LEARNING STYLES OF VISUALLY IMPAIRED AND SIGHTED ADOLESCENTS

DR. ANSHU SHARMA PDF ICSSR Dept. of Education , C.C.S. University Meerut

DR. J.S. BHARDWAJ Professor, Dept. of Education, C.C.S. University Meerut

DR. **D. K .BHARDWAJ** Associate Professor Dept. of Education College of Education Bilaspur

ABSTRACT

The aim of this study is to explore the educational achievement and learning style of visually impaired and sighted adolescent in a sample of 150 adolescents among them 75 are visually impaired and an equal number of sighted adolescent of different schools in Delhi. Descriptive research method has been used in the study .Kolb's Learning style inventory was used for identify the preferred learning style among visually impaired and sighted adolescents. The result of the study revealed that the academic achievement are related to Learning styles as Visually impaired students with average performance were significantly different than the students with above average performance in their preference of three dimensions of Learning Styles i.e Feeling or Sensing or Concrete experience, Watching/Listening or Reflective Observation, and Doing or Active Experimentation . The same results was noticed in case of Sighted adolescents as students with average performance were significantly different than the students with above average performance in their preference of three dimensions of Learning Styles i.e Feeling or Sensing or Concrete experience, Watching/Listening or Reflective Observation, and Doing or Active Experimentation. In both groups they were found different on Thinking or Abstract generalization or Conceptualization Learning Style but the difference was not statistically significant.

INTRODUCTION

Education is a fundamental need of human beings. In the history of mankind, education formed a continuum and a basis for the development of human society. Though the development of attitude, values, capabilities both of knowledge and skill, education provides strength and enables person to respond to changing situations and enables them to cause and contribute to collective development. History evident Learning is the acquisition and development of memories and behaviors, including skills, knowledge,

understanding, values, and wisdom. It is the goal of education, and the product of experience. Life is a sequence of acts of learning and unlearning of feelings, ideas, actions, attitudes etc. Learning is nothing but a permanent change in behaviour that occurs as a result of experience in the environment. That education played a crucial role in the development of a nation and human kind.

The teaching-learning process becomes intense and crucial if the child is suffering from any disability. Vision provides a detailed and continuous source of information. Impairment of vision removes or restricts this direct source of information. Vision serves as an avenue of access to the auditory information. The variations are mainly a matter of degree and hence, likenesses should be emphasized rather than differences. Because of the uniqueness of their personality, a child either fully sighted or visually handicapped, his approach to a variety of learning task is also distinctive. Learning depends upon the individual's learning styles and the aspects of human behaviours influences learning styles. So it can be said that the way in which child is best able to learn visually, orally or by motor activity or a combination of these depends upon an individual's learning styles. Keefe (1979) explained learning styles as "the characteristic behavoir of learners serve as relatively stable indicators of how they perceive interact with and respond to the learning environment."

Learning Styles suggests the way or methods by which students acquire learning. There are inherent variations of learning styles that every individual with or without impairment of any kind reflects. As Curry expressed "an individual's learning style is a distinct and habitual manner of acquiring knowledge, skills or attitude through study or experience." Learning style is a component of personality characteristic that is innate and affected by environmental factors and evolves over a period of time.

A number of psychologists and researchers asserted that study involvement and learning styles of students play a crucial when it comes to the study of learning styles of children with visual impairment. Visually handicap has modify influence on the learning pattern of the child such as the way he learns and perceive knowledge but the visuallly handicapped child is in most respect, a normal child. Sucessful teachers are those who sensitize themselves to the way in which children can learn. Knowledge of learning styles can:

- Help children to think and learn to the best of their abilities;
- Help teachers to understand behavior of adolescents with or without impairment that might stand in the way of learning;
- Help administrators and policy makers to adopt appropriate curriculum strategies as oper individual needs; and
- Help educational counselors and researchers to identify the different learning patterns of adolescents with or without visual impairment.

Special Education Inclusive and exclusive

Special Education has a different quality in different countries. The political, economic and social pressures in each country have led to a different form of Special Education, with different sets of policies and practices.

In some systems special education can also be implemented in mainstream education, by giving certain students more individual attention to their specific needs.

In context to education, inclusion reconstructing schools as community where all the children can learn. Teacher provide for more options for the children as ways to learn. But there is no standardized procedure or recipe to make teachers and schools inclusive. The general philosophy of inclusive education provides for good teaching practices, healthy relationship between teacher and students, to improve the quality of education for all the students in the classrooms and help the development of all the children in different ways. The concept of inclusion has emerged from the ideas of providing equal opportunities to all the children. Providing equal opportunities to all the children does not mean providing 'similar' thing to all the children.

JUSTIFICATION OF THE STUDY

Since an individual with or without visual impairment may possess different learning style therefore the study will facilitate both teachers and students to understand how one learns and using that understanding to help each individual with or without visual impairment to learn successfully.

Researchers are increasingly recognizing the complexity of learning and are interested in examining how different aspects of learning work together. Study based on learning styles

and approaches to learning were conducted. The results show that students may change their motives and strategies; they remain relatively stable indicators of their general approach to learning and studying. The study also reflected that approach to learning is relatively stable over time but that learning style is not as stable. Dunn, Deckinger, Withers & Kartzenstein (1990) found that teaching students based on their diagnosed Learning Style did increase their Academic Level.

Learning Style therefore relates general tendency towards a particular learning approach display by an individual. Considering how to improve student learning, one need to understand the way(s) in which individual learn.

Researches have proved that impairment in any kind and other environmental and biological factors influence Learning of an individual. Hence, this study is unique and important in Indian context. The review of the researches in the field of Learning Styles reveals that though the researchers have been done on preferred learning styles of visually impaired adolescents in Abroad but so far in India no specific research has been conducted which can study Learning styles of Visually Impaired adolescents and can compare their Learning Styles with the Sighted Adolescents as well. Because environmental factors influence the learning styles of individuals thus children belong to different culture may reflect variations in their preference to learning styles. The study will present a picture of preferred learning styles of visually impaired adolescents with regard to their educational achievement.

Definition of the Terms Used

Adolescence: Adolescence is roughly estimated between 12-18 years and classes from VII- XII. The word adolescence is derived from Latin word 'adolescere' that means growing up or growing towards. It is a significant phase of transition from childhood to adulthood. Therefore, adolescent may appropriate defined as period of physical, psychological and social maturation from childhood to adulthood. Adolescence is the time of rapid and difficult changes unlike other period in human life. Both physical and cognitive developments enter drastic milestones.

Learning Styles: Learning styles suggest the way and method by which student undertake learning. As Keefe defined "Learning styles are characteristic cognitive, affective and

psychological behaviour that serves as relatively stable indicators of how learners perceive, interact and respond to learning environment. Curry expressed, "an individual's learning style is a distinct and habitual manner of acquiring knowledge, skills or attitude through study or experience." Learning style is a component of personality characteristic that is innate and affected by environmental factors and evolves over a period of time. It is also determined by many variables such as child rearing practices, peer, interaction, involvement in learning on the path of students etc. It gradually develops from birth and stabilizes at certain age, i,e, the adolescent age. Students reveal their learning style preference by everything they do and not do and by everything they say or not say.

Visual Impairment: According to The Persons with Disabilities (Equal participation) Act 1995, Govt. of India, visual impairment can be classified into two categories: (a) Blindness; and (b) low vision.

Blindness refers to a condition where a person suffers from any of the following condition; namely:

I Total absence of sight: or

II Visual acuity not exceeding 6/60 or 20/200 snellen in the better eye with correcting lenses; or

III Limitation of the field of vision subtending an angle of 20 degree or worse.

And person with low vision means a person with impairment in visual functioning even after treatment or standard refractive correction but who uses or is potentially capable of using vision for planning or execution of a task with appropriate assistive device.

REVIEW OF THE LITERATURE

Eileen & Others (2014), Joke (2013) Piyanta & Simone (2010),Brambring Michael (2007), Lifshitz, Hefziba; Hen Irit (2007), Monegato Maura(2007); Sabina Kef and Maja Dekovi (2004), Rivka.(2000), Rajaguru, S.(2001), Duvdevany Ilana; (2007) Geisert, G., Dunn, R.,(1990), Snider, V.E. (1992)Durga T. Kanaka(1993), O'Brien, T.P. (1994) Oxford, R.L., & Green, J.M. (1996), Andrews, R.H.(1990), Ayersman, D.J. (1996), Bohrer, K.(1995), Dunn, R., Beaudry, J.S.(1989)Williamson, R.D. (1998), , Yong, F.L. (1992), Griffin-Shirley Nora;(2005), Klinkosz Waldemar (2006), Dunn, R., & Griggs, S.A. (1990) , Glasgow, J.N.(1996), Kavale, K.A.(1998), Warren, David H. (1981), Coffield, Moseley Ecclestone and Hall ((2004), Exley's

(2003),Daryl E. Fujii (1996), Adrian Furnham (1992), Weinstein, Clair E and Macdonald John D (1986), Sharma, Sushma; Sigafoos, Jeff; Carroll, Annemaree (2002) investigated the type and extent of challenging behaviour in three residential schools in India for children with visual impairment. Eugene Sadler Smith (2014) investigated the relationship between learning style and cognitive style.

Research conducted in India

Juned & Rashid (2015), Sujata & Nethani (2013), Bhardwaj & Gupta (2010) S. Malathi and E. Malani (2007),Chauhan R. S. (2004), Satapathy Sujata and Sushila Singhal (2002) , Sushma Sharma; Annemaree and Jeff Sigafoos (2002), Prof Sudesh Mukhopaday (2002), Renu Singh (2001) Reddy, G. Lokanadha; Kusuma, A. And Rajaguru, S. (2001) Debjani Sengupta (1999) B. P. Verma and Romesh Kumar (1999) , Rajaguru, S. (2001)Malathi, S. & Malini, E.(2008), Pandey, Kalplata(1997), Priyamada Srivatava (1998), C. Jangiah ((1998) Ashwin Jansari (1995) in his Ph.D. study on An Impact of cognitive styles of Students on Vocational Interested found out that cognitive styles do not influence the vocational interests of the students.H. O. Gupta and Anupama Singh (1994), Subhash Chandra Agarwal (1992) analysed learning style preference of secondary students in relation to institution and sex.

It is clear from the review related literature that extensive researchers were conducted in the field of learning style with sighted adolescents and visually impaired adolescents as well. But the present investigation has not come across any study which sought to compare weather there is any difference between the learning styles of both visually impaired and sighted adolescents in reference to their educational performance.

NEED OF THE STUDY

A visually impaired child can learn almost everything that any child can learn of his age but it has to be learned in a different way. Blindness is a severe handicap. It has been estimated that 45 million people in the world are blind and an additional 155 million suffer from low vision and out of these 90% of the persons are from developing countries. The review of the researches in the field of Learning Styles revealed that though the researchers have been done on preferred learning styles of visually impaired adolescents and preferred learning

styles of sighted adolescents in India. But no research has been done that compares the preferred learning styles of visually impaired and sighted adolescents so far in India. The study will not only present a picture of preferred learning styles of visually impaired adolescents and sighted adolescents. The study will also analyze whether there are any differences exist in learning style preference in relation to their educational performance.

Objectives of the Study

The present study is undertaken to attain the following objectives:

1. To study the relationship between educational achievement and the preferred learning styles of visually impaired adolescents.
2. To study the relationship between educational achievement and the preferred learning styles of sighted adolescent.

Hypothesis of the Study

The following Null -hypotheses were formulated and tested to study the preferred learning styles of visually impaired adolescents and sighted adolescents:

1. There is no significant relationship exists between visually impaired Students with average performance and Students with above average performance in their Learning Style.
2. There is no significant relationship exists between Sighted Students with average performance and the Students with above average performance in their Learning Style.

Desigen of the Study

The study was descriptive type therefore descriptive survey research desigen was used for the study.

Method

The process of descriptive survey research goes beyond mere gathering and tabulation of data. It involves an element of interpretation of interpretation of the meaning or significance of what is described. Thus, description is often combined with comparison or contrast involving measurement, classification, interpretation and evaluation. Because the study was to interpret and evaluate the preferred learning styles of adolescents with or without visual impairment and will also compare the learning styles of visually impaired and

sighted adolescents, thus descriptive research was the most appropriate method for the present study.

Population

The sample of the present study comprised of 150 adolescents i.e. 75 visually impaired and an equal number of sighted adolescents studying in classes from VII-XII within the age ranged 12-18 years studying in the different school located in National Capital territory of Delhi.

Procedure of selecting Sample

The study employed purposive-cum-convenience sampling procedure for the purpose of selecting sample for the present study.

All the efforts were made to match the two groups independent variables such as age, gender, educational status, intelligence quotient and socio-economic status.

VARIABLES USED IN THE STUDY

1. Independent Variables:-visually impaired and sightedness, Intelligence Quotient ,educational status
2. Dependent Variable:-Learning styles

Tools Used in the Study

The following tools will be employed for the collection of data for the study.

1. Personal data bank was developed to collect the personal information about the visually impaired adolescents and their sighted counterparts, on the basis of which the two groups were matched.
2. WISC-R Verbal Test will be used to find out the levels of IQ of all the adolescents with or without visual impairment.
3. Socio-economic Status Scale by S. Jalota, R.N. Pandey, S.D. Kapoor & R.N. Singh was used to find out socio-economic status of both the groups.

4. David Kolb's Learning Style Inventory was used to find out the preferred learning styles of the visually Impaired and Sighted adolescents.

Data collection procedure

The following procedure was employed for the collection of data.

1. In the first case the information regarding age, gender, level of schooling, educational achievement and status of vision, causes of visual impairment etc. were collected using Personal Data Blank.
2. In the second phase WISC-R verbal was administered to find out the levels of I.Q of the two groups and also the socio-economic status using SES scale by S. Jalota, R.N. Pandey, S.D. Kapoor & R.N. Singh.

3. Thereafter the two groups were matches on 1:1:1 basis and finally preferred Learning Styles Inventory by David Kolb was administered.

Hypothesis Wise Data analysis and Interpretation

The analysis and Interpretation of data has been undertaken in respect of hypotheses.

HYPOTHEIS-1

The hypothesis states **-There is no significant relationship exists between educational achievement and the preferred learning styles of visually impaired.**

The hypothesis was tested applying t-test. Students with average Performance and Students with above average performance were compared on all the four dimensions of Learning Styles were analysed. The data was collected on the performance of the students in their last year annual examination of their respective schools. For the purpose students' previous year Progress Report was collected from the schools. On the basis the students were divided into two groups viz. Students with average performance (those who scored below 60%) and Students with above average performance (those who scored 60% and more). This was done to link educational achievement with learning styles.

Table 1

Table 1 Different Dimension of Learning Styles of Visually Impaired Students with Average Performance and Students with Above Average Performance

Learning Style	Average Performance N=37			AboveAveragePerformance.N =37			t-test value
Dimension of learning style	Mean	S.D	St. Error of Mean	Mean	S.D	St Error of Mean	
Feeling or sensing (concrete experience)	30.86	5.47	.90	23.51	4.62	.76	6.2452**
Watching/listening(Reflective Observation)	29.41	7.47	1.23	34.68	4.42	.73	3.6942**
Thinking or Abstract Conceptulization	28.30	5.00	.82	26.57	5.06	.83	1.4786*
Doing or Active Experimentation	31.43	6.39	1.05	35.24	6.05	0.99	2.6350**

* not statistically significant, **significant

HYPOTHESIS- 2 This Hypothesis has been stated as **-There is no significant relationship exists between Sighted Students with average performance and Students with above average performance in their Learning Style.**

The Hypothesis has been tested by using t-test. The results of Students with average Performance and Students with above average performance were compared on all the four dimensions of Learning Styles were analysed. The data was collected on the performance of the students in their last year annual examination of their respective schools. For the purpose students' previous year Progress Report was collected from the schools. On the basis the students were divided into two groups viz. Students with average performance (those who scored below 60%) and Students with above average performance (those who scored 60% and more). This was done to link educational achievement with learning styles. The results has been given below in the table 2

Table 2

Table 2 Different Dimensions of Learning Styles of Sighted Students with Average Performance and Students with Above Average Performance

Learning Style	Average Performance N=37			Above Average Perfor. N=37			t-test value
Dimension of learning style	Mean	S.D	St. Error of Mean	Mean	S.D	St.Error of Mean	
Feeling or sensing (concrete experience)	28.30	5.56	.91	24.86	4.83	.79	2.8339**
Watching/listening(Reflective Observation)	32.59	4.64	.76	34.68	4.42	.73	1.9790*
Thinking or Abstract Conceptulization	25.76	3.80	.63	29.35	4.30	.71	3.8106**
Doing or Active Experimentation	33.35	5.76	.95	35.35	3.95	.65	1.7405*

* not statistically significant, **significant

Findings of the Study The findings of the study are as follows:

1.It was found that academic achievement are related to Learning styles as Visually impaired students with average performance were significantly different than the students with above average performance in their preference of three dimensions of Learning Styles i.e Feeling or Sensing or Concrete experience, Watching/Listening or Reflective Observation, and Doing or Active Experimentation. Though students in both groups were found different on Thinking or Abstract generalization or Conceptualization Learning Style but the difference was not statistically significant.

2.The same results was noticed in case of Sighted adolescents as students with average performance were significantly different than the students with above average performance in their preference of three dimensions of Learning Styles i.e Feeling or Sensing or Concrete experience, Watching/Listening or Reflective Observation, and Doing or Active Experimentation. Though students in both groups were found different on Thinking or Abstract generalization or Conceptualization Learning Style but the difference was not statistically significant.

The visually impaired students with Averge performance and visually impaired students with above average performance are different in their preference of Learning styles. The results indicated that both the groups were significantly different in their preference of three dimensions of Learning Styles i.e Feeling or Sensing or Concrete experience, Watching/Listening or Reflective Observation, and Doing or Active Experimentation. Students in both groups were found different but the difference was not statistically different on Thinking or Abstract generalization or Conceptualization Learning Style.

The results revealed that students with average performance prefer Feeling or Sensing or Concrete Experimentation. Doing or Active Experimentation was found to be the most preferred learning style by all the students and second preferred style was found to be watching/Listening or Reflective Observation.

The results supports Arati Naanda and Ch. Gobinda Pal (1994) research on effects of Cognitive Style and Creativity on acdemic achievement revealed that different levels of cognitive styles affects the academic achievement.

The results also favours Koun tem Sun and Yuan Cheng Lin and Chia-jui Yu (2007) reseach on learning effects among different learning styles in a web based lab of science for elementary school students that found out that grade achievement of students having different learning styles and were significantly different from each other . Researches evident that learning Styles and academic achievement are co-related. It was also found that there is a correlation between personality type and the abstraction level of information processing. This, in turn, should have an effect on the learning style and academic achievement of individual students. Clair Farrell-Moskwa (1992) in her dissertation found relationship between some Learning styles and academic achievement of the students when examined individually and independently.

Implications of the Study

The findings will also help teachers to adapt different teaching methods and strategies to match the preferred learning styles of the students which will enhance their academic performance. It will also help the special educators to find out that visually impaired students do not differ in their learning styles as compare to their sighted counterparts which will help them to adopt appropriate techniques to teach visually impaired adolescents. The finding will help the teachers, educators, researchers and policy makers to understand that visually impaired children follow the same learning styles. Thus the notion that visually impaired is different than the sighted adolescents and drastic changes in curriculum are required.

The study will help educators to place emphasis on different learning styles, in addition to traditional skills of analysis, reasoning and sequential problem solving.

REFERENCES

Agarwal, R. Psychological factors in Mainstreaming Visually impaired adults. Journal of Visual impairment and blindness, (1992) Vol 86 (2). 118-121.

Andrews, R.H. The development of a learning styles program in a low socioeconomic, underachieving North Carolina elementary school. Journal of Reading, Writing, and Learning Disabilities International, (1990) 6, 307-313.

Armstrong, C. On learning style. Clearing House, (1987) 61, 157-161.

Askins, B.E., & Young, T. An action research project to assist incarcerated females to become more effective adult learners. Journal of Correctional Education, (1994) 45(1), 12-17.

Banas, N. WISC-III prescriptions: How to work creatively with individual learning styles. Novato, CA: Academic Therapy Publication. (ED 368 143 - Microfiche, 89 pages) (1993).

Beglane, E.T. Principals who faced obstacles to learning styles instruction. Principal, (2001) 85(627), 79-84.

Bernard A. Steinman, Developmental Stages of Reading B. J. Lejeune, and Processes in Children Who Are Blind B. T. Kimbrough and Sighted. Journal of Visual impairment & Blindness. (2006) 100 (1) 36-46

Bhattacharya, D.K. Curriculum Development in Multiple Context . Journal of ndian Education. (1999) Vol. XXV (3) 24-38.

Bohrer, K. Diverse learning styles: A classroom's greatest asset. Middle School Journal, (1995) 27(1), 50-53.

Brambring Michael. Divergent Development of Manual Skills in Children Who Are Blind or Sighted. Journal of Visual Impairment& Blindness. (2007) 101 (4) 212-225

Brandt, R. On learning styles: A conversation with Pat Guild. Educational Leadership, (1990) 48(2), 10-16

.

Burns, D.E., Can we generalize about the Johnson, S.E., & Gable, R.K. learning style characteristics of high academic achievers? Roeper Review, (1998) 20, 276-281.

Busato, Vittorio V; Learning style: a cross-sectional and Prains, Frans J; longitudinal study in higher education. Elshout jan J; & British Journal of Educational Hamaker, Christiaan. psychology. (1998) Vol

Burwell, L.B. The interaction of learning styles with learner control treatments in an interactive videodisc lesson. Educational Technology, (1991) 31(3), 37-43.

Caine, R.N., & Caine, G. Understanding a brain-based approach to learning and teaching. Educational Leadership, (1990) 48(2), 66-70.

Callan, R.J. Learning styles in the high school: A novel approach. NASSP Bulletin, (1996) 80 (577), 66-71.

Carbo, M. Learning styles strategies that help at-risk students read and succeed. Reaching Today's Youth: The Community Circle of Caring Journal, (1997) 1(2), 37-42.

Carns, A.W., & Teaching study skills, cognitive Carns, M.R. strategies, and metacognitive skills through self-diagnosed learning styles. School Counselor, 3(1991). 8, 341-346.

De Bello, T.C. Comparison of eleven major learning styles models: Variables, appropriate populations, validity of instrumentation, and the research behind them. Journal of Reading, Writing, andLearning Disabilities International, (1990) 6, 203-222.

Della Valle, J. The development of a learning styles program in an affluent, suburban New York elementary school. Journal of Reading, Writing, and Learning Disabilities International, 6, 315-322.

De Bello, T.C., How parents perceive children's &Guez, R.J learning styles. Principal, (1996) 76(2), 38-39.

Doolan, L.S., & Illuminating the new standards with Honigsfeld, A. learning style :Striking a perfect match Clearing House, (2000). 73, 274-278.

Doyle, W., & Rutherford, B. Classroom research on matching learning and teaching styles. Theory into Practice, (1990) 23, 20-25.

Dunn, R. Learning style: State of the science. Theory into Practice, (1984) 23, 10-19.

Dunn, R.S. How do we teach if we don't know how they learn? Teaching PreK-8, (1999) 29(7), 50-52.

Dunn, R., & Griggs, S.A. Multiculturalism and learning style: Teaching and counseling adolescents. Westport, CT: Praeger Publishers. (371.970973 DUN – Book) (1998).

Ebeling, D.G Adapting your teaching to any learning style. Phi Delta Kappan, (2000) 82, 247-248.

Felton, T.L. The learning modes of an incarcerated population. Journal of Correctional Education, (1994) Vol. 45, 118-121.

Foriska, T.J. Recognizing the root failure: Students' cognitive learning skills. Schools in the Middle, (1994) Vol. 2(2), 15-18.

Friedman, P., & Alley, R. Learning/teaching styles: Applying the principles. Theory into Practice, (1984) 23, 77-81.

Fritz, R.L. Implications of cognitive style for economically disadvantaged adolescents in vocational education. Journal for Vocational Special Needs Education, (1995) Vol. 17(2), 52-55.

Geisert, G., Dunn, R., Reading, learning styles and computer & Sinatra, R. Journal of Reading, Writing, and Learning Disabilities International, (1990) 6, 297-305.

Guild, P.B. Meeting students' learning styles. Instructor, (1989) 99(1), 14-17.

Glasgow, J.N. Motivating the tech prep reader through learning styles and adolescent literature. Journal of Adolescent and Adult Literacy, (1996) 39, 358-367.

Guild, P.B., & Isaacs, J. Writing with style. Learning, (1998) 26(4), 64, 67.

Gupta, H. O. & Singh Anupama Status of Science Teaching for the Visually Impaired Children. School Science, Vol 32 (2), (1994).

Harp, T.Y., & Orsak, L One administrator's challenge: Implementing a learning style program at the secondary level. Journal of Reading, Writing, and Learning Disabilities International, (1990) 6, 335-341.

Klinkosz Waldemar; Academic Achievement and Sekowski Andrzej; and Personality in University Students Who Brambring Michael. are Visually Impaired. Journal of Visual Impairment & Blindness, (2006)100 (11), 666-675.

Latham, A.S. Responding to cultural learning styles. Educational Leadership, 54(7), (1997) 88-89. 12

NCERT Indian Educational Abstract (A half Yearly Journal) (2002) Vol.1 (2), National Council of Educational Research and Training, New Delhi.

NCERT Indian Educational Abstract (A half Yearly Journal) (2006) Vol.1 (2), National Council of Educational Research and Training, New Delhi.

Richardson, T.Q. Black cultural learning styles: Is it really a myth? School Psychology Review, (1993) 22, 562-567.

Silver, H., Strong, R., & Perini, M. Integrating learning styles and multiple intelligences. Educational Leadership, (1997) 55(1), 22-27.

Swaroop Smiriti Inclusive Education. Sixth Survey of Indian Educational Research, Vol. I, NCERT. (1993-2000)

Warren, David H. Visual Impairments. Handbook of Special Education. (1981), Prantice-Hall International.195-221.

Yong, F.L. A comparative study of the learning style preferences of students with learning disabilities and students who are gifted. Journal of Learning Disabilities, (1992) 25, 124-132.