A Study of Speed and Accuracy of the 9th Standard Students of Ahmedabad in Relation to their Achievement

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Introduction
Change is the law of nature. As needs increase so one can see the change in man and nature. 21st century is going ahead with the shower of communication. New generation has to be alert for self development due to the high expectations of the society. And to do this constant work society has high expectations from the field of education of course. 21st century means,
Race of challenge, Change and Competition…...

In the field of science and technology everyday some new inventions are done. People's standard of living is changing day by day. All over the world in each and every field change is seen rapidly. Like morning newspaper becomes scrap at the end of the day so todays latest techniques becomes out of date as every day new inventions and ideas are coming in the market. Thus, Change relates to speed. And for progress change is very essential. Education is the base of any nation's development. Speed and accuracy both are important qualities for any student to achieve success in the field of education. These qualities can be cultivated among students. By constant efforts one can achieve it. From the childhood both these qualities i.e. speed and accuracy must be cultivated so that it becomes their habit to perform any task with proper speed and accuracy.

In order to cultivate and nurture the habit of speed and accuracy regularly students should be engaged in the activities like to find similarities between two pictures, to find out difference, to arrange the picture in an orderly manner, to compute the figures, to find out spelling mistakes, measuring words and figures etc. students must be motivated to nurture these qualities.

Speed without precision is total waste of strength and precision without speed is complete waste of time. Students achievements depends on proper and appropriate speed and accuracy. And that is why how students are influenced by preciseness and speed is determined by the stated curriculum and one can reach towards proper conclusion.

2. Defining the Keywords
2.1 Speed
 According to G.R. Mansoori (2003-2004) according to dictionary of Philosophy.
"A time taken to finish any task is known as speed .In short task completed within the stipulated time period is speed of that person"
2.2 Accuracy
According to K.G.Desai and other (1996) according to philosophy and its impact:
 "Any task taken without any deviation that inclination is known as Accuracy"
In the present research, Speed and Accuracy means the marksof the IXth standard students of Ahmedabad through Speed and Accuracy Tool.

3. Objectives of the Study
In the present research following are the objectives of the study.
  1.To Study the Speed and Accuracy of the IXth Standard Students' of Ahmedabad City.

2. To study the Speed and Accuracy of the 9th standard Students in relation to their Educational Achievement.
3. To study the Speed and Accuracy of the 9th standard Students in relation to east and west zone of Ahmedabad city

4. Variables of the Study
In the present study, Speed And Accuracy is the dependent variable. The researcher proposes to check and verify the effect of independent variables like Zones (East and West), Educational Achievement (high Achievement and Low Achievement)and the gender(boys and girls) on the students of 9th standard students of Ahmedabad City.

Table 1: Table showing the variables and its level

Sr.	Variable	Types of Variable	level
1	Educational Achievement	Independent	1)Higher Achievement 2)Lower Achievement
2	Zone	Independent	1)East zone 2)West zone
3	Gender	Independent	1) Boys 2)Girls
4	Speed and Accuracy	Dependent	----------

5. Hypotheses of the Study
Following are the Hypotheses of the study:

Ho$_1$: There will be no significant difference of mean scores of the speed and Accuracy between higher and lower Achievement students

Ho$_2$: There will be no significant difference of mean scores of speed and Accuracy between boys and girls having higher Achievement

Ho$_3$: There will be no significant difference of mean scores of speed and Accuracy between boys and girls having lower Achievement

Ho$_4$: There will be no significant difference of mean scores of speed and Accuracy between east and west zone students having higher Achievement

Ho$_5$: There will be no significant difference of mean scores of speed and Accuracy between east and west zone students having lower Achievement.

6. Importance of the Study
Today education is the backbone of progress of any nation. In order to overcome the high expectations of society as well as for self development new generation has to be very active and alert. And for the constant flow of this agenda society has high expectations from the field of education. In order to built good career, for good future job, for varied business, for entering into competitive exams for private or government jobs etc for all the above challenges students must have nurtured the efficiency of speed and accuracy. In the era of marathon race the main reason of accident is lack of accuracy with speed. In which many humans are sacrificed. In life if one wants to move forward than proper speed and accuracy has to be cultivated which is very important.

- By taking into consideration the pupils caste and area is there an major difference in speed and accuracy.
- Are there any major changes in students educational progress with the help of speed and accuracy? In order to find out solutions to the stated question this study is very important.
- Students should know, understand, cultivate and make progress in any field with the help of the importance of speed and accuracy. And for that this study is very important.
- In order to increase the speed and accuracy this study is very important.

Limitations of the Study
1. This study is delimited to students of Gujarati Medium
2. This study is delimited to students of academic year 2018-2019

8. Population of the Study
In the present study, the population includes the 9th standard students of Ahmedabad City.

9. Sample of the Study
In the present study the whole Ahmedabad city was divided into two zones from which a sample of 100 students from each zone i.e. East and West Zone was selected. From each zone, a sample of 50 students were selected from one school. Then the sample was bifurcated into achievement wise category i.e. having higher achievement students and lower achievement students. Thus the stratified random sampling was used in this research.

10. Method of study
In the present study the method of the research is descriptive method of which survey method is used for this research.

11. Tools of the Study
Each research tool is appropriate in a given situation to accomplish a particular purpose. Once the tool is selected – standardized or self made – information is collected with its help. In the present research, the researcher has used a standardized Test namely Speed And Accuracy test prepared by Dr. K.G.Desai.

11.1 Description of the test
In this tool there are a two test and each test contain 200 questions. In this 400 questions some of them are comparison of numbers while some of are comparison of names and words.

12. Data Collection
For collection of data, the researcher took prior permission from the respective higher authorities of schools from where students were selected as samples. As per the decided day, date and time, the researcher personally visited the schools to administer the tool and collect the data.
The Researcher explained the importance of this tool in research study. Then instructions were given to the samples i.e. students are requsted to answer the questionnaire individually and honestly.

13. Technique of Analysis
In the present study, data collected was analyzed and interpretation was done using statistical methods like Mean, Standard Deviation and t-test.

14. Analysis of the Data
Ho$_1$: There will be no significant difference between the mean scores of the speed and Accuracy between higher and lower Educational Achievement students.

Table 1: Analysis of speed and accuracy of students having Higher and lower Educational Achievement

Group	N	Mean	SD	t-Value	Level of Significance
Higher achievement	100	233.69	19.25	23.66	0.01
Lower achievement	100	182.82	17.39		

Interpretation

From the above Table, it is observed that the tcal = (23.66) is more than t0.01= 2.58. Thus the difference is significant and hence, the hypothesis may reject. Thus, the hypothesis that "There will be no significant difference between the mean scores of the speed and Accuracy between higher and lower Educational Achievement students" will be rejected at 0.01 level. Further looking to the table, the mean of Higher Educational Achiever students' score is 233.69which is more than the mean score of lower achiever students i.e. 182.82. Thus, it is clear that the Higher Achiever students having more speed and accuracy than lower Achiever students.

Ho_2: There will be no significant difference of mean scores of speed and Accuracy between boys and girls having higher Achievement

Table 2: Analysis of Speed and Accuracy of boys and girls having higher achievement

Group	N	Mean	SD	t-Value	Level of significance
Boy	500	135.6	16.22		Non Significant
Girls	50	132.89	15.69	1.20	

Interpretation:

From the above Table, it is observed that the t_{cal} = 1.20 is less than $t_{0.05}$ = 1.96. Thus, the difference is not significant and hence the hypothesis may be accepted. Thus, the hypothesis that "There will be no significant difference of mean score of speed and accuracy between boys and girls having higher achievement" will be accepted. Further looking to the table, the mean scores of boys is 135.60 while the mean scores of girls is 132.89.

Ho_3: There will be no significant difference of mean scores of speed and Accuracy between boys and girls having lower Achievement

Table 3

Analysis of Speed and Accuracy between boys and girls having lower achievement

Group	N	Mean	SD	t-Value	Level of significance
Boys	50	133.42	15.74	1.16	Non Significant
Girls	50	136.07	16.51		

Interpretation

From the above table, it is observed that tcal = (1.16) is lessthan t0.05=1.96. Thus the difference is not significant and hence the hypothesis may be accepted. Thus, the hypothesis that "There will be no significant difference of mean scores of speed and Accuracy between boys and girls having lower Achievement" will be accepted at 0.05 level. The mean score of boys and girls having lower achievement are 133.42 and136.07.

Ho_4 : There will be no significant difference between the mean scores of speed and Accuracy between east and west zone students having higher Achievement

Table 4: Analysis of Speed and Accuracy between east and west zone students having higher achievement

Group	N	Mea	SD	t-Value	Remarks
East zone	50	137.1	15.34	2.09	0.05
West zone	50	129.8	33.97		

Interpretation

From the above Table , it is observed that the tcal = 2.09 is less than t0.01=2.58.   Thus, the difference is significant 0.05 level and hence the hypothesis is rejected. Thus, the hypothesis that ": There will be no significant difference between the mean scores of speed and Accuracy between east and west zone students having higher Achievement" will be rejected.   Further looking to the table, the mean score of east zone students are students are 137.1 is more than of mean score of west zone and 129.8

Ho5 : There will be no significant difference between the mean scores of speed and Accuracy between east and west zone students having lower Achievement

Table 4: Analysis of Speed and Accuracy between east and west zone students having lower achievement

Group	N	Mean	SD	t-Value	Remarks
East zone	50	134.1	17.08	0.58	Non Significant
West zone	50	135.98	28.52		

Interpretation

From the above table, it is observed that the tcal = 0.58 is less than t0.05=1.96. Thus, the difference is not significant and hence the hypothesis is accepted. Thus, the hypothesis that "There will be no significant difference between the mean scores of speed and Accuracy between east and west zone students having lower Achievement" will be accepted. Further looking to the table, the mean scores of east zone and west zone are134.1 and 135.98.

15. Findings of the Present Study

The researcher arrives at the following findings through the data analyzed and interpreted.
1. The students having higher achievement are more speedy and accurate than the lower achievement students.
2. There is no difference in speed and accuracy between boys and girls students having higher achievement.
3. There is no difference in speed and accuracy between the boys and girls students having lower achievement.
4. The east zone students having higher achievement are more speedy and accurate than west zone students.
5. There is no difference in speed and accuracy between east and west zone students having lower achievement.

16. Suggestions

The researcher has given the following suggestions on the basis of the data analyzed and interpreted.
1. The difference exist between the higher and lower achiever , therefore special attention may be given on lower achievement students to increase their speed and accuracy with the help of different educational programme.
2. The difference exists in speed and accuracy between students of East Zone and West Zone of Ahmedabad. Students of West Zone have a low speed and accuracy. Hence special developmental programmes for these areas may be mobilized in order to help students of West Zone to enhance their speed and accuracy.
3. The school should organized such a educational programme which increase the speed and accuracy of the students.
4. At regular interval the school should planned the parents meeting so that they can also know the weightage of the speed and accuracy .
5. The school should use the psychological test to diagnosis the reason of the lower achievement.

6. Special developmental programmes or workshops are needed in order to enhance the speed and accuracy of the students.
7. With the help of teacher students should practice of such a test to increase the speed and accuracy for future competitive exam.

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