

Are They Really Poor Spellers? : A Socio-psycholinguistic Study on Sinhala Spelling Errors of Visually Impaired Language Learners

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Abstract - Though, a considerable amount of studies on visual impairment have supported the concept of 'sensory compensation', a growing body of studies has identified Visually Impaired Language Learners (VILLs) as poor spellers. However, 'social model of disability' has emphasized that the society contributes crucially to disable physically impaired persons. Reading between lines, there is a room for some socio-psycholinguistic factors which motivate VILLs to be poor spellers. Though, several attempts have been made to investigate linguistic restrictions towards VILLs, treatments by researchers to the socio-psycholinguistic underpinnings for spelling errors of VILLs are not satisfactory. Therefore, the present study was carried out with the objective of exploring the underlying socio-psycholinguistic factors which encourage poverty of the spelling of VILLs. Exploratory research design was adopted in order to allow for an in-depth investigation on the topic under study. Both quantitative and qualitative data were used for the purpose of achieving the objective of the study successfully. Evidence from the present study suggests that visual dominance and the unconsciousness on the potentiality of sensory compensation in spelling system, instructional strategies of spelling and Braille code of Sinhala encourage poverty of the spelling of VILLs. The Researcher has suggested some effective technological remedies on the basis of the results revealed through the study to get around the bottlenecks, facing VILLs in the contexts of inclusive linguistic behaviours due to poor spelling.

Keywords: visually impaired, spelling errors, socio-psycholinguistic underpinnings

Extended Abstract

1. Introduction

Since language is a system of conventional symbols which has been resulted from human linguistic competence, spelling accuracy of written language is not a phenomenon which can be addressed independently of the speech community and the underlying psychological factors. According to the concept of 'sensory compensation', lack of one sense leads to a compensatory sharpening of the other senses. (Cattaneo and Vecchi, 2011) Though, a considerable amount of studies on visual impairment have supported this concept (e.g. Monegato et al, 2007; Alary et al, 2008; Cattaneo and Vecchi, 2011), a growing body of studies have identified VILLs as poor spellers (e.g. Arter and Mason, 1994; Papadimitriou and Argyropoulos, 2015). However, 'social model of disability' has emphasized that the society contributes crucially to disable physically impaired persons. (Shakespeare, 2006: 197 – 205) Reading between lines, there is a room for some socio-psycholinguistic factors which motivate VILLs to be poor spellers. Though, several attempts have been made to investigate linguistic restrictions towards VILLs (e.g. Handapangoda, 2018a; 2018b) treatments by researchers to the socio-psycholinguistic underpinnings for spelling errors of VILLs are not satisfactory. Therefore, the main objective of the present study was to explore the underlying socio-psycholinguistic factors which encourage poverty of the spelling of VILLs. Moreover, some effective technological remedies have been suggested to mitigate the tragedies, facing VILLs in the contexts of inclusive linguistic behaviours due to poor spelling.

2. Methodology

Exploratory research design was adopted in order to allow for an in-depth investigation on the topic under study. Both quantitative and qualitative data were used for the purpose of achieving objective of the present study successfully. Secondary data were collected by reviewing literature whereas the primary data were collected by method of experiment.

- Literature review: Books, articles, research papers published by several scholars and web sites were perused in order to collect secondary data pertaining to the topic under study. Critical evaluation of these works in relation to the research problem has been investigated.
- Method of experiment: Method of experiment was employed in order to collect primary data pertaining to the subject area.

Two tools were adopted in the process of data collection:

- Spelling test: A spelling test was conducted with an experimental group consisted in 20 Visually Impaired (VI) university students varied from the visual experience and a control group of 10 sighted university students in order to explicitly identify the nature of socio-psycholinguistic underpinnings of the spelling errors of VILLs. The sample was convenient and representative. Both the experimental and control groups were selected from the same study area and the same age range (21 – 26). Short structured interviews were conducted with each participant before and after the test. The test intended words were sufficient enough to represent Sinhala letters, identified by Coperahewa (2016) as letters which have the closest

link with Sinhala spelling errors and all the diacritics derived from vowel symbols and special ligatures of Sinhala.

- Semi-structured interviews: Interviews were conducted with 20 VI Sinhala language learners those who have experienced both inclusive and exclusive education and 10 teachers those who have experienced inclusive or exclusive Sinhala language teaching with VILLs in their classrooms to clearly identify the nature of bottlenecks, facing VILLs in the contexts of Sinhala spelling. Snow ball sampling was adopted since the potential participants were hard to find. Interview guideline designed for each group was sufficient enough to identify effectiveness of the tools and methods adopt in spelling instruction for VILLs and the nature of motivation for their richness of spelling.

Data were analyzed thematically based on a socio-psycholinguistic theoretical framework.

3. Results and discussion

The study observed four socio-psycholinguistic factors which prevent VILLs from enjoying the richness of spelling.

3.1. Code specific intricacies of Braille

According to the results obtained from the spelling test, the highest Mean Spelling Accuracy (MSA) (75%) has been secured by sighted students while the lowest MSA (50%) has been reported by students without Prior Visual Experience (PVE). Interestingly, the highest spelling accuracy of half sighted students, using sighted Sinhala letters (90%) is equal to the highest spelling accuracy of sighted students (90%) whereas the mode of spelling accuracy of half sighted students, using Sinhala Braille code (50%) is similar to the mode of spelling accuracy of students without PVE (50%). 85% of the interviewed VILLs have reported that code specific intricacies of Braille such as the misguidance of minute differences between some pair of Braille letters and the absence of some diacritical marks in Braille lead to poor spelling. Overall, these results indicate that compensatory potential of the tactile sense of VILLs have not been concerned adequately in the historical development of Sinhala Braille code.

3.2. Visual centric features of Sinhala spelling

It was observed that two visual centric features have been brought up during the historical development of Sinhala spelling.

3.2.1. Contrasting relationship between some phonemes and graphemes

Interestingly, 75% of spelling errors however, made by VILLs in the spelling test were due to distinction between phonemes and graphemes.

3.2.2. Irregular spelling

For example, none of the VILLs have reported correct spelling for the word “පෙලූඹීම”, which is entirely based on learned usage (Coperahewa, 2016), in the spelling test.

In summary, it is evident that visual dominance of Sinhala orthography invites spelling errors in written language of VILLs.

3.3. Attitudes towards spelling of VILLs

Surprisingly, 95% of the interviewed teachers and 80% of the interviewed VILLs were in the view of that spelling is primarily a visual skill which only relies on iconic memory. According to the interviewed data, aforesaid view has led most of the teachers of VILLs to encourage their students not to draw sufficient attention on spelling while simply stating that they will not be tested for spelling in examinations. Nevertheless, box 1 and 2 indicate the most poignant lines of this tragedy.

Box 1: Interview - SVI 10

Though, we were not encouraged to draw our attention on spelling by teachers, we had to confront with bunch of bottlenecks in answering compulsory multiple choice questions on Sinhala language papers of the government examinations. Whether someone tests me for spelling or not, I have become a mendicant of speller especially in the context of irregular words.

Source: Field Survey Data 2018

Box 2: Interview - SB 13

I am conducting Sinhala language classes for sighted students who are studying for both advance level and ordinary level examinations. All the lessons are presented by me with the help of power point slides. Answers are marked orally during class hours. No special attention is drawn to spelling since it is entirely a visual skill which I have no access. I am unaware of soft copies of any Sinhala spelling handbooks and use to confirm spelling by contacting my teachers in preparing slides.

Source: Field Survey Data 2018

Taken together, these findings suggest that visual centric attitudes of spelling in language society without concerning the possibility of mental images for all senses lead to arduous situations to VILLs in inclusive linguistic behaviours.

3.4. Strategic deficits in spelling instruction

According to the results obtained, all the interviewed teachers who have experienced inclusive teaching, have only relied on traditional strategies such as Cover, Copy, and Compare method and weekly spelling tests in spelling instruction. 90% of the interviewed teachers those who have experienced exclusive teaching with VILLs, have neglected spelling instruction concerning spelling as entirely a visual skill whereas the others have only adopted rule based spelling instruction. Neither the teachers nor the VILLs who have been interviewed have any experience or aware of spelling instruction strategies based on assistive technology those are implemented successfully in foreign countries. These findings suggest that modernization in spelling instruction for VILLs, which rely on effective technological strategies, has been prevented by the unconsciousness of spelling instructors.

4. Conclusion

The aim of the present study was to explore the socio-psycholinguistic underpinnings which encourage poverty of the spelling of VILLs. Taken together, the evidence from this study suggests that visual dominance and the unconsciousness on potentiality of the sensory compensation in spelling system, instructional strategies of spelling and Braille code of Sinhala prevent VILLs from enjoying the richness of spelling.

The Researcher suggests following technological remedies to mitigate the tragedies, facing VILLs in the contexts of inclusive linguistic behaviours due to poverty of the spelling.

- Motivate researchers to make accessible novel devices which offer more opportunities to gain advantages from sensory compensation such as taptilo, for Sinhala Braille.
- Encourage VILLs to use computers as much as possible from the primary education.
- Encourage researchers to design an effective method to make Sinhala PDF documents accessible for screen readers.
- Take necessary actions to improve the teachers understanding of possibility to gain more advantages from sensory compensation by adopting newly developed technological strategies in teaching spelling.
- Encourage teachers to adopt newly developed devices such as taptilo in teaching Sinhala Braille.
- Recommend the usage of computer-assisted strategies in Sinhala spelling instruction.
- Enable compatible legal environment to use computers to VILLs in examinations.

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