



“A COMPREHENSIVE META-ANALYSIS OF THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, SOCIAL INTELLIGENCE, MULTIPLE INTELLIGENCE WITH THE ACADEMIC ACHIEVEMENT”

**Dr. M.Ponnambaleshwari*, Assistant Professor in Education, Department of P.G.Studies in Education & Research, R.V. Teachers College (IASE), Jayanagar 2nd Block, Bangalore-560011.

***Raghu.K.S*, Research Scholar, Department of P.G.Studies in Education & Research, R.V. Teachers College (IASE), Jayanagar 2nd Block, Bangalore-560011.

“Intelligence: The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.” - David Wechsler.

Abstract: Intelligence plays a vital role in the academic achievement of every student. This involves the ability to acquire and apply knowledge. It is also defined as the capacity for logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem-solving.

Intelligence is the most popular term used in everyday life. It is not restricted to any particular activity. In recent years understanding the concept of Intelligence has changed drastically. In connection with this, several theories have been proposed by different scholars, like multi-factor theory by Edward Lee Thorndike (1920), the two-factor theory of intelligence by Charles Spearman (1927), Three-dimensional theory by Guilford (1955) and theory of multiple intelligence by Howard Gardner (1983). Academic Achievement is the extent to which a student, teacher, or institution has attained their short or long-term educational goals.

Several studies have been conducted so far in the field of Education with respect to the relationship between intelligence and academic achievement. Most of the studies have concluded a positive relationship between intelligence and academic achievement at different levels. The sole purpose of this study is to conduct a meta-analysis to provide a quantitative synthesis of research findings on the relationship between Emotional intelligence, Social Intelligence, and Multiple Intelligence with the Academic Achievement.

Introduction

Background

The future of any country depends on its young people. So it is the responsibility of every government to provide equal opportunities for everyone to get quality education. India and China are the most competitive nations in the upcoming world and they invest most of their budget on young individuals. On 1st February 2020, Indian government has allocated 99,300 Crores on education focusing on improving schools and higher education programs.

Achievement encompasses the student's ability to perform in an efficient manner. Academic achievement is regarded as one of the most important concept within the system of education that can be identified as a measure of achievement as the end goal of an individual.

The concept of Emotional Intelligence was proposed for the first time in the year 1990 by 'Salvy' and 'Meyer'. It was identified as an important component under study within the system of education. Emotion is a complex phenomenon that implies a state of the stirred up or aroused mind. It involves extensive disturbances including many feelings, tones and resulting in some sort of overt action. Every child is born with some intellectual potentialities which grow and develop with maturity and experiences. In the same way, one is also born with some innate emotional intelligence in terms of one's level of emotional sensitivity, emotional memory, emotional processing, and emotional learning ability. The term "emotional intelligence" was used by 'Wayne Payne' for the first time in his thesis on; 'A study of emotion: Developing emotional intelligence'.

Social intelligence is the capacity to know oneself and also to know others. Social Intelligence develops from experience with people and learning from success and failures in one's social settings.

The theory of multiple intelligences differentiates human intelligence into specific 'modalities', rather than seeing intelligence as dominated by a single general ability. Howard Gardner proposed this model (1983) in the form of a book "Frames of Mind: The Theory of Multiple Intelligences". Subsequently with the publishing of Gardner's "Intelligences reframed" (1999).

The different types of intelligence identified and researched upon by Howard Gardner are;

1. Verbal - Linguistic Intelligence
2. Logical-Mathematical Intelligence
3. Visual-Spatial Intelligence
4. Bodily-Kinesthetic Intelligence
5. Musical – Rhythmic Intelligence
6. Interpersonal Intelligence
7. Intrapersonal Intelligence
8. Naturalistic Intelligence

Gardner's Theory of Multiple Intelligences (1983) has several implications for teachers in terms of classroom instruction. The theory states that all eight bits of intelligence are needed for an individual to productively function in the society. Teachers, therefore, should think of all bits of intelligence as they are equally important. Intelligence is the ability of an individual to act according to the situations that arise in his interactions with individuals or any environment. Gardner's intelligence theory has its own implications on the process of instruction in the field of education.

Researches have shown a favorable relationship of academic achievement of an individual learner with intelligence. Hence researcher took thoughts in knowing the relationship of all these types of intelligence with academic achievement. It is concluded that the literature produced through various sources including Thesis, Educational magazines, and Journals; there is a positive relationship between intelligence and academic achievement.

What is Meta-analysis?

A Meta-analysis is a quantitative tool for comparing or combining results across a set of similar studies. In Meta-analysis, the unit of analysis is the results of individual studies. Meta-analysis is essentially a synthesis of available literature about a topic. Meta analysis is a quantitative approach for systematically combining results of previous research to arrive at conclusions about the body of research. The term Meta-analysis means the 'analysis of analysis.

The following are the objectives with which this Meta-Analysis is conducted;

1. To know whether there is any significant relationship between emotional intelligence and academic achievement.
2. To know whether there is any significant relationship between social intelligence and academic achievement.
3. To know whether there is any significant relationship between multiple intelligence and academic achievement.

Methodology

Conducting a Meta-analysis

These are the following stages for conducting a Meta-analysis;

- Identifying the relevant variables.
- Locate relevant research.
- Conduct a Meta-analysis.

Identifying the relevant variables

In this step, the major challenge was identifying the variables. In some studies, emotional intelligence or social intelligence or multiple intelligence were identified as dependent variables and in some other studies, the same variables were identified as Independent variables. For the purpose of this study, studies with emotional intelligence or social intelligence or multiple intelligence are identified as independent variables and academic achievement as a dependent variable are taken into consideration.

Locate relevant research

The second step in meta-analysis is acquiring a collection of research on the variables identified above. This was achieved by studying books, referring research journals, research abstracts and dissertations, theses, and databases of important research organizations like Shodhganga (a reservoir of Indian thesis), Academia.edu, and online journals, etc. Key terms entered for these databases were "emotional intelligence and academic achievement", "social intelligence and academic achievement", "multiple intelligence and academic achievement". A total of 50 studies were identified and collected for the present analysis.

Criteria for Inclusion

Each study identified had to meet the following criteria, to be included in this analysis,:

- The studies were published between 2008 and 2019.
- The study report should contain sufficient research findings.
- The subjects in the study should be students studying in either elementary or secondary schools or Colleges or Universities.

Of the 50 studies collected, only 20 studies met the above criteria and served as the basis for this Meta-analysis.

Coding of Studies

Characteristics of the included studies were coded. The primary study characteristics for this analysis were as follows:

- Published year of the study report
- Publication type (thesis/dissertation, journal, etc.)
- Actual sample size
- Grade level of students
- Type of Research

Analysis and Research findings

Description of Selected Studies: Twenty studies met the criteria for inclusion in this Meta-analysis. The characteristics of the studies are presented in Tables 1-5. Of the 20 studies, 2009-2019 50% of the studies were published during the period 2014-2017. 45% of the studies were published in Journals and 55% of the studies were conducted for the doctoral research program. 20 studies included in this Meta-analysis are listed at the end.

table-1: study reports by year of publication

year of publication	number of studies	percentage of studies
2009-2013	7	35
2014-2017	10	50
2018-2020	3	15
total	20	100

table-2: study reports by publication source

source	number of studies	percentage of studies
journals	9	45
dissertations/thesis	11	55
total	20	100

table-3: study reports by grade level of subjects

grade level	number of studies	percentage of studies
primary level	01	5
secondary level	11	55
graduation level	8	40
total	20	100

table-4: study reports by sample size

sample size	number of studies	percentage of studies
less than 300	8	40
301-600	5	25
601-900	2	10
901-1200	2	10
1201 and above	3	15
total	20	100

table-5: study reports by type of research

type of research	number of studies	percentage of studies
survey	17	85
experimental	03	15
total	20	100

table-6: summary of research results

year	author	result
2009	murali. p	emotional intelligence was found to have a significant positive impact on academic performance.
2010	naila naseer, qudsia rifat, samar naseer	there is a significant positive relationship between emotional intelligence and academic achievement of students.
2011	manoj kumar sharma	this study shows that emotional intelligence has a direct influence on the stress, adjustment, and academic achievement on senior secondary students.
2012	dharanendrappa, s. n.	there is a significant positive relationship between emotional intelligence and academic achievement ($r = 0.233$) among the students of standard 9 students.
2013	k.uma maheswari	the emotional intelligence factor create 10.1% influence over the academic achievement of students at graduation level.
2013	mrs. rekha a	it was found that the majority of the students have obtained average level of scores for all the multiple intelligence
2013	benazir ayesha and fauzia khurshid	multiple intelligence and academic achievement are significantly positively correlated with each other.
2014	babitha ann joseph	there is a significant negative correlation between emotional intelligence and academic achievement of students of class 9.
2015	asma nazir, dr. tasleema, dr. muhammad yousuf ganai	urban college students have been found to have higher social intelligence and better academic achievement as compared to rural college students.
2015	m.y ganaie dr hafiz mudasir	there is no significant relationship between social intelligence and academic achievement of science and social science college students.
2015	thulasidharan, t v	the correlation analysis shows that the selected components of multiple intelligences are positively correlated to the achievement in mathematics
2015	anacosta luísafaria	emotional intelligence performance and self-report measures can predict student's academic achievement.
2015	prof. ogunsaju, s. a., dr adeyanju, h. i., and oshinyadi, p. o	emotional intelligence has an effect on the academic achievement of first-year university students such that developing the emotional intelligence skills of a student will lead to the heightening of his/her academic achievement.
2016	sulaganni manjappa k.	there is a positive significant relationship between emotional intelligence and academic achievement of secondary school students.
2016	patil dipali mohanrao	social intelligence is negligible positively related to academic achievement

2017	sivaranjani g	the role of multiple intelligences is an effective instrument to teach and learn the vocabulary skills of the second language learners.
2017	sreeja.p nalinilatha.m	there is no significant relationship between social intelligence and achievement in english among higher secondary school students
2018	ramuben v khint	there will be a significant difference between the mean score of the gujarati subject's retention & achievement of the urban area students taught through the traditional method and m.i. approach.
2018	melese astatke	the results of this study indicated that emotional intelligence had a significant and positive correlation with the students' academic achievement.
2019	emmanuel nkemakolam okwuduba, okigbo ebele chinelo, samuel nkiru naomi	all emotional abilities of emotional intelligence as predicted in hypothesis 2 positively and significantly correlated with the academic performance of students in chemistry.

Conclusions:

In the above analysis, the major findings were not given along with statistical values. Therefore, the researcher attempts to present a simple form of Meta-analysis of the research results compiled as there is a positive impact of emotional intelligence on the academic achievement of students. The percentage of studies on emotional intelligence, social intelligence, and multiple intelligence are presented in the table below.

Summary and discussion

table-7: study report by variables.

variables	number of studies	percentage
emotional intelligence	11	55
social intelligence	4	20
multiple intelligence	5	25
total	20	100

The above analysis indicates that the studies on the effect of emotional intelligence as a strategy on academic achievement are found to be very high. Whereas other studies on variables like Social intelligence, and multiple intelligence are comparatively less. But the percentage analysis indicates the growing trend in the results of research on emotional intelligence as a factor influencing academic achievement in the field of education in recent years.

REFERENCES:

- [1] Daniel Goleman, (1996) 'Emotional Intelligence: Why It Can Matter More Than IQ', Bloomsbury Publishing Plc, 36 Soho Square, London W1D 3QY.
- [2] Daniel Goleman, (2006) 'Social Intelligence: The New Science of Human Relationships', Bantam Books, New York,.
- [3] Michael Borenstein, Larry V. Hedges, Julian P.T. Higgins, Hannah Rothstein Chichester: Wiley, (2009) Introduction to Meta-Analysis, John Wiley & Sons, Inc.

[4] M.Ponnambaleswari, (2011) 'Practice of Cooperative learning Strategy in Teacher Education - A Meta Analysis', International conference on Learning communities and Global Education reform. Hosted by Institute of professional studies, Gwalior in collaboration with AIER from 18-20, November.

WEB REFERENCES:

- [1] https://en.wikipedia.org/wiki/Academic_achievement
- [2] https://www.psycounsel.com/emotional_intelligence.htm
- [3] <https://www.businessinsider.in/budget/news/indias-education-budget-2020-allocation-news-and-updates/articleshow/73824561.cms>
- [4] <https://virtualspeech.com/blog/5-features-emotional-intelligence>
- [5] https://en.wikipedia.org/wiki/Social_intelligence#:~:text=Social%20intelligence%20is%20the%20capacity,and%20fai%20lures%20in%20social%20settings.
- [6] <http://hdl.handle.net/10603/71323>
- [7] <http://hdl.handle.net/10603/254182>
- [8] <http://hdl.handle.net/10603/200667>
- [9] <http://hdl.handle.net/10603/49969>
- [10] https://www.academia.edu/download/51263099/IOSR_PUB_PAPER.pdf
- [11] <https://link.springer.com/content/pdf/10.1007/s10964-008-9373-9.pdf>
- [12] https://www.researchgate.net/publication/312596614_A_Study_of_Social_Intelligence_Academic_Achievement_of_College_Students_of_District_Srinagar_JK_India
- [13] <http://hdl.handle.net/10603/72544>
- [14] <http://hdl.handle.net/10603/212840>
- [15] <http://hdl.handle.net/10603/184540>
- [16] <http://hdl.handle.net/10603/218082>
- [17] <http://hdl.handle.net/10603/241404>
- [18] <http://hdl.handle.net/10603/175620>
- [19] <https://files.eric.ed.gov/fulltext/EJ1249654.pdf>
- [20] <https://files.eric.ed.gov/fulltext/EJ1157651.pdf>
- [21] <https://search.proquest.com/docview/2191480435/82FA38BB652A4BA8PQ/5>
- [22] <https://search.proquest.com/docview/2364436971/82FA38BB652A4BA8PQ/19>
- [23] <https://search.proquest.com/docview/1458584012/fulltextPDF/C930785548F64E9BPQ/1>
- [24] <https://search.proquest.com/docview/2352144006/fulltextPDF/ED7B344D4EE4439BPQ/38>
- [25] https://www.academia.edu/35767077/Effect_of_Emotional_Intelligence_on_the_Academic_Achievement_of_First_Year_University_Students_Nigeria
- [26] <https://www.simplypsychology.org/multiple-intelligences.html>
- [27] <http://hdl.handle.net/10603/193312>
- [28] <http://hdl.handle.net/10603/35924>
- [29] <https://www.sciencedirect.com/science/article/pii/S1041608014002118>
- [30] http://granthaalayah.com/Articles/Vol5Iss6/58_IJRG17_A06_425.pdf
- [31] <http://hdl.handle.net/10603/230293>