method has been used for the study.

### Tools used

1. Eysenck Personality Questionnaire-Revised (EPQR) : EPQ-R (developed by Eysenck & Eysenck, 1993) measures three personality dimensions: Extraversion, Neuroticism and Psychoticism.
2. Beck Depression Inventory-II (BDI II): It consists of 21 items (4-point rating scale). The accuracy and retest reliability of the scale is .84 and .75, respectively (Beck, Steer, & Brown, 1996).

### Data Analysis and Interpretation

The data were analysed through percentages, mean, S.D., 't'-test and correlation on IBM SPSS (v.26). All the statistical results obtained were tabulated and interpreted as follows.

**Table 1**  
**Prevalence of Depression based on Gender and Community among PG students**

LEVELS OF DEPRESSION	GENDER				COMMUNITY				TOTAL	
	Male		Female		Tribal		Non-Tribal		N	%
	N	%	N	%	N	%	N	%		
Absence of Depression	63	25.2	48	19.2	27	10.8	84	33.6	111	44.4
Mild Depression	45	18	39	15.6	37	14.8	47	18.8	84	33.6
Moderate Depression	9	3.6	25	10	20	8	14	5.6	34	13.6
Severe Depression	7	2.8	14	5.6	15	6	6	2.4	21	8.4
Total	124	49.6	126	50.4	99	39.6	151	60.4	250	100

Table 1 shows that 13.6% PG students have moderate depression while 8.4% were found to have severe depression. Gender analysis revealed that females were more depressed. On the contrary tribal students were found to have more depression.



**Table 2**

### Gender Differences in Depression and Personality Profile among PG Students

Vari-ables	Gender	N	Mean	S.D.	Calculated 't' value	Re mark
Depres-sion	Male	124	12.95	9.19	4.94	S
	Female	126	18.93	9.91		
Psycho-ticism	Male	124	8.54	1.4	4.52	S
	Female	126	9.28	1.14		
Extraver-sion	Male	124	5.98	1.07	3.54	S
	Female	126	5.52	1.02		
Neuro-ticism	Male	124	5.5	1.54	4.4	S
	Female	126	4.67	1.42		

(At 5% level of significance table value of 't' is 1.96)

Table 2 shows that there is a significant difference between male and female students in their depression level. The table further reveals a gender difference in terms of their personality. Female students were more psychotic while males were more neurotic and of extrovert type.

**Table 3**

### Community Differences in Depression and Personality Profile among PG Students

Vari-ables	Communi-ty	N	Mean	S.D.	Calculated 't' value	Re mark
Depres-sion	Tribal	99	20.2	9.28	5.77*	S
	Non-Tribal	151	13.19	9.49		
Psycho-ticism	Tribal	99	9.22	1.06	3.01*	S
	Non-Tribal	151	8.71	1.43		
Extraver-sion	Tribal	99	5.8	0.99	0.67	NS
	Non-Tribal	151	5.71	1.12		
Neuroti-cism	Tribal	99	5.13	1.46	0.39	NS
	Non-Tribal	151	5.05	1.58		

Results showed significant differences among tribal and non-tribal PG students in their depression. However, in the case of personality, a significant difference between tribal and non-tribal students was found only in psychoticism (Table 3).

**Table 4**

**Correlation between Depression and Personality of PG Students**

Depression		Psychoticism	Extraversion	Neuroticism
	γ	.0.148*	0.102	0.334**
N	250	250	250	
** Significant at 0.01 level (2-tailed)				
*Significant at 0.05 level (2-tailed)				

Table 4 shows the correlation between depression and personality types of postgraduate students of Tripura. The results indicated a significant positive correlation between depression with psychoticism and neuroticism. This signifies that postgraduate students with high psychoticism and neuroticism had more depression.

**Discussions**

According to the current study's findings, female students, have a higher level of depression than male students. Many studies have supported the current study's findings (Ryba&Hopko, 2012; Hou, et al., 2020). The results also revealed significant differences between male and female students in terms of their personality dispositions like psychoticism, extraversion and neuroticism. Several studies also revealed similar findings (Berring et al., 2018; Sharma, 2019).

The study also shows a significant difference between tribal and non-tribal PG students in their depression. In the case of personality, they differed significantly only in psychoticism. The study of Gopal and Ashok (2012) and Singhand Dewan (2018) indicated a high prevalence of depression and other mental health issues among the tribal students. Ghosh and Majumder (2013) found that tribal and non-tribal male football players differ significantly in their personality traits, except neuroticism. Many previous studies have revealed personality differences among tribal and non-

tribal youths at varying degrees and forms (Mahalakshmi et al., 2015; Sahu&Jha, 2020).

Finally, the current study indicates that depression positively correlates with psychoticism and neuroticism. Wang and Zhang (2017) studied the impact of personality traits on depression, and they also reported a positive correlation of depression with psychoticism and neuroticism.

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# EFFICACY OF INVERTED CLASSROOM STRATEGY ON LEARNING PERFORMANCE OF LANGUAGE ACROSS THE CURRICULUM COURSE AMONG B.ED. STUDENTS

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## ABSTRACT

*The present research attempts to determine the effectiveness of inverted classroom strategy on learning the course Language Across the Curriculum among Bachelor of Education students. The study was carried out to build an Inverted classroom model for teaching Language Across the Curriculum Course and experimenting with B.Ed. Teacher trainees. To find out its efficiency over the traditional teaching method the Pretest Posttest Control group design was employed. The researcher selected 72 B.Ed. Students by random sampling, in these 36 trainees were chosen to form control group, and 36 trainees to form experimental group. The findings of this study reveals that; (a) There is a significant difference between Control and Experimental group students in their post-test scores. The treatment group students are better than the control group students in their post-test scores. (b) The treatment group are better than the control group students in their gain scores on attaining the knowledge, understanding, and application objectives.*

**Keywords:** *Inverted teaching, Language Across the Curriculum &, Learning Performance.*

## Introduction

The teaching-learning landscape looks entirely diverse at present than it did in the past. The method that learners are learning is altering radically. One of the budding approaches in teaching-learning, called Inverted Classroom or Flipped Learning, is a very efficient method to overcome such difficulties. In the traditional classroom model, students attend lectures in-group settings. In an Inverted classroom, things are happening upside down. Students watch online lectures, engaging in discussion forums, chats, and quizzes at home. Inside the Classroom, they work on assignments like preparing for the discussion, debates, and seminars. The teacher acts as a 'guide on the side' with them, supports them, and motivates them. Hence, teaching and learning became more active than ever before. The value of an inverted classroom is shifting the class time into workshop activities where learners can inquire about lecture content test their skills in applying knowledge, and interact with one another in hands-on activities (Deepak & Anval. 2008). During class time, instructors function as coaches or advisors, encouraging students in individual inquiry and collaborative effort.

## Need and Significant of the Study

Inverted Classroom provides pre-recorded lectures followed by in-class exercises. In one standard model, students might view multiple video lectures of six to seven minutes each. E-quizzes or activities can be interspersed to test what students have learned. The main features of the inverted Classroom were immediate quiz feedback and the ability to re-run lecture videos may help clarify points of confusion; Teachers might lead in-class discussions or turn the Classroom into a studio where students create, collaborate, and put into practice what they learned from the lectures they view outside class (Krishna, 2005). The main aims of teaching Language help develop abstract thinking and reasoning ability among the students. The traditional method also fails to draw the learner's total attention towards learning language skills and abilities. To overcome these

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practical difficulties, we could adapt the technique invert teaching for Instructing English since the inverted teaching strategies supports the teacher trainees remember their attention throughout instruction. This will offer opportunities for B.Ed. Teacher trainees to learn at their own pace as efficiently as possible. Therefore, the investigator selected the topic 'Inverted Classroom Model on Learning Performance of Language across the Curriculum Course among B.Ed. Students.'

### **Objectives of the Study**

The objectives of the study were listed out in the following.

1. To develop the inverted teaching Model for B.Ed., teacher trainees.
2. To study the effectiveness of inverted classroom strategy on achievement in language across the curriculum course among the B.Ed. Students

### **Hypotheses of the Study**

Based on the objectives, the investigator framed the following hypotheses

1. There is no significant difference between experimental group and control group B.Ed. students in the pre test mean scores on achievement in language across the curriculum course.
2. There is no significant difference between experimental group and control group B.Ed. students in the post test mean scores on achievement in language across the curriculum course.
3. There is no significant difference between experimental group and control group B.Ed. students in the mean gain scores on achievement in language across the curriculum course.

### **Methodology**

The study's research design was True-Experimental, pretest - post-test control group design where subjects / sample and test units were randomly allocated to an experimental group and a control group. A True-experimental methodology was chosen to determine the effectiveness of Inverted Classroom Model on the learning performance of Language across Curriculum Course among B. Ed Students.

### **Sample**

The population for the present study were B.Ed. students. The researcher has randomly selected 72 B.Ed. students from St.Mary's College of Education, Chenkalpettu, Kanchipuram District affiliated with Tamilnadu Teacher Education University, Chennai. Random sampling technique was used to select the sample of the study. Each group consists of 36 B.Ed. students.



### **Instruments Used**

#### **Inverted Classroom Strategy**

The investigator developed three inverted classroom model such as faux-flipped, standard, inverted and group-based inverted classroom strategies. As a part of the inverted classroom model, Video lessons developed by the investigator for teaching Language Across the Curriculum Course to secondary teacher trainees. Thirty Inverted classroom Modules including At home activities (e-lecture, e-script, Discussion forums, Quizzes) and At class activities (Seminar, Discussion, Debates) were also created.

#### **Achievement Test**

An achievement test on Language Across the Curriculum Course constructed and validated by the researcher was used in this study. Parallel and Equivalent form of Pre and Post - Achievement test on Language across the Curriculum Course was developed by the investigator and the reliability and validity were established. Both the Pre and Post-test consists of 85 items.

#### **Validity and Reliability of the Tool**

Inverted Classroom Model and Video lesson developed by the investigator for teaching Language Across the Curriculum Course to B.Ed. students, were exposed to a team of selected faculty members who handle the course Language across the Curriculum at B.Ed. Level and the experts in ICT in higher education. After the screening, they were given the questionnaire for rating the suitability of the materials for the B.Ed. students and thus content validity was established. Further, the tool was given to a panel of English professors in B.Ed., colleges. Based on their suggestions, the items were modified and some were eliminated. Investigator employed Cronbach's Alpha for establishing

reliability of the pre and post-achievement test. It was found to be 0.92 and 0.85 respectively and it is significant.

### Data Analysis Techniques

The investigator had used the descriptive statistics (Mean and Standard Deviation) and inferential statistics ('t' test: Independent Sample) were used in the study (Aggarwal, 1990).

### Data Analysis

**Hypothesis 1:** There is no significant difference between experimental group and control group B.Ed. students in the pre test mean scores on achievement in language across the curriculum course.

**Table 1**

**Comparison of the pre test mean scores of Experimental and Control group**

Test	Group	N	Mean	SD	df	't'	p	Remarks
Knowledge	Experimental	36	10.53	3.69	70	0.41	0.68	Not Significant p > 0.05
	Control	36	10.11	4.82				
Understanding	Experimental	36	6.67	2.21	70	0.56	0.78	Not Significant p > 0.05
	Control	36	6.97	3.76				
Application	Experimental	36	3.58	0.9	70	0.34	0.95	Not Significant p > 0.05
	Control	36	3.81	0.95				
Whole Pre-Test	Experimental	36	20.78	4.13	70	0.11	0.9	Not Significant p > 0.05
	Control	36	20.58	9.11				

From the above table, it is found that there is no significant difference in the pre test mean scores of the Experimental group [Knowledge (M = 10.53, SD = 3.69), Understanding (M = 6.67, SD = 2.21), Application (M = 3.58, SD = 0.90)] and Control group [Knowledge (M=10.11, SD=4.82), Understanding (M = 6.97, SD = 3.76), Application (M=3.81,SD=.95)] in their performance on language across the curriculum course. The 't' test scores for the learning objectives Knowledge is 0.41 & p = 0.68, for Understanding 0.56 & p = 0.78 and for Application 0.34 & p = 0.95. The experimental and control group mean score for the pretest in total was 20.78 and 20.58, respectively. Further, the 't'-test

value is 0.117 with the 'p' value 0.90, which is not significant at 0.05 level of significance. Hence it is concluded that there is no significant difference between Experimental group (M = 20.78, SD = 4.13) and Control group (M = 20.58 SD = 9.11) in their mean scores at pre test.

**Hypothesis 2:** There is no significant difference between experimental group and control group B.Ed. students in the post test mean scores on achievement in language across the curriculum course.

**Table 3**

**Comparison of the post test mean scores of Control and Experimental groups**

Test	Group	N	Mean	SD	df	't'	p	Remarks
Knowledge	Experimental	36	28.8	3.45	70	20.87	0	Significant p < 0.05
	Control	36	14.7	2.14				
Understanding	Experimental	36	29.3	4.44	70	18.9	0	Significant p < 0.05
	Control	36	12.7	2.84				
Application	Experimental	36	8.6	1.71	70	13.14	0	Significant p < 0.05
	Control	36	4.1	1				
Whole Post-Test	Experimental	36	66.89	7.48	70	24.63	0	Significant p < 0.05
	Control	36	31.72	4.15				

From the above table, it is found that there is a significant difference in the post test mean scores of the Experimental group [Knowledge (M=28.8,SD=3.45), Understanding (M=29.3, SD=4.44), Application (M=8.6,SD=1.71)] and Control group [Knowledge (M=14.7,SD=2.14), Understanding (M=12.7,SD=2.84), Application (M=4.1,SD=1)] in their performance in language across the curriculum. The 't' test score for the learning objectives Knowledge is 20.87 & p=.00; for Understanding 18.90 & p=.00; and for Application 13.14 & p=.00. The experimental and control groups mean score for the post test in total was 66.89 and 31.72 respectively. Further the 't' test value is 24.63 with the 'p' value 0.00 which is significant at 0.05% level of significance. Hence it is concluded that there is a significant difference between Experimental group (M = 66.89, SD = 7.48) and Control group (M = 31.72,

SD = 4.15) in their mean scores at post test.

**Hypothesis 3:** There is no significant difference between experimental group and control group B.Ed. students in the mean gain scores on achievement in language across the curriculum course.

**Table 4**

**Comparison of the gain scores of Control Group and Experimental group**

Score	Group	N	Mean	SD	df	t	p	Remarks
Knowledge	Experimental	36	18.3	4.49	70	13.91	0.00	Significant p < 0.05
	Control	36	4.6	3.85				
Understanding	Experimental	36	22.7	5.6	70	15.99	0.00	Significant p < 0.05
	Control	36	4.1	4.16				
Application	Experimental	36	5	2.02	70	6.56	0.00	Significant p < 0.05
	Control	36	2.3	1.31				
Whole Gain Score	Experimental	36	46.11	8.41	70	18.33	0.00	Significant p < 0.05
	Control	36	11.14	7.75				

From the above table, it is found that there is a significant difference in the mean of the gain scores of Experimental group [Knowledge (M=18.8,SD=4.49), Understanding (M=22.7, SD=5.60), Application (M=5.0,SD=2.02)] and Control group [Knowledge (M=4.6,SD=3.85), Understanding (M=4.1,SD=4.16), Application (M=2.3,SD=1.31)] in their performance on language across the curriculum course. The 't' test scores for the learning objectives Knowledge is 13.90 & p=.00, Understanding 15.99 & p=0.00 and Application 6.5 & p=0.00. The experimental and control group mean score for the whole gain score was 18.33 with the 'p' value .00, which is significant at 0.05% level of significance. Hence it is concluded that there is significant difference in the Experimental group (M=46.11, SD=8.41) and Control group (M=11.14, SD=7.75) for the gain score  $t(70) = 18.33, p = .00$ .

**Findings**

The 't' test findings explains that the treatment group students were better than the control group students in the gain scores. It happened, because the inverted

classroom strategies are helpful in teaching language education for the B.Ed. students. The teaching strategies of flip teaching are more attractive than the lecture method. Therefore, the students' interest and motivation may be increase. This finding is supported by Yang & Chi (2017) found that the students were optimistic about the flipped Classroom. On the other hand, although the teachers considered that the flipped classroom pedagogy was creative, they thought it might only be useful for teaching English.

The 't' test finding also highlighted that the treatment group students were more better than the control group students in concerning with the objectives such as knowledge, understanding, and application-level objectives in the gain score. The same result coincides with the study of Kurt and Gokçe (2017). Findings revealed a higher level of self-efficacy beliefs and better learning outcomes for the experimental group post-test in the flipped Classroom than the control group post-test in the traditional Classroom. It happened, because inverted classroom strategies have motivated the students to understand the concepts of English Education (James, 2017). Flip teaching is stuffed the young minds of experimental group students very sharply. Therefore, the treatment group was better than the control group in attaining of learning objectives such as knowledge, understanding, and application objectives.

**Conclusion**

As the inverted class becomes more popular, new tools may emerge to support the curriculum's out-of-class portion. In particular, the ongoing development of powerful mobile devices will put a more comprehensive range of rich, educational resources into students' hands, at times and places that are most convenient for them (Thiyagu, 2011). Greater numbers of courses will likely employ the inverted classroom elements, supplementing traditional out-of-class work with video presentations and supporting project-based and lab-style efforts during regular class times. At a certain level of adoption, colleges and universities may need to take a hard look at class spaces to ensure they support the kinds of active and collaborative work common in inverted classes

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# PROSPECTIVE TEACHERS ATTITUDE TOWARDS TEACHING PROFESSION

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## ABSTRACT

Teaching has been supposed to have a supreme place in society. Teachers are considered role models to the students. The success of the teaching-learning process depends on the teacher's positive attitude and harmonious interaction between teacher and students. The main objectives of this paper are to find out the attitude towards the teaching profession of Prospective Teachers with respect to background variables. The investigator adopted a survey method to carry out the research. The sample consisted of 400 prospective teachers selected through a stratified random sampling technique. The findings revealed that a) there was a significant difference between male and female prospective teachers in their attitude towards teaching. b) there was a significant difference between UG and PG prospective teachers in their attitude towards teaching. c) there was a significant difference between Nuclear and joint family prospective teachers in their attitude towards teaching, and d) there was a significant difference between Tamil and English medium prospective teachers in their attitude towards teaching.

**Keywords:** Attitude towards teaching, Prospective teachers.

## Introduction

“Education is the manifestation of perfection which is already in man” - Swami Vivekananda

To be a good teacher, everyone who aspires to be a teacher should follow the famous saying of Swami Vivekananda. People often ask teachers whether they enjoy their professions. When they do this, they ask whether they have positive or negative attitudes towards the teaching profession. Attitude is commonly defined as “a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” The object may be a person, institution, process or event. (Fishbein & Ajzen, 1975) Attitude reflects a tendency to classify objects and events and react to them with some consistency. Attitude is not directly observable but rather is inferred from the objective, evaluative responses a person makes.

## Review of Related Studies

The teacher's roles and responsibilities have found extension outside the classroom. The implementation of educational policies, transaction of curricula and spreading awareness are the main areas that keep teachers at the forefront. Changing times have added a new dimension to this profession, requiring

specified competencies and the right attitude. The teacher's behaviour, attitude, and interest help shape the student's personality. Attitude is a tendency to react particularly towards the stimuli (Anastasi, 1957).

A positive attitude towards the profession helps develop creative thinking and motivate students (Celikoz & Cetin, 2004). The different learning environments, instructional materials and strategies adopted in the initial teacher training environments are also responsible for the difference in student teachers to the rds teaching profession (Mckeachie, 1994; Mordi, 1991; Schibeci & Riley, 1986). The type of attitude possessed by the teacher influence the quality of the work accomplished and teaching. The attitude of the teacher has the imprint of competencies that she includes.

## Significance of the study

Teachers play a vital role in the educational

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system. They are role models for future citizens. The prospective teachers should have a high level of attitude towards teaching, which will help them to become successful teachers. This study could help assess the level of attitude towards teaching among the prospective secondary school teachers.

Attitude towards teaching is the primary driving force for all levels of achievement in any field of study. Each student has their performance level in every field. This performance may be affected by so many factors such as gender, educational level, type of institution, medium of instruction, type of the family, size of the family, nativity etc.; some students perform well. In contrast, others perform poorly, according to their attitude towards teaching. With these ideas in mind, the investigator has chosen the topic "Prospective Teachers attitude towards teaching Profession"

### Objectives of the study

To find out whether there is any significant difference between Prospective Teachers in their attitude towards teaching profession in terms of selected background variable such as gender, educational qualifications, type of family, medium of instruction.

### Hypotheses of the Study

1. There is no significant difference between male and female prospective teachers in their attitude towards teaching profession.
2. There is no significant difference between prospective teachers with the qualification UG and PG in their attitude towards teaching profession.
3. There is no significant difference between prospective teachers from joint and nuclear families in their attitude towards teaching profession.
4. There is no significant difference between prospective teachers of Tamil and English medium in their attitude towards teaching profession.
5. There is no significant difference between prospective teachers whose parents are working as teachers and not working as teachers in their attitude towards teaching profession.

### Methodology

The investigator has adopted Survey method for this study.



### Tool used

The Attitude Towards Teaching Scale (2020), was developed and validated by Krishnakumar Pandian and Punithambal.

### Population

The population of the study consists of secondary teacher education students from the college of education in Ramanathapuram, Pudukottai and Tuticorin districts in the state of Tamilnadu.

### Sample

The investigator used the stratified random sampling techniques to select the sample. The sample consists of 400 prospective teachers from four B.Ed colleges located in the selected districts.

### Statistical techniques used

The Mean, SD and 't' test were used in this study.

### Data Analysis

**Hypothesis 1:** There is no significant difference between male and female prospective teachers in their attitude towards teaching profession.

**Table 1**  
**Difference between male and female prospective teachers in their attitude towards teaching profession**

Variable	Cate gory	N	Mean	S.D	Calcu lated t-value	Remark
Attitude towards teaching profession	Male	33	60.21	8.362	6.526	S
	Female	367	70.48	11.454		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference between male and female prospective teachers in their attitude towards teaching profession. From the mean value, it is inferred that female (mean=70.48) are better than male (mean=60.21) in their attitude towards teaching profession.

**Hypothesis 2:** There is no significant difference between prospective teachers with the qualification UG and PG in their attitude towards teaching profession.

**Table 2**  
**Difference between prospective teachers with the qualification UG and PG in their attitude towards teaching profession**

Variable	Category	N	Mean	S.D	Calculated t-value	Remark
Attitude towards teaching profession	UG	314	70.85	11.297	4.039	S
	PG	86	65.2	11.553		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference between prospective teachers with the qualification of UG and PG in their attitude towards teaching profession. From the mean value, it is inferred that UG (mean=70.85) prospective teachers are better than PG (mean=65.20) prospective teachers in their attitude towards teaching profession.

**Hypothesis 3:** There is no significant difference between prospective teachers from joint and nuclear families in their attitude towards teaching profession.

**Table 3**  
**Difference between prospective teachers from joint and nuclear families in their attitude towards teaching profession**

Variable	Category	N	Mean	S.D	Calculated t-value	Remark
Attitude towards teaching profession	Joint family	176	67.12	11.773	3.892	S
	Nuclear family	224	71.61	11.045		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference between prospective teachers from joint and nuclear families in their attitude towards teaching profession. From the mean value, it is inferred that nuclear family (mean=71.61) prospective teachers

are better than Joint family (mean=67.12) prospective teachers in their attitude towards teaching profession.

**Hypothesis 4:** There is no significant difference between prospective teachers of Tamil and English medium in their attitude towards teaching profession.

**Table 4**  
**Difference between prospective teachers of Tamil and English medium in their attitude towards teaching profession.**

Variable	Category	N	Mean	S.D	Calculated t-value	Remark
Attitude towards teaching profession	Tamil	357	68.84	11.42	4.185	S
	English	43	76.21	10.84		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference between prospective teachers of Tamil and English medium in their attitude towards teaching profession. The mean value shows that English (mean=76.21) medium prospective teachers are better than Tamil (mean=68.84) medium prospective teachers in their attitude towards teaching profession.

**Hypothesis 5:** There is no significant difference between prospective teachers whose parents are working as teachers and not working as a teachers in their attitude towards teaching profession.

**Table 5**  
**Difference between prospective teachers whose parents are working as teachers and not working as a teachers in their attitude towards teaching profession**

Variable	Category	N	Mean	S.D	Calculated t-value	Remark
Attitude towards teaching profession	Yes	130	70.01	11.148	2.312	S
	No	270	67.89	11.645		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is a significant difference between prospective teachers whose parents are working as teachers and not working as a teachers in their attitude towards teaching profession. From the mean value, it is inferred that prospective teachers whose parents working as teachers (mean=70.01) are better than their counter parts (mean=67.89).

### Findings

1. Female prospective teachers are better than male prospective teachers in their attitude towards teaching.
2. UG prospective teachers are better than PG prospective teachers in their attitude towards teaching.
3. Nuclear family prospective teachers are better than Joint family prospective teachers in their attitude towards teaching.
4. English medium prospective teachers are better than Tamil medium prospective teachers in their attitude towards teaching.
5. Prospective teachers whose parents are working as a teachers are better than parents who are not working as teachers in their attitude towards teaching profession.

### Conclusion

This research on prospective teachers' attitude towards teaching may help them in achieving their goals, improving their performance, and moulding themselves into achievement-oriented teachers who strive for excellence. They should continually make every effort to achieve the aim of high quality education and do better than their peers. Hence, teacher educators must give appropriate activities that aid in improving potential teachers' attitudes for teaching.

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### EFFICACY OF INVERTED CLASSROOM...

(Naseema, 2004). The inverted Classroom is a strategic direction that helps higher education meet today's students' expectations while optimizing teaching and classroom resources. The inverted Classroom's blended learning approach can be leveraged for both individual and organizational levels to improve instructional delivery and enhance student achievement and satisfaction.

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# PERCEPTION OF INCLUSIVE EDUCATION AMONG TEACHERS AND B.ED. TRAINEES

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## ABSTRACT

*This study aims to find out the perception of teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees on inclusive education. Second-year B.Ed. Trainees and teachers who have completed two-year B.Ed. The Programme were the primary target of the study. The investigator used the survey method. For this research, 333 samples were collected using Snowball sampling. The t-test was applied. There was a substantial difference between the men and women who participated in the study in their perception of Inclusive education. But no difference was found between the teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees on inclusive education.*

**Keywords:** *Inclusive Education, Mentally Retarded, Physically Disabled, Learning Disabilities*

## Introduction

More significant than the amount of education received is the quality of education received. The goal of obtaining universal enrolment has always been to improve quality and quantity in every national education strategy we have implemented since then. After India gained its independence, we devoted efforts to implementing a five-year national development plan.

The need for additional teachers arose during the first five years of the country's effort to boost literacy when schools were built to accommodate the demand for education. In the second five-year plan, the Indian government aimed to expand the number of institutes that educate teachers. When NEP-1986 concentrated on primary-level MLL (Minimum Level of Learning), the government determined to improve educational quality up to middle school in the late 1980s and 2000 via SSA. The grave issue of present-day education is to enhance teachers' teaching abilities by the quality of teacher education programmes.

Thus, it is transparent that the quality of teacher education programmes must be improved. UNO started an inclusive education movement at various international conventions. Since India was a founding member of the United Nations, it has made significant efforts with other nations since the second part of the twentieth century. "The Persons with Disabilities (PWD) Act, 1995," was a defining moment in Indian disability law. The law's

primary goal was to ensure that kids with disabilities could participate fully in their schools.

Elimination in discrimination of physical and psychological obstacles to assist the integration of kids with special needs into mainstream classrooms," it said in a statement. There has been little progress in inclusive education, even though the National Curriculum Framework for School Education (NCFSE) states that "Segregation and isolation are desirable neither for learners with disabilities nor for general learners without impairments."

The previous statement reveals that most schools in India have yet to implement and construct infrastructure for inclusive education. There may be a shortage of qualified teachers and aides to manage children with special needs in mainstream classrooms. In addition, the duty for providing a high-quality curriculum and successful implementation rests on the shoulders of teacher education institutions, universities, and the Teacher Education Board.

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## Review of Related Literature

Abdul Gafoor and Muhammed Asaraf (2009) examined in their study whether the standard B.Ed. The curriculum substantially changed student-teachers attitudes and knowledge on inclusive education. This is survey-based comparison research. This research examines two groups; 1) group consists of students who graduated other than B.Ed. Programme and 2) group consists of students who completed B.Ed. Programme. Tools used for data collection were the Test of Achievement in Inclusive Education Concepts and a Scale measuring the Attitude towards Inclusive Education. The collected data were analysed, and the findings revealed that the attitude of Student-teachers remained weaker even after completing B.Ed. Course. This led the investigator to conclude that teacher education programmes do not enhance attitudes towards inclusion adequately, and there aren't enough resources for students with special needs.

Ajay K. Das and Ahmed B. Kuyini (2013) studied the current skill levels of regular primary and secondary school teachers to teach students with disabilities in inclusive education settings. The researcher employed a cluster sampling strategy to choose individuals from the Delhi area. A descriptive survey was used to get the information. According to the findings, 67.59 per cent of primary school instructors said they had no special education training. In addition, 77% of the instructors said they had never worked with children with special needs. When secondary school teachers' replies were analysed. Only 32.28 per cent of those who took the survey said that they had training on working with kids with impairments. 62.99% of teachers indicated that they did not have any experience teaching children with disabilities

SudhaPingle and InduGarg (2015) analysed the awareness among student-teachers regarding inclusive education through a survey of undergraduates and graduate students. The study's goal is to compare the post-test results of the experimental and control groups on the following components of inclusive education: a) Concept of inclusive education. b) Legal elements of inclusive education. c) Basic knowledge on disabilities

d) Skills and competencies needed for inclusive education. Through purposive sampling, the researchers drew data from two institutions in Mumbai that provide the D.T.Ed (Diploma in Teacher Education) programme. To a certain degree, the pre-service teachers in the experimental group were aware of inclusive education.



## The objective of Study

1. To discover how teachers who have completed two-year B.Ed. Programme and Second year B.Ed. Trainees perceive inclusive education.

## Hypotheses

1. There is no significant difference between teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.
2. There is no significant difference between male and female teacher trainees who have completed a two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.
3. There is no significant difference between the students of TNTEU and other Universities in their perception of Inclusive Education

## Limitation

1. Google form is circulated to a wide area and collected from some universities in the southern part only.
2. The trainees' Universities mentioned in the study refer to some of the south of Universities and Autonomous Institutions.

## Methodology and Sample

This study's population is the teacher trainees who have completed a two-year B.Ed. Programme and Second-year B.Ed. Trainees. A sample of 333 Teachers who have completed two years B.Ed. Programme and second-year B.Ed. Trainees from TNTEU and other Southern Universities were selected by snowball sampling technique. A self-designed questionnaire which consists of 15 items, was used to collect data. The participants were asked to rate each item on a 5-point scale. The collected data were analysed using the statistical techniques of Mean, Standard deviation, and the 't-test.

## Analysis and Interpretation

**Hypothesis : 1** There is no significant difference between teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.

**Table 1**  
**Difference in the perception of Inclusive Education between teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees**

Teachers			Trainees			Calculated 't' value	Remark
N	Mean	S.D	N	Mean	S.D		
45	46.5	15.31	288	45.9	7.7	0.257	NS

Table-1 shows that the calculated 't' value is less than the table value 1.96 at 5% level of significance and hence the null hypothesis is accepted. It is concluded that there is no significant difference between teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.

**Hypothesis:2** There is no significant difference between male and female teacher trainees who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.

**Table 2**  
**Difference between males and females in their perception on Inclusive Education**

Male			Female			Calculated 't' Value	Remark
N	Mean	S.D	N	Mean	S.D		
204	46.6	12.56	129	43.53	12.24	2.22	S

Table-2 shows that the calculated 't' value is higher than the table value 1.96 at 5% level of significance and hence the null hypothesis is rejected. It is concluded that there is a significant difference between male and female teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education. Further, the difference in the mean scores reveals that female are better than male in their perception of Inclusive Education.

**Hypothesis:3** There is no significant difference between students of TNTEU and other Universities in their perception of Inclusive Education



**Table 3**  
**Difference in the perception on Inclusive Education between Students of TNTEU and other Universities**

TNTEU			Other Universities			Calculated 't' Value	Remark
N	Mean	S.D	N	Mean	S.D		
299	41.96	13.65	34	41.18	17.49	0.25	NS

Table-3 shows that the calculated 't' value is less than the table value 1.96 at 5% level of significance and hence the null hypothesis is accepted. It is concluded that there is no significant difference between students of TNTEU and other Universities in their perception of Inclusive Education.

### Findings

From this study, the investigator has drawn the following conclusions.

1. The study reveals no significant difference between teachers who have completed two-year B.Ed. Programme and Second-year B.Ed. Trainees in their perception of Inclusive Education.
2. When it comes to the views on inclusive education, male and female who have completed two-year B.Ed. Programme and Second-year B.Ed, Trainees differ significantly.
3. In terms of students' views on inclusive education, the results shows no significant difference between students of TNTEU and other universities.

### Discussion

Individuals avoid circumstances in which they feel endangered under Bandura's social cognition theory (Bandura, 2006)." Research shows that mainstream instructors who are not appropriately equipped to interact with kids with disabilities tend to reject the introduction of inclusive education programmes, which supports the statement made in this remark (Kuyini& Desai, 2008; Bindal & Sharma, 2010; Ajay K. Das & Ahmed B. Kuyini,2013)

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# TEACHING COMPETENCY OF PROSPECTIVE TEACHERS IN RELATION TO THEIR COGNITIVE STYLE

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## ABSTRACT

*The study's objective was to find out the influence of cognitive style on the teaching competency of prospective teachers. The investigator used the survey method to study the teaching competency of prospective teachers in relation to their cognitive style. The sample for the study consists of 250 prospective teachers using a random sampling technique. The investigator used Teaching Competency Scale and Cognitive Style Inventory to collect the data. The study's findings revealed a significant influence of cognitive style on teaching competency. The study also indicated that teaching competency and cognitive style are not influenced by gender. There exists a significant positive relationship between teaching competency and the cognitive style of prospective teachers.*

**Keywords:** Teaching Competency, Cognitive Style, Prospective Teachers.

## Introduction

Education is synonymous with learning as an acquired experience of any intellectual, sensory-motor activity. Education means the exposition of man's complete individuality. In the process of education, the teacher tries to shape the behaviour of young children in accordance with the aims and goals. A teacher is an acknowledged guide in the process of teaching and learning. Teachers are directly liable for operating the academic system to require stable and efficient educational competencies, especially teaching. Successful teaching is a teaching that brings about effective learning. Joyce and well, (1972) define teaching as "a process by which an educator and students create a shared environment including sets of values and beliefs which successively colour their view of reality". In general, teaching competence is nothing but the teacher's performance, ability, or capacity of the teacher to show. The subsequent are the foremost constituents of the factor "teaching competence".

The individual's style is the habitual pattern or preferred way of doing something (teaching and learning) that is consistent over long periods. Arther Beber's Dictionary of Psychology (2001) states that 'Cognitive style is the style or manner in which cognitive tasks are approached or handled'. There are different Cognitive

styles. They are Systematic Style, Intuitive Style, Integrated Style and Split Style.

## The rationale for the Study

The present study would cater to the wants of prospective teachers in improving their teaching competencies by enriching their profession, their interest, attitude towards children and adaptableness. Thus, the emotional facet of a prospective teacher needs ample attention to realise good understanding, ability, and attitudinal objectives. Therefore, it's off to strengthen Cognitive style and Teaching Competency among Prospective Teachers during the pre-service training and after becoming teachers to become efficacious.

## Objectives of the Study

1. To find out the difference in the Teaching Competency of prospective teachers with respect

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to gender, medium of study, and locality.

- To find out the difference in the Cognitive Style of prospective teachers with respect to gender, medium of study and locality.
- To find out the relationship between Teaching Competency and Cognitive Style of prospective teachers.

### Hypotheses of Study

- There is no significant difference between male and female prospective teachers in their teaching competency and cognitive style.
- There is no significant difference between rural and urban prospective teachers in their teaching competency and cognitive style.
- There is no relationship between the teaching competency and cognitive style of prospective teachers.

### Method of Study

The survey method has been adopted in the present study.

### Sample

Population of the study consists of 250 prospective teachers from various colleges of education in the Namakkal District.

### Tools Used in the Present Study

The following tools were used in this study

- General Teaching Competency Scale (Jeya & Denisia (2013))
- Cognitive Style Inventory (Parveen Kumar Jha, year (2011))

### Analysis of Data

To find the meaningful interpretation of the raw scores, the investigator used mean, S.D, 't'-test and 'r' to analyse the data.

**Hypothesis 1:** There is no significant difference between male and female prospective teachers in their teaching competency and cognitive style.

**Table-1**  
**'t' Value for Teaching competency and Cognitive Style of Prospective teachers in terms of their gender**



Variables	Gender	N	Mean	SD	Calculated 't'-value	Remark
Teaching Competency	Male	100	62.21	15.54	2.74	S
	Female	150	56.54	16.24		
Cognitive Style	Male	100	146.99	15.63	1.13	NS
	Female	150	149.18	14.66		

(At 5% level of significance table value of 't' is 1.96)  
**Teaching Competency**

Table -1 shows that the calculated 't' value (2.74) is higher than the table value (1.96) at 0.05 level of significance. This implies that the mean difference in teaching competency of male and female prospective teachers is significant. Hence, the null hypothesis is rejected. Therefore, it is concluded that the male and female prospective teachers differ significantly in their teaching competency. Further, the higher means scores implies that female prospective teachers are better in their teaching competency than male prospective teachers.

### Cognitive Style

Table -1 shows that the calculated 't' value (1.13) is less than the table value (1.96) at a 0.05 level of significance. This implies that the mean difference in the cognitive style means scores is not significant. Hence, the null hypothesis is accepted. Therefore, it is concluded that male and female teachers do not differ significantly in their cognitive style.

**Hypothesis 2:** There is no significant difference between rural and urban prospective teachers in their teaching competency and cognitive style.

**Table- 2**  
**'t' Value for Teaching competency and Cognitive Style of prospective teachers in terms of their locality**

Variables	Locality	N	Mean	SD	Calculated 't'-value	Remark
Teaching Competency	Rural	181	60.56	16.81	2.83	S
	Urban	69	54.17	13.37		
Cognitive Style	Rural	181	147.36	14.36	1.59	NS
	Urban	69	150.73	16.59		

(At 5% level of significance table value of 't' is 1.96)

### Teaching Competency

Table -2 shows that the calculated 't' value (2.83) is higher than the table value (1.96) at 0.05 level of significance. This implies that the mean difference in teaching competency of rural and urban prospective teachers is significant. Hence, the null hypothesis is rejected. Therefore, it is concluded that the rural and urban prospective teachers differ significantly in their teaching competency. Further, the higher means scores implies that rural prospective teachers are better in their teaching competency than urban prospective teachers.

### Cognitive Style

Table -2 shows that the calculated 't' value (1.59) is less than the table value (1.96) at a 0.05 level of significance. This implies that the mean difference in the cognitive style is not significant. Hence, the null hypothesis is accepted. Therefore, it is concluded that rural and urban teachers do not differ significantly in their cognitive style.

**Hypothesis 3:** There is no significant relationship between teaching competency and cognitive style of prospective teachers.

**Table- 3**

#### Relationship between Teaching Competency and Cognitive Style of Prospective teachers

Variables correlated	N	'γ'	Remark
Teaching competency and Cognitive Style	250	0.352	S

**(For 248 df at 1% level of significance the table value of 'γ' is 0.148)**

Table 3 reveals that the correlation between their teaching competency and cognitive style is positive and significant. Hence it is concluded that there is a significant relationship between teaching competency and the cognitive style of prospective teachers.

### Findings

1. There is a significant difference in the teaching competency of prospective teachers with respect to gender.

2. There is a significant difference in the cognitive styles of prospective teachers with respect to the locality.
3. There is a positive correlation between prospective teachers' teaching competency and cognitive style.

### Conclusion

The present study attempted to seek trainee teachers' teaching competency and cognitive style. This study is an effort to surface an approach for several other research problems. This study concludes that repressed cognitive style may enable the trainee teachers to practice an affordable cognitive style and become good and efficient professional teachers.

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# INFLUENCE OF SOCIAL MEDIA USAGE ON PSYCHO-SOCIAL WELL-BEING OF PROSPECTIVE TEACHERS

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## ABSTRACT

*The study investigates the influence of social media usage on the psycho-social well-being of prospective teachers. The social media assessment scale and psychosocial well-being scale were used for data collection using survey research. The study population is the prospective teachers from education colleges in the Tirunelveli and Thoothukudi districts. The sample consists of 940 prospective teachers selected through a stratified sampling technique. Pearson product-moment correlation and simple linear regression were applied to meet the research objectives. The study's major finding is that social media usage highly influences the psychosocial well-being of prospective teachers.*

**Keywords:** Social Media, Psychosocial wellbeing, Prospective teachers

## Introduction

The swift technological advancements in the past decade have hurried the magnitude, scope, and saturation of social media's reach. The precedent decade has seen the emergence of a range of platforms, namely, Twitter, Facebook, Youtube, LinkedIn, used by individuals, groups, businesses and governments for different purposes, namely, education, social movement, health, politics, retailing. Social media comprises of those online resources open to the public (social networks, discussion sites, blogs, and content communities) that people utilise principally to share content (photo, text, video and audio files) and engage in multi-way conversation on Internet applications (Abeza, Gashaw. et al., 2021). Well-being requires harmony between mind and body. It entails a sense of balance and ease with the countless dimensions of life (Holmes, Elizabeth 2005). 'Psychosocial' implies an extremely close association between psychological and social factors. Human development hinges on social relationships. Psychosocial interventions seek to positively influence human development by addressing the negative impact of social factors on people's thoughts and behaviour. They also seek to

The social rate the effects of negative thoughts and behaviour on the social environment through facilitating activities that encourage positive interaction among thought, behaviour, and the social world (Loughry et al., 2003).

## Significance of the Study

Teacher's knowledge for the digital age has received serious attention from numerous scholars and researchers. In this technological age, social media usage plays a vital role in teacher education. Social media has a direct influence on the lives of adolescents. Social media can educate the youth with social skills and supporting relationships. Constant and frequent use of these social platforms can also negatively impact, particularly on the psychosocial well-being of young users. This study contributes to finding out the influence of social media usage on the psychosocial well-being of prospective teachers during this Covid-19 pandemic. Keeping in mind the issues already conferred, the authors want to study to what extent social media usage has influenced the development of the psychosocial well-being of prospective teachers. In the light of the significance of the study, the authors state the problem as, "Influence of social media usage on psycho-social well-being of prospective teachers."

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**Objectives of the Study**

The objectives of the study are

1. To find out the significant relationship between social media usage and the psycho-social well-being of prospective teachers.
2. To find out the significant influence of social media usage on the psycho-social well-being of prospective teachers.

**Hypotheses of the Study**

The hypotheses of the study are

1. There is no significant relationship between social media usage and the psycho-social well-being of prospective teachers.
2. There is no significant influence of social media usage on the psycho-social well-being of prospective teachers.

**Methodology**

Social media assessment scale and psychosocial well-being scale developed by the researcher were used for data collection. The study was conducted using the survey method. The investigator visited the colleges of education personally to administer these tools. Pearson product-moment correlation and simple linear regression were applied to meet the research objectives.

**Population and Sample**

The present study's population consists of prospective teachers studying in colleges of education during the academic year 2020-2021 in Tirunelveli and Thoothukudi districts. 940 prospective teachers were selected using a stratified random sampling technique.

**Null Hypothesis: 1:** There is no significant relationship between social media usage and the psycho-social wellbeing of prospective teachers.

**Table 1**

**Significant relationship between social media usage and psycho-social wellbeing of prospective teachers**

Correlation	N	Calculated 'γ' Values	p-value	Re marks
Social media usage & Psycho-social wellbeing	940	0.578	0	S

*(S-Significant at 1% level)*

It is inferred from the above table that P-value is less than 0.01 and hence the null hypothesis is rejected.

It shows a significant positive relationship exists between social media usage and the psycho-social well-being of prospective teachers.

**Null Hypothesis: 2:** There is no significant influence of social media usage and its dimensions on the psycho-social well-being of prospective teachers.

**Table 2**

**Influence of social media usage and its dimensions on psycho-social wellbeing of prospective teachers**

Predictors	B	SE	β	t	Sig.	R	R <sup>2</sup>	F	Sig.
Constant	34.051	1.45		23.49	0	0.579	0.336	157.63	0.000**
Psychological usage	0.194	0.163	0.058	1.192	0.234				
Social usage	0.067	0.114	0.034	0.585	0.559				
Social media usage	0.437	0.069	0.502	6.324	0				

*(Significant at 1% level)*

The result of the multiple regression (R) shows that there is significant correlation between the dependent variable - psychosocial wellbeing and usage of social media. Hence the respective hypothesis were rejected. Positive B values indicate a significant relationship between psycho-social wellbeing and social media usage. The predictor variable social media usage has a significant 't'-value.

So, social media usage has a strong influence on psychosocial wellbeing. The β value for social media usage is greater than the other predictors, which implies more impact. The high F-value indicates a significant relationship between predictors and dependent variables. Results indicate that 50% of social media usage depends on the psychosocial wellbeing of prospective teachers and a the remaining 50% is due to variables other than social media usage.

**Findings of Study**

1. A positive relationship was found between social media usage and psychosocial wellbeing among prospective teachers. It indicates that if the social media usage is high, their psychosocial well-being is high and vice-versa.

2. The regression analysis results indicate that social media usage strongly influences the psychosocial well-being of prospective teachers significantly.

### **Educational Implications**

As social media usage strongly influences prospective teachers' psychosocial well-being, they must be efficient in utilizing social media in teaching-learning transactions and evaluating pupil success during this corona pandemic. Hence the investigators suggest to give more orientation on the proper usage of social media by prospective teachers and saying that the negatives of social media usage bring adverse effects on the psychosocial wellbeing of the users.

### **Conclusion**

From the study, it is concluded that social media usage has become an unavoidable significant relationship and place in human life, especially in communication and education. The researcher has proved that social media usage has a significant impact on their psychosocial well-being. Twenty-first-century humans use social media applications to find career opportunities and connect with people across the globe. As prospective teachers, psychosocial wellbeing can be maintained through social media usage, and in curriculum transactions, social media usage reduces tension and frustration in their teaching-learning process. The prospective teachers can also expand their possibilities by connecting educational experts worldwide and getting more knowledge through social media usage.

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### **PERCEPTION OF INCLUSIVE...**

From the above study of Inclusive education, it is explicit that the teacher trainees need more knowledge and training in the aspects of handling the student of differently-abled. If the Inclusive Education programme is more practical oriented, then there will be a tremendous improvement. The NCTE and NCERT should take a step to concentrate more on this programme so that the 21st century will mark as a milestone in the history of an Inclusive atmosphere in School Education.

### **Conclusion**

The Inclusive Education programme had started in the late 20th century. Many policies have been passed to improve the standard of Inclusive Education, and still working on it to make it a better place for differently-abled students. Even the developed countries are in a struggle to implement Inclusive education in full fledge because of its expensive nature. India being a developing country since independence finds it highly difficult to implement it. But India has set an example to western countries at a free and affordable price of providing education to all citizens, we expect the cent per cent inclusive school setup could also be possible in India at an affordable price to all and be the pioneer to the other countries in the world. Hope the sun will shine soon on the differently-abled.

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# PROFOUND TOWARDS THE USAGE OF ENGLISH IN WEB 2.0 TOOLS AMONG PROSPECTIVE SECONDARY TEACHERS

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## ABSTRACT

The present study investigated the different ways in which 'English' is being used as Web 2.00 tools by prospective secondary teachers. The study employed a survey method. The Attitude Scale for measuring Usage of English in Web 2.0 tools of prospective secondary teachers' was used for collecting the data. Percentage analysis and ANOVA was used for the analysis of data. The study's findings revealed a significant difference in attitude towards the Usage of English in Web 2.0 technologies. Also, web technologies are not influenced by locality or optional subjects of the prospective secondary teachers.

**Keywords :** English, Web 2.00 tools, Prospective Secondary Teachers

## Introduction

People study foreign languages for many reasons. The attitude towards a specific language can be considered a person's feelings regarding the language they use pretty frequently, social status. It can be categorised as good, good, bad, or neutral. The different expression towards a language reflects one's attitude towards that particular language. It also depicts how people feel about the speakers of that language. Language attitudes may affect a second language or learning of a language that is foreign to us. "According to (Richardson, 2009), web 2.0 technologies have the potential to create more interactive and powerful learning environments in which learners become knowledge creators, producers, editors, and evaluators." Wan and Gut (2011) indicate that 21st-century teachers need to be prepared for the 21st-century kids, who are themselves, competent users of Web 2.0 technologies".

## Review of Related Literature

Thomas and Peccei (2004) points out that attitude towards language and language use can also focus on attitudes towards particular varieties of the single language. She highlights the negative reactions towards non-standard variants of English used in Britain or towards African American vernacular usage in the United States. The studies conducted on English in India reveal that Indians have a favourable attitude towards it (Shaw 1981, Kachru 1983, and Krishnaswamy, 2006). Dasgupta (1993) and Kayler & Weller (2007) demonstrate that web 2.0 technologies seem to have

profound potential in education due to their open nature, ease of use and support for effective collaboration and communication. In the words of Prensky(2001), "digital natives" learn and employ technology in a way that is quite distinctive from their parents or teachers. Instant messaging, internet slang, abbreviations and symbols used in it have started to impact the language English.

## The Rationale for the Study

Language and social life have complementary roles to play in an individual's life. The use of language affects our social life, and the other way is also true. The multi-ethnicity of a country like India will contribute to differences in attitudes towards English. The use of English is widespread in India even though it is not the country's official language. The increasing popularity of web 2.0 technologies in almost every field of daily and academic life has prompted researchers to consider whether and to what extent such educational tools can be benefited from. The present generation finds web 2.0 as an effective social communication medium. It has got its communication style with certain kinds of symbols abbreviations for words and sentences, so it is simplified. In the long run, this form of communication may hamper the career that they might select in their respective fields. Using web technology tools have developed a brand of internet slang for communication, which is entirely their own. It will be reflected in their

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everyday communication, and in due course, they will be tuned to inappropriate language use and ultimately result in poor language proficiency. Thuraijet. al (2015), in their study, reported that the youth who relies much upon abbreviated, short words while engaged in instant messaging would be adversely affected by these habits, which will deteriorate the vocabulary of students.

Craig (2003), in a study, opined that students improved their language literacy as they engaged with the sites meant for social networking.

Along with this, students' language literacy is in danger as they are exposed to adverse reading, inappropriate use of abbreviations, short forms, symbols, etc. This will ultimately hamper students' ability to employ literacy skills formally. (Mphahlele&Mashamaite, 2005) in their study found that students performed multiple errors ranging from spelling mistakes, grammatical mistakes, wrong sentence construction and so on. This can pose a threat to their academic works, class assignments, and preparation of research, according to Dansieh( 2008). It is a generally accepted truth that there is an increasing tendency among adolescent students to imitate the 'English' language they use and see in the social networking apps in their academic works. The teenage students are to be guided by prospective secondary teachers, as reinforced by Wan and Gut (2011). It is of significance to know whether the student teachers are also subjected to such maltreatment of the English language and if they are prepared to change their students' attitudes in the future. Even in a literate state like Kerala, this problem looms large on the students and their English language preference. In the above circumstances, neither the prospective secondary teachers nor the student community is away from web 2.0 tools. Their attitude towards the usage of English in web 2.0 tools and English language preference seems critical.

### Objectives of Study

1. To test whether there exists a significant difference in the mean scores of attitude towards the usage of English in web 2.0 tools among prospective secondary teachers based on their locality.

2. To test whether there exists a significant difference in the mean scores of attitude towards the usage of English in web 2.0 tools among prospective secondary teachers based on their Optional subject (English, Hindi, Malayalam, Tamil, Sanskrit, Natural Science, Physical Science, Social Science)

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### Hypotheses of the Study

To test the above-stated objectives, the researcher formulated the following hypotheses:

1. There is a difference like an attitude towards English in web 2.0 technology among prospective secondary teachers regarding Locale of the institution (Rural/Urban)
2. There is a significant difference in attitude towards the use of English in web 2.0 technology among prospective secondary teachers regarding Optional subjects (English, Mathematics, Natural Science, Physical Science, Sanskrit, Social Science).

### Methodology

The investigator used a survey method for the present study. The sample selected for the study consists of 361 B. Ed students from the teacher education institutions in Palakkad, Trissur, and Calicut districts using stratified random sampling techniques. To collect data for the study, the 'Attitude Scale for measuring Usage of English in Web 2.0 tools of prospective secondary teachers', developed and validated by the investigator, was used. The collected data were analysed using mean, SD, 't-test and ANOVA.

### Data Analysis

#### Hypothesis 1

For testing whether there exists any significant difference in the mean scores of Attitude towards the Usage of English in Web 2.0 technologies among prospective secondary teachers with respect to selected subsamples; the scores for each subsample was tabulated and compared for the significant difference in means, a test of significance of difference (t-test) was employed. The details of the results are presented in Table 1.

**Table 1**

**Data and Result of Test of Significant Difference in the Mean Score of Attitude towards the Usage of English in Web 2.0 technologies of prospective secondary teachers**

Variable	Locale	n	M	SD	t	p
Attitude	Rural	118	107.15	15.13	0.17	0.86
	Urban	243	106.88	13.16		

It is clear from the above table that the t value obtained for Attitude towards the Usage of English in Web 2.0 technologies is 0.17 and is not significant at 0.05 level as the p-value (0.86) is less than the table value 1.96. Hence prospective secondary teachers in rural and urban areas do not significantly differ in their Attitude towards the usage of English in Web 2.0 technologies. Hence the first hypothesis is not accepted. This may be due to the reality that teachers are users of Information Technology irrespective of the locality. Owing to the awareness that it is essential for teaching, web apps are used as per their requirements. With the advent of globalisation, the outlook of a ‘teacher’ has changed to that of a ‘global teacher’.

**Hypothesis 2**

To test whether there exists any significant difference in the mean scores of Attitude towards the Usage of English in Web 2.0 technologies based on their optional subject, the Analysis of Variance (ANOVA) statistical technique was employed. The description of the subsamples used for ANOVA is presented in Table 2.

**Table 2**

**Data and Result of One Way ANOVA for Significant difference in the Mean Scores of Attitude towards the Usage of English in Web 2.0 technologies of Prospective Secondary teachers with respect to their Optional Subject**

Variable	Source of Variation	SS	df	MS	F	p
Attitude	Between groups	850.72	5	170.14	0.88	0.48
	Within groups	67922.05	355	191.33		

From the analysis given in Table 2, it was found that the F value obtained for Attitude towards the Usage of English in web 2.0 technologies is not significant at 0.05 level as the F ratio (0.88) is less than the table value is 2.24 at 0.05 level of significance. Hence it is seen that there exists no significant difference in the attitude towards the usage of English in web 2.0 technologies of prospective secondary teachers based on their optional subject. Thus the hypothesis stating that there exists a significant difference in the mean scores of attitude towards the usage of English in Web 2.0 technologies of prospective secondary teachers based on their optional subjects is not accepted. From the result, the value  $p = .05$  indicates no significant difference in the mean scores of Attitude towards the Usage of English in Web 2.0 technologies among prospective secondary teachers based on their optional subject. This shows that the attitude does not change with optional subjects.

**Findings and Discussion**

The difference ( $t=.17$ ) in the attitude scores towards English usage in Web 2.0 technologies of prospective secondary teachers in rural and urban areas is not significant as  $p>.05$  Thus there is no significant difference between future secondary teachers in rural and urban areas in their attitude towards the Usage of English in Web 2.0 technologies. The  $F(5,355) = 0.88$ , for the test of significance of difference among the scores of attitude towards the Usage of English in Web 2.0 Technologies of teachers based on their optional subjects by ANOVA test was not significant as  $p>.05$  Thus it can be interpreted that there exists no significant difference between prospective secondary teachers in their attitude towards the Usage of English in Web 2.0 technologies concerning their optional subjects. The finding draws support from the study by Elmaziye ÖzgürKüfî, Birikim Özgür (2009) majority of students are positive about the use of web 2.0 tools in English. Students’ attitude towards technology in academic tasks has increased positively (Salamberry, 2001, cited by Elsa Guadalupe PÉREZ AMARO, 2018). The teacher candidates' attitudes towards the use of technology differ

due to teacher training (Zeynep Tatli et al.,2019).

GülsümAsiksoy (2018) supported the finding that the student teachers were aware of the Web 2.0 tools in language learning and their attitude was positive and that they believe these tools help them in learning English.

### Conclusion

English is one of the most commonly used languages in Web 2.0 technologies. Various web 2.0 technologies tend to use English alphabets for interactions as there is much easiness in using the English language. English is a global language, and the high impact of web technologies has not been influenced by locality or optional subjects of the prospective secondary teachers.

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# CONSTRUCTION AND VALIDATION OF MENTAL WELLBEING SCALE FOR HIGH SCHOOL TEACHERS

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## ABSTRACT

The study aims to construct and validate a Mental Wellbeing Scale (MWBS). The scale has been constructed using Likert's summation method to obtain a five-point judgment of strongly agree, agree, undecided, disagree and strongly disagree on each item. The final tool has 50 items related to mental wellbeing. Item analysis was done by the item-total correlation method. The constructed tool had face and concurrent validity, and the reliability was 0.794.

**Keywords:** Construction, Validation, Mental Wellbeing Scale, High School Teachers.

## Introduction

Mental wellbeing is feeling good about oneself and being ready to function well in person or in a relationship. It doesn't mean feeling happy all the time, but being able to confront the challenges head-on, making the most of the chances and feeling a sense of determination. According to the Review of Mental Health Research Report of the Strategic Review Group (2010), untangling the complexity of numerous genetic, social, and environmental effects in a way that can inform successful, preventive, therapeutic and rehabilitative treatments is one of the most difficult challenges in mental illness and wellness research. This heightens the seriousness of the issue, particularly the research on mental wellbeing. Hence, the current study is essential for the early detection and prevention of mental health issues. The results of this study may be useful in identifying the problems and developing systematic guidelines to address them.

## Need for measuring mental well being

Mental wellbeing is critical because it's a vital part of our lives and impacts our thoughts, behaviours and emotions. Being healthy emotionally can promote productivity and effectiveness in our activities (<https://blog.doctorondemand.com>). The following Mental Wellbeing Scale constructed and validated by various researchers were referred to (1)

Warwick Edinburgh Mental Wellbeing Scale (2006) (2) Measuring the Subjective Wellbeing of Teachers by Fitch, R. et al., (2017) (3) The Structure of Psychological Wellbeing by Ryff & Keyes (1995) and

(4) Humour Style Questionnaire by Roda. Martin (2014). These tools ensured the researchers to construct a Mental Wellbeing Scale as these tools are not suitable for the present study.

## The objective of the study

This study aims to construct and validate the mental well-being scale for high school teachers.

## Construction of mental wellbeing scale

To construct the tool at the preliminary stage, the investigator referred many books, consulted experts familiar with mental health in various fields, reviewed literature, referred to online resources, and thus gathered information regarding mental well-being. As many as 90 items were framed under four different dimensions. In consultation with the experts, some items were modified and some were deleted, so the final draft tool had 69 items.

## a) Pilot Study

After constructing the mental wellbeing scale, the investigators decided to administer the tool. The tool with 69 items was administered to 50 high school teachers randomly chosen from St. Xavier's Higher

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Secondary School, Palayamkottai, in Tirunelveli District. They were asked to tick their responses against the given statements in the space provided. The responses were collected and scored. Scores obtained by each individual were used for item analysis.

**b) Item analysis**

The total score of MWBS ranges between 69 and

345. Item total and the sum of each score were calculated, and item-total correlation was found. The Item with the Correlation value below 0.4 was deleted. Thus 19 items were removed from the tool. The final draft consists of 50 items. The items analysis for MWBS is given below.

**Mental Wellbeing Scale**

**Item Analysis Results (Method: Item Vs Total Product Moment Correlation)**

ItemNo	$\gamma$ value	Remark	ItemNo	$\gamma$ value	Remark	ItemNo	$\gamma$ value	Remark
Item1	-0.4267	Detained	Item24	0.59272	Selected	Item47	0.70511	Selected
Item2	0.30001	Detained	Item25	0.29451	Detained	Item48	0.7966	Selected
Item3	0.41358	Detained	Item26	0.75477	Selected	Item49	0.7784	Selected
Item4	0.36639	Detained	Item27	0.60552	Selected	Item50	0.72297	Selected
Item5	0.21387	Detained	Item28	-0.0375	Detained	Item51	0.68692	Selected
Item6	0.26947	Detained	Item29	0.60633	Selected	Item52	0.79041	Selected
Item7	0.82613	Selected	Item30	0.55946	Selected	Item53	0.26591	Detained
Item8	0.26132	Detained	Item31	0.77174	Selected	Item54	0.74662	Selected
Item9	0.57805	Selected	Item32	0.80525	Selected	Item55	0.84266	Selected
Item10	0.82566	Selected	Item33	0.82889	Selected	Item56	-0.0271	Detained
Item11	0.7349	Selected	Item34	0.30243	Detained	Item57	0.3068	Detained
Item12	0.29848	Detained	Item35	0.83298	Selected	Item58	0.60263	Selected
Item13	0.81124	Selected	Item36	0.81619	Selected	Item59	0.78641	Selected
Item14	0.84842	Selected	Item37	0.73467	Selected	Item60	0.75316	Selected
Item15	0.80426	Selected	Item38	0.28106	Detained	Item61	0.61866	Selected
Item16	0.23243	Detained	Item39	0.78854	Selected	Item62	0.65246	Selected
Item17	0.72714	Selected	Item40	0.74175	Selected	Item63	0.69764	Selected
Item18	0.29992	Detained	Item41	0.32869	Detained	Item64	0.72177	Selected
Item19	0.58669	Selected	Item42	0.78909	Selected	Item65	0.65373	Selected
Item20	0.83827	Selected	Item43	0.81746	Selected	Item66	0.15866	Detained
Item21	0.63208	Selected	Item44	0.87187	Selected	Item67	0.78715	Selected
Item22	0.79596	Selected	Item45	0.78164	Selected	Item68	0.76212	Selected
Item23	0.86148	Selected	Item46	0.75586	Selected	Item69	0.7375	Selected

**b) Establishing the Validity**

The validity of a tool may be established in different methods. For the tool, MWBS, the investigator established the face and concurrent validities.

**Face validity**

The tool MWBS was given to experts in the field of education, and their opinions were obtained. Necessary rewording and rephrasing the items in the scale were done based on the experts opinions.

**Concurrent validity**

The final mental wellbeing scale with 50 items was administered to 50 high school teachers of Christhu Raja Higher Secondary School, Palayamkottai, in Tirunelveli District. In addition to the self-made mental wellbeing scale, the standardized tool Warwick Edinburgh Mental Wellbeing Scale with 14 items was administered to the high school teachers to establish the concurrent validity. The correlation between the two scores was found by Pearson Product Moment Correlation. The value of concurrent validity is 0.72.

## Establishing Reliability

### Test-Retest method

To find out the reliability, the tool with 50 items was administered to the randomly selected 50 high school teachers of Christhu Raja Higher Secondary School, Palayamkottai of Tirunelveli district. After 15 days of interval, the same tool was administered to the same teachers. After collecting the data, a correlation between the two scores was found. The reliability coefficient was found to be 0.794.

## Final Tool

The final tool contained 50 items in which seven items to personal happiness, 20 items to intrinsic motivation, 11 items to interpersonal relationships and 12 items to a sense of humour, respectively. The responses to the tool were comforted on a 5 point scale of strongly agree, agree, undecided, disagree and strongly disagree. The responses were given the weightage of 5, 4, 3, 2, 1 for positive statements and 1,2,3,4,5 for negative statements.

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S.No.	Statements	1	2	3	4	5
1	I cultivate happiness as one of my attributes.					
2	I know the strategies of dealing with the sources of unhappiness.					
3	I get what I want from my family members.					
4	I choose realistic and reachable goals.					
5	I help my students in improving their competency in learning.					
6	I find pleasure in whatever work I do.					
7	I do not perform any work half-heartedly.					
8	I feel happy about accomplishing something.					
9	I feel like I need a good stimulus.					
10	I think I am a valuable person.					
11	When things are not expected, I get upset very quickly.					
12	I fulfil my duties as a good teacher.					
13	The inconveniences I confront in my daily life affect my cheerful temperament.					
14	I avoid unhappy situations.					
15	Positive thinking helps me achieve my goals.					
16	I plan and move towards my goal.					
17	I draw lessons from the experiences of others.					
18	I have the energy for my progress.					
19	I feel better about myself.					
20	I feel happy when I am with my family.					
21	I have good knowledge in all areas of teaching.					
22	I focus on my professional development activities.					
23	I have the urge to try innovative methods for better learning.					
24	I like reading professional literature and journals.					
25	I decided the activities be done in my classroom.					

26	I feel that I am making significant educational changes in the lives of my students.					
27	I am ready to provide any learning assistance for my students.					
28	I had received much support from my colleagues when I needed it.					
29	I can maintain a good relationship between school and society.					
30	I correct the students when they go astray.					
31	My colleagues share their joys and sorrows with me.					
32	I have a positive bond with my students.					
33	Feedback from students helps me to receive the appraisal.					
34	Management provides opportunities for my professional development.					
35	I receive recognition from my higher authorities.					
36	The Principal/Headmaster observes my teaching and gives suggestions to improve.					
37	The Principal/Headmaster compliments me for my special effort or					
38	I keep friendly relationships with my colleagues.					
39	I experience and express humour in different ways in my classroom.					
40	If I feel depressed, I cheer myself up with humour.					
41	Naturally, I am a humorous person, and I don't have to work very hard to make others laugh.					
42	I never offend or hurt others with my sense of humour.					
43	If I feel upset, I think of some funny situations to make myself feel better.					
44	I laugh and share jokes with my friends.					
45	My humorous outlook on life keeps me from getting depressed about things.					
46	I do not like when students use humour to criticise someone.					
47	I never participate in laughing at others.					
48	If something is funny to me, I will not laugh about it if someone is offended.					
49	I admit my life would probably be a lot easier if I had more of a sense of humour.					
50	It is easy for me to think of funny things to say when with my students.					

## Conclusion

The investigators constructed and standardised a tool for mental wellbeing. All the researchers can use this tool to find out the mental wellbeing and analyse the various factors associated with it so that the necessary steps can be taken to overcome the barriers. The investigators believe that this mental well-being scale will be beneficial for teachers.

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**FACTORS AFFECTING ENTREPRENEURIAL ATTITUDES:  
WOMEN ENTREPRENEURS IN POLUR, TIRUVANNAMALAI  
DISTRICT – A STUDY**

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**ABSTRACT**

*This present study explores the entrepreneurial attitude of women working with the self-help movement in the Tiruvannamalai district. The researcher has adopted an explorative research design. Random sampling non-probability purposive sampling techniques were applied. Primary data was collected from 200 respondents. Universe of the study involved all the members of the NGO working under Sakthi Pengal Munnetra Sangam, Polur of Tiruvannamalai district in Tamil Nadu was chosen for feasibility to conduct the study. The research indicates the positive aspects of rural entrepreneurship. And how it influences the rural women in developing their socio, economic, cultural and political status. It has been proved that most rural women involved with self-help groups have only a moderate level of entrepreneurial attitude. The impact of their socio, economic and political conditions due to this self group movement are accountable and significant. Results of this study suggest that rural entrepreneurship is an essential field of study in rural women development. The success of Self-help groups as a movement implies strategies to equip the women with various skills and training programmes. The results have proved that if the rural women are rightly they motivated significant changes in their social, economical, psychological and political life. It suggests further studies with various variables which affect their entrepreneurial attitude and skills.*

**Keywords :** *Entrepreneurial attitude, women entrepreneurs, entrepreneurship, rural women, self-help groups.*

**Introduction**

Entrepreneurship was regarded as a male domain. Because of an increase in educational opportunity and changing scenario on socio-cultural arena, they began to recognise and utilise their potentialities and professional abilities in whatever capacity they can. Using the several government and NGOs, organisations, they have started becoming entrepreneurs on the rise. However, it is seen that predominant present family and society circumstance, women entrepreneurs are overloaded and found very hard to put themselves in work and day to day life situations.

Since the initiation of the self-help movement,

women entrepreneurs have been at an increased level, especially in rural areas. The economic and social support and skill training have brought tremendous changes in the lifestyle of rural women. This adventure has uplifted the individual's family conditions and the self-image of the country. This has helped significantly change rural India's age-old practices; economic

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dependence, decision making, and self-image.

It is still evident from the primary history shows entrepreneurship in our country is connected with India's customs, traditions, and cultures. It is also repeatedly developed along with social custom. The success of the individual becoming an entrepreneur depends entirely on their creative imagination, vision, objectives, innovation, modernisation, adventuresome aptitude and requirement not to be entwined with the traditional, ancient culture and social customs.

### Review of related Literature

According to JS Mill (1848), the entrepreneur is categorised by leader manager. McClelland (1961), Brockhaus & Horwitz, (1986) and Schumpeter, (1934) say that entrepreneur is trendsetter or innovator. Based on Brockhaus & Horwitz, (1986), the entrepreneur takes risks and has control over everything (Rotter, 1966). Penrose (1995) said that they are different kinds of managers. The above message portrays an entrepreneur who establishes and consistently professionally accomplishes a business and brings profits and development.

### Entrepreneurship

Entrepreneur consumes time, energy and resources because the company gives income, and it considers as a major source of income for the entrepreneur. Therefore, entrepreneurship is called starting and managing a business for revenue and development. In this background, self-employment is certain to generate income. Thus, the Indian government has started recognising the need for women as part of the mainstream economic development through various financial schemes introduced by the planning commission. Women entrepreneurship, at present, is viewed as an effective strategy to overcome and rise above the problems of rural and urban poverty.

### Explanatory factors of women entrepreneurship

#### Individual or personal factors

According to Minniti & Nardone, (2007) and Cromie (1987), the personal or individual features related to a woman and her very self. In this process, psychological and intellectual features, concretely drive

towards motivation (aspiration for improvement and independence, essential for success and fulfillment in life, etc.) and person's awareness (risk forbearance, individuals self-confidence level, acknowledgement of opportunity in business, etc.) were dealt with. Many research approves that these features express an important role in undertaking the decision-making process.

#### Socio-economic factors

Few research gives socio-economic characteristics of women (professional knowledge, income, educational qualification, age, etc.) as distinct features, influence women entrepreneurship. In literature, it appears less frequent than psychological.

#### Social and Institutional Factors

The theoretical review, together with these features permit understanding that social and institutional factors are essential in enhancing female entrepreneurship. The women are surrounded by an environment associated with these factors. The research draws attention, especially in the family.

#### Family

They recognise that the family is an element that will influence their willingness to carry out: first, as an actor who could provide economic resources to women by which it can begin in the business world and secondly, to be an agent of social transformation which can inspire their entrepreneurial spirit, helping them to continue their already existing family business or courage to create their own. Aldrich and Cliff (2003) and Kirkwork (2007) researched the significance of family in this viewpoint.

#### Factors affecting female entrepreneurship

The features that influence and obstruct female entrepreneurship were detected. Among the four barriers that block such entrepreneurship in the women population, two are of important concern; precisely those related to the socio-cultural status of women and their inaccessibility to corporate networks, whether information or business (Bruni, Gherardi, & Poggio, 2004; Rodriguez & Santos, 2008). They are in very little possession of a professional social network or

information about other entrepreneurs. The third obstruction that controls women's entrepreneurial activity is the Family responsibilities. The fourth obstruction is the influence of the family that controls female entrepreneurship, which supports the administration and external funding.

**Research methodology**

In this study, the investigator adopted the survey method through a highly structured and detailed questionnaire or interviews. A comparative or exploratory design is used for this research. This study was carried out among Self Help group members, who are part of Sakthi Pengal Munnetra Sangam, Polur of Tiruvannamalai district. An entrepreneurial attitude test with validity and reliability was conducted, namely 'Entrepreneurial attitude' (L-Scale), constructed by Chandran., Associate prof. Department of Management studies in Madurai Kamaraj University, along with the general datasheet of their general information. The scale is constructed with the various entrepreneurship as Psychological, economic, sociological and Political attributes. The universe of the study consisted of all the members of the NGO working under Sakthi Pengal Munnetra Sangam of Tiruvannamalai district in Tamil Nadu. Tamilnadu State is chosen for feasibility to conduct the study. The sampling procedure chosen was non-probability purposive sampling. 200 samples of women belonging to this self help groups were interviewed directly by the researcher in Tamil Nadu.

**Objectives**

1. To analyse the socio-economic status of the entrepreneurs involved in women self-help groups.
2. To find out the attitude of women entrepreneurs of self help groups towards entrepreneurships.
3. To find out the differences, associations and relationships between overall entrepreneurship attitude with the various independent variables.

**Hypotheses**

There are significant difference, associations and correlations exist between overall entrepreneurial attitude with different groups such as age, education, Religion, castes, Marital status, Individuals monthly

income, Family type, Number of family members, Occupation, Family income, Family occupation, Starting capital, savings, Duration of doing business, Reasons for starting business, Possession of entrepreneurial attitude, Duration of trainings attended, Name of business, Marketing methods, Different competitions, Role models, Leisure time activities, Social participation, Opinion of family members and Opinions of customers.

**Findings**

**Entrepreneurship attitude**

**Table 1**

**Entrepreneurship attitude**

Factors of Entrepreneurship	High	Average	Low	Total
Psychological	20 (10%)	144 (72%)	36 (18 %)	200 (100%)
Managerial	32 (16%)	122 (61%)	46 (23%)	200 (100%)
Economical	16 (8%)	112 (56%)	72 (36%)	200 (100%)
Sociological	38 (19%)	106 (53%)	56 (28%)	200 (100%)
TOTAL	12%	68%	20%	100%

The overall entrepreneurial attitude of 200 respondents is that High (12%), Average (68%) and low (20%). The entrepreneurial attitude of the respondents trait wise: Psychological : High (10%), Average (72%) and Low (18%), Managerial : High (16%), Average (61%) and Low (23%), Economical : High (8%), Average (56%) and Low (36%), Sociological : High (19%), Average (53%) and Low (28%).

The respondents have more of high-level attitude in sociological, more of the average level in Psychological, and more of low level in Economic attitudes. The respondents have more or less level among the high-level group is Economical, Sociological among average and Psychological among the low-level groups.

**ANOVA**

5% significant differences are observed among the independent variables with the overall entrepreneurial attitude. Marital status of the respondents

(0.029\*), Family Income (0.026\*), Starting capital of the business (0.045\*) and Loan sources (0.29\*)

No significant differences exist among the independent variables with the overall entrepreneurial attitude such as: Method of marketing, Number of hours devoted for business, Present status of the business, Reasons for starting the business, Persons behind to start the business, total number of years involved in business, Personal savings, Operation as family business, Yearly income, Family occupation, Family type, year of residing in that place, Different castes, Monthly income, Religion, Educational qualifications and age groups.

### CHI-SQUARE TEST

There is 5% level of association exist between the following independent variables with the overall entrepreneurial attitude.

Age groups (0.043\*) All the groups in general has more of average (54%) level of Entrepreneurship attitude. Among the age groups Below 25 has more of average (50.3%), 26 to 40 more of average (54.5%) and 41 to 60 has more of average (45%) of the entrepreneurial attitude. The age group 26 to 40 has more of average (24%) and more of low (12%).

There is no association exists between age groups and Entrepreneurship. However there is more of an average level (54%) of association among them. Almost all the age groups have more average levels of association with entrepreneurship. Illiterate (48.1%), Below 20th (46.9%), higher secondary (69.2%), Graduation (73%), Post graduation (50%), Technical (33.3%), and other (50%).

There is no association exists between Religions and Entrepreneurship. However there is more of average level (54%) of association observed among them. Almost all the religions have more of average levels of association with the entrepreneurship. Hindus (51%), Muslims (80%) and Christians (50.3%)

There is no association exists between marital groups and Entrepreneurship. However there is more of average level (54%) of association observed among them. Almost all the religions have more of average levels of association with the entrepreneurship. Married

(55.9%), Unmarried (51.7%), Divorced (100%) and separated has (100%) of high level of association with entrepreneurship.



There is no association exists between the following independent variables with the overall entrepreneurial attitude. Castes, sub-castes, Migratory status, Year of residing in a place, Family type, Total no of family members, Family occupations, Family income, Starting capital, sources of loans savings, Number of years involved in the business,, persons behind business, Reasons for starting, Names of business, Monthly income, Number of hours devoted for work, Method of marketing, Role model.,

### Correlations

1% level of correlation is observed between the following Independent variables with the overall entrepreneurship. Age (0.004\*\*)

5% level of correlation is observed between the following Independent variables with the overall entrepreneurship. Educational qualifications (0.013\*), Business as family operation (0.011\*), Persons who inspired the business (0.033\*) and Present status of the business (0.021\*)

There are no correlations established between these following independent variables with the overall entrepreneurship: Religions, Marital status, Monthly income, castes, the total number of years residing in one place, Family type, Income, starting capital, Loan sources, savings, Number of years involved in the business and reasons behind the business.

### Suggestions

Almost all the respondents have only the average levels of entrepreneurship. Therefore it is essential to arrange training on entrepreneurship skills. The respondents are more in a low level of economic attitudes. It is essential to improve the economical knowledge, fundraising opportunities, linkages with the financial institutions, and money management.

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# CONSTRUCTION AND VALIDATION OF A SCALE ON OUTCOME-BASED EDUCATION IN HIGHER EDUCATION LEVEL FOR ENGINEERING PROFESSIONALS

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## ABSTRACT

*Outcome-Based Education (OBE) is an educational concept that bases each part of an educational system around goals (outcomes). By the end of the educational involvement, teachers enable each student to achieve the predefined goal. There is no single specified teaching style or valuation in outcome-based education; instead, lectures, learning opportunities, and assessment procedures are designed and applied to help students attain the specified outcomes. The present paper explains the process of constructing and standardizing a scale to measure the outcome-based education, for engineering faculties in colleges from the Salem district of Tamil Nadu. The present study, Outcome Based Education Scale (OBE), has been constructed and standardized for higher education levels among engineering professionals. This Scale consists of 26 statements. The simple random sampling technique was used for the present investigation. The sample consists of 80 engineering faculties randomly selected from the Salem District. The Cronbach's Alpha technique was used to regulate the tool. The draft tool consists of 30 statements, but after item analysis only 26 statements were retained. The Outcome-Based Education (OBE) Scale shall be useful for future researchers.*

**Keywords:** *Construction, Outcome-based education (OBE), Higher education, Engineering professionals.*

## Introduction

Outcome-Based Education (OBE) is now considered the required method for most Institutions of Higher Learning (IHL) in Malaysia to adapt to the standards of universities and colleges all over the world. Since 2007, Malaysians have been required to use this method. However, problems related to OBE implementation have been seriously argued in IHL during its early introduction. The problems faced by IHL in outcome-based education application, its impact on students and lecturers, and its effect on the Malaysian education system are some of the issues raised along with outcome-based education implementation (Tan, Oriah & Senian 2012). Establishing a high quality of education is crucial as it is an essential factor in producing knowledgeable professionals, thus building a strong nation and attainment and comprehensive competition (Borsoto et al., 2014). Spady's (1994) revealed that outcome-based education is "an outcome-based education curriculum means starting with a clear

picture of what is important for students to be able to do, then establishing the curriculum, instruction and assessment to make sure this learning ultimately happens".

## Outcome-based education

Outcome-based education is very significant for the public interface between the students and the faculty of a society or institute. Before delving into objectives and outcomes, let us know the position of outcome-based education with a decent diagram that is self-explanatory. It is education in which an emphasis is placed on a clearly articulated idea of what students are likely to know and do. That is, what tools and information will

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they required when they have authority over school system. It is sometimes also called “Performance-based education” and is an effort to measure educational efficiency based on outcomes rather than on inputs such as time students spend in class.

### Higher Education

Higher education is very essential for any society. The value of higher education decides the quality of human possessions in a country. Higher education includes college and university teaching and learning processes towards which students aim to achieve their higher educational qualifications. Higher education reports in-depth knowledge and understanding to advance the students to new limits of knowledge. It also provides opportunities for lifelong learning, permitting people to upgrade their information and skills from time to time based on societal needs.

### Engineering Professionals

An engineering professional is an engineer qualified by a state board of registration to practice engineering. The engineering professionals’ authorization is the engineering profession's highest standard of ability, a symbol of achievement and a declaration of quality.

### Review of related literature

According to McNeir (1993), Outcome Based Education “requires the outcomes the students should be able to establish upon leaving the system. Outcome-Based Education focuses educational exercise on ensuring that students master those outcomes and it emphasises that all students can succeed.” Davis (2003) and Caguimbal et al. (2013) stated that Outcome-Based Education is an approach to education in which decisions about the curriculum are driven by the exit learning outcomes displayed by the students at the end of each course. Outcome-Based Education principles outlined by William Spady. As early as the 1980s, outcome-based education is functional to create a competitive advantage among countries in the international field (Borsoto et al., 2014). As detailed by Tucker (2014), Outcome Based Education is a procedure that involves writing a response in education to imitate the achievement of high order learning and command rather than the accretion of course credits.

Harden (2002). Outcome-based education philosophy identifies the need to involve the entire education community in determining what students need to learn and then doing whatever is necessary and reasonable to be confident that each student does learn (Rogers & Dana, 1995). The implication is that outcome-based education leads to educational modification, which is supported by Tucker (2014), who points out that OBE is a process that involves the restructuring of curriculum, assessment and reporting practices in teaching to reflect the achievement of high order learning and command rather than the accumulation of course credits. Learning outcomes and 'outcomes-based approaches,' according to Adam (2004), have significance for curriculum design, teaching, learning, assessment, and quality declaration.

### The Method and sample

The Normative Survey method was used to collect data from the selected sample. The sample for the present study consisted of 80 Engineering Faculties.

### Tools used for the study

In order to assess the outcome-based education (OBE) for engineering faculties at higher education level. The following tools were used.

Scale on “Outcome Based Education” in Higher Education level by Rhaffor (2017) was adopted.

### Construction of an outcome-based education scale

After consulting with the research supervisor and other experts, the investigator constructed the Outcome Based Education Scale for Engineering Faculties. The draft tool had 30 items initially. After the experts' suggestions, the drafted tool was modified, and it consisted of 26 items. The tool was arranged on a Five-point rating scale with the options, ‘Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree’.

### Pilot study

The tool was administered to 80 Engineering Faculties. The researcher gave necessary instructions to the faculties while administering the tool and 30 minutes was given to the faculties to complete it.

## Item analysis

The responses of the engineering faculties were collected, and the scores were computed. Items with ‘ $\gamma$ ’ value less than 0.9 were rejected, and the other items with a value greater than 0.9 were selected. The total tool consisted of 26 items.



**Table 1**  
**Analysis of Outcome-Based Education Scale for Engineering Faculties**

Item No	Item	‘ $\gamma$ ’ Value	Remarks
1	Teacher are briefed on Outcome Based Education (OBE) approach during Orientation Week (before course commencement).	0.945	Selected
2	I am aware of the assessment criteria my lecturers use to assess students in class	0.728	Not Selected
3	Teachers are explained the Course Learning Outcomes (CLOs) of the courses (before course commencement).	0.928	Selected
4	Information on OBE is accessible to everyone in my University/Institute.	0.934	Selected
5	Teachers put efforts to improve their teaching methods for an effective OBE system.	0.978	Selected
6	Teachers work hard to ensure all students attain the learning outcomes of their courses.	0.967	Selected
7	I fully understand the relationship between assessments and the attainment of learning outcomes	0.767	Not Selected
8	I believe that understanding the Course Learning Outcomes (CLOs) help me to do better in my assessments	0.927	Selected
9	I am aware of the assessment criteria being used to assess students in class	0.928	Selected
10	I understand the relationship between assessments (quizzes, tests, practical, assignment, final exam, etc.) and the attainment of learning outcomes	0.932	Selected
11	Students are encouraged to think independently in solving problems and self-managed learning in OBE system	0.964	Selected
12	Students have the opportunity to demonstrate their communication skills during classes	0.987	Selected
13	Students debate, discuss and reflect in the class by their own judgment and interpretation	0.921	Selected
14	The teaching methods enhance students critical thinking skills in OBE system	0.93	Selected
15	My lecturers teaching methods enhances my critical thinking skills	0.729	Not Selected
16	Students are exposed to the case studies or real practice in industries in the class learning and teaching activities in OBE system	0.912	Selected
17	The stated learning outcomes for every course have a valuable relationship with their assessments	0.929	Selected
18	Class room activities have a clear relationship with course assessment	0.977	Selected
19	The stated learning outcomes are clear and understandable to students for completing their tasks/assignments	0.926	Selected
20	The stated learning outcomes are clear and understandable for teachers to assess and measure students? performances	0.954	Selected
21	Assessment techniques for any course is aligned with stated learning outcomes	0.901	Selected
22	I am aware of the methods used to measure programmes learning outcomes	0.737	Not Selected
23	Assessment practices contribute to students? achievements throughout the course	0.985	Selected
24	Assessment and measurement activities are well prepared and executed by teachers	0.962	Selected
25	Assessment tasks are fair and appropriate for students	0.932	Selected
26	Assessments to enable students to achieve the stated course learning outcomes	0.911	Selected
27	Assessment workload on students is reasonable throughout the course	0.968	Selected
28	Students to enjoy doing assessments in Outcome Based Education (OBE) programmes	0.921	Selected
29	Teachers to enjoy conducting assessments in Outcome Based Education (OBE) programmes	0.966	Selected
30	OBE gives opportunity to teachers for thinking out of box and conducting non-traditional/innovative assessments	0.981	Selected

In this scale four statements were deleted and the final tool contained 26 statements.

### Validity

Validity refers to the degree to which a test measures the same thing for which it is made. According to Anastasi (1968), the validity of a test is determined by what it measures and how well it measures it. Face validity exists for a measure measuring attitudes toward gender equality. The test items were modified according to the suggestions given by the subject experts. The content validity shows that the content of a test tool used in the current study is possessed by content validity. To establish the truth of the prepared instrument, the researcher submitted the draft tool to the experts in education for suggestions and modifications. The researcher carried out the experts' recommendations for modification of the device for better clarity. Thus, the validity of the device is established.

### Reliability

The tool's reliability was determined using the split-half method. For computing the split-half method, the entire tool was divided into two halves, and the reliability coefficient was calculated. A Cronbach's  $\alpha$  analysis was calculated for each component of this scale. Cronbach's alpha coefficient could be used to see if the items were internally consistent, stable, and homogeneous. Some unsuitable items would be removed to improve reliability and reduce error. The details are given in table 2.

**Table 2**  
**Reliability Value of Outcome-Based Education Scale**

Scale	Method	Reliability Value ( $\alpha$ )
Outcome-Based Education Scale	Split half method	0.891
	Cronbach's Alpha	0.928

Reliability of the tool was also established using Cronbach's Alpha method. The Reliability value was found to be 0.928. Thus, the Reliability of the tool is ensured.



### Scoring

Scoring is done as per the scoring procedure given below.

Options	Marks
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

### Conclusion

The Present study was to construct and validate a scale on outcome-based education at a higher education level for engineering professionals. The tool was subjected to item analysis. The tool was validated by computing its reliability and validity. The scale's reliability was determined through the split-half method (0.891), and Cronbach's alpha method (0.928), respectively.

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# A RELATIONAL STUDY ON MENTAL STRESS AND SUICIDAL IDEATION AMONG ADOLESCENT STUDENTS

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## ABSTRACT

*This research paper studies the significance of the difference in the relationship between mental stress and suicidal ideation among adolescent students regarding the variables, namely, gender, locality of living, management, and stream of study. The sample consists of 250 adolescent students from Vijayawada city in A.P. The investigators used the normative survey method and data for this study. A measure of the mental stress scale of Trusha S. Koradiya (2018) and the Suicide Ideation Scale by Devendra Singh Sisodiya & Vibhuti Bhatnagar (2012) were employed in this investigation. The findings showed a significant positive correlation between mental stress and suicidal ideation among adolescent students.*

*Gender and locality of teenage students do not differ significantly on their relationship between mental stress and suicidal ideation. In contrast, their engagement and the academic stream differ significantly between mental stress suicidal ideation.*

**Keywords:** *Mental Stress, Suicidal ideation and Adolescent students*

## Introduction

Studies on stress and suicidal tendencies are of great importance in the present age and have become an essential topic in academic circles. Such research has attracted the attention of behavioural scientists to explore latent factors that contribute to the growing trend of suicidal ideation. Students experience the effects of stress in difficult and damaging ways. Some of the results are depression, general fatigue, and aggression. Various studies showed that stress and anxiety during adolescence could also harm health. Stress physically affects the human body and can also be detrimental to a person's mental well-being. The stress level also affects the students academically and can drastically change the way a person thinks and acts during school or at a social gathering. Banerjee said 25,000 students in which a large group of 18 to 20-year-old tend to commit suicide during exam month every year. Some scholars have argued that there is a strong connection between self-destructive practices in children and adolescents beyond expectations at school. Their research showed that children and adolescents were more likely to commit suicides due to extreme stress at school. The pressure of scholars on students has been questioned for some time. A high number of appointments, hostility

with different students, frustrations, and low affiliation with different students or teachers can cause stress. Students similarly face stress because of the impression of a broader learning base and shorter time required. Sulaiman et al. (2009) found that 'Girls experience stress differently than boys because girls are more expressive and sensitive to what is happening in their environment'. Augustine, Shahnaz, Sylvia, and Madhavan (2011) conducted stress studies in India to learn about students' levels of stress and identify if any institution-specific differences in stress assessment and coping are prevailing. The results showed that students from both schools have similar stress awareness. Over the years, those who constantly pressure the students in any form of increased amounts of stress, highly competitive environment, parental pressure, heavy expectation on students, and career-related worries have been

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bombarded. These pressures have a huge impact on the lives of students in a very miserable state. And unable to live up to such demands and expectations often lead to suicidal feelings in students.

### Significance of the Study

Suicidal tendencies are on the rise around the world. In developing countries like India, these trends are mainly in adolescents and youth. The suicide rate among teenagers has reached alarming levels, and it is very necessary to address this issue. Educational stress, financial problems, family issues, professional issues, broken marriages, teenage love, divorce, etc., can lead to suicide. Young people need to understand the factors that make them make serious decisions.

Usually, emotionally charged teenagers act suddenly. Unfortunately, many of the entertainment programs available in the mass media are teenagers resorting to suicide. The instant news coverage facility currently available is also adding fuel to the fires. Social media is also leveraging its power by spreading the rare events of extreme action quickly with lightning speed to the nucleus and corner of the globe. The nuclear family system that follows, working parents, isolated life, etc. have created an emptiness in the social world of individuals. Do research results suggest that while suicides occur worldwide, they still affect people irrespective of their nations, different cultures, various religions, genders, and classes? Statistical results show that the countries with the highest suicide rates are diverse. India ranks 21st among the world suicide rate and this is very worrying. It has also been suggested that stress is one of the main factors that compel people to commit suicide. Women are considered to be the most vulnerable section of society. Therefore, a relational study on stress and suicidal tendencies go a long way in revealing the facts behind the tendencies. This study provides needed feedback for teachers and sociologists to plan and implement relevant interventions to contain such trends. It helps to make parents more sensitive. Last but not least study strengthens women's empowerment programs.

### Review of Related Literature

Trusha S. Koradiya's (2018) found that gender,

locality, financial situation, mother's educational level, and father's educational level of high school students make a significant difference in their mental stress. Gender and stream of education of high school students make no significant difference in their suicidal tendency, while locality, financial situation, and mother's educational level of high school students make a significant difference in their suicidal tendency.

### Statement of the Problem

The title of the current problem is "A Relational Study on Mental Stress and Suicidal Ideation among Adolescent Students".

### Objectives of the Study

1. To study the relationship between mental stress and suicidal ideation among adolescent students
2. To find out the significance of difference in the relationship between mental stress and suicidal ideation among adolescent students with reference to the variables, namely, gender, locality of living, management and academic stream

### Hypotheses

1. There would be significant relationship between mental stress and suicidal ideation among adolescents
2. There would be significant relationship between mental stress and suicidal ideation among adolescents due to variation in (a) Gender (b) locality (c) management (d) academic stream

### Limitations of the Study

1. The geographical area is limited to the Vijayawada city of Andhra Pradesh
2. This current study focuses only on variables, namely, gender, locality management and academic stream.
3. The sample size is limited to 250 intermediate adolescent students.

### Methodology

#### Sample

First, the researcher prepared a list indicating the

names of intermediate colleges in Vijayawada city of Krishna district of Andhra Pradesh. To fulfil the sample requirement, 2 colleges from a rural area and 2 colleges from an urban area were randomly selected. Survey method was adopted to collect the sample for the present study, the sample found at the end is 250 adolescent students between the ages of 16 to 18years.

### Tools Used

1. The Suicidal Ideation Scale by Devendra Singh Sisodiya and Vibhuti Bhatnagar (2012) was used in this study.
2. A Measurement of Mental Stress Scale by Trusha S. Koradiya (2018) was used in this study.

### Statistical Techniques used

Suitable statistical techniques, viz., Karl Pearson Product moment correlation coefficient (r) and Critical ratio were used for the analysis of data.

### Data Analysis

To test the validity of hypotheses, coefficients of correlation between mental stress and suicidal ideation of adolescent students of the two subgroups were calculated for each variable. These values were converted to Fisher Z coefficients (Garret H. E., 2006, Statistics in Psychology and Education, pp. 241-242). Critical Ratio was calculated as suggested by Garret H. E. The data are tabulated as follows.

**Table 1**

### Coefficient of Correlation between Mental Stress and Suicidal Ideation – ‘ $\gamma$ ’-Value

Variables	N	Df = N-2	r- value
Mental stress	250	df = (250-2) = 248	0.400***
Suicidal Ideation			

\*\*Significant at 0.01 level

From table 1, the obtained ‘ $\gamma$ ’ value of 0.400 for df = 248 is greater than 0.148. It is significant at 0.01 level. Therefore the formulated null hypothesis is rejected. Hence, it can be observed that there is a significant positive correlation between mental stress and suicidal ideation among adolescent students.

**Table 2**  
**Difference in the Relationship between Mental Stress and Suicidal Ideation among Adolescent Students–Gender, - r, Fisher Z - C.R.**



Gender	N	r	Z	D <sub>z</sub>	$\frac{\sigma}{D} z$	C.R.	Re marks
Male	123	0.45	0.48	0.13	0.12	1.08#	NS @ 0.05
Female	127	0.34	0.35				

From table 2, the calculated critical ratio value (1.08) is not significant at 0.05 level. Therefore, the formulated null hypothesis is accepted. Hence, the gender of adolescent students does not differ significantly on their relationship between mental stress and suicidal ideation.

**Table 3**

### Difference in the Relationship between Mental Stress and Suicidal Ideation among Adolescent Students - Locality - r, Fisher Z - C.R.

Locality of living	N	r	Z	D <sub>z</sub>	$\frac{\sigma}{D} z$	C.R.	Re marks
Rural	111	0.41	0.44	0.04	0.13	0.30#	NS @ 0.05
Urban	139	0.38	0.4				

From table 3, the calculated critical ratio value (0.30) is not significant at 0.05 level. Therefore, the formulated null hypothesis is accepted. Hence, the locality of adolescent students does not differ significantly on the relationship between mental stress and suicidal ideation.

**Table 4**

### Difference in the Relationship between Mental Stress and Suicidal Ideation among Adolescent Students- Management-r, Fisher Z - C.R.

Type of management	N	r	Z	D <sub>z</sub>	$\frac{\sigma}{D} z$	C.R.	Re marks
Govt. 8th class	104	0.42	0.45	0.28	0.13	2.15*	Sig. @ 0.05
Private 9th class	146	0.17	0.17				

From table 4, the calculated critical ratio value (2.15) is significant at 0.05 level. Therefore, the formulated null hypothesis is rejected. Hence, the adolescents studying in government and private colleges differ significantly in their relationship between mental stress and suicidal ideation.

**Table 5**

**Differences in the Relationship between Mental Stress and Suicidal Ideation among Adolescent Students-Academic stream-r, Fisher Z - C.R.**

Academic stream	N	r	Z	D <sub>z</sub>	$\frac{\sigma}{D} z$	C.R.	Re marks
Science 8th class	138	0.39	0.41	0.26	0.13	2.00*	Sig. @ 0.05
Arts 9th class	112	0.15	0.15				

From table 5, the calculated critical ratio value (2.00) is significant at 0.05 level. Therefore, the formulated null hypothesis is rejected. Hence, science and arts adolescents differ significantly between mental stress and suicidal ideation.

**Major Findings of Study**

1. A significant positive correlation is observed between mental stress and suicidal ideation among adolescent students.
2. Male and female adolescent students do not differ significantly in their relationship between mental stress suicidal ideation.
3. Rural and urban adolescent students do not differ significantly in their relationship between mental stress suicidal ideation.
4. Government and Private adolescent students differ significantly on their relationship between mental stress suicidal ideation.
5. Science and arts adolescent students differ significantly on their relationship between mental stress suicidal ideation.

**Recommendations for Further Studies**

1. Case studies may be conducted involving the individuals who attempted suicide to obtain more relevant information.
2. The home conditions of the students are to be probed to identify the specific home-related factors which lead to suicides.
3. Studies on child-parent relations and teacher-student relations also help single out threatening causes.
4. The influence of mass media on suicidal tendencies can be studied.
5. Future studies must focus on the needs of adolescents as per the changing times and identify them so that

more appropriate educational programmes can be developed.



**Conclusion**

Studies on stress and suicidal tendencies are of great importance in the present age and have become an important topic in academic circles. The single threatening problem faced by developing countries is the suicidal acts of adolescents. Though the reasons or causes appear silly on the face, the truth is much deeper. Hence there is a need to conduct serious studies to identify the specific causes responsible for suicides and take up remedial measures. It is necessary to strengthen the students' psyche to stand stress and overcome hurdles courageously. With this, a humble attempt has been made here to understand the relationship between mental stress and suicidal ideation among adolescent students in Vijayawada city of Andhra Pradesh. This study concluded that adolescent students do not significantly affect the relationship between mental stress, suicidal ideation about gender, and locale. It is noted that management type and academic stream differed significantly on the relationship between adolescents' mental stress and suicidal ideation. It is believed that this attempt paves the way to formulate better stress coping mechanisms to help adolescent students.

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