TEACHING SIGN LANGUAGE FOR HEALTHCARE WITHIN A LANGUAGES FOR SPECIFIC PURPOSES FRAMEWORK

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Abstract:
Languages for specific purposes is a subdiscipline of applied linguistics that looks at language learning and teaching for a specific education or training need. The long-established norm of this field is the teaching and learning of spoken languages. Sign languages have been excluded. This paper calls attention to this gap in the field and shows how a sign language can be taught and learnt for a specific purpose. This empirical work describes how students training to be healthcare practitioners are taught Jamaican Sign Language with a view to improving communication with Deaf patients when these students become healthcare practitioners. Overviews of course content as well as teaching and assessment methods are examined in light of the tenets of the field of languages for specific purposes. This is to assess how the content as well as teaching and assessment methods compare to current practice in the field of languages for specific purposes. Benefits of this programme are also presented. It is hoped that this paper sparks a much-needed discussion in the field of languages for specific purposes on the inclusion of sign languages and what best practice would look like in a subdiscipline of sign languages for specific purposes. Globally, the number of sign language courses offered at higher education institutions is increasing. It is a logical conclusion that more institutions will begin to offer sign language courses tailored for specific settings. The demand for such courses is just beginning. The need therefore to address the question of the place of sign languages for specific purposes within the field of languages for specific purposes is urgent.

Keywords: sign language; healthcare; languages for specific purposes; communicative competence; higher education; Jamaica.

1. Introduction

Medical language proficiency is being acknowledged as a necessity for healthcare teams as patient treatment outcomes are put at risk when the healthcare practitioners are not users of the language of the patient (Hull, 2016; Champion and Holt, 2000). This paper describes the teaching of medical language in Caribbean sign languages to students in the Faculty of Medical Sciences at the Mona Campus of The University of the West Indies (UWI). A preliminary survey of the literature shows that sign language taught for specific domains has not been

considered in the field of languages for specific purposes (LSP). LSP grew out of the teaching of English and of other modern languages like French in contextualised settings (Trace, Hudson and Brown, 2015). Its focus therefore has been the use of those languages in spoken and written forms in various domains (Trace, Hudson and Brown, 2015; Gunnarsson, 1997). Sign languages have not been included. Evidence of this is found in the absence of any reference to sign languages in major LSP publications like Long and Doughty (2009); Gollin-Kies, Hall and Moore (2016) and Knapp and Seidlhofer (2009). These volumes have chapters devoted to the areas of speaking, writing and listening in LSP but no mention of teaching a signed foreign language.

Sign languages have not yet been widely accepted as foreign languages in the fields of LSP or Modern Languages although sign languages satisfy the criteria for foreignness (Ehlich, 2009). Scholarly dialogue and research on sign language as the language being taught for a specific purpose must begin but first, the place of sign language teaching and learning in the field of LSP must be demonstrated. This paper situates the teaching of Jamaican Sign Language and other Caribbean sign languages for the purpose of Deaf patient management to students of various healthcare programmes in LSP. In this work, *deaf* refers to persons who have a hearing loss that prevents them from hearing sounds in the -10 to 15 dB range (Cumberbatch and Jones, 2017) and *Deaf* refers to persons who adhere to the cultural norms and values of a group whose primary means of communication is visual-gestural in modality (Cumberbatch and Jones, 2017).

2. The Status of Sign Language as Human Language and as a Foreign Language

Sign languages display all of the characteristics of human language and have all the levels of linguistic organisation of human language (Cumberbatch, 2013; Zeshan, 2005). The difference between sign languages and the spoken languages that are familiar in the literature stems from a difference in modality (Baker, van den Bogaerde, Pfau et al., 2016). Sign languages are visually received and produced using gestures while spoken languages are perceived auditorily and produced using the vocal tract. The modality has a significant effect on the grammar of sign languages making them distinct from spoken languages (Uyechi, 1996) and offering insight into how human languages operate (Zeshan, 2005).In the classroom, a foreign language is a language not native to the students in the classroom (Ehlich, 2009). A foreign language is one which is "…taught and learnt, and not acquired" (Knapp, Seidlhofer and Widdowson, 2009). Linguistic foreignness is not limited to the identification of a language from another country and therefore includes languages used within the same territory. On this basis, it can be argued that sign languages are indeed foreign languages used by sign communities within multilingual territories. Sign languages are neither native to hearing students nor required for their daily life. Despite this, many people do not view sign languages as a foreign language; even foreign language teachers who can verify that sign languages satisfy the criterion for linguistic foreignness.

3. Sign Language as a Language for Specific Purposes

LSP refers to language education that is focused on specific language needs for particular discourse scenarios in academia and workplaces (Hyland, 2009). LSP is more than translating texts and specialised word lists; it also involves teaching communicative behaviours for interaction with a cultural group (Hyland, 2009). In the case of healthcare for Deaf patients, the particular need is to communicate with patients whose primary means of communication is a visual-gestural language. Healthcare teams are trained using auditory-vocal languages and are faced with a communication barrier when the patient is not a user of a spoken language (Champion and Holt, 2000). The approach being used to tackle this challenge is to equip student healthcare practitioners with the language skills needed to communicate directly with Deaf patients. It is expected that when the students become professionals, they are prepared to interact one-on-one with Deaf patients without relying on interpreters or family members (Cumberbatch and Jones, 2017). The target Deaf patients in this LSP programme are deaf Deaf patients, that is, patients with hearing loss whose preferred means of communication is the natural sign language of the Caribbean Deaf community to which they belong. Oral deaf or deaf people who use artificial sign languages like Signed English are not the focus of the LSP programme. This LSP programme is an initiative of the Mona Campus and has not yet been adopted on the other campuses.

4. The Suite of Sign Language Courses

An overarching tenet of the sign language courses is that students should become empathetic to a social group that forms a linguistic and cultural minority through gaining awareness of and appreciation for the language and culture of the Deaf community. Traditionally, the field of medicine has utilised a medical/pathological approach to deafness in which hearing loss is viewed as an impairment which must be treated and/or cured (Cumberbatch, 2014a). This approach disregards the existence of a Deaf culture and its language. The opposing standpoint is the cultural/anthropological approach in which hearing loss is a common characteristic of a group of persons sharing cultural norms and values with their primary means of communication being in a visual-gestural modality (Cumberbatch, 2014b). The cornerstone philosophy of the sign language courses for healthcare is to create empathetic healthcare practitioners who move away from the medical/pathological approach towards the cultural/anthropological approach. It is hoped that students create a balanced perspective that allows them to view the hearing status of each patient as that particular patient views it.

As is necessary in language courses for medical purposes, the sign language courses aim to balance the language use needs of the language community with the language learning needs of healthcare workers (Trace, Hudson and Brown, 2015). At present, four sign language courses are available to students as they progress through the preclinical and clinical stages of their programmes at the Mona Campus. These four courses form the LSP programme. See Figure 1 for the progression of the students from one course to the other.

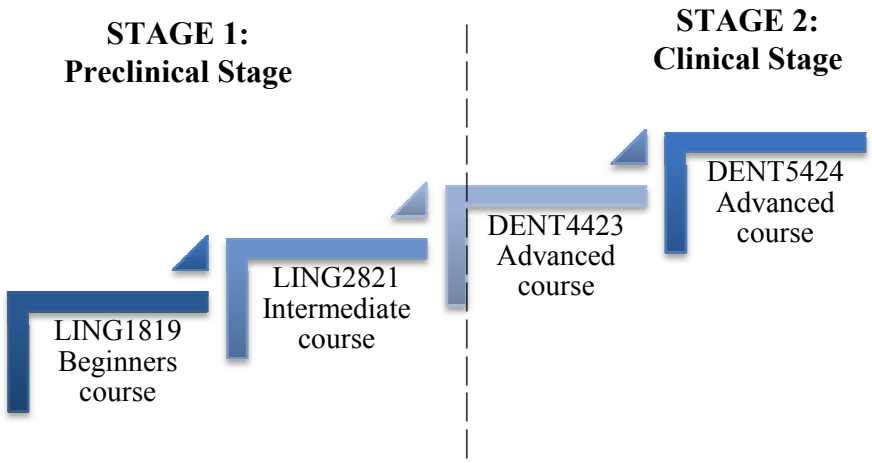

Figure 1: Sign language courses available to students in the Faculty of Medical Sciences

All students in the Faculty of Medical Sciences can take LING1819 Beginners Caribbean Sign Language, as a foundation course in their degree programme. In this introductory course, students learn to introduce themselves, discuss daily life and engage in basic conversation. This non-clinical, introductory sign language course is a prerequisite for the preclinical and clinical sign language courses.

The preclinical course, LING2821 Sign Language for Medicine and Dentistry, is also available for all students in the faculty. LING2821 takes students through the steps of patient management in simulated and real scenarios. Students learn to take histories, do triage, describe and explain investigations and other procedures, explain the administration of drugs, and discuss treatment plans. In this course, deaf culture is a part of the curriculum. Including cultural knowledge in language for medical purpose courses is practiced in LSP (Hillman, 2015). Students are also streamed according to their programme for tutorials where they are taught terms specific to their area such as dentistry and physiotherapy.

Only the School of Dentistry has clinical sign language courses in which the focus is on actively using the learnt language skills during patient care and not on sign language learning for future patient care. The Doctor of Dental Surgery programme offered at the Mona Campus of The University of the West Indies is the only dental school in the Western hemisphere that mandates sign language acquisition and proficiency in its curricula (Jones and Cumberbatch, 2018). Their students do DENT4423 Clinical Preparation then DENT5424 Clinical Practice. In DENT4423, students learn the protocols for Deaf patient care at the UWI Mona Dental Polyclinic (UMDP). In DENT5424 where they are grooming their clinical skills, they are required to have a minimum of 81 hours of treating Deaf patients.

5. Teaching Methods and Materials

Grammar in the context of what is taught in the courses is defined as in Larsen-Freeman (2009), “a system of meaningful structures and patterns that are governed by particular pragmatic constraints.” The inclusion of pragmatic

constraints is especially relevant given that the pragmatics of sign languages differs from that of spoken languages. In all courses, wherever grammar is taught, the traditional three Ps approach of *present, practice and produce* (Larsen-Freeman, 2009) is utilised. Firstly, the linguistic feature is introduced and explained to students. They then do activities to learn more about the grammatical items. Finally, they are given opportunities in class to use the grammatical items in communicative events. To determine which vocabulary should be taught, the vocabulary levels method described in Nation and Chung (2009) was employed. High-frequency words are taught in LING1819 and technical words in LING2821. Meaning-focused output through exercises like role plays and group work facilitate the learning process (Nation and Chung, 2009). Low-frequency words are learnt in DENT4423 and DENT5424 when student dentists interact with their Deaf patients.

Implicit and explicit instruction (Roever, 2009) are used in teaching pragmatics. Implicit instruction is primarily used in the nonclinical course, LING1819. With the implicit instruction, students are exposed to specific rules of interaction between deaf persons as well as between deaf and hearing persons. The rules are formally taught only when the students are observed using these rules. Explicit instruction is used in LING2821, the preclinical course, to teach students how they should interact as healthcare professionals with their Deaf patients. All pragmatic skills are reinforced in the clinical courses, DENT 4423 and DENT5424.

LING1819 is divided into language structure and language use classes with the students doing one of each weekly. The LING1819 syllabus is a traditional linguistically based syllabus focused on fundamental grammatical constructs and key basic vocabulary. The language structure classes consist of a series of mini-lectures with activities after each. A flipped classroom is employed for the language use component. Students are expected to familiarise themselves with videos on the learning management system online platform before attending class. At class, what was learnt on the videos is revised before they participate in language learning activities including storytelling and skits.

There is a shift in the pedagogical approach for LING2821. The syllabus is topic-based focusing on specific interactions between the healthcare worker and the patient. The areas of grammar are directly linked to those interactions. For example, classifiers are a grammatical construct necessary for conveying information about procedures. Classifiers are therefore included in the syllabus. LING2821 focuses on Deaf culture awareness and patient management. Mini-dictionaries were created for the disciplines of dentistry, medicine and physiotherapy. Academic signs for healthcare did not exist in Jamaican Sign Language prior to this course. Existing medical sign language dictionaries like Costello (2000) were found to be less than ideal because of morphosyntactic differences between American Sign Language and Jamaican Sign Language. Therefore, discussions with members of the Deaf community and with healthcare professionals were necessary in determining the signs that would be used to convey the meanings of jargon selected for the mini-dictionaries. The Faculty took the initiative of creating e-textbooks with feature-length films showing fictional patient care scenarios embedded within a story line — *Caribbean Sign Language for Dentistry* and *Caribbean Sign Language for Medicine*. These two e-textbooks serve the dual purpose of teaching language specific to various aspects of patient management and demonstrating clinical techniques in patient care.

DENT4423 has both content-based and task-based instruction. Learning how to manage a Deaf patient as required by the UMDP forms the content-based section. The task-based instruction covers specific areas of patient care such as extra-oral examinations. DENT5424 is based on learning by doing. It is expected that as students perform their duties as dentists-in-training and communicate directly with their Deaf patients, their sign language skills will be strengthened.

6. Assessment Methods and Materials

Formative and summative assessment tasks are used in all four courses. Many of the assessment tools addressed in the literature are tailored to reading and writing. They are inapplicable to measuring language performance and competence in a sign language. Nonetheless, the criteria of validity and reliability (Gollin-Kies, Hall and Moore, 2016) are met in each assessment task used in the courses. Further, the principle of ensuring that assessment tasks are genuine representations of actual tasks (Gollin-Kies, Hall and Moore, 2016) is followed in specific-purpose testing. Additionally, subject specialist informant techniques (Douglas, 2000) are used to create assessment tasks for the preclinical and clinical courses by involving healthcare practitioners in test creation. Expressive and receptive skills, knowledge of Deaf culture and Jamaican sign language grammar are tested in each course.

Language games, conversation exercises and role-play activities are the main types of formative assessment tasks used in LING1819. In LING2821, simulated patient scenarios with Deaf adults are added to the pool of formative tasks. For DENT4423, role-play activities are the only formative tasks used. In DENT5424, oral feedback is given to students based on patient comments and observations by the Deaf Clinic Coordinator of their communication with the patient. Summative tasks take several forms. Students have written theory tests in LING1819 and LING2821. Tests have been paper-based or administered using a learning management system platform and clickers. These two courses also have tests focusing on expressive and receptive language skills that are done individually and in groups. For example, a video of a simulated case with a patient presenting at clinic and describing symptoms may be shown to students. They are then quizzed on the information provided to test their receptive skills. LING2821, DENT4423 and DENT5424 all have Objective Structured Clinical Examinations (OSCEs) with real Deaf patients to assess both language and clinical skills.

7. Learning Outcomes

All courses have the learning objective of students gaining specific purpose language ability (Douglas, 2000). By the end of this LSP programme, students should be proficient in Jamaican Sign Language and be able to use it effectively in a healthcare setting with a Deaf patient. In addition, each course has specific learning outcomes including the use of simple and complex grammatical structures, and participating in conversations of varying technicality on life and healthcare.

Table 1 highlights key communicative tasks that students should be able to perform in a Caribbean sign language for each of the four courses.

Table 1: Key Learning Outcomes of the Sign Language for Healthcare Courses

COURSE	KEY LEARNING OUTCOMES
LING1819	▪ Introducing oneself ▪ Exchanging personal information ▪ Describing daily routine ▪ Understanding someone signing about his/her daily routine
LING2821	▪ Displaying good bedside/chairside manner ▪ Giving the patients instructions for examinations ▪ Giving directions to the patient for specific locations in the office or health facility ▪ Demonstrating proficiency that facilitates taking a thorough history from Deaf patients in a Caribbean sign language
DENT4423	▪ Knowing the Deaf Patient Care protocol of the UWI Mona Dental Polyclinic ▪ Greeting the patient using politeness norms of the Deaf community and inviting the patient to the dental chair ▪ Accurately and fully understanding the responses of the patient in history-taking and discussions of the treatment plan ▪ Signing instructions to patients for procedures
DENT5424	▪ With near-native fluency, expressing and explaining medical or dental terms and procedures to patients. ▪ With near-native fluency, discussing management plans with their patients ▪ Providing the same quality of healthcare to Deaf patients that they would to hearing patients

8. Experienced Benefits of Sign Language for Healthcare

Students who do only the nonclinical course report having their eyes opened to the various mechanisms employed by human language to convey information. They are enlightened to learn about a grammar that is so different from that of other languages they know. Learning about the existence of Deaf communities in their culture has also expanded their view of the subcultures that coexist in the community. Those who do the preclinical course have informally said that it has proven to be a valuable asset when they do clinical rotations and meet Deaf patients. Several, particularly the nursing students, describe the joy they experience when they can intervene to bridge the communication gaps between colleagues and Deaf patients. These students are usually the only members of the patient management team who can communicate with the Deaf patient and therefore bridge the communication gap between the team and the patient. Students enjoy a deep sense of fulfilment when they see the relief of Deaf patients after they find someone who can communicate directly and effectively with them. The improved rapport established between patient and healthcare practitioner

through direct communication increases the likelihood of improved treatment outcomes.

Some Deaf people are sceptical of the signing ability of hearing persons who have formally learnt signing outside of the Deaf community. One such Deaf person had to undergo knee surgery and reported to a friend visiting her that she was receiving good care thanks in part to a signing nurse. This nurse had done the nonclinical and preclinical courses as a student. This patient experience illustrates how the LSP programme makes it possible for Deaf patients to communicate directly with the healthcare workers managing their care instead of being reliant on interpreting services, which are often unavailable.

Patients who attend Deaf Clinic at the UMDP have also expressed their pleasure at being able to regularly seek oral healthcare knowing that they can communicate directly with their student dentists. It is touching to staff and students at the clinic when adult patients in their thirties and forties thank the student dentists for their first ever dental care experience. They had never gone to the dentist before because nobody explained how important it was to them and/or they expected communication difficulties. Seeing Deaf children grow up with visits to the dentist as a regular part of their lives is another fulfilling outcome. Dentistry students have taken the initiative to visit deaf schools and do oral health campaigns. Connecting with the Deaf community to build health awareness is an important benefit of the sign language for healthcare. It increases the social accountability of these future health professionals. Overall, the aim of producing healthcare practitioners with a more balanced view of Deafness and Deaf patients is being achieved.

9. Conclusion

This paper conceptualises the relevance of sign languages to the field of LSP. In the field of foreign language education, this may seem novel as many in the area of modern languages still do not conceive of sign languages as real languages or consider them in their scholarly work. Further, this paper may spur the recognition of the place sign languages take in the field and the growth of research in this area. With Deaf numbering over 300,000 million worldwide (World Health Organisation, 2017), it is critical that more sign language for healthcare programmes become available and imperative that more research is conducted in this area of LSP.

Meeting Deaf patient needs has been a quandary for healthcare professionals for decades. Lower quality care, patient mismanagement, poor treatment outcomes and substandard customer service are all common issues in Deaf patient care. The crux of the matter is a communication barrier. This can be overcome by equipping healthcare students with language skills to communicate directly with their Deaf patients. The teaching model described in this paper can serve as a guide for other medical schools, especially given the growing trend at medical schools of incorporating medical humanities into the curricula (Lesser, 2017).

This paper adds to the body of work on the intersection between healthcare and the humanities. Scholars and professionals in other disciplines can also benefit from this paper. Researchers in Deaf Studies can further explore the Deaf experience in healthcare by looking at the impact of direct communication between healthcare practitioners and Deaf patients. Health educators may be interested in how this type of training can benefit future professionals. It may also

open their eyes to the advantages proficiency in foreign languages offers to healthcare practitioners, not just in their profession but also in their social development. Learning sign languages for specific purposes, in this case, healthcare, seems to create practitioners who are more empathetic (Jones and Cumberbatch, 2018) and possess strong crosscultural competencies.

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