THE METHOD OF TEACHING AND EXAMINATION FOR INDIVIDUALS WITH VISUAL IMPAIRMENTS: THE SYSTEM IN INDIA AND JAPAN

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Abstract

Introduction: Education of children with special needs is an important field of study. Children with special needs deserve to be educated like any other human being. Over the years, several provisions have been made and laws have been passed to ensure education of children with special needs. A visually impaired child’s needs and goals for learning are not different from that of his sighted peers. Only the means of achieving those goals are different.

Objective: The purpose of this study was to compare the prevalent method of teaching and the system of examination for students with Visual Impairment studying in the special schools for the blind in India and Japan.

Methodology: The study was delimited to (i) blind students only and (ii) the special schools for the blind in Kolkata and Tokyo. Purposive sampling technique was used to select 50 teachers (25 each from the special schools for the blind in Kolkata and Tokyo). The researcher interviewed the teachers. Semi–structured information schedules were used to collect data and the data were analyzed only qualitatively.
Findings: The method of teaching the blind students was similar in both Kolkata and Tokyo. Differences were observed mainly in the type of teaching equipments used. Regarding the system of examination, differences were observed within the special schools in Kolkata. In Tokyo, however, all the special schools followed a uniform system. The study revealed that in Kolkata a strict pass/fail criterion existed. In Tokyo, on the other hand, there was no strict pass/fail criterion.

Conclusion: This study is important because not many comparative studies have been done between India and Japan. Most of the comparative research work is either between Japan and the U.S.A or between Japan and the U.K. This study was conducted mainly to find out the differences between a Developing and a Developed nation. Being a developed country, it is always assumed that there will be a lot to learn from Japan. Through this research study an attempt has been made to find out whether this assumption is true and if it is true then, to what extent the system can be implemented and practiced in the Indian scenario.

Keywords: Method of teaching, system of examination, special schools for the blind, Kolkata, Tokyo

Introduction

Education in its broadest sense aims to develop and enrich total personality of an individual by providing a well-rounded programme of academic excellence, vocational orientation and cultural fulfillment. Education has to be organized on grounds of utility. It is education which helps a person in realizing his/her potentials and nurturing them (1). A person who is different from the average is entitled to education which would be suited to his unique needs. Education and proper training enables a person to overcome his/her disability and establish himself/herself as a contributing and an independent member of the society.

Vision refers to a person’s ability to see finer details or clearly distinguish forms at varying distances. The Rehabilitation Council of India
Defectology is defined clinically in terms of:
1. Total absence of light;
2. Visual acuity not exceeding 20/200 (Snellen Chart) in the better eye with the correcting lenses; or
3. Limitation of the field of vision subtending an angle of 20 degree or worse. (2)

According to the Law for the Welfare of Physically Disabled Persons in Japan, visual impairment is defined clinically in terms of:
1. Visual acuity (as measured in accordance with the International Vision Chart and measured degree of correctness; hereafter the same) of both eyes being 0.1 or less;
2. Visual acuity of one eye at 0.02 or less and the other at 0.6 or less;
3. Visual field diameter 10 degree or less of both eyes;
4. Visual field defect of more than 50% in both eyes.

The educational needs of students with Visual Impairment are not different from any other seeing individual. Just as any other person, even a visually impaired individual deserves to be educated and made self–dependant so that they are able to establish themselves as contributing members of the society. However, their means of achieving those needs are different especially because one of their senses does not function properly. It is the responsibility of the teacher to address the needs and implement procedures and teaching methods that would help an individual in unfolding his/her latent abilities and potentials (3, 4).

From teacher’s point of view, it is important to look not only at education in their own country, but also at educational practices in other countries and learning from each other by searching out information and exchanging opinions and expertise at global level (5, 6). The present study is a comparative work between two metropolitan cities of India and Japan regarding their system of educating the blind. The researcher chose these two nations mainly because one is a Developing nation...
and the other a Developed nation. Japan has also made its mark in the field of technology. A comparative study would help in analyzing the method of teaching and examining individuals with visual impairment in both countries. Being a technologically advanced nation, it is generally assumed that when compared to India, Japan will have better methods and educational opportunities for their Visually Impaired population. This study is important because it will help finding out whether this assumption is true; and if it is true then how and to what extent the method can be improvised and implemented in the Indian scenario.

### Research Methodology

**Purpose of the research**

To compare

1. The method of teaching individuals with Visual Impairment in the special schools for the blind in the two metropolitan cities of India and Japan;
2. The system of examination practiced in the special schools for the blind in the two metropolitan cities of India and Japan.

**Delimitation of the study**

The study is delimited to

1. Blind students only;
2. Special schools for the blind in Kolkata (India) and Tokyo (Japan).

**Respondents**

The survey was conducted in the special schools for the blind in Kolkata and Tokyo. In Kolkata there are 3 special schools for the blind, namely Blind Boys’ Academy, Calcutta Blind School and Lighthouse for the Blind. All three schools are Government sponsored. They receive financial assistance from the Government for their maintenance and upkeep. The survey was carried out in all three schools. In Tokyo, however, there are 5 special schools for the blind. The survey was carried out only in 3 of these schools in order to maintain parity. The 3 schools were chosen on the basis of availability of sample. The three schools are Tokyo Metropolitan School for the Blind, Katsushika, Tokyo Metropolitan school for the blind, Hachioji and Tsukuba University School
The survey was conducted to collect data regarding the existing teaching practices (7). The collected data was analysed only qualitatively. The method of teaching and the system of examination followed in the special schools in Kolkata and Tokyo were compared on the basis of the data collected from the teachers during the survey. Since semi-structured information schedules were used, the responses were detailed and comprehensive. The responses were descriptive in nature and permitted the researcher to understand the existing practices (7).

**Findings of the study**

**Objective 1**

An Audio–Tactile Method was used to teach blind students in the special schools for the blind in both Kolkata and Tokyo. This method facilitated learning by enhancing tactile and hearing abilities of blind students. The Audio–Tactile method included tactile stimulation, speaking and listening, and explanation through tools for the Blind. All three schools are run by the government. Purposive sampling technique was used. The sample included 25 teachers from the special schools in Kolkata and 25 teachers from the special schools in Tokyo. The survey was carried out during the academic year 2009-2010 in the period from December to May.

**Tools**

Semi–structured information schedules were used to collect data from the teachers. The schedules were first administered to the vice–principal of the special schools in Tokyo and the teacher–in–charge of the special schools in Kolkata. Based on their responses and suggestions the schedules were modified and the final schedule was administered to the teachers.

Face–to–face interviews were conducted by the researcher and the responses of the teachers were recorded. The responses helped in

1. Determining the method of teaching blind students studying in the special schools in Kolkata and Tokyo;
2. Determining the system of examination adopted in the special schools.

**Analysis of the data**

The survey was conducted to collect data from the teachers. The collected data was analysed only qualitatively. The method of teaching and the system of examination followed in the special schools in Kolkata and Tokyo were compared on the basis of the data collected from the teachers during the survey. Since semi-structured information schedules were used, the responses were detailed and comprehensive. The responses were descriptive in nature and permitted the researcher to understand the existing practices (7).
Subjects like Geography, models of the solar system, and real-life objects were introduced from Class I in the special schools of both Kolkata and Tokyo. Teachers explained the lessons and students listened to them. The teachers read out a part of the lesson and the students repeated that. Then, the students were checked for the spellings and pronunciations. This practice was mainly adopted for students of classes I to IV. From class V onwards, students were taught mainly with Braille books. Whenever, Braille books were not available, audio books were used. It was also seen that teachers in the schools of both cities dictated notes, and the students noted those in Braille. In the schools of Tokyo, the students were allowed to make audio recordings of the lessons taught in class. But no such provision was made in the schools of Kolkata.

Explanation through models refers to a system in which miniature models of real life objects were used to explain various concepts to the blind students. For example: While teaching subjects like Geography, models of the solar systems were used to explain the formation of the atmosphere, the movement of the planets, and the different layers of the earth. In Tokyo, as well, it was seen that in order to promote concept formation tactile sensation was used. Blinds were taught to discriminate different shapes and objects of various sizes and to create objects with porcelain. Beads, peg feed, screw drivers, rubber fittings (in which, the students had to insert the rubber in the proper places) were used to help blind students in developing their finger dexterity. Students were also taught to fasten and unfasten buttons to improve coordination of their hands and fingers.

Speaking and listening, as a method of teaching, were introduced from Class I in the special schools of both Kolkata and Tokyo. Teachers explained the lessons and students listened to them. The teachers read out a part of the lesson and the students repeated that. Then, the students were checked for the spellings and pronunciations. This practice was mainly adopted for students of classes I to IV. From class V onwards, students were taught mainly with Braille books. Whenever, Braille books were not available, audio books were used. It was also seen that teachers in the schools of both cities dictated notes, and the students noted those in Braille. In the schools of Tokyo, the students were allowed to make audio recordings of the lessons taught in class. But no such provision was made in the schools of Kolkata.

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на четчицата за зами, марамче, японски фен.
Исто така се употребува модел за да им се покаже на учениците како да врзат врвки на обувките.

Математика:
Во Калкута, математиката се учи со Тејлорова табла со метални делови. Тејлоровата табла со метални делови е типична помош за учение, во којашто металните делови се подвижки и ставени се во различни позиции. Секоја од по- зициите претставува број од еден до девет. Учениците се учат да ги допрат металните делови и да го препознаат бројот. Но во пособни- те училишта во Токио, Тејлоровата табла не се користи. Наместо тоа, на учениците им беа датани тврди парчиња на коишто броевите беа впишани во формата на Брајовите точки.

Читање и пишување со Брајово писмо:
Во случај на настава со Брајово писмо, се забележува дека во пособните училишта во Калкута и во Токио, читањето му претходи на пишувањето.

Во Калкута, учениците прво се навикнуваат на шесте точки и на нивното комбинирање. Потоа се запознаваат во мермерна плоча и се обучуваат за движење на прстите за да ја препознаат позицијата на цампите. Учениците треба да сфацат дека различната комбинација на цампите претставува разнообразна буква. На овој начин учениците се учиа да ги препознаваат буквите од Брајовата азбука и постепено да читаат зборови и реченици. Откако ќе научат да читаат, ќе учат да пишуваат. Додека пишуваат, учениците беа учени да ја ги движат рацете од десно кон лево. Потоа беа запознаени со Брајовата апаратура - табла, шило и водич за Брајовото писмо. Во текот на држењето и смес- тувањето на водичот и препознавањето на дупките, се даваат инструкции. Потоа беа учени да го држат шило и соодветно да притиснат за да остават отисок на хартијата. Како што станиваа поуменувањето во користењето на Брајовото шило, им беше дозволено да ја употребуваат. Сепак, предност им е зададена на користењето Брајови табли, зашто се подобри.

Во Токио, упатствата за Брајовото писмо за- почнуваат со објаснување на концептот за лево и десно. Потоа учениците се запознаваат со нитните (метални иглички на дрвена табла). Со користењето на овие нити, учениците беа учени за комбинирање и организирање на систем, river bed, different kinds of rocks were used. In History models of Neanderthals were used. To teach Daily Living Skills miniature models of toothbrush, handkerchief, Japanese fan were used. Models were also used to explain students how to tie shoe lace.

Mathematics:
In Kolkata Mathematics was taught using Taylor Frame with lead types. Taylor Frame with lead types is a typical teaching aid in which the lead types are movable and are placed in different positions. Each of these positions represents the numbers from one to nine. The students were taught to touch the lead types and recognize the numbers. But in the special schools of Tokyo, Taylor Frame was not used. Instead, students were given blocks where the numbers were inscribed in the form of Braille dots.

Braille reading and writing:
In case of instruction in Braille, it was seen that in the special schools of both Kolkata and Tokyo, reading preceeded writing.

In Kolkata, students were first made aware of the six dots and their arrangement. Then they were introduced to a marble board and trained in moving their fingers to recognize the position of the marbles. Students had to realize that the different arrangements of the marbles represented different alphabets. In this way, the students were taught to recognize the alphabets in Braille and gradually read words and sentences. Once they could read, they were taught how to write. While writing, students were trained to move their hands from right to left. Then, they were made familiar with the Braille apparatus- Braille slate, stylus, and guide. Instructions were provided in holding and placing the guide and recognizing the holes. Next, they were taught to hold the stylus and press it properly to form the impression on the paper. As they became proficient in using the Braille slate, they were allowed to use it. Yet, preference was given to using Braille slates because those were more affordable.

In Tokyo, instruction in Braille began with explanation of the concept of left and right. Students were then introduced to rivets (metal
игличките и за характерите според позицијата. Учениците се учат да ги користат двете раце при читањето. На некој начин ова исто така го подобрува нивното чувство за координација. Потоа беа учени да ја движеат раката по хоризонтална линија, што е слично на движењето што се бара за пишување однесно налево. За да пишуваат со Брајовото писмо, учениците извична користеа пакинсубурета (слично на Брајова машина) и Брајов речник. Со ова учениците се запознаваа со методите на читање и пишување со Брајовото писмо. Постепено учениците се запознаваа со Брајовата табла, шило и водич. Учениците беа учени да го држат шилото точно вертикално додека пишуваат за да формираат отисок. Главно се учеа хирагана и катакана. Канис беше избегнуван. Хирагана, катакана и кањи се сите форми на јапонските карактери. Кањис се пиктографии и нивното претставување со Брајовата азбука е тесно. Затоа не се предава на слепите ученици во Токио.

Обука за мобилност:
Во Калкута обуказата за мобилност вклучува движење внатре и надвор. Додека се движат надвор, слепите ученици се обучуваат за бавно движење (одено со придружување до вид), локализација на звук, идентификување место и за препознавање знаци. Исто така се учат на техниките за заштита со рака горе/долу за да се спречи седирање на слепите ученици. Додека се движеат горе-долу по скалите, учениците се учат прво да се држат за видот и да се движеат. Кога ќе се навикнат на местото, можат слободно да се движеат наоколу. Исто така учениците се обучуваат да ги користат становите за одење, главно долг бел стап. Ги учат техниките на водич што гледа (следење личност што гледа).

Во Токио, обуказата за мобилност започнува во училницата. Учениците се обучуваат да се движеат еден по еден без да се допираат со рамената. Во сите училишта има тактилни водечки линии вписани на подот и парепети на видовите. Учениците треба да ги следат линиите и да ги користат парепетите додека се движеат горе-долу по скалите. Подовите во училиштата се направени од разни материјали, особено на местото каде што почнуваат скалилата. Ова е направено така за слепите ученици, слуцајки ги звукот од стапнувањето pins on a wooden block). Using those rivets, the students were taught the arrangement and organization of the pins and the characters represented by their positions. Students were trained to use both their hands while reading. Inn a way this also improved their sense of coordination. Then, they were taught the hand movement along the horizontal line, which was similar to the movement required for writing from right to left. For writing in Braille, students initially used Pakinsubureta (similar to Braille/Braille Embosser) and Braille dictionary. This acquainted the students with the method of reading and writing in Braille. Gradually the students were introduced to a Braille slate, stylus, and guide. Students were taught to hold the stylus exactly vertically while writing to form the impressions. Hiragana and Katakana were mainly taught. Kanjis were avoided. Hiragana, Katakana and Kanji are all forms of Japanese characters. Kanjis are pictorial representations and representing them through Braille is difficult. Therefore, those were not taught to the blind students in Tokyo.

Mobility Training:
In Kolkata mobility training included walking indoors as well as outdoors. While moving indoors blind students were trained in trailing (walking while holding the wall), sound localization, identifying landmarks, and recognizing cues. Upper/lower arm protective techniques were also taught to prevent blind students from colliding. While moving up and down the stairs, students were first taught to hold the stairs and move. As they became accustomed to the place, they could move around freely. Students were also trained to use their walking sticks, mainly long canes. They were taught the sighted guide technique (following another person who can see).

In Tokyo, mobility training began in the classroom. Students were trained to walk in a single file without touching each other’s shoulders. In all schools, there were tactile leading lines inscribed on the floor and handrails along the walls. Students were made to follow those lines, and use the handrails while moving up and down the stairs. The
на подот, да знаат каде стојат и соодветно да се движат. На овој начин тактилните знаци на површината не само што произведуваат дополнителни знаци туку и сили тактилонерцепција знаци. Иницијално слабовидите ученици им помагаат на слепите ученици да дофаќаат во училиштата. Но како што стануваат повеќето во препознавањето на местото и препознавањето на знаците, слепите ученици можат сами да дофаќаат во нивата училишта. 

Сосема спротивно на вратата од секоја училищта, на парапетите е врзан конец. Кога ученикот ќе го допре конецот, знае дека стигнал до својата училишта. Името/бројот на училиштата е исто така втиснат со Брајовото писмо непосредно пред училиштата. Исто така учат локализација на звук заедно со препознавање на тактилните знаци. Откако ќе научат да одат слободно во посебното училиште, ученицитите се носат надвор во кampусот. Ученицитите се информираат за опкружувањето, правилата со сообраќајот, а потоа учат како да ги користат долгите бели станови додека се движеат на улица. Понекогаш ученицитите се носат во други градови.

Животни вештини:
И во посебните училишта во Калкута и во посебните училишта во Токио, животните вештини се предаваат со употреба на модели. Во училиштата во Калкута, моделите главно објаснуваат како да се вратат врвките на чевлите, како да се закопчаат и откапчаат колична итн.

Во училиштата во Токио се обезбедени модели на четкички за зби, марачница, фенови итн. Во училиштата во Токио се бара соработкa на родителите при спроведувањето обука за животни вештини. Инструкторот за животни вештини заедно со родителите им помага на ученицитите да развиват навики за чистота, уредност итн. Во училиштата во Калкута, со инструкторот за животни вештини соработуваат и асистенти што се гржат за слепите лица во обуката на ученицитите. Ако ученицитите не користат резиденцијално сместување, побарање е помош од родителите.

Информатика:
Меѓу посебните училишта во Калкута и во Токио има впечатлива разлика во однос на ученето компјутерски вештини. Во Калкута, во едно училиште (Училиште за слепи во Калкута) не се учат компјутерски

floors within the schools were made of different material especially where the stairs began. This was done so that blind students, by listening to the sound produced by stamping on the floor, would realize where they were standing and would move accordingly. This way, tactile signs on the surface not only produced an additive cue but a strong tactually perceived signal too. Initially the partially sighted students helped their blind peers in reaching their classrooms. But, as the blind students became proficient in identifying landmarks and recognizing cues, they could reach their classrooms on their own. Exactly opposite to the door of each classroom, a thread was tied to the handrail. As the students reached that thread, they knew that they had reached their classroom. The name/number of the classroom was also inscribed in Braille just outside the classroom. They were also taught sound localization along with recognizing tactual cues. As the students learnt to walk freely within the Special School, they were taken outside the campus. Students were informed about their surroundings, the traffic rules, and then taught how to use the long canes while moving on the streets. Sometimes students were also taken to other cities.

Daily Living Skills:
In the special schools of both Kolkata and Tokyo, Daily Living Skills were taught mainly using models. In the schools of Kolkata, the models mainly explained how to tie shoe lace, how to fasten and unfasten buttons, etc. In the schools of Tokyo, models of toothbrush, handkerchief, fan, etc. were provided. In the schools of Tokyo, cooperation of the parents was sought in providing training in Daily Living Skills. The Daily Living Skill instructor together with the parents helped the students in developing habits of cleanliness, tidiness, etc. In the schools of Kolkata, the hostel wardens also cooperated with the Daily Living Skill instructor in training the students. In case, students were not using the residential facility, help of their parents was sought.

Information Technology:
Among the special schools of Kolkata and Tokyo there was a striking difference regarding
teaching computer skills.

In Kolkata, one school (CBS) did not teach computer skills because computer skills were not included as a regular school teaching subject in the syllabus. In another school (LFB), computer skills were taught only to students of classes VIII and IX. Blind students were taught using the software and a specially designed keyboard developed by WEBEL. A mask was placed on the keyboard and on that mask Dot 1 to Dot 6 was indicated. Students, by the time they reach class VIII, knew the dots which indicate the various alphabets. As they type the required characters using the dots, they got transcribed into Braille. This was accompanied by screen-reading software and in any error in typing; it verbally announced “hash character”. In class IX, blind students were given a layout of the entire keyboard which they had to memorize and then the mask was removed from the keyboard. In the third school (BBA) in Kolkata students were first given training in type writing. Then, they were introduced to the normal keyboard. This Special School used JAWS screen reading software which made a continuous announcement of whatever was being typed. However, it was seen that all schools in Tokyo used Braille keyboards and the PC Talker screen reading software. The students had to listen carefully to the continuous information that was being read to them, and in case of a mistake, they had to rectify that.

Objective II

Examinations:

The study revealed that in Kolkata one special school, Calcutta Blind School (CBS) conducted half-yearly examination (i.e., tests were taken every six months after the commencement of the session) and annual examinations and the other two schools Blind Boys’ Academy (BBA) and Lighthouse for the Blind (LFB) conducted monthly tutorials followed by annual examination. In Tokyo, all three schools conducted 2 to 3 examinations in each semester. The entire session was divided into 3 semesters and the number of examinations (whether 2 or 3) in each semester, depended on the teachers.
рија, Географија, Математика и Природни науки, сè до IX одделение. За Англишки јазик и Бенгалски јазик сè спроведуваат писемни тестирања заедно со усно испрашување. За Аритметика и Алгебра, слепите ученици преметуваа со помош на Тејзоровата табла и на испитувачот усно му ги презентираа одговорите; по Геометрија треба усно да ја објаснат теоријата. За предметите: Физичко образование, Музичко, Ликовно и Производствена работа, сè изведуваат теоретска и практична проверка. Во ова посебно училиште, истражување за Компјутерски вештини сè воведува во VIII одделение, а знаењето на учениците сè проверува теоретски и практично. Во едно посебно училиште во Калкута (Училиште за слепи ученци во Калкута), сè изведуваат полугодишни и годишни испити сè до VIII одделение. Учениците сè испрашуваат усно сè до III одделение. Од IV одделение па натаму, за предметите Англишки јазик, Бенгалски јазик, Историја, Географија, Природни науки и Математика, сè изведуваат писемни испити заедно со усно испрашување. За предметите како што сè Музичко, Ликовно и Производствена работа, како и за Физичко образование, сè изведува теоретска и практична проверка на знаењата. Во третото посебно училиште во Калкута (Академија за слепи момчиња), сè спроведуваат тестови по секоја наставна единица (т.е. секој месец) преслетени со годишни испит. До III одделение сè спроведува само усно испрашување по сите предмети. Од IV во текот на годишната проверка на знаењата, сè спроведуваат писемни тестови заедно со усни одговори по сите предмети. Сепак, за тестовите по секоја наставна единица, видет испрашување (писемно или усно) зависи од дискретионото право на наставникот. Практична проверка на знаењата сè изведува по Физичко образование. Во оној на Музичко образование и Компјутерски вештини, учениците треба да сè докажат и практично и усно. За факултативниот предмет од наставната програма/незвено изучување (брајо во писмо, Животни вештини, Обука за ориентација и мобилност) во сите три посебни училишта во Калкута сè спроведуваат практични и усни испити (табела 1).

It was seen that in one special school (LFB) of Kolkata, blind students were examined orally in subjects like History, Geography, Mathematics and Science till class IX. For English and Bengali, written examinations were conducted along with viva. For Arithmetic and Algebra, blind students did their calculations with the help of the Taylor Frame and conveyed the answer orally to the examiner; in Geometry they had to explain the theorems orally. For the subjects Physical Education, Music, Art and Craft theoretical as well as practical examinations were conducted in all classes. In this special school, the study of computer skills was introduced only in Class VIII and students were examined through theoretical and practical examination. In one special school of Kolkata (CBS), half yearly and annual examinations were held till class VIII. Students were examined orally in all subjects till class III.

From class IV onwards, for the subjects English, Bengali, History, Geography, Science, and Mathematics, written examinations along with viva were conducted. For subjects like, Music, Art and Craft, and Physical Education, theoretical as well as practical examinations were conducted. In the third special school (BBA) of Kolkata, unit tests (i.e. tests were taken every month) were conducted followed by annual examinations. It was seen that till class III, only oral examinations were conducted for all the subjects. From class IV during annual examination, written tests along with viva were conducted for all the subjects. However, for the unit tests the kind of examination (whether written or oral) depended upon the discretion of the teacher. Practical examinations were conducted for Physical Education. In case of Music and Computer skills, students had to appear for both practical and oral examinations. For the subjects of Plus Curriculum / Independent Study (Braille, Daily Living Skills, Orientation and Mobility Training), in all three special schools of Kolkata, practical as well as theoretical examinations were conducted (Refer Table 1).
In Tokyo, in all special schools no formal examinations were conducted at the Elementary Stage (Class I to Class VI). Students’ level of learning was checked at the end of each semester. At the Junior High School Stage (Classes VII to IX) written examinations were conducted for all the subjects. In all the three schools of Tokyo, for the subjects Physical Education, Music, and Home Economics, written as well as practical examinations were conducted. For Art and Craft, and Industrial Arts, only practical examinations were conducted. For the subjects of Independent Study (Braille, Mobility Training, Daily Living Skills) students’ progress was only observed (Refer Table 2).
The survey showed that in Kolkata, till Class VIII students had to write in Braille during their examination. In classes IX and X, they had to take the help of scribe (writers) during the examination. The scribes were appointed by the schools. In case, students wanted to arrange the scribes themselves, then the schools provided financial assistance for that purpose. But, in Tokyo, in all three schools, during examination students had to write in Braille in all the classes. However, in case students were not proficient in Braille, then one special school (Katsushika) allowed the students to appear for oral examination. One special school (Hachioji) allowed the students to record their answers and then those recordings were examined by the teachers. In this special school, sometimes the class teachers acted as the writers for the blind child who was not proficient in Braille.

All special schools in Kolkata had a strict
Дискусија и сугестии

Цел I

Методот на предавање на слепите ученици е сличен за предметите како што се: Зажис, Природни науки, Животни вештини итн. во посебните училишта за слепи во Калкута и во Токио.

Методот на предавање Математика се различува меѓу двете места. Полесно е во училиштата во Токио зашто точките се втиснати на блокови, а учениците треба само да ги почувствуваат и да го сфатат бројот што го претсавуваат. Но во училиштата во Калкута, учениците треба да ги почувствуваат металните делови и да ја разберат нивната позиција. Металните делови беа подвижни, така што постои можности да се поместат од саканата позиција во човечка грешка. А тоа води до грешка во пресметувањето.

Затоа, додека се учи математика, подобро е на слепите ученици во Калкута прво да им се дадат табли со втиснати точки. Откако ќе го запомнат местото и комбинацијата на точките, да бидат запознаени со Тејлоровата табла.

Discussion and Suggestions

Objective I

The method of teaching blind students was similar for subjects like Language, Social Science, Daily Living Skills, etc. in the special schools for the blind in both Kolkata and Tokyo.

The method of teaching Mathematics was different in both places. It was easier in the schools of Tokyo, because the dots were inscribed in blocks and students only had to feel those and understand the number they represented. But, in the schools of Kolkata, students had to feel the lead types and understand their positions. The lead types were movable, so there were chances of being moved from their intended position due to human error. This could lead to error in calculation.

Therefore, while teaching Mathematics, it would be better if blind students in the schools of Kolkata were first given blocks where the digits were inscribed in the form of dots. Once, the students could remember the arrangement of the dots then, they should be introduced to the
Додека во училиштата во Калкута, лекциите со Брајово писмо почнуваат со табли со цамли, во училиштата во Токио почнуваат со метални нитни. Во училиштата во Калкута, пак, пишувањето со Брајово писмо почнува со Брајова табла, шило и водич, а во училиштата во Токио со пакинсубурета (релјефна површината). Постојат и некои сличности. Како во Калкута, читањето му претходи на пишувањето и во Токио. Како што стануваат повеќи во читањето и пишувањето со Брајово писмо, учениците постепено се запознаваат со книгите на Брајово писмо.

Методот на обука на вештините за мобилност за слепите ученици, е сличен во двата града. И во Калкута и во Токио, учениците се подучуваат да ги разберат тактилните знаци, да го следат другит и да се служат со видот или со парапети додека одат. Сепак, има и некои разлиki. На пример: во училиштата во Калкута има парапети и затоа учениците учат да ги користат. Но во Калкута, нема парапети. Затоа учениците мораат да се придружуват до видот додека одат. Разликите се однесуваат главно на достапните објекти.

Методот на предавање на животни вештини е сличен во училиштата во Калкута и во Токио, иако се разликуваат по применуваните наставни средства.

Во Калкута, учениците што учат во Светилник за слепи немаат можности да учат информатика. Во Токио сите ученици иако учат во различни училишта имаат можности да учат информатика.

Пожелно е сите училишта во Калкута да обезбедат учење информатика без разлика дали ја следат или не редовната наставна програма. Исто така и методот за предавање информатика треба да биде сличен во сите училишта во Калкута. Претставниците на посебните училишта треба да разработат единствен метод така што сите ученици нема да страдаат или нема да бидат збунети ако се префрлаат од едно посебно училиште во друго.

Учението информатика е многу полезно во училиштата во Токио, таа ги научи како да ги претставуваат своите знанија на мобилен начин. Во училиштата во Калкута, обучувањето на учениците настава со методи за учување на уметници во редовна рамка. На пример, училиштата во Калкута, имаат специјално училиште за слепи ученици во рамки на училиштата во Калкута. Во Калкута, учениците учат да се справуваат со политиките за обезбедување на достапност училишта во Калкута и во Калкута. Просторот ги изработуваат специјални училишта за слепи ученици, кои ја учуваат училиштата во Калкута. Изработувањето на училишта во Калкута е прилагодено за учениците, преку кои се користи училиштата во Калкута за училиштата во Калкута. Учениците учат да се справуваат со политиките за обезбедување на достапност училишта во Калкута и во Калкута. Просторот ги изработуваат специјални училишта за слепи ученици, кои ја учуваат училиштата во Калкута. Изработувањето на училишта во Калкута е прилагодено за учениците, преку кои се користи училиштата во Калкута за училиштата во Калкута.
Во училиштата во Токио, слепите ученици би требало да бидат запознани со нормална тастатура заедно со тастатурата со Брајово писмо за да се намали зависност од писмото.

Цел II
Сите училишта во Токио следат униформен систем на проверка на знаењето на учениците. Така, и да се премести од едно во друго по себно училиште, ученичето нема да се соочи со проблеми при прилагодувањето на системот на проверка на знаењата. Во Калкута системот на проверка на знаењето не е униформен и доколку некој се префрлува од едно училиште во друго, морат да се навикне на системот на проверка на знаењето карактеристичен за одредено посебно училиште.

Во Токио, нема формален систем на проверка на знаењето сè до VI одделение. Во Калкута, од друга страна, проверката на знаењето е задолжителна. Во Калкута преовладуваат и усно и писменото испрашување.

Методот на испрашување за предметите Физично образование и Производствена работа е сличен во двата града. Нема систем на теоретско или практично испрашување за предметите Обука за мобилност или Жivotни вештини во Токио. Во Калкута се одржуваат испити за овие предмети.

Сите училишта во Калкута треба да се придржуваат до униформниот систем на проверка на знаењето. Наместо тоа да се спроведуваат тестови по наставните единици, полугодишните и годишните тестови треба да се заменат со семестрализиран систем за да се намали товарот на учениците.

Исклучок од испитувањето до одредено одделение (како што е во Токио) зависи од политицата на владата. Затоа, во училиштата во Калкута не се зборува ништо за ова прашање. И да се исклучени испрашувањата, сепак прогресот на нивото на знаењето на учениците треба редовно да се набљудува.

Во училиштата во Токио, заедно со опсервацијата, можат да се спроведат практични проверки на знаењата за да се провери прогресот на слепите ученици по факултативните предмети.

Заклучок
Истражувањето покажа дека и покрај културните и географските разлики, методот на keyboards as they were gradually taught to use those.

In the schools in Tokyo, blind students should be introduced to the normal keyboard along with Braille key boards in order to reduce their dependence on the latter.

Objective II
All the schools in Tokyo followed a uniform system of examining the students. So, even if a student moved from one special school to another, he did not face any problems in adjusting to the system of examination. But, in Kolkata, the system of examination was not uniform and in case a child shifted from one special school to another he had to get himself accustomed to the system of examination followed in that particular special school.

In Tokyo, there was no formal system of examination till class VI. In Kolkata, on the other hand, examinations were compulsory. Both oral and written examinations were prevalent in Kolkata.

The method of examination for subjects like Physical Education and Craft was similar in both places.

There was no system of theoretical or practical examination for the subjects like Mobility Training or Daily Living Skills in Tokyo. In Kolkata examinations were held for these subjects.

All the schools in Kolkata should follow a uniform system of examination. Instead of conducting unit tests, half–yearly and annual examinations the schools should shift to semester system to reduce the burden on students.

Exemption of examination till a particular class (as is prevalent in Tokyo) depends on the policies of the government. Therefore, the schools in Kolkata will not have any say in this matter. Even if examinations are exempted, yet the progress and level of students’ learning should be regularly monitored.

In the schools of Tokyo, along with observation, practical examinations can be conducted to check the progress of the blind students in the subjects of Independent Activity.

Conclusion
The survey showed that in spite of cultural and geographical differences, the method of
предавање за слепите ученици е сличен од многу аспекти. Евидентни се разликите во системот за проверка на знаењето. Разликите главно постојат зашто во Калкута сите по себи училишта имаат своја независна администрација.

Конфликт на интереси
Авторите изјавуваат дека немаат конфликт на интереси

Conflict of interests
Authors declare that have no conflict of interests

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teaching blind children was very similar in many aspects. Differences in the system of examination were evident. The differences existed mainly because in Kolkata all the special schools had their independent administration.

Conflict of interests
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