

# **A STUDY OF READING ABILITY IN ENGLISH IN RELATION TO REASONING ABILITY, ACADEMIC STRESS AND ATTITUDE TOWARDS READING OF HIGH SCHOOL STUDENTS**

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*The present study was conducted to ascertain the main and interaction effects of reasoning ability, academic stress and attitude towards reading on reading ability and its components -word reading and reading comprehension. A sample of 160 high school students was selected from four urban and four rural schools of Chandigarh (UT). t-test and ANOVA were employed for the purpose of inferential analysis. The results show that reasoning ability could be differentiated on basis of gender. Students of urban and rural background differ significantly only on variables of reading ability and reasoning ability. Students studying in government and private schools differ significantly for reading ability and its components, reasoning ability, academic stress and attitude towards reading. The groups having high, average and low reasoning ability and academic stress exhibit no significant effects on word reading, reading comprehension and reading ability whereas the groups having high, average and low attitude towards reading show significant effects on reading ability and its components. i.e. word reading and reading comprehension. There were significant double interaction effects of academic stress and attitude towards reading on word reading, reading comprehension and reading ability but no triple interaction effects of the variables were observed on reading ability and its components of high school students.*

## **Reading Ability**

Reading is essentially a basic skill of learning any language. The processes of communication are interlinks in the mechanics of language. The artefact of production of speech and writing, listening and reading becomes its pillars. Reading is ' a complex cognitive process' of decoding symbols in order to construct or derive meaning(reading comprehension). It is a means of language acquisition of communication and of sharing information and ideas. According to NAAC Sponsored National Seminar (2015) "Reading simply can be defined as a process whereby one looks at the text and understands it". A student's academic progress is shaped by the ability to understand what is read. ([www.meritnation.com/Test\\_papers](http://www.meritnation.com/Test_papers)).

Thus two major components pertaining to Reading Ability are: Word Reading and Reading Comprehension.

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## **Word Reading**

Word reading is identifying the words, recognizing the alphabets and putting them together to make a word. Without fluency in word recognition skills, higher cognitive skills related to reading cannot function. Learning depends on reading in school and then maturing it to higher level of comprehension.

### **Reading Comprehension:**

Reading comprehension is the ability to read text, process it and understand its meaning and ability to comprehend text is influenced by the traits and skills used to make inferences..([www.ask.com/wikipedia/Reading](http://www.ask.com/wikipedia/Reading) Comprehension). Reading comprehension refers to the level of reading and understanding each person for acquiring this skill. The more reading practice, the better someone is able to comprehend or understand what is read.

Perfetti (2007) puts it as the ability to read and comprehend is a prerequisite for success in many fields. Reading is an essential part of language instruction at every level as it supports learning in multiple ways- vocabulary, grammar, sentence structure- wherein components of language work together to convey meaning; content information about a subject being studied; and cultural knowledge and awareness.

### **Reasoning Ability**

Reasoning is the mental process of deriving consequences from given information. Its premises may be perception, description or memories and its conclusion may be a statement, a thought, or a decision implicit in an action.

In the process of reasoning some systematic relation in content or form must govern derivation of the conclusion from the premises, as opposed to an association of ideas.

### **Academic Stress**

Academic stress is a mental distress with respect to some anticipated frustration associated with academic failure. According to Lazarus (1994) stress is the internal response of the individual to pressure, when the pressure experience is greater than normal abilities, stress is there. Academic stress occurs when there is substantive imbalance between environmental demand and response capacity of the individual. Certain amount of academic stress is desirable or productive whereas excessive academic stress may damage a person's self and ruin his life. Thus academic stress makes significant contribution to the prediction of subsequent school performance.

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## **Attitude towards Reading**

Attitude is important to understand human behaviour. Attitudes influence the behaviour of the individual by making him selectively oriented towards certain objects and issues related to area of education. For Random House Dictionary (2010) attitude is a manner, disposition, feeling etc. with regards to persons or things.

Attitude is most distinctive and indispensable in the field of education. It is a great driving force in achieving the goals that an individual student sets for himself.

## **Significance of Study**

Reading is the major avenue of communication in English. Reading ability builds vocabulary leads to highly developed language skills and improves upon student's ability to write well. This is because students learn new words as they read more and unconsciously absorb information about the structure of sentences and how to use words in the language.

The process of reasoning helps the students to form some systematic relation in the context in deriving conclusions from given information. Proficiency in reading is influenced by the favorable attitude resulting in high level of reading achievement.

## **Objectives of the study**

1. To study the differences between boys and girls of urban and rural background studying in government and private schools with reference to reading ability and its components i.e. word reading and reading comprehension; reasoning ability, academic stress and attitude towards reading.
2. To study the effects of high, average and low groups of reasoning ability, academic stress and attitude towards reading on reading ability and its components.
3. To find out the double and triple interaction effects of the variables of reasoning ability, academic stress and attitude towards reading on reading ability and its components.

## **Hypotheses**

1. There exists no significant difference between reading ability and its components i.e. word reading and reading comprehension; reasoning ability, academic stress and attitude towards reading ability of boys and girls of high school students.
2. No significant difference exists between students of urban and rural background with reference to reading ability and its components; reasoning

ability, academic stress and attitude towards reading.

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3. There exists no significant difference between reading ability and its components ; reasoning ability, academic stress and attitude towards reading of students studying in government and private schools.
  4. There exists no significant difference in the mean scores of high, average and low groups of reasoning ability, academic stress and attitude towards reading on word reading of high school students.
  5. There exists no significant difference in the mean scores of groups having high, average and low reasoning ability, academic stress and attitude towards reading on reading comprehension.
  6. There exists no significant difference in the mean scores of groups having high, average and low reasoning ability, academic stress and attitude towards reading on reading ability.
  7. There exists no significant double and triple interaction effects of variables of reasoning ability, academic stress and attitude towards reading on reading ability and its components.

### **Design of the Study**

Survey Method of Research was employed to conduct the present study. This study was primarily designed to see the differences between boys and girls of urban and rural background studying in government and private schools with reference to reading ability and its components; reasoning ability, academic stress and attitude towards reading.

In this study 3x3x3 factorial design was used as the purpose of study was to examine the effects of reasoning ability, academic stress and attitude towards reading on reading ability and its components of high school students. In the present study, the independent variables i.e. reasoning ability, academic stress and attitude towards reading were studied at three levels -high , average and low whereas dependent variable was reading ability and its components.

### **Sample of the Study**

The sample consisted of 160 high school students of 9th class (80 boys and 80 girls) studying in government and private schools. The subjects were selected from 4 urban and 4 rural schools of Chandigarh (UT) by employing stratified random sampling technique.

### **Tools used**

1. Reading Ability Test for 1X class students was developed by the investigator in two parts: (a) Word Reading Test and ( b) Reading Comprehension Test.

2. Shailaja Bhagwat Reasoning Ability Test ( SBRAT) developed in 2010.

3. Scale of Academic Stress (SAS) was selected from the Bisht Battery of Stress Scale (BBSS) constructed and standardized by Abha Rani Bisht (1987).
4. Attitude towards Reading Scale was developed by the investigator herself.

### Statistical Techniques used

Differential Statistics as t-test and ANOVA were employed for the purpose of inferential analysis.

### Analysis and Interpretation of Data

**TABLE 1**

**t-ratios for mean values of Reading Ability and its components, Reasoning Ability, Academic Stress and Attitude towards Reading for Gender Difference, Background Difference and Type of Schools.**

Variables		Gender Difference			Background Difference			Type of Schools		
		Boys	Girls	t-ratios	Urban	Rural	t-ratios	Govt.	Private	t-ratios
Word Reading	Mean	24.62	26.16	.936	27.53	25.19	1.268	21.75	25.38	2.59*
	SD	10.07	10.70		11.96	11.34		10.35	9.11	
Reading Comprehension	Mean	15.51	15.79	.309	16.91	15.96	.889	13.76	15.54	2.42*
	SD	5.64	5.62		6.86	6.65		5.81	4.74	
Reading Ability	Mean	40.14	41.95	.724	44.49	38.65	2.06*	35.51	42.57	3.71**
	SD	15.54	16.09		18.78	22.83		15.98	13.59	
Reasoning Ability	Mean	15.74	14.76	1.99*	15.81	14.65	1.98*	13.88	16.61	2.48*
	SD	3.28	3.91		4.33	3.61		3.27	3.48	
Academic Stress	Mean	298.05	304.90	.359	348.19	322.81	1.121	258.12	344.82	3.86**
	SD	118.49	122.89		144.75	141.45		131.45	89.91	
Attitude Towards Reading	Mean	98.50	97.05	.318	102.28	96.30	1.126	84.26	111.28	4.72**
	SD	27.91	29.71		35.85	31.12		29.52	20.53	

\* Significant at 0.05 level

\*\* Significant at 0.01 level

### Gender Differences

Table 1 reveals that in case of reasoning ability boys and girls differ significantly as the t-ratio was found to be 1.99 significant at 0.05 level whereas the t-values were not found to be significant for other variables i.e., the word reading, reading comprehension

and reading



ability; academic stress and attitude towards reading. Hence, the Hypothesis 1 is accepted except for variable of reasoning ability.

### Background Differences

The perusal of above Table shows that significant difference exists between reading ability and reasoning ability of students belonging to urban and rural background as t-ratios were found to be 2.06 and 1.98 both significant at 0.05 level whereas no significant differences were found for word reading, reading comprehension, academic stress and attitude towards reading. Thus, the Hypothesis 2 is partially accepted.

### Type of Schools

Table 1 depicts that significant difference exists between students studying in Govt. and Private schools for word reading, reading comprehension, reading ability, reasoning ability, academic stress and attitude towards reading as t-values for all variables were found to be significant. Hence the Hypothesis 3 was rejected.

**TABLE 2**

**Summary of Analysis of Variance (3x3x3) depicting the Main Effects, Double and Triple Interaction Effects of the Variables of Reasoning Ability, Academic Stress and Attitude Towards Reading on Word Reading, Reading Comprehension and Reading Ability Scores.**

Source of Variables	df	ANOVA for Word Reading Scores			ANOVA for Reading Comprehension Scores			ANOVA for Reading Ability Scores		
		Sum of Squares	Mean Squares	F-ratios	Sum of Squares	Mean Squares	F-ratios	Sum of Squares	Mean Squares	F-ratios
Reasoning Ability (RA)	2	29.710	14.855	.233	6.223	3.112	.155	27.558	13.779	.092
Academic Stress (AS)	2	141.593	70.797	1.111	118.918	59.459	2.960*	520.010	260.005	1.741
Attitude Towards Reading (AR)	2	764.421	382.211	5.999**	230.587	115.293	5.740**	1832.691	916.346	6.136**
RA x AS	4	473.624	118.406	1.858	91.463	22.866	1.138	970.454	242.613	1.625
RA x AR	4	214.382	53.595	1.122	64.374	16.094	1.068	500.333	125.083	1.117
AS x AR	4	779.003	194.750	4.076**	157.132	39.283	2.607*	1631.169	407.792	3.641**
RA x AS x AR	8	23.115	2.889	.181	23.759	2.969	.319	81.218	10.152	.272
Error	133	8983.541	67.545		2832.318	21.296		21057.705	158.328	
Corrected Model	159	17156.194			5014.400			39688.694		

\* Significant at 0.05 level.

\*\* Significant at 0.01 level

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## **Main Effects**

Table 2 shows that for main effects significant difference was found between high, average and low groups having attitude towards reading on word reading as the F-ratio was significant at 0.01 level, but no significant differences were found between three groups of reasoning ability and academic stress groups. Therefore, the Hypothesis 4 was partially accepted.

Table 2 reveals that F-ratio for the main effects of high, average and low groups of academic stress and attitude towards reading on reading comprehension were found to be ( 2.960 and 5.740) significant at 0.05 and at 0.01 level respectively whereas no significant difference was found between three groups of reasoning ability. Hence, the Hypothesis 5 was partially accepted.

Table 2 shows that for main effects significant difference was found between three groups having high, average and low attitude towards reading on reading ability as F-ratio was found to be significant at 0.01 level but no significant differences were found between high, average and low reasoning ability and academic stress groups. Thus, the Hypothesis 6 was partially accepted.

## **Double and Triple Interaction Effects**

Table 2 depicts that there were significant double interaction effects of academic stress and attitude towards reading on word reading, reading comprehension and reading ability as F-ratios were found to be significant, but double and triple interaction effects were not found to be significant for other variables.. Hence, the Hypothesis 7 was partially accepted.

## **Findings and Conclusions**

1. Reasoning ability of high school students could be differentiated on the basis of gender whereas boys and girls did not differ on variables of reading ability and its components- word reading and reading comprehension; academic stress and attitude towards reading.
2. Students belonging to urban and rural background differ significantly on variables of reading ability and reasoning ability while word reading, reading comprehension, academic stress and attitude towards reading cannot be predicted on the basis of background differences.
3. Students studying in government and private schools differ significantly from each other with regards to reading ability and its components- word reading and reading comprehension; reasoning ability, academic stress and attitude towards reading. Thus the type of school has significant impact on all the variables.

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4. The high, average and low reasoning ability groups exhibit no significant effect on word reading, reading comprehension and reading ability.
  5. The groups having high, average and low academic stress exhibit significant effect on reading comprehension whereas no significant effect was observed on word reading and reading ability of high school students.
  6. The groups having high, average and low attitude towards reading show significant effects on word reading, reading comprehension and reading ability.
  7. Double Interaction effects of academic stress and attitude towards reading show significant differences on reading ability and its components whereas no significant triple interaction effects of reasoning ability, academic stress and attitude towards reading were observed on word reading, reading comprehension and reading ability of high school students.

### **Educational Implications**

There are number of problems related to reading English by the students in the classes. The teachers come to know the level of reading ability of the different students and they can help them accordingly. The study helps in timely identification of students lacking in reading in English.

Academic stress as a variable needs to be controlled for better reading achievements in English. Thus it is important for teachers and parents to keep the academic stress level low so that their level of reading can be improved. Attitude towards reading plays an important role in the reading of high school students. So there is a need to inculcate favourable attitude towards reading for better achievement in reading.

### **References**

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