
Academic relationships and their influences on learning for students with a hearing disability: The case of Kyambogo University, Uganda

Ephraim Lemmy Nuwagaba and Emmy Orech
Kyambogo University, Uganda

ABSTRACT

Optimising the learning of students with a hearing disability may require them to have academic relationships among themselves, with learners who have other types of disability, and with those without disabilities. The Community-Based Rehabilitation (CBR) Guidelines confirm that relationships are important for persons with disabilities, including those with a hearing disability, as their fulfilment is essential to personal growth and development. Unfortunately, academic relationships may be a struggle for students with a hearing disability because of inherent and social challenges. This study reveals that some students with a hearing disability at Kyambogo University had good relationships, while others had unpleasant ones. Good relationships helped them to learn, cope with challenges in learning, access learning materials and academic support, and embrace diversity. Delayed communication had a negative influence on their academic relationships. The findings about learning together with, and from, other learners confirm ubuntu's 'shared collective humanness and responsibility'. They also confirm that the social model of disability can question barriers to learning and that sound academic relationships are contributing to efforts to overcome barriers and enhance inclusion. Understanding and balancing the interplay between academic relationships, barriers, and their influences on learning can help to improve access to, and success in, the education of learners with a hearing disability.

KEYWORDS

academic relationships; adult learning; barriers; hearing disability; participation

Introduction

This article is based on a qualitative case study of academic relationships and their influences on learning for students with a hearing disability at Kyambogo University. In this study, ‘academic relationships’ refers to students’ close connections formed through interactions for academic purposes. The term includes how people behave towards one another (Hornby, 2010). The study investigated how a cohort of students established and maintained relationships with one another – with students with disabilities, with students without disabilities and with lecturers – and how these relationships influenced their learning. The focus was on hearing disability rather than hearing impairment, because hearing impairment is understood as the lack of a hearing mechanism (Barnes & Mercer, 2003), whereas hearing disability in Uganda is described in the Disability Act as the ‘permanent and substantial functional limitations caused by the hearing impairment and environmental barriers resulting in limited participation’ (MoGLSD, 2006:28). The findings are discussed in the context of the social model of disability and the African philosophy of ubuntu. As a member of the academic staff in a faculty running programmes on disability, the lead author was motivated to conduct the study while developing sensitisation materials for making Kyambogo University more inclusive to persons with disabilities (PWDs). This was for a project supported by the African Development Bank titled ‘Support to Higher Education, Science and Technology’ (AfDB-HEST). The lead author noted that the majority of the students without disabilities believed that the students with disabilities depended on others and were not self-directed. Knowles (1973:45) observes that self-directedness is ‘identified with an adult role’. Self-directedness is expected of students in this study because they are above 18 years of age, the legal age for adulthood in Uganda.

Background

The Community-Based Rehabilitation (CBR) Guidelines (WHO, 2010c) affirm that access to higher education greatly contributes to PWDs’ full inclusion in society. Despite this affirmation and legal requirements in many countries, it is not clear to what extent African universities, including Kyambogo University, are inclusive. That is why Emong and Eron (2016) propose that research studies on students with disabilities be conducted to advance planning that is disability-inclusive. In addition, Rubenson and Desjardins (2009) urge for exploration into and reflection on barriers, as this can enhance our understanding of the learning processes of students with a hearing disability.

In the 2016/2017 academic year, Kyambogo University had 27 students with a hearing disability out of a student population of about 25 000. The University is renowned for its special needs education and disability-related programmes. This is reflected in its objectives, which take into account disability and rehabilitation. These objectives contribute to the University’s mission ‘to advance and promote the knowledge and development of skills in science, technology, education, and in such other fields having regard for quality, *equity* (our emphasis), progress and transformation of society’ (Kyambogo University, 2014). Equity is a

key factor at Kyambogo University, and, therefore, there must be fairness to PWDs and no discrimination against or marginalisation of them.

In 2014, the University put in place a Disability Policy in addition to improving accessibility and conducting sensitisations. The policy provides for disability inclusivity and equal opportunities for students with disabilities (Kyambogo University, 2014:ii) and also makes provision for an enabling environment which facilitates academic interactions that enhance the potential of students with and without disabilities. This policy is in line with the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), especially Article 8 on disability inclusion. This article calls for the promotion of positive perceptions and greater social awareness of, and respect for, PWDs at all levels of education (UN, 2006). The University's Disability Policy is aligned to the Constitution of the Republic of Uganda (Uganda Government, 1995), the National Policy on Disability in Uganda of 2006 (MoGLSD, 2006), and the University and Other Tertiary Institutions Act of 2001 (Uganda Government, 2001), which provide for non-discrimination.

In line with these policies and in a bid to improve its capacity to cater for students with disabilities, the University started implementing the AfDB-HEST Project in 2015 (African Development Bank, 2012). This project focuses on making the University accessible to, and supportive of, learning for PWDs, on increasing their participation in learning, and on adjusting and diversifying approaches, methods, materials and environments so that they demonstrate their potential. These adaptations aim at encouraging learners with and without disabilities to interact with one another in academic activities. The project supports sensitisations and services such as counselling, guidance, rehabilitation and capacity-building for staff and students with respect to skills such as mobility and orientation, sign language and braille.

As mentioned earlier, it is believed that students with a hearing disability, like everyone else, have academic relationships with other students with or without disabilities. They attend the same lectures in the same rooms, and, in some cases, go to the same libraries and do course work together with students without a disability (Opio, 2014). However, students with disabilities have a designated resource room in the Faculty of Special Needs and Rehabilitation where braille transcribers, job access with speed (JAWS) software, and assorted videos can be accessed. JAWS is software for screen-reading, screen magnification and braille display for blind and visually impaired computer users (Freedom Scientific Inc., 2013).

The above background shows that the academic problems of students with a hearing disability at Kyambogo University have not been adequately investigated through research. To help fill this gap, this study investigated the academic relationships of students with a hearing disability, and how these relationships have influenced their learning. Although it is known that students with a hearing disability are accepted in academic groups comprising students with and without disabilities (Opio, 2014), how this influences the learning of the former group is not clearly understood. This unresolved situation prompted this study. The results

from this study may guide administrators and stakeholders to improve educational facilities at Kyambogo University and other universities so as to make them more favourable to students with a hearing disability, and to other students generally.

Literature review

Experiences of students with a hearing disability in establishing and maintaining academic relationships

The CBR Guidelines (WHO, 2010a:5) emphasise that relationships ‘are as important for PWDs as for everyone else’. They also affirm that ‘fulfilling personal relationships are essential for personal growth and development’ (WHO, 2010a:19). Unfortunately, it is noted in the same guidelines that, ‘in many societies, cultural taboos limit the free discussion of relationships in relation to disability’ (WHO, 2010b:24). These taboos serve to deny PWDs access to information and make them vulnerable to manipulation and being taken advantage of. PWDs’ vulnerability is exacerbated by their ‘low self-esteem and feelings of being unattractive or undesirable’ and by ‘their need for social acceptance and inclusion’ (WHO, 2010b:25). The low self-esteem and poor self-image can occur if society fails to accommodate the needs of PWDs in educational settings.

In addition, Walberg (1984) states that social interaction and surroundings such as students’ family members, classmates, and peers in and outside school have an impact on student success in learning. It has also been argued that academic achievement may require that students interact and relate among themselves in academic dimensions so as to learn (Chickering & Reisser, 1993). In addition, establishing identity and developing independence and interdependence at universities are important for students with a hearing impairment, as this enables them to make emotional adjustments (Lukomski, 2007) and to remain in educational institutions and not drop out (Stinson & Walter, 1997). Unfortunately, establishing and maintaining academic relationships may be a struggle for students with a hearing disability (Lang, 2002).

Healthy academic relationships provide fertile ground for inclusive practices for all students, which, in turn, improve students with disabilities’ access to academic resources, help to integrate knowledge of disability into academic programmes, and produce graduates capable of confronting disability issues in their world of work (Ohajunwa, McKenzie & Lorenzo, 2015). For inclusion to be a reality, however, members of staff should have the capacity to make it happen, as suggested by Murray, Farrington, Sekol and Olsen (2009), who argue that faculty staff and graduates who have undergone some disability training are more likely to accommodate reasonable learning opportunities for students with disabilities.

It is believed that students with a hearing disability at universities are academically challenged during learning due to mediation through the use of sign-language interpreters, because mediation delays information flow, as observed by the co-author. In some cases,

interpreters provide incorrect interpretations, especially when they are not knowledgeable about the subject matter being taught. In addition, interpreters who are expected to help overcome communication difficulties between students with a hearing disability, other students and teachers (Martins, 2006) do not provide students with a hearing disability with the same degree of accessibility to information as other students who can hear. This might be because most students with a hearing disability grew up in linguistically challenged environments and may not make effective use of the interpreting (Marschark, Sapere, Convertino & Seewagen, 2005).

Other communication challenges that accompany interpreting are noted by Foster, Long and Snell (1999) as: a delay in receiving information (the time between what is spoken and its interpretation); and breaks in eye contact while the teacher writes on the board, walks across the room or reads a document, which prevents lip reading. They add that information is lost while the deaf person is shifting between looking at the interpreter and observing the lecturer handling an object or working with images. This can affect their learning pace and their academic relationships with educators, since such students may completely miss the information or receive it much later than the others.

The influence of relationships of students with a hearing disability on their learning

It is argued that good academic relationships among students can lead to the successful completion of learning tasks within their zone of proximal development (ZPD) and the eventual use of what they learnt independently (Ormrod, 2008). It is also noted by Chickering & Reisser (1993) that academic achievements require students to interact and relate among themselves. However, students with a hearing disability may have receptive and/or expressive limitations (Adoyo, 2007), causing some people to label them as absent-minded or senile (Hetu, Jones & Getty, 1993). This threatens their self-image and self-esteem and is a potential barrier to their learning.

A study conducted in India by Maurya and Singh (2016) on the self-concept of hearing-impaired children and its effect on academic achievement reported that 62% of children had an average self-concept of themselves. This average self-concept reduced their ability to interact and communicate with society, which had a negative impact on their learning. Another study by Foster, Long and Snell (1999) confirmed that students with a hearing disability do not have as much of a sense of belonging as their peers who can hear, and that this negatively affects their learning.

Most students with a hearing disability have limited opportunities to interact effectively and satisfactorily with others due to delayed language development earlier in their lives (Quigley & Paul, 1994; Moores, 1996). It can therefore be argued that the inclusion of students with a hearing disability in academic relationships at universities requires that they have the social and communication skills to interact with fellow students and academic staff.

Finally, we refer to Lang (2002), who draws attention to two important issues: first, that there is little direct communication between students with a hearing disability and those who can hear, or even with their lecturers. This places the students in a dependency situation as they relate to others academically. Secondly, support services, which, while necessary, may reinforce the stigma of difference in so far as they require special logistics for adapting schedules, constitute an additional activity load, and require an additional commitment. This therefore calls for communication challenges to be addressed and for careful navigation of the spectrum of support provided.

Theoretical frames

This study is framed within African ubuntu philosophy and a social model of disability. Berghs (2017) elaborates on ubuntu philosophy and its relevance to an African model of disability. She argues that the ubuntu philosophy is a world view of 'shared collective humanness and responsibility' (Berghs, 2017:2). In ubuntu philosophy, disability is a social construct that explains 'shared meanings that society, as human collective' attaches to disablement as a form of diversity of humankind (Berghs, 2017:2). She notes that the diversity of ubuntu does not condone injustices but reveres 'respectful community dialogue and consensus for a restorative justice' (Berghs, 2017:2) and respects 'collective social action for a shared humanity against oppression and injustice' (Berghs, 2017:2). Berghs further argues that, like the social model of disability, 'ubuntu does not place individual blame on a child, nor mother, but asks why a community, institution or state is failing in its compassionate responsibilities towards upholding respect for human diversity' (Berghs, 2017:6). Ubuntu philosophy was therefore used to understand and explain the academic interaction, social support, shared responsibilities, and roles in respect of students with a hearing disability. African ubuntu philosophies conceptualise education as learning from others and as participation in community or group activities, including ceremonies, festivals and folklore (Nyerere, 1973; Ocitti, 1988).

The social model of disability is relevant to this study because it views disability not as a personal medical condition (Mitchell & Snyder, 1997; Taylor, 1999; Clark, 2006) but as a social phenomenon. In the medical model, PWDs are assumed to have physical problems which need medical interventions such as treatment, cure or other interventions by medical professionals. The model views PWDs as dependants, locating the problem within PWDs and not within the society or environment in which they live (Oliver, 1996). On the other hand, proponents of the social model argue that it is economic, cultural, attitudinal, physical and social barriers which stop people with disabilities from participating fully in society (Oliver, 1996; Ndeezi, 2004). In this model, society is viewed as the problem, not the PWD. That is why Oliver argues that it is able-bodied society, rather than PWDs, that needs to be examined. Germon (2000) suggests that disability should be viewed as the discrimination faced. Nuwagaba and Rule (2015:260) argue that the social model views disability as 'societal and environmental barriers/factors that discriminate against people with impairments' and, therefore, that change should largely target society and the environment. Viewing disability

through the social model thus provides a framework for analysing: the factors that influence the interactions of students with disabilities, and the environmental (social and physical) conditions at Kyambogo and other universities and their effects on learning. It helps to explain the barriers students with disabilities face in establishing and maintaining relationships as learners, and the kinds of support they receive to overcome these barriers.

Research methodology

Research tradition

The study employed a qualitative research tradition because of its ability to explain research participants' points of view and to factor in the context of the study (Bryman, 2008). Bryman further notes that qualitative approaches use words to explain features, characteristics and attributes of a phenomenon, as opposed to quantitative approaches that use data expressed in quantities and measurement using numbers. Qualitative approaches can thus be used 'for exploring and understanding the meaning [that] individuals or groups ascribe to a social or human problem' (Cresswell, 2014:32). They use themes, whereas quantitative approaches usually involve statistical procedures. As the study focused on meanings attached to the relationships of persons with a hearing disability, their influence on learning, as well as the context in which these relationships occur, a qualitative approach was deemed appropriate.

Research design

The design of choice was a descriptive, cross-sectional case study, as Kyambogo is one of many universities in Uganda. The design is appropriate to describing participants' points of view regarding their academic relationship practices (Levin, 2006). A case study is described as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident' (Yin, 1994:13). Chilisa and Preece (2005) and Rule and John (2011) agree with Yin, adding that case studies are in-depth. Case studies can be both exploratory and explanatory (Yin, 2003); they allow 'exploration and understanding of complex issues ... particularly when a holistic in-depth investigation is required' (Zaidah, 2007:1). In addition, Simons (2009) and Nuwagaba and Rule (2015) assert that case studies capture the multiplicity and uniqueness of phenomena and can use multiple sources of data. Zaidah (2007) adds that case studies allow triangulation, which helps to improve validity. Although Yin (2003) and Bryman (2008) criticise the case study for its lack of generalisability, Yin (2009) and Rule and John (2011) argue that its results can have both analytical and naturalistic generalisability. Wikfeldt (2017) notes that analytic generalisation is not about the representativeness of the population but about valid descriptions with enough depth to allow generalisability in relation to a field of understanding. As for naturalistic generalisation, users of study results 'recognize similarities in case study details and find descriptions that resonate with their own experiences', and decide 'whether or not the findings can be applied to their specific situation' (Wikfeldt, 2017:5).

Selection of research participants

The study involved eight participants, who were selected through snowball sampling (Browne, 2005). This is a non-probability sampling strategy where each participant is identified by another until the sample is realised. A list of students with hearing impairment was obtained from the Disability Resource Room. After that, two students known to the co-researcher were approached to help identify the participants in the study, who, in turn, identified others until the sample of eight was realised.

A young academic staff member worked as a co-researcher and this made it easier to obtain reliable data, because the youth of the co-researcher helped reduce the social distance between the students and the research team. This was made possible since the young academic could easily relate to the students because of the small age difference between them (Chappell, Rule, Dlamini & Nkala, 2014).

Profiles of participants

The participants were drawn from all the years of study and included more females than males. Three of the participants described their hearing impairment as ‘hard of hearing’, one indicated she was totally deaf, two mentioned theirs was severe, and another two mentioned that their hearing loss was moderate, as they could hear very loud sounds.

All the participants were adults and the ages of the majority were beyond the early twenties, an indicator that, at Kyambogo University, PWDs were not being left out in the enrolment of non-traditional students. Two of the participants were over 40 years of age, three were aged between 26 and 30, and another three were in the age range of 21 to 25 years. In terms of tribes, Itesot and Baganda each had two participants, and there was one participant from each of the following tribes: Acholi, Samia, Bakiga and Bafumbira. As for religion, three participants were Roman Catholic, three were Protestant, one was Muslim and another Pentecostal. The different tribes and religions represent the rich cultural and religious diversity of the University and Uganda as a whole.

Methods of data collection

The data were collected in January and February 2018. In-depth interviews were used for data collection because they ‘allow active engagement with research participants, probing, deepening responses or engagement in dialogue’ (Simons, 2009, cited in Nuwagaba, 2013:126). As the co-researcher knows sign-language interpreting, it was used during the in-depth interviews. The interviews were semi-structured and focused on issues such as demographic characteristics, qualities considered important in relationships, how relationships are established and maintained, how relationships affect learning, the barriers faced, and the strategies used to deal with those barriers. However, one student preferred responding in writing to the semi-structured interview guide than using sign-language interpreting; follow-up or probing questions were also

dealt with in writing. This went on until all the probing issues had been dealt with. Nuwagaba and Rule (2015) note that asking questions in writing and receiving written responses is an effective method of collecting data from persons with a hearing disability.

Data analysis

The data were analysed using thematic analysis – a type of qualitative analysis that classifies and presents data according to patterns that relate to it (Alhojailan, 2012). Alhojailan adds that such analysis facilitates the understanding of interpretations more widely and the issues at hand more diversely.

Open coding (Henning, Van Rensburg & Smit, 2004; Saldaña, 2009) was used to develop codes such as attitudes, friendship, discrimination, communication, interaction and experiences. These codes were grouped to form categories (much broader concepts) such as relationships, barriers, support and learning. Coding not only involved labelling, but also linking chunks of data to an idea. Through axial coding (Henning et al., 2004), the codes and categories were organised and reorganised in order to identify cross-cutting issues or links and to create an overall impression. Axial coding involves taking data that was split and organised according to codes during initial coding and reassembling it into new formations involving codes and categories so as to facilitate meaning-making.

Ethical issues

The researchers abided by the ethical guidelines for conducting research with PWDs, as suggested by the Uganda National Council of Science and Technology (UNCST) (2007:42). The research proposal was submitted to, and approved by, the Faculty of Special Needs and Rehabilitation and the University Research Grants and Publications Committee. These are responsible for ethical clearance. Informed consent was sought and obtained verbally (Nuwagaba & Rule, 2015), and anonymity and confidentiality were respected (Chilisa & Preece, 2005) by allocating numbers to the respondents when reporting. Although the participants guided the researcher in the identification of fellow participants, they did not know whether those they identified actually participated in the study or not. In some instances, the guidance involved identifying a hall of a residence where more than one student with a hearing disability resided. Chilisa and Preece (2005:231) argue that respect for anonymity and confidentiality is 'exercised to avoid embarrassment, pain, loss of self-esteem, psychological damage and the loss of dignity and self-respect that might occur when research participants or communities recognize themselves or are named in embarrassing descriptions in print'. The process described helped to minimise the dangers of identification.

Results

The results are discussed under three themes. The first theme covers the experiences of students with a hearing disability in establishing and maintaining academic relationships. In this section,

we describe the types of academic relationship students with a hearing disability had with fellow students with a hearing disability, with students with other categories of disability, with students without disabilities, and with lecturers. We also explain why the relationships were described as good or bad, how they began and were maintained, and the conditions that facilitated them.

The second theme is about the influence of the academic relationships of students with a hearing disability on their learning, and it explains the positive and negative influences on learning. The third theme concerns the strategies used to overcome the barriers to good relationships and learning.

Experiences of students with a hearing disability in establishing and maintaining academic relationships

Good academic relationships

All the participants revealed that the academic relationships between them and students with a hearing disability were good, as indicated:

My relationships with other hearing-impaired students are good because we know each other and we inform each other about news and opportunities around us. [Participant 8]

I am approachable and knowledgeable about sign language. I use it during interactions with my friends. [Participant 4]

I have realised that fellow students with hearing disabilities can manage everything[;] ... we are only hindered by the communication problem of not being able to hear. [Participant 3]

Their academic relationships with students with other categories of disability were also described as good, as the following response reveals:

Students with other disabilities are cooperative. We know we are one family of disability and depend on one another for support while doing research and coursework. Sometimes, I am a guide to a blind student. [Participant 2]

As for their relationships with students without disabilities, two participants described them as pleasant. They said:

My classmates got closer to me because, when they realised that I was better academically, they were humbled and would write requesting ... assistance from me. They would exchange coursework with me so as to read mine, or I would help them in checking [the] Internet, as some of them had no idea about ICT. At the end I was a friend to all. [Participant 8]

Students without disabilities help me; we cooperate and socialise well. They inform me [of] what is going on, especially in lectures. [Participant 6]

Bad academic relationships

One student mentioned that her relationship with a student with a visual disability was not good because it was hard for her to converse directly with him unless she had an interpreter. She added:

This means that I cannot discuss very sensitive issues, fearing the interpreter might leak the information. [Participant 5]

As to why relationships between them and students with other disabilities and those without disabilities were not good, participants revealed the following:

There is some biasness towards us from students with other disabilities and those without disabilities, because, sometimes, they tell us that they feel those with hearing disabilities may want to depend on them. [Participant 2]

Some students without disabilities still have negative attitudes towards us because they think we delay them and waste time during participation in group discussions and presentations. They take advantage of us due to our inability to hear. They backbite us. They can be talking freely and, when you look at them, they suddenly stop. Look the other way, [and] they laugh. I once caught one winking at others to stop talking when I looked in their direction, because they know I do lip-reading. [Participant 7]

It is hard to socialise with them. They discriminate us due to lack of knowledge about sign language and deaf culture. [Participant 3]

The relationships between those with a hearing disability and lecturers were described as challenging. The following response captures their views:

Lecturers do not know sign language. When there is no interpreter, I just sit in class without hearing any explanation. Also, lecturers can read very fast and make conceptualisation and copying notes very difficult for me. [Participant 1]

How the relationships were established and maintained

The participants had this to say:

Being a student with [a] hearing disability made me build [a] strong love for fellow students with [a] hearing disability. The very popular ones exposed me [to], and involve[d] me in, different disability activities. I interacted well in class and was loyal to all students, and this built my social and academic network. [Participant 5]

I gave love and care [to] other people with disabilities. I freely shared my feelings about our disabilities and how we manage them. [Participant 1]

I build rapport to create friendships, which can permit one to open up and share, and this breaks [down] barriers. I maintain these relationships through text messaging [on] WhatsApp groups where we post social and academic stuff and social events that bring students with disabilities together. [Participant 2]

I respect, and maintain good communication with, students with other categories of disability. [Participant 3]

I joined the association for deaf students and another for all categories of PWDs at Kyambogo University. [Participant 8]

Some participants revealed that students with other disabilities helped them, because they appreciated the challenges of impairment. One remarked:

Students with other disabilities are cooperative because we know we are one family of disability and depend on one another for support. For example, although I have [a] hearing disability, I may be a guide to a blind student. I can also push a wheelchair of a person with [a] physical disability. [Participant 2]

Proximity played a key role in establishing and maintaining academic relationships with students without disabilities, as suggested here:

On most occasions, my proximity to certain students helps me build relationships. [Participant 2]

Another noted:

Good interaction with those close to me when in class exposed me to the rest of the students and thus built my academic relationships. [Participant 5]

It is evident that, whereas they had only good relationships with fellow students with a hearing disability and with those with other disability types, their relationships with the non-disabled were largely unpleasant, although there were a few pleasant ones. Their relationships with their lecturers were not good. While good academic performance, the ability to use sign language, a knowledge of ICT, and support provided to each other made their relationships good, bias, negative attitudes and communication barriers were largely responsible for their bad relationships. The findings further suggest that love, care, exposure, interaction, sharing, respect for others, loyalty, building rapport, cooperation, dependability, the provision of assistance, and social media played a role in establishing and maintaining academic relationships.

The influence of academic relationships of students with a hearing disability on their learning

The findings show that academic relationships had both positive and negative influences on the students' learning.

Those who mentioned that they had good academic relationships with all categories of students were the ones who said that those relationships had positively influenced their learning. The following responses explain their opinions:

The relationships with students with disabilit[ies] enable us to understand the Kyambogo Disability Policy and use it to advocate for our rights. [These relationships] have brought us together and bonded us[; thus] learning difficulties are shared ..., strategies developed together and one voice raised as one family so that challenges are addressed by the university authorities. We have learned to relate with other impaired students [and have] understood their needs, and they have reciprocated by modifying the conditions to encourage hearing-impaired students to access learning materials and participate in learning activities. [Participant 7]

They help us to understand and embrace diversity among learners and prepare for ways in which to cater for that diversity. [Participant 2]

The effect of unpleasant academic relationships between them and those with other types of disability and those without disabilities were described by the majority as negatively influencing their learning. The reasons are expressed in the following responses:

I am busy getting [the] interpreter's message and my brain is processing [it]; so it takes time for me to give feedback. Or I will give none, as others will have gone ahead. Even when students are [making] their contributions in class, following their discussion[s] through an interpreter has the same challenges. [Participant 8]

Due to my limited sign-language skills and [a] lack of support from the non-disabled in class, I am constrained [when] making notes from lecturers' dictations. Most students without disabilities are very hostile and unfriendly to us and do not help us, thus limiting access to information during learning activities. All this negatively affects my learning. [Participant 5]

We feel inferior and bad about ourselves when some students without disabilities sit very far from us. It makes us not to want to associate with the non-disabled students. [Participant 1]

Strategies for addressing barriers to good relationships and learning

The following responses reveal the strategies for addressing the barriers to good relationships and learning:

As students with hearing impairment, sign language gives us our identity and breaks [down] barriers. For others, I use an interpreter to inform them that I will not be dependent on them. [Participant 2]

I use SMS [Short Messaging Service], Facebook, [and] WhatsApp for communication and I stay positive about my impairment. [Participant 4]

I always disclose my condition to them, thus making them know [the] best ways to communicate with me. They then provide a conducive and modified environment that enables me to interact with them effectively, especially during discussions and conversations. I am academically sound though my ears limit me [somewhat]. I also use counselling services in my hall. They advise me on challenges in life and how to overcome them. I don't use students because they hardly [ever] keep secrets and can make you a victim of rumours and gossip. [Participant 5]

I usually go to my lecturers for guidance on how to handle social and academic challenges. [Participant 7]

I go to friends for counselling. [Participant 8]

The findings suggest that the good academic relationships between the students with a hearing disability and non-disabled students had a positive influence on their learning, as they helped the students to understand and embrace diversity among learners and to prepare for ways to cater for that diversity. Such relationships facilitated access to lecture notes and other learning materials, improved group discussions, built their confidence, and enhanced their advocacy. They also promoted sharing and an understanding of their needs. All this contributed to improving their learning.

On the other hand, bad relationships were due to communication challenges, hostility and unfriendliness, negative attitudes towards them, and their feelings of inferiority. These constrained participation and made it difficult to process lecturers' messages. Mediation through sign language sometimes delayed or distorted messages, which also negatively affected their learning. The strategies to address some of the challenges included raising their voices while speaking to facilitate communication, using writing as opposed to speech during communication, and using text messaging and social platforms such as Facebook and WhatsApp. They also made use of counselling by counsellors, lecturers and fellow students, although they feared that students would not keep their secrets.

Discussion

The results show that students with a hearing disability were socially accepted (WHO, 2010b) and had academic relationships that enhanced their learning. Very few relationships did not. Moreover, the profiles of the participants reveal that they were adults from diverse social, cultural and religious backgrounds and that, increasingly, students with disabilities, including females, are entering university education despite the challenges doing so presents. The relationships between students with a hearing disability were good. Those with students with other types of disability were also good, but the relationships between them and the non-disabled were either unpleasant or complicated. This seems to confirm that there were considerable opportunities for relationships among persons with disability but few opportunities for relationships with those without disabilities (Nuwagaba, 2018:209).

The students with a hearing disability made decisions to establish relationships, used different ways to maintain them, and developed strategies to minimise the challenges to these relationships – a sign of self-directedness. This is consistent with Knowles' (1973) assumptions of andragogy which posit that, as adult learners grow and mature, their self-concept moves from dependency to self-directedness.

The relationships between students with a disability and their lecturers were affected by such students' personal attributes, attitudes and environmental factors, thus confirming that disability goes beyond centring on self – as suggested by the medical model, which locates disability in the person (Schneider, 2006) – to the self and the environment, as advocated by the social model (Oliver, 1996). The fact that the benefits of good relationships with other students with or without disabilities enhanced their learning resonates with Stinson and Walter (1997), who argue that having relationship skills helps to develop interdependence, which, in turn, promotes the successful completion of degrees. Lang, Stinson, Kavanagh, Liu and Basile (1999) confirm that academic interactions with peers and instructors affect learning. Since the academic relationships were enhancing their sharing and participation in learning with students with other types of disability and with those without disabilities, to the benefit of both, it can be argued that the relationships were helping to reduce their marginalisation and exclusion and were mutually beneficial. This contributes to social justice in participation, which relates to the ubuntu philosophy of not condoning injustice (Berghs, 2017). It also affirms its conceptualisation of education as a social learning activity (Wenger, 1998; Nuwagaba & Rule, 2016).

However, students with a hearing disability were faced with barriers while relating and learning. The complicated relationships were attributed to these barriers, including: the inherently negative attitude of such students towards themselves; their low self-esteem; a lack of social acceptance; their belief that they were unattractive or undesirable; hostility; discrimination; a lack of care; exclusion by students without a disability; communication barriers; and being considered slow learners by students with other types of disability and those without a disability. Such a combination of barriers augments the arguments of the

proponents of a social model of disability, who recognise both inherent and environmental factors as barriers that PWDs face (Oliver, 1996; Germon, 2000; Ndeezi, 2004; Nuwagaba & Rule, 2016). The continuing existence of barriers sheds light on the fact that, despite the favourable disability policy environment at Kyambogo University in particular, and in Uganda in general, the reality is that PWDs still face exclusion. In fact, Abimanya-Ochom and Mannan (2014) confirm that despite favourable policies, negative attitudes towards disability still prevail. This validates the argument that it is society that creates barriers for PWDs (Oliver, 1996; Ndeezi, 2004). Viewed in terms of the social model of disability, the environment in which they were operating, the attitudes of the non-disabled and the social world around them (Schneider, 2006) were discriminatory and disabling. Society labels them as technical and vocational education and training learners who are defined not by 'their capabilities and aspirations – but rather by what they appear to be deficient in' (Rudman & Meiring, 2018).

Sitting very close to the person lecturing, being attentive in class, receiving guidance and counselling, participating in various university activities, raising awareness about disability, and using ICT-reduced communication are likely to contribute to improved learning conditions. This affirms the potential of ICT for being conducive to establishing and maintaining relationships (Nuwagaba, 2018), as ICT provides convenient access to information that enhances social interactions, including how people relate socially and learn (Omede, 2014). The deliberate use of these technologies affirms their ability to make informed choices as adults (Knowles, 1973). Such strategies not only reduce barriers; they also build confidence.

Conclusion

From the results, it can be concluded that the students with a hearing disability in this study experienced good relationships both between themselves and fellow students with a hearing disability and between themselves and students with other types of disability. This was because they cooperated, provided support to each other, shared the challenges they faced, and developed strategies to overcome them together. The relationships were established and maintained through the use of sign language, text messaging, social media platforms, gestures and ICT. Proximity to each other also played a role in establishing and maintaining good relationships.

However, the relationships between themselves and students without disabilities were not good. This was because of negative attitudes, discrimination, inadequate and poor communication, and a fear that students with a hearing disability would be dependants and need support all the time. Moreover, their relationships with lecturers were not good due to a number of communication barriers.

The good academic relationships enhanced learning through the exchange of lecture notes, the sharing of ideas, having access to learning materials, and being supported in engaging in learning and other university activities. On the other hand, the bad and complicated relationships hindered learning.

By fostering an environment for enabling the establishment and development of good academic relationships, universities could go a long way towards enhancing participation in learning by students with a hearing disability and towards reducing barriers, thus promoting inclusion.

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