THE ROLE OF AUDITORY AND EDUCATIONAL MATERIAL IN TEACHING ENGLISH TO VISUALLY IMPAIRED STUDENTS

دور الوسائل التعليمية السمعية والحسية في تدريس الإنجليزية للطلاب ذوي القصور البصري

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Abstract

This paper attempts to highlight the role that the auditory and tactile educational material play in teaching English to students with visual impairment (SVI). Unlike their colleagues who can use visual, auditory, and kinesthetic styles in their knowledge processing, visually impaired learners rely mostly on auditory reception without excluding the tactile, or kinesthetic modes to compensate for this limitation. In this context, both teaching methods and technology can help satisfy the special needs of these learners. On the one hand, the Audio-Lingual Method (ALM) with its oral/aural techniques can coincide with their auditory processing of learning. On the other hand, this can be reinforced with the use of technology resources such as the 3 D models, which help them in their tactile language learning. Now, this review aims to raise teachers' awareness to develop the auditory competence of SVI so that they can improve their language learning. Therefore, this paper recommends teachers to incorporate the methods and material, which satisfy their learners with special learning needs.

Keywords: Audio-Lingual Method (ALM); auditory channel; learning styles; tactile; visually impaired.

ملخص:
تحاول هذه الورقة وصف الدور الذي تلعبه الوسائل التعليمية السمعية والمسية في تدريس اللغة الإنجليزية للطلاب ذوي القصور البصري. ففي حين يستطيع الطلاب البصريون استخدام الأساليب المرئية والسمعية والحركية في معالجة معارفهم؛ فإن المتعلمين ذوي القصور البصري يعتمدون بقوة على إمكانياتهم السمعية والمسية كاستراتيجية تعام لتعويض فقدانهم للبصر. في هذا السياق، يمكن لتكييف كل من طرق التدريس والتكنولوجيا التعليمية تلبية الاحتياجات التعليمية الخاصة لهم. ففي مجال اللغات الأجنبية يمكن أن تتزامن الطريقة السمعية الشفهية باستخدام تقنياتها الشفوية السمعية مع المعالجة السمعية للتعلم. من ناحية أخرى، فإن تزويد هؤلاء الطلبة بتكنولوجيا النذجة ثلاثية الأبعاد يمكن أن يعزز كفاءتهم السمعية وبالتالي تمكينهم من تحسين جودة تعلمهم للغة. لذا فإن هذا البحث يوصي المدرسين بإدراج الطرائق والوسائل الملائمة والتي تضمن للمتعلمين امتلاك الدعم الذي يلبي حاجياتهم الخاصة.
الكلمات المفتاحية: الطريقة السمعية الشفوية (ALM)، القناة السمعية، أساليب التعلم، اللمس، ذوو القصور البصري.

Introduction

According to Jedynak (2018), the European Union (EU) promotes the process of learning foreign languages for all students, regardless of what level of disability they have. This policy rises slogans such as "Education for All" and "Languages for All." Knowledge of foreign languages forms an indispensable element in education, which facilitates participation in social life and enriches culture (Jedynak, 2018, p. 200).

In terms of the lack or weak of sight sense, Krzeszowski (2001) views that the knowledge of foreign languages can perform compensatory functions in the area of sensory and psychological communication, creative thinking, as well as in the area of entertainment (as cited in Jedynak, 2018, p. 200). More importantly, knowledge of foreign languages, in particular English, can increase – in the first place – the chances of visually impaired students for greater integration within their environment of fully abled individuals or for finding employment (Aikin Araluce, 2005, p. 5).

1. Definition of Visual Impairment

The eye consists of different parts that work together to enable people to see their surrounding environment. Unfortunately, when one of these parts does not work well visual impairment condition occurs. Bailey and Hall (1990) refer to visual impairment (VI) as a cover term for describing different levels of vision loss (as cited in Kamali Arslantas, Yıldırım, &

Altunay Arslantekin, 2019, p. 1). Under this concept, we can identify two categories of VI conditions: (a) *low vision* and (b) *blindness*.

On the one hand, the term "Blindness" occurs when the individual's sight becomes unreliable, and then he/she relies primarily on the other four senses. So, when a person who sees at 20 feet (represented by 20/200) the same object what non-visually impaired people see at 200 feet, the former is considered as a legally blind person. On the other hand, 20/70 refers to the "low vision" condition of visual impairment (Mervis, Yeargin-Allsopp, Winter, & Boyle, 2000, p. 72).

According to Scheiman, Scheiman and Whittaker (2007), there are two main causes of losing vision. These can be congenital or adventitious. The former indicates losing vision since the first day of birth due to mothers' illness. While the latter refers to the loss of vision at birth or immediately following birth. For instance, visual impairment due to an individual's illness or exposure to an accident.

Yet, *low vision* does not necessarily need to be regared as a distance vision problem. For example, individuals with low vision are unable to read a newspaper at a normal reading distance. More importantly, glasses or lenses cannot correct this type of visual impairment. Besides, low vision people usually use another sense or possibly other senses to learn. Some of them may make use of additional lighting and/or text size change (Scheiman, Scheiman, & Whittaker, 2007, p. 164).

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2. Historical Background

Historically speaking, Jedynak (2018) views that the beginnings of interest in foreign language teaching for learners with visually impaired (VI) dates back to the 1930s. In 1931, a blind teacher "William Patrick Morrissey" published a book titled "*Teaching Foreign Languages in Schools for the Blind*". This was his first publication, which drew attention to the potential of VI people as far as foreign language acquisition is concerned.

Morrissey argues that the loss of sight opens new possibilities for visually impaired students (SVI). For instance, the capability of using their auditory skills to a greater degree than non-visually impaired learners use. In his publication, Morrissey also notices that learning a foreign language relies mainly on the hearing sense. Even though sight is useful for learning, its loss is not a determinant element for success in foreign language learning and teaching (Jedynak, 2018, p. 201).

3. The Role of Vocabulary Knowledge in Language learning

In the area of language learning, vocabulary knowledge forms one of

the main milestones in the field of language learning (French-Allen, 1983; Laufer, 1986; Nation, 1990; Stein, Neßelrath, Alexandersson, & Tröger, 2011). This knowledge, which is at the focus of foreign language learning can be perceived with the listening, speaking, reading or the writing skills. (For this reason), Nation (2001) states that "learning vocabulary requires mastering a word's meaning, form, and use" (p. 27). This implies that learning vocabulary correctly requires learning how to spell. In its turn, learning how to spell necessitates orthographic knowledge.

In their study of the spelling of SVI, Papadopoulos, Arvaniti, Dimitriadi, Gkoutsioudi, and Zantali (2009) view that the level of vision loss affects their spelling performance. However, visually impaired learners can decrease this negative effect if their level of education has been increased (as cited in Aslantaş, 2017, p. 98). Similarly, orthography may be a difficult subject to master, especially when SVI learn English. This is, of course, due to the fact that "the English language has so many exceptions to its rules that the rules themselves become meaningless" (Arter & Mason, 1994, p.18).

However, the stage of vocabulary knowledge represents an output skill to master the target language; the process of the auditory input activation is the base for any vocabulary knowledge. The auditory input is the main tool that students with visual impairment use to gain information. Through the listening skill, they can be more efficient compared to the reading skill (Nolan & Morris, 1973).

In the same vein, several scholars show the positive relationship between the auditory input and superior performance (Douglas, et al., 2009; Röder, Rösler, & Neville, 2000; Weeks, et al., 2000). In any educational setting, efficient listening skills can help visually impaired individuals to be successful in reading and speaking skills (Heward & Wood, 2006). Consequently, the use of a variety of auditory tasks ensures higher activation in the occipital cortex of the blind's brain (Röder, Rösler, & Neville, 2000).

4. The Audio-Lingual Teaching Method

During the 1960s, the field of teaching foreign languages witnessed several renovations. Under the influence of the behaviourist school, the Audio-Lingual Method (ALM) developed as an aural/oral teaching method. This method adopts the behaviourist approach of developing proper linguistic habits as the core for the learning process through the reinforcement system.

Therefore, the ALM regards that to acquire the sentence patterns of the target language, learners must respond correctly to stimuli through

reinforcement. Because of this, the ALM compresses on the chain drill to master the target language by memorization and practicing, while the wrongness of speaking is avoided and not tolerated (Larsen-Freeman, 2000).

On the other hand, the automatic repeating, remembering, and memorizing of the linguistic material constitutes the main strategies. Furthermore, the ALM insists on promoting the auditory input through developing listening skills for mastering a foreign language. This principle is based on the way people acquire their mother tongue in sequences from listening and speaking to reading and writing skills (Komorowska, 2004).

5. Models from Applying the Audio Lingual Method

In the same trend, Professor Dorstet (1963) supervised the first initiative undertaken in the United States of America (USA) by the Federal Rehabilitation Agency. The goal of this program was to prepare VI and blind individuals to learn foreign languages. Subsequently, they gain qualifications to teach FL in schools. Not only did the program assume that the listeners of this course would be able to learn foreign languages, but also to expand their knowledge about the efficient methods and techniques for learning these languages.

Also, the participants of this course are individuals with various visual disabilities from several American states. The language course covered 40 hours a week in which the audio-lingual method was the center of these classes (as cited in Jedynak, 2018). Jedynak also explains that the course has taken place in both language laboratory and a classroom where the participants can learn languages independently.

First, the SVI listen to various recording topics on cassettes and repeating specific linguistic phrases. Thus, repeating, memorizing dialogues, and reacting in a specific manner to the interlocutor's questions are the main techniques (as cited in Jedynak, 2018). During this course, the participants could develop all aspects of language learning. Before the stage of introducing the vocabulary and grammar aspects of a foreign language, the participants become acquainted with the phonetic system of this language. They have been familiar with such aspects as the articulation of individual consonants, vowels, and combinations of sounds.

Concerning the four language skills, the designed course has primarily developed the learners' ability to speak and listen using ready-made linguistic phrases. After two years, the participants became qualified to work as interpreters of Russian and German languages and teachers of these languages as well. Furthermore, several general and special education

schools have hired the majority of language course participants (Dorstet, 1963 & McDonald, 1968; as cited in Jedynak, 2015, p. 146).

In compliance with this project, Nikolic (1987) compares accomplishments in the acquisition of foreign and native languages in his publication entitled "*Teaching English as a Foreign Language in Schools for the Blind and Visually Impaired*". Nikolic states that similarly to the case of learning their native language, SVI can achieve successful performance in foreign language acquisition. The author draws attention to the fact that SVI have the advantage to acquire a given foreign language because of their auditory sensitivity.

Consequently, Nikolic has assumed that this predisposition helps them in mastering the phonology of the foreign language and using ready-made linguistic structures. Furthermore, Nikolic postulates that VIS could learn a foreign language together with fully abled students. He justifies his view because "there are no contraindications" for the first group to learn according to a different curriculum. Therefore, teachers should adjust the materials used in teaching foreign languages for compensating for the deficiency of sight sense (Nikolic, 1987; as cited in Jedynak, 2018, p. 206).

6. 3D Tactile Models as a Modern Trend

According to Jedynak (2015), teachers should adjust the didactic materials to the VI learners' needs by introducing or incorporating real-life objects for them (so-called *realia*) in which they can experience learning a foreign language in real contexts (see Figure.1).

Figure 1. A Tactile Pictures Book for Visually Impaired Students. Source: Shi, Lawson, Zhang & Azenkot (2019),

Figure 1 shows an example of the "Tactile Pictures Book Project". A team at the University of Colorado started a new project to help SVI (from ages 11 to 20 years old) to have the same learning experience. Through using a 3D printed tactile model, the VI children can feel objects with their hands. Thus, they can grasp what the objects are. These images provide the learners with good details using the accompanying text in Braille. Learners can also read the Braille font at the same time while they are learning.

In their study, Hub, Diepstraten and Ertl (2005) insist on the importance of using "environmental cues or stimuli". The focus here is laid on the development of a language-learning tool to enhance the capability of SVI while exploring their surrounding environment when they learn language. In their study, the researchers developed an orientation that assists teachers to teach SVI the basic vocabularies in their first and non-native languages. This assistance has a sensor module using a portable computer. Furthermore, this process requires the formation of a 3D printed model for particular objects to enable SVI to learn object names while they are learning through exploration (see Figure.1).

Figure 2. A Visually Impaired Student Uses a Mobile Application to Learn about the Plane Model.

Source: Shi, Zhang, & Azenkot. 2019, p. 1.

Figure 2 shows a mobile application as an example of what SVI can use to learn the Plane Model. This application produces audio information when the student explores the model. Moreover, it highlights the different components of the model with colours accessible to low vision students. Concomitantly, the iPad is placed on a stand so that the camera can capture the student's interactions with the model. This mobile application aims to improve the English vocabulary of visually impaired learners.

Conclusion

Overall, it is misleading to define visual impairment as a learning difficulty that decreases language development. This is because a visually impaired individual is equally capable of learning a language as any of his/her sighted peers. Moreover, VI learners can achieve their educational goals when a suitable context using appropriate and accessible educational materials is available for them.

Therefore, if their teachers realize the significance of listening skills as a key to master the remnant of language skills, VIS would learn English compared to their sighted counterparts. In other terms, the significance of auditory skills development lies in the ability of SVI to comprehend and grasp non-visual information. Because of this, grasping information through the auditory organs requires teachers to lay much emphasis on the listening skill in their VI classes.

In this light, listening is a fundamental language skill. However, foreign language teachers may neglect this aspect whether it is intentionally or incidentally. Nowadays, the digital revolution provides VI learners with a wide range of adaptive resources that may compensate for their visual deficiency. Using such tools requires developing an auditory competence in which visually impaired learners can access non-visual aids. In sum, both students with visual impairments and their teachers are in need to think out of the box of the traditional teaching-learning process. Hence, integrating adaptive educational technology can provide SVI with an equalizer tool to experience a variety of non-visual information.

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