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## AN ANALYTIC STUDY OF EFFICIENCY OF ELEMENTARY EDUCATION OF PUNJAB

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### *Abstract*

*Elementary education forms the foundation for secondary, higher and professional education. Hence it becomes the priority of the government to expand the elementary education in order to expand the secondary, higher and professional education. Punjab's relatively higher per capita income level is not commensurate with its relatively moderate level of education. Punjab is comparatively lagging behind in the development of its human resources. Although Punjab's GER is 109.6% for the age group of 6 to 11 years' students, A total of 29.22 lakh students were enrolled in the govt. schools as on 1<sup>st</sup> April 2023 and 1.13 lakhs teachers were on their payrolls, with 30,000 posts of teachers still lying vacant and somehow same situation prevails at present. The dropout rate in these schools varied from 30 to 40 percent. Out of the standard 180 teaching days in an academic session, teachers were put on non-academic duties such as preparing voter's lists, election duties, census data preparations, pulse polio programmes, taking students to political rallies and other odd jobs for 73 days on an average. Therefore, for efficient functioning of the education system there should be an efficient system of public provision. From analysis and discussion, it can be concluded that the skill efficiency of Elementary Education in Punjab is a matter of serious concern. The present study clearly indicates toward the inefficiency of highly funded remedial projects Parrho Punjab and Pravesh in improving Literacy among children.*

**Key Words:** *Elementary Education, Literacy Skills, Efficiency, Parrho Punjab, Pravesh*

### **Introduction**

The contribution of education to development is manifold. Education is the significant instrument of empowerment of individual, society and nation. It has been given a place of great importance and provided by all civilized societies through centuries. Education for All (EFA) is a

basic human right at the heart of development.

Elementary education forms the foundation for secondary, higher and professional education. Hence it becomes the priority of the government to expand the elementary education in order to expand the secondary, higher and

professional education. Recognizing this significant contribution of elementary education to development, the government of India has resolved after Independence to give due priority to elementary education with a special focus on expansion of access and equity in elementary education (Article 45 of the Indian Constitution) to achieve the target of universal education at primary.

Keeping in mind that the Universalization of Elementary Education in India has been a Constitutional Directive and the added emphasis laid by the International Community on Education for All (EFA), the two national policy statements on education in 1968 and 1986 (and the revised in 1992) also laid special emphasis on achieving this objective. Five-year plans repeatedly promised to take the nation towards achieving the goal. Elementary Education was also included in the “National Programme of Minimum Needs” in the five-year plans, and this inclusion has significant implication for allocation of resources, and for diversion of resources away from elementary education. This is expected to ensure favourable treatment in the allocation of resources, and to protect it from reallocation of approved outlays away from elementary education (Tilak 2003, pp 23-24).

Public policy in India has concentrated on achieving the goals relating to universalization of elementary education as earlier as possible. It is being realized that primary education gives the basic three R’s and imparts some valuable attributes, in terms of attitude and skills and Elementary education able to take the people from below the poverty line to above the poverty line. Elementary education forms foundation for education, further it is also realized that the rapid increase in elementary education leads to increase in demand for secondary education (Tilak, 2008).

Thus, even after about eight decades of development planning and seven decades after deadline stipulated by the constitution, the goal of universal elementary education is still elusive. Resources provide a necessary, but not a sufficient condition in achieving Universal Elementary Education (Tilak, 2003; 2008). It is RTE Act, 2009 which played a role of necessary and sufficient condition to achieve the objective of Universalization of Elementary education as Fundamental Right of every child belong to 6 to 14 years of age in India.

### **Emergence of the Problem**

Punjab’s relatively higher per capita income level is not commensurate with its

relatively moderate level of education (Brar, 2002; Planning Commission, 2003) Although it is one of the most developed states of the country, yet it is still far away from achieving the goal of Universalization of Elementary Education. Punjab which is popularly known as, “the Granary House of India” with only 1.5 percent of geographical area of the country produces 20 % of wheat, 14 % of rice and 14 % of cotton of the total produce under these crops in the country, is comparatively lagging behind in the development of its human resources. Punjab, which occupied 1<sup>st</sup> position in per capita income for three decades, is now at 19<sup>th</sup> position in per capita income in India, but its position among the states of India on the bases of literacy rate is 21<sup>st</sup> with 76.7 % total literacy (Censu, 2011). Kerala tops the list and Bihar is at the bottom, while Punjab is at number 21(Census, 2011). The education scenario in the Punjab is pitiable. Thousands of school’s lack teachers, classrooms, furniture or even drinking water. The Punjab Government’s own figures point to a very dismal picture. (Kaur, 2008).

As per the annual report of the Union Ministry of HRD for 2021-22, Punjab’s GER is 109.6% for the age group of 6 to 11 years’ students. A total of 29.22 lakh students were enrolled in

the govt. schools as on 1<sup>st</sup> April 2023 and 1.13 lakhs teachers were on their payrolls, with 30,000 posts of teachers still lying vacant and somehow same situation prevails at present. The dropout rate in these schools varied from 30 to 40 % by the time these students crossed the middle class. The other disturbing factor about government schools is that there were 300 schools where the total strength of students was less than 50. These schools were mainly located in the districts of Amritsar, Bathinda, Mansa and Muktsar. Out of the standard 180 teaching days in an academic session, teachers were put on non-academic duties such as preparing voter’s lists, election duties, census data preparations, pulse polio programmes, taking students to political rallies and other odd jobs for 73 days on an average. With the passing of administrative control of primary and middle schools to the faction-ridden, semi-literate panchayats, the whole government school system was likely to crumble and collapse totally (MHRD, 2022).

Moreover, 16.55 % of the elementary schools had three teachers per school, 31.43 % schools with only two teachers per school, 9.33 % with only one teacher per school, whereas 3.59 % of the schools were being run without teachers in the state. Moreover, the state was not successful in providing the essential

facilities like playgrounds, drinking water and electricity in all the schools.

Thus, there is pressure on the system to improve the quality of education provided in the elementary schools of Punjab. Therefore, for efficient functioning of the education system there should be an efficient system of public provision. This situation calls for a number of questions to be answered: Why Punjab, in spite of being one of the economically developed states of India, is lagging behind in the field of Elementary education? Whether the public provision made for elementary education in Punjab, has successfully built an efficient system of elementary education? But there are no clear-cut answers available to these and many more related questions. So, the investigator Decide to take this investigation to analyze the degree of efficiency of Elementary Education in Punjab.

### **Operational Definitions**

**1. Efficiency:** Efficiency connotes the extent to which the Primary education has played its role in Human Resource Development. It will include the, rate of pass outs, students' literacy skills and transition rate of the students at elementary level. For the present investigation, these had been measured in

terms of degree of literacy skills among elementary-level students.

**2. Elementary Education:** Elementary Education for the present study Connotes the education which is provided to the students of 6 to 11 year age groups from 1<sup>st</sup> to 5<sup>th</sup> standard in the schools run by Government of Punjab and Local Bodies.

**Objective:** The present study was conducted with following objectives:

- To study the efficiency of public provision of Elementary education in Punjab with respect to literacy skills.

**Research Question:** On the basis of the review of the related literature the investigator has framed the following research question:

- How efficient is the Public Provisions of elementary education in Punjab in terms of imparting literacy skills among students?

### **Delimitations**

- a) The study has been confined to I to V classes of State and Local body's elementary schools.
- b) The study has been delimited to the sample base of ASER report for various years of investigation to analyses literacy skills of the students of elementary education in Punjab (India).



## Methodology

To conduct the present study the investigator has used descriptive method research in the following way:

**Data Collection and Analysis:** Trend and content analysis had been done to judge the efficiency of Elementary Education in Punjab, based on secondary data. For this purpose the secondary data will be collected from the published ASER Survey report on Punjab for Various Years from 2010 to 2022.

## Analysis and Interpretation of Data:

The objective of the present paper was to study the efficiency of elementary education of Punjab in terms of Imparting Literacy Skills. The analysis of the secondary data based on ASER reports of Educational Statistics of Punjab from 2010 to 2016 is presented here.

## Analysis and Interpretation of Data Showing Reading Skills among 1<sup>st</sup> Class Students:

The data of the reading skills among Class 1<sup>st</sup> student is presented here in table 1 and analysis of the data and graphical presentation are made in figure 1 to draw conclusion.

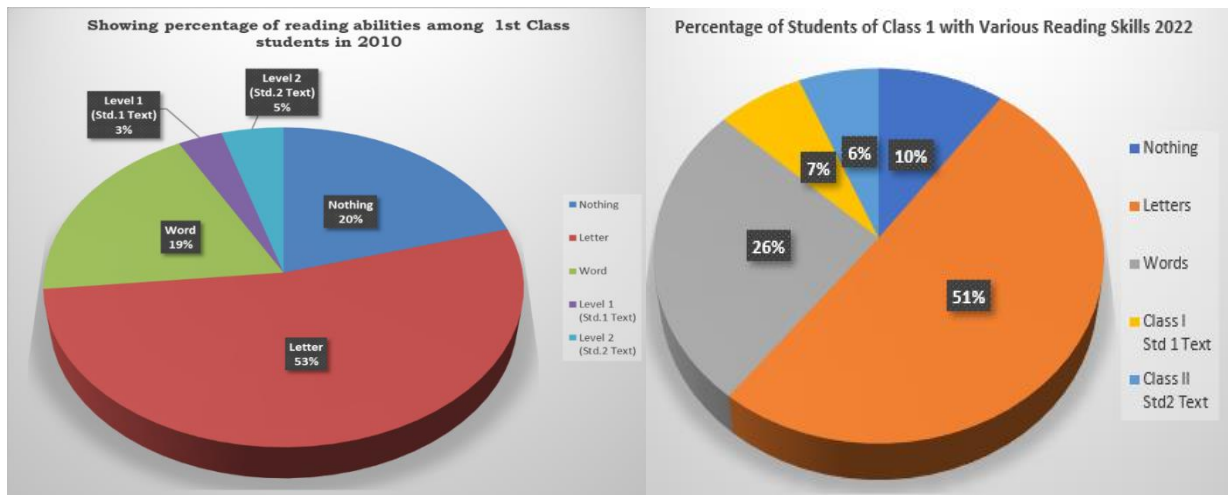
**Table 1: Showing Reading Skills among 1<sup>st</sup> Class Students**

Year	Nothing	Letter	Word	Level 1 (Std. 1 Text)	Level 2 (Std. 2 Text)	Total
2010	20.6	53.2	18.9	3.3	4.6	100
2016	26.2	43.1	19.6	6.3	4.8	100
2022	26.0	41.6	21.6	5.6	5.2	100

*Source: ASER reports of Educational Statistics of Punjab from 2010 to 2022*

The perusal of the table 1 and figure 1 reveals that in year 2010, 20.6 % students of class 1<sup>st</sup> were not able to perform any language skill. After huge efforts to improve various skills under the skill based Mehals in Parrho Punjab project, only 53.2 % are able to read and

recognize letters, whereas 18.9 % class 1<sup>st</sup> students are able to read words. Further analysis of the data shows that only 3.3 % of 1<sup>st</sup> Class are able to read text of First standard and 4.6 % are able to read text of second standard.



**Figure 1: Showing Comparison of Literacy Skills of 1<sup>st</sup> Class Students from 2010 to 2022**

From the Perusal of the data a downward trends is evident in skill efficiency of the students of 1<sup>st</sup> class in 2016, as 26.0 % students are not able to perform any skill in language. A sharp decline was evident in the percentage of students from 53.2 % in 2010 to 41.6 % in 2022, who are not able to read letter, whereas a slight increase was evident in the percentage of students with figure 21.6 and 5.6 % respectively who are not able to read word and text of standard first in 2022 in comparison to 18.9 and 3.3 respectively in

2010. The investigator has also noticed a meager increase in the percentage of students who are not able to read text of second standard from 4.6 % in 2010 to 5.2 % in 2016.

#### **Analysis and Interpretation of Data showing Reading Skills among 2<sup>nd</sup> Class Students:**

The data of the reading skills among Class 2<sup>nd</sup> student is presented here in table 2 and analysis of the data and graphical presentation are made in figure 2 to draw conclusion.

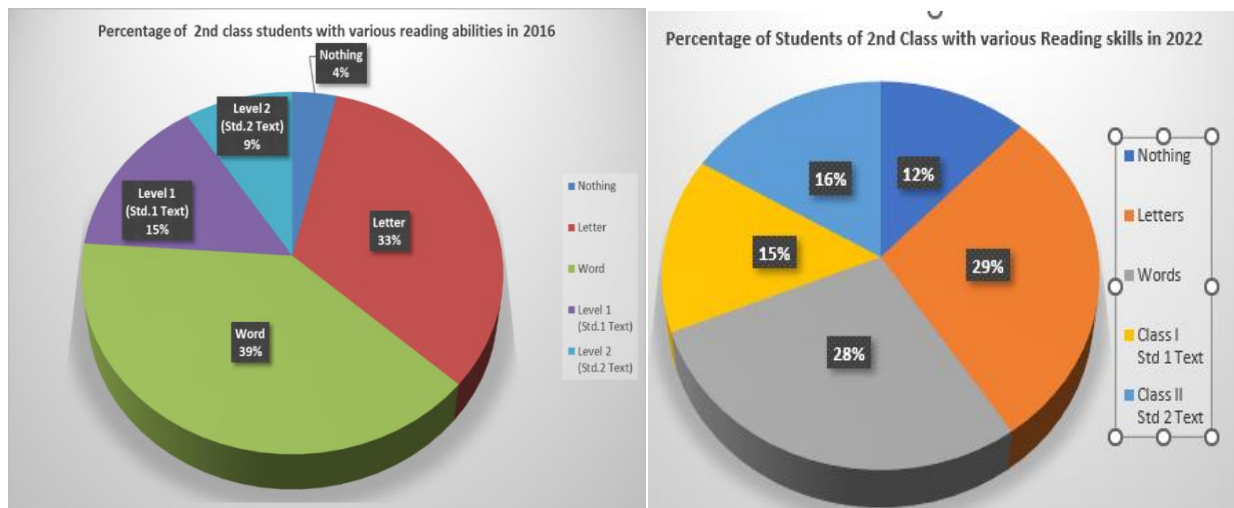
**Table 2: Showing Reading Ability among 2<sup>nd</sup> Class Students**

Year	Nothing	Letter	Word	Level 1 (Std. 1 Text)	Level 2 (Std. 2 Text)	Total
2010	3.7	33.0	39.4	14.8	9.1	100
2016	12.5	24.2	28.5	17.3	17.4	100
2022	12.1	28.6	28.2	14.7	16.5	100

Source: ASER reports of Educational Statistics of Punjab from 2010 to 2022

The perusal of the table 2 and figure 2 reveals that 3.7 % students of class 2<sup>st</sup> are not able perform any language skill. It is evident from data that 33.0 % are not able to read and recognize letters, whereas 39.4 % class 2<sup>st</sup> students are not able to

read words of Two or more alphabet, The analysis of the data also shows that only 14.8 % are not able to read text of First standard and 9.1 % are not able to read text of second standard.



**Figure 2: Showing Comparison of Literacy Skills of 2<sup>nd</sup> Class Students between 2010 to 2022**

It is evident from the perusal of the table and figure 2 that there is huge increase in the students, who are not able to perform any skills in language i.e. 12.1 % in 2022 in comparison to 3.7 % in 2010. The investigator has noticed a sharpe decline in the percentage of students who are not able to read letter and word of second standard from 33.0 and 39.4 % respectively in 2010 to 28.6 and 28.2 % respectively in 2022. It is evident from the perusal of data that there was slight decline in the percentage of who are not able to read text of standard

first from 14.8 % in 2010 to 14.7 % in 2022.

The increase was also evident in the percentage of students, who are not able to read text of standard second standard book in comparison to 9.1 % in 2010 to 16.5 % in 2022.

#### **Analysis and Interpretation of Data showing Reading Skills among 2<sup>nd</sup> Class Students:**

The data of the reading skills among Class 3<sup>rd</sup> student is presented here in table 3 and analysis of the data and graphical presentation are made in figure 3 to draw conclusion.

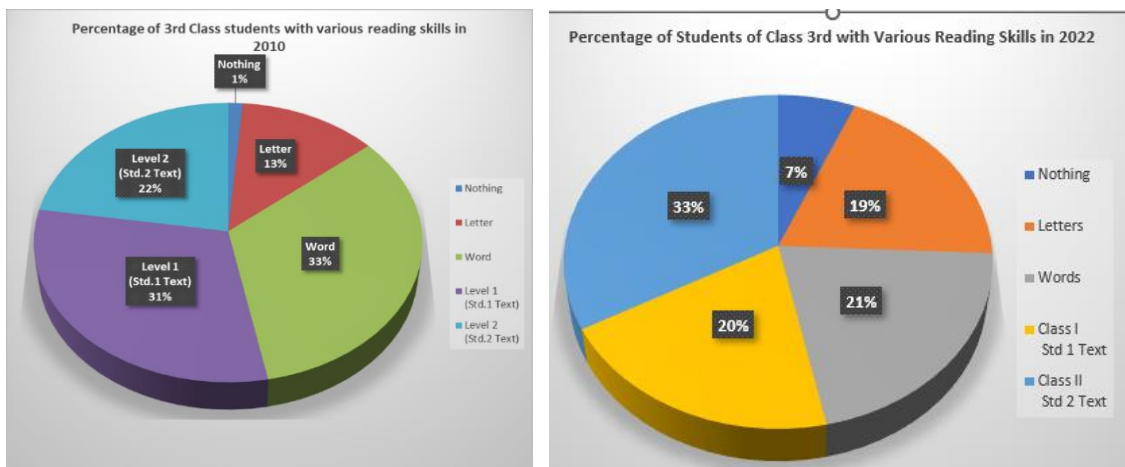
**Table 3: Showing Reading Skills among 3<sup>rd</sup> Class Students**

Year	Nothing	Letter	Word	Level 1 (Std. 1 Text)	Level 2 (Std. 2 Text)	Total
2010	1.3	12.5	33.2	30.6	22.5	100
2016	4.4	16.0	20.3	24.2	35.1	100
2022	6.4	19.3	21.0	20.3	33.0	100

Source: ASER reports of Educational Statistics of Punjab from 2010 to 2022

The perusal of the table 3 and figure 3 reveals that 1.3 % students of class 3<sup>st</sup> are not able perform any language skill. Whereas 12.5 % are not able to read and

recognize letters and 33.2 % class 3<sup>st</sup> students are not able to read words, which indicate about the inefficiency of elementary education in developing.



**Figure 3: Showing Comparison of Literacy Skills of 3<sup>rd</sup> Class Students between 2010 to 2022**

Literacy skills among class 3<sup>rd</sup> students after huge spending on skill specific projects i.e. Parrho Punjab and Parvesh. The analysis of the data also shows that only 30.6 % are not able to

read text of First standard and 22.5 % are able to read text of second standard.

The perusal of the table and figure shows that huge decline was noticed in

various skills of the 3<sup>rd</sup> standard students in 2022 with the increase to 6.4 % students who are not able to perform any skills in language in comparison to merely 1.3 % in 2010. Further analysis of the data reveals that there was upward swing in the percentage of students, who are not able to read letter from 12.5 percentage in 2010 to 19.3 % in 2022. The perusal of the data reveal slight increase in the percentage of students, who are not able to read word of standard first form 12.5 in 2010 to 21.0 % in 2022. The analysis of the data also highlight that there is downward slip in the percentage of students, who are not able to read word of standard first form 33.2 in 2010 to 21.0 % in 2022. The investigator

has also noticed a sharpe decline in the percentage of students who are not able to read text of first standard from 30.6 % in 2010 to 20.3 % in 2022. Whereas the analysis of the data reveals that there was upward swing in the percentage of students who cannot read text of second standard from 22.5 % in 2010 to 33.0 % in 2022.

#### **Analysis and Interpretation of data showing Reading Skills among 2<sup>nd</sup>**

**Class Students:** The data of the reading skills among Class 4<sup>th</sup> student is presented here in table 4 and analysis of the data and graphical presentation are made in figure 4 to draw conclusion.

**Table No 4: Showing Reading Ability among 4<sup>th</sup> Class Students**

<b>Year</b>	<b>Nothing</b>	<b>Letter</b>	<b>Word</b>	<b>Level 1 (Std. 1 Text)</b>	<b>Level 2 (Std. 2 Text)</b>	<b>Total</b>
2010	1.2	6.6	14.0	30.4	47.8	100
2016	2.9	8.2	15.0	19.7	54.3	100
2022	2.8	10.7	16.0	19.4	56.5	100

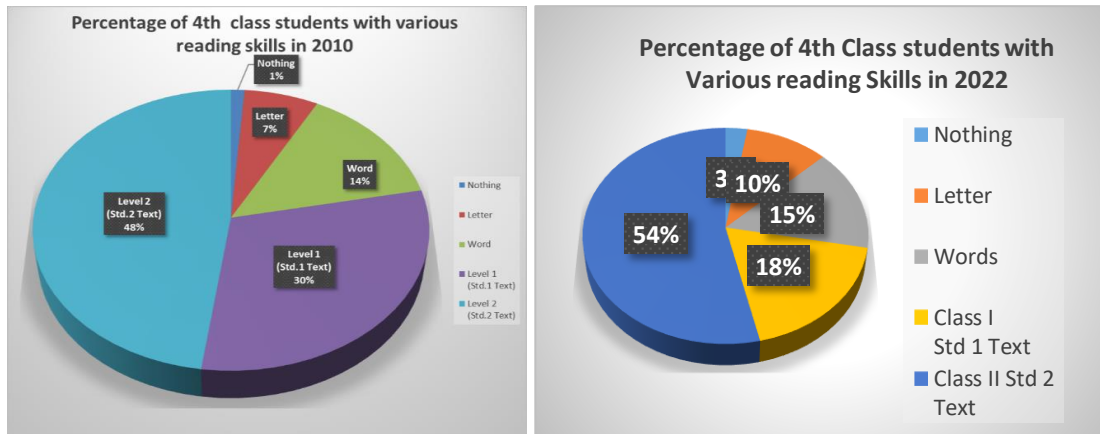
*Source: ASER reports of Educational Statistics of Punjab from 2010 to 2022*

The perusal of the table no.4 and figure no. 4 reveals that 1.2 % students of class 4<sup>st</sup> are not able to perform any language skill in 2010. Further, it is evident that 6.6

per cent are not able to read and recognize letters, whereas 14.0 per cent class 4<sup>st</sup> students are not able to read words, which indicate about the inefficiency of elementary education after

huge allocation to skill specific project of Parrho Punjab and Pravesh Projects. The analysis of the data also shows that 30.4 % are not able to read text of First standard and 47.8 % are not able to read

text of second standard, which is a big question mark on the efficiency of financing for public provisions in elementary education.



**Figure 4: Showing Comparison of Literacy Skills of 4<sup>th</sup> Class Students between 2010 to 2022**

The perusal of the table and figure shows that huge decline was noticed in various skills of the 4<sup>th</sup> standard students in 2022 with the increase to 2.8 % students who are not able to perform any skills in language in comparison to merely 1.3 % in 2010. Further analysis of the data reveals that there was sharpe decline in the percentage of students, who are not able to read letter from 12.5 percentage in 2010 to 10.7 % in 2022. The perusal of the data reveals that huge increase in the percentage of students, who are not able to read word from 12.5 in 2010 to 16.0 % in 2022. The analysis of the data also highlights that there is downward slip in

the percentage of students, who are not able to read words of standard first from 33.2 in 2010 to 19.40 % in 2022, whereas the analysis of the data reveals that there was upward swing in the percentage of students who can't read text of second standard from 22.5 % in 2010 to 56.5 % in 2022.

**Analysis and Interpretation of Data Showing Reading Skills among 2<sup>nd</sup> Class Students:** The data of the reading skills among Class 5<sup>th</sup> student is presented here in table 5 and analysis of the data and graphical presentation are made in figure 5 to draw conclusion.

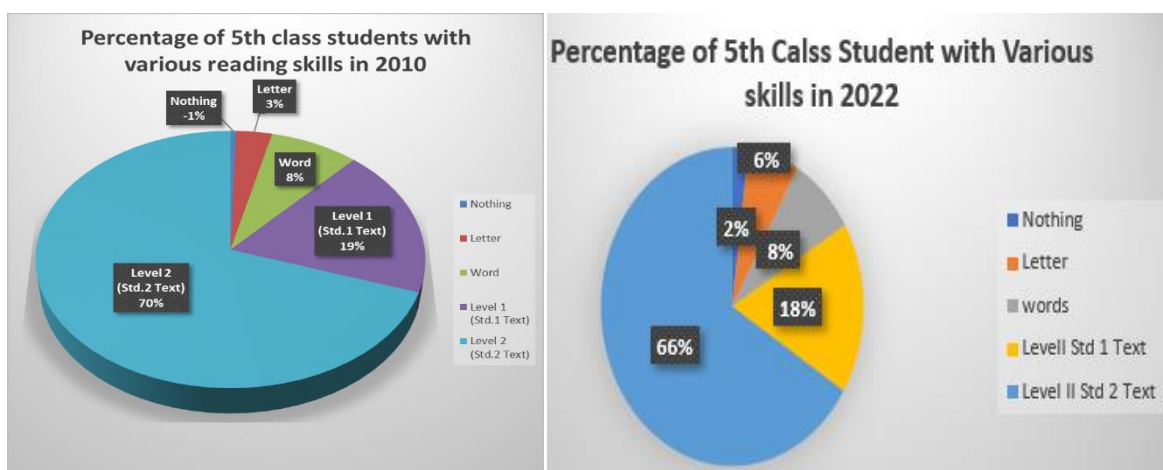
**Table 5: Showing Reading Skills among 5<sup>th</sup> Class Students**

Year	Nothing	Letter	Word	Level 1 (Std. 1 Text)	Level 2 (Std. 2 Text)	Total
2010	0.5	3.2	8.0	18.6	69.7	100
2016	1.6	5.1	7.8	16.4	69.1	100
2022	2.0	6.3	8.2	17.4	6.2	100

*Source: ASER reports of Educational Statistics of Punjab from 2010 to 2022*

The perusal of the Table 5 and figure 5 highlight that 0.5 % students of class 5<sup>st</sup> are not able perform any language skill in 2010. From the perusal of the data, it reveals that 3.2 % are not able to read and recognize letters, whereas 8.0 % of class 5<sup>st</sup> students are not able to read words, which indicate about the inefficiency of elementary education after huge

allocation to skill specific project of Parrho Punjab. The analysis of the data also shows that 18.6 % are not able to read text of First standard and 69.7 % are not able to read text of second standard, which is a big question mark on the efficiency of financing for public provisions in elementary education.



**Figure 5: Showing Comparison of Literacy Skills of 5<sup>th</sup> Class Students between 2010 to 2022**

The perusal of the table and figure shows that huge decline was noticed in various skills of the 5<sup>th</sup> standard students in 2022 with the increase to 2.0 % students who are not able to perform any skills in language in comparison to merely 1.3 % in 2010. Further analysis of the data reveals that there was sharpe decline in the percentage of students, who are not able to read letter from 12.5 percentage in 2010 to 6.3 % in 2022. The perusal of the data reveals that huge increase in the percentage of students, who are not able to read word from 12.5 in 2010 to 8.2 % in 2022. The analysis of the data also highlights that there is downward slip in the percentage of students, who are not able to read words of standard first from 33.2 in 2010 to 17.4 % in 2022, whereas the analysis of the data reveals that there was upward swing in the percentage of students who can't read text of second standard from 22.5 per cent in 2010 to 66.2 per cent in 2022.

**Discussion:** From the above analysis and discussion, it can be concluded that the skill efficiency of Elementary Education in Punjab is a matter of serious concern as the retention of the students in upper Elementary Education directly depends upon their level of mastery in Literacy and Numeracy skills.

- It was evident from the perusal of the data that a huge number of students are unable to perform various language skills.
- The investigation reveals that majority of students of lower elementary Classes lacked language efficiency skills i.e. recognizing, reading, writing and listening.
- The investigation also reveals that 53 % students were able to read and recognize letters, but not able to read paragraph.
- The study further reveals that 65 % students were able to read and recognize letters, but not able to read paragraph.
- The analysis of data shows that 72 % students were able to read and recognize letters, but not able to read paragraph.
- The study highlights that 77 % students were able to read and recognize letters, but not able to read paragraph. The data shows that after the implement of Pravesh project 82 % of students were able to read the paragraph.
- The present study clearly indicates toward the inefficiency of highly funded remedial projects Parrho Punjab and Pravesh in improving Literacy among children.

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## SPIRITUAL BELIEF AS A CORRELATE OF ACADEMIC ACHIEVEMENT AMONG COLLEGE STUDENTS

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### *Abstract*

*In the present study researcher investigated the relationship of spiritual belief and academic achievement of UG college students. A sample comprised of 200 UG college students studying in degree colleges affiliated to University of Jammu located in Jammu district was selected by stratified random sampling technique giving equal representation to male and female students. Findings revealed that female college students exhibit a greater overall level of spiritual belief than their male counterparts. Correlation computed between spiritual belief and academic achievement of U.G. college students was found significant with respect to male, and female.*

**Key Words:** *Spiritual belief, academic achievement, U.G. college students*

### **Introduction**

A significant period in a student's life is college, during which they not only strive for academic excellence but also grapple with personal growth and self-discovery. One area of study that has been examined in the literature is the connection between academic achievement and spiritual well-being. Spirituality, which is characterized as a dynamic expression of one's core values and purpose, can be a helpful psychological tool for students navigating the demands of higher education.

Research suggests that spirituality can play a significant role in shaping

students' identity, values, and life purpose (Ekwoye et al., 2020). This can have a direct impact on their academic performance, as spirituality can provide a sense of meaning and motivation that drives them to succeed. Moreover, spiritual well-being has been linked to positive psychological attributes, such as concentration, persistence, self-confidence, and self-discipline, all of which can contribute to academic achievement (Pong, 2017).

Spiritual beliefs often support the development of the person as a whole-mind, body, and spirit. In addition to making academic improvement, students

who engage in spiritual activities may also experience spiritual, emotional, and social growth. Spiritual beliefs effect a student's motivation, resilience, ethical behavior, and emotional well-being; these aspects can greatly affect a student's academic achievement and overall success in life.

Besides there are some complicated aspects to the relationship between spirituality and academic success. Research indicates that going through a spiritual struggle while in college might also negatively affect psychological health (Wilt et al., 2017; Gilbertson et al., 2020), which may then have an effect on academic achievement. There is mounting proof that a solid spiritual basis may be an invaluable asset for college students, even in the face of these possible challenges.

Being spiritual is acknowledging a sensation, feeling, or conviction that there is something more than oneself, that there is more to being human than meets the senses, and that the larger system of which we are a part is cosmic or divine in nature (Spencer, 2012). Spiritual belief describes a person's personal belief in a transcendent reality that exists outside of the material world, a higher force, or a divine being. It frequently entails believing in ideas like the soul, the afterlife, and the existence of forces or principles that control the course of existence. Spiritual

views can be personal, nonreligious ideas about the nature of existence and one's purpose in life, or they can be a part of organized faiths (such as Christianity, Islam, Hinduism, etc.).

Fundamentally, spirituality frequently highlights the following: a feeling of connection with something bigger than oneself, like the universe, God, or the shared human experience (Souza & Debs, 2024); a conviction that life has meaning or a higher purpose (Adams, 2020); and the pursuit of inner peace, fulfilment, or enlightenment via techniques like prayer, meditation, or introspection (Tiloka & Yeshpal, 2024).

Spiritual beliefs can affect one's moral standards, personal values, and perspective on relationships, relationships, and life's obstacles. Researchers have been interested in the relationship between spiritual belief and academic achievement, especially in light of the ways in which non-academic elements affect students' success.

### **Spiritual Belief**

The word "spirituality" comes from the Latin "spiritus," which can refer to the soul, breath, inspiration, or character (Chiu et al. 2004; Delgado 2005). The phrase "breath of life" was used to describe the spirit in Hebrew, Greek, and Roman cultures. Numerous other terms are also used to refer

to spirit, such as "psyche" in Greek, "atman" in Sanskrit, and "ruach" in Hebrew (Delgado 2005).

Murray and Zentner (1989) defined spirituality as a trait that transcends religious affiliation and aims to provide meaning and purpose in life, as well as inspiration, reverence, awe, and even in people who reject the existence of any god. In times of emotional strain, physical (and mental) disease, loss, grief, and death, the spiritual dimension essentially comes into focus. It seeks to be in harmony with the cosmos and seeks answers concerning the infinite. According to Ganguly and Parikh (2020) "Spirituality" has more to do with personal beliefs and has something to do with the idea of inner serenity and purpose in life. It also has to do with the way we form "beliefs" about the purpose of life and how it relates to other people.

A person's convictions, ideals, and sense of self-assurance about the universe, other people, and oneself are their spiritual beliefs (Gillman & Turner, 2013).

### **Academic Achievement**

Achievement is described as "doing one's best, being successful, completing tasks requiring skill and effort, and being recognized by authority" by Smith and Hudgins (1964). In 1997, Random House

Webster's College Thesaurus defined achievement as "those qualities, attributes, characteristics, or traits of an individual that contribute to or have an effect, influence, learning, accomplishment, or proficient of performance pertaining to any scholastic activity." Academic achievement is defined by Ambedkar (2013) as "the knowledge acquired and skills developed in school subjects generally indicated by marks obtained in tests and examinations."

Academic achievement refers to a student's success in meeting short- or long-term goals in education. It is often measured through grades, standardized test scores, and other assessments. High academic achievement typically indicates mastery of subjects or skills.

### **Review of Related Literature**

Okunlola et al. (2021) reported significant difference in spirituality of male and female undergraduate students. Fatima (2023) found no significant difference in the spirituality of male and female postgraduate students.

Abadi et al. (2013) found no significant relationship between spiritual well-being and academic achievement of students of engineering and basic sciences and art and architecture. On the other hand, a significant relationship was observed

between spiritual well-being and academic achievement of students of economics and management, humanities, engineering, basic sciences and students of art and architecture. William and Isaac (2016) revealed no meaningful correlation between students' academic achievement and spirituality. Ayudin (2018) also revealed no connection between students' academic success and their abilities to exercise self-control and spiritual intelligence. Sarwari et al., (2024) conducting a study on 194 students from both social and non-social science fields, reported no significant relationship between spiritual motivation and academic achievement. Sarchami et al. (2020) conducted a study on 109 four year dentistry students and concluded that religiosity has significant positive relationship with overall mean grade. Okunlola et al. (2021) conducting a study in a Faith-Based University in Ogun state, Nigeria reported significant positive correlation between spirituality and academic performance of the students. Mendoza (2022) conducting a study on Grade 11 students in Lumban senior high school, Laguna concluded that spirituality served as a source of inspiration to focus on studies and work hard. Imron et al., (2023) revealed that students who have a strong spirituality typically have better levels of resilience and achievement

motivation, both of which have a favourable impact on their academic involvement. Chauhan and Banu (2024) found that academic achievement is positively impacted by spiritual intelligence in a number of ways, including motivation, self-control, emotional stability, and general wellbeing.

### **Objectives**

1. To study the level of spiritual belief among male and female UG college students
2. To investigate the significance difference in spiritual belief and spiritual involvement of the UG college students with respect to gender.
3. To investigate the significance of relationship between spiritual belief and academic achievement of the UG college Students

### **Research Question**

1. What is the level of spiritual belief among male and female UG college students?

### **Hypotheses**

1. There is no significant relationship between spiritual belief and academic achievement of the male UG college students.

2. There is no significant relationship between spiritual belief and academic achievement of the female UG college students.

**Population:** The population of the study comprised of the UG college students of studying in degree colleges in Jammu district and a representative sample from the population was selected by the investigator.

**Sample:** The sample of the present study was comprised of 200 UG college students studying in degree colleges affiliated to University of Jammu located in Jammu district were selected by stratified random sampling technique.

**Tool:** In the present study the researcher used spiritual belief scale, developed by Deshmukh and Deshmukh (2012). It has two dimensions i.e. spiritual belief and spiritual involvement.

## Result and Discussion

### Levels of Spiritual Belief of Male and Female UG College Students:

To check the levels of spiritual belief the male and female UG college students were classified in extremely high, high, above average, average, below average and low, and extremely low levels on the basis of their scores on the spiritual belief scale by Deshmukh and Deshmukh (2012) and the values are given in table 1 below:

**Table 1: Level of Spiritual Belief of Male and Female UG College Students**

Level of spiritual belief	Number of Students (Male)	Number of Students (Female)
Extremely High	1%	57%
High	38%	22%
Above Average	30%	15%
Average	24%	5%
Below Average	4%	1%
Low	3%	0%
Extremely Low	0%	0%

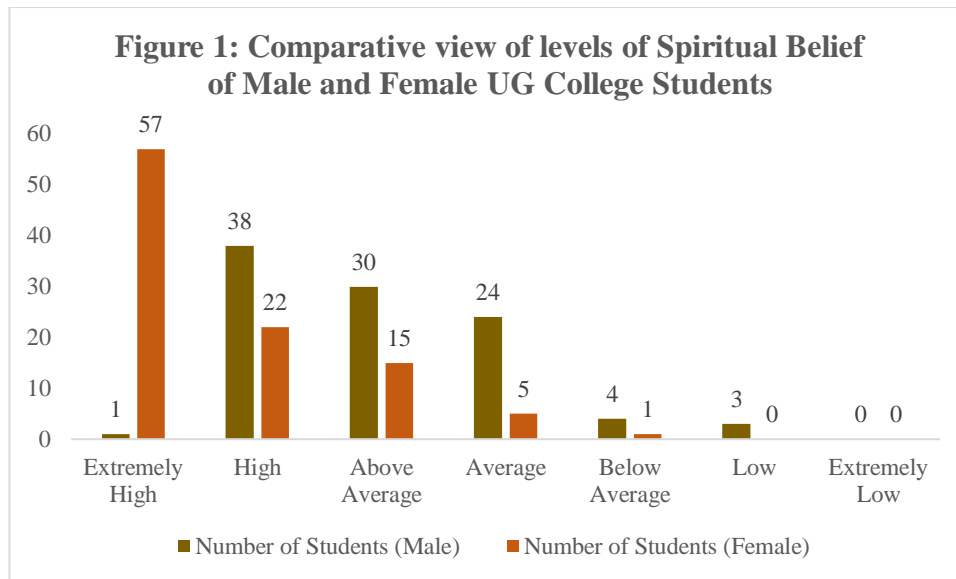


Table 1 and figure 1 reveals that only 1% male UG college students reported an extremely high level of spiritual belief. This indicates that very few students possess a deeply intense level of spiritual belief. A significant proportion, 38% students, reported having a high level of spiritual belief. 30% male students identified their spiritual belief as above average. 24% male college students consider their spiritual belief to be at an average level. 4% male UG college students reported a below-average level of spiritual belief. This indicates that a small group of students feel they are less spiritual than their peers. 3% male UG college students ranked in their spiritual belief as low. These students have minimal engagement or connection with spirituality. No male UG college student reported having an extremely low level of spiritual belief.

Table 1 and figure 1 also show that the majority of female UG college students, 57%, reported an extremely high level of spiritual belief. This indicates that a large proportion of the female UG college student population has a deep and intense connection to spirituality. 22% identified with a high level of spiritual belief. 15% reported having an above-average level of spiritual belief. 5% consider their level of spiritual belief to be average. 1% reported a below-average level of spiritual belief. No female UG college students reported having a low level of spiritual belief, similarly, no one student was identified as having an extremely low level of spiritual belief.

**Relationship between Spiritual Belief and Academic Achievement of Male and Female UG college students:** To investigate the significance of relationship between spiritual belief and academic



achievement of male and female UG college students, Pearson's coefficient of

correlation was worked out and the values are given in table 2 below:

**Table 2. Relationship between Spiritual Belief and Academic Achievement of Male and Female UG College Students**

Group	N	r
Male UG College Students	100	0.20*
Female UG College Students	100	0.30**

*\*Significant at 0.05 level of significance, \*\*Significant at 0.01 level of significance*

Table 2 reveals that the value of coefficient of correlation computed between spiritual belief and academic achievement of male college students is 0.20 which is positive and significant ( $p < 0.05$ ). This means that there is positive but negligible relationship between spiritual belief and academic achievement of male students of college. Hence, the hypothesis 2 which states that "There is no significant relationship between spiritual belief and academic achievement of the male UG college students," is rejected.

This indicates that there is significant positive relationship between spiritual belief and academic achievement of male UG college students. This finding is in line with the studies conducted by Sarchami et al. (2020), Mendoza (2022), Imron et al., (2023), and Chauhan and Banu (2024).

Table 2 also shows that for female college students, the value of coefficient of correlation computed between spiritual belief with academic achievement is 0.30 which is positive and significant ( $p < 0.01$ ). This means that there is significant relationship between spiritual belief and academic achievement of female UG college students. Hence, the hypothesis 3 which states that "There is no significant relationship between spiritual belief and academic achievement of the female UG college students," is rejected.

This reveals significant positive relationship between spiritual belief and academic achievement of female UG college students. This finding is well supported by the studies conducted by Sarchami et al. (2020), Mendoza (2022),

Imron et al., (2023), and Chauhan and Banu (2024).

According to the results of study for both male and female UG college students' spiritual belief has significant positive impact on academic achievement. This may be due to the fact that spiritual belief has a favourable effect on people's mental health (Tarkeshwar et al., 2003; Rosmarin et al., 2009; Baroun, 2016) and is favourably connected with academic motivation and resilience (Rahmawati, 2014; Cahyani & Akmal, 2017; Mendoza, 2022).

**Educational Implications:** The findings of the study provide several important educational implications:

Educational institutions should think about providing more specialized spiritual and emotional support programs that appeal to male students, as female college students exhibit a greater overall level of spiritual belief than their male counterparts. Nonetheless, programs and activities that promote spiritual belief should be open to both male and female students.

The study indicates a significant relationship between spiritual belief and academic achievement among both male and female UG college students. The significant correlation indicates that spiritual belief plays a substantial role in

the academic achievement of the UG college students. Educators should be culturally sensitive and acknowledge the importance of spirituality in students' lives. This understanding can help in designing teaching methods and strategies that resonate with students' cultural and spiritual backgrounds. Educational policies should recognize the potential influence of spirituality on academic success. Schools might incorporate spiritual development programs, possibly enhancing students' academic performance through holistic approaches that include their spiritual needs, and educational policies.

Schools and colleges are suggested to develop programs or extracurricular activities that promote spiritual well-being, fostering a more supportive learning environment that addresses students' personal and emotional needs in order to pave way for as part of holistic education.

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## **DIGITAL LEARNING IN THE CYBER AGE: TRENDS, BENEFITS, AND CYBERSECURITY CHALLENGES IN ONLINE EDUCATION**

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### ***Abstract***

*This study looks at how digital learning is changing in light of the growing threats to cybersecurity. It looks at the advantages of digital learning platforms, examines current trends in online education, and looks into the cybersecurity dangers connected to the growing use of e-learning technologies. This study attempts to shed light on the intricate interactions between educational innovation and concerns about digital security through a thorough assessment of the literature and analysis of current data. The results emphasize the need for a well-rounded strategy that protects students and institutions by putting strong cybersecurity safeguards in place and optimizing the benefits of online learning.*

**Key Words:** *Digital learning, Online education, Cybersecurity, E-learning technologies, Educational innovation, Pedagogical approaches, MOOCs (Massive Open Online Courses), Mobile learning, AI-enhanced learning, Data privacy, Educational outcomes, Student engagement, Digital literacy skills*

### **Introduction**

With the rapid advancement of technology, the education sector has seen turbulence that has given rise to a new era of digital and online learning. Events around the world, like as the COVID-19 pandemic, have accelerated this change even more by compelling a widespread adoption of remote learning tools. All educational activities were moved to digital formats to deal with this unanticipated circumstance. The COVID-19 pandemic has caused India's digital education sector to flourish more quickly than anticipated. It is starting to

become the new norm in our life. It now seems like the only way to pursue higher education is through digital learning. Consequently, learning how to use technology became necessary for continuous education (Gopika & Rekha, 2023).

With a focus on the benefits, current trends, and significant cybersecurity concerns, this study attempts to provide a comprehensive analysis of the state of digital learning today. Hoping to deepen the ongoing conversation on how to safeguard the digital ecosystem that supports online

learning while optimizing its potential, we will be looking into the relationship between cybersecurity and educational technology.

## **Background**

Although the idea of distant learning has been around since the 19th century, its potential and reach have changed significantly with the introduction of digital technology and the internet. There are multiple significant stages in the development of digital learning:

- a) Early online courses (1990s): Email correspondence and simple web-based course materials (Palvia et al., 2018; Kentnor, 2015).
- b) In the 2000s, learning management systems such as Moodle and Blackboard come into existence (Subramanian et. al., 2014; Unal & Unal, 2014).
- c) Massive Open Online Courses (MOOCs): Coursera and edX are two platforms that provide free courses to people all over the world in the 2010s (Alhazzani, 2020; Ayoub et al., 2020).
- d) Personalized learning experiences across a range of devices with mobile learning and adaptive technology (2010s-present) (Costa et al., 2022; Gumbheer et al., 2022).
- e) AI-enhanced learning and VR applications (both current and upcoming): intelligent and immersive learning

environments (Song et al., 2024; Yakkala, 2024).

As a result of their valuable data and frequently weak IT infrastructure, educational institutions are becoming major targets for cyberattacks. This development has been matched by a rise in awareness of cybersecurity risks.

## **Review of Related Literature**

A number of significant patterns and challenges were revealed by recent studies on cybersecurity and digital education. Individualized learning routes are becoming increasingly important, as highlighted by Ibrahim et al. (2020), Ruiz et al. (2021). As Poquet et al. (2021) and Okagbue et al. (2023) investigated, the incorporation of Artificial Intelligence and machine learning in education is transforming pedagogical approaches. In terms of benefits, Johnson (2022) emphasized improved accessibility, and Taylor (2018) and Li (2021) emphasized the development of digital literacy skills through online learning. There is, however, a significant cybersecurity risk associated with these advancements. Ahmed (2022), and Djeki et al. (2024) discussed the significant issues surrounding data privacy in digital education, while Lewis and Clark (2023), and Violino (2023) reported on the unsettling rise in phishing attempts aimed at educational organizations. While Thompson

(2022), Kumar (2023), and Suarez et al. (2024) highlighted the growing threat of ransomware attacks on educational institutions, Kwon et al. (2021), and Nguyen et al. (2023) looked at the challenges of identity management in e-learning contexts. Collectively, these results emphasize the need for a comprehensive approach that addresses the associated cybersecurity concerns while utilizing the benefits of digital learning.

### Objectives

1. To identify and analyze current trends in digital learning.
2. To assess the benefits of online education for learners and institutions.
3. To investigate the cybersecurity challenges facing the e-learning ecosystem.
4. To explore the relationship between the adoption of digital learning technologies and cybersecurity risks.

### Hypotheses

H1: The adoption of digital learning technologies is positively correlated with improved educational outcomes.

H2: Institutions with robust cybersecurity measures report fewer incidents of data breaches and cyberattacks.

H3: The perceived benefits of online education outweigh the perceived cybersecurity risks for most learners.

**Methodology:** Using a mixed-methods approach, this study provided a thorough examination of the research issue by combining quantitative and qualitative data.

### Data Collection

1. Survey: 2000 educators and 1000 students from 50 different universities completed an online questionnaire.
2. Interviews: Twenty IT security experts in the field of education were interviewed in-depth.
3. Case Studies: Examination of ten academic establishments struck by cyberattacks.
4. Literature Review: A thorough analysis of government documents, industry reports, and peer-reviewed works from the previous five years.

### Data Analysis

- Descriptive and inferential statistics, such as regression models and correlation analysis, were used to assess quantitative data from surveys.
- Using NVivo software, qualitative data from case studies and interviews were coded and subjected to thematic analysis.



• A comparative study was carried out to find trends and differences among various data sources.

digital learning today and the cybersecurity issues that surround it. The key quantitative findings are collected in table 1 below:

**Findings:** Our study has produced a number of important new findings on the state of

**Table 1: Findings**

Metric	Value
Students reporting improved flexibility and access to resources	78%
Educators observing increased student engagement	65%
Increase in phishing attacks in the past year	30%
Increase in ransomware attacks on schools	100% (doubled)
Learners believing benefits outweigh risks	72%
Reduction in incidents for institutions with strong cybersecurity	40%
Phishing attacks (as % of total cybersecurity threats)	40%
Data breaches (as % of total cybersecurity threats)	30%
Ransomware attacks (as % of total cybersecurity threats)	20%
Educational institutions with comprehensive cybersecurity policies	45%

Table 1 results, along with our qualitative research, allow us to make the following deductions:

1. Trends in digital learning are having a favourable effect on academic results, which validates hypothesis H1. The advantages of online education are shown by the high percentage of students (78%) who report having more flexibility and

educators (65%) who report having higher engagement.

2. Strong cybersecurity measures were associated with 40% fewer events reported by institutions, supporting hypothesis H2. This substantial decrease proves that strong security procedures work.

3. According to 72% of students, there are more advantages to online learning than disadvantages, which validates hypothesis H3. This also suggests, nevertheless, that a

sizable minority (28%) are hesitant about the security of online learning.

4. In the field of education, phishing accounts for 40% of cybersecurity threats, followed by data breaches (30%) and ransomware (20%). The tripling of ransomware attacks and the 30% rise in phishing attempts demonstrate the increasing sophistication of cyber threats directed towards the education industry.

5. Just 45% of colleges and universities have elaborate cybersecurity procedures in place. Given the changing threat scenario, this low percentage raises concerns and points to a sizable institutional readiness gap.

6. There is a notable deficiency of cybersecurity knowledge in the education sector, as demonstrated by the absence of all-encompassing regulations and the rising number of cyberattacks.

**Discussion:** The study's conclusions paint a complicated picture of a world in which serious cybersecurity issues coexist with the advantages of digital learning. Unquestionably, the quick uptake of online learning resources has increased access to educational possibilities and brought cutting-edge pedagogical strategies. Nevertheless, the educational ecosystem now has additional vulnerabilities as a result of this digital revolution.

According to our poll, students are generally satisfied with online learning; 78% of them say they have more freedom and access to a wider range of resources. A majority of educators (65%) reported that using interactive digital tools had boosted student engagement.

Nonetheless, the IT security experts' interviews revealed concerning patterns in cyberattacks directed on educational establishments. Over the past year, ransomware assaults against schools have doubled, while phishing attacks have climbed by 30%. These results highlight how urgently the education industry needs strong cybersecurity safeguards.

The case studies showed that successful assaults were less common in organizations with extensive cybersecurity measures and frequent worker training. This implies that taking preventative action might greatly reduce the risks connected to digital learning systems.

**Implications:** This study not only highlights the transformative potential of digital learning, but also emphasizes the critical role cybersecurity plays in the education sector. As online education advances, robust security measures must be implemented in tandem with technological innovation. The following recommendations are offered to

provide robust security for online learning/education:

- a) Provide thorough cybersecurity training to all employees and pupils.
- b) Make an investment in cutting-edge security solutions, such as threat detection systems powered by AI.
- c) Create and update institutional cybersecurity policy on a regular basis.
- d) Encourage cooperation across educational establishments in order to exchange threat intelligence and best practices.
- e) Include cybersecurity knowledge in the curriculum when creating online learning courses.

Future research must focus on developing adaptable security frameworks that can keep up with the rapidly evolving field of educational technology. By finding a balance between innovation and security, the educational industry can take full advantage of digital learning while safeguarding its digital assets and user data.

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## SELF-DISCLOSURE OF SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR PERSONALITY

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### Abstract

*The present study was taken up with the aim of studying self-disclosure of secondary school students in relation to their personality. The sample of the study included 200 secondary school students of Class IX in the age group of 14-16 years from randomly selected government and private schools of Chandigarh. The tools used for data collection were Self-Disclosure Inventory for adolescents by Sinha (1971) and Kundu Introversion Extraversion Inventory by Kundu (1976). The findings of the study reported no significant difference in the self-disclosure of secondary school students in relation to introversion and extroversion dimensions of their personality. The educational implications of the study have been discussed.*

**Key Words:** *Self-disclosure, Personality, Introversion-extroversion*

### Introduction

Self-disclosure has a central role to play in the personality organization. It is essential aspect of human life especially in adolescent period. It has been recognized as a very important determiner of human behaviour.

The variable self-disclosure consists of two words, self and disclosure. 'Self' refers to the inner image of one's own conscious and reflective personality of an individual. Disclosure is a general term used, wherein a stress moment one person (self) speaks to another about himself. Disclosure is both the conscious and unconscious act of revealing more about

oneself to others. This may include, but is not limited to, thoughts, feelings, aspirations, goals, failures, successes, fears, dreams as well as one's likes, dislikes, and favourites.

Freud (1938), Allport (1955) have proved that whenever a person discloses himself to another they feel better. Horney (1939) has remarked that more the individual ignores his real feelings, wishes and wants, more alienated he is from the real self. This estrangement- alienation from one's real self is at the root of the neurotic personality of our times.

According to Jourard (1959), Self-disclosure is a means of talking about one to

another person. He further states self-disclosure is the extent to which a person reveals things about himself to others. According to Sinha (1971), Self-disclosure is the ability to express one's real self to others. According to International Encyclopedia of Psychology (1996), self-disclosure is the process of communicating personal information to another individual. It involves a willingness to reveal intimate thoughts and feelings rather than superficial or obvious characteristics.

Self-disclosure is a process of communication through which one person reveals information about himself or herself to another (Sprecher et al., 2013).

So, it may be concluded that self-disclosure is the extent to which a person reveals things about himself to others and a willingness to reveal intimate thoughts and feelings rather than superficial or obvious characteristics. It implies how much a person express his/her desires, ideas and feelings in whom a person will disclose more and it differs from person to person.

Adolescents generally tend to judge themselves in relation to one's ideal self and tends to act according to the way they feel about themselves affect their total personality. An adolescent lacking in self-disclosure feels inferior, discouraged and helpless in dealing with different situations of environment.

Every human being whether a child, adolescent or an adult possesses his own individual personality. Personality is reflected in all his activities and it differs from individual to individual. Personality is a broad and comprehensive concept covering the organization of an individual's predisposition to behaviour and his unique adjustment to environment. Psychologically personality is all that a person is, it is the totality of one's behaviour towards oneself and others. It includes everything about the person i.e. his physical, emotional, social, mental and spiritual make-up.

According to Eysenck (1952), personality is more or less stable and enduring organization of a person's character, temperament, intellectual and physique which determines his unique adjustment to his environment. According to Allport (1966), personality is dynamic organization within the individual of these psycho-physical systems that determines his unique adjustment to the environment. Cattell (1973) views personality as that which permits a prediction of what a person will do in a given situation. Oxford Dictionary of Psychology (2001) defines personality as the sum of the behavioural and mental characteristics that are distinctive of an individual and informally

as the personal qualities that made a person socially popular.

In the past few attempts have been made to find out the relationship of self-disclosure and personality at different levels. This has motivated the investigator to unfold the intricacy involved in its various aspects. The purpose of the present study is to probe into the relationship of self-disclosure of adolescents with extraversion and introversion dimensions of personality.

### **Review of Related Literature**

The research studies conducted on the variables under study are reported as follows:

Netta and Apter (2006) examined the personality variable of self-disclosure, or the tendency to share feelings with others, and its relationship to depression, anxiety, and suicidal behavior in adolescent psychiatric inpatients. Of the 87 adolescents who were assessed, 53 had made a suicide attempt and 34 had never shown any suicidal behavior during their lifetime. There was a significant relationship between suicidality and low levels of self-disclosure, which appears to be mediated by anxiety and depression. This sharing difficulty was most significantly marked between the adolescent and his/her family and seemed to be mediated by feelings of depression and anxiety.

Eva and Sheldon (2006) investigated the influence of target personality characteristics on self-disclosure. Using the Bern Q-Sort Technique, the subjects (71 male and 73 female undergraduate students) described the personality of the person to whom they disclose the most and the personality of the person to whom they disclose the least, as well as their own personality. Factor analysis revealed that there were several personality types to whom people disclose the most and the least. The various types are described and discussed. Results supported the hypothesis that both males and females prefer disclosing to individuals who are perceived as similar to themselves in personality.

Cozby (2009) studied the role of verbal disclosure of information about oneself as a personality attributes, in interpersonal relationships and in therapist-client relationship between self-disclosure and non-verbal communication is considered.

Yuxiang et al. (2022) were involved the construction of a mediation model and a moderator model to evaluate the influence of personality traits on self-disclosure on social media in China. Perceived value was regarded as the mediator while the degree of authenticity was regarded as the moderator. Using a quota sampling method, 1,075 Chinese netizens were surveyed in July and August 2021. The results showed that: (1) The depth of self-disclosure of subjects with



extroverted personality was significantly higher than that of those with introverted personality, that is, personality traits affect the depth of self-disclosure; (2) perceived value plays a mediating role in online self-disclosure; (3) The degree of authenticity is a significant moderator in the relationship between personality and self-disclosure. In all, the results from this study contribute to our understanding of how personality traits affect perceived value of media and self-disclosure. This study tested the credibility and validity of the proposed model in the context of the recent COVID-19 pandemic lockdown in China, and the study is a novel approach in that area of research.

**Rationale:** The review of related literature presented above clearly indicates that very few studies have been conducted by taking into account both the variables under study. The study by Yuxiang, et al. (2022) revealed how personality traits affect perceived value of media and self-disclosure. Moreover, other studies undertaken have been mostly conducted in the field of clinical psychology and not in the field of educational psychology. Thus, the investigator felt motivated to study self-disclosure of secondary school students in relation to their personality.

### **Objective**

To study the self-disclosure of secondary school students in relation to introversion and extroversion dimensions of their personality.

### **Hypothesis**

There is no significant difference in the self-disclosure of secondary school students in relation to introvert and extrovert dimensions of their personality.

**Method and Procedure:** The study followed descriptive survey method for data collection (Best & Kahn, 1981). In accordance with the various objectives and the stated hypothesis, the investigator tried to obtain pertinent and precise information concerning the current status of phenomena and wherever possible draw valid conclusions from the facts that were discovered.

The sample in the present study comprised of 200 Class IX students in the age group of 14-16 years. Equal number of students (boys and girls) were taken from Govt. and private schools. Simple random sampling technique was applied to select the sample.

**Tools:** Following tools were used in the present study:

1. Self-Disclosure Inventory for adolescents by Sinha (1971)

2. Kundu Introversion Extraversion Inventory by Kundu (1976). To investigate the self-disclosure of secondary school students in relation to introversion and extroversion dimensions of their personality t-ratio was worked out and the values are given in table 1 below:

### Results and Discussion

**. Table-1 Comparison of Mean Scores of Self-Disclosure (N=100) in relation to Introversion and Extroversion dimensions of Personality (N=100) of Secondary School Students**

Areas of Self- Disclosure	Areas of Personality	Mean	SD	t-ratio
<b>Money</b>	Introversion	39.36	12.61	0.24
	Extroversion	38.72	14.16	(N.S.)
<b>Personality</b>	Introversion	38.94	13.87	0.31
	Extroversion	38.04	15.00	(N.S.)
<b>Study</b>	Introversion	54.32	20.98	0.34
	Extroversion	55.88	24.79	(N.S.)
<b>Body</b>	Introversion	43.64	16.52	0.92
	Extroversion	47.02	19.95	(N.S.)
<b>Interests</b>	Introversion	56.44	19.36	0.56
	Extroversion	58.86	23.42	(N.S.)
<b>Feelings and Ideas</b>	Introversion	51.42	21.61	0.57
	Extroversion	48.94	21.64	(N.S.)
<b>Vocation</b>	Introversion	50.98	20.28	0.04

	Extroversion	50.82	21.98	(N.S.)
<b>Gender</b>	Introversion	22.62	13.82	1.24
	Extroversion	25.90	12.58	(N.S.)

*N.S. means non-significant*

Table 5 shows the mean, SD and t-ratio of self-disclosure in relation to introversion dimension of personality in the areas of Money, Personality, Study, Body, Interests, Feelings & Ideas, Vocation and Gender.

The mean score of self-disclosure of introversion dimension of personality in the areas of Money, Personality, Study, Body, Interests, Feelings & Ideas, Vocation and Gender was 39.36, 38.94, 54.32, 43.64, 56.44, 51.42, 50.98 and 22.62 respectively and that of extroversion dimension of personality was 38.72, 38.04, 55.88, 47.02, 58.86, 48.94, 50.82 and 25.9 respectively. The standard deviation of introversion dimension of personality in the areas of Money, Personality, Study, Body, Interests, Feelings & Ideas, Vocation and Gender was 12.61, 13.87, 20.98, 16.52, 19.36, 21.61, 20.28 and 13.82 and that of extroversion dimension of personality was 14.16, 15, 24.79, 19.95, 23.42, 21.64, 21.98 and 12.58 respectively.

The calculated 't' ratio between introversion and extroversion dimensions of

personality in the area of Money ( $t=0.24$ ) ( $p>0.05$ ), Personality ( $t=0.31$ ) ( $p>0.05$ ), Study ( $t=0.34$ ) ( $p>0.05$ ), Body ( $t=0.92$ ) ( $p>0.05$ ), Interest ( $t=0.56$ ) ( $p>0.05$ ), Feelings and Ideas ( $t=0.57$ ) ( $p>0.05$ ), Vocation ( $t=0.04$ ) ( $p>0.05$ ), and Gender ( $t=1.24$ ) ( $p>0.05$ ) are non-significant.

Thus, we can say that there is no significant difference on the mean scores of self-disclosure in relation to introversion and extroversion dimensions of personality of secondary school students.

So, the null hypothesis that "There is no significant difference in the self-disclosure of secondary school students in relation to introversion and extroversion dimensions of their personality was accepted.

**Finding of the Study:** The finding of the present study reported no significant difference in the mean scores of self-disclosure in relation to introversion and extroversion dimensions of personality of secondary school students.

## Educational Implications

1. Since no significant difference was found in the self-disclosure of secondary school students in relation to introvert and extrovert dimensions of their personality. This may lead us to believe that introverts may also self-disclose about themselves at par with extroverts given the favorable environment. This is an encouraging finding of the study.
2. The teachers and school administrators should provide a congenial environment and proper platform to the school students, so that they may disclose their problems freely and seek appropriate guidance from them. The students should be provided an exposure in a variety of socio-cultural, sports and outreach activities to shape their personality in a desirable manner.
3. The policy makers and planners should plan the curriculum and instructional designs to bring an all-round development of personality of the students.

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## ACADEMIC RESILIENCE AMONG ADOLESCENTS IN RELATION TO PARENTAL INVOLVEMENT

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### *Abstract*

*The present study was undertaken to study academic resilience among adolescents in relation to parental involvement. A sample of 200 adolescents selected randomly from urban and rural senior secondary schools (five each) of Ludhiana district of Punjab state, India giving equal representation to boys & girls and also to rural & urban. Academic Resilience Scale by Kaur and Singh (2016) and The Parental Involvement Scale (TPIS) by Chouhan and Arora (2009) were used for data collection. Results of the the study revealed significant positive relationship between parental involvement and academic resilience in case of adolescents, adolescent boys, adolescent girls, rural adolescents and urban adolescents.*

**Key Words:** *Academic resilience, parental involvement, adolescents*

### **Introduction**

Education, which is the lifeblood of society, is also the most effective means of changing a person's course in life by enabling him to become wise, fearless, brave, and endowed with a strong moral code. An individual thus develops into a successful, active, and productive member of society. Every country, community, parent, and student wants their child to achieve well academically so they are well-prepared to face the challenges of today's interconnected world. The quality and performance of our adolescents in the field of education have declined, despite the government's best

attempts to give its children with high-quality education.

The greatest strategy to address pupils' poor performance and high failure rates would be to foster academic resilience while focusing on their talents. Academic, social, and emotional resilience are only a few of the categories that resilience spans throughout in its multifaceted character. The American Psychological Association (2014) states that "people show resilience when they can rise above challenging experiences." Being resilient is not a special talent; rather, it is a quality that can be acquired and enhanced by almost anyone. It

is better to think of resilience as a process than as a desirable quality.

### **Academic Resilience**

According to Martin and Marsh (2006) academic resilience is the ability to effectively deal with setback, stress or pressure in the academic setting. Academic resilience comprises self-belief (confidence), a sense of control, low anxiety (composure), and persistence (commitment). Specifically, enhancing students' self-belief, control, and persistence and reducing their anxiety are key means to enhance students' capacity to deal more effectively with setback, stress, and pressure at school.

Academic resilience was described by Wang et al. (1994) as the increased probability of success in school in spite of environmental adversities caused by early characteristics, circumstances, and experiences. Academic resilience, according to Gayles (2005), is the process of handling high-risk circumstances through the educational system and achieving exceptional academic accomplishment. Academic resilience is defined by Morales and Trotman (2011) as a student's ability to manage short-term or long-term issues that are seen to be the primary disruption in their educational process.

The ability to handle hardship, stress, or pressure in academic contexts is known as academic resilience. There are two types of protective variables that influence academic resilience: internal and external. Positive academic, social, and health outcomes are influenced by internal protective factors, which are personal traits and attributes (skills, attitudes, beliefs, and values) that grow both spontaneously and in reaction to external protective factors. The environmental opportunities and support that are present in the home, school, community, and peer groups in the form of supportive relationships, high standards, and encouragement to engage in worthwhile activities are considered external protective factors (Rutter, 1987).

According to Kaur and Singh (2016) academic resilience means achieving better than expected education outcome despite the presence of stressful events, environmental conditions or personal vulnerabilities that are known to place student at risk of doing poorly at school. The scores of the Academic resilience scale by Kaur and Singh (2016) is taken as Academic resilience in the present study.

According to studies, having supportive family interactions has the biggest impact on resilience. However, additional familial risk factors can have a

direct impact on resilience development. Additionally, children's academic performance is directly impacted by both of these. Students that have academic setbacks as a result of familial risk factors may be classified as non-resilient. On the other hand, resilient pupils are those that achieve academic success in the face of difficulty (Grotberg, 2001). The protective elements that promote academic resilience in the face of hardship include the care-giving environment, which includes parental techniques, child bonding, family support, and guidance (Garmezy, 1991; Rojas, 2015). Due to the fact that children and adolescents spend a significant amount of time at home, family, especially parental participation, might be crucial in helping students develop academic resilience.

### **Parental Involvement**

Parental involvement in education is defined as a parent's reported participation at a minimum of one general school meeting, one scheduled meeting with their child's teacher, one school event, one volunteer program, or one committee position during the academic year.

According to Reynolds (1996), parental involvement is "any interaction between a parent and child that may direct parent participation with a child's school in

the child's interest" or "may contribute to the child's development."

Parental involvement is the commitment of resources by the parent to the child in a certain area, according to Grolnick and Slowiaczek (1994). The three domains that the parents are engaged in are behavioural, cognitive, and personal. This seems like a fairly true description of parental involvement, parents need to be involved in every aspect of their children's lives. Parental involvement is defined as taking part in one or more school-related events by Balli et al. (1997). As an illustration, consider helping out at the school, taking part in parent-teacher conferences, offering home help, etc.

Grolnick et al. (1997), has given three dimensions of parental involvement on the basis how parent-child interactions affect students' schooling and motivation: i) Behavioural involvement include parent's interest in their child's education, such as attending an open house or volunteering at the school; ii) Personal involvement includes parent-child interactions that communicate positive attitudes about school and the importance of education to the child; iii) Cognitive/intellectual involvement refers to behaviours that promote children's skill development and knowledge, such as reading books and going to museums.



Parental involvement affects student achievement because these interactions affect student's motivation, their sense of competence, and the belief that they have control over their success in school.

In this present study the scale used to find parental involvement is development by Chouhan and Arora (2009). According to this scale, parental involvement is participation of parents in every facet of children's education and development from birth to adulthood, recognizing that parents are the primary influence in children's lives.

Parental involvement is thought to be the first step in fostering academic success. If a parent can provide constructive criticism and encouragement for their child's accomplishments, the child is more likely to participate in activities in a positive and correct manner. In addition, parent participation can improve children's behavior both at home and in the classroom when parents and educators collaborate to improve social skills and address problematic behaviors.

Rasinki and Fredricks (1988) asserted that parents play a vital role in students learning; when students have a great deal of attention and caring from their parents, their school life becomes more efficient. Cotton and Wikeland (2005) similarly found that when parents involve intensively in their

students' learning; the more beneficial are the achievement effects. Khajehpour (2011) concluded that when parents monitor children's home work, encourage them to participate in extracurricular activities, are active in parents-teacher associations, and help children develop plans for their future; students are more likely to respond and do well in school. Surum et al. (2022) revealed that parental involvement academically, physically, socially, emotionally, financially parental communication of expectations yield high academic resilience. On the other hand, the research pointed out that student from poor or single-parent households, or whose parents did not complete high school, are more likely to perform poorly and dropout from school than students from families without these risk factors (Rumberger, 1995).

#### **1.4 Emergence of the problem**

Adolescents are poised to play a vital role in shaping the future of a nation with a unique combination of progressive and out of the box thinking. Adolescence is a transitional period from childhood to adulthood bringing about many physical as well as psychological changes. In addition to this, the adolescents are always finding themselves under the pressure of performing to the best of their abilities, especially in the field of education. Family dissonance,

poverty, violence, interpersonal relationship and other environmental factors are potential threats for them in their academic development and educational achievement. Many a times, an adolescent is not able to cope with pressures and demands of the education and consequently face failures. These frequent failures push the adolescent towards depression and in severe conditions towards suicides.

One way of reversing the high failure rates would be to focus on students' strengths by fostering academic resilience. Academic resilience is the students' ability to overcome academic setbacks, stress and study pressure associated with school as manifested by internal and external factors. When students demonstrate academic achievement despite facing numerous obstacles or risk factors, these students can be viewed as "academically resilient."

Protective factors are elements within the individual and the environment that foster resilience. Studies (Garmezy, 1991; Rutter, 1987; Werner & Smith, 1982) indicate that there are three sets of protective factors that seem to enhance resilience: personal characteristics (e.g., internal locus of control, personal motivation, high self-esteem), family-related factors (e.g., support from at least one family member), and external support

systems or aspects of the wider social context (e.g., an encouraging teacher or mentor). Because children and adolescents spend a large fraction of their time with the family, so the family especially parents can provide numerous protective factors, for students who face multiple risk factors.

Parental involvement refers to parent's role in educating and teaching their children at home and in school. Parental involvement is critical in students' educational processes as it enhances students' feeling of academic self-efficacy and self-esteem. When parents monitor children's home work, encourage them to participate in extracurricular activities, are active in parents-teacher associations, and help children develop plans for their future; students are more likely to respond and do well in school. On the other hand, students from poor or single-parent households, or whose parents did not complete high school, are more likely to perform poorly and dropout from school than students from families without these risk factors (Rumberger, 1995; Swanson & Schneider, 1999). So, this means that parental involvement not only helps the child to do well in school but can also be used as a protective factor to develop academic resilience in students especially adolescents.

After reviewing the literature, it was found that many studies have been carried out to study the relationship between academic resilience and academic achievement (Mwangi et al., 2015; Ayasrah & Albalawi, 2022; Dwiastuti et al., 2022; Amzil, 2023), and between parental involvement and academic achievement (Castro et al., 2015; Xavier, 2017; Lara & Saracostti, 2019) but negligible work has been done to study the relationship between academic resilience and parental involvement that too in India. Hence there is need to explore the field significantly with great vigour. Thus the present study has been designed to investigate the relationship between academic resilience among the adolescents in relation to parental involvement. So the purposed study seems fully justified.

### **Objective**

To study the relationship between parental involvement and academic resilience in adolescents.

### **Hypothesis**

There exists no significant relationship between academic resilience and parental involvement in adolescents.

**Method:** Descriptive survey method was used in the present study.

### **Sample**

A sample of 200 adolescents (100 boys and 100 girls) was selected randomly from urban and rural senior secondary schools (five each) of Ludhiana district of Punjab state, India.

### **Tools**

- a) Academic Resilience Scale by Kaur and Singh (2016)
- b) The Parental Involvement Scale (TPIS) by Chouhan and Arora (2009)

### **Result and Discussion**

**Relationship between academic Resilience and Parental Involvement:** To find out the relationship between academic resilience and parental involvement of adolescents Pearson's coefficient of correlation was calculated and the values are given in table 1 below:

**Table 1 Coefficient of correlation between academic resilience and parental involvement in adolescents**

Variables	Category	N	r
Academic Resilience and Parental Involvement	Adolescents	200	0.55*
	Adolescent boys	100	0.57*
	Adolescent girls	100	0.54*
	Rural Adolescents	100	0.65*
	Urban Adolescents	100	0.67*

\* Significant at 0.01

Table 1 represents correlation between academic resilience and parental involvement in adolescents. The value of coefficient of correlation came out be 0.55, which is significant ( $p < 0.01$ ). The value of coefficient of correlation between academic resilience and parental involvement in case of adolescent boys, adolescent girls, rural adolescents and urban adolescents came out to be 0.57, 0.54, 0.65 and 0.67, respectively. All these values are significant ( $p < 0.01$ ). This shows that academic resilience and parental involvement in adolescents is positively correlated and the relationship is significant. Therefore, the hypothesis “There exists no significant relationship between academic resilience and parental involvement in adolescents” is not accepted. This result is in line with the study conducted by Olaseni, 2020; Surum et al. (2022).

Parental involvement has advantages that go beyond literacy and academic performance. According to studies, children with involved parents develop their children's social and emotional skills more (Allen & Daly, 2002). These skills include increased social adjustment, mental health, resilience to stress, life satisfaction, self-direction and self-control, more positive peer relationships, tolerance, more successful marriages, and fewer delinquent behaviors (Desforjes & Abouchaar, 2003).

**Implications:** Results of the present study show that there is significant correlation between parental involvement and academic resilience in adolescents and also parental involvement is a significant predictor of academic resilience. Developing academic resilience in children is crucial because it enables them to face obstacles and overcome hurdles in the classroom and

develops transferable skills like communication and problem-solving. Parents are suggested to get more involved in their children's educational activities both at home and in school in order to boost the academic resilience of adolescents. In addition to keeping an eye on their children's homework, parents should also actively participate in parents-teacher organizations, encourage their involvement in extracurricular activities, and assist their children in making future plans. Additionally, it is advised that adolescents get appropriate psychological intervention programs that support the growth of academic resilience.

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## ENVIRONMENTAL AWARENESS AND ENVIRONMENTAL ATTITUDE AMONG PUPIL TEACHERS OF DIFFERENT ACADEMIC STREAMS

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### *Abstract*

*The present study was an attempt to study the environmental awareness and environmental attitude among pupil teachers of different academic streams. A random sampling method was used. The sample consisted of 100 pupil teachers selected from the two colleges of education affiliated with Panjab University, Chandigarh, India. The investigator used the Environmental Awareness Ability Measure Scale by Jha (1998) and the Taj Environmental Attitude Scale by Taj (2001) for collecting data. The descriptive survey method was used in the study. The results of the study indicated that the majority of pupil-teachers, 91% possess a high level of environmental awareness. Additionally, 9% pupil-teachers were found to exhibit an average level of environmental awareness. Notably, no pupil-teacher was found to have low levels of environmental awareness. Also, the majority of pupil-teachers, 97% in the sample exhibited a high positive environmental attitude, while 3% pupil-teachers exhibited a moderately positive environmental attitude, with none showing a low positive environmental attitude. Furthermore, the study revealed no significant difference in the environmental awareness of pupil teachers belonging to the science and arts academic stream. Likewise, there was no significant difference in the environmental attitude of pupil teachers belonging to the science and arts academic stream.*

**Key Words:** *Environmental Awareness, Environmental Attitude, Pupil teachers, Academic streams.*

### **Introduction**

The term environment originated from “Environ”, which means to encircle or surround. Everything in one's immediate surroundings, biological and non-biological entities, makes up one's immediate vicinity. The environment stands as a pivotal juncture where the universe exists & comes into being. The

environment is a pivotal point at which the universe exists. Thus, an environment encircles all that forms a crafted & balanced ecosystem (Sharma & Sharma, 2021). The concept of environment can be best understood as the totality of all components surrounding man. The Environmental Pollution Panel of the United States, Presidents Science Advisory



Committee (1965), referred to the environment as “The sum total of social, biological and physical or chemical factors which compose the surrounding of man”. In the evolving landscape of contemporary society, there exists a notable crisis of environmental awareness culminating in a negative code of behaviour directed towards the environment. The major challenge confronting the current society revolves around the imperative need to cultivate environmental values for the preservation of our surroundings. The largest challenge of the twenty-first century emerges to be environmental degradation. Presently, we are confronting environmental challenges & problems related to especially the misuse of the environment leading to the depletion of resources, global warming, air, soil, and water degradation, loss of forests, the concretization of land, and many other challenges. Our environment impacts us and is reciprocally influenced by our actions (Choudhary, 2015). The primary way to address the environmental challenges & issues that humans have is through the application of science, which stands as the planet's most intelligent force & tool. Additionally, education is a means of informing and awakening as it serves as the avenue for enlightenment and consciousness-raising. It is imperative that everyone, especially the younger

generation, receive education on this matter to ensure a sustainable and liveable world for future generations. Educators who recognize the importance of these teachings play a key role in promoting environmental consciousness (Ergin, 2019).

The pupil teachers represent the future educators of the nation, esteemed as a sacred trust and invaluable human assets, upon whose growth rests the nation's future. They have an extremely important role in instilling a desirable attitude towards environmental concerns among students. Hence, a special responsibility lies on every teacher to grow into a responsible teacher by possessing a strong character, unique abilities, skills, and profound knowledge of our environment (Qasim, 2016).

### **Environmental Awareness**

Awareness denotes the condition of possessing consciousness or knowledge or being aware of something. According to Gilbert (2005), “Awareness is the direction of attention to the flow of instant experiences, deliberately and without judgment.” The term “environmental awareness” is indicative of one’s conscious state of being towards one’s environment or being mindful & conscious of surroundings. According to Coertjens et

al. (2010), “Environmental awareness is defined as the formation of environmental sensitivity through the conscious perception of environmental problems by the individual, and by behaving accordingly, taking precautions to protect the environment.” Environmental awareness pertains to the state of being mindful and vigilant toward the various dimensions of an environment. Comprehending environmental fragility, the depth of environmental issues, the environment's sensitivity to human interference, and the significance of protecting it are all encompassed within environmental awareness. Pupil teachers serve as upcoming educators or prospective teachers. Educators represent a sacred responsibility and crucial human capital, upon whose growth hinges the future of the nation. They hold a pivotal role in instilling an appreciative mindset in the direction of raising pupils' consciousness related to the environment. Thereby, it is incumbent upon every educator to evolve into a responsible mentor, equipped with unwavering integrity, distinctive skills, and a comprehensive understanding of our environment. Given the exceedingly perilous environmental circumstances of the present day, everyone must make a contribution employing their environmental knowledge.

### **Environmental Attitude**

Environmental attitude is an acquired inclination to consistently respond favourably or unfavourably concerning the environment. Hence, it denotes a propensity to either support or oppose some environmental factors which are thereby a positive or negative value. Environmental attitudes are conceptualized as an expression and component of environmental behaviour. According to Pelstring (1997), attitude toward the environment is “Learned tendencies in the form of consistent behaviours against environment either positive or negative.” According to Erten (2005), a person's attitude toward the environment is shaped by all of their behaviour, both positive and negative, and by their opinions towards an environment that may include values judgments, fear, anger, or uneasiness, as well as readiness to address environmental concerns. According to Gifford and Sussman (2012), “environmental attitude is characteristic of an individual's concern for the physical environment, worthy of protection, understanding, and enhancement.” Education serves as the most efficient tool that shapes human attitude and elevates man to master knowledge, acknowledge his responsibilities, and make appropriate contributions as inhabitants of the natural

world. Therefore, teachers must exhibit the skills to teach, propagate, and train young minds in schools to foster heightened consciousness of their surroundings, demonstrate empathy towards its deterioration, and exhibit vigilance towards its preservation (Sahay et al., 2013).

### **Review of Related Literature**

Studies that have direct or indirect links with the present study and which have helped the investigator in concluding are outlined below following heads:

#### **Studies related to Environmental Awareness**

Upon examining research studies associated with environmental awareness revealed that Pradhan (2002) found a significant difference in environmental awareness between social science, language, and science teachers, urban & rural teachers, while female & male teachers showed no such differences. The study conducted by Dixit and Agarwal (2009) found that the environmental awareness of prospective teachers is in a positive direction. Kaur (2013) reported that elementary school teachers specializing in the science stream possess a higher level of awareness in contrast to those in the arts stream. Butool (2014)

reported that environmental awareness among female secondary school teachers in private schools is affected by their stream (Science, Social Science, and Arts) and their socioeconomic status (High and Low), also findings revealed that science teachers have more environmental awareness than social science and arts teachers. Banga (2016) found that the mean score for environmental awareness of science students does not show much difference as compared to the mean environmental scores of arts students. Thus, findings revealed no significant difference in science and arts students based on environmental awareness. Chavada and Charan (2020) found no significant difference among college students concerning gender and no significant difference was spotted among college students concerning educational levels pertaining to environmental awareness.

#### **Studies related to Environmental Attitude**

Upon examining the research studies associated with environmental attitude revealed that Erol and Gezer (2006) carried out a study and found that elementary school teachers' attitude was not very high attitude when it came to environmental issues. Patil and Jinjar

(2012) found the environment attitude of M.Ed. student-teachers better than B.Ed. & D.Ed. student-teachers. A research study undertaken by Bhakta and Kumar (2017) reported that the educational stream had no such impact on trainees in creating significantly different knowledge and attitudes toward environmental sustainability. Whereas, Sarikaya (2018) found high mean scores of pre-service teachers regarding their attitudes toward environmental issues. Orbanic and Kovac (2021) studied the environmental awareness, attitudes, and behaviour of preservice preschool and primary school teachers. The findings disclosed no significant differences in responses of students from both programmes in general, which depicted course contents have a less significant influence on students' awareness, behaviour, and attitudes. Kaur and Kaur (2022) found no significant difference in the environmental attitude of arts and science students of Panjab University, Chandigarh. Bello et al. (2023) science undergraduate students demonstrated higher environmental attitude as compared to their non-science counterparts. Gnanaselvi and Benjamin (2023) revealed in their study that pupil teachers of science group had significantly higher attitude towards environmental science as compared to pupil teachers of arts group.

### **Emergence of the Problem**

The necessity to understand the attitude and awareness levels of pupil teachers concerning the environment is a matter of great concern in today's world. If the teacher himself is not mindful & conscious of his or her surroundings then he or she cannot do justice to create an awakening about this same among pupils. The study has emerged out of the experiences of the investigator during the teaching practices of B.Ed. as during her visit to school investigator was surprised that many teachers (in-service) possess their understanding of and disposition concerning environmental education not up to remarkable status. This observation motivated the present investigator to take up an investigation related to environmental awareness & pupil teachers' i.e., future teachers' environmental attitude. Hence, it is imperative to understand that special responsibility lies on every teacher to provide relevant and factual knowledge regarding concepts, problems, and preservation of the environment, which will be possible only if our teachers/educators are well aware of concepts & environmental ideas. The study's conclusions may be useful to teachers and authorities in a way to makes them realize the worth of educating teachers about multiple environmental

issues with which we want our next generation to fight and overcome. Due to this, the investigator felt that there was a need for such a kind of study to assess student teachers' awareness of and attitudes regarding the environment.

### **Objectives**

1. To study the environmental awareness levels of pupil teachers.
2. To study the level of environmental attitude of pupil teachers.
3. To study the difference in environmental awareness of pupil teachers belonging to the science and arts academic stream.
4. To study the difference in environmental attitude of pupil teachers belonging to the science and arts academic stream.

### **Research Questions**

1. What is the level of environmental awareness of pupil teachers?
2. What is the level of environmental attitude of pupil teachers?

### **Hypotheses**

H1. There is no significant difference in the environmental awareness of pupil teachers belonging to the science and arts academic stream.

H2. There is no significant difference in the environmental attitude of pupil teachers belonging to the science and arts academic stream.

### **Delimitations**

1. The present study was restricted to Chandigarh.
2. The study was done on pupil teachers belonging to the Science and Arts academic streams.

**Method and Procedure:** In this particular study descriptive survey method was employed to study environmental awareness and environmental attitudes among pupil teachers of different academic streams (science & arts stream). The scores obtained on the environmental awareness ability measure scale were utilized to gauge environmental awareness levels among pupil teachers of different academic streams. Similarly, the scores obtained on the environmental attitude scale were employed to assess pupil teachers' attitudes toward the environment across different academic streams.

### **Sample**

A sample of 100 pupil teachers was raised from two education colleges that are Government College of Education Sector-20/D, Chandigarh, and Dev Samaj College of Education for Women Sector-36/B,

Chandigarh. Using random sampling, fifty pupil teachers from each education college were selected giving equal representation to science and arts academic stream.

### Tools

1. Environment Awareness Ability Measure (EAAM) scale by Jha (1998).
2. The Taj Environmental Attitude Scale (TEAS) by Taj (2001).

**Table 1: Environment Awareness Ability of Pupil Teachers (N=100)**

Awareness Level	Range of Scores	Number of Pupil Teachers
High	37 - 51	91
Average	16 - 36	9
Low	0 - 15	0

Table 1 reveal insights into the environmental awareness levels of pupil-teachers. Specifically, the data indicates that the majority of pupil-teachers, 91% pupil teachers, possess a high level of environmental awareness. This is based on their scores on the Environmental Awareness Ability Scale (EAAS), which range between 37-51. Additionally, 9% pupil-teachers were found to exhibit an average level of environmental awareness. Their scores on the EAAS fall within the range of 16-36, indicating an average environmental awareness level. Notably, none of the pupil-teachers was found to

## Results and Discussion

### Levels of Environmental Awareness of Pupil Teachers

To check the levels of environmental awareness the pupil teachers were classified in high, average and low levels on the basis of their scores on the Environmental Awareness Ability Scale (EAAS) by Jha (1998) and the values are given in table 1 below:

have low levels of environmental awareness, as their scores on the Environmental Awareness Ability Scale (EAAS) did not fall within the range of 0-15, which is considered indicative of low environmental awareness level.

### Levels of Environmental Attitude of Pupil Teachers:

To check the levels of environmental attitude the pupil teachers were classified in high, average and low levels on the basis of their scores on the Taj Environmental Attitude Scale (TEAS by Taj (2001) and the values are given in table 2 below:

**Table 2: Environmental Attitude of Pupil Teachers (N=100)**

Attitude Levels	Range of Scores	Number of Pupil Teachers	Total Attitude Levels
High Positive Attitude	200-217	82	97
	182-199	13	
	164-181	2	
Moderate Positive Attitude	146-163	2	3
	128-145	0	
	110-127	1	
Low Positive Attitude	92-109	0	0
	74-91	0	
	Upto 73	0	

As presented in Table 2, out of the total sample of pupil-teachers (N=100), 97% pupil teachers exhibited a high positive attitude towards the environment, based on the range of scores specified in Table 2. This highlights that the majority of pupil-teachers in the sample exhibit a high positive environmental attitude. Furthermore, the data presented in the Table 2 indicates that 3% pupil-teachers exhibit a moderately positive attitude towards the environment. Importantly, the above data also reveals that none of the

pupil-teachers displayed a low positive attitude towards the environment on the basis of their scores obtained on Taj Environmental Attitude Scale (TEAS).

**Significant difference environmental awareness of pupil teachers belonging to the science and arts academic stream:**

To investigate the significance of difference in environmental awareness of pupil teachers belonging to the science and arts academic streams mean, standard deviation, and t-ratio were worked out and the values are given in Table 3 below:

**Table 3: Difference in Environmental Awareness of Pupil Teachers belonging to the Science and Arts Academic Streams**

Variables	Groups	N	Mean	S.D.	t-Value
Environmental Awareness	Pupil teachers of Arts Stream	50	41.56	7.03	0.04 (NS)
	Pupil teachers of Science Stream	50	43.98	4.18	

*NS means non-significant*

While looking at Table 3, it is evident that mean scores of environmental awareness of pupil teachers belonging to the arts and science academic stream are 41.56 and 43.98 respectively with standard deviations (S.D.) of 7.03 and 4.18 respectively. Table 3 shows that the calculated t-value turns out to be 0.039 which is statistically non-significant ( $p > 0.05$ ). It indicates that there is no significant difference between pupil teachers of arts and science academic streams on environmental awareness. Hence, it revealed that pupil teachers from the arts and science academic stream exhibit comparable environmental awareness and have more or less similar

high environmental awareness. Hence, Hypothesis 1 namely, “There is no significant difference in the environmental awareness of pupil teachers belonging to the science and arts academic stream” is accepted. This finding is in line with the study conducted by Banga (2016) and Dixit & Agarwal (2009).

**Significant difference in environmental attitude of pupil teachers belonging to the science and arts academic stream:**

To investigate the significance of difference in the environmental attitude of pupil teachers belonging to science and arts academic streams mean, standard deviation, and t-ratio were worked out and the values are given in Table 4 below:

**Table 4: Difference in Environmental Attitude of Pupil Teachers belonging to the Science & Arts Academic Stream**

Variables	Groups	N	Mean	S.D.	t-Value
Environmental Attitude	Pupil teachers of Arts Stream	50	178.78	28.92	0.49 (NS)
	Pupil teachers of Science Stream	50	181.92	14.05	

*NS means non-significant*

While looking at Table 4, it is evident that the mean scores of the environmental attitude of pupil teachers belonging to the arts and science academic stream are

178.78 and 181.92 respectively with standard deviations (S.D.) of 28.92 and 14.05 respectively. Entries made in Table 4 show that the calculated t-value turns out to be 0.49 which is statistically not



significant ( $p > 0.05$ ). Therefore, it can be concluded that there is no significant difference in environmental attitude among the pupil teachers of arts and science academic streams. Therefore, it revealed that the pupil teachers belonging to the arts and science academic stream exhibit comparable positive attitudes regarding the environment which is more or less similar. Hence, Hypothesis 2 namely, “There is no significant difference in the environmental attitude of pupil teachers belonging to the science and arts academic stream” is accepted. This finding is in line with the study conducted by Kaur and Balwinder (2022).

**Conclusion:** The conclusion drawn from the study is based on a comprehensive analysis of the data collected on environmental awareness and environmental attitudes among pupil teachers from both the science and arts academic streams. It can be concluded from the study's analysis and interpretation that: i) The majority of pupil-teachers, 91 out of 100, possess a high level of environmental awareness. Additionally, nine pupil-teachers were found to exhibit an average level of environmental awareness. Notably, no pupil-teacher was found to have low levels of environmental awareness. ii) The majority of pupil-teachers, 97 out of 100 in the sample

exhibited a high positive environmental attitude, while three pupil-teachers exhibited a moderately positive environmental attitude, with none showing a low positive environmental attitude. iii) There is no significant difference in the levels of environmental awareness of pupil teachers belonging to the science and arts academic stream. This outcome could be attributed to environmental education being a cross-disciplinary subject, so in both arts and science streams, pupil teachers might be receiving comparable exposure to environmental topics through general education, media, and societal discussions, leading to more or less similar high levels of environmental awareness. iv) There is no significant difference in the environmental attitude of pupil teachers belonging to the science and arts academic stream. The absence of a significant difference in the environmental attitude of pupil teachers belonging to the science and arts academic streams suggests that the academic streams of study do not significantly influence how pupil teachers perceive the environment. This could imply that environmental attitudes are more universally formed through broader social, cultural, and personal experiences rather than being heavily influenced by academic streams. Consequently, the pupil teachers belonging to both science and arts academic stream possess high levels of

environmental awareness and also, they exhibit comparable positive attitudes towards the environment.

**Educational Implications:** Considering the aforementioned study findings, which indicated that both arts and science pupil teachers demonstrate high levels of environmental awareness and share more or less similar positive attitudes toward the environment, the following educational implications are recommended:

1. Since both groups of pupil teachers display environmental awareness, environmental education should be further embedded into pupil teachers' training programs across all academic subjects, encouraging an understanding of the imperative and significance of sustainability.
2. Develop specialized training modules to nurture environmental awareness and positive attitudes & mindsets among pupil teachers.
3. Incorporate real-world environmental challenges into teaching materials to boost relevance and engagement among pupil teachers.
4. Developing platforms for collaborative learning between arts and science pupil teachers can enhance knowledge sharing and the development of creative solutions to environmental

challenges, a sense of community, and shared responsibility.

5. Encouraging professional growth in environmental education by employing workshops, seminars, conferences, and networking opportunities is highly recommended not only for pupil teachers belonging to arts and science academic streams but across all academic subjects.
6. Delivering value-oriented education centered on values in light of heightened environmental consciousness is essential.

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## COMPARATIVE STUDY OF ATTITUDE OF SCIENCE AND HUMANITIES TEACHERS' TOWARDS INFORMATION TECHNOLOGY

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### *Abstract*

*Present study was undertaken to compare the attitude of science and humanities teachers toward information and communication technology. A random selection of 100 teachers from various colleges in Himachal Pradesh was made, ensuring that science and humanities teachers were equally represented in the study's sample. Data were gathered using the Nasrin and Fatimha Islahi (2012) Attitude Scale towards Information Technology for Teachers. The study's findings showed that 70% of science teachers and 65% of humanities teachers had an average attitude toward information and communication technology. The results also showed no significant difference between scientific and humanities teachers' attitudes towards information and communication technology.*

**Key Words:** *Attitude towards information and communication technology, science teachers, humanities teachers.*

### **Introduction**

Information and communications technologies (ICT) are computer-based tools used to process information and communication needs in organizations. They encompass computer hardware, software, networks, and digital devices like video, audio, and cameras. ICTs include radio, television, cellular phones, satellite systems, and services like video conferencing and distance learning.

An attitude is an expression of favour or disfavour toward a person, place, thing, or event (the attitude object). Prominent psychologist Gordon Allport once described attitudes "the most distinctive and indispensable concept in

contemporary social psychology." Attitude can be formed from a person's past and present. Attitude is also measurable and changeable as well as influencing the person's emotion and behaviour.

"A learned predisposition to respond positively or negatively to a specific object, situation, institution, or person" is the definition of attitude (Yushau, 2006).

For teachers, research has shown that positive attitudes toward technology and self efficacy with computers are important prerequisites to helping others learn about computers (Zhang & Espinosa, 1997) and to successfully integrating technology into the classroom (Tsitouridou & Vryzas, 2004). In fact, Wenzlaff (1998) posits that

teacher's attitudes are among a handful of factors that determine the formal and informal curriculum in the classroom. Further, if teachers do not confront these attitudes and beliefs, they remain steadfast even when change abounds.

Successful integration of Information and communications technologies (ICT) in the college system depends largely on the competence and on the attitude of teachers towards the role of modern technologies in teaching and learning. Thus, experienced teachers, newly qualified, and student-teachers need to be confident in using ICT effectively in their teaching (Kyriakidou et al., 2000).

### **Role of ICT in Education**

In 1995, computers were outdated and used for processing work. Today, they have advanced technology and high processing speeds. Mobile phones were expensive, bulky, and had few features. The present day mobiles are as good as small computers. In the 90s, schools used black boards for explanations and textbooks for knowledge. However, there are still issues to address, such as infrequent updates and errors in textbooks.

The present scenario of school has not much changed since the 90s. Black boards are being still used; contents of text books are being still used which too old to needs are updating. Teachers are

referring to the same text books are the only source of information and knowledge available to most of the students as well as teachers. Almost nothing has changed ever since. So when a computer technology can change and when a mobile technology can change why cannot the educational technology? From the convincing point of view some benefits of using information technology in education:

- It induces scientific, economic, technological, information and multicultural literacy and global awareness.
- It promotes inventive thinking.
- It develops effective communication which leads to teaming, collaboration and interpersonal skills. Moreover, it induces personal, social and civic responsibility.

It leads to high productivity which given the ability to plan and manage results. It also gives you a sense of using real-world tools with effective, relevant, and high quality results.

### **Review of Related Literature**

Unfortunately, much of the early research on computer uses in education has ignored teacher's attitudes toward the new machines (Harper, 1987). Sooknanan (2002) found that relative advantage, compatibility, and observability were significantly related to the teacher's

attitudes toward computers. However, the results showed no relationship between complexity and teacher's attitudes. Gülbahar (2008) reported in his study that the lack of in-service training and insufficient technological infrastructures affected the effective use of technology by teachers. Hermans et al. (2008) explored that this is essential for educators to value and take into account ICT. By integrating proper ICT use in a particular subject area that requires complex concepts and skills, the integration strategy seeks to promote student success and attainment. Agrawal and Ahuja (2013) revealed that the opinion of student teacher towards used of ICT in teaching learning process the student-teachers was positive attitude towards the use of ICT and there was no significant impact of the attitude of student-teachers on their academic achievement and necessity for developing positive attitude towards the use of ICT among the student-teachers, so that they can keep themselves abreast of the latest technologies and later on integrate in their professional lives as per the demand. A study conducted by Ndibalema (2014) which revealed that the teachers' attitudes towards ICT were found to be positive; nonetheless. Mehra and Far (2014) conducted a study and revealed that arts/education and science/engineering university teachers do not significantly in their attitude towards ICT use in teaching.

Sridharan and Krishnakumar (2015) reported significant difference in the attitude of science and arts teacher educators towards information and communication technology. Pandey and Prasad (2022) in their study found no significant difference in attitude towards ICT of arts and science teachers.

### **Objectives**

1. To study the level of attitude of science and humanities teachers towards information technology.
2. To compare the attitude of science and humanities teachers towards information technology.

### **Hypothesis**

There is no significant difference in the mean scores of attitude of science and humanities teachers towards information technology.

### **Method**

For the present study, the investigator decided to adopt descriptive survey method. It is a method of investigation to study, to describe and interpret what exists at present.

### **Sample**

A sample of 100 teachers from different colleges was randomly selected from Himachal Pradesh. Equal representation was given to teachers from science and humanities faculties.

### **Tool**

Attitude Scale towards Information Technology for Teachers developed by Nasrin and FatimhaIslahi (2012).

### Result and Discussion

The purpose of the data analysis and interpretation phase is to transform the data collected into credible evidence about the development of the intervention and its performance.

**Figure 1: Attitude of Science Teachers towards Information Technology**

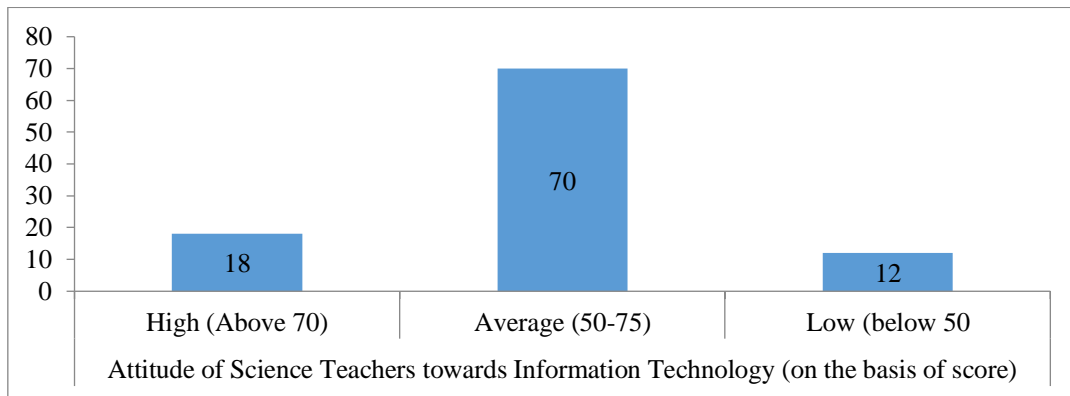


Figure 1 shows the attitude of science teachers towards information technology. 12% of science teachers have low attitude towards information and communication technology, 70% have average attitude

towards information and communication technology, whereas 18% have high attitude towards information and communication technology.

**Figure 2: Attitude of Humanities Teachers towards Information Technology**

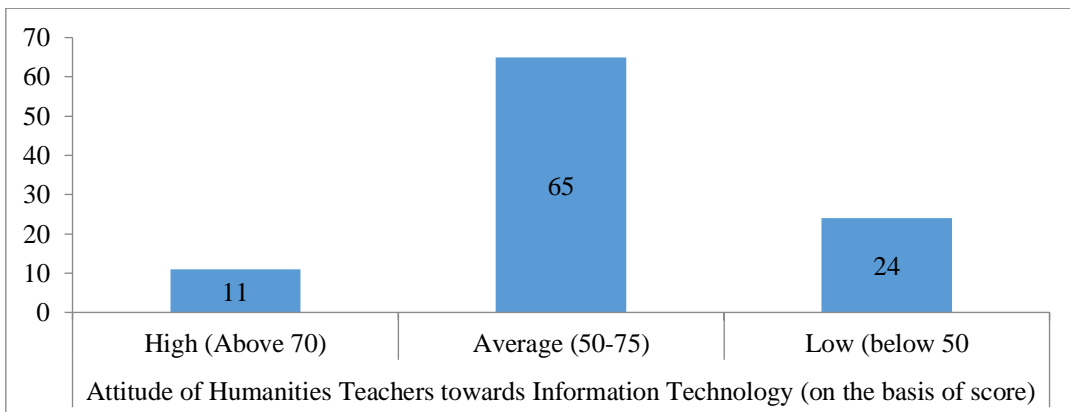


Figure 2 shows the attitude of humanities teachers towards information technology. 24% of humanities teachers have low attitude towards information and communication technology, 65% have average attitude towards information and

communication technology, whereas 11% have high attitude towards information and communication technology.

**Significance of Difference in Attitude of Science and Humanities Teachers' Attitude towards Information and**



**Communication Technology:** To investigate the significance of difference in attitude of science and humanities teachers' attitude towards information and communication technology mean, standard deviation and t-ratio were worked out and the values are given in table 1 below:

**Table 1: Significance of difference in Attitude of Science and Humanities teachers towards information technology.**

Group	N	Mean	S.D.	S.Ed	t-ratio
Science Teachers	50	116.26	18.96	3.79	0.90
Humanities Teachers	50	112.84	18.99		(NS)

*NS means non-significant*

Table 1 shows that mean scores of attitude of science and humanities teachers towards information technology are 116.26 and 112.84 respectively, while their S.D. is 18.96 and 18.99 respectively. When we calculated SED comes out to be 3.79 and the calculated t-ratio is 0.90, which is not significant ( $p > 0.05$ ). It indicates that there exists no significant difference in the mean scores of attitude of science and humanities teachers towards information technology. Thus the hypothesis which states that "There is no significant difference in the mean scores of attitude of science and humanities teachers towards information technology" is accepted.

This result is consistent with findings by Mehra and Far (2014), and Pandey and Prasad (2022). Teachers of the humanities and sciences receive the same resources and environment for their pre-service and in-service training. They also possess the same ICT tools that teachers in schools are

expected to use. Their similar attitude towards information and communication technology use stems from this fundamental factor.

### Conclusions

1. 12% of science teachers whereas 24% humanities teachers have low attitude towards information and communication technology. 70% of science teachers whereas 65% of humanities teachers have average attitude towards information and communication technology. 18% of science teachers whereas 11% of humanities teachers have high attitude towards information and communication technology.
2. The Science and Humanities Teachers have non-significantly attitude towards Information technology.

**Implication:** The majority of teachers in the humanities and sciences have an average attitude towards information and communication technology. The findings indicated that there is not a statistically

significant difference in teachers' attitude towards information and communication technology in relation to their stream. Therefore, it is recommended that in-service training program organizers and teacher educators establish a supportive environment for teachers to improve their attitudes towards information and communication technology. Training colleges must have the right infrastructure in place educate the teacher trainees to use technology in institutional setting. In order for teachers to employ information and communication technology for teaching and learning, schools also require updated technology. This will support the growth of a more optimistic attitude toward information and communication technologies.

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## ADJUSTMENT AMONG ADOLESCENT GIRLS IN RELATION TO THEIR EMPOWERMENT

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### *Abstract*

*The study was undertaken to compare the adjustment of adolescent girl students studying in private and government schools, also to investigate the significance of relationship between adjustment and empowerment of adolescent girls. Sample of the study comprised of 200 girl students (100 from private schools and 100 from government schools) selected randomly from schools of Ludhiana district of Punjab, India. Adjustment inventory for School Students by Sinha and Singh (2019) and Girl Empowerment scale by Sisodia and Singh (2009) were used for data collection. Result of the study showed no significant difference in adjustment of private and government school girl students. The result also revealed significant positive relationship between adjustment and empowerment of adolescent girls.*

**Key Words:** *Adjustment, empowerment, adolescent girls*

### **Introduction**

The Latin word "adolescere," which means "to grow up or to grow into maturity," is where the word "adolescence" was first used in the 15th century (Lerner & Steinberg, 2009). However, it was not until 1904 that G. Stanley Hall, the first president of the American Psychological Association, was given credit for discovering adolescence (Meyers, 2018).

The period of growth and development between childhood and maturity is known as adolescence. Any individual between the ages of 10 and 19 is considered an adolescent by the World

Health Organization (WHO) (Csikszentmihalyi, 2024). Adolescents grow quickly in many areas- physical, mental, and social. This influences their thoughts, feelings, decision-making, and interactions with the outside environment. Both boys and girls go through a very difficult developmental stage during adolescence. Girls go through a lot of changes throughout this time. In terms of health and developmental results, boys and girls are about equal in early childhood, but girls encounter numerous obstacles in adolescence. Compared to boys, girls experience the biological and social changes of adolescence more quickly. Girls experience puberty earlier than boys during

this time, which implies that they deal with social and developmental issues associated with sexual maturation earlier in life (Bargotra, 2019).

The young people's demands are unexpected and novel. Girls have a lot of adjustment issues during the adolescent stage.

### **Adjustment**

The biological idea of adaptation is the source of the phrase "adjustment," which highlights a person's effort to live or get along in their social and physical surroundings (Pachaiyappan & Arumugam, 2017). Darwin introduced the concept of adjustment, using it as a survival strategy in the physical world. A vital component of human life, adjustment is a lifelong process that culminates in death (Bai & Srivastava, 2022).

According to Shaffer (1961), adjustment is the process by which a living thing upholds equilibrium between its requirements and the external factors affecting their fulfillment. According to Kulshrestha (1979), the adjustment process is a person's endeavor to meet their requirements and cope with stress, tensions, disputes, etc. During this phase, the person also tries to keep a good relationship with the surroundings. Sekar and Lawrence (2016)

state that adjustment is the process by which a living organism keeps its needs and circumstances in balance. Vyas (2021) defines adjustment as the process of identifying and modifying behavioral patterns that are suitable for the situation or to alter the surroundings.

A child's adjustment process begins at birth and continues until his death. It is a suitable relationship between an organism's needs and circumstances, as well as the influences on meeting those needs. A person who manages interpersonal relationships with an awareness of the dictionary definition of "adjustment," which is to fit, make suitable, and modify, is said to be adjusted.

The physical, social, and psychological needs that come with being depending on other people can be accommodated by humans. More broadly, we refer to adjustment as an organizational behavior in growing up, aging, and life circumstances at home, school, and job. It is the path a person takes in response to the expectations of their social, internal, and external environments. Adjustment is a balancing act between personal wants and demands that can cause ego damage, failure, and dissatisfaction. It is similar to going on the defensive.

### **Empowerment**

Scholars and aid workers in the English-speaking world have been using the term "empowerment" widely since the late 1970s, notably in the fields of adult literacy, public health, social psychology, social services, and community development (Simon 1994).

The definition provided by Rappaport (1984) states that "Empowerment is viewed as a process: the mechanism by which people, organizations, and communities gain mastery over their lives." According to Haddad and Toney-Butler (2023), empowerment is the process that gives people the ability to comprehend how their actions affect the results they get and the ability to accomplish the outcomes they want.

Empowerment is a multifaceted, social process. It is multifaceted since it takes place in sociological, psychological, economic, and other domains. Additionally, empowerment takes place at different levels, including community, group, and individual. By definition, empowerment is a social process because it takes place in connection to other people. Like a path or journey, empowerment is a process that evolves as we go through it (Page & Czuba, 1999).

Since empowerment takes place in connection to other people, it is by definition a social process. Empowerment is a process that evolves as we go through it,

much like a route or voyage. Although other elements of empowerment could change depending on the particular situation and individuals involved, these elements never change. Furthermore, this notion of empowerment implies that the community and the individual are inextricably linked. According to Stein (1997), it is a "social action process that encourages participation of individuals, groups, and communities in gaining control over their lives in their community and larger societies."

In the feminist movement, women's empowerment is discussed in the wave that started in 2012 and is still going strong today (Brunell & Elinor, 2024, October 29).

### **Women Empowerment**

Women make up half of human society and are the center of the family. She serves as an emotional anchor for families worldwide. She participates in all religious rituals and social events on an equal basis with men. She should be actively involved in life and acknowledged as powerful in the process of development.

Chen and Tanaka (2014) define "women's empowerment" as the process of giving women more authority over the strategic decisions that impact their lives and access to opportunities that enable them to reach their full potential. In order to

improve women's quality of life, the system of sexual stratification that has led to women's subjugation and marginalization is challenged by women's empowerment as an economic, political, and sociocultural process.

Women's empowerment, according to ESCWA (2022), is the process through which women learn about gender-based uneven power dynamics and obtain a stronger voice to speak out against inequality in the community, workplace, and home. It entails women taking charge of their lives by establishing their own goals, learning new skills, resolving issues, and becoming independent.

The European Institute for Gender Equality (2024) identifies five elements of women's empowerment: their sense of self-worth; their right to make and make choices; their right to access opportunities and resources; their right to have control over their own lives, both inside and outside the home; and their capacity to shape social change in order to establish a more equitable social and economic order on a national and global scale.

Women's empowerment entails releasing them from the pernicious clutches of caste, gender-based, social, economic, and political discrimination. It entails giving women the autonomy to choose their own

paths in life. Women's empowerment entails changing patriarchy with equality, not "deifying women."

## **Review of Related Literature**

### **Adjustment in relation to Type of School**

Khichi (2016) conducting a study on 200 students revealed no significant difference in adjustment of government and private school students. Jhalani and Sharma (2021) conducting a study on 100 secondary school students of Jaipur district of Rajasthan revealed no significant difference in adjustment of government and private school students. Raviprasad and Pushpa (2024) conducting a study on 150 students reported no significant difference in school adjustment of government and private schools.

Singh and Mathew (2018) conducting a study on 600 students of Allahabad district reported that private school students have significantly better both social and emotional adjustment as compared to government school students. Sahoo (2023) conducted a study on 220 students of 11<sup>th</sup> Grade in South 24 Pargana district and found that the adjustment of private school students is significantly better as compared to government school students.

Maharajan (2020) conducted a study on 200 students reported that government school students have significantly better

emotional and educational adjustment as compared to private school students.

### **Relationship between Adjustment and Empowerment**

Kumari (2017) conducted a study on 100 high empowered and 100 low empowered women and concluded that high empowered women have significantly better adjustment as compared to low empowered women. Babu and Fathima (2017) conducted a study on 500 women teachers and found significant positive relationship between teacher empowerment and family adjustment. Kaur (2020) conducted a study on 120 women and found that high empowered women were better adjusted as compared to less empowered women.

**Emergence of the Problem:** On the basis of review of related literature it can be concluded that not much research has been done on the proposed topic.

Few studies which have been found conducted on the significance of difference in adjustment of government and private school students are showing contradictory results. Khichi (2016), Jhalani and Sharma (2021), and Raviprasad and Pushpa (2024) found no significant difference in adjustment of government and private school students. Whereas the studies conducted by Singh and Mathew (2018), and Sahoo (2023) indicated

that private school students have significantly better adjustment as compared to government school students. On the other hand Maharajan (2020) in his study revealed that government school students have significantly better adjustment as compared to private school students.

Only three studies were found by the investigator which were conducted on relationship between adjustment and empowerment (Kumari, 2017; Babu & Fathima, 2017; and Kaur, 2020).

No definite conclusion can be drawn regarding the propose study thus it seems fully justified.

### **Objectives**

- (1) To investigate the significance of difference between the adjustment of adolescent girls studying in private and government schools.
- (2) To study the significance of relationship between adjustment and empowerment of adolescent girls.

### **Hypotheses**

- (1) There exists no significance difference in the adjustment of adolescent girls studying in private and government schools.
- (2) There exists no significant relationship between adjustment and empowerment of adolescent girls.



**Delimitation:** The presents study was delimited to adolescent girls studying in Government and Private schools of Ludhiana district of Punjab, India.

**Methodology:** The descriptive survey method of investigation was employed in the present study.

**Sample:** The study was conducted on 200 adolescent girls selected randomly giving equal representation to private and government school students.

**Tools:** Following tools were used:

(1) Adjustment inventory for School Students by Sinha and Singh (2019).

(2) Girl Empowerment scale by Sisodia and Singh (2009).

## Result and Discussion

**Significance of difference between the Adjustment of Adolescent Girls studying in Private and Government Schools:** To investigate the significance of difference between the adjustment of adolescent girls studying in private and government schools mean, standard deviation and t-ratio were worked out and the values are given in table 1 below:

**Table 1: Significance of difference between the Adjustment of Adolescent Girls studying in Private and Government Schools**

Groups	N	Mean	Standard Deviation	t-ratio
Private School Students	100	23.04	13.35	1.16 (NS)
Government School Students	100	25.17	12.53	

*NS means non-significant*

The table 1 reveals that mean score of adjustment for girls studying in private schools is 23.04 and standard deviation is 13.65. The mean score of girls studying in government schools is 25.17 and standard deviation is 12.53. The t-ratio is 1.16, which is non-significant ( $p > 0.05$ ). The result shows that there is no significant difference in adjustment of private and government school

students. So, hypothesis 1 which states that 'There exists no significance difference in the adjustment of adolescent girls studying in private and government schools,' is not rejected.

There is no significant difference in adjustment of adolescent girls studying in private and government schools. This finding is in line with the studies conducted by

Khichi (2016), Jhalani and Sharma (2021), and Raviprasad and Pushpa (2024).

**Significance of relationship between Adjustment and Empowerment of Adolescent Girls:** To investigate the

significance of relationship between adjustment and empowerment of adolescent girls, Pearson's coefficient of correlation was worked out and the values are given in table 2 below:

**Table 2: Relationship between Adjustment and Empowerment of Adolescent Girls (N=200)**

Variables	N	r
Adjustment and Empowerment	200	0.98*

*\*Significant at 0.01 level of significance*

Table 2 reveals that the value of correlation is 0.98 which is significant ( $p < 0.01$ ). The value shows that there is significant relationship between adjustment and girl empowerment. Thus the hypothesis 2 is which states that 'There exists no significant relationship between adjustment and empowerment of adolescent girls,' is rejected.

The adjustment of adolescent girls have significantly high positive relationship with their empowerment. This finding is well supported by the studies conducted by Kumari (2017), and Kaur (2020).

**Conclusion:** Result of the study reveals no significant difference in the adjustment of private and government school girl students. It also indicate significant positive relationship between adjustment and empowerment of adolescent girls.

**Implementation:** Similar activities and programs can be created for both private and government schools to help the girls pupils enhance their ability to adjust, as the study's findings show no significant difference in the adjustment of the girls attending private and government schools.

The study's findings also show a strong positive correlation between adolescent girl's empowerment and adjustment. Adolescent girls will adjust better if they are empowered. In order to empower girls, it is recommended that the school administration create a supportive learning atmosphere and clear the path for the adolescent girls to reach their full potential. It is advised that parents and educators support females in pursuing a variety of interests. Incorporating female role models into the curriculum can raise

awareness among adolescent girls. The females will feel more empowered as a result, which will lead to better adjustment.

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