



Cover Page



PEDAGOGICAL PRACTICES FOR VISUALLY IMPAIRED STUDENTS: A CASE STUDY OF BHIMA BHOI SCHOOL, ODISHA

¹Miss Swagatika Mohanty and ²Mr. Pramod Kumar Das

¹M. Phil in Education and ²Guest Faculty

¹DPIAS, Berhampur and ²Ravenshaw University, Cuttack
Odisha, India

ABSTRACT

Pedagogy is an integral part of the teaching-learning process. It plays a significant role to teach the students. It also helps teachers to make better teaching-learning strategies. In this context of teaching and learning, a Case study was conducted to know the pedagogical practices adopted for visually impaired students in Bhima Bhoi Blind School of Odisha. In this study, data were collected from 10 teachers and 15 students of Bhima Bhoi School for Blind by employing semi-structured in-depth interviews schedule from teacher, observation schedule, Focus Group Discussion from students. The findings of the study revealed that all the teachers and students communicate verbally through using spoken language and non-verbally through using Braille. Through using various assessment criteria teachers provides feedback to all and maintain cumulative record card from time to time. It was found that teaching practices were mostly storytelling method, oral presentation and other methods like play-way method; project method follows sometimes but not regularly. The school provides friendly and cooperative environment, teachers, computer facilities and preparatory service to all students for their learning. The school is equipped with learning resources like audio aids, Braille Books, Braille script, large print and recording materials are available in sufficient number for all learners. However, other resource such as tactile symbols, tactile graphs, abacus are not available in sufficient numbers for all learners in the school. The study concludes that the pedagogical practices of visually-impaired students of Bhima Bhoi blind school equipped with the pedagogical resources for the blind students.

KEYWORDS: Pedagogical Practices, Visually Impaired, Bhima Bhoi School.

INTRODUCTION

The number of students with visual impairment who are educated in general education classrooms continues to rise worldwide. With the increase in the number of students in general education classrooms, discussions in research on education and special education have also increased. Visual impairment is commonly known as a “low-incidence” and “high-needs” disability, and, therefore, triggers unique challenges pertaining to inclusion. “Low incidence” implies a disability that occurs rarely or in low numbers. In the existing period, knowledge is considered the key resource for every individual in each corner of the globe; as a result, its proper management in the libraries for real time delivery and use is must. One of the special groups among all others is of visually impaired persons, visually impaired in a real sense is a broad term which is used widely in an educational context for the persons those who are having difficulty in seeing regardless of the nature of their impairment. Visual impairment imposes certain injustice demands which continuously influence the personality of the visually impaired persons. Keeping the importance of this user community into consideration the present study is undertaken to investigate the knowledge resources being provided to visually impaired persons by the central universities of India.

REVIEW OF RELATED OF LITERATURES

From the above cited studies related to the children with differentially able found that if supportive learning environment provided to them will help them to enhance their learning outcome. Studied conducted by **Jameel, S.S. (2011)** found that infrastructure facilities within institution, attitude towards person with disability, lack of support service which hinder the entry of students with disability into higher education. Whereas **Bhowmik, M., Banerjee, B. & Banerjee, J. (2013)** found that, the word teaching is a simple word but its meaning or significant is not so and the term effective teaching demands various integrated Activities in teaching-learning system. Pedagogy is the art and as well as science of teaching. It is a Master-plan that includes a detailed analysis of what is to be done by a teacher. **Soni, J.C., Datta, J. (2014)** reported that the adjustment of visually handicapped boys and girl was found similar on Overall adjustment. It also revealed that there existed no relationship between (a) adjustment and Level of educational aspirations; (b) adjustment and self-concept and (c) adjustment and academic Achievement of visually handicapped children. **Vita, A.C. (2012)** suggested that adaptations of materials and teaching methods for helping blind students to learn about probability. **Nugent, T.T. (2009)** suggest that need for teachers to be Provided with appropriate resources and assistance to meet the needs of their students Beyond academic instruction. It also suggests providing students and teachers with Measurable and attainable goals to create experiences with and exposure to success. **Gulhane, G. (2014)** found that the significance difference between the gender in academic achievement. **Bouck,E.C., Pei-Lin Weng and Satsangi, R. (2016)** suggested from their study that both teacher and students properly motivated and adequately trained to use technology. **Omede A.A. (2015)** suggested that use of technology such



Cover Page



as application of computer, optical aids, Braille writing materials, issues of mobility, funding, library resources, personal availability and physical infrastructure facilities will enhance the quality of education for visually impaired. **Annie, P., Ndhlovu, D., & Kasonde, S. (2015)** discovered that, teachers faced challenges in teaching learners with visual impairment in Zambia. Teachers experienced challenges when teaching using question and answer method, expository method, group discussion method, demonstration method and inquiry method. The challenges experienced contributed to the learners' poor academic performance and classroom participation. **Khaouli, P. (2014)** suggests that how elementary school teachers adapt their classroom environment and infrastructures in general classroom setting for students with visually impaired. **Bayram. G.I, (2014)** found in his study that teachers, use of learning materials, integration of inclusive education and assessment system directly effects students learning performance. **Mushome, A.M. & Monobe,R.J.(2013)** suggest that the teacher with specialized required to teach the visually impaired students so that they will not face problem during learning. **Giesen,J.M, Cavanaugh, B.S. & McDonnell, C. (2012)** found the extent of Academic supports in the school was positively related to mathematics achievement for visually impaired (VI) students without cognitive disability but not for those with Cognitive disability. Gender and socioeconomic status (ses) had no effects. Achievement growth was not hampered by cognitive disability. Schools with more Academic supports may enhance mathematics learning for VI students without a Cognitive disability, and VI students with a cognitive disability may need both a high Level of supports and specialized supports to facilitate mathematics achievement. **Akakandelwa,A. & Munsanje,J.(2012)** recommends that a good infrastructure is required to ensure the development of quality learning and teaching materials, a workable procurement system, an effective and efficient distribution system of learning and teaching materials, and teacher training in the use of materials for the children. **Rule, A.C. & stefanich, G.P. (2011)** suggested that adaptations provided for the student with visual impairment benefitted the entire class. This study supports the claim that given knowledgeable, supportive teachers, and with appropriate accommodations such as tactile or auditory materials, students with visual impairments can be as successful and engaged as other students in science and mathematics.

The Rationale of the Study

From the above cited studies, **Akakandelwa, A. & Munsanje, J. (2012), Rule, A.C. & Stefanich, G.P. (2011), Nugent. T. T. (2009), Giesen, J.M. (2012)** found that supportive system, good infrastructure, appropriate resources, adaptations of materials and teaching methods help the blind student to learn successfully like other students. Few related studies have been conducted in India and other some studies in abroad. However, it is clear that supportive system appropriate resources, teaching methods, assessment practices, innovation of teaching learning techniques have positive effect on visually impaired student. Recent time has witnessed considerable changes in Pedagogical practices especially by adding innovative and assistive technological devices, modes and idea of inclusive education. The ongoing practices potentially inspired the researcher to propose the study to understand the practices from the depth through a case.

OBJECTIVES OF THE STUDY

1. To study the support systems available for visually impaired.
2. To study the pedagogical practices adopted for visually impaired.

RESEARCH QUESTIONS

1. What are the supportive systems available for visually impaired?
2. What are the pedagogical practices uses for visually impaired?

METHODOLOGY OF THE STUDY

Case-study method is adopted for the present study to know the pedagogical practices for visually impaired in Bhima Bhoi School for Blind. In this study, 10 teachers and 15 students of Bhima Bhoi School for Blind were selected as the sample of the study following convenience sampling techniques. To collect the relevant data Interview schedule for teacher, Observation schedule and Focus Group Discussion tools and techniques were adopted and collected data have been analysed by content analysis technique.

ANALYSIS AND INTERPRETATION

Interaction of Students and teachers in classroom

All teachers responded that for communication these students in a verbal and non-verbal way. The interaction was mainly asking question and answer, explaining the concepts, engaging the students in various classroom activities individually and in group etc. They used Braille as a means of sharing information. The teachers focused more on language than on written language. They frequently used Braille for written communication. Based on the subject and the specific needs of visually impaired students, teachers use assistive technologies such as computers, loudspeakers and electronic Braille. Oral communication is also important for better which is used to teach all subjects.



Cover Page



Availability of infrastructures

Infrastructure is one of the major requirements for creating a healthy environment for the students and good infrastructure facilities influence the holistic development of a child. The school is fully residential setting so its availability and proper management is needed. The school has healthy and conducive environment for the visually impaired students. All the school campus equipped with supportive resources such as ramp, white cane etc. But the school should have focus on the integration of new technological infrastructure for the development of the students such as benches and chairs, Braille apparatus, arts and craft instruments etc.

Human Resources

One of the most important criteria for building a healthy atmosphere for pupils is human resources, and a helpful human resource also promotes a child's overall development. Because the school is fully residential, it requires human resource support for all of the students. The school has sufficient number of well-trained teaching and non-teaching (21 teaching and 5 non-teaching staffs) staffs in school. The pupil-teacher ratio of the school was 5:1 which found appropriate for them. Apart from that five care taker were available in the hostel.

Teaching-learning Resources

In classroom situation teaching-learning resources have much and more importance for students learning. To do our learning better teacher needs these learning resources in classroom situation.

Here, all teachers said that students' friendly infrastructures are available in this school. These are: Braille, tactile map, tactile graphics, recording materials, Audio Aids, abacus, large print, print with use of optical devices, tactile symbols, recording material. Through the help of these students' friendly infrastructure teachers communicate with these students. Although the School has provided various vocational facilities to all students for their self-sufficient in future. These are craft, music, instrumentations etc. According to their interest teacher gave scope to practice and participate in various activities organised by the school and interschool competition. To develop their self-confidence, they participate in various activities apart from that teacher encourage and motivate them to being a normal person of the society.

Use of assistive technology for visually impaired students

All the teacher respondents said that the school provides computers for the students learning. The school has 11 computers for their learning with one computer software that was JAWS (Job Access with Speech), only one computer teacher for the training of the visually impaired student. It is a powerful tool for visually impaired that read the information on computer screen using synthesized speech. But they are not aware about E-Braille. But the students' needs more assistive technology should be provided to the students such as E-Braille, keyboard, Braille printer, audio books, audio device such as headphone, speaker etc.

Pedagogical practices for visually impaired students

There is a range of inclusive teaching and assessment strategies that can assist all students to learn but there are some specific strategies that are useful in teaching a group which includes students with vision impairment. We often take for granted the amount of visual information received every day. In the present study the school has practising various teaching strategies for the teaching of the visually impaired students such as- Communicative techniques of teachers with these students, the child preparatory service, criteria for assessing the students' performance, cumulative record card, co-curricular activities, etc. All teachers said that they also provide education to these students through using variety of methodology for teaching and learning. These are story telling method, oral presentation, project methods. They give more important on storytelling methods, Oral presentation, and discussion method. For their better understanding they use these methods. Other methods are use but not in regular. They use it sometimes. But they are not aware about constructivist methods. They are following only the traditional methods in present time for their teaching-learning. The teachers are mainly focused on lecture method and oral description during the teaching. During teaching the teachers are using various teaching-learning materials such as- abacus, talking calculator for teaching mathematics. For teaching English Braille used as a medium of teaching. Here teacher use storytelling method, oral discussion with students. For science subjects the teachers using oral presentation methods. The teachers are follows storytelling methods during the time of teaching history. And for the teaching of Geography teachers are using oral discussion methods.

Physical Infrastructure

From the data it was found that there are sixteen classrooms are available in these schools including craft room, computer room, music room, document room, class room. All classrooms are well ventilated. In each classroom are having two windows and one door. Class room colours also reflect light. One fan and one light are available. There are good numbers of teacher are available in the school for each subject. There are sufficient numbers of Braille books are available in different subject.



Cover Page



DOI: <http://ijmer.in.doi./2021/10.09.13>

Other facilities are available in this school

Except providing formal education to all students, the school also gives importance on other co-curricular activities. This is related to our teaching learning process. These are craft, music, instruments, etc. These are provided by school to all students for their self-sufficient in future life.

FINDINGS OF THE STUDY

Objective 1: To study the support systems available for visually impaired.

1. It was found that all the teachers and students communicate verbally through using spoken language and non -verbally through using Braille. They were using Braille frequently as written communication. And teacher also uses various aids to communicate in the classroom such as tactile symbols, assistive technologies etc. To encourage student's teacher also assist them how to identify different objects through touch.
2. It is also most important to teach these visually impaired students. Oral communication is also important for the better communication. Mathematical boards also use to motives these students. They give importance on spoken language rather than written language. Students can speak Odia and English with teacher and with peers.
3. It was found that there is sufficient number of class room with well-furnished and ventilation.
4. It was found that well trained teacher with specialised in special education (Visually Impaired) for both students with partially blind or fully blind students.
5. It was found that in learning resources like audio aids, Braille books, Braille script, large print, recording materials are available in sufficient number for all learners but other resource like tactile symbols, tactile graphs, abacus are not available in sufficient numbers for all learners in the school.

Objective-2: To study the pedagogical practices adopted for visually impaired.

1. It was also found that teacher mostly focus on oral communication for their teaching and sometimes they use symbolic communication for interact the students in their learning.
2. It was also found that teacher use many methods for their learning. They engaged the students in various activities individually as well in groups and promote collaborative learning.
3. It was found that teaching practices were mostly storytelling method, oral presentation and other methods like play way method, project method follows sometimes but not regularly. They do not aware about constructive methods such as 5E and ICON constructivist approach.
4. It was found that the school provides computer facilities for their learning. There were 11 computers for their learning with one computer software that was JAWS (Job Access with Speech). It is a powerful tool for visually impaired that read the information on computer screen using synthesized speech. But they are not aware about E-Braille.
5. It was found that the school provides child preparatory service to all students before entering to the class. Through using various assessment criteria teachers provides feedback to all and maintain cumulative record card from time to time.
6. With the curricular subject it gives importance on other co-curricular activities, such as art and craft, sports, debate, songs, music, instrument, etc.
7. It was also found that in this school all teachers are co-operative inside the classroom and outside the class. They give importance on Child's all-round development for this they encourage to participate in various co-curricular activities.

Conclusion

On the basis of findings of this study it can be said that adaptation of pedagogical practices in visually impaired school is necessary for all students. But it is not sufficient to use some method in our classroom is called pedagogy practices. It needs more and more adaptation in field of pedagogical development for visually impaired. The results indicate that in this school they are using sufficient infrastructure as well as with suitable pedagogy. But here all teachers are not aware of other assistive technology and new pedagogical practices which used for visually impaired in present day. Teacher knowledge in pedagogy is very much unsatisfactory and disheartening. Support System and pedagogical practices have more important for visually impaired in their education which is fulfilled but not sufficient in this school compared to present concept. Finally, this school is a suitable school for all learners. Here, all students feel happy to learn in this school. They feel that without the help of this school they cannot do anything in his/her day-to-day life. Through the help of this school students are able to fulfil their hobby or interest. After completion of their education in this school all are interested to go into the higher Education.



Cover Page



DOI: <http://ijmer.in.doi./2021/10.09.13>

REFERENCES

- **Akakandelwa, A. & Munsanje, J. (2012).** Provision of learning and teaching materials for pupils with visually impairment: Result from a national survey in Zambia, British journal of visually impaired. 30(1) 42-49.
- **Bayram, G.L. (2014).** Exploring the academic and social challenges of visually impaired students in learning high school Mathematic. Bilkent University. Ankara. [http:// www. Thesis. Bilkent. Edu.tr/0006669.pdf](http://www.Thesis.Bilkent.Edu.tr/0006669.pdf).
- **Bhowmik, M., Banerjee, B. and Banerjee, J. (2013).** Role of Pedagogy in Effective Teaching. Basic Research Journal of Education Research. 2(1), 01-05.
- **Bouck, E. C. and Satsangi, R. (2016).** Digital versus Traditional: Secondary students with Visually Impairments perceptions of a digital Algebra Textbook. Journal of visually impairment, blindness. 11, 41-52. Retrieve from: <https://files.eric.ed.gov/fulltext/EJ1114762.pdf>
- **Deborah, L. and Rooks, E. (2013).** Inquiry based education for student with visually impairment. Review Article. Retrieved from: <https://downloads.hindawi.com/archive/2014/361685.pdf>
- **Dolunay, A. (2009).** Early Childhood Special Education for Children with Visual Impairments: Problems and Solutions. Educational Sciences: Theory & Practice. 9(2), 823-832.
- **Dykes, M.K. (2001).** Classroom adaptations for students with visual impairment: Teaching exceptional children method was used in teaching learners with visual impairment in Zambia. International Journal of Multidisciplinary Research and Development. 2 (1), 232-241.
- **Giesen, J.M., Cavenaugh, B.S., and McDonnell, M.C. (2012).** Academic supports, cognitive disability and mathematics achievement for visually impaired youth: A multilevel modeling approach. International journal of special education. 27(1), 17-26.
- **Gisen, J.M., & McDonnell, M.C., (2012),** Academic supports, cognitive disability &mathematic achievement for visually impaired youth. International Journal of Special Education, 27(1), 17-26.
- **Jameel, S.S (2011).** Disability in the Context of Higher Education: Issues and Concerns in India. Electronic Journal for Inclusive Education, 2(7), 01-22.
- **Khouli, P. (2014).** How Elementary School teachers adapt their class room Environment and instructional class room setting for students with visually impaired. Retrieve from: [http:// tspace. Library. Utoronto. Ca/bitstream/1807/67033/ khaouli-pamela-201406](http://tspace.Library.Utoronto.Ca/bitstream/1807/67033/khaouli-pamela-201406).
- **Mushome, A.M. and Monobe, R.J. (2013).** The attitude of lecture towards visually impaired students. US-China Education Review Journal. 3(2), 108-113.
- **Mushome, A.M. and Monobe, R.J. (2013).** The Attitude of Lecturers towards Visually Impaired Students: A Case Study of One of the Universities in the Limpopo Province in South Africa. David publishing
- **Nagent, T.T (2009).** The impact of teacher student interaction on student motivation and achievement. University of Central Florida. Retrieved November1, 2015from etd.fci.edu/CF/CFE000200/Nugent-tisome-t-200912-edf.pdf.
- **Omede, A.A. (2015).** The challenges of educating the visually impaired and quality assurance in tertiary institutions of learning in Nigeria. International Journal of Educational Administration and Policy Studies, 7(7), 129-133.
- **Penda, A. & Ndhlovu, D. (2015).** The challenges in teaching learners with visual impairment in Zambia. International Journal of Multidisciplinary Research and Development. 2, (4). 157-166.
- **Rule, A.C. (2012).** Impact of adaptive materials on teachers and their student with visually impaired in secondary science and mathematics classes. International Journal of Science Education. 33(6). doi: 10.1080/09500693.2010.506619
- **Soni, J.C. and Dutta, J. (2014).** A study of adjustment, level of aspiration, self-concept and academic Achievement of visually handicapped school children of Assam. International Journal of Developmental Research, 4(4), 902-907.
- **Vita, A.C. (2012).** Blind student learning of probability through the use of a tactile model. Statistics Education Research Journal, 13(2), 148-163.