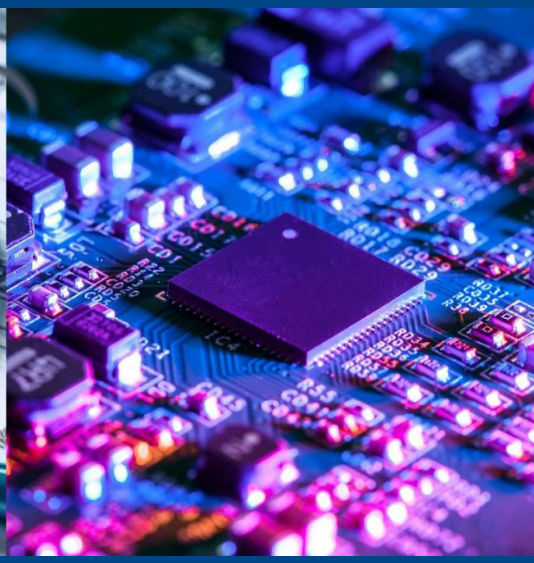
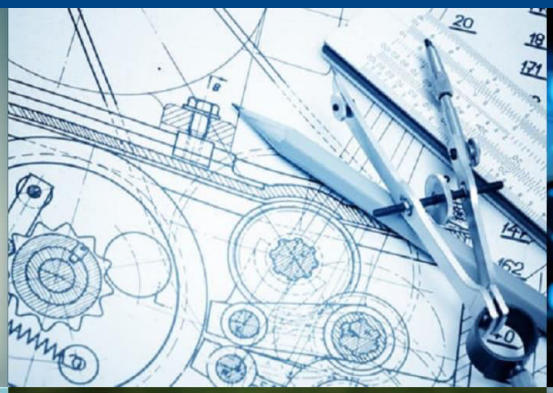
ISSN: 2582-7219

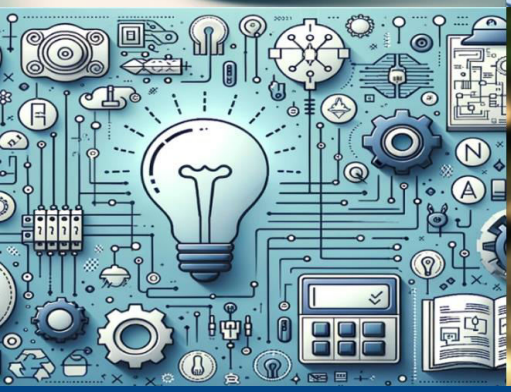




International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 8.206 **Volume 8, Issue 3, March 2025**

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

A Study on the Impact of Teachers' Intelligence in Student Engagement and Motivation

Dr. Ilakkia, Ms. Vishnu Rekka RV

Associate Professor, Department of Commerce (Corporate Secretaryship with Computer Application), Dr. N.G.P Arts and Science College, Coimbatore, Tamil Nadu, India

Student, Department of Commerce (Corporate Secretaryship with Computer Application), Dr. N.G.P Arts and Science College, Coimbatore, Tamil Nadu, India

ABSTRACT: Teachers' intelligence is an important factor in determining student motivation and engagement in the learning process. This research investigates the connection between teachers' cognitive and emotional intelligence and its effects on student participation, interest, and enthusiasm in school. Using a mix of qualitative and quantitative approaches, the research investigates how teachers' intellectual capacity, problem-solving skills, and emotional intelligence affect classroom dynamics, student motivation, and academic achievement. Research indicates that teachers with higher cognitive intelligence deliver complex concepts successfully, while those with high emotional intelligence create a positive and interesting learning environment. The research emphasizes the need for teacher training programs focusing on intellectual and emotional abilities to maximize student motivation and engagement.

KEYWORDS: Teachers' intelligence, student engagement, motivation, cognitive intelligence, emotional intelligence, academic performance.

I. INTRODUCTION

The research delopves into how the emotional intelligence of teachers influences student motivation and engagement in an uncommon cultural and educational environment. Through this correlation, the project reveals how emotionally intelligent pedagogical practices contribute to the richness of the education experience, further supporting the mission of the university to develop the next generation of leaders and thinkers.

The function of educators is not merely the transmission of knowledge. Educators serve as facilitators, mentors, and role models who have significant impacts on students' academic and personal growth. Among the critical elements that promote a teacher's performance in such capacities is emotional intelligence (EI). Emotional intelligence, most commonly described as the capacity for recognizing, understanding, and managing one's own emotions and reacting appropriately to other people's emotions, is a critical skill for creating a constructive and positive learning environment. At a premier institution renowned for its commitment to academic excellence, understanding the interplay between teachers' emotional intelligence and student outcomes is particularly significant. Research has shown that emotionally intelligent teachers are better equipped to build meaningful connections with students, navigate classroom challenges, and inspire a sense of belonging among learners. Such qualities are essential in engaging students, maintaining their motivation, and ensuring sustained participation in academic activities. Emotional Intelligence (EI), often regarded as the ability to perceive, control, and evaluate emotions effectively, has emerged as a cornerstone of effective teaching. Teachers with high emotional intelligence are not only adept at managing their own emotions but also at fostering a classroom environment that nurtures emotional well-being, collaboration, and academic enthusiasm among students.

OBJECTIVES

- To examine the correlation between teachers' emotional intelligence and student engagement.
- To evaluate the effect of a teacher's emotional intelligence on student motivation.
- To find core elements of emotional intelligence which most influence the student motivation and engagement.

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

SCOPE OF THE STUDY

The study will involve [Specify Grade Level, e.g., high school, college] students and teachers from [Specify Location, e.g., a specific city, school, or institution]. The independent variable is the intelligence of teachers, classified into emotional, cognitive, and instructional intelligence. The dependent variables are motivation and engagement among students, determined through participation, performance, and learning interest. Surveys, interviews, and classroom observation will be used in the study to measure teacher intelligence and how it influences student motivation. The research will run for [Specify Duration, e.g., six months] to allow for an in-depth examination of trends and patterns. The study is restricted to a single educational environment and does not take into consideration extraneous variables such as family background, peer, or socioeconomic status, which also influence student motivation.

LIMITATIONS OF THE STUDY

This research on The Effect of Teachers' Intelligence on Student Motivation and Engagement is restricted in a number of ways. The study only examines college instructors in Coimbatore, so it is not as generalizable to other areas or levels of education. Because data is gathered using self-report surveys and interviews, answers might be affected by social desirability bias. Also, the research does not include student views, which are important in determining real engagement and motivation. External influences such as parental encouragement, institutional policy, and socioeconomic status are not taken into account. Intelligence is also difficult to measure since it is multidimensional and subjective. Time limitations and a small sample size of 140 teachers might not accurately reflect long-term trends or fluctuations in teaching styles. Even with these limitations, the present study provides some important insights on the contribution of teacher intelligence to student engagement and opens the door to further research having larger scope and involving the voices of students.

II. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It deals with the objective of a research study, the method of defining the research problem, the type of data collected, method used for data collecting and analysing the data etc. The methodology includes collection of primary data and secondary data.

2. 1 DATA COLLECTION

Both primary and secondary data are used in this study. Primary data was collected through survey method using questionnaire to conduct the study successfully. A questionnaire was designed for this purpose.

2. 2 PRIMARY DATA

Primary data is used to collect responses from the teachers through a Google Forms questionnaire.

2. 3 SECONDARY DATA

Secondary data consists of pre-existing information that was collected for other purposes. In this study, secondary data was obtained from various sources including industry publications, magazines, journals, books, and reputable websites.

2.4 RESEARCH DESIGN

Research design in the blue print of the proposed of study it represents the overall scheme of the study. All research design is the logical and systematic planning and it helps directing piece of research.

2.5 SAMPLING

It is not always necessary to collect data from whole universe. A small representative sample may serve the purpose. A small means a small group should be cross section and really “representative” in character. This selection process is called sampling.

2.6 SAMPLE DESIGN

The sampling design used in the study was convenience sampling.

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

2.7 SAMPLING SIZE

Government Colleges	30
Private Arts & Science Colleges	50
Engineering & Technology Institutions	25
Autonomous Colleges	30
TOTAL	**135**

2.8 AREA OF THE STUDY

This research is " a study on the impact of teachers' intelligence in student engagement and motivation".

2.9TOOLS AND DATA ANALYSIS

For the purpose of analysis various statistical tools such as

- Simple percentage
- Chi square test
- Anova Analysis

1. SIMPLE PERCENTAGE:

Percentage refers to a special kind of ratio. Percentages are used in making comparison between two or more series data. Percentages are used to describe relationship, since the percentage reduces everything to a common base and thereby allows meaningful comparisons to be made**.**

No. of. responses = number of respondents/total number of respondents *100

2. CHI SQUARE TEST:

The **Chi-Square test (χ^2 test)** is a statistical method used to determine if there is a significant association between two categorical variables. It helps researchers analyze whether observed data differs from expected data due to chance or if there is a meaningful relationship.

Formula:

$X2 = \sum$ (observed value – Expected value) 2 / expected value

3. ANOVA ANALYSIS:

(Analysis of Variance) analysis is a statistical technique used to examine the significant differences between three or more groups or variables. Specifically, ANOVA analysis is employed to identify whether the observed differences between the groups are due to chance or if they are statistically significant.

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

III. REVIEW OF LITERATURE

Chen and Abd Rani (2025)
Chen and Abd Rani (2025) carried out a thorough study exploring the impact of teachers' intrinsic motivation on innovative teaching practices with a specific emphasis on teacher engagement as a mediating variable. Their findings identified that intrinsically motivated teachers, who are motivated by internal rewards like personal satisfaction and enjoyment of teaching, tend to be more actively involved in their professional duties. This increased involvement inspires teachers to take up and use innovative learning strategies that enrich learning experiences in classrooms. Consequently, students are more stimulated and participative in learning, creating a vibrant learning environment that enhances creativity, critical thinking, and academic achievement.

Guo, Wang, Li, and Wang (2025)
The effect of teacher emotional support on learning engagement of college students mediated by academic self-efficacy and academic resilience. This study was conducted to find out how teacher emotional support affects learning engagement of college students, with the mediating roles of academic self-efficacy and academic resilience in view. The research used a sample of 414 university students from a western Shandong Province, China university, using standardized scales to assess the variables of interest. The results indicated that teacher emotional support positively predicts learning engagement. In addition, academic self-efficacy and academic resilience are mediators in this relationship, with academic self-efficacy also predicting academic resilience directly.

Yang (2024)
"Promoting emotional well-being and motivation among Chinese English language learners: A two-sample study from teachers' autonomy-supportive behavior, harmony among teachers, and peer support," published in Frontiers in Psychology. The study examined the impact of teachers' autonomy-supportive actions, harmonious relations between teachers and students, and peer support on the emotional well-being and motivation of Chinese students learning English. The investigation included 68 English language teachers and 389 students from different Chinese universities. Results showed that peer support greatly improves students' emotional health, and a mix of teachers' autonomy-supportive behavior, teachers' harmony, and peer support improves student engagement. These findings highlight the need to build supportive peer and teacher-student relationships as a way of enhancing English language learners' emotional health and engagement.

Shubham Agarwal(2024)
The study "LLMs for Literature Review: Are We There Yet?" by Shubham Agarwal et al. (2024) investigates the capabilities of Large Language Models (LLMs) in facilitating the literature review process. With the rapid growth of academic publications across disciplines, researchers face increasing challenges in compiling comprehensive and accurate literature reviews. This study focuses on how LLMs, such as GPT-based models, can assist in simplifying and enhancing the literature review process through a structured, two-step approach.

Miao and Ma (2023)
"Teacher Autonomy Support Influence on Online Learning Engagement: The Mediating Roles of Self-Efficacy and Self-Regulated Learning," published in *SAGE Open*. The research explored how teacher autonomy support affects students' engagement in online learning environments, focusing on the mediating roles of self-efficacy and self-regulated learning (SRL). The study collected survey data from 492 Chinese university students and applied structural equation modeling to analyze the relationships among teacher autonomy support, self-efficacy, SRL, and online learning engagement. The findings indicated that teacher autonomy support positively influences online learning engagement, with self-efficacy and SRL serving as significant mediators. Specifically, when teachers provide autonomy support, it enhances students' self-efficacy and SRL, leading to higher engagement in online learning settings.

ABOUT STUDENT ENGAGEMENT
Student engagement is the extent to which students are attentive, interested, curious, and engaged in their learning process. It indicates the extent to which students actively and enthusiastically engage in academic and extracurricular activities. Student engagement is generally categorized into three broad categories: behavioural, emotional, and

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

cognitive engagement. Behavioural engagement encompasses students' participation in class activities, attendance, and effort in doing assignments. Emotional engagement is an expression of the attitudes and feelings students possess toward learning, teachers, and the school community. Cognitive engagement is the mental effort and motivation to invest in comprehending difficult concepts and learning new skills. Student engagement is associated with good academic performance, higher motivation, and reduced dropout rates. Teachers are key to promoting engagement through the development of interactive lessons, the formation of supportive relationships, and the delivery of relevant and meaningful learning experiences. If students are engaged, they will be more apt to develop critical thinking, recall knowledge, and be successful in the long term.

SELECTIVE COLLEGE /INSTITUTION PROFILE

The top 5 Selected Colleges in Coimbatore District are

1. Amrita Vishwa Vidyapeetham
2. PSG College of arts and science

3.PSGR Krishnammal college of arts and science

4. Tamil Nadu Agricultural University in Coimbatore
5. Sri Krishna College of Engineering & Technology

Amrita Vishwa Vidyapeetham

Amrita Vishwa Vidyapeetham, or Amrita University, is a leading private deemed university in India. Established by Mata Amrit Anandamayi Devi in 1994, it has become a multi-campus, multi-disciplinary, research-focused institution. The university functions on nine campuses in Amaravati, Amrita Puri (Kollam), Bengaluru, Chennai, Coimbatore, Kochi, Faridabad, Mysuru, and Nagercoil, with 19 constituent schools.

PSG College of arts and science

PSG College of Arts and Science (PSG CAS) is a College of Arts and Sciences in Coimbatore, Tamil Nadu, India. It was founded in 1947 by G. R. Damodaran. It was ranked 11th among colleges in India by the National Institutional

Ranking Framework (NIRF) in 2024.

PSGR Krishnammal College for Women,

PSGR Krishnammal College for Women, is a self-financing arts and science college in Coimbatore, Tamil Nadu. India. It has been awarded the status of 'College of Excellence' by the University Grants Commission.

Tamil Nadu Agricultural University in Coimbatore

The Tamil Nadu Agricultural University (TNAU), located in Coimbatore, is the epitome of agricultural learning and research in India. Founded in 1906, TNAU has matured into a top-class institution, providing a complete array of undergraduate, postgraduate, and doctoral courses, all designed to improve agricultural practices and achieve food security.

Sri Krishna College of Engineering & Technology (SKCET)

SKCET, established in 1998, is a private technical college under the affiliation of Anna University. Provides a variety of undergraduate and postgraduate courses, such as B.E. in Computer Science and Engineering, Mechanical Engineering, Civil Engineering, and B.Tech. in Information Technology.

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

TOOLS AND DATA ANALYSIS
SIMPLE PERCENTAGE METHOD
Gender

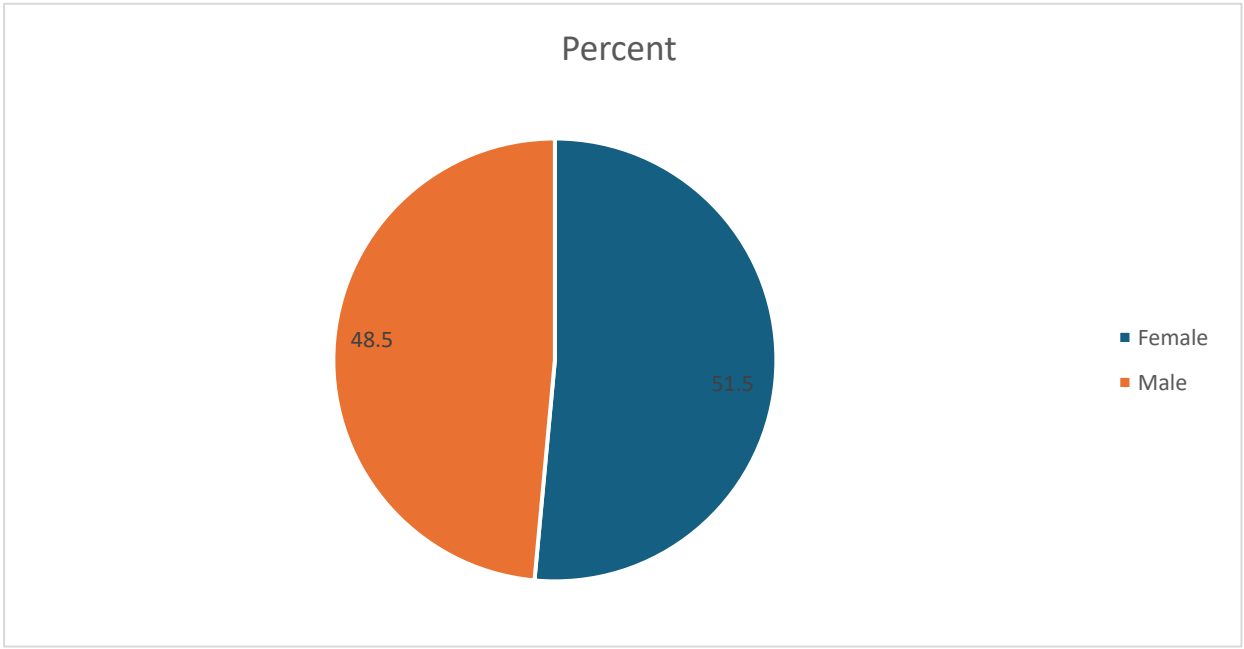
Gender	Frequency	Percent
Female	70	51.5
Male	66	48.5
Total	**136**	**100.0**

Source : Primary Data INTERPRETATION :

The above table reveals that the majority of the respondents are female, accounting for 51.5% of the total sample, while male respondents make up 48.5%. This indicates a fairly balanced gender distribution with a slight predominance of female participants in the study on the impact of teachers' intelligence in student engagement and motivation.

Majority (51.5%) of the respondents are female.

Chart No.4.1.1
Gender



© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Table No.4.1.2

Age Group

Age Group	Frequency	Percent
25 to 34	54	39.7
35 to 44	48	35.3
45 to 54	26	19.1
55 and above	8	5.9
Total	**136**	**100.0**

Source : Primary Data INTERPRETATION :

The above table reveals that the highest percentage of respondents fall in the age group of 25 to 34 years, accounting for 39.7%, followed closely by those in the 35 to 44 years category at 35.3%. Respondents aged 45 to 54 constitute 19.1%, while the smallest group is those aged 55 and above, representing only 5.9% of the sample.

Most (39.7%) of the respondents belong to the age group of 25 to 34 years.

2 DESCRIPTIVE STATISTICS

Table No.4.2.1 Confidence in Handling Students' Emotional Needs During Class

Factors	Mean	Std. Deviation
Be Authentic	4.191	1.029
Managing fear	3.537	1.081
Showing emotional sensitivity	3.074	1.263
Providing encouragement	2.971	1.424
Addressing Rudeness	2.544	1.321

Source : Primary Data

INFERENCE :

From the above Table, the descriptive statistics regarding Confidence in Handling Students' Emotional Needs During Class show that "Be Authentic" ranks the highest with a mean score of 4.191, indicating that teachers feel most confident in being authentic while addressing students' emotional needs. This is followed by "Managing fear" with a mean score of 3.537, "Showing emotional sensitivity" at 3.074, and "Providing encouragement" at 2.971. The lowest mean score is observed for "Addressing Rudeness", with 2.544, suggesting it is the area where teachers feel the least confident.

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Table No.4.2.2 Challenges in Applying Emotional Strategies in Teaching

Factors	Mean	Std. Deviation
Lack of resources or training	3.846	1.128
Difficulty understanding students emotions	3.640	1.016
Balancing academic requirements with emotional support	3.000	1.277
Others	2.316	1.348

Source : Primary Data

INFERENCE :

The descriptive statistics on Challenges in Applying Emotional Strategies in Teaching indicate that "Lack of resources or training" ranks highest with a mean score of 3.846, highlighting it as the most significant challenge faced by teachers. It is followed by "Difficulty understanding students' emotions" with a mean of 3.640, and "Balancing academic requirements with emotional support" with 3.000. The lowest mean score is for "Others", with 2.316, indicating it is perceived as the least common challenge among the listed factors.

4.3 CHI-SQUARE ANALYSIS

Hypothesis No.1

Null Hypothesis (H_0): There is no significant relationship between age group and managing fear in handling students

Alternative Hypothesis (H_a): There is a significant relationship between age group and managing fear in handling students

Table No.4.3.1
Age group and managing fear in handling students

Crosstab							
Count							
		managing fear in handling students					Total
		Never	Rarely	Sometimes	Often	Always	
Age Group	25 to 34	0	4	15	25	10	54
	35 to 44	2	10	10	17	9	48

© 2025 IJMRSET | Volume 8, Issue 3, March 2025| DOI: 10.15680/IJMRSET.2025.0803284

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

	45 to 54	3	2	6	10	5	26
	55 and above	2	0	4	1	1	8
Total		7	16	35	53	25	136

Chi-Square Tests

	Value	df	Asymptotic Significance (2sided)
Pearson Chi-Square	21.535[a]	12	.043
Likelihood Ratio	21.427	12	.044
Linear-by-Linear Association	4.651	1	.031
N of Valid Cases	136		

a. 10 cells (50.0%) have expected count less than 5. The minimum expected count is .41.

Source: Computed from Primary data

INFERENCE:

The above table reveals that the Pearson Chi-Square value is 21.535 with an Asymptotic Significance (2-sided) value of 0.043, which is less than the standard significance level of 0.05. This result indicates a statistically significant relationship between age group and managing fear in handling students. Therefore, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted, confirming that a teacher's age group significantly influences how they manage fear in addressing students' emotional needs.

IV. CONCLUSION

The study was conducted with the core objective of understanding how emotionally intelligent behavior among teachers influences the emotional and motivational landscape of their students. The research thoroughly explored how teachers handle emotions, manage classroom dynamics, and respond to emotional needs—both their own and those of their students. The findings clearly highlight that teachers who demonstrate authenticity in their behavior and maintain genuine interest in students' lives tend to have a stronger emotional connection with their classroom. These traits are closely linked to improved student engagement and motivation. The study affirms that emotional strategies like active listening, empathy, and providing encouragement are essential practices that support student well-being and engagement. However, areas like addressing rudeness or redirecting negative emotions were identified as less practiced, suggesting a need for enhanced training in these dimensions.

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

REFERENCES

1. Brackett, M. A., & Salovey, P. (2006). Measuring emotional intelligence with the MayerSalovery-Caruso Emotional Intelligence Test (MSCEIT). In J. Ciarrochi, J. P. Forgas, & J. D.Meyer (Eds.), Emotional intelligence in everyday life (pp. 34-50). Psychology Press.
2. Sternberg, R. J. (2004). Culture and intelligence. American Psychologist, 59(5), 325-338.
3. Goleman, D. (2001). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.), The emotionally intelligent workplace (pp. 27-44). Jossey-Bass.
4. Woolfolk Hoy, A., & Weinstein, C. S. (2006). Student and teacher perspectives on classroom Learning environments. In C. M. Evertson & C. S. Weinstein (Eds.), Handbook of classroom Management (pp. 607-628). Lawrence Erlbaum Associates.

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com