Bulletin of Nexus
Multidisciplinary International Research Journal, Double-Blind Peer Reviewed, Open Access Journal
ISSN : 3065-7865 / Volume-2, Issue-10 October - 2025

Original Article

A Comparative Study of Multiple Intelligence Among English-Medium high school students

Mirza Humaira Batul[1] Ansari Khurshid Ahmed[2]
[1]Research Scholar Dr Babasaheb Ambedkar Marathwada University, CSN. Aurangabad
[2]Marathwada College of Education, CSN Aurangabad

Manuscript ID:
BN-2025-021002

ISSN: 3065-7865

Volume 2

Issue 10

October 2025

Pp. 7-14

Submitted: 10 Sept 2025

Revised: 20 sept 2025

Accepted: 09 Oct 2025

Published: 31 Oct 2025

DOI:
10.5281/zenodo.17367027
DOI link:
https://doi.org/10.5281/zenodo.17367027

Abstract

This paper focuses on the necessity of examining the various intelligences displayed by eighth graders in an English-medium school in order to demonstrate to the students the best career paths and various directions to improve their learning environments using the results acquired. The multiple intelligences idea, presented by Howard Gardner in 1983, is highlighted by the researcher for this purpose. This study's main objectives were to identify the students' various forms of multiple intelligence, to distinguish between the forms of intelligence that apply to students (male and female), and to compare the regions of intelligence between male and female eighth-graders and English-medium school pupils. The study employed a survey method using the standard tool the Multiple Intelligence Inventory (MIS-ASPS) provided by Surabhi Agarwal and Dr. Suraksha Pal for testing linguistic intelligence multiple intelligence inventory, which has 90 items and 5 possible answers. A simple random sample procedure was used to select 100 girls and 100 boys from various schools in the city of Aurangabad for the study's 200 high school students of English-medium participants. Researchers have discovered that eighth grade pupils demonstrate a high level of 'logical intelligence' among their many other intelligences.Additionally, research shows that while male students' logical intelligence is higher than female students', so is the former group's "interpersonal intelligence." When comparing the verbal, visual, bodily kinaesthetic, musical, interpersonal, and naturalist intelligence of female and male students in English medium schools, it was discovered that there was no significant difference between them. However, their intrapersonal and logical intelligence differed significantly from one another.

Key words: *Multiple Intelligence, High school, English medium*

Introduction:

The term "Multiple Intellect" is used to describe a variety of cognitive abilities, including problem-solving, memory, creativity, and emotional understanding. It also refers to the capacity to comprehend, learn, reason, and adapt to novel conditions. Multiple Intelligence, according to Gardner, is "a capacity or collection of abilities that enable a person to solve problems or create products significant in a particular cultural context." In his book "Frames of Mind," he also emphasizes that the ability to solve problems or create commodities that are valued within one or more cultural settings is intelligence. However, neither the origins of these capacities nor the appropriate methods of "testing" them are mentioned in this description. He then presents eight different criteria for intelligence, building on this description and particularly using biological and anthropological evidence. Howard Gardner put up the "multiple intelligence" (MI) theory in 1983 to clarify the meaning of intelligence and to address the issue of whether techniques that purport to evaluate intelligence are actually scientific. In his view, a youngster who excels at multiplication is not always more intelligent than a child who finds it difficult. The second kid might be more powerful. Consequently, they may learn the material more effectively using a different method, excel in a subject other than mathematics, or even view the operation of multiplication on a fundamentally deeper level, which can cause them to appear slower than a child who learns the material quickly but has a higher potential for mathematical intelligence.

Address for correspondence:
Mirza Humaira Batul, *Research Scholar Dr Babasaheb Ambedkar Marathwada University, CSN. Aurangabad*
Email: *humairabatul3@gmail.com*

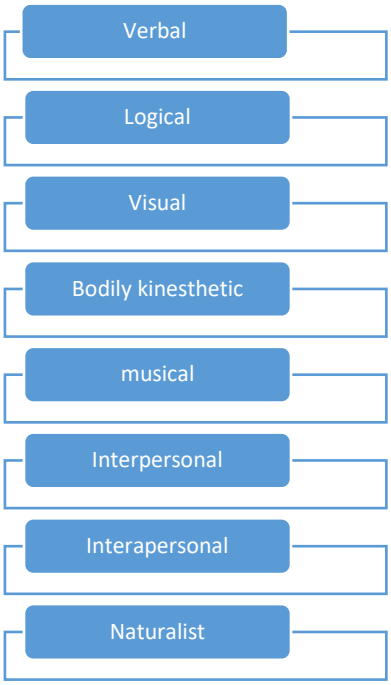
How to cite this article:
Batul, M. H., & Ansari, K. A. (2025). A Comparative Study of Multiple Intelligence Among English-Medium high school students. Bulletion of Nexus, 2(10), 7–14. https://doi.org/10.5281/zenodo.17367027

Quick Response Code:

Website: https://bnir.us

Based on Gardner (1991). We are all able to gain an understanding of the world through language, logical-mathematical analysis, geographic representation, musical thought, the use of our bodies to solve problems or create things, knowledge of other people, and self-awareness. People differ in how well they can employ these intelligences—the so-called profile of intelligences—individually or in combination to accomplish various activities, address various problems, and advance in various disciplines.

These variations "challenge an educational system that assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning," according to Gardner. In fact, as it is, our educational system greatly favors linguistic forms of instruction and assessment, as well as logical-quantitative modes to a lesser extent. Gardner asserts that a competing set of assumptions "is more likely to be educationally effective." Knowledge is acquired by students in clearly defined methods. Many students -- and even the entire society -- would benefit if disciplines could be taught in a variety of methods and learning could be assessed using a variety of techniques. The various types of learning



Need of the Study:

An investigation on how children learn using multiple intelligences was done in a preschool classroom by Sonia Mehta in 2002. The goal of this project is to better understand how kids learn when they participate in kid-initiated, teacher-led activities where their learning processes are recorded and analysed in light of how they use their multiple intelligences. The classroom interactions and behaviours of the children were observed, recorded, and interpreted using ethnographic approaches. The study was conducted in a classroom at the Virginia Tech Child Development Lab School, a preschool affiliated with the institution and open to the neighbourhood around it. The ideology of the lab school is based on social constructivist theory, according to the Virginia Tech Child Development Lab School Handbook from 2000.

Research conducted by Gurpreet Kaur and Sudha Chhikara, (2008) found the investigation of the disparities in sex-based cognitive levels among early adolescents in the state of Haryana's Hisar area. It discovered that while boys outperformed girls in logical and physiological kinaesthetic intelligence, girls took a modest lead in linguistic and musical intelligence.

As described in Multiple Intelligences in the Classroom by Andrea L. Heming (2008). He draws attention to the Intelligenc theory of Harvard professor and psychologist Howard Gardner in this study. Gardner contends that kids pick up knowledge in a variety of methods. In response to this idea, he created the Multiple Intelligences Theory (MI), which maintains that there are eight different ways that people learn or complete tasks. The theory of multiple intelligences was examined in this study, along with its use in the classroom. Study, direct observation, and teacher interviews were used to determine how this concept is now applied in schools. In this project, the three questions were addressed.

How are practicing educators currently implementing the many intelligence theory in the

lecture room? (The old strategy of utilizing the logical/mathematical and verbal/linguistic learning styles has waned.) The remaining areas of Intelligences are they utilized in the study room as frequently? Last but not least, do teachers purposefully or unintentionally incorporate different intelligences into their courses and are they aware of their students' many intelligences?

The teaching of one selected course (colour theory) highlights many intelligences ideas, according to JINGCHEN XIE & RUILIN's (2009) work. An investigation was planned and carried out to compare the impact comprising two groups of students from a polytechnic university in central Taiwan: the experimental group received instruction in multiple intelligences, while the control group received instruction in traditional methods. On a real-world, hands-on design project assignment, students originating from the test group outperformed those in the oversight group.

Gulap Shahzada (2011) did a study to determine the extent of the kids in the Bannu district's self-perceived multiple intelligences. 714 students in all were chosen as a sample for the study using multistage sampling techniques that followed the proportion allocation strategy. The multiple intelligences inventory was employed as a research method in the study and was modified from Armstrong's (1994) Urdu version. The mean and SD were used to measure, respectively, the multiple intelligences of the sampled students' central tendency and variability. The study's findings showed that the students' self-perceived verbal/linguistic, intrapersonal, interpersonal, naturalistic, and bodily/kinaesthetic intelligences are the most predominate. It was suggested that teachers instruct in a way that allows children to grow in all areas of intellect. to identify the kids' strengths in their multiple intelligences.

Dita Handayan (2013) conducted a study on Islamic education in elementary schools is multi-intelligences-based. His research aims to help primary school students learn about Islamic beliefs using the multiple intelligences approach. This study's methodology is descriptive research with a developmental studies approach. The outcome reveals that utilization of many intelligences in Islamic doctrine has a favourable and significant impact on the study of Islamic education. Furthermore.

Basak Calik (2013) placed focus on the Multiple Intelligence Theory for Gifted Education in the same year. In relation to mentoring young scientists, this research examines gifted learners in light of the implications of the multiple intelligence theory. It supports seeing people as engaged individuals in the processes of instruction and learning that match with the use of skilled education and is one of the pluralistic theories of intelligence. In order to understand why applying the multiple intelligence hypothesis is advantageous for gifted students and potential future scientists, the theory's background and broad characteristics are described. Despite extensive discussion of the theory's advantages for the aforementioned period, several theoretical perspectives and its applications have come under fire, particularly in Turkey. The study's overall goal is to advance the body of knowledge on gifted education by emphasizing the diverse areas of intelligence theory's (MI) use in a variety of fields.

Lucy Andria Tchuente, in the year 2023, recently designed a study on multiple intelligences. He came to the conclusion that every person has a special blend of intelligences. Before classifying someone as stupid, it is important to consider the possibility that they may not be in the ideal situation for completely realizing their potential. We may promote a more inclusive understanding of intelligence by accepting the idea of various intelligences.

According to research on multiple intelligence from various nations, little has been known about the various forms of intelligence displayed by eighth grade students in an English medium school, including how MI is applied in the classroom, how multiple intelligence is perceived by the individual, how MI theory applies to gifted learners, etc. In order to present secondary school pupils the best job paths and many directions to improve their learning conditions using the results acquired, the researcher felt the necessity to explore the varied areas of intelligence possessed by these students. It was crucial to perform the study for students of Aurangabad University because all previous studies had not specifically focused on the city.

Operational definition of important terms:

1. Intelligence: In this context, it refers to the results of multiple-choice intelligence tests.

2. Eighth graders: Students in the eighth grade who are between the ages of 12 and 13 years old.

3. English-medium: schools are those where English is the primary language of instruction.

Purpose of the study:

The purpose of the research is to better investigate the many types of intelligence that eighth-graders in English-medium school's display.

Objectives:

1. To identify the various types of multiple intelligences among high school students in English-medium schools.

2. To identify the various types of multiple intelligences among high school female students in English-medium schools.
3. To identify the various types of multiple intelligences among high school male students in English-medium schools.
4. To compare the various types of multiple intelligences between male and female students in English-medium high schools.

Hypothesis:

1. multiple intelligences among high school students in English-medium schools.
is high.
2. multiple intelligences among high school female students in English-medium schools is high.
3. multiple intelligences among high school female students in English-medium schools is below average.
4. There are no significant differences of multiple intelligences between male and female students in English-medium high schools.

Methodology:

The study's methodology was the survey approach. The multiple intelligence inventory Surabhi Agarwal and Dr. Suraksha Pal which has 90 items and 5 alternate answers, was the standard tool the researcher employed for the current study.

Sample:

The 200 high school English-medium participants in the current study were selected at random from five different schools in the city of Aurangabad, with 100 boys and 100 girls making up the sample.

Statistical Measures: For data analysis mean, Standard Deviation and t-test these statistical techniques are utilized.

Finding:

Objective 1: To identify the various types of multiple intelligences among high school students in English-medium schools.

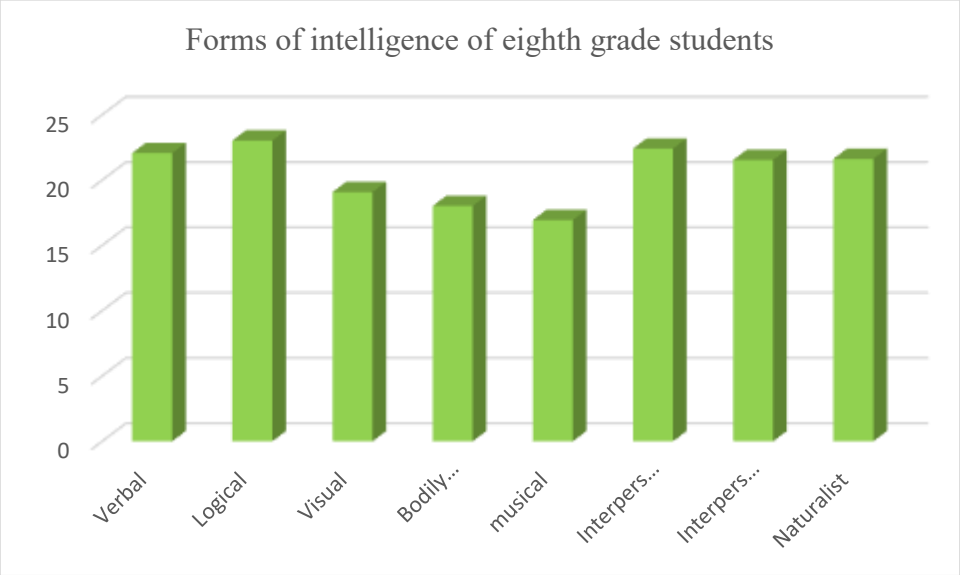


Table 1: Table displaying the average value of several multiple intelligences

Analysis and interpretation: The results show that the average verbal intelligence of eighth grade students in English medium schools is 22.07, the average logical intelligence is 23.03, the average visual intelligence is 19.08, the average bodily kinaesthetic intelligence is 18.02, the average musical intelligence is 16.94, the average interpersonal intelligence is 22.41, the average intrapersonal intelligence is 21.54, and the average naturalist intelligence is 21.62. The 'logical intellect' of eighth grade kids in English medium schools is therefore high.

Objective 2: To identify the various types of multiple intelligences among high school female students in English-medium schools.

.

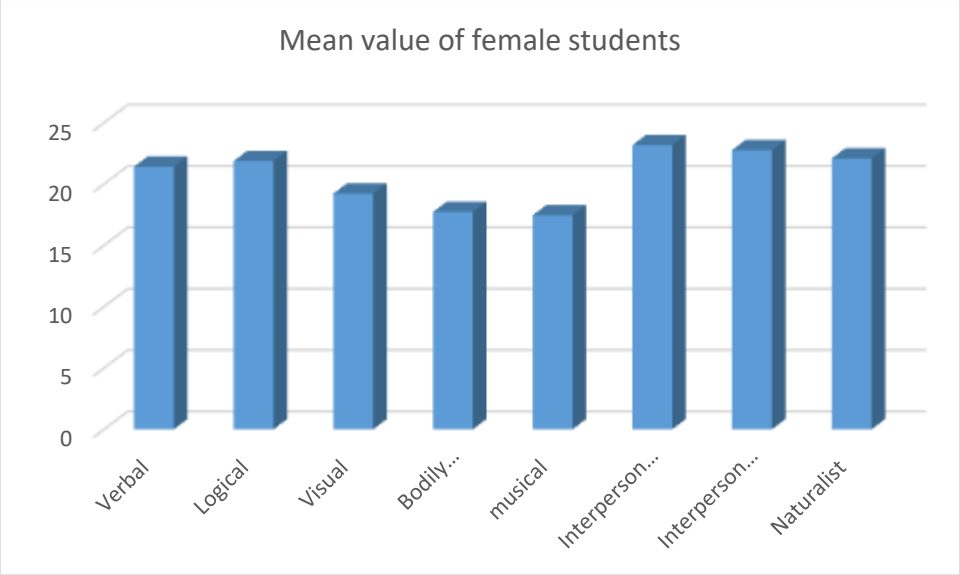


Table 2: displaying the average of the IQ kinds of female students

Analysis and interpretation:-

Results obtained show that eighth grade pupils in English medium schools have a verbal IQ mean of 21.41 and a logical IQ mean of 21.87. The average score for musical intelligence is 17.45, the average score for bodily-kinaesthetic intelligence is 19.22, the average score for interpersonal intelligence is 23.17, the average score for intrapersonal intelligence is 22.77, and the average score for naturalist intelligence is 22.08. The 'intrapersonal intelligence' of VIII STD English medium school kids is therefore high.

Objective 3: To identify the various types of multiple intelligences among high school male students in English-medium schools.

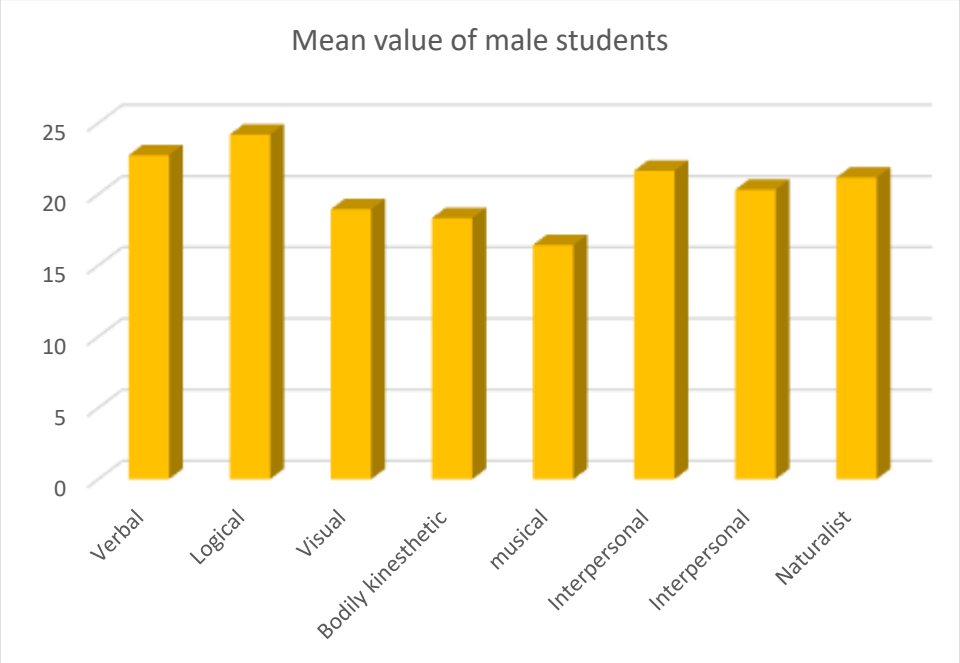


Table: 3 showing mean value of male student's types of intelligence

Analysis and Interpretation:-

Results show that eighth grade students in English-medium schools score on average at 22.74 for verbal intelligence, 24.19 for logical intelligence, 18.95 for visual intelligence, 18.33 for bodily kinaesthetic intelligence, 16.44 for musical intelligence, 21.65 for interpersonal intelligence, 20.32 for intrapersonal intelligence, and 21.17 for naturalist intelligence. Therefore, the logical intellect of male eighth graders in English medium schools is high.

Objective 4. To compare the various types of multiple intelligences between male and female students in English-medium high schools.

Sr. No.	Types of intelligence	gender	mean	S.D	T value	df 1.98 at 0.05 level	Difference between mean
1	Verbal	Girls Boys	21.41 22.74	4.52 5.97	1.77	1.97	Not significant
2	Logical	Girls Boys	21.87 24.19	6.39 7.05	2.43	1.97	significant
3	Visual	Girls Boys	19.22 18.95	5.93 6.52	0.3	1.97	Not significant
4	Bodily kinesthetic	Girls Boys	17.72 18.33	6.35 6.32	0.68	1.97	Not significant
5	musical	Girls Boys	17.45 16.44	7.54 7.93	0.92	1.97	Not significant
6	Interpersonal	Girls Boys	23.17 21.65	6.49 7.58	1.52	1.97	Not significant
7	Interpersonal	Girls Boys	22.77 20.32	7.19 6.96	2.44	1.97	significant
8	Naturalist	Girls Boys	22.08 21.17	7.61 8.00	0.82	1.97	Not significant

Table: S.D., t value, and gender differences are shown in 4.1.

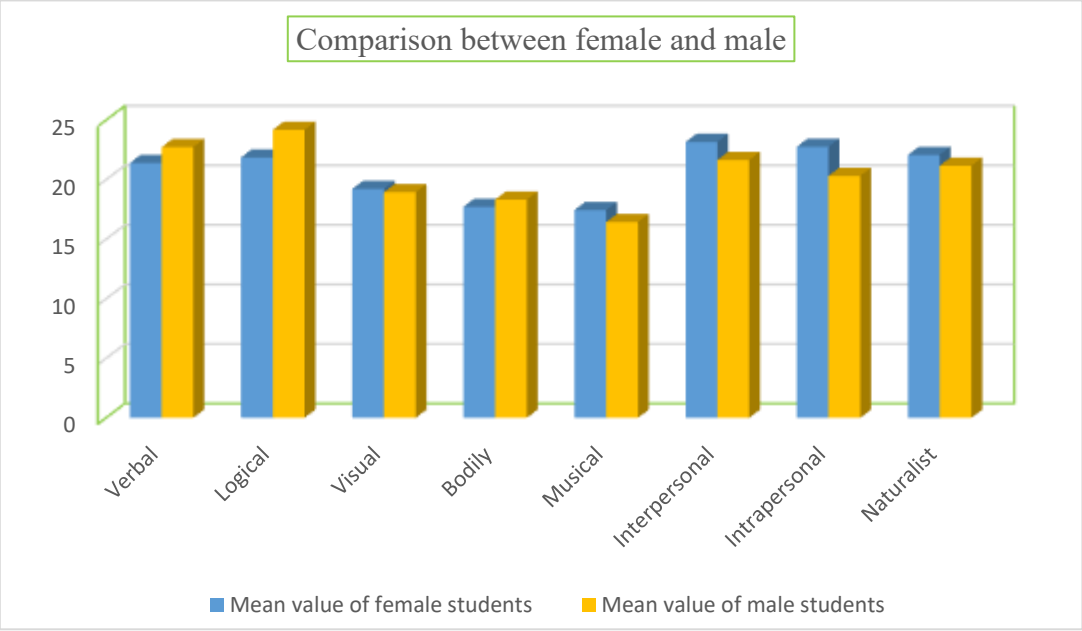


Table 4.2 compares the various intelligences between men and women.

Analysis and Interpretation:-

According to the results, males and girls students' mean "verbal intelligence" scores are 22.74 and 21.41, respectively, with S.D. values of 4.52 and 5.97.The T-Value is 1.77, which, at the 0.05 level, is less than the table value of 1.97. Thus, it demonstrates that In terms of verbal intelligence, there is no obvious difference between boys and girls.

Boys and girls students' mean "logical intelligence" scores are 24.19 and 21.87, respectively, with 6.39 and 7.05 as the standard deviations. The T-Value is 2.43, which, at the 0.05 level, is higher than the table value of 1.97. Thus, it demonstrates that there is a sizable disparity between the verbal IQ of boys and girls.

Boys and girls students' mean "visual intelligence" scores are 18.95 and 19.22, respectively, with standard deviations of 5.93 and 6.52.The T-Value is 0.30, which at the 0.05 level is less than the table value of 1.97. Thus, it demonstrates that there is no discernible boys and girls differ from each other in terms of verbal intelligence.

The mean score for "bodily kinaesthetic" among students is 17.72 for girls and 18.33 for boys, with S.D. values of 6.35 and 6.32.The T-Value is

0.68, which, at the 0.05 level, is less than the table value of 1.97. Thus, it demonstrates that when it comes to verbal intellect, boys and girls are similarly gifted.

The mean score for "musical intelligence" among pupils is 17.45 for girls and 16.44 for boys, with standard deviations of 7.54 and 7.93.The T-Value is 0.92, which at the 0.05 level is less than the table value of 1.97. Thus, it demonstrates that Boys and girls are equally verbally intelligent, with no obvious differences.

Boys and girls pupils' mean "interpersonal intelligence" scores are 21.65 and 23.17 respectively, with S.D. values of 6.49 and 7.58.The T-Value is 1.52, which at the 0.05 level is less than the table value of 1.97. Thus, it demonstrates that there is no discernible difference between boys and girls in terms of verbal intelligence.

Boys and girls pupils' mean "intrapersonal intelligence" scores are 20.32 and 22.77 respectively, with 7.19 and 6.96 as the standard deviations. The T-Value is 2.44, which at the 0.05 level exceeds the table value of 1.97. Thus, it demonstrates that there is a sizable disparity between the verbal IQ of boys and girls.

Girls pupils scored 22,08 on the "naturalist intelligence" scale, while boys scored 21, and the standard deviations were 7.61 and 8.00.The t-Value is 0.82, which at the 0.05 level is smaller than the 1.97 value in the table. Thus, it demonstrates that there is no discernible distinctness between both male and female in terms of verbal intelligence.

Discussion:

The obtained results show that high school students in English medium schools have high 'logical intelligence', with mean values of 22.07 for verbal intelligence, 23.03 for logical intelligence, 19.08 for visual intelligence, 18.02 for bodily kinaesthetic intelligence, 16.94 for musical intelligence, 22.41 for interpersonal intelligence, 21.54 for intrapersonal intelligence, and 21.62 for naturalist intelligence.

Furthermore, Results obtained show that high school students in English medium schools score on average at 21.41 in verbal intelligence, 21.87 in logical intelligence, 19.22 in visual intelligence, 17.72 in bodily kinaesthetic intelligence, 17.45 in musical intelligence, 23.17 in interpersonal intelligence, 22.77 in intrapersonal intelligence, and 22.08 in naturalist intelligence. The 'intrapersonal intelligence' of high school students in English medium schools is therefore high.

Results show that high school students in English-medium schools score on average at 22.74 for verbal intelligence, 24.19 for logical intelligence, 18.95 for visual intelligence, 18.33 for bodily kinaesthetic intelligence, 16.44 for musical intelligence, 21.65 for interpersonal intelligence, 20.32 for intrapersonal intelligence, and 21.17 for naturalist intelligence. Therefore, the logical intellect of high school students in English medium schools is high.

The logical intelligence and intrapersonal intelligence of male and female pupils in English-medium high schools, however, differ significantly, as shown in table 4.1 t-values. In addition, the researcher found no significant difference between the verbal intelligence, visual intelligence, bodily kinaesthetic' musical intelligence, interpersonal intelligence, and naturalist intelligence among female and male students of English medium high schools.

Results:

Investigating the many intelligence facets found that high school pupils' level of 'logical intelligence' is high. Further research shows that male students' logical intelligence is high while female students' "interpersonal intelligence" is strong. After comparing the various intelligences of girls and boys, the researcher found that significantly no difference between the logical and intrapersonal intelligence of female and male students in English medium schools, but there is a significant difference between the verbal intelligence, visual intelligence, bodily kinaesthetic' musical area, interpersonal, and naturalist area of intelligence.

Conclusion and recommendation:

Students should be conscious of the different types of diverse areas of intelligence they possess and choose the vocation or course that best suits them. The type of intelligence that each student possesses will enable the teacher to uncover their hidden talents and, using multiple intelligences (MI), tailor the instructional materials they receive to each student's unique learning style. Teachers should be aware of the specific knowledge that each student possesses in order to teach to their diverse areas of multiple intelligence. Parents should encourage their children's work in accordance with their areas of intelligence without being overly rigid or unkind to them.

Acknowledgment

The researcher extends heartfelt gratitude to Dr. Khurshid Ahmed Ansari, Marathwada College of Education, Aurangabad, for his invaluable guidance, encouragement, and constructive suggestions throughout the course of this study. His expertise and constant support have been instrumental in completing this research work successfully.

Special thanks are due to the principals, teachers, and students of the participating English-medium schools in Aurangabad for their cooperation, time, and willingness to contribute to this study. Their active participation and honest responses made this research possible.

The researcher also expresses sincere appreciation to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, for providing the academic environment and resources essential for carrying out this study.

Finally, heartfelt thanks are offered to family members and friends for their patience, understanding, and unwavering moral support throughout the research journey.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

References:

1. Howard, Gardner. (1983). Introduction to the Tenth-Anniversary Edition. The Principal Themes of Frames of Mind Pg. no. 28. Frames of Mind.
2. Sonia, Mehta. et al. (2002). Multiple Intelligences and how Children Learn An Investigation in one Preschool Classroom. Retrieved from https://www.researchgate.net/publication/228748879_Multiple_Intelligences_and_how_Childrden_Learn_An_Investigation_in_one_Preschool_Classroom
3. Gurpreet, Kaur., & Sudha, Chhikara. (2008). Intelligence among Young Adolescents. *journal of human ecology*. Retrieved from https://doi.org/10.1080/09709274.2008.11906048
4. Heming, Andrea L. (2008). Multiple Intelligences in the Classroom. *Honors college at Western Kentucky University.* Retrieved from https://digitalcommons.wku.edu/stu_hon_theses/138/
5. JINGCHEN, XIE., & RUILIN, (2009). Multiple Intelligences Teaching and Assessment. Retrieved from https://www.academia.edu/attachments/32172583/download_file?st=MTY5Mjk5NTg2NCwxNTcuMzMuMTAwLjkw&s=swp-splash-paper-cover
6. Hope, Phillips. (2010). Multiple intelligences theory and application. Retrieved from https://csuepress.columbusstate.edu/cgi/viewcontent.cgi?article=1028&context=pil
7. Gulap, Shahzada. (2011). Multiple Intelligences of the students. Retrieved from http://www.languageinindia.com/april2011/gulapmultipleintelligencefinal.pdf
8. Dita, Handayan. (2013). Multiple Intelligences Learning-Based For Islamic teaching In the elementary school. Retrieved from http://www.ijstr.org/final-print/feb2013/Multiple-Intelligences-Learning-based-For-Islamic-Teaching-In-The-Elementary-School.pdf
9. Basak, Calik. (2013). Multiple Intelligence theory for gifted education criticisms and implications. Retrieved from http://www.ijstr.org/final-print/feb2013/Multiple-Intelligences-Learning-based-For-Islamic-Teaching-In-The-Elementary-School.pdf
10. Gargee, Mitra. (2013). Programme based on mind maps for teaching
11. science. *Shodhganga* .Retrived from
12. http://shodhganga.inflibnet.ac.in/handle/10603/126140
13. Jignasa, Joshi. (2016) multiple intelligence of students in context to gender. http://oaji.net/articles/2016/1170-1465497499.pdf
14. Lucy Andria, Tchuente. (2023). Multiple intelligences individual possesses a unique combination of intelligences. Retrieved from https://rightforeducation.org/2023/06/08/multiple-intelligences/