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## JOURNAL OF STRIDES IN EDUCATION

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## Volume 1 Issue 2 Dec 2022-Apr 2023

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## EDITORIAL

Dear Readers,

JOURNAL OF STRIDES IN EDUCATION (JSE), a biannual, peer-reviewed interdisciplinary journal published by SNM Training College, Moothakunnam highlighting research papers in the realm of education. SNMTC has nurtured bright academics in its scholastic efforts and has produced noteworthy contributions addressing the changing needs of the teaching-learning process. Research seeds a knowledgeable society where creativity and innovation must be explored. Our journal always tries to entwine novel and constructive thoughts through research papers. It's our privilege to introduce this e-journal that intends to provide an opening for brilliant scholars to showcase their research outcomes. This issue of JSE presents six thematic and research papers on diverse themes under Education, Humanities, and social sciences. All articles are shaped with remarkable efforts and offer valuable insights to the reader. We sincerely hope that this research exposition on innovative trends would add worth to the emerging trends in higher education. We are hopeful that this issue will provide some insights to the research scholars as well as our readers.

With warm and kind regards.

Editorial Board

## ABOUT THE JOURNAL

JOURNAL OF STRIDES IN EDUCATION (JSE), a biannual, peer-reviewed interdisciplinary journal published by SNM Training College, Moothakunnam highlights research in the broad area of education. Original contributions, as well as review articles in important areas of Education, Humanities, and Social sciences, that contribute to the development of knowledge across the broad field of education, are relevant to this journal. The Journal started in 2022 and is published twice a year. One issue is from May to November, and another issue is from December to April.

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## JOURNAL DETAILS:

# Effectiveness of an Intervention Strategy during Pandemic Time on Academic Stress and Stress Tolerance of B. Ed Students

Amritha Krishna

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#### Abstract

The COVID-19 pandemic, a disease caused by Sars-CoV-2, has become a global stressor, as it represents a new viral infection that spreads quickly and easily, without prior knowledge about vaccination and the absence of medication against the disease. The investigator analyzed the outcomes of online education during COVID-19 based on the reflections of B. Ed students. A sample of 50 respondents from the Ernakulam district was chosen for the study. The tools used for primary data Academic stress scale and Stress tolerance scale prepared and standardized by the investigator. The percentage analysis method was used for analysis. The study reveals that online education during the COVID-19 pandemic time was really stressful for students. *Keywords*: intervention strategy, academic stress, stress tolerance, B. Ed. students

## Introduction

Education is considered the most effective instrument or tool for social reconstruction and empowerment of people by imparting knowledge and skills. Education is a key factor for creating an informed citizen, capable of setting agenda for good governance, progress, and harmonious socio-economic life. Hence, Academic Stress is an important factor for variation in academic success. Academic stress amongst B.Ed. teacher trainees causes problems of adjustment in their teaching career. In the academic stress of teacher trainees their personal shortfall. disappointment, interpersonal problems with teachers, teacher-pupil relationship/teaching methods, and insufficient study facilities were assessed. The present study has been undertaken to understand the effectiveness of an intervention strategy during the COVID-19 pandemic time on Academic stress and Stress tolerance of B. Ed students.

#### Need and Significance of the Study

Academic stress is at its peak among B. Ed students. The real pleasure of teaching is being neglected and teacher trainees approach the program with high anxiety and stress which may reduce their ability. One of the most important aspects of teacher education is to make the teachers psychologically sound person. A teacher should foster several psychological and social qualities to handle the next generation of students in a proper manner. But in the present pandemic situation, most of the students are suffering from a lot of psychological and social problems. Everyone daily faces stress and anxiety. The main goal of every individual is to obtain happiness in life. Academic stress is one of the most common psychological issues seen in school and college students. One of the ways students can manage academic stress is to study in a group. Studying in groups allows students to clarify their doubts with their peers swiftly. In addition, the presence of their friends helps to give students a psychological boost in times of stress. But the COVID-19 pandemic time paved the way for more stress among students. So, the researcher decided to study the academic stress that B. Ed students have to face during this pandemic time and to understand more about the effectiveness of stress coping strategies to overcome their academic stress and stress tolerance.

## **Statement of the Problem**

The study is entitled "Effectiveness of an Intervention Strategy during Pandemic Time on Academic Stress and Stress Tolerance of B. Ed Students"

## **Objectives of the Study**

- To compare the significant difference in the mean pre and post-test scores of academic stress of B. Ed students before and after the administration of the Intervention strategy during the pandemic time.
- To compare the significant difference in the mean pre and post-test scores of stress tolerance of B. Ed students before and after the administration of the Intervention strategy during the pandemic time.

## **Review of Literature**

Mosanya (2020) carried out a study on academic stress during the COVID-19 pandemicrelated social isolation and the grit and growth mindset as protective factors against the impact of loneliness. The study explored whether some constructs such as a growth mindset or grit could constitute protective factors against the academic stress associated with loneliness and perceived lack of control among international students during social isolation, induced by COVID-19 restrictions. The survey was conducted among 170 international students.

Brophy (2017) conducted a quantitative study on the association between stress tolerance and exercise habits among students enrolled in a college of health professions program. This study found that there was not a significant relationship between stress tolerance ratios and regular exercise. This study was a quantitative cross-sectional design through a survey distributed via email to undergraduate and graduate students enrolled in Midwestern

University's College of Health profession.

#### **Research Methodology**

Research methodology is the specific procedures used to identify, process, and analyze information scientifically. The present study aims to find out the effectiveness of a stresscoping intervention strategy to reduce Academic stress and enhance the Stress tolerance of B. Ed students during the COVID-19 pandemic situation. Therefore, the investigator has selected an experimental method for the present study. Single group experimental design was found appropriate for the study. The experimental group was treated with a stress-coping intervention strategy. Stratified random sampling was used to select a sample of 50 B. Ed students from Ernakulam district. One B. Ed College was selected to conduct the experiment among the firstyear B. Ed students. For the collection of data, the present study made use of one classroom group, an experimental group of B. Ed students of two training colleges, comprising 50 students.

## **Data Analysis and Interpretations**

The investigator analyzed the outcomes of Academic stress and stress tolerance during COVID-19 based on the reflection of B. Ed students which is presented below

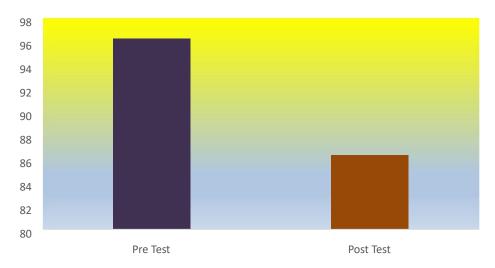
## Table 1

Comparison of Mean Scores of Pre-test and Post-test Scores of Academic Stress of B. Ed Students

Test	Ν	Mean	SD	t-value
Pre-test	50	96.24	3.23	4.24**
Post-test	50	86.34	3.92	

## Figure 1

Graphical Representation Showing the Comparison of Mean Scores of Pre-test and Post-test Scores of Academic Stress Before and After the Administration of Intervention Strategy of B. Ed Students



From Table 1, it is clear that the obtained t value (t = 4.24, p < .01) is significant at a .01 level of significance. It indicates that there exists a significant difference in the mean scores of pretest and post-test scores of Academic Stress of B. Ed students during the pandemic time. Hence Hypothesis H0 is rejected. The mean scores of pre-test scores of Academic Stress of B. Ed students before the administration of the Intervention Strategy (M = 96.24) is comparatively higher than that of post-test scores of Academic Stress of B. Ed students after the administration of the Intervention Strategy (M = 86.34). Hence it can be concluded that the Intervention Strategy is effective in reducing the Academic Stress of B. Ed students during the pandemic time.

## Table2

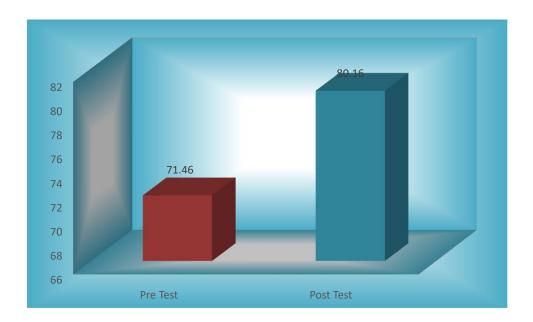
Comparison of Mean Scores of Pre-test and Post-test Scores of Stress Tolerance of B. Ed

Test	Ν	Mean	SD	t-value
Pre Test	50	71.46	2.32	3.15**
Post Test	50	80.16	2.92	

Students

## Figure 2

Graphical Representation Showing the Comparison of Mean Scores of Pre-test and Post-test Scores of Stress Tolerance Before and After the Administration of Intervention Strategy of B. Ed Students



From Table 2, it is clear that the obtained t value (t = 3.15, p < .01) is significant at .01 level of significance. It indicates that there exists a significant difference in the mean scores of pretest and post-test scores of Stress Tolerance of B. Ed students during the pandemic time. Hence Hypothesis H0 is rejected. The mean scores of pre-test scores of Stress Tolerance of B. Ed students before the administration of the Intervention Strategy (M = 71.46) is comparatively smaller than that of post-test scores of Stress Tolerance of B. Ed students after the administration of the Intervention Strategy (M = 80.16). Hence it can be concluded that the Intervention Strategy is effective in enhancing the Stress Tolerance of B. Ed students during the pandemic time.

## Findings

• The mean of pre-test scores of Academic Stress of B. Ed students before the administration of the Intervention Strategy (M = 96.24) is comparatively higher than that of post-test scores of Academic Stress of B. Ed. students after the administration of

Intervention Strategy (M = 86.34). Hence it can be concluded that the Intervention Strategy is effective in reducing the Academic Stress of B. Ed students during the pandemic time.

• The mean scores of pre-test scores of Stress Tolerance of B. Ed students before the administration of the Intervention Strategy (M = 71.46) is comparatively smaller than that of post-test scores of Stress Tolerance of B. Ed. students after the administration of Intervention Strategy (M = 80.16). Hence it can be concluded that the Intervention Strategy is effective in enhancing the Stress Tolerance of B. Ed students during the pandemic time.

## Conclusion

- The major findings of the study revealed that the Stress coping Intervention strategy is effective in reducing the Academic stress of B. Ed students. Pupils taught through Stress coping Intervention Strategy were found stress free and more productive. Hence teachers must be encouraged to apply this method while teaching.
- The all-around development of the learner is considered as the basic aim of all educational systems. Development is not possible without the transfer of learning and application of new knowledge in a real-life situation. Stress coping Intervention Strategy provided higher development in the application domain. Hence, the Stress coping Intervention strategy is more helpful for that.
- Effective learning occurs when students are actively involved in learning, rather than being passive recipients of the teacher-delivered quantum of knowledge. Stress coping Intervention Strategy offers a platform for effective learning with maximum participation of students in the learning situation by providing different collaborative learning situations.

Teacher training institutions must change their approach to education to produce students who can thrive in the modern world. In short Stress, Coping Intervention Strategy creates meaningful learning and active learners. Hence it is critically important for the B. Ed students to be exposed to Stress coping Intervention Strategy which enables them to connect classroom practices with the real world

#### Reference

- Ahmed, A. (2021). Case study: Academic stress during pandemic time. [Doctoral Thesis]. www.shodganga.org.
- Ang, R. P., & Huan, V. S. (2006). Relationship between academic stress and suicidal ideation: Testing for depression as a mediator using multiple regression. [Doctoral Thesis]. www.shodganga.org.
- Dev, S. (2018). Effects of procrastination behaviour, stress tolerance and study habits on academic achievements of Indian students residing in India (Kerala) and UAE. [Doctoral Thesis]. www.learntechlib.org.
- Flores, A., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: National, institutional and pedagogical responses. [Doctoral Thesis]. www.researchgate.net.
- Welle, P. D., & Graf, H. M. (2013). Effective lifestyle habits and coping strategies for stress tolerance among college students. [Doctoral Thesis]. www.ed.gov
- Yunus, M., Setyosari, P., Utaya, S., &Kuswandi, D. (2021). Influence of online project collaborative learning and achievement motivation on problem-solving ability. [Doctoral Thesis]. www.ed.gov

# Martin Buber's I and Thou- A Dialogical Relationship with Teacher and Student in Standard IX English Textbook.

Jismi Joy

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## Abstract

The present study emphasizes Buber's thoughts related to the dialogical relationship between the teacher and student and how much his thoughts are coming in the present IX standard Kerala state English textbook. The Kerala state English textbook includes fiction, prose, short stories, anecdotes, and essays which are very helpful for the application of the relationship between teacher and student. English subject is more helpful to apply and teaches valuable thoughts. It is a better way to convey his concept to students. A good relationship between teacher and student is mandatory. It is necessary to make insights on values in students by their interesting subject. Not many studies were included on the basis of Buber's theory. For this study, the IX standard Kerala state English textbook has been taken as the representation of the secondary school. The researcher trying to prove that, how much Buber's dialogical relationship between teacher and student is reflected in the IX Standard English textbook. *Keywords:* dialogical, fiction, philosopher, Buber's

## Introduction

Buber was a Jewish philosopher born in Vienna, Austria in 1878. He is widely regarded as an influential Jewish intellectual of his generation. He worked in many fields but he is known for his philosophy of dialogue ("I and Thou"), where he defines the human individual in terms of relationships. He taught from 1938 at the Hebrew University in Jerusalem, retiring in 1951. In the latter part of his life, he received many awards, including the peace prize of the German book trade, the Israel prize in the humanities, and the Erasmus prize. Buber died in Jerusalem at the age of 87. "I and Thou" (Ich Und Du) is one of the best-known works by Buber which presents two fundamental orientations –relation and irrelation. Buber was both a great teacher and a significant thinker about education. In this study, the researcher trying to prove that, the

Kerala state English textbook of standard IX is reflecting the dialogical philosophy of Buber through various stories, poems, plays, etc. which provides a good platform for teaching values. **Need and Significance of the Study** 

The present study emphasizes Buber's thoughts related to the dialogical relationship between the teacher and student and how much his thoughts are coming in the present standard IX Kerala state English textbook. The Kerala state English textbook includes fiction, prose, short stories, anecdotes, essays, etc which are very helpful for the application of the relationship between teacher and student. English subject is more helpful to apply and teaches valuable thoughts. It is a better way to convey his concept to students. A good relationship between teacher and student is mandatory. It is necessary to make insights on values in students by their interesting subject. Buber's thoughts are very relevant to our present situation. Not many studies were included on the basis of Buber's theory. For this study, the IX standard Kerala state English textbook has been taken as the representation of the secondary school. The researcher trying to prove that, how much Buber's dialogical relationship between teacher and student is reflected in IX Standard English textbook.

## Statement of the Problem

The study is entitled as "Buber's I and Thou- A Dialogical Relationship with Teacher and Student in Kerala state Standard IX English Textbook. It analyses Buber's philosophy of dialogue through various stories, poems, plays, etc of the English textbook of standard IX to find out how much it is helpful to motivate and influence our children in their personal life.

## **Objectives of the Study**

- To identify how much Kerala state English textbook is playing a vital role in reflecting Buber's view of the dialogical relationship between teacher and student.
- To find out the extent of use of Buber's I and Thou concept in Kerala state English textbook of standard IX.

## **Review of Literature**

Gorzna (2014) conducted an analytical study on Buber – the Father of the Philosophy of Dialogue in which they claim that dialogue is a conversation and a necessity to listen to the other. The 20<sup>th</sup> century changed the approach to dialogue due to the philosophy of dialogue discussed in this study. Its creator Buber indicated that a real discovery of a true 'I' lies in the encounter with 'You', and 'I' does not exist without a relation with 'You'. Man can enter into a monologue relation from reality 'I', in which there is a lack of dialogue, or in a dialogue relation 'I-You'. Whatever occurs between people is a sphere of mutual foundations of dialogism.

Smith (2019) conducted a study on Buber on Education. The aim of the study was to reveal that Buber's writings are not the easiest to approach, but his explorations of being, encounter, dialogue, and community have profound implications for educators at least for those who seek genuine relationships. Such educators need to find and guard the narrow ridge. The narrow ridge is the meeting place of the We'.

## **Research Methodology**

The investigator has attempted an analytical method to study Buber's I and Thou - A dialogical relationship with teacher and student reflected in IX Standard English textbook. For the present study, the investigator developed criteria as a tool for a qualitative study. The criteria are fixed in consultation with the panel of experts by referring to materials, journals, books, articles, online sites, and reference books. Criteria were fixed under five major areas for analyzing the ideology of Buber with the Kerala state English textbook of standard IX. The criteria and subcriteria are given below.

1 Buber's Views on I and Thou

- I-Thou
- I-It
- 2. Educational Thoughts of Buber
  - Concept and Nature of Buber

- Buber's Views on Inclusion in Education
- 3. Dialogue and its Role in Education
  - Buber's Philosophy of Dialogue in the Relationship of Teacher and Student.
  - A Dialogical Relation with Teacher and Student Through I and Thou concept of Buber

## 4. A Bond between Teacher and Student

- Teacher's Role in the Learning Process of a Child on Buber's View.
- The Influence of a Teacher in the Life of a Child on Buber's View.
- A Real Teacher on Buber's View.
- 5. Kerala State English Textbook of Standard IX
  - A Positive Influence of English Text Books in the Concept of Dialogical Relationships.
  - Teacher-Student Related Topics in English Textbook of Standard IX.

## Analysis of Buber's 'I and Thou' with Kerala State English Textbook Standard IX

## Song of a Dream by Sarojini Naidu

First, the researcher is trying to connect the poem called Song of a Dream with Buber's concept of 'I and Thou'. It is a poem written by Naidu. The poem is about the poet's great desire to make a peaceful and harmonious coexistence of all human beings in the world by creating a heaven-like perfect place. Here, the researcher can see Buber's ideology of 'I and Thou'. He also likes to create heaven perfect place where everyone lives harmoniously as a single but great human family.

## The Happiness Machine by Ray Douglas Bradbury

According to Buber, a genuine relationship makes everyone happy. Here, in the story, the protagonist Leo Auffmann tries to make a happiness machine for his family but no one is satisfied with it even his family. The researcher can connect it with Buber's concept of I-It

here, the protagonist considers his family as I-It. Finally, he realized his faults and changed his mind about the dialogical relationship and started to concern them as I-Thou way of Buber.

## Maternity by LilikaNakos

In the story —Maternity, Mikali is one of the refugees staying in France who ran away from America fearing racism. The China man in the story Maternity has this precious quality that separated him from the Armenian and Anatolian refugees. He and his wife are courteous, polite, and benevolent toward the siblings. When the Armenians and the Anatolians are unsympathetic toward Mikali, we can connect with Buber's concept of - 'I and thou'. He investigates both society itself and man as he exists within society. In this section, Buber claims that modern society leaves man unfulfilled and alienated because it acknowledges only one of our modes of engaging the world. Compassion is a good quality that the world is slowly losing its grip on. Consoling people of their misfortunes is a significant thing that all of us should develop.

## Analysis of Buber's Philosophy of Dialogue in the Relationship of Teacher and Student.

## The Race

The researcher can see the teacher-student relationship in the story—The Race by the characters Tarun and Ran Narayan. Ram Narayan, his trainer shows his kind on Tarun. He made communication with this child well. It was a genuine dialogue according to Buber. He enquired about his problems and tried to find out a better solution for him. He encouraged him well and offered a great opportunity before him. Ram Narayan is a great teacher before Tarun. The researcher can see the philosophy of dialogue by Buber in this relationship of teacher and student.

## Learning the Game

Tendulkar and his teacher's relationship can see in this lesson —learning the game. Tendulkar loves his teacher Achrekar sir and expressed his gratitude by saying that Guru is the one who removes the darkness of ignorance in the student he played a fundamental role in nurturing talent of Tendulkar. He encouraged him a lot in his career too. He would say that cricket was

waiting for him at the nets and that he should practice hard to see what magic can transpire. He assisted him to achieve his goals and dreams. He influenced him a lot especially helps in moulding his talents.

## Tolstoy Farm by Mahatma Gandhi

Gandhiji was genuine to his children as a teacher. His major intention in providing education was to build good character in young minds. Gandhiji believed in teachers having freedom in curriculum matters. He was against the idea of the teacher having a prescribed job based on what the authorities wanted the curriculum to learn, and he was against prescribed textbooks because a teacher who taught from a textbook did not impart originality to his pupil a teacherstudent relationship is the backbone of a country strong he made his children like activity centered with skilled and independent. The relationship between a teacher and student must be warm, accessible, enthusiastic, and caring. The teacher should be approachable and must create the freedom to share any problem with their teacher. A teacher must create strong communication with his students. This helps students to make self-esteem in him. The students in Tolstoy Farm were able to convey their emotions to their teachers very freely.

## Findings

- The investigator went through the philosophy of Buber with his work 'I and Thou' and Kerala state IX standard English textbook. The analysis reveals the following findings;
- The stories, poems, and autobiographies in the English textbook clearly reflected the dialogical Philosophy of Buber through the teacher-student characters.
- The English textbook contains comprehensive information not only for his cognitive development but also for overall development.
- The new concept of I-Thou by Buber was clearly reflected in the various characters presented in the stories, autobiographies, and poems in the standard IX English textbook.
- The strong personal connection of a student to his teacher helped to promote his or her desire to learn.
- The teacher-student-related topics included in the Kerala state standard IX English textbook helped to inspire the learners well.

- Improving a student's relationship with his teacher is an important thing. It is affecting positively their academic and social development.
- The positive and supportive relationship with their teachers can attain higher levels of achievement in their life.
- The lessons in the Kerala state English textbook were prepared based on children's interests, needs, and environment.

## Conclusion

The Kerala state English textbook of IX standard consists of fiction, autobiographies, plays stories, narratives, speech, poems, etc which is a meaningful, interesting, interactive, and purposeful moral stories. The teacher and student-related topics include "The Race" by Punjabi, "Learning the Game" by Tendulkar, and "Tolstoy Farm" by Gandhi. It provides comprehensive information that a student needed for his overall development. It is really based on Buber's philosophy, goals, and objectives of real teacher-student relationships. The purpose of education is to develop the character of the pupil. A teacher should be role models to their pupils and show them how to live humanely in society. One of his basic principles is that genuine education of character is genuine education for the community. Buber says that for educating characters you do not need a moral genius but you do need a man who is wholly alive and able to communicate himself directly to his fellow beings. His aliveness streams out to them and affects them most strongly and purely when he has no thought of affecting them.

Buber's 'I and Thou' is a new concept in philosophy which is a widely influential exploration of what it means to be human. According to him, human beings have two attitudes towards the world that is 'I-Thou' and 'I –It'. 'I-Thou' is a relation of subject to subject but 'IIt' is a relation of subject to object. The researcher tries to relate the I-Thou philosophy of Buber with the Kerala state IX standard English textbook. There are various chapters following the new concept of Buber. It is mainly "Maternity" by Nakos, "Song of a

Dream" by Naidu, "The Happiness Machine" by Bradbury, "A prayer in Spring" by Frost, and "Listen to the Mountain" by Nambisan. It throws light into the life of children. In the I-Thou relationship, we relate to each other and meet you as you are and you meet me as who I am in

this relationship, how I am with you in my own heart and mind is important. If we consider other people as the I –Thou concept of Buber, we can easy to understand their feelings and emotions. Otherwise, we can't understand them. I-Thou relationship in which a subject treat someone or something else as another unique subject (thou). The I-Thou relationship allows for full empathy between subjects that can be transformative, in contrast to the I-It relationship, which objectifies the other. In the I –thou relationship one recognizes the sacredness and morality in each person and treats each individual as a whole person. This relationship creates a deeper emotional bond and understanding between people.

## References

Bhatia, V., & Bhatia, V. (1992). Theory and principles of education. Doaba House.

Buber, M. (1958). I and Thou (2nd ed.). (R. G. Smith, Trans.). T&T Clark.

Maurice, S. F. (2017). Martin Buber the life of dialogue. Andesite Publications.

Ravencraft, S. (2015). An analysis of Buber's I and Thou. Macat Publications.

Smith, M. K. (2000). Buber on Education. https://infed.org/mobi/martin-buber-on-education.

Wodehouse, H. (1945). Martin Buber's 'I and Thou'. Philosophy, 20(75), 17-30

## Negative Environmental Externalities of Digital Technology: A Meta-Analytic Perspective

Jasna P. Varijan

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## Abstract

Technology has been serving us as a catalyst for positive global development ever since the stone age when humans started making and using tools and it continues its legacy astonishingly through implementing wonderful things. Now we are in an era of a technological revolution that contributes a lot to simplifying life on the blue planet. It has established endless possibilities for the human world and significantly pushed its boundaries. Most significantly it made the whole world a smaller place, helped to assist in fighting fatal diseases, accelerates economic development and of course, magnifies the scope towards an easy and better life. But there is no denying that these everyday technologies have come at a cost to the environment. It significantly contributes to global warming and resource depletion eventually. It is doing worse than good to the human race in contrast to our perspective on technology. The paper follows the method of Meta-analytic review. It is a humble attempt to examine the at-hand literature to establish the negative environmental externalities sheering and highlighting in related documents. An abundance of research studies and grey literature is available on the topic under consideration. The researcher tried to scrutinize the literature that is accessible on online platforms to make it relevantly comprehend.

Keywords: negative environmental externalities, digital technology, meta-analysis

## Introduction

Technology has been serving us as a catalyst for positive global development ever since the stone age when humans started making and using tools and it continues its legacy astonishingly through implementing wonderful things. Now we are in an era of a technological revolution that contributes a lot to simplifying life on the blue planet. It has established endless possibilities for the human world and pushed its boundaries in a remarkable way. Most significantly it made the whole world a smaller place, helped to assist in fighting fatal diseases, accelerates economic development and of course, magnifies the scope towards an easy and better life. Moreover, assistive technologies contributed enormously and consistently to conserving the richness of biodiversity. Undoubtedly technological development is inevitable for the remarkable future of the human species but the advancement may be sustainable.

While discussing the technological arena, the primary thing that comes to mind is of course the gadgets that we carry always with us in our daily life to make our life easier, more comfortable, and more convenient. The different devices available in the digital market including smartphones, tablets, and laptops made revolutions in the life of ordinary people and changed their lifestyles with a lot of benefits. But all these conveniences have a cost to the environment (Okahor, 2020). It significantly contributes to global warming and resource depletion eventually. It is doing worse than good to the human race in contrast to our perspective on technology. Eddision, the director of 'Green Earth Affairs' had once said "Modern technology owes ecology an apology", which roughly translates to "Technology has done more harm than good to the environment". Environmental problems have seen a rise over the last few years, and technology has taken the blame. The situation is getting worse day by day, contributing significantly to the prevailing environmental issues. The usage of the digital device is increasing from every minute to minute without any restrictions. To put it simply, technology is largely responsible for the environmental problems we face today.

'Luxembourg Times', a quality online newspaper of Luxembourg reported on the 21<sup>st</sup> of November 2019, that Google was planning to prepare a huge data center in Luxembourg. The news raised consequential worries among the people of the state. They were very much concerned about the energy and water consumption of the center as they know the center requires the resources in pretty large amounts which will create scarcity for commons' daily consumption. Apart from that, the center will create noise and air pollution. Because of people's protests, the establishment is still under the concern of the authority. It is estimated that the data Centre's operation requires 10 million liters of water per day, which is about 10% of the country's overall water consumption. Another article describes that the data center is expected to consume 7% of the country's energy supply in phase I, and up to 12% in phase II. The example shows that digitalization can have grave effects (Liu, et al., 2019).

The investigation follows the method of Meta-analytic review. It is a humble attempt to examine the at-hand literature to establish the negative environmental externalities sheering and highlighting in related documents. An abundance of research studies and grey literature are available on the topic under consideration. The researcher tried to scrutinize the literature that accessible in the online platforms to make it relevantly comprehend. The Meta analysis of the literature under scrutiny leads to certain conclusions regarding the negative environmental externalities of digital technologies which are described hereunder with separate heads.

## The Negative Environmental Externalities

Technology can be represented by a two-sided coin. One side, consistently contributing to the global growth and progress of human race but the other contradictorily doing damage to the environment and inmates of the planet. In what follows, we look at negative environmental externalities mainly in some prominent areas like energy, climate, resources and waste cleanup. It will help the people to comprehend the significant damage that caused by technology in contrast to the benefits provided by the same.

## 1. Energy

According to 'Forbes' Google has used almost 12.4 terawatt-hours of electricity which is equal to the total electric power used by the entire countries like Sri Lanka and Zambia (Bryce, 2020). Technological innovation leads to an increase in energy consumption (Jin& Tang, 2018). Every month, Americans stream over 8 billion hours of content to their digital screens. By 2025, the number of Internet-connected devices is slated to increase to 28 billion from today's 9.2 billion and the rollout of 5G networks could push an individual mobile user to consume 200 GB of data a month. All the images and videos generated digitally in the online platforms increasing tremendously and consumers spend an exponential amount of data. Swedish researcher Anders (2020) estimate that information and communication technology could account for more than 20 percent of global energy use by 2025 attracted wide attention. We have a tsunami of data approaching. Everything which can be is being digitalized. It is a perfect storm. 5G is coming and all cars and machines, robots and artificial intelligence are being digitalized, producing huge amounts of data which is stored in data centers (Smith, 2020)

The investigator cites an example to make the point clear. The 'Future' published that when the famous music video "Despacito" got released it reached the record of 5 billion views on YouTube in April 2018 it had burned as much energy as 40,000 U.S. homes use in a year (Smith, 2020). We are assuming computers and laptops as the inevitably important things in our daily routine. We are not actually aware of the disastrous trail of impacts that leaves behind on the planet. Studies show that 81% of the energy needed for a computer is used during production. The production of an average computer requires 530 pounds of fossil fuels, 48 pounds of chemicals and 1.5 tons of water. Let's put this into a real-world perspective. 302 million computers were sold in 2014. Which can be simply interpreted as 160,060,000,000 pounds of fossil fuels, 14,496,000,000 pounds of chemicals and 480,000,000 tons of water is being consumed by this industry exclusively for making the computers. Remember, simultaneously we need the same or different resources for the manufacturing of televisions, smart phones, and all the other technological devices that surround us today. All these counts to an unimaginably big number and it may cause heavier environmental impacts beyond we can expect. The depletion of natural resources has been a persistent problem in our world today, and the main reason for this is most definitely the production and use of technology.

## 2. Climate

The digital technology industry is one of the least sustainable and most environmentally damaging industries currently in the world. Its leaders have long been unwilling to face up to its climate change challenges, and continue to focus primarily on the claim that they are contributing significantly to delivering the so-called Sustainable Development Goals (Unwin, 2020). Digital technologies are contributing significantly to Global Warming in these days and it has become unbearable to the planet these days. The emission has enormously elevated during the lockdown period as a result of the wide acceptance of online streaming during the last two years. Online video streaming itself contributed 3000million tons of CO<sub>2</sub> in last year which was equal to the total annual GHG emission of Spain in 2018. Google contributes 40% of CO<sub>2</sub> emission. Digital Technologies are responsible for 4% of greenhouse gas emissions to the outer world, and its energy consumption is increasing by 9% a year. The internet emits 1.6 billion annual tons of greenhouse gas emissions(ESCP, 2021).With COVID-19 restrictions in place globally, our reliance on digital technology sky-rocketed in 2020 and 2021 as video calls,

emails, instant messaging and virtual entertainment replaced face-to-face interactions in and out of the workplace.

Between February and April last year, at the peak of worldwide lockdowns, global internet traffic surged by nearly 40%, driven by video conferences, online gaming, streaming and social media, according to the International Energy Agency (IEA). An hour of streaming in Europe, for example, has a carbon footprint equivalent to boiling an electric kettle three times or driving just 250 meters, the analysis showed, while switching to a lower-quality video stream made very little difference. (Taylor, 2021). Eventually the use of technologies and their negative impacts are consistently increasing every day. It has significant impact on the environment particularly on climate of the planet. As these technologies become used much more widely their negative impacts will increase.

## 3. Resources

The digital technology brutally exploits a wide variety of resources especially in a way unsustainable environmentally and scarcely having the spirit of morality. Data centers consume water across two main categories: indirectly through electricity generation (traditionally thermoelectric power) and directly through cooling. The US data centres used a total of 626 billion litres of water in 2014. This is a small proportion in the context of such high national figures; however, data centers compete with other users for access to local resources. A medium-sized data centre uses as much water as three average-sized hospitals. Some progress has been made with using recycled and non-potable water, but from the limited figures available some data centre operators are drawing more than half of their water from potable sources. This has been the source of considerable controversy in areas of water stress and highlights the importance of understanding how data centers use water (Mytton, 2021).

As discussed in the first point the data centers are giant consumers of power or electricity in the whole world. They are attempting in multiple ways to make the consumption more sustainable by proving more services still declining the use of electric power. Fossil fuels still accounted for 84% of the world's primary energy consumption in 2019 (Rapier, 2020) and no exception for digital technology. It also depends on fossil fuels as a major source of energy, which clarifies the unsustainable use of fossil fuels by digital technology even today.

Moreover, most digital technologies rely on rare minerals that are becoming increasingly scarce. Many people are unaware, for example, that a mobile phone contains more than a third of the elements in the Periodic Table. Minerals such as Cobalt, the 17 rare earth elements, Gallium, Indium and Tungsten are becoming more and more in demand, and as supply is limited prices have often increased significantly. They can also fluctuate dramatically. Above all, as these minerals become depleted, new technological solutions will be needed to replace them (Unwin, 2020). The mining industry creates wide exploitation and huge damage to the nature. It's always associated with problems like tailing and waste spillages. Open cast mining destroys the life around. The wild mining methods mostly pay negative health implications. In certain countries child labour is found very common and children are widely used in this risky sector.

#### 4. Wastes

E-Waste remains a fundamental problem for the sector ever since from the beginning of digital revolution. The increasing amount of e-waste contains concentrated amounts of potentially harmful products, and this has been shows little sign of abating. The cardinal reason for the accumulation of abundant waste products is, most of the sector is based on the fundamental concept of replacement rather than repair. Those old enough will remember fixed line telephones that lasted virtually forever. Recent days, most of the people replaces their mobile phones in every two years. New models come out; new fashions are promoted. Even poorer countries have a growing mobile phone sector and they are upgrading the software and hardware development process, promoting the people, the consumers to upgrade their devices on a regular basis rather than promoting them to re-use the devices already have. Innovation in the digital technology sector means that hardware developments often make old software unusable on newer devices, and new software requires newer hardware on which to run (Unwin, 2020). Inevitably, the consumer has to pay more to replace equipment or hardware with which they were previously perfectly happy while exchanging the devices that elevates the profit to the companies at the expense of consumers. Eventually it leads to massive redundancy with the digital wastes especially the older mobile phones which are simply being thrown away. This is scarcely sustainable.

#### Conclusion

We are standing at a very critical point in the history of the planet to take a decision to become more positive towards the environmental externalities of digital technology. Having dirtied the earth, air, and water for more than a century, technology is now showing promise in environmental cleanup. Technological innovations specifically aimed at reducing pollutionfrom cleaner manufacturing processes to flue gas scrubbers to catalytic convertersnow figure prominently in mitigating some of the growing pains of an increasingly technological world. It is time for companies to become aware of their digital impact and deal with this issue. It is time to start reducing digital emissions and increase companies' transparency and reputation.

While sustainability has become a priority globally, the digital carbon footprint seems to have been neglected by many decision-makers. The constant increase in digitalization makes our digital world's carbon cost more and more relevant and impactful on our environment. This critical issue deserves serious attention and needs acceleration on the transition to sustainable IT to shape a greener future (ESCP, 2021)

We may take extreme efforts to reduce the carbon footprint of digital technology. Efforts are already taken by the data centers worldwide to decline the carbon emissions, by increasing their services multiple times but taking only increase in power consumption and carbon emission. But still it remains unsustainable. From 2010 to 2018, compute instances went up by 550%, while energy usage increased just 6% in the same time frame. While data center energy usage is on the rise, it has been curbed dramatically through the development of different strategies.

We can depend on the Initiatives, such as 'Restart', to decline the e-wastes that accumulating day by day. Such projects try to change the mentality of consumers, and thereby companies and governments. The Restart Project was born in 2013 out of the frustration with the throwaway, consumerist model of electronics that have been sold, and the growing mountain of e-waste that it's leaving behind. They are based in London, but the parties and messages spreads to all over the world. By bringing people together to share skills and gain the confidence to open up their stuff, the organization gives people a hands-on way of making a difference, as well as a way to talk about the wider issue of what kind of products we want.For that the project runs regular Restart Parties where people teach each other how to repair their broken and slow devices – from tablets to toasters, from iPhones to headphones. We work with schools and organizations to help them value and use their electronics for longer. The same data were used for encouraging consumers to demand better and sustainable digital devices for all.

AWS, Google, Facebook, and Microsoft have all recently announced large-scale renewable energy purchases. Google announced in 2017 that it achieved 100% renewable energy across all of its operations, including data centers. Importantly, Google, and the rest of the major players in this space rely on renewable energy credits (RECs) to offset their fossil fuel usage and claim 100% renewable use while still being connected to grids that rely on fossil fuels for power generation Ratka & Boshell, 2020).

Orr (1994) sensibly quoted; the plain fact is that the planet does not need more successful people. But it does desperately need more peacemakers, healers, restorers, storytellers, and lovers of every kind. It needs people who live well in their places. It needs people of moral courage willing to join the fight to make the world habitable and humane. There is no doubt, the digital revolution will continue to happen in the future too and it's the need of the hour. The planet needs a deliberately determined effort from the part of its inmates to make the developments more supportive to the environment. Let be more conscious while handling the digital resources by keeping in mind the principle of repair and reuse in order to make the world more sustainable and a better place for developments as well as livable.

#### References

- Austin, D., & Macauley, M. K. (2001, December 1). Cutting through environmental issues: Technology as a double-edged sword. *Brookings*. https://www.brookings.edu/articles/cuttingthrough-environmental-issues-technology-as-a-double-edged-sword/
- Bryce, R. (2020). How Google powers its 'monopoly' with enough electricity for entire countries. *Forbes*. https://www.forbes.com/sites/robertbryce/2020/10/21/googles-dominance -is-fueledbyzambia-size-amounts-of-electricity/
- ESCP (2021). *Reduce your digital carbon footprint to shape a greener future.* https://escp.eu/news/reduce-your-digital-carbon-footprint-shape-greener-future

- Liu, R., Gailhofer, P., Gensch, C., Wolff, F., & Köhler, A. (2019). Impacts of the digital transformation on the environment and sustainability. https://ec.europa.eu/ environment/enveco/resource\_efficiency/pdf/studies/issue\_paper\_digital\_transformation\_20191 220\_final.pdf
- Mytton, D. (2021). Data centre water consumption. *Npj Clean Water*, 4(1), 1–6. https://doi.org/10.1038/s41545-021-00101-w
- Okahor, J. (2020). *Negative impact of technology on the environment*. https://www.trvst.world/environment/negative-impact-of-technology-on-the-environment/
- Orr, D.W. (1994). Earth in mind: On education, environment, and the human prospect. *Island Press*. https://doi/10.1177/108602669600900421
- Rapier, R. (n.d.). Fossil fuels still supply 84 percent of world energy—and other eye openers from bp's annual review. *Forbes*. https://www.forbes.com/sites/rrapier/2020/06/20 /bpreviewnewhighs-in-global-energy-consumption-and-carbon-emissions-in-2019/
- Ratka, S., &Boshell, F. (2020) The nexus between data centres, efficiency and renewables: A role model for the energy transition. *Energy Post.* https://energypost.eu/the-nexus-betweendatacentres-efficiency-and-renewables-a-role-model-for-the-energy-transition/
- Smith, C. (2020). The battle over technology and energy consumption. *Governing*. https://www.governing.com/next/The-Battle-Over-Technology-and-Energy-Consumption.html
- Taylor, L. (2021). Climate change: Is video streaming pushing up harmful emissions? World Economic Forum. https://www.weforum.org/agenda/2021/06/coronaviruspandemicstreamingvideo-calls-data-environment-emissions/
- Unwin, T. (2020,). *Digital technologies are part of the climate change problem*. ICTworks. https://www.ictworks.org/digital-technologies-climate-change-problem/

# Attitude towards Online Teaching Process and the Challenges Faced in Learner Management by Secondary School Teachers in Kerala

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#### Abstract

Education plays a vital role in the present-day industrialized world. People required suitable reliable education to help them survive in a competitive world. Now, technology plays a significant role in education. In today's society, students are exposed to technology everywhere. Online learning is one of the rapid changing modes of education where students use their home computers through the internet. It had become one of the most popular means of education and nowadays, it was also quite easy and convenient to have an online class instead of offline. The investigator analyzed the outcomes "Attitude towards online teaching process and the challenges faced in learner management by secondary school teachers in

Kerala". A sample of 100 secondary school teachers was chosen for the study. The tool used for primary data is the attitude scale given through mail and WhatsApp as Google forms. The percentage analysis method and test of significance was used for analysis. The study reveals that Secondary school teachers have positive and negative attitudes towards online teaching and teachers also face many challenges in online teaching.

Keywords: attitude, online teaching, online learning, secondary school teachers

## Introduction

Online education was a flexible instructional delivery system that encompassed any kind of learning that takes place via the Internet. Online learning gave educators an opportunity to reach students who might not able to enroll in a traditional classroom course and supports students who need to work on their own schedule and at their own pace. The quantity of distance learning and online degrees in most disciplines was large and increasing rapidly. Schools and institutions that offer online learning are also growing in number. Online learning was the up-to-date and most popular form of distance education today. Within the past decade, it had a major impact on postsecondary education, and the trend is increasing. Online schooling is changing the face

of traditional classrooms radically within the last couple of years making education more accessible than ever before.

Teachers face many challenges in the online teaching and learning process. One of the most important challenges teachers face in the online teaching-learning process is learner management. Classroom management is one of the hardest aspects of teaching in online mode compared to face-to-face instruction. Learner management was the capacity to design pedagogic strategies that attain learning outcomes for students. Classroom management could be a difficult topic because the name implies teachers must take on an authoritative role as a manager. The online teaching-learning process was different from the offline teaching-learning process. Therefore, learner management needed to be implemented very accurately in the online learning process. If teachers could manage learners in the online learning process, then learning was meaningful.

## Need and Significance of the Study

The future of online learning is exciting and opens education for significant changes to meet requirements of the global scenario. To take education, we could get education from the teacher just sitting at home from the online mode. In today's time, facilities like the internet are available in all homes. Online education was proving to be very effective in the time of Corona. Nowadays online education is becoming very prevalent everywhere whether it is in a village or a city. Today online education and educational systems across the world. Educational institutions around the world were temporarily closed in an attempt to reduce the impact of Corona. The study leads to finding out the attitude of teachers towards online learning and the challenges. The paradigm shift in the field of education triggered by the gray revolution is matched by real-life teaching-learning situations. The need and significance of the present study is to explore the attitude towards the online teaching-learning process and the challenges faced in learner management by secondary school teachers in Kerala.

## **Statement of the Problem**

The study is entitled "Attitude towards online teaching process and the challenges faced in learner management by secondary school teachers in Kerala".

## **Objectives of the Study**

- 1. To find out whether there was any significant difference in the attitude of rural and urban secondary school teachers towards the online teaching process.
- 2. To find out the difficulties of conducting exams in online

## **Review of Related Literature**

Gururaja (2021) conducted research on "Teacher's attitude towards online teaching". A descriptive cross-sectional study was conducted regarding Teacher's attitudes toward elearning. The results of the research found that the attitude of most teachers is not favorable towards online teaching. The cause behind the average attitude of school teachers is found that they are not competent in e-learning skills.

Shabnam (2021) conducted a study on "Challenges faced by teachers in online teaching during the Covid-19 Pandemic". The study finds that strong internet access, lack of continuous electricity supply, lack of parental source of income, and difficulties in teaching numerical subjects such as math are the most important challenges faced by teachers in online teaching.

## **Research Methodology**

The success of any investigation depends largely upon the methodology or the procedure adopted, and the suitability of the methods, tools, and techniques used for the collection of data. Survey method helps the researcher to explore the dimensions related to the study. The investigator selected a non-experimental method for the present study. A sample of 100 secondary school teachers was taken using the random sampling method. A survey was conducted on an online basis for data collection from teachers. Two types of tools were used for the study. Data was collected by using a standardized Likert type of attitude scale developed by the investigator by following standard procedure. A questionnaire to collect challenges faced by teachers on online learning was developed by the investigator by keeping the standard procedure.

## **Data Analysis and Interpretations**

The investigator analyzed the outcome of "Attitude towards online teaching process and the challenges faced in learner management by secondary school teachers in Kerala".

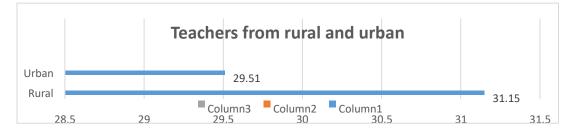
## Table 1

*Test of Significant Difference in Mean Score of Attitude of Secondary School Teachers towards Online Teaching Process based on Teachers from Rural and Urban* 

Teachers from rural and urban	Number	Mean	S D	t-value	Level of Significance
Rural	50	31.15	6.10	1.389	Not significant
Urban	50	29.51	5.70		

## Figure 1

Graphical Representation of Mean Scores of Attitude of Secondary School Teachers towards Online Teaching Process based on Teachers from Rural and Urban



The t – value for rural and urban samples is 1.389 which is not significant at 0.01 level and 0.05 level of significance. Hence there is no significant difference between the attitude of rural and urban secondary school teachers towards online teaching learning process.

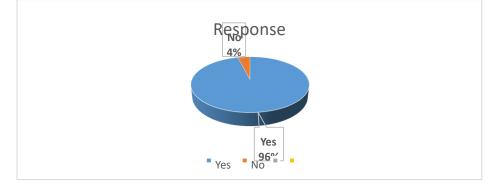
## Table 2

Analysis of Question "There Exist Significant Difficulties for Conducting Online Exams"

Response	No. of response	Percent
Yes	96	96%
No	4	4%
Total	100	100

## Figure 2

Analysis of the Question "There Exist Significant Difficulties for Conducting Online Exams"



The result shows that 96% of secondary school teachers face many difficulties conducting online `exams.

## Findings

The t – value for rural and urban samples is 1.389 which is not significant at 0.01 levels and 0.05 level of significance. Hence there is no significant difference between attitude of rural and urban secondary school teachers towards online teaching process. 96% Yes responses and 4% No responses are given to the statement "There exist significant difficulties for conducting online exams."

#### Conclusion

Technology plays a significant role in education and online learning advanced the pace of learning among students through internet access. The study reveals that Secondary school teachers have positive and negative attitudes towards online teaching and teachers also face many challenges in online teaching. The outcome of the study revealed that modern teaching methods are to be used in the online classroom to enhance the online teaching learning process. Teachers can create an online classroom environment where students are passionate about learning and engage in online teaching learning process effectively. It has been evident that attitude of secondary school teachers towards online teaching learning process was different and there exist many challenges in learner management in online teaching.

#### References

Agarwal, J. C. (1966). Educational Research. Arya Book Depot.

- Allport, G. W. (1955). Basic considerations for psychology of personality. Yale university press.
- Mathew, J. A. & Selvaraj, A. (2021). Effect of pandemic based online education on teaching and learning system. *International Journal of Educational Development*, 85(10).
- Muthuprasad, J. & Jha, G. (2021). Students perception and preference for online education in India during COVID-19 pandemic. *Journal of Social Science and Humanities*, 3(1).
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 2(1)
- Gurung, S. (2021). Challenges faced by teachers in online teaching during COVID-19 pandemic. The Online Journal of Distance Education and E-Learning, 9(1), 8-18. https://tojdel.net/journals/tojdel/articles/v09i01/v09i01-02.pdf
- Hermanto (2020). Teacher's attitude towards online learning during COVID-19 pandemic in Indonesia. *Indonesian Journal of Development Studies (IJDS)*, *1*(1), 1-7.
- Rosalina, E., Nasrullah, N. &Eliyani, E. P. (2020). Teacher's challenges towards online learning in pandemic era. *LET: Linguistics, Literature and Language Teaching Journal, 10* (2), 71-88. https://doi.org/10.18592/LET.V1012.4118

#### The Impact of Modern Technology on Education

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#### Abstract

Technology plays a prime role in our life and is the basis of the growth of an economy. With the help of modern technology, many complex and critical processes can be carried out with ease and greater efficiency. The impact of technology can be felt in every possible field, like banking, trade, knowledge sharing, data analysis, biotechnology, and education. In the field of education, it has become easier for teachers to impart knowledge and for students to acquire it.ICT has a tremendous impact on education in terms of the acquisition and absorption of knowledge among both teachers and students. Technology provides a better interactive experience, access to data from a variety of sources, helps in digital literacy, provides better insight into student performance, and real-time learning at their own pace. *Keywords:* modern technology, ICT, digital literacy

#### Introduction

Technology, today, plays a prime role in our life. It is seen as the basis of the growth of an economy. An economy that is lacking in technology can never grow in today's global scenario. This is because technology makes our tasks easier, faster, and less time-consuming. Today's youth have unprecedented access to modern technology and use them in expected and unexpected ways to attain outcomes that have certainly changed the way we live. They spend many hours a day using technology, and the vast majority of them have access to the Internet, cell phones, smart phones, video games, and many more. Technology has certainly changed the way we live. It has impacted various aspects of life and has redefined our lives. With the help of modern technology, many complex and critical processes can be carried out with ease and greater efficiency. The impact of technology can be felt in every possible field, like banking, trade, knowledge sharing, data analysis, and biotechnology and one such field is education. In the field of education, it has become easier for teachers to impart knowledge and for students to acquire it.

#### **Modern Technology in Education**

Technology has greatly impacted almost entire aspect of our lives, and education is no exception. Technology gives students instantaneous entry to quality information which leads to learning at a quicker pace than before. The internet provides a variety of knowledge and doesn't limit students to a single person's opinion. They also find it much more interactive, as well as interesting. The transfer of knowledge becomes very easy and suitable, as well as effective. What this means is, that our minds now tend to work faster when supported by the use of modern technology, be it any part of life. Here we talk about education. The dependence on technology simply gives life an easy smooth journey. These days, this reliance is completely inevitable in schools, universities, and colleges. Now a day's students today can make use of technology in the following ways:

#### **Using Projectors and Visuals**

Educational technology in education helps today's teachers to integrate new technologies and tools into the classroom. Teachers are able to improve learner-centeredness and engage their students in unique, innovative, and equitable ways using visual images that appeal compared to words. Using projectors and visuals to aid in learning is another form of great technology in use. Top institutions around the world now rely on the use of amazing PowerPoint presentations and projectors in schools and colleges takes the interaction and interest levels up and also improves motivation. Students like to see appealing visuals that entice them to think rather than read lifeless words. The learning part becomes pretty efficient when we use technology.

## **Online Degrees with the Use of Technology**

Online degrees have now become a common phenomenon. The online degree system is famous among students who work and look for flexible studying programs. Learners take up online certifications for their learning. Top institutions offer amazing online programs with the use of various applications of technology and the internet. This trend will continue to rise as it gets more support and awareness among people.

#### **Digital Footprint in the Education Sector**

Digital media in the education sector has now grown seamlessly. This penetration has facilitated round-the-clock connectivity with students and diverse forums that are available for different tasks and assignments. As the power of the digital world increases, there exist innovative applications that will assist students in their development and learning.

#### **Importance of Technology in Education**

Technology has produced drastic changes in all areas of life, from communication networks, the economy, entertainment industry, to education. Students face challenges while using technological innovations in instruction and assessment that alters the way they learn. Technology can do so much more to improve schools. It can improve teachers' and students' well-being, empower parents' involvement through effective communication, and the tremendous impact that modern technologies have on new generations of students. Children grow up with laptops, tablets, gadgets, and modern digital systems being ready for the modernization of education. Learning styles have changed over the years, gradually introducing new technologies with the potential to improve teaching. Students' readiness for technology in classrooms is a positive sign because the digital age brings new challenges, not only in education but also in all other areas of life as well.

## **Factors Affecting Technology in Education**

Modern technologies demand that teachers learn how to use these technologies in their teaching. Hence these new technologies increase the teachers' ability to be trained in modern technologies of instruction and assessment. The attitude of teachers towards computers is a key factor in the successful implementation of ICT in education. Teachers should be techno pedagogues and should possess a positive attitude towards computers and this may lead to the failure of computer-based projects. Another factor that affects technology in education is reliability. Reliability includes hardware failures, incompatible software between home and

school, and slow internet connectivity. There may be out-of-date software available at school while the students/educators have more up-to-date software at home!

## Impact of ICT on Education

In the educational context, ICT has the potential to increase access to education and improve its quality. ICT has a tremendous impact on education in terms of the acquisition and absorption of knowledge among both teachers and students. A good impact is achievable through the promotion of:

- ✓ Active Learning: In contrast to memorization-based or rote learning, ICT promotes learner engagement as learners choose what to learn at their own pace and work on reallife situations and related problems.
- ✓ Creative Learning: ICT promotes the manipulation of existing information and to the creation of one's own knowledge to produce a tangible product or a given instructional purpose.
- ✓ Collaborative and Cooperative Learning: ICT encourages interaction and cooperation among students and teachers regardless of the distance between them providing students the chance to work with people from diverse cultures. Working together in groups enhances communicative skills and global awareness. The use of ICT leads to more cooperation among learners within and beyond schools having an interactive relationship between students and teachers. Collaboration is a philosophy of interaction and personal lifestyle promoting responsibility among individuals for their actions, including learning and respecting the abilities and contributions of their peers.
- ✓ Integrative Learning: ICT promotes an integrative approach to teaching and learning, by eliminating the separation between theory and practice unlike in traditional classrooms. ICT tools help with the calculation and analysis of information obtained from examinations. The student's performance reports are computerized and made easily available.
- ✓ Evaluative learning: The use of ICT for learning is student-centered and provides useful feedback through various interactive features. ICT allows students to discover and learn through new ways of learning which are sustained by constructivist theories of learning rather than students' memorization and rote learning.

# **Positive Impacts**

- Enhanced Teaching and Learning: Technological developments like digital cameras, projectors, mind training software, PowerPoint presentations, and 3D visualization tools have become great sources for teachers to help students grasp a concept easily.
- Globalization: The students from schools in different parts of the world can "meet" their counterparts through video conferencing without leaving the classrooms
- No Geographical Limitations: With the introduction of online degree programs, there is hardly any need of being present physically in the classroom. Distance learning and online education have become important parts of the education system.

## **Negative Impacts**

- Declining Writing Skills: Due to the excessive usage of online chatting and shortcuts, the writing skills of today's young generation have declined tremendously. These days, children are relying more on digital communication that they have totally forgotten about improving their writing skills. They don't know the spelling of important words, how to use grammar properly, and how to do cursive writing.
- Increasing Incidents of Cheating: Technological developments like graphical calculators, high-tech watches, mini cameras, and similar equipment have become great sources to cheat in examinations. It is easier for students to write formulae and notes on graphing calculators, with the least chance of being caught.
- Lack of Focus: SMS or text messaging has become a favourite pastime of many students. Students are seen playing with their cell phones day and night or driving and very often even between lectures. Being ever-connected to the online world has resulted in a lack of focus and concentration in academics and even in sports and extracurricular activities.

#### Conclusion

Technology in education provides a better interactive experience during the learning and teaching process, provides access to an unlimited amount of current information and data from a variety of sources, helps in digital literacy, provides better insight into student performance, and students can choose between real-time learning or learning at their own pace. Technology has a positive impact on education and at the same time poses negative effects. Teachers and students should take advantage side of technology. They should eliminate the drawbacks. A balanced and wise approach clears the obstacles in learning which are pulling back students as well as schools from achieving excellence.

#### References

- Bounds, G. (2010, October 5) How handwriting trains the brain-forming letters is key to learning, memory, idea.https://www.wsj.com/articles/SB100014240527487046315045 75531932 75 4922518
- Roschelle, J., Pea, R., Hoadley, C., Gordin, D., & Means, B. (2000). Changing how and what children learn in school with computer-based technologies. *Future of Children*.10(2), 76-101.https://doi.org/10.2307/1602690
- Thomas, D., & Brown, J. S. (2011). *A new culture of learning: Cultivating the imagination for a world of constant change* (Vol. 219). CreateSpace.
- Jacobs, H. H. (2010). Curriculum 21: Essential education for a changing world. ASCD.
- Bonk, C. J. (2009). *The world is open: How web technology is revolutionizing education* (pp. 3371-3380). Association for the Advancement of Computing in Education (AACE).
- Prensky, M. R. (2010). Teaching digital natives: Partnering for real learning. Corwin press.
- Miller, M. D. (2014). *Minds online: Teaching effectively with technology*. Harvard University Press.

# A Critical Analysis of the Philosophy of Mahatma Gandhi Reflected in Standard IX Social Science Text Book Jibin Joseph K.

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#### Abstract

Gandhiji's contribution to education is unique. He was the first Indian who advocated a scheme of education based upon the important values of Indian civilization. He criticized the colonial system of education as harmful to India. According to Gandhiji "knowledge is neither the foundation nor the end of education. This is only a means through which woman can be educated". Gandhiji noted "By education I mean an all-round taking out of the best in child and man- body, mind, and spirit. This is only a means through which man and woman can be educated." This is how Gandhiji outlines his idea of true education. All round" implies harmonious growth. 'Drawing out the best' recognizes a great possible coiled up in the child which can be realized and grow to its excellence through education. It is the development of human character in terms of physical, intellectual, and spiritual aspects. Education should take care of the entire child, the anthropoid personality. It should be the function of education to take about a pleasant development of all the aspects of the human personality so that it can grow to its highest stature and serve society at its best

Keywords: basic education, secondary school curriculum, social science curriculum

## Introduction

Education is the process of procurement of knowledge, skills, beliefs, and moral lifestyles. The main aim of education is to make people well and to let them develop their own abilities and confidence which are needed for their life. It decreases the tasks faced by individuals in their life and helps them to absorb how to earn. The more information one gain, the more chances open for individuals to achieve enhanced possibilities in career and in personal growth. It opens the mind to different situations, which helps to solve problems of life effectively and to think critically about the world. Basic education is the most empowering force in the world which creates awareness, builds assurance, and opens the door of opportunity

rejecting all obstacles for children; it is their key to opening the door to a superior life. A child gets their first education from his own household, learns from his own atmosphere, and gathers learning understandings from the school. It is a social process that occurs only in a social environment and without it, no one can obtain experiences. The role of basic education is to socialize individuals and to keep society smooth and stable. It teaches a child to note, know and realize. It teaches to act decently, to be creative, to develop talents, and to learn more belongings about life so that when the adolescent grows up, he/she uses basic education to build a better quality of life. However, the contemporary educational system of India is incapable to achieve humanitarian and diplomatic social life. The present system of education is unable to contribute much to individual as well as social development. In order to bring some social changes, proper and quality education is very much required for all.

## Need and Significance of the Study

In the present era, people have no sense of national loyalty. They do not develop the capacity to love and to be loved instead they are confined to their own desire and ambition and fail to go beyond themselves. We happen to live in a world with little care for others and little concern for the entire world. Through education, one should be able to perceive the soul of the entire mankind. Education is a fundamental right of every child. It is a pillar of a developed and powerful country, besides the most important element for growth and prosperity. The important point in Gandhi's scheme of education is its emphasis on relating school education to the need of society. He wanted to achieve this objective through a system of learning and earning. He gave prime place to learn the craft. It can be seen from the curriculum of presentday schools that work experience and socially useful productive work find a significant place. His views on early childhood education in the mother tongue is the accepted principle throughout the period.

## **Statement of the Problem**

The study is entitled as "A Critical Analysis of the Philosophy of Mahatma Gandhi Reflected in Standard IX Social Science Text Book"

# **Objectives of the Study**

- To find out how far Gandhian philosophy is reflected in the social science curriculum.
- To assess the Gandhian view regarding the role of the teacher in the life of a child.

# **Review of Literature**

Tewari Urmila (2014) in the study 'Educational Philosophy of Gandhiji and his implications for the Modem System of Indian education' sought to delineate the implications of the educational philosophy of Gandhiji for the modern system of Indian education. He was against conventional education and pleaded for a 'holistic approach to education. According to Gandhiji, education should help the individual to see life 'as it is at the 'present moment' with total attention and a 'choice-less' awareness of reality. Contrary to the traditional views about the relationship between the teacher and the taught, the Gandhian view was the teacher and the student should function at the same level, communicating through questioning and counterquestioning until the problems are exposed in depth and understanding revealed, illuminating the minds of both. No competition should be encouraged in schools, and students should set their own pace of learning.

Rajeev Kumar (2013) Gandhiji's contribution to education is unique. He was the first Indian who advocated a scheme of education based upon the important principles of Indian philosophy and civilization. The method and techniques advocated by him and the environment he prescribed revolutionized Indian thinking and way of living. At heart, he was devoted to idealism. He wanted to explain his ideals and ideas into practice. His philosophy of education is a harmonious blending of idealism, naturalism, and pragmatism. Gandhiji advocated the ideals of truth, nonviolence, and moral values to achieve the ultimate truth of self-realization.

## **Research Methodology**

"Qualitative researcher analyzes their data by reading it several times and conducting an analysis each time. Each time you read your database, you develop a deeper understanding of the information supplied by your participants" (Creswell, 2010). The analysis is a process that enters into research in collected data in some order or format so that the data becomes meaningful. Philosophical analysis is a method of inquiry in which one seeks to assess Complex systems of thought by 'analyzing' them into simpler elements whose relationships are thereby brought into focus (secondary sources) written about Mahatma philosophy by other scholars.

#### Analysis of data

The researcher used qualitative approach for analysing the data. Analyzing qualitative data requires understanding how to make sense of text and images so that you can form answers to your research questions! (Creswell 2010). Research of any type is a method to discover information. Within analytical research, articles, data, and other important facts that pertain to a project are compiled; after the information is collected and evaluated, the sources are used to prove a hypothesis or support an idea. Using critical thinking skills, a person is able to effectively pull out small details to form greater assumptions about the material. Some researchers conduct analytical research to find supporting evidence for current research being done in order to make the work more reliable. Other researchers conduct analytical research to form new ideas about the topic being studied.

## I. Content Analysis

Content analysis is an analysis of data collected by someone other than the researcher for different purposes. One can analyze the content of letters, diaries, articles, and minutes of meetings; hence the name is content analysis. Objectivity refers here is an analysis that is pursued on the basis of explicit rules that enable different researchers to obtain the same results from the same messages and documents. "In a methodical content analysis, the inclusion or exclusion of content is done according to the consistently applied conditions of selection; this requirement removes analysis in which only materials supportive of the examination hypothesis are examined". Content analysis encompasses a group of techniques concerned with the analysis of records already in existence. The investigator analyzed the filed report, articles published in journals or newspapers, letters, and book

## **II Document Analysis**

"Forms are the essential basics of data in many areas of inquiry and the methods of analysis are parallel to those used by historians. The major difference between this type of research and historical research is that, while historical research often uses document analysis, it deals solely with past events. When document study is used as vivid exploration, current documents and problems are the foci" (Best 2007). Document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning to an assessment topic. With the aid of document analysis, the investigator used these sources of data: books, journals, articles, and the philosophy of Gandhiji. This is to find out the views of the philosophy of Gandhian aspects of education. "Qualitative research is interpretive research, in which you make a personal assessment as to a description that fits the situation or themes that capture the major categories of information. The interpretation that you make of a transcript, for example, differs from the interpretation that someone else makes. This does not mean that your interpretation is better or more accurate; it simply means that you bring your own perspective to your interpretation" (Creswell 2010). For the present study, the researcher collected the relevant data from primary and secondary sources and they were analyzed and interpreted systematically. The data collected have been analyzed with reference to the objectives of the study. The details of the analysis done and the discussion of the findings obtained. The analysis and interpretation of data involves the researcher's subjective reactions and desires to derive from the data and the inherent meaning in their relation to the problemThe discussions of the findings obtained through the analysis of collected data are present under the following major heads.

## \* Analysis of the Educational philosophy of Mahatma Gandhi

Analysis of the Spiritual aspect of Education, Craft Centered aspects of Education, Gandhian view of training for leadership, Self-supporting aspects of Education, Gandhian conception of truth and non-violence, Gandhian views on mother tongue as the medium of instruction

- ✤ Analysis of thought of Mahatma Gandhi's views on basic education
- Analysis of the importance of the standard IX social science curriculum and their relevance in the present education system

## Findings

- A real education is one that enhances the dignity of a human being and increases his self-respect. The most important part of education is to inculcate in the students the need for we can do it.
- Basic education is child-centric. The child is the center of the activity. It is primarily considered the constructive and creative instinct of children.

# Conclusion

- The first objective of the study is to find out how far Gandhian philosophy is reflected in the social science curriculum. It can be concluded that according to him education system should retain the smiles on the faces of the children throughout the period of their education. The social science curriculum is an important part of the secondary education system
- Curriculum in Gandhi's scheme is activity-centered and craft centered. Craft inhabits the place of the sun in the huge solar system of the anthropoid time. Stratifying our material needs in perfect harmony with the higher values of life. The most important part of social science education is to inculcate in the students the philosophy of we can do it. In his scheme of the social science curriculum, Gandhiji proposed a life-centered and activity-centered curriculum where knowledge and skills are imparted through self-supporting productive craft.

## References

Agarwal, J. C. (1996). *Educational research: An introduction*. Arya book deport. Arvil, S. B. (1970). *Encyclopedia of educational research*. Mac million Best, J. W. & Khan, J. V. (2002). *Research in education* (7<sup>th</sup> ed.). Prentice Hall of India Pvt Ltd. Gandhi, M. (1925). An autobiography or the story of my experiments with truth. Navajeevan Gandhi, M. K. (1933). Towards new education. Navjivan Publishing House.

Kothari, C. R. (1998). Research methodology. Sterling Publisher Pvt. Ltd.

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