NEEDS ANALYSIS: TEACHING ACCOUNTING TO A VISUALLY IMPAIRED (VI) STUDENT

Let me introduce you to Jeffrey Phahlamohlaka, born in 1980 in the Mpumalanga province, a rural area in South Africa. As a young boy Jeffrey's toys were oxen made of mud, cars made of wire, and a soccer ball in the open field. He had a normal life for a black rural boy until 1993 when his whole life changed. Jeffrey lost his sight in both eyes at the age of 13. His parents sent him to Siloe School for the Blind in Polokwane, Limpopo province in 1994. He was faced with the challenge of learning a new way of writing and reading in Braille and also had to cope with his visual impairment emotionally.

I met Jeffrey in 2003. I started as an Accounting teacher at the University of the Witwatersrand in South Africa in 2003. Jeffrey was one of my Acc learners. A question, which came to my mind when I met Jeffrey was: “How does a VI university learner study a discipline like Accounting?” The learning tools and methodologies used by a VI learner to apply accounting concepts will not be the same as that of a sighted learner.

Jeffrey and I decided that I will tutor him personally and we will meet on a weekly basis for his 2 hour tutorial sessions. Jeffrey’s conceptual understanding of Accounting was good. He however struggled with the practical application of the concepts. His test marks in April was 36% and in June 30%. This indicated that he was struggling with Accounting.

I critically reflected on this and became aware of the following problems, which had to be addressed:

**Research problems:**

- I was lacking the experience on teaching Accounting to a VI learner.
- I was uncertain about the required extent of my teaching responsibility to a VI learner.
• Jeffrey did not have prior knowledge or experience in Accounting and did not receive any career guidance. It was therefore unclear whether Jeffrey had an aptitude in the Accounting field.

• Accounting on its own is a very difficult concept to teach to any person not only a VI person. Using the same time frame, one year, to teach the Acc 1 course to a VI, learner might not be sufficient.

• The method of assessment we used in the Acc course, consisted of written tests and exams. It did not appear to be the most sufficient way of assessment for a VI learner. As Jeffrey mentioned, he used Excel with a Braille computer program, to study. To answer theoretical questions in Braille on the computer was not a difficult task. However the complex calculations, the use of T-accounts and setout of annual financial statements was difficult for Jeffrey to do.

Based on these problems, I decided to conduct research by means of a needs analysis strategy to identify the teaching needs and the learning needs in Accounting to a VI learner. I realized that I needed to know exactly what my responsibilities to Jeffrey were. I also had to assess whether Jeffrey’s method of studying for Accounting was efficient or needed to change.

My start off point was to review current literature on the teaching and learning of Accounting to Visually Impaired learners.

Theoretical Framework:

Limited literature was available on the education and teaching of the VI in Accounting. Literature was available on education and teaching of the VI in general. I found two readings on teaching strategies and methodologies for Mathematics teaching to the VI. I chose mathematics because this discipline includes numbers and formulas as Accounting. From these readings, I gathered useful data to support my needs analysis strategy.
One reading was by Nemeth, who developed the well-known Nemeth Braille Code for Mathematics and Sciences. Today the Code is used in the USA, New Zealand, Canada and French-Canadian provinces. Because Nemeth is a blind person himself, I highly regard his guidance and ideas. The advice of Nemeth was constructive but very broad and not specific to Accounting.

Another reading, which I obtained from the Texas School for the blind website, detailed collaborative and inclusive strategies for teaching mathematics to the VI. These strategies broaden my ideas but again not specific to Accounting.

I also read two articles from a local South African newspaper, related to disabled people. One article was about Michael Maseko, a blind learner at the University of the Witswatersrand. He completed 2 degrees and was busy with his master’s degree in international relations. He said that he was struggling to find employment. I quote him: “Companies do not want to employ blind people because of the expenses required to buy the technological equipment we require to get the job done”. Companies see disabled employees as a threat for their productivity. Another article was about “unfriendly buildings” for the disabled, which stated: “All too frequently, facilities for the disabled are planned at the last minute without proper adherence to building regulations”.

The limited literature available in this field and the negative view of disabled people in SA emphasized the need for this study. I realized that the constructive benefits that will result from this needs analysis will contribute to literature in this field and make people aware of their social responsibility towards people with special needs.

In the light of the above the following research questions directed the research:

**Research Questions:**

- What experience do I have with regard to teaching a VI learner Accounting?
- What learning skills, as a VI person, does Jeffrey already possess?
Can Jeffrey suggest ways that could assist him in his learning process in Accounting?

What resources are available on the learning and teaching of Accounting to VI learners to guide me through this process?

What has been the experience of other VI learners and teachers of VI in Accounting?

**Research Design: Methodology**

I decided on a needs analysis strategy to address this problem because its definition fits with this study's purpose: “……………..”

The research was qualitative of nature.

**Research Design: Methods of collecting data**

The data collection methods included the following. More detail on each method is available in the paper, which is published in the proceedings.

I had unstructured interviews with Jeffrey and Joseph Komope. Joseph is an alumni VI learner of the University of the Witwatersrand. He passed his Business degree in Accounting in 2002.

I had unstructured participant observation which included:

- A session with Jeffrey in the Computer Lab for VI learners.
- A workshop I attended in August 2003 at the University on “How to teach learners with disabilities”.
- A session with Rykie Woite. She is employed by the Disabled Students Department at the University of Witswatersrand. She helps VI learners with their studies in mathematics.

**The Actual Findings included the following:**

From the unstructured interviews with Jeffrey and Joseph it was evident that Jeffrey’s needs were supported by Joseph’s comments. **Firstly** Jeffrey explained that he had
been battling to find enough time to study three courses in one year. Joseph finished his four year degree over 8 years, which gave him enough time to grasp all courses. **Secondly** Jeffrey did not have a personal computer or a tape recorder which made it difficult for him to work efficiently. Joseph had a notebook and a tape recorder when he studied. He explained that he would not have been able to pass if he did not have these two items to assist him. Jeffrey also said that he missed a buddy who could study with him, attend lectures with him and who could help him when he had problems.

Lastly Jeffrey was also uncertain about his aptitude. He went to the Careers Assessment Center at the University to complete aptitude tests in September 2003. The results indicated that Jeffrey fits better in a career that requires reasoning and intelligent talk, such as public speaking. In other words Jeffrey would do better in disciplines, which will encourage him to reason. The results of the careers assessment combined with Jeffrey’s struggle in Accounting made him change his degree to a Law degree from 2004.

From my observation at the Computer Lab with Jeffrey I noted that it is important for a teacher to do the tutorial sessions with the VI learner in front of a Braille computer so that the teacher can assist the student in answering the questions.

The session with Rykie was very meaningful. She explained and showed me how one page in a textbook is changed and edited for Braille purposes before it gets printed. This gave me constructive, purposeful and valuable information about how a VI learner’s textbook look like, and in essence how he would learn.

**Limitations and areas for further research**

In the light of the above, it is clear that there were limitations in the study, including:
1) The Time constraint due to limited time available with the participants.
2) The Limited number of participants.
3) and it was not a continuos process.
Areas for further research, which merits attention are:
1) More in-depth research in the current teaching and learning methods for VI learners in Accounting.
2) and the Design of a curriculum for teaching VI learners Accounting.

My experience with this study was that in addition to the usual stresses faced by all learners, the majority of learners with disabilities have all of the following to cope with at University:

- A new physical environment, which is often not accessible.
- A school experience, which treats them as a medical condition and not as an equal human being, and does little to broaden their horizons.
- Discrimination as learners.
- Additional financial burdens, to cope with their disability.

We as teachers need to support our disabled learners in their learning to become comfortable with the new environment. I believe that a structured plan, given to a teacher upfront to work through, will prevent many unnecessary loopholes, which Jeffrey and I struggled with due to lack of knowledge and guidance.

**Conclusion and Recommendations**
Aspects specific to the teaching of Accounting to VI learners, which I believe merits attention:

- Extend a one year course to a two-year course. Include principles of basic bookkeeping in the first year and practical principles in the second year.
- Inform your learner of Careers Assessment facilities at your University if he is uncertain about his aptitude and competencies.
- Ensure that you get a Disabled Students Guide from the Disabled Student’s Department at your University in the beginning of the academic year and work through it.
- Attend workshops on teaching Disabled Students.
• Arrange with a person at the Disabled Student’s Dept to meet with them to observe and experience what they do and how they do it. Also work through your textbook with them to learn how it will look in Brialle.
• Arrange a one-on-one tutor/buddy with your VI learner.
• Assess the needs of your VI learner upfront. Aim to use his prior knowledge in your learning tasks to make the learning of new content easier for him.
• Only focus on essential issues – remember less is more!
• Reconsider the assessment methods used in your subject for VI learners.

To close, my desire with this strategy was that it would result in the design of an appropriate intervention to address the problem and contribute to the self-improvement of the teacher and the learner. It is my wish that this needs analysis will contribute to the enhancement of teaching and learning methodologies in Accounting.

I close with the following words of Mother Teresa that serves as an inspiration and a motivation to us as Educators.

“At the moment of death we will not be judged according to the number of good deeds we have done or by the diplomas we have received in our lifetime. We will be judged according to the love we have put in our work.” (1997:65)