

A Comparative Study of Multiple Intelligences of Students with Respect to Grades

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ABSTRACT

The purpose of the paper is to study and compare the Multiple Intelligences of girls and boys studying in VII and IX grades. The nature of study was descriptive. Two stage sampling was used to select sample. The sample of the study constitutes 4577 students in which 2010 were from grade VII and 2567 students from grade IX. Analysis of Variance (ANOVA) was used to find the significant difference in the multiple Intelligences of students with respect to grades. The findings shows that there is a significant difference in the multiple Intelligences of grade VII and IX students. The mean scores indicate that IX grade students were found to be high on Bodily Kinesthetic, Interpersonal, Intrapersonal, Musical, Naturalistic and Existential Intelligence than VII grade students. The inter-correlation between different types of Intelligence was calculated with respect to grades. It was found that the coefficient of correlation between different types of Multiple Intelligences were high in case of grade VII students in comparison to grade IX students. Profile Analysis was used to derive an inference about the level of multiple intelligences of students with respect to grades. The findings showed that IX grade students i.e. girls and boys were found to be high on all types of Intelligences than VII grade students i.e. girls and boys. Suggestions and implication of the study were discussed.

Keywords: *Multiple Intelligences, Bodily kinesthetic Intelligence, Interpersonal Intelligence, Intrapersonal Intelligence, Musical Intelligence, Naturalistic Intelligence and Existential Intelligence.*

"Education would be so much more effective if its purpose were to ensure that by the time they leave school every boy and girl should know how much they don't know, and be imbued with a lifelong desire to know it."

-- Sir William Haley. (<http://www.etni.rg.il/quotes/education.htm>)

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Intelligence is a general cognitive problem-solving skill. It is a mental ability involved in reasoning, perceiving relationships, analogies and calculating. It helps individuals to face and solve the complicated problems and situations, in learning things and making adjustments with the environment.

The theory of multiple intelligences was proposed by Howard Gardner at Harvard University in 1983 to analyze and describe the concept of intelligence in a more comprehensive manner. According to him there are seven independent types of intelligences that grow and develop differently in different people, depending upon their hereditary characteristics or environmental experiences named as; bodily-kinesthetic, linguistics, logical- mathematics, visual-spatial, interpersonal, intrapersonal and musical as mentioned in *Frames of Mind (1983)*. Later he added naturalist, spiritual and existential intelligence.

(<http://www.infed.org/thinkers/gardner.htm>).

Bodily-kinesthetic Intelligence: The word "kinesthetic" derives its meaning from another technical term called "Kinesthesia" which means a sense for any movement. Those who are Bodily-Kinesthetic intelligent are called 'Body smart.' They excel in activities that require the use of physical co-ordination, endurance and ability. These individuals might excel in athletics or dance or may gravitate towards careers that require more physical activity like that of actor, sports coach or Physical Education Teacher. They have good control over their body movement, manual dexterity, physical agility and balance, and eye-body coordination. Dancers, demonstrators, actors, athletes, divers, sports people, soldiers, fire fighters, PTI's, performance artistes, ergonomists, osteopaths, fisherman, drivers, craftsman, gardeners, chefs, acupuncturists, healers and adventurers exhibit bodily kinesthetic intelligence.

Interpersonal Intelligence: Those who are interpersonal regarded as 'People smart'. They have excellent people skills and are likely quite social. Interpersonal intelligence is the ability to understand and to have an effective working model of one. This type of intelligence is exhibited by therapists, HR professionals, mediators, leaders, counselors, politicians, educators, sales people, psychologists, teachers, doctors, organizers, advertising professionals, coach and mentors. People smart individuals can interpret moods from facial expressions, demonstrate feelings through body language, affect the feelings of others in a planned way, coach or counsel another person. They have good emotional intelligence. They may take care of human contact, communications, co-operations and team work.

Intrapersonal Intelligence: Intrapersonal individuals are 'self smart'. They are remarkably aware of their own feelings and beliefs and desires and use this information to make sound life decisions. They are self smart people and understand one's relationship to others and the world and one's own need for and reaction to change. It is somewhat related to Meta cognition in general and the ability to self monitor in particular. Self smart people are always engaged in decision making about one's own aims and decide options for development. They rely on self-

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reflection and self discovery. They also reach the level of self actualization and possess emotional intelligence. They can perceive other peoples feeling, interpret their behaviour and communicate and understand the relationship between people and their situations.

Musical Intelligence: Musical – Rhythmic people are ‘Music smart.’ They demonstrate talents such as playing musical instruments and composing music and dance. They exhibit an awareness and sensitivity to rhythm and sound, appreciate and produce songs. Music smart individuals recognize the patterns of music; understand the relationship between sound and feeling. Music smart individuals may pursue careers as performing musicians, composers, conductors, dancers, song lyricists, rappers or music teachers, party-planners and voice coaches.

Naturalistic Intelligence: Naturalist people are ‘Nature smart.’ They notice and are interested in things in the natural world. They are particularly good at being aware of patterns and classification and they demonstrate an active interest in flora, fauna and natural phenomena. Gardner described, a naturalist is one who is able to recognize and classify objects. They enjoy learning the characteristics of the natural world and can identify and describe the plant and animal species around them. According to Gardner, hunters, farmers and gardeners would have high levels of naturalistic intelligence, as would artists, poets and social scientists who are also adept at pattern recognition. The marketing professional who promotes the small differences between competing products is applying naturalistic intelligence. They show the ability to categorize objects according to salient similarities and differences among them, high level of logical reasoning, to notice seasonal changes and collage bugs, rocks or shells.

Existential Intelligence: It can be described as the ability to be sensitive to or have the capacity for conceptualizing or tackling deeper or larger question about human existence, such as the meaning of life, why are we born?, why do we die?, what is consciousness?, or how did we get here? It is the capacity to tackle deep questions about human existence, such as the meaning of life, why we die?, what is my role in the world? This intelligence seeks connections to real world and allows learner to see their place in the big picture and to observe their roles in the classroom, society and the world or the universe. Philosophers, Theorists, Religious Thinkers exhibit existential intelligence. They show the ability to appreciate the values of beauty, truth and goodness to understand the philosophy of life and to summarize and synthesize ideas.

Human learning depends on various factors which can be individual or environmental. The environmental factors like socio economic status (SES), cultural aspects, social norms, learning materials, syllabus and resources available are few to mention. It is the learning environment which influences the learning process. The schools are responsible for providing proper learning environment to students. Every school has its own climate which is perceived by the students. The schools follow a specific syllabus prescribed by respective boards of affiliations but the experiences provided by schools, resources made available to students are different. Therefore, the learning also differs in degree. For example if the school focuses on the physical development of students and organize sports and other physical activities in the school then the students may get ample opportunity to develop physical abilities and skills or Bodily kinesthetic

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intelligence. The formal education system is very structured and divided into grades. Each grade is characterized by specific curricular, co-curricular activities which are based on the developmental stage of the concerned age group.

Dara-Abrams B. (2002) studied the Application of Multi-Intelligent Adaptive Hypermedia to Online Learning. This study examined whether the cognitive Theory of Multiple Intelligences can be used to develop a user model supporting adaptation in an online learning environment. The result indicates that participants, particularly those with well-developed Bodily-Kinesthetic Intelligence, requested more interaction and online testing.

Kumbar R. (2006) conducted an experimental study on application of Howard Gardner's multiple intelligence theory for the effective use of library resources by K-2 students. This study provides a view point of applying Howard Gardner's theory of multiple intelligences namely; verbal, logical-mathematical, musical, body-kinesthetic, visual/spatial, interpersonal, intrapersonal and naturalist intelligence in evaluating a resource by a student. The research reveals that that multiple intelligence theory helps in developing skill to analyze a resource logically and use it effectively to increase the success level of the students.

Shaikh N. (2007) conducted a study on course preferences of the secondary school students on the basis of their type of intelligence. Findings suggest that a significant difference in the linguistic intelligence, bodily/kinesthetic and Naturalist intelligence of different school types was found. ICSE students had more linguistic intelligence than SSC and CBSE School. A significant difference observed in linguistic intelligence, bodily/kinesthetic, Musical, interpersonal and intrapersonal intelligences of secondary school students on the basis of gender.

Kaur G., Chkara S. (2008) assessed the multiple intelligences among young adolescents with respect to sex differences. Significant differences were observed in the mean scores of boys and girls for linguistics, logical, Musical and bodily kinesthetic intelligences. It was found that in case of linguistic and musical intelligence girls took slight lead whereas boys were ahead of girls in logical and bodily kinesthetic intelligence.

Ramzi, N., Sushila, S. and Kamal, A. (2008) studied gender differences on self-Estimates of Multiple Intelligences: A Comparison Between Indian and Lebanese Youth. A sample of 648 Lebanese and 252 Indian students estimated their multiple intelligences based on Gardner's conceptualization. Males rated the body kinesthetic component higher than females while females estimated their verbal and intra-personal intelligence higher than males.

Gogebakan D. (2003) studied the students' multiple intelligences according to their preferences and how students' multiple intelligences differ in terms of grade level (first, third fifth and eighth) and gender. The results indicated that Students at the first grade level demonstrated

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strong preference for linguistic intelligence and logical mathematical intelligence and the two intelligences followed were spatial intelligence, and bodily kinesthetic intelligence. The third grade students' most dominant intelligences were interpersonal, spatial, logical-mathematical, and linguistic intelligence. For the fifth grade students, interpersonal intelligence, bodily-kinesthetic intelligence, spatial intelligence, musical intelligence was more dominant.

Jones M. T. (2006) studied the impact of using different multiple intelligence activities on second grade spelling scores. The major conclusion drawn from the results of the study is that the multiple intelligence activities implemented in three second-grade classrooms, along with the traditional instruction from the classroom teacher, did not have a statistically significant impact on the spelling scores of the second grade students. These studies helped the researcher to locate the differences and similarities in the present study and the studies conducted.

Objective:

1. The objective of present piece of research was to study the Multiple Intelligences of students studying in VII and XI grades.

Hypothesis:

- i. There is no difference on Multiple Intelligences in VIIth and IXth grade students
- ii. There is no correlation among dimensions of Multiple Intelligences.
- iii. Multiple Intelligences of VIIth and IXth grade students are average.

METHODOLOGY

Procedure:

Data collection is essentially an important part of the research process. For the present study the data was collected from girls and boys studying in Grade VII and IX with English, Hindi, Marathi and Urdu as a medium of instruction from 43 schools situated in Greater Mumbai. Prior appointment and permission was taken from the principals of different schools. The researcher explained the purpose and procedure to the respondents to obtain their responses on the rating scale. Students were also permitted to ask any clarification and their difficulties. In the pilot study it was found that students took 45-50 minutes to complete the task. Therefore, for data collection no fixed time limit was given for completing the task.

The researcher has used the **two stage sampling**, as at first stage schools with different medium of instructions were selected. At the second stage students were selected. For the present study cluster sampling has been used for selecting the students. While selecting the students whichever divisions or sections of standard VII and IX were made available by the administration the data has been collected by all students present in the class.

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Sample:

The sample of the study constitutes 4577 students, in which 2010 were from grade VII and 2567 from grade IX. In VIIth grade female and male were 925 and 1085 and in IXth grade 1204 and 1363 respectively.

Measures:

The scale contains 123 items and was self developed. It is a five point rating with anchors labeled (1=Not at all, 2=to some extent, 3=to moderate extent, 4=to a large extent and 5=to a very large extent). Minimum and maximum score for a dimension depends on the number of items in a dimension. The psychometric properties of the scale are shown in following paragraphs.

Operational Definitions:

Bodily-Kinesthetic Intelligence: It is the extent of the ability perceived by an individual to think in movements and to use the body to perform skilled and complicated tasks. They express ideas through gestures and enjoy activities associated with kinesthetic movements such as dance, games, making projects and wrapping of gifts.

Interpersonal Intelligence: It is the extent of the ability perceived by an individual to think about and understand another person with empathy and to appreciate their perspectives with sensitivity to their motives, moods and intentions. They interact effectively with one or more people among family, friends, or working relationships and siblings. They enjoy group activity, provide and seek guidance and take a leadership role.

Intrapersonal Intelligence: It is the extent of the ability perceived by an individual to think and understand one's self, to be aware of one's strengths and weaknesses and to plan effectively to achieve personal goals, to reflect on and monitor one's thoughts and reasoning and regulating effectively.

Musical Intelligence: It is the extent of the ability perceived by an individual to think and understand sounds, rhythms, melodies and rhymes. They are sensitive to pitch rhythm and tone, recognize, create and reproduce music by using an instrument or the voice. They appreciate and enjoy listening actively to music, songs and sounds.

Naturalistic Intelligence: It is the extent of the ability perceived by an individual to have sensitivity and understanding for the natural world including plants, animals. They interact effectively with nature and gain satisfaction through being with nature. They appreciate nature and collect detailed information about natural world.

Existential Intelligence: It is the extent of the ability perceived by an individual to be sensitive towards the fundamental questions related to the human existence and society. They believe in universal principles, respect people and listen to their conscience.

The internal consistency of the scale estimated using Cronbach's Alpha for each dimension and overall for the scale and are given in Table 1.

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Table 1, Reliability of the Multiple Intelligences Scale

Coefficient	Multiple Intelligences Dimensions						Overall - MI
	Bodily kinesthetic	Interpersonal	Intrapersonal	Musical	Naturalistic	Existential	
Alpha	0.65	0.79	0.78	0.82	0.87	0.81	0.95

Content (Face and logical) validity of the multiple intelligences scale (English, Hindi, Marathi, Urdu) was authenticated by experts in the field of Education, Psychology, Psycho-Technical professionals of Indian Railways and even experts in Urdu, Hindi, Marathi and English languages (numbering about 13 experts).

There are various methods to establish construct validity of the tool. But majority of them are having limitations as role of time factor an existence of subjectivity in experts' ratings. To overcome these limitations, Factor analysis with Principle Component Analysis as extraction and varimax rotation was used to establish the construct validity of the tool. In all six factors emerged confirming six different dimensions of intelligences and the percent of variance (factorial/construct validity) explained by all factors was 94.10%. This confirms very high construct validity of the tool.

RESULTS AND DISCUSSION

The independent t-test was used to find out the difference in the mean scores of Multiple Intelligences of students of grade VII and IX and is shown in Table 2.

Table 2, Significant difference in the mean of Multiple Intelligences of Grade VII and IX students

Multiple Intelligences	Grade	N	Mean	SD	Effect Size	t-ratio	p
Bodily kinesthetic	VII	2010	42.51	9.031	.08	6.06	0.01
	IX	2567	43.93	9.474			
Interpersonal	VII	2010	90.18	19.880	.12	7.73	0.01
	IX	2567	94.86	20.500			
Intrapersonal	VII	2010	46.90	10.135	.04	4.04	0.01
	IX	2567	47.79	10.283			
Musical	VII	2010	68.58	17.630	.06	4.03	0.01
	IX	2567	70.67	18.317			
Naturalistic	VII	2010	89.58	20.018	.10	6.77	0.01
	IX	2567	93.71	19.716			
Existential	VII	2010	68.79	14.854	.09	6.80	0.01
	IX	2567	71.51	13.657			

$t = 2.58, p < 0.01, t = 1.96 p < 0.05$

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When the score of grade VII and IX were computed, the obtained t values were 6.06, 7.73, 4.04, 4.00, 6.76 and 6.8 for multiple intelligences as indicated in table 2. Since the calculated t - value 6.06 is greater than 2.58 in all the cases hence it is significant at 0.01 level. Effect size for the difference is .08, which is small and explains around 1% of the total variance. Thus the H_0 is rejected for all types of multiple intelligences, inferring that IX grade students were better on MIs comparing to VII grade students.

There is a significant difference in the **Bodily Kinesthetic** Intelligence of grade VII and IX students. The mean scores of Grade IX students are greater than grade VII students on the Bodily Kinesthetic Intelligence. It means that students of standard IX are higher on BKI. The reason could be that physically Grade IX students are mature and stronger than grade VII students. They are more energetic and enthusiastic to perform physical activities.

There is a significant difference in the **Interpersonal Intelligence** of Grade VII and IX students. The mean score of Grade IX students are greater than the Grade VII students on Inter personal Intelligence. It means that students of standard IX are higher on Interpersonal Intelligence. Effect size for the difference is .12, which is small and explains around 1% of the total variance. The reason could be that grade IX students are physically and intellectually more mature than grade VII students. They show elevated emotions at this phase and want to share their problems with friends freely. They interact with friends, appreciate their qualities and performance and seek guidance or advice from them. They show the need of approval and acceptance from friends, teachers and parents. The emotions of love and belongingness reach at peak.

There is a significant difference in the **Intrapersonal Intelligence** of Grade VII and IX students. The mean score of Grade IX students are greater than the Grade VII students on Intra personal Intelligence. It means that students of standard IX are higher on Intrapersonal Intelligence. Effect size for the difference is .04, which is small and explains around 1% of the total variance. The reason could be that along with physical development grade IX students show rapid development in Intellectual, Social and emotional areas too. At this stage logical reasoning, abstract thinking is developed. It makes them more analytical so they analyze and solve problems. They are criticized by their parents and teachers which enables them to analyze their behaviour and rectify their mistakes.

There is a significant difference in the **Musical Intelligence** of Grade VII and IX students. The mean score of Grade IX students are greater than the Grade VII students. It means that students of grade IX are higher on Musical Intelligence. Effect size for the difference is .06, which is small and explains around 1% of the total variance. The reason could be that Grade IX students are more sensitive to words various sounds and music. This is the age where adolescents are in the world of dreams and imagination. Most of the time they are indulge in day dreaming and like

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to listen to music and songs. Songs and music provide an outlet to their moods and emotions. They like to express their true feeling of love and care through songs.

There is a significant difference in the **Naturalistic Intelligence** of Grade VII and IX students. The mean score of Grade IX students are greater than the Grade VII students on Naturalistic Intelligence. It means that students of grade IX are high on Naturalistic Intelligence. Effect size for the difference is .10, which is small and explains around 1% of the total variance. The reason could be that the Grade IX students are in the phase where they do hero worship and follow the footsteps of their ideal personality. They like to be the centre of attraction and attention and boast about their qualities. They want to be appreciated by others for risk taking, initiative and bravery therefore they like to do adventurous activities. They want to explore nature and therefore they are more interested in outdoor activities.

There is a significant difference in the **Existential Intelligence** of Grade VII and IX students. The mean score of Grade IX students found to be greater than the Grade VII students on Existential Intelligence. It means that the students of grade IX are high on Existential Intelligence. Effect size for the difference is .09, which is small and explains around 1% of the total variance. The reason could be that the Grade IX students are more inquisitive about the purpose of their existence. They ask questions regarding their existence as who are they? , what is the purpose of their existence? , what they can become in future? They develop abstract thinking which enables them to evaluate their weaknesses and strengths. They have self awareness which make them evaluate their actions.

The Pearson Product Movement correlation among dimensions of Multiple Intelligences with respect to grades shown in Table 3.

Table 3, Inter-correlation between different types of Intelligences with respect to Grades

Grade	Variable	X1	X2	X3	X4	X5	X6
IX	X1	1	.45**	.32**	.44**	.42**	.39**
	X2		1	.34**	.49**	.59**	.60**
	X3			1	.22**	.39**	.41**
	X4				1	.53**	.52**
	X5					1	.67**
	X6						1
VII	X1	1	.48**	.39**	.47**	.45**	.42**
	X2		1	.41**	.55**	.63**	.63**
	X3			1	.30**	.48**	.52**
	X4				1	.55**	.52**
	X5					1	.67**
	X6						1

$r = .081$ ($p < 0.01$), $r = .104$ ($p < 0.001$)

X1=Bodily – Kinesthetic, X2=Interpersonal, X3=Intrapersonal, X4=Musical, X5=Naturalist, X6=Existential

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The table 3 shows the inter-correlation among the dimensions of Multiple Intelligence in reference to Grades of students. Inter-correlations among all dimensions of Multiple intelligences for both grades are positive and highly significant. While comparing the magnitude of coefficients between grades, it was found that all coefficients for VII Grade students are slightly higher than IX Grade. This may be because of the fact that VII grade students are younger and are physiologically, intellectually, emotionally and socially in the growing phase as compared to IX Grades.

There is a significant difference in the multiple intelligences of students of grade VII and IX. In a nut shell all the coefficient of correlation among dimensions of multiple intelligences are high in case of grade VII students in comparison to grade IX students. H02 is rejected as there is a significant correlation among dimensions for both grades.

PROFILE ANALYSIS

One of the most common ways of representing a series of scores on the same continuum is by means of a test score profile. Profile is an arrangement of test scores (expressed in comparable units of measure, such as standard scores, stanine scores, etc.), which indicates the relative multiple intelligences of students studying in VIIth and XIth class and shown in Table 4.

Table 4, Levels of Multiple Intelligences in VIIth and IX grade students' gender wise

Intelligences	Level of Multiple Intelligences (Stanine)																	
	Boys									Girls								
	Low			Average			High			Low			Average			High		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
VIIth Grade Students																		
Bodily – Kinesthetic																		
Interpersonal																		
Intrapersonal																		
Musical																		
Naturalist																		
Existential																		
IXth Grade Students																		
Bodily – Kinesthetic																		
Interpersonal																		
Intrapersonal																		
Musical																		
Naturalistic																		
Existential																		

Profile analysis technique was used to derive inferences about levels of multiple Intelligences of students with respect to grades. The table 4 indicates the levels of multiple intelligences in VII and IX grade boys and girls. VII grade boys found to be high on all types of intelligences as

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compared to VII grade girls. Similarly IX grade boys were found to be higher on each level of multiple intelligences than IX grade girls. With respect to grades the boys of grade IX found to be high on multiple intelligences as compared to grade VII boys and girls of IX grade found to be high on all the types of intelligences than grade VII girls. On the whole IX grade boys were high on multiple intelligences followed by VII grade boys, IX grade girls and VII grade girls respectively. Only on intrapersonal intelligence VII grade boys were high and IX grade boys were average. IX grade girls found to be high on intrapersonal and musical intelligence, low on naturalistic intelligence and average on the remaining types of intelligences. VII grade girls were found to be low on all the types of intelligences. H03 partially rejected as multiple intelligences observed above average.

CONCLUSION

Thus it was concluded that there was a significant difference in the mean scores in VII and IX grade boys on multiple intelligences. The mean scores of grade IX was found to be high than grade VII boys and significant at 0.01 level. The Effect size for the difference was varying between .04 to .12, which is small and explains around 1% of the total variance. The hypotheses were rejected for all the types of intelligences with respect to grades.

The inter-correlation among the dimensions of Multiple Intelligences in reference to Grades of students shows that the Inter-correlations among all dimensions of Multiple Intelligences for both grades are positive and highly significant. While comparing the magnitude of coefficients between grades, it was found that all coefficients for VII Grade students are slightly higher than IX Grade. The hypotheses were rejected for all the types of intelligences with respect to grades.

Profile analysis indicates the levels of intelligences among VII and IX grade girls and boys. IX grade boys found to be high on multiple intelligences followed by VII grade boys, IX grade girls and VII grade girls respectively. The hypothesis was partially rejected for all the types of intelligences with respect to grades.

SUGGESTIONS AND CONSIDERATIONS FOR FUTURE RESEARCH

The following are the areas in which further studies can be conducted.

1. A study of the relationship between multiple intelligences, home environment and academic achievement of school students.
2. A comparative study of students' multiple intelligences in relation to their parental qualification and socio economic status.
3. A study of multiple intelligences, self concept and locus of control of exceptional students.
4. A study of the impact of parental aspiration and career preferences on the multiple intelligences of school students.
5. A study of multiple intelligences in relation to adjustment and learning of life skills of higher secondary students.

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6. A study of students' multiple intelligences in relation to achievement motivation and parent-child relationship.
7. A comparative study of students' personality in relation to their multiple intelligences and school climate.
8. A comparative study of multiple intelligences in relation to need for achievement of students belonging to different streams.
9. A study of the impact of teachers' multiple intelligences on the personality and scholastic achievement of students.
10. A study of course preferences of the secondary schools students with reference to their multiple intelligences and medium of instructions.

IMPLICATION OF THE STUDY

11. The findings of the study hope to be useful to curriculum framers, school authorities, teachers, parents and counselors. The present study will be helpful for curriculum framers to incorporate content and activities to develop bodily kinesthetic intelligences of students. It will be helpful to introduce new or optional subjects catering to the intelligence of students. It will be helpful to reframe the syllabus in the context of Inclusive Education.
12. The school authorities can make arrangements for physical and human resources for nourishing the bodily kinesthetic intelligence of students. Schools can make various learning resources accessible and available to students. School authorities can organize workshops, training programmes and seminars for teachers to train them to cater to the specific intelligence of students. Schools can also organize seminars for parents so that they can think of child's ability guide accordingly.
13. Teachers can plan lessons by considering the different types of Intelligences of students. Innovative methods of teaching such as cooperative learning, research projects, visits, role play, concept attainment model, inquiry training model and brain storming can help the students to explore and nurture various intelligences. Teacher can help learners with special need by identifying their strengths and intelligences.
14. It will be helpful for the counselor to identify the levels of intelligence and provide guidance accordingly. Counselors can help the students in selecting courses in accordance with their interest and intelligences. They can provide vocational guidance in terms of various career opportunities available for them and to select the suitable career.
15. The study will be helpful for parents as they can provide cordial home environment to their children to develop their different types of intelligences. Parents can create opportunities for children to nurture different types of intelligences. Parents can make available various resources to children and encourage them to utilize these resources optimally. Parents can adopt sympathetic and positive attitude toward children as they will realize that a child cannot excel in all the areas. The positive and healthy suggestions of parents can be helpful for the child to progress in the right direction.

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Conflict of Interests

The author declared no conflict of interests.

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