

Learning to Teach Learners with a Visual Impairment

Shruti Sircar

When I started teaching at the postgraduate level, I was totally unequipped to deal with visually impaired learners in my class. I had little training in any type of special education, knew little about visually impaired learners, and had never really considered learning anything about them. In those days, our institution, namely, Department of Linguistics & Contemporary English, EFL University, had neither the technology nor a dedicated laboratory for visually impaired learners. At first, it was frustrating and I made many mistakes; over the years it began to feel more natural and easy. In this paper, I will share with the readers a few things that I have learnt about teaching visually impaired learners and how it has helped me grow both personally and professionally.

In the year 2002, I met my first visually impaired learner (whom I shall call M from now on); my first reaction was that of panic. Never having taught a visually impaired person earlier, I had no idea if I could or was ready to deal with this. On that day, I taught the way I had been teaching earlier, in the usual way, pretending throughout that M had the same abilities as the other students in the class. I kept looking at M, trying to gauge whether he could understand the verbal input in the same way as the others. M, I could see, was trying to listen keenly to what I was saying. I often stopped to check for comprehension during class discussions and after I gave my instructions, M was quiet. I could see the confusion on his face, wanting to ask or say something, but choosing not to do so

for reasons known only to him. It was much later that I realized that it is important to ask the student if he/she requires assistance and not to presume that when help is needed it will be readily requested for.

Learning and Adjustments

My first learning happened when I asked a question and M answered it correctly. After the class, M walked up to me and asked me whether his answer was correct. This made me reflect on what I had said or done in class when M had answered the question: I had smiled and nodded. All teachers as we know employ these non-verbal forms of communication frequently, but a visually impaired learner fails to pick up these cues. A smile, a nod, a wink, or a frown will be missed by a visually impaired learner but a pat on the shoulder or an oral confirmation would indicate to the learner that the teacher is satisfied with his/her answer.

Graphs, Symbols and Trees

Let me now talk a little about the course that I was teaching that year; the course was called “Second Language Acquisition”. Most of the classes that I taught involved quantitative research studies that had numerous graphs and statistical analyses. My first reaction was, “What do I do? How do I convey to the student what the graph looks like?” Perhaps if he/she could understand the general findings, they could ignore the nitty-gritty of the graphs and analyses.

However, graphs and tables lend a clarity and concreteness to an analysis, and therefore a visually impaired learner needs it as much as a sighted learner. I decided to create an imprint version of the graphs. On a piece of cardboard I drew out the graph with a ball point, turned it over, closed my eyes and felt the ridges made by the pen. The graphs were not right: firstly, the ridges were not clear enough for anybody to read them and, secondly they were mirror images of the original graphs. After several attempts, I got the graphs right; now what I needed was the confirmation that it was going to work. I forced my friend to close her eyes, and as I explained the graph, I asked her to feel the graph. It was working, and I was absolutely thrilled!

Years later when I was reading Wendell Rodricks' book *The Green Room* (2012) in which he talks about his *Visionnaire* Collection, where clothes are marked in Braille for size and colour, I found confirmation for what I was doing.

An alternative method of presenting graphs is to stick strings on a cardboard which can be felt by hand. Students with visual impairment are known to use tactile and kinaesthetic inputs. These should not be thought of as "lesser senses" that are used in the absence of vision, but as another system through which learning takes place (Klatzky & Lederman, 1988).

Over the years, I have worked out other ways of communicating what I draw or write on the blackboard. For instance, I verbalize whatever I draw for the benefit of the entire class; for example, for a particular graph, I state "on the x axis we will represent the three groups of English infants: first the 6- to 8-month olds; then the second group 8- to 10-month olds and the third group 10- to 12-month olds ... on the y axis ..." It is not very difficult to get used to verbalizing what one writes on the blackboard and it addresses the problem quite effectively.

However, it should be done as discretely as possible, without drawing attention to the visually impaired learner and his/her difficulty.

The main concern in teaching Linguistics to a visually impaired learner was the non-linear IPA (International Phonetic Association) representations and the (Optimality Theory) OT tableaux. One of the best ways to teach these is to provide tactile imagery (as done earlier for graphs). Also, it helps a great deal, if the teacher and the learner agree beforehand on the terms that can be used to denote different phonetic symbols, for example, referring to [θ] as "theta", /ŋ/ as "n with a hook", and the Arabic glottal /ʔ/ as "question mark without the dot". In the case of a student who was working on "Sonority Principle and Misspellings of SLA Children", I remember using a technique which one might remember from Helen Keller's story, or even the Hindi movie *Black*, which involved tracing the symbols on the arm of the learner.

Another concern in Linguistics was around tree diagrams that linguistics students of syntax have to draw and interpret. The most effective way of verbalizing a tree diagram (with or without the tactile form), is to describe the tree from top to bottom and left to right, using phrases such as S dominates NP and VP, NP dominates D and N, etc. However, most of the visually impaired students I have taught, found it easier to work with brackets rather than trees.

Materials and Readings

Teachers have to be aware of the range of vision variance that learners may have, and the materials have to be adapted in accordance with these variations. For a learner with low vision who cannot read regular print, materials with large print have to be provided. In most cases, the easiest way would be to make soft copies of all reading material available to them beforehand, so that the font size can be increased. Students with some vision may be

large-print readers or may not be able to read at all without using special computer software or equipment. Many visually impaired learners prefer material in an electronic format and use screen reader software such as JAWS to read it. Other students may want material reformatted into alternative formats. Extra time and pre-planning is needed for this, and the learner must be made aware of these issues beforehand.

My most significant learning regarding visual impaired students came from V, who studied two courses with me during his postgraduate years. V started speaking to me right from the first class; he asked questions and requested repetitions almost every day in class. When I gave out the first text—a photocopy from a library book which had some comments in the margins and sentences which were underlined, V came back the next day requesting a cleaner copy with no underlining, or preferably, a soft copy. This was in the year 2008; by then the university had a sizeable number of visually impaired learners in each course, and a lab for them with JAWS, and a Cell for Disabled students. I learnt that day that texts that are heavily underlined or where the print is faded pose a problem for the scanner that reads the text aloud. Therefore, printed materials should be clear and have an easily readable font.

My experience with Q who uses Braille taught me something very helpful. Braille readers cannot skim read and may take up to three times as long as sighted students, to read a text. Most teachers ask learners to go back to their class notes to answer a question, which requires skimming and scanning. For those using Braille, it is not as fast and automatic as sighted learners, since unlike the eye, the fingers have to be moved linearly and thus it takes a longer time. Even for those with partial or low vision, skimming or scanning within a specified time constraint might be tiring.

Textbooks or academic texts can be skimmed and scanned quickly since they have many markers such as bold, underline, and italics, which draw the reader's attention to important points. Electronic texts however, do not have markers for chapters, headings, etc., and this means that screen readers need to search through the whole document to find relevant areas.

Testing and Evaluation

Another hurdle I encountered was in the form of internal tests that had to be given to the learners. There are several ways in which tests can be administered to visually impaired learners. However, these methods differ on the basis of the degree of the visual impairment. Let us look at two types of impairments:

- i. P was in the lower spectrum of visual impairment. P had difficulty in reading fine print. She had thick glasses, and hardly looked at the blackboard. P had low vision, and could not read texts unless they were in a large font size. She needed the question paper to be printed in 20-font size. I gave P soft copies of all handouts and class readings, so that she could increase the font size to read them.
- ii. For learners with severe vision loss, there can be three possible ways to tackle a test paper: (a) ask an aide/scribe to read out the questions in a corner of the room or in a secluded spot; the questions can be repeated as many times as required on request, (b) give the learner the question paper for a day, and ask him/her to record the answers on a tape, and submit the tape the following day, or (c) schedule the test on a separate day when the teacher reads out the questions and writes out the answers. However in option (c), the teacher needs to read out to the learner the entire question paper followed by the answers for

reviewing, before final submission. When M was given these three choices, he chose (b)'.

Unlike sighted learners, visually impaired learners require additional time to complete tests and assignments. However, the extra time allotted to them does not call into question the reliability or the validity of the test. In fact, this additional time is required since learners or their aides have to read and re-read the questions and the relevant texts. After writing or typing, it may take longer to proof-read written work and to put a bibliography together. Therefore separate assignment deadlines need to be set for them at the very beginning. Requests for extensions makes the learner put himself/herself at the mercy of the teacher, and may result in low self esteem. Following are efficient time limits: 1. 5 times for low vision learners, 2 times for those using an aide/scribe, and 2. 5 times for those using Braille (Legge et al. 1999).

Moving about

Personally, I learnt a very important lesson about helping visually impaired learners navigate within the classroom. Q, a visually impaired learner came for the PhD selection interview, and since I was sitting next to the candidate's chair, it was my self-assigned role to help the candidate in and out of the room. As we normally do for children, I held her hand; Q very politely removed my hand and held my upper arm just above the elbow. From then on, I usually offer a visually challenged learner my arm and while I walk slightly ahead, I indicate verbally, any changes in surface, gradient or direction. In addition to this, I leave the door of the room I am teaching in either completely open or closed; it is never partially open.

In case a class is cancelled or the venue is changed, the organizational changes need to be notified to visually impaired learners by phone. They will not be aware of messages left on

notice boards or notes on changes in lecture venues pinned to the lecture theatre doors. On one occasion, when my class was cancelled, I left a note on the blackboard for the students. A visually challenged learner who came in a little late, waited for me for almost 45 minutes, and then left.

Conclusion

I have come to the conclusion that teachers do not need to have special training to teach visually impaired learners or any other differently-abled learners in a regular class. What they need instead is a certain amount of resourcefulness and flexibility in delivering the course content. They need to plan these minor adjustments or modifications within their instructional strategies. These modifications and adjustments will also be beneficial for sighted learners.

It is important to understand that no academic discipline is out of bounds for a visually impaired learner. A curriculum is usually designed keeping in mind the cognitive abilities of learners. The goals and objectives set for students without visual impairments therefore need not be changed for a student solely due to a vision problem. It is the methods that need to be modified, and not necessarily the course objectives.

References

- Klatzky, R. L., & Lederman, S. J. (1988). The intelligent hand. In G. H. Bower (Ed.), *The psychology of learning and motivation* (pp. 121-151). New York: Academic Press.
- Legge, Gordon E., Madison, Cindee & Mansfield, Stephen J. (1999). Measuring Braille Reading Speed with the MNREAD Test@, *Visual Impairment Research* 1, 3, 131-145.
- Rodricks, Wendell (2012). *The green room*. New Delhi: Raintree, Rupa Publications.

Endnotes

¹ When I was writing this piece, my six-and-a-half-year old daughter asked me what I was writing about. I explained to her about the assessment pattern and the choices I had given to M. She instinctively felt that the first option was better because M would get more time to do it.

Shruti Sircar teaches in the Department of Linguistics & Contemporary English, EFL University as an Associate Professor. Her major areas of research include first and second language acquisition, psycholinguistics, and reading development and disorders.

shrutisircar@efluniversity.ac.in