Teaching Sign Language to Undergraduate Hearing Students in the University of Bamenda: Constraints and Perspectives

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Abstract. Teaching sign language to hearing students in higher institutions of learning is a global concern in Cameroon. Students study under unconducive and harsh conditions. The University of Bamenda Language Center (UBALAC) in 2020 upon impetus of the Cameroon government, operationalised an enhancement unit and professional translation, interpretation and intercultural communication division to train sign language interpreters. Though the outcome may be promising, the process is proving to be challenging. This study investigated factors responsible for students' poor performance. A quantitative and qualitative descriptive survey research (mixed method design) was employed with the help of observation checklist and interview guide as instruments for data collection. The sample was 22 hearing, able-bodied students. 20 students served as the accessible population. Data analysis was descriptive with the use of frequency counts and percentages. Findings indicated that (1) restrictive access to teaching aids 15 (75 %) hindered effective teaching and learning, (2) students' caused factors had a negative impact on the training process. It was recommended that the University of Bamenda intensifies monitoring and supervision to help students acquire proficient signing skills while lobbying for donor funding to provide necessary resources that are in short supply.

Keywords: sign language, teaching, effective learning, didactic materials, time management

Introduction and the Problem

Little has been published on the teaching of sign language in Cameroon. Sharing this information is a form of research requiring systematic presentation and dissemination. Sign language is not acquired exclusively by deaf children who grow up in deaf families or who attend a deaf school. Hearing students in the Department of Translation and Interpretation Studies (The University of Bamenda) learn sign language as a foreign language. Their reasons for learning sign language as students may be professional (interpreters, researchers, teachers, therapists) or to meet a (foreign) language requirement in school.

The University of Bamenda Language Centre (UBALAC) upon impetus of the Cameroon government was created by decision of the Senate of The University of Bamenda and sanctioned by the University of Bamenda Academic Planning Committee (APC). UBALAC is placed under the academic tutelage of the Faculty of Arts. Its mission is to enhance mutual co-existence in an increasingly multicultural and multilingual world. In keeping with its mission, the centre went operational during the 2020-2021 academic year to train professionals in translation and interpretation for a Bachelor of Arts degree.

With the demands resulting from internationalization and globalization, the University of Bamenda initiated educational reforms with the purpose of changing pedagogy. This reform aims at training students of greater communication proficiency. Though the outcome may be promising, the process has some challenges. Factors associated with classroom dynamics negatively affect the teaching - learning process. This study uncovers the following challenges:

a) Restrictive access to teaching aids (Tele-aids)

The students are not exposed to a variety of media for use during teaching. School library lacks textbooks and resource books to extend students knowledge hence, they learn in an unconducive and harsh environment. Instructional materials facilitate the teaching-learning process. They make learning more permanent because they have a high degree of interest for students since they stimulate self-activity at home. The absence of Tele-aids such as: Sign language textbooks, charts, computers, signed videos, pictures and projectors in the lecture hall affect teaching. These materials are interest arresting and gives students the ability to explore, visualize, manipulate and permit them to use their senses as a result of their experience and interaction with them. This makes the lessons active instead of passive. Without this in place, students' interest in the lesson is not enhanced, thus poor acquisition of signing skills.

b) Students' caused factors

Students also carry the blame for their inability to sign effectively. This is as a result of:

❖ Poor mastery of the letters of the alphabet. The manual sign alphabet is fundamental in signing because it enables students to recognize and sign correctly. Thus, they must possess a good mastery of them before learning how to sign. Before you learn how to run, you must first learn how to walk.

❖ Low academic participation due to absences where students stay away from lectures for no good reason thus, missing some important lessons which could have made them to master signing.

❖ Time allocation during lessons is short coupled with late coming of students. The amount of teaching time is usually limited to one hour thirty minutes a week. This problem causes them to miss a lot of practical activities. Inability to sign effectively among some students of level three is posing a lot of problems to the programme.

As students learn sign language, they are in a process of developing new identities. They are venturing beyond experiences in their first language and culture, to a point where their identities are being opened up to new avenues and possibilities. The programme aims at training students of greater communication proficiency. In the formal sign language classroom, the way the students are motivated and committed determines how well they will develop their skills and hence their new identity. This new language is not a replacement of their first language but rather, a new tool with which to communicate and add to existing knowledge.

The study stress the need and ways in which teaching and learning can be promoted and enhanced to prepare students to respond to their environment and its challenges. It gives us hope that this programme will have an impact on the well-being of the trainees and the whole education system in the University of Bamenda in particular and Cameroon in general. The study was conducted with the following objectives.

Objectives of the Study

The study has the following objectives:

➢ To investigate factors responsible for the constraints in teaching and learning of sign language to undergraduate students in the Department of Translation and Interpretation Studies, The University of Bamenda.

➢ To examine how these factors affect the teaching- learning process.

➢ To propose ways of enhancing the teaching and learning of sign language.

These objectives led to the following research questions.

Research Questions

The following research questions served as guidelines to the study:

RQ1   What factors are responsible for the poor teaching and learning of sign language to undergraduate students in the University of Bamenda?

RQ2   How are these factors affecting the teaching- learning process?

RQ3   What can be done to improve, promote and enhance the teaching – learning process?

Justification of the Study

Several reasons motivated and encouraged the researchers to undertake this study. The crave for learning sign language has become a driving force in developing countries and the world at large. Little research has been carried out on the teaching of sign language, especially in Cameroon. This study is therefore, expected to make valuable contribution in the research of knowledge to fill the existing gap in the literature and serve as a future reference to many similar studies. The study will provide latest information to education policy makers and other stakeholders to develop appropriate actions to address the challenges students encounter in learning Sign Language. It is therefore, worthy to be conducted.

Literature Review

Review of literature consists of conceptual, theoretical and empirical framework. Concepts related to the study are examined. The theoretical frame focused on Robert Gagne's theory on the conditions of learning. The empirical frame reviewed previous studies on similar topics and their weaknesses.

Conceptual Framework

The conceptual frame focused on concepts closely related to the topic such as: effective teaching and learning of sign language as well as availability of didactic materials to enhance learning.

Effective teaching and learning of sign language

Effective teaching of sign language in higher institutions of learning is a major preoccupation nowadays in the world. Cameroon is not left out of this endeavour. According to Nolan (2008), effective teaching takes place where there is reflective practice. Butts (2010) affirms that, it is not the buildings that enable teaching and learning rather, the quality of the processes that takes place within the buildings. It is argued that effective teaching of sign language involves not only content presentation but also methods and materials used in teaching these contents. The learning environment plays a vital role in students' performance and achievement. The integration of new technologies in the classroom (media) fosters the teaching-learning process.

Lorin (2004) posits that effective teaching produces demonstrable results hence, this is an important factor in the teaching profession. Hande, Kamath and D'Souza (2014) state that effective teaching raises student' achievement levels. Teaching sign language to hearing individuals requires the use of non-mainstream methods in order to motivate learners. It includes the use of visual techniques and methods suited to learning the language. The use of sign videos, illustrations, charts and graphic displays are important.

Universities that offer sign language course consider it as part of an academic qualification. The course is designed for training sign language professionals and interpreters at both undergraduate and postgraduate levels. The course is designed for beginners who wish to progress to a more proficient level. It is important to note that the content of the course varies in accordance with the level and needs of the learners. To motivate learners, vocabulary must be selected, planned and taught to suit learners' context. For effective teaching and learning to take place students need to be:

1. Interested, stimulated and motivated during lessons.

2. Participate actively in classroom activities.

3. Encourage themselves by assessing their own ability in mastering content.

4. Proud of their accomplishment of having mastered a new skill and endeavour to put this skill in practical use.

When teachers create a welcoming, non-threatening classroom environment students feel good about learning. Management of teaching is about enhancing, motivating and limiting demotivation. It is also about professional respect.

The use of instructional material during lessons

Didactic materials are key components in sign language teaching programmes. Instructional materials generally serve as the basis for much of the learners in the classroom. They provide ideas on how to plan and teach lessons. Chingos and West (2010) affirm that the quality of learning materials is an important ingredient in enhancing instruction. Sawchuck (2011) propounds that the provision of didactic materials to teachers and students plays an important role during the teaching-learning process and makes a significant difference on students' achievement. Hill (2014) supports this claim by saying that, socio-economic factors play a vital role in students' performance. Those who lack learning materials, usually perform poorly. As such, diverse conditions of individual students should be taken into consideration. Teaching cannot take place without the extensive use of materials. This takes the form of:

a) Printed materials such as textbooks, graphic displays with illustrations, charts and workbooks.

b) Nonprint materials such as sign videos or computer-based materials.

Teachers and students use instructional materials as their primary teaching and learning resource. These materials provide the basis for the content of lessons, the balance of skills taught and the kinds of practice students take part in. In other situations, materials serve primarily to supplement the teacher's instruction. For learners, materials provide the major source of contact they have with the subject apart from the teacher. Hence, the role and use of materials in a sign language teaching programme is a significant aspect of curriculum development. In the section that follows, we outline important materials used in teaching sign language.

1) Graphic symbols

Graphic symbols in sign language instruction help in promoting learning. The availability of graphic symbols permits input that facilitates comprehension, memory, hence learning.

2) Textbooks with drawings

Textbooks together with ancillaries such as workbooks are the commonest form of teaching materials. Textbooks are use in different ways. They serve as the basis for a course on signing skills and provide both a set of signing texts and exercises for skills practice.

3) Blackboards

One of the most frequently used teaching tool is the blackboard. Blackboard is the most useful of visual teaching aid that is available and used in the classroom. It is very useful in presenting subject matter, for reinforcing oral explanations and presentations, for clarifying difficult signs and concepts, for illustrations, for students' presentations of their work, and for practicing other activities.

4) Pictures and posters

The wall of the classroom is supposed to have pictures and posters especially letters of the alphabet clearly drawn and used for teaching. A picture is worth a thousand words. Posters make excellent tools for clarifying and illustrating what teachers have to teach.

5) Sign videos or computer-based materials

These are presentation aids. They are established with the purpose of integrating technology, facilitating active student learning, and improving teaching practices (Pundak & Rozner, 2008). Signed videos are important in teaching sign language. They reinforce

traditional methods of teaching. Cuban (2001) describes their use in Universities as "new technologies in old universities" (p. 99), implying that new tools are used to teach in the same old ways.

In the University of Bamenda, paucity of teaching material resources is an important factor that contributes to ineffective teaching and learning of sign language.

Robert Gagne's Theory on Learning Conditions

Robert Gagne's Theory was used in this study to explain the various conditions of teaching and learning. This theory holds that there are different types of learning. According to Gagne, internal and external conditions are necessary for learning to take place. Gagne outlines five categories of learning: Verbal information, intellectual skills, cognitive strategies and motor skills and attitudes. He also identifies nine instructional events and corresponding cognitive processes for learning. These events provide the necessary conditions for learning and selects appropriate media (Gagne, Briggs & Wager, 1992). This theory is relevant in this study because it explains all the various internal and external conditions necessary for effective teaching and learning in schools.

Empirical Framework

The following previous studies were used to support this work.

Dissake and Atindogbe (2019) carried out a study on deaf and hearing students in Cameroon who follow a common language-based curriculum, which aims at developing the speaking, listening, reading, and writing skills of young Cameroonians in both official languages, English and French. Using the ethnographic approach, the researchers observed class proceedings in the Buea school for the deaf (BSD) during three months. Focused was on Form 3, 4, and 5 students who were getting prepared to write the Cameroon General Certificate of Education for Ordinary Level. Regardless of the efforts of teachers and school administrators, deaf students experienced reading and writing difficulties in both official languages. The exclusive nature of the curriculum complicates learning because deaf students need an alternative curriculum to develop reading and writing skills through sign language.

Tani and Nformi (2016) focused on how the learning environment influences academic participation for students with physical disabilities within the Buea municipality. Their study explored the access to information, attitudes, effective teaching and assessment methods. The respondents of study were 32 secondary school students with physical disabilities. The results showed that the two schools were making a lot of efforts towards inclusivity and accessibility for all. Also, 17(52%) students with physical disabilities revealed that teachers had a positive attitude towards them as well as involved them in class activities. The study recommends that school administrations should promote more sensitization programmes through seminars, sporting activities, workshops and forums in order to increase the level of awareness of the needs, aspirations and capacities of students with physical disabilities with a view to enhancing their acceptance, participation in learning activities and integration in the school communities in Cameroon.

The above empirical studies are relevant to this work because their results have implications for the design of an active learning environment.

Methodology of Data Collection

In this work a descriptive case study design was used with the help of observation checklist and interview guide as instruments for data collection. This design was selected because it focused on a smaller group. A qualitative and quantitative research strategy technique was employed in gathering data because it suited this kind of research as it gained an in-depth understanding of underlying factors such as the learning environment and its critical importance to the learning needs of the students. It provided details as far as the problem was concerned. The University of Bamenda – Cameroon was the study area and the

sample were twenty two (22) hearing undergraduate students in the Department of Translation and Interpretation Studies while 20 served as the accessible population of whom four (4) were males and sixteen (16) females. Interview guides assisted in verbal interactions with participants. These guides helped the researchers in knowing what to ask the informants, in what sequence, how to pose questions and follow up. Observation checklist helped the researchers to understand the level of preparedness, availability and use of resources at their disposal as well as students' participation and comprehension. This process involved what was happening inside the lecture hall between the sign language teacher and the students.

Findings

Findings reveal that:

1) What are the factors responsible for the poor teaching and learning of sign language to undergraduate students in the University of Bamenda?

Out of the 20 students interviewed and observed during lessons 15 (75 %) said:

- They experienced poor signing skills due to some pedagogical challenges such as restrictive access to teaching aids.

- Low academic participation of the students due to lateness and regular absences during lessons

- Inadequate time allocation during lessons, 1hr 30minutes a week.

2) How did these factors affect the teaching-learning process?

The students felt that the absence of teaching-learning resources affected their performances due to limited task coverage.

Irregular class attendance and inadequate time allocation for lessons affected students' participation. They were exposed to limited practical class work and reduced number of lessons learned a week.

3) What can be done to improve and enhance the teaching-learning process?

In order to teach and learn sign language effectively:

- A conducive learning environment equipped with adequate teaching and learning resources would enhance effective teaching.

- Active commitment and effective participation of the student will boost instruction. Regular class attendance while practicing the language all the time will foster learning. The time allocation for lessons 1hr 30minutes a week should be increased.

Discussion of Findings

Discussion of findings comprised the demographic information of the students and their responses on the factors responsible for the poor teaching-learning of sign language.

Research Question 1: To investigate factors responsible for the poor teaching and learning of sign language to undergraduate students in the University of Bamenda

Demographic information of the population

The table below presents population of students learning sign language in UBa.

Table 1: Distribution of student population

Institution	Target student population	Accessible student population
The University of Bamenda (UBa)	22	20
Total	22	20

Source: Fieldwork 2021

Table 1 indicates that, a total number of 22 students made up the target population of the study while 20 represented the accessible population.

Table 2: The sex of the students

Sex	Frequency	Percent
Male	3	15
Female	17	85
Total	20	100

Source: Fieldwork 2021

The accessible population of the study was made up of male and female hearing students. The table indicates that out of the 20 students who made up the population 3 (15%) were males and 17(85%) females. This means that the learners were predominantly females.

Answering RQ1, out of the 20 students interviewed and observed during lessons 15 (75 %) reported that they experience poor signing skills due to pedagogical challenges ranging from restrictive access to didactic materials such as graphic symbols, sign language illustrative textbooks, computers, projectors and signed videos.

To ensure clarity and understanding of lessons they need sign videos or computer-based materials in active learning classrooms. Without the use of relevant materials, students find it difficult to learn. The availability of visual aids, illustrative textbooks and technological support can improve the learning environment by facilitating the learning and teaching process. The unavailability of such materials makes learning and teaching impossible in some circumstances.

The more teachers can get visual stimuli combined with meaningful presentation of information, the more likely that information will be learned and easily retrieved. Instructional materials have been shown to be of crucial importance. It is evident from the present study that inadequate resources of teaching and learning materials, pose a major challenge in this training programme. Providing these resources will support students to overcome the challenges of learning this special language.

The most flexible teaching material was the chalkboard. It was the only potentially powerful instrument often used by the teacher; hence, material written on the board had to be visible and legible for the students. A clean, neat, orderly board improved the impact of the presentation. The major disadvantage was that work on the board remained impermanent and transitory. Wiping the board all the time destroyed old material which could not be saved. Table 3 below identifies available instructional material used by the teacher and students.

Table 3: Identifying available instructional material used by the teacher and students

Instructional materials used by teacher and students	Never	Sometimes	Often	Very often	Total
Graphic symbols, charts, cardboards	0	0	0	0	0
	0%	0%	0%	0%	0%
Textbook with drawings	0	0	0	0	0
	0%	0%	0%	0%	0%
Chalkboard	0	0	0	20	20
	0%	0%	0%	100%	100%
Pictures and posters	0	0	0	0	0
	0%	0%	0%	0%	0%
Lesson notes	0	0	0	20	20
	0%	0%	0%	100%	100%
Television, video, computers	0	0	0	0	0
	0%	0%	0%	0%	0%

Source: Fieldwork 2021

Table 3 shows that the sign language teacher mostly used the chalkboard and lesson notes. Pictures and posters were absent during lessons. The teacher never used materials such as slides, television or computers. This is because the resources were not available. Furthermore, the researchers went ahead to find out how successful these materials were in teaching students sign language. Table 4 summarizes students' opinion on the use of these materials.

Table 4: Students' opinion on the success of the use of different instructional materials

Use of instructional materials	Frequency	Percent
Successful	5	25
Very successful	10	50
Not successful	5	25
Total	20	100

Source: Fieldwork 2021

The table reveals that 5(25%) students considered the use of the available instructional materials as successful, 10(50%) as very successful and 5(25%) as not successful in the teaching of sign language. During lessons the teacher did not possess any other teaching material except the lesson notes and lesson plans. Cardboards, pictures and other instructional materials were not available. Hence, it could be understood that the use of relevant instructional materials posed a challenge to the teacher and students. The researchers also wanted to find out how irregular attendance and inadequate time allocation during lessons, (1hr 30minutes a week) affected the teaching-learning process.

Table 5: Responses on time management in the classroom

Responses	Frequency	Percent
Yes	14	70
No	6	30
Total	20	100

Source: Fieldwork 2021

Table 5 indicates that of the 20 students who responded on limited time allocation, 14(70%) acknowledged that they had difficulties managing the time allocated to complete tasks. 6(30%) students said they could learn better if they had necessary teaching aids. They did not see any problem with the 1hour 30minutes allocated as teaching time.

Research Question 2: To find out how these factors affected the teaching- learning process

The students felt that the inadequacy of teaching learning resources affected their performances. Only 9 (45%) out of 20 students had mastered the manual alphabet and could sign and communicate basic concepts in the language. Mastering how to sign the alphabets is the first step to effective signing skills. Before one learns how to run you must first learn how to walk. Hence 11(55%) students felt inadequately prepared to learn the language effectively because they had not mastered the manual alphabet. The alphabets are shown on the chart below (Figure 1).

The teacher could not meet lesson objectives and provide quality notes to students due to the absence of relevant teaching aids such as audio-visual and projected media during instruction. This rendered the process slow as she could not cover the syllabus adequately.

The students were exposed to limited practical class work due to the absence of textbooks. This reduced the number of lessons the teacher taught per week.

Figure 1: The Manual Alphabet

Research Question 3: To propose ways in which the teaching and learning could be enhanced

A conducive learning environment equipped with adequate teaching and learning resources would enhance effective teaching and learning. Among the institutional factors studied, inadequacy of teaching learning resources had the highest influence on teaching effectiveness followed by limited amount of workload which rendered students under loaded. Workload had an influence on teaching effectiveness hence, negative correlation.

Regular class attendance and increase in teaching time while practicing the language frequently will boost learning. The lower attaining students in particular can be motivated through regular monitoring.

Conclusions

Based on the research findings, the following conclusions were made:

1. The learning environment limited full participation of students. Instructional adjustments seem to be critical for promoting and enhancing the teaching and learning of sign language. The university needs to provide an environment where there are opportunities for students to enjoy quality experience while pursuing their studies. These would include access to academic information, materials, assistive devices and other equipment to promote and increase their participation in learning activities. The absence of these, negatively affects their participation in task activities.

2. Inadequate time allocation during lessons had a negative impact on their performances. Teaching sign language requires time for visual presentation of information followed by sequential explanations to students. The most challenging factor was time management because lessons could not be covered on time and only few exercises could be practiced.

3. Sign language is a complete and complex language with all the nuances and subtleties any language can possess. It is not mastered easily beyond a basic level. Mastery requires extensive exposure, commitment and practice. This language can take from three months to three years of regular study for someone to become a fluent signer yet, the language is incredibly useful.

Recommendations

Based on the study results and conclusions, the following recommendations were made:

1. The study recommends that the University of Bamenda intensifies monitoring and supervision to help students acquire proficient signing skills by facilitating students participation in sign language seminars and workshops while lobbying for donor funding to provide necessary resources that are in short supply.

2. Sign Language courses for students should be long enough and more practical to equip them with signing skills. The harmonization of Sign Language training should be a priority step to be taken in order to improve the education status of hearing learners in Cameroon.

3. School administration should give the programme enough publicity to increase the level of awareness and create links with organizations to give openings to the students.

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