CHAPTER II

REVIEW OF RELATED LITERATURE

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Title</th>
<th>Page no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Introduction</td>
<td>65</td>
</tr>
<tr>
<td>2.2</td>
<td>Importance of Review of Related Literature</td>
<td>67</td>
</tr>
<tr>
<td>2.3</td>
<td>Research Material Chart</td>
<td>68</td>
</tr>
<tr>
<td>2.4</td>
<td>Review of Books</td>
<td>69</td>
</tr>
<tr>
<td>2.4.1</td>
<td>Books Related to Visually Impairedness</td>
<td>69</td>
</tr>
<tr>
<td>2.4.2</td>
<td>Books related to Commerce</td>
<td>75</td>
</tr>
<tr>
<td>2.4.3</td>
<td>Books related to Educational Research</td>
<td>77</td>
</tr>
<tr>
<td>2.5</td>
<td>Review of Unpublished Thesis</td>
<td>78</td>
</tr>
<tr>
<td>2.6</td>
<td>Review of research articles from Journals and news</td>
<td>86</td>
</tr>
<tr>
<td>2.7</td>
<td>Review of research articles in Magazines</td>
<td>99</td>
</tr>
<tr>
<td>2.8</td>
<td>Review of Proceedings from conferences</td>
<td>100</td>
</tr>
<tr>
<td>2.9</td>
<td>Review of ERIC Data base</td>
<td>104</td>
</tr>
<tr>
<td>2.10</td>
<td>Review of abstracts of research articles from other websites</td>
<td>104</td>
</tr>
<tr>
<td>2.11</td>
<td>Indian and International Organisations for disabled and blind persons</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Summary and discussion</td>
<td>114</td>
</tr>
</tbody>
</table>
CHAPTER- II

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

A review of related literature is an important aspect to understand the research problem after investigation. It enables investigators to know the amount of research carried out in the concerned area. The review of related literature involves systematic identification, location, analysis of documents containing information related to the research problem. (Gay, L.R, 2006) A review of literature is a “critical analysis of a segment of a published body of knowledge through summary, classification, and comparison of prior research studies, reviews of literature, and theoretical articles” University of Wisconsin Writing Centre.

A review of related research in any research report is essential because it shows a definite direction of development and evolution of the particular field.

It is aptly stated; ‘the review of literature promotes a greater understanding of the problem and its crucial aspects and ensures the avoidance of unnecessary duplication. It also provides the comparative data on the basis of which evaluate and interpret the significance of once findings (Mouly G.J., 2005). Similarly it is stated as, ‘the student should find, analyse and evaluate critically very pertinent research report dealing with his chosen problem. Anything less than this will be neither sensible nor scientific (Whitney F.Y., 1954).

In searching related literature the researcher should note certain important elements:

(1) Reports of studies of closely related problems must have been investigated.
(2) Design of the study, including procedures employed and data gathering instruments used.
(3) Populations that are sampled and sampling method employed.
(4) Variables that were defined.

(5) Extraneous variables that could have affected the findings.

(6) Faults that could have been avoided.

(7) Recommendations for further research. (Best J.W, 2011)

This chapter narrated by brief information of researches carried out regarding Visually Impaired students and their problems during education especially in commerce sector. This has been nurtured with various Ph.D. dissertations, Indian educational abstracts, Books, Edited books, fifth survey of Research in Education 1988-92 I and II volume, Indian journals, Magazines, e.g. Eduttract, Proceedings from conferences, Abstracts from ERIC database and websites. As year wise and Disability wise Distribution of Researches represented in Table 1.2, very few researches are available on disable person and thus very fewer researches were found regarding visually impaired person.

As per researchers knowledge no research was conducted for VI commerce students whereas little investigations were available on problems of VI person in Mathematics. The review of related literature shows that researches are conducted and materials are available in Physics, Chemistry and various materials available for mathematics calculations but no material available to understand Account subject. So it is very common in India that Visually Impaired students change their sector to other field from Commerce after 11th standard that is after 1st year of commerce study.

Research, as he has his personal experience also, faced many difficulties to understand commerce subjects. For the same he decided to do research to help in understanding Commerce subject and develop Course Material Package to make easy few common difficult chapters in Commerce for VI 11th standard students.
2.2 IMPORTANCE OF REVIEW OF RELATED LITERATURE

Review of literature is very important as it provides researcher with an up to date knowledge of the subject like accountancy and discussion of the research findings in a particular topic. While writing a literature review he learns about the ways other people have constructed their own research projects. What others have done might help researcher to understand his own assignment. That he might be able to see the methods that other more experienced researchers have used and might decide to follow on their footsteps as his view. The Researcher might also be able to detect conflicting points of view expressed by different authors. These conflicting points of view might be the indicators of diverging theories within the same topic. He needs to be aware of these conflicting theories as well as of the arguments supporting these theories in order for this study to assess their value and make up his own mind on the topic. Being aware of the theories will help him later in his life as a student when researcher will have to design a larger research project like dissertation.

Researcher might also be able to discuss relevant research carried out in the same topic. It is important to be able to discuss relevant research because very often it is very difficult as students and as researchers to keep abreast of everything that is published every year in a topic. The job of the writer of the literature review is to summarize and discuss the major documents published in that topic over a stated period of time. The discussion will take into account the methods and the results or findings of the most relevant research. The reviewer will assess whether the methodology is appropriate and whether the results seem valid. The reviewer therefore evaluates the quality of the research as opposed to merely listing documents.

The reviewer may also discuss material published in other fields which are related to the main topic. This process is very important since very often research in the social sciences is multidisciplinary, i.e. knowledge gets generated from many disciplines and needs to be integrated. For example in order to be able to research and write a literature review on a question like
‘Why do teenagers smoke? ‘The reviewer might need to read material from journals in psychology, medicine, and sociology.

2.3 RESEARCH MATERIAL CHART

This chart shows analysis of review material as per review section that is Books, Unpublished Thesis, Review from Journal, Magazines, Abstract from ERIC, etc.

Table 2.1 Research Material

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Review Material</th>
<th>Visually Impairedness</th>
<th>Commerce Information</th>
<th>Research Methodology</th>
<th>Learning Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Books</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Unpublished Thesis</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Research article In Journal</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Research article in Magazine</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Proceedings from Conference</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Abstract from ERIC data base</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
2.4 REVIEW OF BOOKS

2.4.1 BOOKS RELATED TO VISUALLY IMPAIREDNESS


This book helps the researcher to understand definition of Visual Impairment, problems faced by them in their regular activities and different types of electronic equipment that may help them in their education.

2. Deshpandhe S. (2010), Special Needs Education: Elements, Dimensions and Trends. This book describes what special education is, and highlighted on special needs to include different type of approaches of teaching as per required by children with different types of disabilities including physical disabilities. This book also denotes that Special education students are more likely to drop of school than their non-disabled peers. This trend holds true for all types of physical disabilities. This problem appears to be seen among students in many countries. Parts of Canada report that as many as 60 per cent of students with learning or behaviour disorders do not complete school. In the United States, the National Centre of Secondary Education and Transition reports that special education students are twice as likely to drop out as regular students.

Further it states that the cost of the high dropout is incalculably high with profound social and economic complications for the students, their families, and their society. Drop out have high rates of employment, make less money,
are more likely to need public assistance, and are more likely to become involved in the criminal justice system.

This book direct towards unemployment cause of handicapped person which is the exact aim of the present study, i.e., to decrease the dropout rate of 11th standard commerce visually Impaired students so that they can able to get employment to improve their economic status.

3. Mithu A. & Michael B. (2009), The Journey for Inclusive Education in the Indian Sub-Continent. This book emphasizes on systematically building a framework for scaling up inclusive education policy and practice. As well it reflects on how they developed mobilized and integrated strategies to contribute to policy change at the local, state, national and international levels. Moreover the authors share their experience of events to draw out change of strategies they evolved and some of the lessons they learned along the way about making policy change for inclusive education and full citizenship for disabled children. This book helps researcher while writing first chapter. This book helps researcher while writing first chapter introduction and understand history about inclusive education and its application.

4. Vijayan P. & Victoria G. (2009), Education of children with Low Vision: This book defines the definition blindness and Visually Impairment. ‘Blindness’ refer to a condition where a person suffers from any of the following conditions, namely total absence of the sight; or visual acuity not exceeding 6/60 or 20/200 (snellen) in the better eye with correcting lenses; or limitation of the field of vision subtending to an angle of 20 degree or worse; ‘person with low vision’ means a person with impairment of vision if :1) A person has Impaired visual functioning even after the treatment and standard refractive correction, 2) Who has a visual acuity of less than 6/18 to light perception, 3) Who has visual field less than 10 degree from the point of fixation, but who uses or is potentially able to use, vision for the planning and / or execution for a task with appropriate devices.
This book helped researcher to understand the classification of a blind person and the degree of blindness.

5. Sharma A. (2011), Special education: A Practical approach with special needs. This book deals with the international teaching method, e.g., teaching method used by England, Scotland for handicapped children to develop their curriculum. This book also pointed out that common special needs include physical disability with other learning disabilities and students with these kind of disabilities are likely to benefit from additional educational services, different approaches to teaching, and use of technology.

This book helped researcher to understand various teaching methods to teach VI. Students from world and also it help to preparation CMP.

6. Haider I. S. (1999), Visually Handicapped Children (Study of their Psychological Characteristics and Academic Achievement)

This book focuses the problems of visually handicapped person of India as well as of other countries. He describes various integration programmes with pros and cons for visually handicapped students He also states that it was thought that for getting the benefits of college education, integrated education was the most practical method. The idea of integrated education dawned in the U.K. towards the end of the nineteenth century to ensure education for all blind children. This book highlighted about study of different investigators throughout the world who develops their study and strategies regarding visually handicapped students. Likewise Cullinan after his study strongly suggest that teacher should helped handicapped students to deal with problems of social withdrawal, inferiority feelings, fear and anxiety, etc.

This helped researcher to create better atmosphere while teaching visually handicapped students. It also helps to understand various teaching method to teach VI candidate and how they help to solve learning problems of VI students.
This book explained teachers with excellent models how to match task to learner. The framework outlines the critical teaching objectives to each year group, from which it is possible to match the needs of children to match across the whole range of mathematical ability.

Even though this book focuses on other kind of students, it helped researcher to facilitate the education process dealing with calculations.

8. Pandey V.C. (2003), Education: Planning and human development
This book describe that children who have physical, sensory or intellectual impairments can experienced many difficulties in learning and participating in community of life. Furthermore it states that physical disability often holds the child back in various ways, his opportunities to join in the community life are also fewer as he cannot go as easily to market or in family gatherings or he may be ashamed of his body; have lack of confidence and try to avoid playing with other children. So the author explained that it is not the impairment that should concern teacher or how it was caused, but rather it is reducing the consequences that impairments bring to the child’s life and the barriers that it presents to the children’s learning.

This guide researcher to tackle emotional part of visually handicapped students easily, moreover researcher have his own experienced also.

9. Desai A. (2010), Special Education
This book focus on basic fundamental of education, Education concepts values education and Legal issues in special education. It describes about special education in India interpretation implementation and issues. Further it states that education system of India providing access to basic education is duty of the Indian state that has taken upon itself. Therefore the government has taken various measures to provide access to education to all categories of students. Thus the differently able children are provided special education in India so that they can seriously engage in improving the quality of their life. With the
advancement of technology special education in India for physically disabled or mentally challenged is also fast improving. But some recent research has thrown fresh insights on Special education in India was present since the pre independence time with very few schools or NGOs helping intellectually impaired children. Today India has come a long way and made a good progress in the field of disability rehabilitation. This book comprehensively describes the problems and methods of special education. This book proved useful to the teaching departments and institutions teachers of educational administration. This book helped researcher to understand Indian education system for Visually Handicapped children.

10. Susan C. (2003), Teaching Students with Visual Impairments: A guide for the support team

This book basic information to help provide successful school experiences for students who are blind or visually impaired. This guidebook includes information regarding: (i) the nature of the student’s visual impairment; (ii) the specific needs of students with visual impairments; (iii) the specific needs of students with visual impairments and other disabilities; (iv) assessment; (v) instructional strategies; (vi) the use of technology; (vii) the importance of orientation and mobility instruction; (viii) transition planning; (ix) terminology used in referring to visual impairments; and (x) recommended resources.

It further describes the necessary attitude of the administrator toward the inclusion of a student with a visual impairment. An administrator who believes in the inclusion of a student with a visual impairment will:

(a) Make a commitment to the student that is reflected in the actions of the administrator; (b) Work to find the time and the resources necessary to support teachers in the classroom; (c) Establish a school-based support team and encourage collaboration, consultation and cooperation. Be an active member of this team. Provide the necessary release time so that collaboration may occur, etc.

Further he describes about the Mathematics Skills that there may be a number of gaps in the student’s general knowledge that would normally have
been gained through visual observation. Math for the student with blindness is prepared in Nemeth code. Nemeth code is a mathematical and scientific notation code in Braille. The following adaptations and equipment may be incorporated into the student’s mathematics program to enhance learning. Speed may be improved by adapting or shortening assignments. Make or purchase Braille flash cards. Raised pictures, diagrams and concrete objects are necessary to develop concepts. Simple raised outlines are preferred. A variety of materials and methods for use with young students are described in the Teaching Resources Section XII.

A combination of auditory and tactile approaches should be used. Many manipulative materials available in the classroom can be used by a student with blindness.

This book helped researcher to understand the nature of blindness and nature of visual impairment students in detail. As well as researcher got knowledge about available teaching material to teach technical subject like Accountancy in market.


This book is an interesting and scholarly attempt to look into the Personality and Creative Potential of Blind and normal children. Personality and creative potential of congenitally blind and adventitiously blind children are analysed emphatically.

A very systematic presentation of the study on various aspects related to personality has been reported in a rich empirical context. A large number of personality factors which affect the child behaviour are very carefully reported and supported with the help of relevant studies-which give the readers an in-depth understanding of the process. The creativity is a universal ability. It is present in same manner in everyone.

This book has taken care of three important dimensions of creative potential i.e. fluency, flexibility and originality. This book has also touched upon remedial programme for Blind children and the vocational opportunities for them. A timely and important piece of work, it will certainly help all those
who are related to the growth and development of Blind children including teachers, parents, educational organizations, administrators, curriculum planners, guidance workers, counsellors, voluntary organizations and teacher training institutions.

This book helped researcher to clear some views about blind students and design CMP material specially to help VI students.

2.4.2 BOOKS RELATED TO COMMERCE

1) Book-Keeping & Accountancy Standard XI

In this book, Information of Classification of Account, i.e., Personal Account, Real Account and Nominal Account are given. Its examples and rules are also given. Definitions and meanings are explained properly. Information of Journal and Ledger described in detail; like journalization and ledger posting, parts of journal, parts of ledger. Problems based on Journal as well as Ledger and its solution is described with proper explanation.

This book helped Researcher to know about Identified Units which was finding from survey by Questionnaire of XI Standard VI student as well as Questionnaire of Account subject teacher. Researcher also got authentic fine details about Journal and Ledger, Journal Entries, Transactions, Rules and Regulations of all Accounts.


This Book contains definition of all commerce concepts like Journal, Journalization, Ledger, Ledger Posting, Personal Account, Real Account, and Nominal Account. This was helped Researcher to explain conceptual definitions of commerce key words.

3) Haider I. S. (2000), Career information for the Blind and Visually Impaired

Careers and jobs are an important part of everyone’s life. Getting the proper training, writing a resume, getting an interview and eventually a job are all vital to a feeling of achievement and success. Success, however, doesn’t
always come easily, especially if a person has a vision and/or hearing loss. Careful consideration and advance planning are key elements to successful entry in that person field of choice. This booklet is designed to address the career concerns of people who are blind, as well as those who are vision and/or hearing impaired. The purpose of this booklet is to guide VI Student through the process of determining a career path, where to go for education and training, how to find a job, how to make changes accommodate a student’s vision and/or hearing loss, and what to do if they lose their job.

Career Profile of Jane Perry

She was diagnosed with retinitis pigmentosa in November 1987. By 1991, the diagnosis had changed to Bardet Biedl syndrome. She has been working at Falmouth Hospital since 1976. She became the first visually impaired certified Health Unit Coordinator in Massachusetts, as well as the entire country in 1995. She was now working in Ambulatory Care/Day Surgery and does very well in her job despite her vision impairment. Her family have been extremely supportive and encouraged her to continue in her field. And worked in many civic and community organizations after her diagnosis. She doesn’t drive anymore, but take the paratransit (bus), cab, or get a ride from a co-worker. She uses a white cane. Originally, the Massachusetts Commission for the Blind gave her a CCTV to enlarge the print when she transcribes physician’s orders; however, she does just as well using a handheld magnifier. It is not as cumbersome as a CCTV seeing that she shares my desk with three other Health Unit Coordinators. She use a black felt tip pen to write notes so that she can read them. For phone and fax machines with many buttons and no contrast, she writes on a piece of tape with a black felt pen. Each doctor has a different colour for patient charts. Because she is colour-blind, it is hard to differentiate the colours, so she designed her own system by getting a box and putting each colour in a separate envelope with the doctor’s name on the outside and the colour tape inside the envelope. She was sent to Carroll Centre for the Blind where she learned about Braille, computers, large print programs, and speech output. As they began downsizing, their union changed their job descriptions and the booklet was available in large print. She firmly believes that nothing is
impossible. It’s how you make it possible. That’s with courage, and confidence, imagination, ingenuity, simplicity, perseverance, determination, laughter, and humour but most importantly with independence, dignity and pride.


This book help researcher to understand various teaching methods related to commerce field and get idea about analysis of transactions as well as analysis of journal entry.

2.4.3 BOOKS RELATED TO EDUCATIONAL RESEARCH


In this book Research Methodology is given in detail. All research concepts are explained properly like objectives, scope, Delimitations, Limitations, Hypothesis and its types. This book also provides information about various research methods like Historical Method, Survey Method, Experimental Method, and Product Development Method. This Book also explained about Experimental Design, it is also explained about various data collection tool and data analysis tool that is parametric and non parametric tools. Various methods about writing references for book, journals also described.
This Book provides proper research methodology to Researcher. Along with Research Objective, Research Hypothesis Limitations, Delimitations, Scope, it also provides explanation about Research Design, Information about Informants.


This Book provides information about statistical analysis parametric and nonparametric tools in detail; it gives knowledge about Mean, Median Mode, Standard Deviation, Quartile Deviation, Percentile and Percentile Rank, Coefficient of correlation Regression Equation t test, F test, etc. This book is very useful for Statistical information about analysis of Research data collection. This Book is also explains about psychological test and brief knowledge about educational psychology and its terms and concepts.

The Researcher got knowledge from this book about ‘pair t test’ which was used by researcher for analysis collected data and find significance between pre test and post test.

2.5 REVIEW OF UNPUBLISED THESIS

1) Bhan S. (2007), A study of functional skills of Blind children in Psychomotor Percepto-cognitive, and socio-emotional developmental areas, Centre of Special Education SNDT University Juhu, Mumbai-49

The objective of this study is identification of functional skills important for the blind children. Following the scientific procedure, a tool named FISB (Functional Skill Inventory for the Blind) was developed to assess the functional skills of blind children. It describe that teachers teaching the blinds should be having special qualifications in the field of visual impairment holistic development of a child. It has been understand correctly that the skills that the child needs to develop can be taught and practised by him at school, and then transferred to the home environment for making the child competent, independent. In order to help the child develop optimally in all areas of
development it is important to assess the student thoroughly and determine his strengths and weakness and weakness in various skill areas.

This helped the researcher to plan a customised training programme for each student. Basically this research help to get idea about analysis of content material, it also provide information about content provide through small question.

2) Pradhan M. (2003), A comparative study of comprehension by blind Students at the age of 5 to 14 years, the material is presented through the Braille and on Cassettes. Faculty of Education, Jamia Millia Islamia, New Delhi.

Objective of the study are to identify suitable mode of presentation of learning, to study the comprehension level among visually impaired children in different subjects through two modes of learning i.e. Tactile & Auditory.

Findings of the study are both have their own specific advantages: Auditory facility has an edge over the Braille system, in terms of comfort & speed. Thus Listening helps in speedy reception of communication. Braille reading helps in its more consummate comprehension.

Outcome of the study is higher Grades - IVth to VIII (10 to 14 years)
The improvement in comprehension of visually impaired students is significantly better through auditory mode as compared to tactile mode in - subjects - Hindi, Maths, Social Study, and General Science.
Thus listening through the audio cassettes would be better medium of learning at higher grades than Lower Grades - Ist to IIIrd ( 5 to 9 years)
Learning through recorded material would increase potentiality of comprehension in subjects - Social study, General Science. Due to lack of concentration in this age group, Learning through Braille would be more comprehensible in subjects - Hindi, Arithmetic than listening.
Braille is the exclusive modality of effective & constructive learning for Spelling & Punctuation. Conclusion of the study is in comparing both the modes of learning (i.e. Auditory & Tactile) for education of visually handicapped children; For optimizing comprehension in different subjects,
judicious use of proper media i.e. Braille or Cassette, essentially depends upon the demands of Subject & Grade.

Researcher used Audio material as per outcome of that study for higher grade. This research also helped researcher to develop Braille booklet and Audio Material which are useful as learning material for blind student. The Researcher also knew that how such Audio Material effective as learning material.

3) Kassie S. B. (2013), The practice of inclusive teaching to disabled students: with particular reference to visually impaired students in English language teaching (ELT) settings Department of English, Andhra University

Objectives of the study are to investigate teachers’ instructional practices in the process of teaching and assessing Visually Impaired students’ performance in English Learning Training setting in light of the requirements for inclusive education. The other is to assess teachers’ beliefs on inclusive education, disabilities and visual impairments. To identify teachers’ attitudes towards inclusive education and the factors that influence these; to investigate visually impaired students’ own perceptions, attitudes toward inclusion and learning English with regular students, and strategies they employ in learning with other students, to explore teachers’ and visually impaired students’ perceptions of the difficulty level of English language skills which are expected in teaching and learning in inclusive settings, and to investigate opportunities and challenges in the process of addressing the needs of visually impaired students in teaching English in inclusive setting. Major Findings of this study is Requirement of proper training for teacher who teaches to Visually Impaired Students.

Researcher got knowledge from this study of Inclusive Education and its detail process as well as needs of VI students about learning and problems of VI students about learning.

The objectives of the study are to study the nature of blindness, causes of blindness, to know the characteristics of the blind student. As well understand the role of Doctors, parents and teachers in the education of blind students. Focus on the methodology of education for Blind students.

Researcher got knowledge from this study the types of blindness, characteristics of blind student, various teaching methods to teach blind students, Researcher also got knowledge about role of Doctors and Parents in Education of the blind child.


In this study the type of social environment to which a blind or visually impaired child is exposed is an important factor in determining the relationship between self-concept and adjustment. Since different educational settings i.e. inclusive and special school settings in this case purport to meet the educational needs of blind or visually impaired students differently and constitute, though not entirely distinct physical, social, attitudinal and emotional environment it is assumed that educational settings influences the development of these two aspects of personality i.e. self-concept and adjustment. The important objectives of that study were to study the self-concept and the level of adjustment of visually impaired adolescents studying in inclusive and special schools, to study the relationship between self-concept and the level of adjustment of visually impaired adolescents studying in two settings, to compare the relationship between self-concept and the level of adjustment of visually impaired adolescents studying in inclusive and special schools and to adapt/develop self-concept scale and adjustment scale for use with the visually impaired adolescents. The findings of that study revealed: The development of
self-concept was better in inclusive schools. But, it was even better in the case of male adolescent than the female ones. Similarly, in the case of level of adjustment also the male adolescents have shown better level of adjustment. Contrary, to that the relationship between self-concept and level of adjustment in the case of female adolescents was better in inclusive school settings than their male counterparts. This trend was reversed in the case of relationship between those aspects in special schools. Towards the overall results showed better relationship in the case of male visually impaired adolescents than the female visually impaired adolescents.

Further that study states that as far as education and rehabilitation of visually impaired students are concerned the results of that study have wider implications. The findings demonstrate that several benefits in terms of social emotional well being occur for visually impaired students in inclusive educational settings. Enhancing the self-concept and adjustment of disabled children here the visually impaired students remains an important goal in education. It is therefore not just enough to place them in regular schools rather their participation in all learning activities should be ensured. This will help to install confidence and feeling of self worth which in turn will improve their self concept and level of adjustment.

This study helped researcher to make understand VI students the important of continuing education to enable themselves for occupying jobs. In which field blind candidate can do his/her job, Researcher also get knowledge about various field ready to provide job for blind person as well as areas in which blind person can earn as self job.


Objectives of the Study are to study the reading behaviour of the visually handicapped students. To identify deviant braille reading behaviour of visually handicapped children. To develop programmes for studying braille reading behaviour of visually handicapped students. To study the effectiveness of
prepared material for teaching desirable braille reading behaviour in order to develop appropriate reading behaviour. To suggest techniques for developing appropriate reading behaviour of visually handicapped students.

Findings and conclusion of the study: Control and experimental groups did not differ significantly on all the parameters namely; reading speed, mistakes made by the subjects, scrubbing movement, omission and repetition. Braille is the script used by visually impaired persons to read the text material through touch. One common fallacy was found that Braille training should be given to only poor braille readers. But on the contrary such type of training should be given at a beginning level of braille readers so that the braille readers perform better in their braille reading and desired outcome can be obtained through proper training of braille reading at elementary level. The study suggested some measures to prepare braille learning material for young visually impaired children. These methods and techniques suggested in the study can provide help in preparing braille learning material and thus braille reading speed can be improved.

This study supports for the present research as the researcher has used Braille with audio material in his course material package. As well as he got the knowledge about how Braille material can prepared, how they stored, Researcher also got knowledge about rules and regulations of Braille language.

7) Khan A.H. (1988), Personality Structure of blind children and its relation to their mental ability and educability, Department of education, Utkal University. Objectives are to investigate personality characteristics and personality structure among totally blind children at three different levels, corresponding fairly to three different developmental periods, to make a comparative analysis of the mental ability and achievement measures of blind children varying in educational level.

Findings: There was a significant difference in the intelligence level among the lower primary, upper primary and the second level blind children. Negative approach decreased with the increase in educational level. The blind student
show positive self-concept, educational level and age did not influence the development of the self-concept significantly. With regard to intellectual achievement responsibility the blind students were quite internal with regard to the attribution process. In failure situation, the blind students believed slightly in luck, chance, fate etc. The blind children were less extraverted and were more neurotic, self centred and were of the withdrawal type. There was no significant relation between IQ and achievement among the blind children.

This study helped researcher to understand the psychology of the visually blind student more clearly than only judging them by his personal experience. This study also help to understand how analysis techniques useful to teach accountancy for Visually Impaired students.

8) Muruganandam S. (1990) ‘Development of teaching-learning strategies in teaching science to visually impaired children’. Madurai, Karmaraj University. Objectives are to prepare teaching-learning packages in science for teaching visually impaired children and to compare the effectiveness of teaching with prepared packages on achievement over the traditional method of teaching. Findings: Visually Impaired children learned more science concepts when they were taught through the specially prepared teaching-learning materials. The learning package on science teaching for visually impaired children found effective. This study encourage researcher to utilize different tools to teach VI students. Researcher also studied that blind student always attract technical material so audio material is also a part of technical material and it may useful as a learning material.

9) Lali S. (1995) A comparative study of the scholastic performance of the visually handicapped pupils studying under the integrated system with that of normal pupils in secondary schools of Kerala. Education department, University of Calicut. Objectives are to test whether the two groups of visually handicapped pupils and normal pupils of standard VIII, IX
and X differ significantly in their scholastic performance. Whether the two groups obtained by equating intelligence and socio-economic status differ significantly in their scholastic performance in each of the three level cognition viz, acquisition of information, understanding and ability to apply understanding in new situation with respect to various subjects. Findings: The Visually Handicapped pupils found to be significantly different in their scholastic performance from their normal counterparts except in Malyalam and social studies. Regarding intelligence it was found that the two groups were generally different. As regard of the socio economic status, it was noticed that the difference were in the favour of normal group persisted. The analysis without control variables and with control variables generally indicated that the visually handicapped pupils were inferior to their normal counterparts in the scholastic achievement. Only it failed to prove in Malayalam and Social studies. At the knowledge level in standard VIII significant differences were noticed between the two groups only in the case of four subjects, viz, Physics, Chemistry, Biology and Mathematics. In Standard IX the difference at knowledge level noticed in the entire subjects except Malayalam and Social studies. In understanding, the pattern remained the same and at the application level, there was significant difference in the case of all the subjects. In Standard X significant difference was noticed in 5 subjects, viz, English, Physics, Chemistry, Biology and Mathematics both at the knowledge and understanding levels, whereas at the application level, it was prevalent in the case of all eight subjects.

This study helped researcher to understand the learning ability of visually impaired student in different subjects. Researcher got knowledge about blind learners have more difficulty in mathematical subjects.
2.6 REVIEW OF RESEARCH ARTICLES FROM JOURNAL AND NEWS


Objective of this study is to compare the personality factors of congenitally visually impaired children (CVI) and adventitiously visually impaired children (AVI). Findings of this study were (i) Significant differences found between the CVI and AVI group. CVI children have judicious mixture of Reserved vs. Outgoing characteristics. AVI group have reserved trait in their personality make up. (ii) AVI children exhibit assertive and independent trends in their personality while the CVI children have mixed personality trends in relation to humble vs Assertive. (iii) Scores in the case of CVI children are found distinctly superior in relation to tender mindedness. (iv) AVI children are superior on undisciplined Self Conflict vs. Controlled factors and marked by factors of better emotionality, while the CVI children have outward trend in their personality make-up. (v) There is no significant difference between CVI and AVI children in relation to the personality factors like: .I. student. Sober vs. Happy go Lucky; Shy vs. Venturesome; trusting vs. Suspicious; Forthright vs. Shrewd: Placid vs. Apprehensive; conservative vs. Experimenting; Group Dependent vs. Self Sufficient; Relaxed vs. Tense.

This research study proved helpful to understand congenital and adventitious VI student and their learning problems as well as self learning method its nature and effectiveness for VI student.


Objective: of this study is to find out the grade and gender wise differences on stress perception and behavioural problems of visually impaired
adolescents. Findings: (i) Visually Impaired Females and Students in class VIII were significantly more stressed than their counterparts. (ii) Correlation between stress and behavioural problems were found to be inverse and significant irrespective of students’ grade and gender. (3) Stress had significant negative association with many of the family’s socio-economic status variables.

This research study proved helpful for researcher to understand relation between stress and behaviour of VI students and effectiveness of friendly behaviour of teacher who teach technical subject for VI students.


Objectives: of this study(i) To find out whether the learning aptitudes of Congenitally Visually Impaired differ with that of adventitiously Visually Impaired. (ii) To find out whether the age of onset of blindness affect the performance on Blind Learning Aptitude Test (BLAT).Findings: (i) Based on BLAT Score it resulted that learning aptitudes of Congenitally Visually Impaired and adventitiously Visually Impaired did not differ significantly. (ii) There was no significant difference between the mean BLAT scores of Congenitally Visually Impaired and adventitiously Visually Impaired in all the three age group, i.e., from 6 to 9 years,10 to 13 years and 14 to 16 years.

This Study helped researcher to determine analysis view of data that find significance difference between Congenital Visually Impaired and adventitious Visually Impaired.


The purpose of the study was to assess the level of self-actualization of visually handicapped high school students who are going to be a part of the future labour force of the country. The objective of the study was to find out to what level the visually handicapped children have accepted their disability and
whether they are ready to take part as productive members of their society and nation and whether they understand their inner need to grow and self-actualize. The overall findings indicate that most of the handicapped students were high on the scale of Self-regard and Self-acceptance, but they were not able to self-actualize. All the subjects who scored indicates that they were time incompetent and other directed, this being the reason why they were not able to self-actualize. Further, the study indicates that handicapped children are time incompetent, other-directed, rejects the value of self-actualizing people, insensitive to own needs and feelings are fearful of expressing feelings behaviourally, have high self-worth, have acceptance of self in spite of weaknesses, sees man as essentially evil, sees opposites of life as antagonistic, denies feeling of anger and aggression and have difficulty in warm interpersonal relationship.

The primary feelings that control him are fear and anxiety brought on by the influences of school authorities or the peer group. They transform their feeling of fear into an obsessive, insatiable need for affection or reassurance of being loved. They were not flexible in application of values. Time competence is negatively correlated with the subscale of feeling reactivity. One important negative correlation was found on the scale of self-acceptance, this indicates that blind students who are not able to be time competent yet have the capacity of accepting themselves in spite of their weaknesses.

It concludes that there seems to be a thin but strong silver lining in an otherwise dark scenario. Most of the visually handicapped students show high self-worth and acceptance of self in spite of weaknesses. High values on these two subscales should encourage the planner and policy makers to review the existing strategies of learning and parenting. Both the supportive agencies of the child’s life – his family and school – should be able to help these students to live in the present and make them independent and self-sufficient. To go ahead and grow to their fullest capacities, to do what each does best.

This research study proved helpful to study research methodology. As well as researcher understand that self learning material is most useful for blind learner.
5) Bruce I., Harrow J. & Obolenskaya P. (2007), Blind and partially sighted people’s perceptions of their inclusion by family and friends, *British Journal of Visual Impairment*, vol. 25 no. 1 68-85

In this study blind and partially sighted people’s perceptions of inclusion by family and friends are examined in a major survey of over 900 adults with low vision in the UK. Findings demonstrate a complex picture, reporting high levels of severe lack of social support in comparison to the general population especially among men, and lack of social support expressed extensively by those who were rarely or never visited by family or neighbors. Levels of reported social support were not related to the degree of severity of sight loss or age; and economically inactive respondents of working age reported lower levels of social support than those who were working. Correlation between respondents’ having hobbies and going shopping and rising levels of social support was shown. Living alone, having someone visiting as little as at least once a month meant that respondents were less likely to express, severe lack of social support. The concept of ‘inclusion’ is recognized as more associated with formal ideas of citizenship and participation in community life than with informal support. It is suggested that increased focus should be given in public policy development and service provision to enabling greater levels of informal inclusion for people with visual impairments. Implications for general services development are noted.

This research study proved helpful to study research methodology. Also researcher understands social life of blind learner and problems faced by them regarding social adjustment.

Para educators who were employed by local school districts and residential schools for students with visual impairments were surveyed to determine if
there are differences in their roles, training needs, and perceptions of supervisors' competencies. The par educators in local schools reported more training, the provision of less direct service, and greater supervision by more competent teachers of students with visual impairments than did their residential school counterparts.

This research study proved helpful to study research methodology. Researcher also understand that trained person can teach properly to Visually Impaired students researcher, also knew that without guidance VI students cannot be respond.


Objective: To analyse the developmental trend among visually handicapped (VH) children in acquiring selective concepts and operations to attain the concrete operational stage as describe by Piaget. To analyse the developmental trend among VH children in acquiring selective concepts and mental operations as represented by this performance on a test of cognitive capabilities, to study the significant relationship between the cognitive development status of visually handicapped children and their nature of handicap, type of school and sex, and to develop and try out an action programme for fostering cognitive development in VH children. Findings: In the entire task selected by the study with VH children, the sub stages found among VH to attain the operational level of thinking (Stage III) corroborated with the sub stages of Piagetian theory, but with the pure developmental lag with respect to their age. Most of the VH students proceed from stage I to stage III directly. VH student attain Concrete Operational Stage (COS) at later stage as compared to sighted children. The chronological age of VH and their COS was not linear. There was no significant relationship found between the nature of handicap and the COS of VH. The relationship between COS of VH and the type of management in their schools was not significant. No significant relationship between the COS and the sex of VH children. All children acquired different higher levels
of conservation in their post test as compared to their pre test performance with both the tasks.

This study helped researcher to judge inherent skills of VI students. Researcher also understands various natures of VI persons like Adventitious and Congenital blind and their relationship with cognitive development. This concept also use for analysis of the study.


Skills of Blindness:
All individuals who are blind will need to learn specialized skills, often called the skills of blindness or the expanded core curriculum.

Literacy
Individuals with visual impairment access reading materials in primarily four ways: Braille enlarged print, human readers, and auditory recordings. Most use more than one form of literacy, according to the demands of each situation. A learning media assessment defines the most appropriate literacy medium for each purpose. Braille was developed by Louis Braille when he was 15. It is a system of embossed characters that appear in different combinations organized within a cell that is two dots wide by three dots high. There are 720 possible dot combinations to express letters, numbers, contracted forms, punctuation, and musical and scientific notations. (Luxton-Gourgey, 2000). Braille may be produced with a braillewriter, slate and stylus, or electronic note taker. Braille takes up 2 ½ times more space than print, so contracted forms are used to abbreviate document length. Braille mastery is a significant achievement, because it provides the learner with a tactual approach that will answer both writing and reading needs. Federal law requires that Braille instruction be discussed for all children with visual impairment as part of the individualized education plan that is developed yearly. The National Library Service for the Blind and Physically Handicapped maintains a collection of Braille books for loan. Technology plays an important role in the achievement and expression of
literacy. The assistive technology assessment determines the most appropriate applications of technology and is the basis of recommendations for access devices such as screen enlargers and Braille display that provide timely access to the printed word. Due to their small size, note takers are a convenient way to write in Braille. A computer can be connected to the note taker to produce either Braille or speech output. The closed-circuit television (CCTV) uses a zoom lens to enlarge materials up to 60 times, a useful device for print readers with low vision. Screen reading software reads the printed word and converts it to speech, as does the Kurzweil Reader. Books on tape and computer disk are available through Recordings for the Blind and Dyslexic.

**Employment**

Unemployment is a serious problem for adults with visual impairment, with 69% of the blind and 56% of working age adults with low vision unemployed. Reasonable job accommodations support the employment of individuals with visual impairment. Such accommodations may include modification of equipment and materials, task restructuring, providing drivers or readers, and creating accessible work environments (Wolfe & Candela, 2002).

This study helped researcher to instruct properly during the application of CMP, i.e., Audio Material and Braille Booklet should use together.


This paper attempts to study certain demographic variables as determinants of self-esteem and emotional stability of visually challenged students. The sample constitutes 100 visually challenged students of Ahmadi School for Blinds, Aligarh Muslim University, Aligarh, out of which 63 are boys and 37 girls belonging to the age range of 5-18 years. The tools self-esteem inventory and emotional stability test for children were used for the study.

Objectives of the study are to find out whether demographic variables e.g. gender, age, class, family system and area of living predicts self-esteem of visually challenged students. To identify whether demographic variables e.g.
gender, age, class, family system and area of living predicts emotional stability of visually challenged students. Findings of the study are: The study reflects that 6% variation in self-esteem can be explain on the basis of the five predictor variables, i.e. gender, age, class, family system and area of living, but all the five predictors do not contribute significantly in explaining self-esteem of visually challenged students. It also describes that 40% variation in self-esteem can be explain on the basis of the five predictors i.e. gender, age, class, family system, and area of living, but only gender emerged as a significant predictor in explaining emotional stability of visually challenged students. Age, class, family system and area of living have no significant emergence as the predictor of emotional stability of visually challenged students.

This study helped researcher to prepare methodology of the study. Researcher also got view about demographic factors and study about gender age family background of VI students.


This study investigated the influence of two interactions – emotional Intelligence Tracing (EIT) and Self-Regulation training (SRT) in remediating aggressive behaviour in adolescence with visual impairment. Forty-eight visual impaired (ranging from total blind to partially sighted) participated in the study. The interaction effects revealed that participants treated with the two interactions EIT and SRT showed significant improvement in their aggressive behaviour pattern than their counterparts in the control group. These findings were discussed and implications for counselling psychologists, special educators, educational administrators, parents, policy makers, and the government were stressed.

This study helped researcher to understand the psychological status of VI students, he also studied that how psychological factor of VI students affects on their education and how learning process developed as per psychological aspect.
In 1908, there were only two First Year and two Second Year students, a total of four whilst, a year later, there were only three as the new intake was one student only." It was inevitable that a rationalization of the entire system of teacher-training for the education of the blind was essential in the early years of the twentieth century. The event which caused such a re-appraisal of the existing policy was the formation of the Medical Branch of the Board of Education in early 1907. This department was supervised by Dr. George Newman" assisted by Dr. Alfred Eichholz, so the latter being the Chief Inspector of Special Schools. In January 1907, Eichholz and a colleague toured schools for the blind and deaf pupils of the London area, inspecting the teaching. They concluded that teachers in schools for blind and deaf children should be recognized under definite conditions and those regulations should be laid down for their qualifications by the Board. The reasons given for these recommendations were, firstly, that it had been decided to codify, in a single volume, all regulations for Special Schools. Secondly, there were already current rules regarding qualifications of teachers of defective and epileptic children." Thirdly, the few rules issued in 1894 had omitted any regulations regarding the qualifications of teachers for blind pupils but the schools had developed so far that minimum requirements for these teachers would enhance their status by acknowledging that a higher class of applicant was needed. Fourthly, many schools were appointing teachers without notifying the Board of Education either of the engagement or the qualifications of the persons selected. Fifthly, it was discovered that the supply of teachers for schools for the blind and deaf depended, to a large extent, upon the category denominated 'Supplementary Teachers', a source of dubious reliability. Eichholz and his colleague felt that it was highly desirable to put some pressure upon these Supplementary Teachers to qualify as teachers of the blind by taking the Government's Certificate Examination because of 172 teachers of the blind, only 45 were certificated.
Amongst the recommendations made was one that all uncertificated teachers of the blind should have two alternative courses open to them if they desired to retain their posts, the first being to prepare immediately to take the Board's Preliminary Certificate Examination in order to qualify them as assistant teachers in blind schools: the alternative was for them to take the Certificate Examination after three years' service in a recognized school for the blind. They further suggested that there should be tests of general education leading to a certificate which would be acceptable for the position of uncertificated teacher provided that the British and Foreign Blind Society was prepared to conduct an approved Braille examination.

This study helped researcher to know about the need and process of special teacher training for teaching VI students. As well as researcher knew that which qualities and skills and abilities are required for teacher or trainer who teach to VI students.


Internationally, the number of students with disabilities entering higher education institutions is on the rise. Research estimates that 8-10% of students attending higher education are registered with disability, with learning difficulties being the most commonly reported disability. Widening participation in higher education has been supported by legislative changes, inclusive education practices, the use of ICT and accessible facilities and programs and, ultimately, an increasing belief among students with disabilities that higher education maximizes their opportunities for employment and independent living. Within the Cypriot context, research on disability, access and provision in higher education is limited. This study was a part of a large-scale study (PERSEAS) funded by the EU. From the original sample, 15 students attending private higher education institutions in Cyprus reported disability (i.e., sensory impairment, dyslexia, physical disabilities) and were selected for focus group discussions. Also, interviews and focus groups were conducted with the Headmasters and teachers, respectively, in 10 private higher
education institutions. This study yielded interesting results regarding the current state of provision (e.g., concessions for exams and assignments, infrastructure, teaching modification, counselling services) as well as issues of social inclusion, equality of opportunity and entitlement to education.

This study explains international strategies for VI students’ education. Researcher could focus the importance of the need of upgrading the facilities for handicapped persons in our country.


This study states that the education and employment of the blind was of the utmost interest to those who were interested in the matter at all. The second part of this paper dealt with employment, there were difficulties arising from several different sources, not the least of these difficulties being the ignorance of the public in regard to the great power and skill possessed by the educated blind and the wonderful work they could do. The State recognised its duty in educating the blind up to the age of sixteen years, but further organisation was needed in order that the education which had been received up to that period might be used in the best manner for their benefit. His lordship had had brought to his notice instances of highly-trained typists who had been, for a very long period, out of employment, but who should undoubtedly have obtained work much sooner. The unions of the Institutions of the Blind had, no doubt, done very good work in that respect. He was himself connected with one of these institutions, and he had every hope that they would so perfect their organisations that no blind person in the kingdom would remain uncared for. Much, however, yet required to be done. One class - the deaf-blind - called for much more attention than was devoted to it at the present time. If not properly educated, the deaf-blind suffered intellectually; and deaf-blind persons were found in workhouse infirmaries that would never have arrived at their unfortunate condition had they received due attention earlier in life. He had once heard from a blind gentleman a remark which had impressed him. This remark was to the effect that the blind did not want pity, as the public were
fond of supposing. What they wanted was wise, sympathetic help to enable
them to use the faculties that they possessed to the best possible advantage.
That, in the opinion of the speaker, should be the direction taken by the efforts
of all who were interested in the blind. Those who were so interested would
bear him out when he said that no one who had had relations with the blind
could fail to have been struck with the wonderful powers they possessed. He
believed that once those powers were drawn out, the blind could do almost
everything that a seeing person could accomplish, and in some things could
often excel the latter.

This study helped researcher to understand relationship between VI
learning aspect and VI employment aspect, means which education is
beneficial for VI student to his employment.

14) Vashishthadhar J. D. (2012), Globalization and Education in India and
Methodology of teaching Commerce & Management; IRACST –
International Journal of Commerce, Business and Management (IICBM),
ISSN: 2319–2828 Vol. 1, No. 3.
The study is related to Educational system in India. Teaching attitudes and
ideals is done indirectly because the children are in the habit of imitating things
rather than understanding them. The teachers should be aware of the student
activities in the class. This type of lecture is most suitable for college/university
level. A good commerce teacher should not only teach their pupils but also
analyze and find out the disabilities felt by the pupils in the process of learning.
To educate students to make better use of the service of business, a major
segment in community life. In this journal three phases were explained in
teaching any skill-building subject.

a) The first improvement stage.  b) The application stage.  c) The integrating
stage

This Article helped researcher to understand Qualities of a good
Commerce and Management of teacher. There are certain qualities, which
every good commerce teacher should possess. They are (1) A positive
consistent and well-defined philosophy of education. (2) Sound, well-defined
and refined objectives of education. (3) Sound, well-defined and refined objectives of Commerce education. (4) A good knowledge of ability in each special field of commerce. (5) A good proficiency in relation to knowledge of other fields. (6) A good understanding of the needs of students in relation to knowledge.


As a contemporary system to provide equal education rights to all learners, distance education gives different education opportunities to people who cannot get enough educational services because of the some limitations of traditional education. Distance education at the Open Education System of Anadolu University has been formed for all diverse people who have severely different educational needs and expectations from each other. Therefore, the system provides different educational programs and services to them, especially the people who need special education. This study conducted to develop an audio-book project for the 362 blind students in Open Education Faculty of Anadolu University. The process to convert available traditional books to audio-books, commonly known as e-audio books, will be explained in this paper. Also, the production and publication processes of e-audio-books will be discussed.

This journal helped researcher to understand how we can teach with E-Audio-Book. E-audio-book seems to have some special practical advantages. Thus, e-audio-book is better educational tool than other media.

• To provide “aural source material” e.g.: A conversation with a client or colleague for learner to analyze or react to.
• To bring ideas into life presented elsewhere in the course.
• To talk with learners through tasks during which it would be disruptive for them to keep consulting by means of written guidance.
• To help learners practice skills.
• To make teaching more human and personal.
• To be very easily expressed.
• To encourage or motivate learners.
• To influence learners’ feelings and attitudes.
• To get valuable contributions to teaching from people who would be unlikely to contribute by means of writing.
• To let learners hear the voices of experts, users, clients, other learners, etc.
• To present new ideas to learners who are unable or unwilling to read or whose circumstances prevent them from reading.
• To provide necessary variety in learners’ learning.
• To act as a trigger for group sharing of ideas and experiences.

2.7 REVIEW OF RESEARCH ARTICLES FROM MAGAZINES

1) Renuka P. (2012), Development and Standardization of attitude scale on the inclusion of children with disability in general schools Edutracks vol 12 no.1. 45-46

The objectives of the study were (i) To construct an attitude scale on the inclusion of children with disability in general schools. (ii) To Standardization on attitude scale on the inclusion of children with disability in general schools. An attitude scale was constructed and standardizes to measure the teacher’s on the inclusion of children with disability in general schools. The steps followed for its construction and standardization are as follows: (a) Planning, (b) Preparation of preliminary form, (c) Pre-tryout, (d) Editing, (e) Tryout (Pilot Study), (f) Item Analysis, (g) Preparation of final form.

This study proved helpful to study research methodology of the present study. Especially in selection of data collection tool that is Achievement test for Accountancy subject.

The Students ability to learning science largely depends up on the quality of instruction provided in the classrooms. The traditional method of teaching is not working apt with the needs and capabilities of the present day children. The teaching strategy for the modern period must suit the requirements, capabilities and interests of the pupils. Certain attempts like Individualized Instructional Material are to be developed for effective teaching of science. This study focused on developing Individualized Audio Instructional Material on the content areas of ‘Magnetic effect’ and ‘Current Electricity’ from the subject Physics. It is intend to validate the constructed material and to find its effectiveness in teaching and learning of Physics among high school students. The study was an experimental research based on pre test post test method. There were control and experimental group in the experimenting phase of the research work. It was found that the developed Audio Instructional Material was very effective in teaching and learning of Physics for high school students.

This study proved helpful to study about uses of Audio Material preparation and information about handling of Audio Material. As well this study proved helpful to study research methodology of the present study.

2.8 REVIEW OF PROCEEDINGS FROM CONFERENCES


The children with visual impairment in India, at present, receive education mainly under three systems viz. residential schools, semi-integrated education and integrated education. The residential schools and integrated education programmes have covered only 6 percent and 2 percent of school age children respectively. The remaining 92 percent do not receive any form of education
whatsoever. The select few i.e. the children who receive any form of education do not get the opportunity, freedom or choice to follow the professions of their choice. They have to perforce go along the beaten track. Author felt that an evaluation of students who have studied under different systems of education would provide valuable insight into the comparative effectiveness of the system and whether they been truly prepared for 'life'.

Findings: Integrated education is the most effective in coverage of girls, whereas residential education is the least effective in this respect. Integrated education extends almost equal opportunities to the boys as well as girls with visual impairment and there is thus gender equality.

Younger Children: Integrated education is comparatively more effective than residential education in respect to coverage of younger children; residential education in turn is more effective than semi-integrated education.

Students with Congenital Visual Impairment: Integrated education covers the highest proportion of students with congenital visual impairment. In general also, the coverage of such children is almost two-third of the total coverage. Residential education is most effective in respect to coverage of children with adventitious visual impairment.

Level of Social Integration: The study also sought to evaluate the extent of social integration of the children studying in different systems by listing the number of friends that the children have whether those are with visual impairment or sighted; and whether they participate in variety of active or passive activities. The children studying in semi-integrated system score the highest and those under integrated education the least. Number of Friends: Integrated and residential education is least effective in respect to the total number of friends and sighted friends respectively.

The development of friendship with the relatives in case of all the systems of education is extremely poor as only one out of eight children with visual impairment developed such friendship. Performance of Activities: Both in terms of active as well as passive activities, the performance of residential education are comparatively better as compared to semi-integrated education and integrated education. Semi-integrated education is the most effective as
regard acceptance of pupils with visual impairment among their peers and neighbours. Residential education emerges the most effective in respect to acceptance of such pupils among their peers as well as performance of passive as well as active activities. Integrated education emerges the least effective in respect to almost all the indicators of social integration.

This research paper helped the researcher to study sampling methodology and the research methodology of the study. This research paper helped the researcher to understand integration education and its advantages, this paper also helped researcher to determine integration implementation of Braille Booklet as well as Audio Material.


One of the greatest challenges to the visually impaired student in science and mathematics disciplines is the reading and writing of complex mathematical equations. Indeed the study of almost all science or engineering based disciplines is normally beyond the ability of the majority of students with serious visual impairment. In research underway at New Mexico State University, tools are being built using logic programming to facilitate access to complex information in a variety of formats. On top of the logic based tools, new interfaces are being designed to permit more convenient access to information by their visually impaired student. The combined tools will complete the teaching cycle: exams and assignments prepared by sighted instructors, the material presented to visually impaired students using interactive tools, and finally, the students manipulating and creating responses that are readable by the sighted instructor. In this paper we present an overview of the systems under development with samples of the interface tools being tested.
This research paper helped the researcher to understand that VI students have problems to learn mathematical subjects like Account and analytical guidance is beneficial to teach VI students.

(3) Soysa, L. (2010), Enhancing learning for Visually Impaired with technology: MATHVIS Proceeding from Conference, University of South Florida.

Mathematics for Visually Impaired Students (MATHVIS) is a researched and developed software application that is capable of uplifting the educational background of visually impaired students. This research focuses on providing access to education for all, including the visually impaired, using MATHVIS, which embraces game based learning methodology. The critical factor in the project is the use of sound to communicate with the visually impaired students. All voice instructions were provided along with soundtracks and a menu to enable selecting local languages such as Sinhala and English. The main emphasis of this paper is to discuss the current generation of MATHVIS, which has been extended in several ways, through intensive evaluation and testing. The evaluators selected from categories such as technical personnel, instructors and visually impaired students carried out in depth reviews of the application. This paper discusses the features of the application, evaluation carried out, the technology and learning pedagogy used to develop the application for visually impaired students. The paper also highlights how MATHVIS can be used to provide education for all, including the visually impaired.

This research paper helped the researcher to understand that informal teaching method is effective than formal teaching method, Study with playing strategies are most useful to teach technical subject like mathematics for VI student.
2.9 EDUCATIONAL RESEARCH INFORMATION CENTRE (ERIC) DATABASE

Numerous research citations are available in the ERIC database but very little information available related to this topic under investigation. The available research studies are related to other subjects however hardly any study available about education for visually impaired students in the same area.


Vision is the main sensory modality employed in learning. Vision impaired students thus find it increasingly difficult to access and process visuocentric learning materials and on-line delivery.

This paper describes a research project undertaken by Curtin University in conjunction with Cisco Systems and the Association for the Blind WA to identify tools and techniques appropriate for vision impaired students studying computing at tertiary level. It investigates the learning characteristics of sight impaired students, and also describes the aims of the project, the approach taken in identifying and applying alternative modalities, and progress so far including some of the teaching aids used to assist learning complex concepts usually delivered by visual means.

2.10 REVIEW OF ABSTRACTS OF RESEARCH ARTICLES FROM OTHER WEBSITES

In 2001, it is estimated that 270 million Indians belonged in the 12-24 years age group. While attention is being focused on these young people’s potential for social transformation, some of them - such as those with disabilities - remain alienated from mainstream debates on development. It may be estimated that there are somewhere between 5 and 5.5 million persons with disabilities in the 12-24 years age group, hence, a significant minority. However, little is known about how they and those around them make sense of their lives and perceives their transitions to adulthood, as their surrounding milieu is transformed. This paper adapts the framework of transitions proposed by the World Bank’s ‘World Development Report 2007’, to examine opportunities for young people with disabilities in the areas of learning, work and citizenship. The authors draw on existing literature and secondary data to analyse the lived experiences of young people with disabilities.

**BLINDNESS SOLUTIONS: JAWS The World's Most Popular Windows Screen Reader**
http://www.freedomscientific.com/Products/Blindness/Jaws

JAWS, **Job Access With Speech**, is the world's most popular screen reader, developed for computer users whose vision loss prevents them from seeing screen content or navigating with a mouse. JAWS provide speech and Braille output for the most popular computer applications on your PC.

**Features**

1. Two multi-lingual synthesizers: Eloquence and Vocalizer Expressive
2. Talking installation
3. Built-in free DAISY Player and full set of DAISY-formatted basic training books
4. Works with Microsoft Office, Internet Explorer, Firefox, and much more
5. Supports Windows 8, including touch screens and gestures
6. Fast information look-up at your fingertips with Research It
7. Access any image on the screen that includes text with Convenient OCR
8. Save time with Skim Reading
9. The only Windows screen reader to provide contracted Braille input from your Braille keyboard
10. Fully compatible with MAGic, screen magnification software, and OpenBook, scanning and reading program

**Advanced Features**
- JAWS Tandem available for free to help with support and training
- Optional support for Citrix, Terminal Services, and Remote Desktop
- Powerful scripting language to customize the user experience on any application
- Includes drivers for all popular Braille displays
- Includes voices for over 30 different languages
- Distributed worldwide with local sales and support in most countries


It describes about human rights, equality and normalisation influenced conceptual development and practice of special education. The various forms of Physical and intellectual impairment requires more concrete experiences, practice and time to learn. Further it states that a Visually Impaired child needs more auditory and kinetic inputs in communication in the classroom.

This helped researcher to organize training method for VI students so that they can easily made familiar with the Course Material Package and understand the subject clearly.


This study addresses the problem of emotional adjustment of visually handicapped (VH) children. The comparison of handicapped children with normal children concluded that the normal children displayed significantly higher field dependence than the handicapped children.
There was a substantial negative relationship between physical handicapped and intelligence. The physically handicapped were found to be highly insecure. The physically handicapped showed poor relationship with parents, teachers and peer group.

These finding helped researcher to understand better the emotional status of VI students and to create good environment for them to learn.


This document is intended as a resource to provide classroom teachers with a selection of strategies to address the reading needs of students with visual impairments. It must be emphasized that a student’s visual impairment and its impact will be unique. For example, two students with the same diagnosis and visual acuity may function differently in the classroom. It states that it is important to consult with your district Vision Resource Teacher to help interpret the functional vision assessment regarding the student's functional vision in the classroom. The document is divided into 3 sections based on the types of media that students use to complete reading tasks.

The 3 sections are: Paper Strategies which include: regular print, enlargement of small amounts of text, large print text, handheld magnification, video magnification and paper Braille. E-Text Strategies which include: plain e-text with no enhancements, tracking support, changing text or background colours, magnification of text or entire screen, auditory supports, and refreshable Braille. Auditory Strategies which include: using a live reader, books on tape, CDs, and MP3 players.

Environmental Considerations

It is important to take into consideration the environmental factors that influence the student's functional vision within the classroom environment.
These issues may be addressed with the student's Vision Resource Teacher to ensure success with reading tasks. These include:

- adapted workspace (e.g. separate work station, larger desk or L-shape desk)
- storage space for large print or paper Braille materials  
  ergonomics (e.g. positioning and seating)
- presentation of materials (e.g. slant boards, masking, colour overlays)
- lighting (e.g. glare, too much light, not enough light, type of lighting)
- sound (e.g. speech from computer or Braille notetaker, noise from Braille embosser)
- student positioning (e.g. preferential seating, lighting source)
- power source: (e.g. available power source, surge protection, batteries charged, extra batteries)
- portability (e.g. equipment mounted on cart, accessibility within school, weight of equipment and other classroom materials)
- peripherals (e.g. headphones, access to printer/embosser)
- safety issues in the classroom (e.g. cords, placement of furniture and equipment)

**Student Considerations**

- level of self-esteem and self-advocacy
- ability and willingness to use technology
- ability to manage equipment and mobility skills
- self awareness of needs
- awareness of fatigue and frustration levels

This helped researcher to teach students in better environment.
2.11 INDIAN ORGANISATION AND INTERNATIONAL ORGANISATION RELATED TO DISABLED AND BLIND PERSONS.

(A) INDIAN ORGANISATION

1) Aikya

AIKYAs Vision is to enhance the quality of life of individuals with special needs through education and training to enable them to achieve their fullest potential and integrate them into the mainstream. http://www.aikya.org

2) Association of People with Disability

The Association of People with Disability, APD is an association of people, who believe while an individual’s disability may be limiting, working together can help us to overcome these limitations.

http://www.apd-india.org/

3) Disability India Network

The Disability India Network, website for information related to disability in India, is hosted by the Society for Child Development.

http://www.disabilityindia.org

4) Disability News and Information Service

DNIS is disability news service, is hosted by National Centre for Promotion of Employment for Disabled People.

http://www.dnis.org
5) **Disability and Development Partners, DDP**

Disability and Development Partners, DDP. The new name of the Jaipur Limb Campaign. Working with disabled people and their organisations in developing countries.

http://www.disabilityanddevelopmentpartners.org/

6) **Eyeway**

Eyeway provides detailed information on vision impairment, its treatment and rehabilitation.

www.eyeway.org

7) **Mobility India**

Mobility India promotes mobility for persons with disabilities, especially those in rural areas, through awareness raising, training, improved services, advocacy, research and development.

http://www.mobility-india.org/

8) **National Centre for Promotion of Employment for Disabled People (NCPEDP)**

A non-profit voluntary organisation working as an interface between government, industry, international agencies and the voluntary sector towards the... http://www.ncpedp.org

9) **Sense International (India)**

Sense International (India) was established in 1997 as the first national nongovernmental organisation in India to support the development of comprehensive services for deaf-blind people.

Deaf-blind Helpline: 1 800 233 7913 , 1 800 233 7913

http://www.senseintindia.org
10) Svayam

Svayam is an initiative that provides wings to people with reduced mobility. 
http://www.svayam.com/

(B) INTERNATIONAL ORGANISATION

Assemblies of disabled people, established to promote human rights of disabled people through full participation, equalization of opportunities and development.

1) Inclusion International is a grassroots organization of persons with an intellectual disability and their families which advocates with its member societies in over 115 countries for the inclusion of people who have an intellectual disability in all aspects of their communities, based on shared values of respect, diversity, human rights, solidarity and inclusion.

2) International Federation of Hard of Hearing People IFHOH is an international non-governmental organization of national associations of and for hard of hearing and late deafened people. IFHOH provides a platform for cooperation and information exchange among its members and interested parties. As an umbrella organization and through its individual organizations, IFHOH works to promote greater understanding of hearing loss issues and to improve access for hard of hearing people worldwide. Established in 1977 as a registered non-profit organization, IFHOH currently has 47 general and associate members in 30 countries.

3) Rehabilitation International Founded in 1922, RI is a global network of people with disabilities, service providers, researchers, government agencies and advocates promoting and implementing the rights, inclusion and rehabilitation of people with disabilities. RI is currently composed of over 700 member organizations in nearly 100 nations, in all regions of the world.
4) **The World Blind Union** is the sole voice speaking on behalf of approximately 160 million blind and partially sighted persons in 178 individual member countries, representing approximately 600 organisations. The WBU advocates for human rights of persons who are blind and partially sighted and seeks to strengthen their organisations and advance the participation of all persons who are blind and partially sighted including women and youth.

5) **World Federation of the Deaf** is the international non-governmental organisation representing Deaf people worldwide. A non-profit organization, WFD works for human rights and equal opportunities for Deaf people everywhere.

6) **World Federation of Deafblind**, WFDB, is a non-profit, representative organisation of national organizations or groups of deafblind persons and of deafblind individuals worldwide. The aim of WFDB is to be a forum of exchange of knowledge and experiences amongst deafblind persons and to obtain inclusion and full participation of deafblind persons in all areas of society.

7) **The World Network of Users and Survivors of Psychiatry** is a global forum and voice of users and survivors of psychiatry, to promote their rights and interests.

8) **Access Exchange International** is a non-governmental organization (NGO) which promotes accessible public transport for persons with disabilities and seniors in Africa, Asia, the Americas, Russia and eastern Europe.

9) **Adaptive Environments** (AE) is a 28 year old international non-profit organization, based in Boston, committed to advancing the role of design in expanding opportunity and enhancing experience for people of all ages and abilities. AE work balances expertise in legally required accessibility with promotion of best practices in human-cantered or universal design.
10) **The Asia-Pacific Development Center on Disability** (APCD) is a regional center on disability established in Bangkok, Thailand as a legacy of the Asia and Pacific Decade of Disabled Persons 1993-2002, under joint collaboration of the Government of Japan and the Royal Thai Government. APCD promote the empowerment of people with disabilities and a barrier-free society in developing countries in the Asia and Pacific Region.

11) **The Global Alliance on Accessible Technologies and Environments** (GAATES) is the leading international not-for-profit organization that brings together experts in accessibility of electronic and communication technologies and accessibility of the built environment. GAATES was incorporated in 2007 by an international consortium of experts dedicated to promoting accessibility worldwide.

12) Mobility International USA (MIUSA) is empowering people with disabilities around the world to achieve their human rights through international exchange and international development.

13) **National Centre for Accessible Media** (NCAM) National Centre for Accessible Media (NCAM) is a research and development facility dedicated to the issues of media and information technology for people with disabilities in their homes, schools, workplaces, and communities.

14) **The World Wide Web Consortium** (W3C) is an international consortium where Member organizations, a full-time staff, and the public work together to develop Web standards. The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential. W3C is a forum for information, commerce, communication, and collective understanding.

Researcher took review of these organizations for find out which type of learning material are available for XI th Standard VI students, Researcher got information that learning material as like as Researcher developed in present or Accountancy Subject.
Summary and Discussion

In this chapter Researcher took review of Books related to Visually Impairedness, Commerce and Educational Research. From this books researcher got knowledge about Audio Material, its preparation types and brief history as well as information about Braille Booklet. The Researcher also got knowledge about vital terms from commerce sector like Journal Ledger etc.

This chapter also covers review of Unpublished Thesis; from this thesis Researcher got knowledge about Thesis writing, Research Methodology and explanation about Figures and Websites. From this review, researcher got knowledge about types of blindness and learning material available for XI Standard VI students, Researcher also got idea about analysis structure for Course Material package.
“Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”

— Albert Einstein