

**“A STUDY OF READING SKILLS OF VISUALLY IMPAIRED  
SECONDARY SCHOOL STUDENTS OF  
INDORE”**

A summary submitted to  
Devi Ahilya Vishwavidyalaya, Indore  
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Researcher  
SHRADDHA HARDIYA

**School Of Education (I.A.S.E.)  
(Reaccredited with ‘A+’ grade by NAAC)  
Devi Ahilya Vishwavidyalaya  
An ‘A+’ Grade University  
Indore , (M.P.)**

In case of any discrepancy observed please contact me on  
**7987704570, 9575129707, shraddha8501@gmail.com**

## SUMMARY AND IMPLICATIONS

### 6.1.0. INTRODUCTION –

The present study entitled “**A Study of Reading Skills of Visually Impaired Secondary School Students of Indore**” is related to Special as well as inclusive Education. This study was an attempt to study reading skills of Visually Impaired students in terms of five different components of reading skills namely- **phonics, phonemic awareness, vocabulary, comprehension and fluency**. separately and overall, with reference to level of impairment (low vision and totally blind), grade (lower secondary and higher secondary students) and gender (girls and boys) **special facilities and parental education**. In the present study a reading tool in braille language was developed by researcher and reading skill of visually impaired students was studied through that tool.

### 6.2.0. VISUAL IMPAIRMENT:

These special children have been classified on five major bases. One of the important classifications on the basis of vision is visual impairment. Visual impairment refers to the disability related with vision aspect of human life. Visual impairment can mean a number of things. If a person is Visually Impaired it doesn't necessarily mean that he is blind, it could mean that he may be blind or have impaired vision. A person who is totally blind cannot see light or anything else. But some people use different things to help with their visual impairments by using adaptations such as Glasses, Braille, Seeing Eye dogs, Canes and Adaptive Computer Technology. This functional loss of vision is typically defined as low vision which has been characterized as-

### 6.2.1. CLASSIFICATION OF VISUALLY IMPAIRED CHILDREN

Visually Impaired are categorized with the terms “partial sighted” “low vision” “legally blind” and “totally blind”. These terms are used by schools, colleges, and other educational institutions to describe students with visual impairments. They are defined as follows:

- **Partially sighted** indicates some type of visual problems has resulted in a need for special education in some case (National Dissemination Centre for Children with Disabilities 2004 F).
- **Low vision** generally refers to a severe visual impairment, not necessarily limited to distance vision, low vision applies to all individual with sight who are unable to read the newspaper at a normal viewing distance, even with the aid of eye glasses or contact lenses. They use a combination of vision and other senses to learn, although they may require adaptations in lighting or the size of print and sometimes, Braille.

- **Legally blind** indicates that a person has less than 20/200 vision in the better eye after best correction (contact lenses or glasses), or a field of vision of less than 20 degrees in the better eye.
- **Totally blind (blindness)** It refers to a person with “no vision” or only light perception (the ability to determine the presence or absence of light. It implies that a student must learn and use Braille, a system of raised dots that the students read tactilely, aural methods in order to receive instructions, or other non-visual media.

### 6.3.0. READING

Reading process is one of the most important activities in life of students. It 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. Like all language, it is a complex interaction between the text and the reader which is shaped by the reader’s prior knowledge, experiences, attitude, and language community which is culturally and socially situated. The reading process requires continuous practice, development, and refinement. Readers use a variety of reading strategies to assist with decoding (to translate symbols into sounds or visual representations of speech) and comprehension. Reading Skills helps the students to guess the meanings of the words in the language from the context and grasp the content and draw conclusions. Without reading they would not be able to acquire knowledge that is fundamental to intellectual growth. Reading skills enable readers to turn writing into meaning and achieve the goals of independence, comprehension, and fluency.

- **Phonemic Awareness**
- **Phonics,**
- **Vocabulary,**
- **Comprehension**
- **Fluency.**

These five aspects work together to create the reading experience. As children learn to read, they must develop skills in all five of these areas in order to become successful readers.

### 6.4.0 Rationale –

A number of researches have been conducted in the field of Visual Impairment. Synoptic view of various studies conducted is presented here.

**Singh(1986)** conducted a study on a short scale I.Q. measure for the Visually Handicapped. **Mukuganandam (1990)** worked on development of teaching learning strategy for science subject.

**Singh and Sati (1992)** conducted a study on use of blind learning aptitude test as a performance measure for the assessment of Visually Handicapped. children in India. **Ungar and others (1996)** studied the ability of Visually Impaired children to locate themselves on a tactile map. **Sharma (2001)** conducted a survey of requirement of Braille literature, recorded books, aids and appliances for the visually handicapped. **Bhatnagar (2001)** conducted a study of efficiency in learning of the visually impaired students through auditory and tactile media. **Dimri (2002)** Prepared Norms of WISC-R (verbal) for the Visually Handicapped children. The Project seeks to develop standardisation of WISC-R and to prepare norms. **Dimri (2002)** Prepared Norms of Piers-Harris children's self-concept scale for the Visually Handicapped. **Bhatnagar (2003)** Standardisation of Eysenck Personality Questionnaire (Junior) on Visually Handicapped Children. **Arivanandham (2006)** worked on Indian adaptation of nottingham adjustment scale. **Samos and Pehurtness (2006)** developed an educational tool and used technology for development of education of Visually Impaired students. **R.Galwani, L.Qwin (2008)** has included yoga in education for increasing grasping power of Visually Impaired student. **Ratha (2010)** worked on development of Oriya Braille contractions and abbreviations. **Thapa (2010)** worked on adaptation of board games for Visually Impaired children. **Thapa (2010)** worked on designing of a reliable dice for Visually Impaired persons. **Singh (2010)** conducted a study of status of teaching braille in the universities offering b.ed special education with specialization in Visual Impairment. **Choudhari (2011)** developed a suitable model for providing intervention and preschool education. **Manocha (2011-12)** worked on development of an on- line braille library. **Singh (2011)** worked on Standardisation of Cornell Medical Index on Visually Handicapped Population. **Yasarapud (2012)** devised a Hill Model of Inclusive Education for Visually Impaired children. **Choudhari (2012)** home bound programme for the visually handicapped children with Mental Retardation. **Gautham (2013)** studied light weight non-toxic arithmetic type for Visually Impaired students. **Saksham(2013)** did a review of Bharathi Braille for aligning it to uni code symbols. **Gautham (2013)** worked on upward braille writing frame. **Narang (2013)** Worked On Development Of Hindustani Braille Music Notation. **Mohammed and Omar** conducted a study on Comparison of reading performance between visually impaired and normally sighted students in Malaysia. **John** worked on improving Braille reading skills. **Goudiras at el** studied on factors affecting the reading media used by Visually Impaired adults.

**All these researches and projects have been conducted in the field of tools, techniques and learning issues of Visually Impaired children.**

**Arivanandham (2000)** worked on career aspirations of young persons with visual impairment. **Mittal (2001)** conducted a study to identify work opportunities for the blind in the unorganized sector in the southern states. **Mittal (2002)** conducted a study to identify jobs requiring the use of computers which can be performed by Visually Impaired persons. **Mittal (2002)** conducted an evaluation study on job satisfaction, work efficiency and promotion prospects for Visually Handicapped employees in government and public sector undertakings in the southern states.

**Kahanna (2012)** conducted a research on nature and scope of services for the visually handicapped persons in India.

**These researches and projects are dealing with career ambitions, career opportunities, and avenues of career advancement for those already employed and also job satisfaction for visually impaired persons.**

**Sharma (1988)** did the work of main streaming of Visually Impaired. **Sarinan (2006)**, tried to develop interaction quality in Visually Impaired with the help of various software models. **Arivanandham(2007)** studied the problems of visually impaired college students: areas of support required. **Charpoll and Melwerge (2008)** developed a Picture Exchange Communication System (PECS) to make communication effective in Visually Impaired student through which sign language and communication ability were developed. **Bhalerao (2008)** conducted a sociological study on educated Visually Impaired of some main cities of M.P. **Saxena (2009)** did sociological study of social and economic problems. **Arivanandam (2011)** worked on empowerment of Visually Impaired women.

**These are the Researches and Projects dealing with social context of Visually Impaired.**

**Zahran (1965)** inquired into the personality differences between blind and sighted children. **Tisdoll and Hurst (1971)** studied about multidimensional thinking of Visually Impaired children. **William (1981)**, studied about adjustment of the blind and the deaf students in standard 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> of special school in Karnataka. **Singh and Sharma (1984)** tested intelligence of people suffering from eye problem. **Bala (1985)** did a comparative study of the mental make-up and educational facilities for physically handicapped and normal children. **Pandey (1985)** studied affectional deprivation, ego-strength and adjustment pattern among visually handicapped children and their rehabilitation. **Singh (1986)** developed a personality questionnaire for the visually handicapped. **Banerjee (1988)** investigated the adjustment of blind students in secondary schools. **Sahoo (1991)** did the comparative study of behavioral characteristics of Normal, Visually Impaired, Hearing and Speech Impaired students. **Lal (1992)** studied the personality, mutual perception, attitude and vocational preference of the blind and sighted. **Vyas (1995)** did the comparative study of personality traits of normal & Visually Impaired students. **Williams (2009)** studied the adjustment of Visually Impaired and Hearing-Impaired students of class 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, of special school in Manhattan.

**Above mentioned Researches and Projects have been conducted in the field of Personality Traits, Characteristics and Attitude of Visually Impaired.**

It is evident from the above reviewed literature that most of the studies are limited to field of Tools, techniques and learning issues, career ambitions, career opportunities, avenues of career advancement, job satisfaction, policy and institutional measures, personality traits, characteristics, attitude, adjustment, intelligence, social and economic problems of Visually Impaired , but not much work has been done in the field of school related subject especially in the field of language

and communication skills. Language plays an important role in our life as it is important for making communication effective, whether it is mother tongue or other language. As Visually Impaired children have no vision or less vision, they face problems while reading and it affects their reading skill. For language development it is necessary to have command over skills of language. As visually impaired students' needs to improve their language skills. As the source of knowledge is through reading and because of limitations in reading process of Visually Impaired it seems necessary to study the reading capacity of Visually Impaired so that the nature of reading can be understood. So, keeping in mind the need of analysis of reading skill of visually impaired and the special needs of these children the present investigation has been undertaken.

### **6.5.0 Statement of the problem: -**

The problem had been stated as-

**“A STUDY OF READING SKILLS OF VISUALLY IMPAIRED SECONDARY SCHOOL STUDENTS OF INDORE”**

### **6.6.0. Operational Definition of Key Terms**

The key terms related to the study were operationally defined as under:

- **Reading skill-** Reading skill 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.
- **Visually Impaired** –The term visually impaired mainly includes two categories, which are:
  - **Totally blind- Total blindness** refers to an inability to see anything with either eye.
  - **Low vision- Low Vision** is a term often used interchangeably with visual impairment and refers to a loss of vision that may be severe enough to hinder an individual's ability to complete daily activities such as reading, cooking, or walking outside safely, while still retaining some degree of useable vision

### **6.7.0 Objectives: -**

The objectives of the present study were as follows-

1. To study the influence of Grade, Level of Visual Impairment and their interaction on Phonemic awareness of Visually Impaired secondary school students of Indore.
2. To study the influence of Grade, Level of Visual Impairment and their interaction on Phonics of Visually Impaired secondary school students of Indore.

3. To study the influence of Grade, Level of Visual Impairment and their interaction on Fluency of Visually Impaired secondary school students of Indore.
4. To study the influence of Grade, Level of Visual Impairment and their interaction on Comprehension of Visually Impaired secondary school students of Indore.
5. To study the influence of Grade, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore.
6. To study the influence of Grade, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
7. To study the influence of Gender, Level of Visual Impairment and their interaction on Phonemic awareness of Visually Impaired secondary school students of Indore.
8. To study the influence of Gender, Level of Visual Impairment and their interaction on Phonics of Visually Impaired secondary school students of Indore.
9. To study the influence of Gender, Level of Visual Impairment and their interaction on Fluency of Visually Impaired secondary school students of Indore.
10. To study the influence of Gender, Level of Visual Impairment and their interaction on Comprehension of Visually Impaired secondary school students of Indore.
11. To study the influence of Gender, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore.
12. To study the influence of Gender, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
13. To study the influence of Special Facilities, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
14. To study the influence of Parental Education, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.

### **6.8.0 Hypotheses:**

The following hypotheses were formulated for the present investigation:

1. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on phonemic awareness of Visually Impaired secondary school students of Indore.
2. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on phonics of Visually Impaired secondary school students of Indore.
3. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on fluency of Visually Impaired secondary school students of Indore.
4. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on comprehension of Visually Impaired secondary school students of Indore.
5. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore.
6. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
7. There will be no significant difference in the influence of Gender, Level of Visual Impairment and their interaction on phonemic awareness of Visually Impaired secondary school students of Indore.
8. There will be no significant difference in the influence of Gender, Level of Visual Impairment and their interaction on phonics of Visually Impaired secondary school students of Indore.
9. There will be no significant difference in the influence of Gender, Level of Visual Impairment and their interaction on fluency of Visually Impaired secondary school students of Indore.
10. There will be no significant difference in the influence of Gender, Level of Visual Impairment and their interaction on comprehension of Visually Impaired secondary school students of Indore.



11. There will be no significant difference in the influence of Gender, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore.
12. There will be no significant difference in the influence of Grade, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
13. There will be no significant difference in the influence of Special Facilities, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.
14. There will be no significant difference in the influence of Parental Education, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.

#### **6.9.0 Delimitations**

1. A sample was restricted to Visually Impaired students which included low vision and totally blind students.
2. A sample was restricted to Indore only.
3. The study was restricted to secondary school students.
4. Only Reading skill and its components were compared.

#### **6.8.0 Methodology**

The methodology followed for the present study is dealt under different captions.

##### **6.8.1 Sample**

The present study was survey in nature and was conducted in four secondary schools for blind. Secondary schools for blinds of Indore were selected for the purpose of data collection.

**Table 1**

##### **School-wise distribution of sample**

<b>Name of school</b>	<b>No. of students</b>
Hellen Keller Institute for Blind	<b>31</b>
Mahesh Drishtiheen Kalyaan Sansthan	<b>46</b>

Govt. Blind School, Pardeshipura	<b>17</b>
Govt. Subhash High secondary School	<b>07</b>
<b>Total</b>	<b>101</b>

**Table 2**

**Level of Impairment wise distribution of sample**

Name of school	Level of impairment		Total
	Low vision	Totally blind	
Hellen Keller Institute for Blind	16	15	<b>31</b>
Mahesh Drishtiheen Kalyaan Sansthan	20	26	<b>46</b>
Govt. Blind School, Pardeshipura	12	04	<b>17</b>
Govt. Subhash High secondary School	02	05	<b>07</b>
<b>Total</b>	<b>50</b>	<b>51</b>	<b>101</b>

**Table 3**

**Gender wise distribution of sample**

Name of school	gender		Total
	girls	boys	
Hellen Keller Institute for Blind	-	31	<b>31</b>
Mahesh Drishtiheen Kalyaan Sansthan	46	-	<b>46</b>
Govt. Blind School, Pardeshipura	01	16	<b>17</b>
Govt. Subhash High secondary School	-	07	<b>07</b>
<b>Total</b>	<b>47</b>	<b>54</b>	<b>101</b>

**Table 4**

**Grade wise distribution of sample**

Name of school	Grade	Total
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	Lower sec.		Higher sec.		
	IX	X	XI	XII	
Hellen Keller Institute for Blind	15	16	-	-	<b>31</b>
Mahesh Drishtiheen Kalyaan Sansthan	13	11	11	11	<b>46</b>
Govt. Blind School, Pardeshipura	05	06	03	03	<b>17</b>
Govt. Subhash High secondary School	-	-	03	04	<b>07</b>
<b>Total</b>	<b>47</b>		<b>54</b>		<b>101</b>

**Table 5**  
**Overall distribution table**

	Low Vision		Totally Blind		Total
	Girls	Boys	Girls	Boys	
Hellen Keller Institute for Blind	-	16	-	15	<b>31</b>
Mahesh Drishtiheen Kalyaan Sansthan	20	-	26	-	<b>46</b>
Govt. Blind School, Pardeshipura	-	12	01	04	<b>17</b>
Govt. Subhash High secondary School	-	02	-	05	<b>07</b>
<b>Total</b>	<b>50</b>		<b>51</b>		<b>101</b>

It is clear from the above table, that the total sample comprised of 101 students out of which, 50 students were of low vision and 51 students were totally blind, 47 girls and 54 boys, 47 of lower secondary and 54 were of higher secondary level. The age of students ranged between 14-20 years. All the selected schools were affiliated to the M.P. Board of School Education, Bhopal.

### **6.8.2 Tools**

In the present study, data were collected for following variables -Reading skill achievement (for five components of readings-phonics, phonemic awareness, fluency, vocabulary, comprehension), special facilities, parental education. The details of tools used in this study are given under the following captions.

- **Reading Skills-**

An achievement test based on reading skills was developed by the researcher. It had five parts for five components of reading skill - phonemic awareness, phonics, fluency, comprehension and Vocabulary. The nature of test was objective type, which comprised of multiple-choice questions.

In part A first component phonemic awareness was studied through questions based on alphabet recognition (upper and lower case / capital and small letter), letter sound identification, rhyme recognition, blending of compound words, segmentation of words and identification of final sound. Part A comprised of 7 questions which contains total 50 marks based on correct responses of students, one mark for each correct response. Students were asked to read and give response according the question asked. Detailed description of the test is given in Appendix – (i)

Second component phonics was studied in Part B through questions based on vowel and consonant identification, sound produced by letters, oral lending, oral segmentation, finding out CVC (consonant vowel consonant) words and vowel team words. Just like part A, part B also comprised of 7 questions of total 45 marks and on the basis of students' response marks were assigned to them. Detailed description of the test is given in Appendix – (ii )

Part C studied the third component if reading skill i.e., Fluency. Under this section braille reading fluency was studied of visually impaired children. Students were asked to read a paragraph written in braille of their English subject class book. Their fluency rate was calculated with help of words read by them in a minute, errors and pause. Detailed description of the test is given in Appendix – (iii )

Part D studied the fourth component of reading skill - comprehension, which check the students' understanding of the content. A passage relevant to their daily life was given them to read thoroughly and some questions were asked to test their understanding of passage. Type of questions asked were- match the column, choose correct option, short answer, give meaning of words, make sentence using given word, give summary of passage. . Detailed description of the test is given in Appendix – (iv )

Part E was framed to study fifth component - vocabulary of visually impaired students. for this a list of 20 words and a five-point rating scale was prepared. Rating scale studied word knowledge of students under five points which were- I have never heard this word, I have heard this word but do not know it meaning, I think it means....., I know this word. It means....., I can use this word in sentence. My sentence is..... Each student was asked to read the word and choose one option among given options according to his/ her word knowledge. Detailed description of the test is given in Appendix – (v )

#### ▪ **Special Facilities-**

A check list was prepared by the researcher to study the availability of Special facilities to Visually Impaired students in inclusive and special institutes. These facilities were categorized in two groups-

1. Instructional
2. Infrastructural

Instructional facilities were checked under following captions -classroom supplies and equipment, instructional strategies, additional curriculum areas, computer lab/learning lab/library, health, medical and nutrition.

Infrastructural group facilities were checked under following captions - access to institution, entrance, corridors, classrooms, toilets, dining hall, outside areas. Detailed description of the test is given in Appendix – (vi)

- **Parental Education-**

Parental Education was studied by taking information about educational qualification of parents. A proforma had been prepared by researcher to keep record of parental education. This proforma contained different section according the level of education- illiterate, literate, primary, middle, lower secondary, higher secondar, graduate, post graduate, other course/ training in field of special education. Scores were allotted on the basis of qualification of parents, and according the sores obtained by parents they were categorized in two groups- above average qualification and below average qualification. Detailed description of the test is given in Appendix – (vii)

### **6.8.3. Procedure of Data Collection**

The data were collected from purposive selected visually impaired schools of Indore. Prior permission was taken from the principals/ in charge of the selected schools and rapport was established. Meaning of all these components was also explained by the researcher. After having a proper interaction with the students, researcher administered reading skill achievement test. All five parts were administered one by one on all the students. All response of students has been noted down by researcher. The procedure continued for approx. three months. The parental education of students was collected separately at the end of the procedure. Information was gathered from records and students. After this at last checking of availability of special facilities was done and ticked in checklist prepared for the same. This was done on the basis of institution / school visit and information provided by the in charge of the institutes / schools.

### **6.8.4. Statistical Analysis**

For data analysis It was supposed that two-way ANOVA would be used to analyze the data of the all fourteen objectives. To fulfil the assumption of Normality of variance for two-way ANOVA, the data were analyzed with the help of Kolmogorov-Smirnov ad Shapiro wilks test of Normality. In most of objectives the assumption of normality of variances was found true. The

researcher next applied Levene's Test of Equality of Error Variances test for finding out the homogeneity of data of the variables under study. For the objectives where distribution of scores of the variables under study was found to be normal and homogeneous, two-way ANOVA was used and where the assumptions of normality and homogeneity were not fulfilled ART-ANOVA test was used for analysis of the data. Objective – wise statistical techniques used for analyzing data can as under-

1. "The first objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on Phonemic awareness of Visually Impaired secondary school students of Indore." the data were analyzed with the help of ART-ANOVA test.
2. The second objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on Phonics of Visually Impaired secondary school students of Indore." The data were analyzed with two-way ANOVA
3. The third objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on Fluency of Visually Impaired secondary school students of Indore." The data were analyzed with ART-ANOVA
4. The fourth objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on Comprehension of Visually Impaired secondary school students of Indore." The data were analyzed with two-way ANOVA
5. The fifth objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore" the data were analyzed with the help of two-way ANOVA.
6. The sixth objective was "To study the influence of Grade, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore." The data were analyzed with ART-ANOVA.
7. The seventh objective was "To study the influence of Gender, Level of Visual Impairment and their interaction on Phonemic awareness of Visually Impaired secondary school students of Indore." the data were analyzed with the help of ART-ANOVA.
8. The eighth objective was "To study the influence of Gender, Level of Visual Impairment and their interaction on Phonics of Visually Impaired secondary school students of Indore." The data were analyzed with two-way ANOVA
9. The ninth objective was "To study the influence of Gender, Level of Visual Impairment and their interaction on Fluency of Visually Impaired secondary school students of Indore the data were analyzed with two-way ANOVA"
10. The tenth objective was "To study the influence of Gender, Level of Visual Impairment and their interaction on Comprehension of Visually Impaired secondary school students of Indore." The data were analyzed with ART-ANOVA

11. The eleventh objective was “To study the influence of Gender, Level of Visual Impairment and their interaction on Vocabulary of Visually Impaired secondary school students of Indore. Gender.” The data were analyzed with ART-ANOVA
12. The twelfth objective was “To study the influence of Gender, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.” The data were analyzed with ART-ANOVA
13. The thirteenth objective was “To study the influence of Special Facilities, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.” The data were analyzed with ART-ANOVA
14. The fourteenth objective was “To study the influence of Parental Education, Level of Visual Impairment and their interaction on overall Reading Skills of Visually Impaired secondary school students of Indore.” The data were analyzed with two-way ANOVA

### 6.9.0 Tentative Findings of the study-

#### 1. For the first objective –

- **Phonemic awareness** of visually impaired students of Indore was **not influenced** by grade.
- Phonemic awareness of visually impaired students of Indore was **not influenced** by level of impairment.
- **Phonemic awareness** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

#### 2. For the second objective –

- **Phonics** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Phonics** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Phonics** of visually impaired students of Indore was **influenced** by interaction of grade and level of impairment.

#### 3. For the third objective –

- **Fluency** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Fluency** of visually impaired students of Indore was **influenced (dependent)** by level of impairment.
- **Fluency** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

**4. For the fourth objective –**

- **Comprehension** of visually impaired students of Indore was **not influenced (dependent)** by grade.
- **Comprehension** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Comprehension** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

**5. For the fifth objective –**

- **Vocabulary** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Vocabulary** of visually impaired students of Indore was **influenced (dependent)** by level of impairment.
- **Vocabulary** of visually impaired students of Indore was **not influenced by interaction** of grade and level of impairment.

**6. For the six objective were –**

- **Overall Reading Skill** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Overall Reading Skill** of visually impaired students of Indore was **influenced (dependent)** by level of impairment.
- **Overall Reading Skill** of visually impaired students of Indore was **not influenced by interaction** of grade and level of impairment.

**7. For the seventh objective –**

- **Phonemic awareness** of visually impaired students of Indore was **not influenced (dependent)** by grade.
- **Phonemic awareness** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Phonemic awareness** of visually impaired students of Indore was **not influenced by interaction** of grade and level of impairment.

**8. For of the eighth objective -**

- **Phonics** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Phonics** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.



- **Phonics** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

**9. For of the ninth objective -**

- **Fluency** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Fluency** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Fluency** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

**10. For s of the tenth objective -**

- **Comprehension** of visually impaired students of Indore was **not influenced (dependent)** by grade.
- **Comprehension** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Comprehension** of visually impaired students of Indore was **influenced** by interaction of grade and level of impairment.

**11. For of the eleventh objective -**

- **Vocabulary** of visually impaired students of Indore was **not influenced (dependent)** by grade.
- **Vocabulary** of visually impaired students of Indore was **not influenced (dependent)** by level of impairment.
- **Vocabulary** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

**12. For of the twelfth objective -**

- **Overall Reading** of visually impaired students of Indore was **influenced (dependent)** by grade.
- **Overall Reading** of visually impaired students of Indore was **influenced (dependent)** by level of impairment.
- **Overall Reading** of visually impaired students of Indore was **not influenced by interaction** of grade and level of impairment.

**13. For of the thirteenth objective -**

- **Overall Reading** of visually impaired students of Indore was **not influenced (dependent)** by **Special Facilities**
- **Overall Reading** of visually impaired students of Indore was **not influenced (dependent)** by **level of impairment**.

- **Overall Reading** of visually impaired students of Indore was **influenced** by interaction of **Special Facilities** and level of impairment.

#### **14. For of the fourteenth objective -**

- **Overall Reading** of visually impaired students of Indore was **influenced** (dependent) by level of impairment.
- **Overall Reading** of visually impaired students of Indore was **not influenced** (dependent) by **Parental Education**
- **Overall Reading** of visually impaired students of Indore was **not influenced** by interaction of grade and level of impairment.

### **6.10.0 Educational Implication of The Study**

The present study has wide implications for the field of special as well as inclusive education. It provides guidelines to the students, teacher, teacher educator, administration and researcher. The study shows that the special students need special treatment. It also shows that educational and infrastructural facilities had a great impact on the learning of the students, so institutions need to put attention on these facilities. Students studying in institution with good facilities performed better than students studying in institution with moderate facilities in spite of studying in lower grade than them. It also shows that students who learned braille at early stage, who got braille reading and writing facilities and more practice at school as well as at home had better reading skill. So, for better learning of the special students there is a need to give attention on these facilities.

### **6.11.0 Suggestions for Further Research**

On the basis of the findings of the present study the suggestions regarding further researcher are as follows:

- The study may be conducted on the effectiveness of other skills like listening, speaking, and writing skills.
- The study may be conducted on the effectiveness of reading skills in terms of other subjects like Science, Commerce, Hindi etc.
- The study can be replicated with other populations including students at primary, middle and college level.
- Comparative studies may be conducted to find out the effectiveness of reading skill on primary and middle level.
- Study may be conducted on special children with multiple impairment.

### **6.12.0 Conclusion**

The present part discussed about the summary of overall study from very beginning part that is introduction to the last part that discussion on the finding. Even suggestions for further research and educational implications have also been mentioned here. It gives complete reflection of the present experimental research.