Opportunities Available and Challenges Faced by Students with Disabilities in Public Universities in Addis Ababa

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Abstract

This study aimed at assessing opportunities available and challenges faced by students with disabilities (SWDs) in public universities in Addis Ababa. To address the objectives of the study, mixed research approach combining both quantitative and qualitative techniques was used. The data was collected through questionnaires, semi-structured interview, focus group discussions (FGDs) and observation. The quantitative data were analysed through descriptive and inferential statistical techniques while the qualitative data was analysed by using the thematic analysis technique. The findings of this study have indicated that availability of reasonable accommodation services, recognition for best scorers, training & induction programs, establishment of special computer centres, provision of educational materials and assistive devices are the opportunities that SWDs have in each respective university. Conversely, inaccessible infrastructures, absence and/or competency problem of sign language interpreters, weak disability affairs offices, unavailability of effective guidance and counselling service, lack of different entertainment means, difficulty of getting personal assistants and different means of communication on academic/non-academic matters are identified as hindrances to their success. The finding of the study also reveals that most lecturers have negative attitudes toward SWDs. The regression result confirms that accessibility of infrastructures, high school GPA, monthly expenditure of students, occupation of parents, disability type and mother's education are significantly affecting the academic performance of students with disabilities. Therefore, the public universities & other stakeholders should prepare manual and guidelines that show step-by-step processes that need to be taken to address issues of SWDs. Awareness creation schemes need to be carried out to change the negative attitudes and mainstream the issues of SWDs in all endeavours of the respective universities.

Keywords: Students with disability, public universities, challenges, opportunities, support, Addis Ababa.

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Introduction

Education is one of the fundamental human rights that uses as a springboard for socio-economic and political development for people around the globe. Therefore, the educational systems at all levels need to promote inclusion and provision of equity services for all students regardless of their backgrounds (Blessinger, Hoffman, &Makhanya, 2018).

Higher educational institutions around the world are places where students with different gender, racial, ethnic, (dis)ability and the like backgrounds are found. As the students' backgrounds are diverse, their needs and expectations from the system are also unlike. To accommodate the various interests of students with different experiences, many higher learning institutions are required to redesign/reshape their systems (Guri-Rosenblit, Šebková & Teichler, 2007).

SWDs who have access to higher education in Africa constituted less than 1 percent (Mutanga, 2017). The number of students with disability in Ethiopian higher education was 398 and 1,000 in 2010 and 2015, respectively (Wondwosen, 2018). These figures have revealed that there is an increment in the participation of SWDs in higher education. A manual prepared by Addis Ababa University, Department of Special Needs Education (2014:2) citing a study of Tirussew et al (2014) has also expressed it in qualitative terms as "The number of students with disabilities enrolled in higher education of Ethiopia is increasing every year." However, different research findings have indicated, besides being a minority in terms of their participation in higher learning institutions elsewhere in the world including Ethiopia as compared to their non-disabled counterparts, SWDs are facing numerous challenges that hinder their academic success during their study (Wondwosen, 2018; Mutanga, 2017 & Kendall, 2016). The issues of students with disabilities (SWDs), most of the time, are not sufficiently addressed by the educational systems. Kochung (2011) has indicated in the study of the challenges that SWDs are facing at higher education with special experience of the inaccessible physical environment, one fits for all curriculum and examination systems are some of them. Morgado et al (2016) also shared what Kochung (2011) has identified are the challenges and further added that negative attitudes towards students with disabilities by service providers of the university community especially by staff are one of their challenges. Kendall (2016) has also discussed as students without disabilities have also a negative attitude toward students with disabilities.

Different researches have been conducted on the challenges of SWDs in the higher education context of Ethiopia. For instance, a study by Abdulfettah (2018) dealt with the accessibility of the physical environment for SWDs in five Universities. To mention some, the challenge of female visually impaired students in Addis Ababa University was studied by Endalkachew & Dessalegn (2017). Abraham (2010) has also studied the challenges and opportunities of persons with disabilities (PWDs) with particular emphasis on the issues of inclusive curriculum in the field of physical education. The study of Yared (2008) emphasizes about policy and provision in higher educations that can address the issues and concerns of SWDs. Research finding by Tirussew et al (2014) has indicated similar challenges as SWDs are facing in different Ethiopian universities mainly based on the experience of 11 universities. Besides, ill-prepared and insufficient support service provision schemes are the other determinant factor for SWDs in Universities (Wondwosen, 2018). Although these researchers identified conditions of SWDs in higher educational institutions, they failed to statistically analyze the effect of these challenges on their academic performance. All of the above research have applied descriptive methods to explain only the conditions of the SWDs. Therefore, the rationale behind to conduct this research is to investigate the opportunities available and challenges faced by SWDs and fill in the methodological gaps by applying an inferential statistic to analysing the effect of these challenges on academic performance in these respective Universities.

Objectives of the Study

The general objective of the research was to investigate the opportunities available, and challenges faced by students with disabilities in Addis Ababa, Ethiopian Civil Service and Kotebe Metropolitan Universities. The specific objectives of the research include:

- To find out the enabling learning environment to students with disabilities that have been created by the Universities,
- To investigate the main challenges that students with disabilities are facing during their stay in these respective Universities, and
- To analyze the effect of those challenges on academic performance of students with disabilities in these respective Universities.

Literature Review

Since disability is a multi-dimensional and argumentative term, it has been defined by different scholars differently. This is mainly resulted from the way different cultural and social groups of people understood the word in relation to their own perspectives (Abebe & Siseraw, 2010). For the purpose of this study, the term disability is defined as a "restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered

normal for a human being" (UN, 2003). To say a person has disability problem, his/her body parts impairment (loss or abnormality) should exceed about 40 percent, it should be attested by legal medical centers Ministry of Law Justice and Company Affairs [MoLJCA] (1996), and has to be “a substantial and long-term lasts more than 12 months or throughout a person’s life time adverse effect on his or her ability to carry out normal day-to-day activities (Office of Disability Issues [ODI], 2010). The types of the impairment of persons with disabilities are unlike. Scholars on the field generally classify disability types into physical, visual, hearing, learning and so on (Otaah & Mohamed, 2015). These types of disabilities broadly classified as visible and invisible (Connell, 2013; ODI, 2010).

There are several models on the issues disability. But the most widely models which are relevant for this study include medical, social, bio-psychosocial and human rights models. According to the medical model, disability is resulted from medical problems of individuals that can be caused by diseases, trauma and others. This model says that disability is personal health factors that affect persons with disability negatively and providing medication for those who have health problems either to cure or to adjust themselves with the environment (Retief & Letšosa, 2018). According to these authors, the social model of disability argues that disability is created by the society which includes the way society has been organized, the response given for the concerns of PWDs and their attitude towards them (Retief & Letšosa, 2018). According to the social model, therefore, the problem lies on the society rather than the individuals with disabilities themselves Scope (2018). The biopsychosocial model of disability, as the name indicates, is a combination of three interwoven factors including biological (disease, disorders and injuries), psychological (feeling, perception, behavior, personality and others) and social (social structure, environmental contexts, level of education, economic status and others) that determine the disability of individuals (Lehman, David & Gruber, 2017; Smeltzer, 2007). The biopsychosocial model of disability stresses on the influences of biological, psychological, and social factors on the health and wellbeing of individuals (Smeltzer, 2007). The human rights model of disability stresses that persons with disability are human beings just like everyone else so that their dignity and rights should be protected and promoted (Retief & Letšosa, 2018; Degener, 2016).

When the disability type of individuals varies, their needs and requirements also vary. Thus, knowing the types of disabilities that people have is very important to identify what they require from family, society and public at large to improve the quality of their lives in all aspects. Especially, rather than thinking one size fits all, service providers in public organization need to recognize the diverse disability types to accommodate their needs (Connery, 2016).

Many empirical studies have been conducted on opportunities available and challenges faced by students with disabilities, covering various scopes using different sample and methodologies globally. The findings of many studies with regard to the challenges of SWDs indicated that inaccessible physical environment also known as architectural or structural problems hinders SWDs to reach and utilize educational services provided in universities and not to use their full potential in their academic (Farooq, 2012).In addition, the negative attitude and stereotypes that university communities (staff and non-disabled 0students) developed are taken as one of the main hindrances of the academic success of SWDs (Kendall, 2016). The other challenge is related to academic environment (rigid curriculum). Inflexible or non-tailored instructional approach according to a specific disability type is acknowledged as one of the barriers for the academic success of students with disabilities in Ethiopian higher educational institutions (Tirussew et al, 2014).

Conceptual Framework

The conceptual framework indicated in Figure-1 shows the effect of accessibility of physical infrastructures, attitude towards disability, personal and family background and academic environment on academic performance of students with disability. The figure clearly shows that personal background, family background, accessibility of physical infrastructure, and academic environment can influence the academic performance of students with disability. There are also intervening factors (support services) that can affect the relationship between the independent and the dependent variables. Support services such as guidance and counselling services minimize the negative effects of attitudes towards the disabled students and create an enabling environment (Maingi-Lore, 2016)

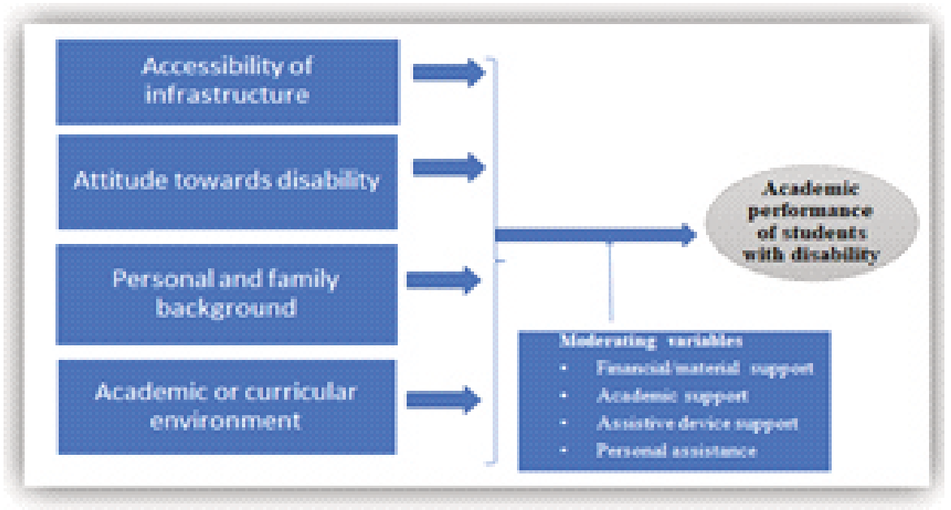

Figure 1 Conceptual Framework (Source: Own construction)

Methods and Materials

To address the objectives of the study, mixed research design approach combining both quantitative and qualitative techniques were used. The reason to use the mixed research method is to bring together the differing strengths and non-overlapping weaknesses of quantitative methods with those of qualitative methods. To identify the challenges and opportunities of students with physical disabilities, descriptive research strategy was employed. In addition, to analyse the effect of the main challenges and support services provided by the universities on the academic performance of the students, explanatory research design was applied. The researchers used both primary and secondary sources of data.

The total number of the target population of the study constituted 480; of which 37, 388 and 55 were in Ethiopian Civil Service University (ECSU), AAU and KMU, respectively. Out of these, 170 are visually impaired, 211 are deaf, 88 are physically disabled, and 11 of them are those who have other types of disabilities such as cognitive i

impairments, chronic dizziness etc. Concerning sampling, from the public universities located in Addis Ababa City Administration, three universities (ECSU, AAU and KMU) are selected purposefully. The rationale to focus on these Universities is due to the presence of SWDs. This is because SWDs (mainly the visual and hearing-impaired ones) usually or most of the time join universities where most social science fields are found. To determine the appropriate sample size for the study from the population, the researchers used Slovin's formula.

$$\frac{N}{1+N(e)^2}$$

Where n = Number of samples

N = Total population

e= Error tolerance (margin of error)

While using Slovin's formula, confidence levels and margins of error should also be taken into account. For this study, a margin error of 0.05 (with a 95% confidence level) is used. Given population (N) of 480 is the total number of disabled students in the three universities and a margin error (e) of 0.05, the sample size (n) is calculated as follows:

$$n = \frac{N}{1+N(e)^2}, \quad n = \frac{480}{1+480*(0.05)^2} = 218$$

In this study, a three-stage sampling procedure was employed to select the sample respondents from the target population. In the first stage, the proportional sampling method was applied to allocate the total sample to the three universities. In the second stage, students were categorized based on the type of disabilities, then for each type of disability sample size was determined depending up on the proportion of the size of the students in each type of disability. Finally, simple random sampling was used to select sample students from each type of disability.

The questionnaire was used to collect the quantitative data whereas the qualitative data of the study was obtained through interview, FGDs and observations. Interview and FGDs were used to get detailed and diversified information, respectively. A total of 11 FGDs were conducted in the three Universities. In each University (except ECSU), students with physical impairment, visual impairment, hearing impairment formed their own respective focus groups and one FGD was organized from each University that encompasses students from the three disability types (mixed group). In each focus group discussion, 10 individuals participated. Some selected managers in the respective Universities were parts of the interviews.

The quantitative data was encoded into STATA version 14.0 and analyzed using simple quantitative tools like percentage, mean, and variance. In addition, in order to analyze the effect of the support services made by the universities to SWDs on their academic performance, multiple regression model was used. To test the robustness of the estimated model, multicollinearity, heteroscedasticity and autocorrelation test were conducted. The quantitative analysis was supplemented by the qualitative ones. Content analysis was also used to analyze the data obtained through interview and FGDs. The reason is to bring together the differing strengths and non-overlapping weaknesses of quantitative methods with those of qualitative methods.

The Model

In order to analyze the effect of the main challenges faced, and the support services provided by the universities on academic performance of SWDs, the following multiple regression model was estimated. In addition to our variables of interest (accessibility of infrastructures, attitude towards SWDs, and academic environment), additional control variables that can affect the academic performance of SWDs are included in the model.

$$CGPA=\beta_0+\beta_1\,infra+\beta_2\,attit+\beta_3\,acadm+\beta_4\,suppo+\beta_5\,higGPA+\beta_6\,age+\beta_7\,expend+\beta_8\,inthour+\beta_9\,stuhour+\beta_{10}\,ocuppar+\beta_{11}\,distype+\beta_{12}\,univer+\beta_{13}\,mothedu+\beta_{14}\,sex+u$$

Where GPA= cumulative grade point of the student, infra = accessibility of infrastructures, attit =attitude towards SWDs, acadm =academic environment, suppo =supports provided by universities to SWDs, higGPA =highschool GPA, age =age of the student, expend =monthly expenditure of students, inthour =hours spent by the students browsing internet, stuhour = hours spent to study subject matter, ocuppar =occupation of parents, distype =disability type, univer =the university currently learning in, motheduc =mother's level of education. and u = error term.

Results And Discussions

General Background of the Respondents

A total of 218 questionnaires were distributed to students with disabilities learning in the three Universities. Out of these 216, questionnaires were returned thereby giving a response rate of nearly 99.1 percent. The result of the survey indicates that the percentage of male and female respondents constituted about 65 percent and 35 percent, respectively. The overall mean age of the respondents is about 24 with age range between 18 years and 50 years. Regarding respondents' academic background, most of the respondents (about 78 percent) are attending first degree level. While nearly 14 and 8 percent of the respondents belong at diploma and post graduate levels, respectively. Regarding their field of study, most of them joined in social science streams accounting close to 73 percent of the total respondents. Regarding disability type, about 44 percent of the respondents have hearing impairment, close to 35 percent are visually `impaired, and about 19 percent have physical disability while the remaining 2 percent of the respondents belong to others like students with learning disability, speech impairment and so on.

The result of the study showed that, on average, the respondents spent about 5 hours studying their subject matter while they spent 2.3 hours browsing the internet per day. Hu (2017) argued that using the internet has a significant role to reinforce knowledge acquisition and retention thereby improving the academic performance of students if they can use it for academic purposes and can manage their time properly. Students' time usage for academic and non-academic matters can influence their academic performance. Students' economic status can affect their academic performance either positively or negatively (Thomson, 2018; Bhat, Joshi, Wani, 2016). According to these authors students relatively with high economic status perform well because they can fulfill their material needs and get better facilities. Thus, the monthly average expenditure of the respondents is about 1,186 Ethiopian Birr. The mean monthly of their expenditure ranges from 100 to 10, 000 Ethiopian Birr with high variation among sample respondents. Students' parents' background such as occupation, and the educational level of their mother and father are important factors in their academic achievement. Accordingly, close to 36 present of the sampled SWDs replied that their parents are farmers followed by civil servants (about 22 percent) and merchants (18 percent). Concerning the education level of fathers, out of the total sample, near to 32 percent of the respondents replied that their

father is illiterate. Those who attained primary education account for about 19 percent, while 18 percent can write and read. These three groups of educational levels of fathers together account for about 69 percent while those who attained the first-degree and above account for close to 17 percent. This implies that the educational level of fathers of SWDs is low. It is clear that the background of students' parents such as the occupation and educational level of their mother and father are important factors in their academic achievement. Therefore, students with better family backgrounds can achieve better academic performance than students with low status (Bhat, Joshi, Wani, 2016).

Challenges of Students with Disabilities

Structural Challenges

Inaccessible physical infrastructures exclude SWDs from educational and other social participation (International Center for Evidence for Disability [ICED], 2019; UN-enable, 2003 and Agarwal, & Steele, 2016). The following table portrays the mean score of agreement and disagreement on the physical accessibility of Universities for SWDs. In this research, the sample respondents were asked to evaluate the accessibility of 17 types of infrastructures in their respective Universities. Table 1 summarizes the mean response rate of the students for each infrastructure.

The result clearly shows that almost all types of infrastructures at KMU are inaccessible. The only accessible infrastructure in this university is the dining room. Contrary to KMU, most of the infrastructures in AAU are accessible (except the rest room, language labs, instructors' and administrative offices, clinic, and recreational areas). Next to KMU, ECSU is subject to inaccessible infrastructures. According to the respondents, language labs, libraries, administrative staff offices, instructor's offices, meeting/training halls, bank/ATMs, and playgrounds are not accessible. Regarding ECSU, building entrances, dormitories, showers, clinics and roads are labelled as accessible. This shows that there is a significant difference between universities.

The result of the qualitative analysis also confirmed that most of the buildings and their internal facilities in the sample universities are not accessible. This contradicts the Ethiopian Building Proclamation No. 624/2009 (Federal *Negarit*

Table 1: Accessibility of Physical Infrastructures for Visually and Physically Disabled Students

	Structural or Architectural Challenges	Mean response rate					
		AAU		ECSU		KMU	
		Mean	Pr.	Mean	Pr.	Mean	Pr.
1.	Building entrance	3.51	0.00	3.56	0.01	1.61	0.00
2.	The classrooms in the university.	3.66	0.00	3.06	0.41	1.82	0.00
3.	The Dormitories in the university.	3.63	0.00	3.72	0.00	3.22	0.17
4.	The Shower (Washing rooms) in the university.	3.26	0.01	3.56	0.00	1.91	0.00
5.	The Rest rooms (toilets) in the university.	2.93	0.27	3.28	0.13	1.56	0.00
6.	The ICT labs in the university.	3.34	0.00	3.11	0.33	1.67	0.00
7.	The Language labs in the university.	3.11	0.13	2.06	0.00	1.88	0.00
8.	The libraries in the university.	3.77	0.00	2.56	0.02	2.36	0.01
9.	The Dining rooms in the university.	3.47	0.00	2.78	0.22	3.50	0.04
10.	The Administrative staff offices in the university.	3.02	0.41	2.11	0.00	2.73	0.16
11.	The instructor's offices in the university.	3.08	0.22	1.78	0.00	2.55	0.02
12.	Meeting/training halls	3.34	0.00	2.50	0.05	2.85	0.30
13.	The Clinic in the university.	3.13	0.10	4.06	0.00	2.24	0.00
14.	The places where you socialize and engage in school community activities.	3.09	0.20	2.72	0.18	2.18	0.00
15.	The banks/ATM machines in the university.	3.60	0.00	2.50	0.06	2.24	0.00
16.	Roads in the university	3.68	0.00	3.56	0.04	1.73	0.00
17.	Playground(s) in the campus.	3.37	0.00	1.78	0.00	2.55	0.03

Source: Survey result, 2019

Gazette, 2009) and Higher education proclamation No. 650/2009 (Federal *Negarit* Gazette, 2009) which emphasized the existence of accessible buildings and their inside facilities in organizations. Inaccessible training/meeting halls, washing areas, offices of academic advisors, lecturers, counsellors, and support staff, toilets around libraries and classrooms, the existence of fragmented physical locations of service providers' offices, and a lack of having certain permanent bus stations in Universities' compounds are the common challenges identified by visual and physical impaired students in their respective Universities. Not only entrances of the buildings but also the physical facilities such as chairs in classrooms are identified as they are inconvenient, especially for wheelchair users. Informants from disability offices in all Universities explained that most building entrances are inaccessible due to the reason that most of them were constructed before the issuance of the proclamations. The finding of this study is in line with Muzemil (2018) that students with disabilities in universities of Ethiopia have been challenged by inaccessible physical infrastructures is the pronounced one. Inaccessible physical infrastructures cause isolation and deprivation of the human rights of students with disabilities, however, and "The issue of access to public buildings has received little attention in Ethiopia…" (P.287). According to the same study, "… students who reported low academic status perceived the campus buildings as inaccessible for their needs (Muzemil, 2018).

But the buildings constructed recently are designed to address the needs of SWDs. In this regard, ECSU and AAU are trying to reasonably accommodate the issues of students with physical disabilities by preparing ramps into old buildings. The other identified challenge by physical and visually impaired students is the existence of uncovered ditches and unnoticeable holes on the main roads and/or sidewalks. Almost all discussants of visually impaired students in KMU revealed that they are dependent on students without disability for their mobility in the compound and academic exercise.

Therefore, it is possible to conclude that, SWDs in all sample Universities are challenged by the inaccessible offices and classrooms which may hurt their academic achievement. As the data obtained through observation, the case of KMU is quite serious as compared to the other two Universities. Because KMU has hilly topography, and its internal compound is not asphalted. Construction is carried out in different places of the University. Therefore, SWDs have been burdened by such physical constraints. These findings are consistent with the research results of Nel *et al (*2015), Kendall(2016), and Mutanga (2017).

Attitudinal Challenges

Attitude towards people with disabilities is among the factors that affect the socio-economic status of students with disabilities. Attitudinal barriers are recognized widely as an impediment to success of PWDs (Rao, 2004). In this research, attitude of classmates, friends, lecturers, and administrative staff towards SWDs have been investigated and the result is presented in Table 2 below. The attitude towards SWDs by students without disabilities, academic and administrative staff of universities was measured in terms of their initiative and willingness to support them in different aspects. As Table 2 illustrates, the respondents in all sample universities have indicated that students without disabilities and administrative staff have positive attitude towards SWDs. Further, respondents from ECSU and KMU replied that classmates do not consider their disability as an obstacle to their learning in classrooms.

The discussants and interviewees in all the three Universities have also revealed that most of the students without disabilities and

Table 2: Attitudinal Challenges of SWDS, By University

Attitudinal Challenges	Mean response rate					
	AAU		ECSU		KMU	
	Mean	Pr.	Mean	Pr.	Mean	Pr.
Classmates consider my disability as an obstacle to their learning in classrooms.	3.15	0.11	2.50	0.05	2.09	0.00
My friends/peers are interested to support me in different aspects.	3.8	0.00	3.50	0.04	4.03	0.00
Some lecturers intentionally ignore disabled students during lectures.	3.09	0.17	2.22	0.00	2.58	0.01
Lecturers are concerned to solve non-academic issues of students with disabilities proactively.	2.85	0.08	2.83	0.30	2.49	0.01
The administrative staffs of the University are cooperative to help students with disabilities in their service provision.	3.27	0.00	3.388	0.10	2.58	0.04

Source: Survey result, 2019

administrative staff are cooperative and helpful to them in different ways. On the students without disability side, pushing wheelchair, carrying educational materials; guiding (mobility) and reading service; recording of lectures notes and other reference materials and facilitating communication are among the different supports provided by students without disability. But the support services getting from their peer students especially in reading, pushing wheelchair, communication facilitation for visually impaired, physically impaired, and deaf students with disabilities are not sustainable and organized. The support services provided by students without disabilities decrease when they get busy in course works especially when examination time approach when SWDs need much support at this time.

As to the administrative staff, it is reported that although there is unfamiliarity on the way how to treat SWDs, in ECSU and AAU they are trying their level best to address their concerns. On the other side, in KMU, most of the administrative staffs are uncooperative to provide the required services to SWDs. In this university, there is a little concern by the supportive staff and the University's management.

Pertaining the lecturers, most of the respondents replied that lecturers do not intentionally ignore SWDS during lectures. However, lecturers particularly in AAU and KMU are found to be unconcerned to solve the issues of SWDs proactively. This shows their unexpected ignorance towards disability issues. Data obtained from the informants and discussants from all disability types indicated that most lecturers in AAU and KMU do not give proper treatment for them while lecturing and taking examination. The other concern that most of students of all disability types in AAU and KMU identified as there are lecturers who do not believe as SWDs have potential to do their course works independently and score better grades. There are lecturers who demoralize SWDs when they request reasonable accommodation in examination schedule and space, in classroom learning. Data obtained from SWDs in ECSU is quite different regarding the treatment of getting from their lecturers. Both informants and discussants appreciate the sensitivity of the lecturers during lectures, examinations and so on is found to be morale for them. One of the reasons for the sensitivity of instructors in addressing the concerns of SWDs in ECSU resulted from the inbuilt organizational culture that staff have in accommodating diversity while giving services as informant from Disability affairs office explained.

From the above discussion, it is possible to conclude that administrative staff and students without disabilities in the sample Universities have positive attitude towards SWDs thereby contributing a lot for their academic success. But except ECSU, most lecturers in AAU and KMU found to be insensitive in addressing the concerns of SWDs.

Academic Challenges

The academic challenges of SWDs in terms of teaching and assessment methods like instructors' usage of teaching aids, module contents that consider their diverse abilities and requirements, availability of relevant/ appropriate teaching and learning materials and provision of tutorial/additional academic support service were assessed. The survey result on the curricula issues of SWDs are presented in Table 3.

The mean response rates presented in Table 3 are significantly lower than three for almost all types of academic challenges in the sample universities. This implies that disabled students learning in these universities are being constrained by different types of academic challenges.

Specifically, the sample respondents confirmed that the teaching methods and assessment modes are not flexible; instructors do not use teaching aids to SWDs; module contents do not consider the diverse abilities and requirements of SWDs; there are not appropriate teaching and learning materials (except in AAU); the available teaching and learning materials are not adequate; and the universities do not organize adequate tutorial classes to assist SWDs academically. Other researchers such as, Wondwosen (2018), Beyene et.al (2020) and Khomera et.al (2020) supported this findings.

The discussants of all disability types in the sample universities have pointed out that the instructional and assessment modes that lecturers apply do not consider the differentiated learning style of students with (out) disabilities. This problem even got worse or more complicated when students with hearing and visual impairments learn in the same classroom when some lecturers do not read/say orally what they wrote especially for those visually impaired, and others do not write what they say.

Table 3: Academic Challenges of SWDs, By University

Curricular/Academic Challenges	Mean response rate					
	AAU		ECSU		KMU	
	Mean	Pr.	Mean	Pr.	Mean	Pr.
The teaching methods of instructors are flexible to accommodate the needs of a specific disability types.	2.87	0.11	2.11	0.00	2.53	0.03
The assessment modes of instructors are flexible to accommodate the needs of a specific disability types.	2.81	0.03	2.11	0.00	2.47	0.02
Instructors use teaching aids to assist me because of my disability.	2.81	0.03	2.22	0.01	2.09	0.00
Modules contents take into account the diverse abilities and requirements of students with disabilities.	2.842	0.05	2.17	0.01	2.28	0.00
There are relevant/appropriate teaching and learning materials like textbooks, references, audio, video, braille and other formats etc.	2.96	0.37	2.55	0.04	2.00	0.00
The available teaching and learning materials are adequate.	2.85	0.08	2.33	0.01	2.312	0.00
Special/remedial/tutorial classes are often organized to assist students with disabilities academically.	2.73	0.01	2.61	0.09	1.84	0.00

Source: Survey result, 2019

Sometimes during lectures, when pictures or diagrams are demonstrated on board or paper as teaching aids, some lecturers could not explain them in a way it can be understandable for visually impaired and deaf students.

The other challenge raised by SWDs in all sample Universities is information inaccessibility mainly when there is a class/ examination schedule change. As informants and discussants indicated most of the time, they get information through students' representatives. But there are times when representatives do not know sign language; they forget to tell time and so on. Accordingly, most discussants confirmed that they missed examinations due to information inaccessibility.

The issues of timing, placement, diversification, and others are critical concerns for SWDs in the assessment process. During examinations, listening to the question by readers, processing the information to answer, and dictating readers to state their answers need extra time as compared with their students without disabilities peers (Kumar, 2019). But most informants and discussants in AAU and KMU have indicated as lecturers did not allow extra time during examinations.

Students with physical impairment have also concerns about time constraints during examinations. The experience of a student in AAU whose right hand is paralyzed also said as the lectures are not considerate to give him additional time to complete his examination.

Regarding the place of examination, assigning them on floors, especially during final examinations is reported as a challenge by physical and visual impaired students in the entire sample Universities. Especially visually impaired students in all the sample Universities explained as the place of examination are most of the time around corridors and/or somewhere at corners, verandas, etc which passers-by are disturbing around which negatively affects their concentration and to the extent creating miscommunication between the reader and the student.

During examinations, visually impaired students cannot easily understand diagrams and illustrations. According to students with hearing impairment discussants in AAU and KMU, one of the reasons for getting lower grades is inconsiderable examination items mainly the subjective ones like essays and/or short answers that appear in examinations. Further, both the survey and the qualitative data results have shown that SWDs do not get additional academic support (tutorial) services in all sample Universities. However, the necessity of getting the service is underlined by most of the discussants in the Universities. From the above discussions, it is possible to understand that lack of reasonable accommodation during lectures and assessment are the major curricular challenges that SWDs faced.

Thus, SWDs are negatively affected by the rigid curriculum and examination processes and systems; in this regard, the finding of this study is what Kochung (2011) found.

Opportunities (Support Service and Related Issues)

Universities usually provide different types of support services to create and enhance conducive learning environment for the SWDs. The following table summarizes the extent to which SWDs are getting support services during their stay in their respective universities.

According to the mean response rate presented in Table 4, the disability centers in ECSU and KMU are not properly coordinating the academic and non-academic support services required by SWDs while AAU is better in this regard. Especially, SWDs in KMU identified as their relationship with disability affairs office is

Table 4: Support Services to SWDs, By Respective Universities

Support Service and Related Issues	Mean response rate					
	AAU		ECSU		KMU	
	Mean	Pr.	Mean	Pr.	Mean	Pr.
The disability support center in the university properly coordinates the academic and non-academic support services required by students with disabilities.	3.42	0.00	2.33	0.01	2.25	0.00
The university provides financial support.	3.86	0.00	2.22	0.02	3.09	0.33
The University encourages best achievers of students with disabilities in different ways.	3.27	0.00	2.67	0.12	2.78	0.15
The University organizes workshops, trainings, seminar that can contribute to my academic success.	3.10	0.17	3.00	1.00	2.38	0.01
The guidance and counselling service in the University have contribution for my academic success.	3.15	0.08	1.83	0.00	2.50	0.01
There are different entertainment means for students with disabilities e.g., social clubs, discussion groups.	2.89	0.14	1.83	0.00	2.28	0.00
There are different means of communication on academic/non-academic matters through my mail, notice boards, etc.	3.02	0.43	2.44	0.04	2.44	0.01
Regular orientation (induction) program (s) for newly entrant (admitted) students with disabilities on the policies, physical surrounding, rights and obligations etc. is provided.	3.04	0.36	2.94	0.43	2.31	0.00
The university avail learning aids such as braille paper, slate, styles, computer, internet, recording system(materials) etc.	3.46	0.00	2.72	0.20	3.28	0.11
The university assigns someone to assist you with your day-to-day learning activities (Ex: Readers, sign language interpreters, helpers for those with physical disabilities and others)	3.042	0.35	1.67	0.00	2.16	0.00
The university avail assistive devices like wheelchairs, white cane, crutches, hearing aid, orthoses etc	3.20	0.03	1.78	0.00	2.34	0.01
The university arranges repair and maintenance service for your assistive devices.	3.02	0.43	2.11	0.00	2.22	0.00

Source: Survey result, 2019

too loose. Only one expert is assigned to coordinate the issue and most of the time he is engaged in teaching. Moreover, his office is located outside and about 500 meters far away from the main campus by crossing the main road of Kotebe. The only way of getting him is by scheduling through telephone arrangement. The qualitative data also strengthen this claim as the weakness of the centers results in difficulty of getting accessible lecture and examination room, delay in material support provision and others. However, informants argued that the challenges faced by SWDs are only due to the weakness of the disability affairs offices/ centers rather the inability of educational departments to mainstream the disability issues matters a lot.

Unavailability of effective guidance and counselling service, lack of different entertainment means and different means of communication on academic/non-academic matters, unavailability of assistive devices (like wheelchairs, white cane, crutches, hearing aid, orthoses) and maintenance services are also mentioned as constraints by ECSU and KMU students. The obtained quantitative and qualitative data contradicts each other regarding the absence of assistive devices in the two Universities.

As discussant and interviewees pointed out, SWDs in AAU and KMU have formed associations in their respective Universities. Thus, living together in the university environment in organized and unorganized form helps them to support SWDs each other emotionally and to facilitate the flow

information that concerns them among themselves, to push the concerned bodies of the Universities in organized way to address their requests.

In addition, both the quantitative and qualitative data have shown that one of the critical challenges identified by SWDs is difficulty of getting personal assistants in their day-to-day academic and non-academic lives according to their respective disability type like readers, sign language interpreters, helpers for those students with visual impairment, hearing impairment and physical disabilities, respectively. Although students with visual impairment are obliged to bring their own readers during examinations, difficulty of getting readers mainly during final examinations and weak reading competency of some readers, especially technical words of courses are identified as a challenge.

Absence and/or competency problem of sign language interpreters in and/or outside classroom is explained as a challenge faced by students with hearing impairment in AAU and KMU and which have negative effect on their academic and social lives. Academically, absence of sign language interpreters in classrooms results in missing what lecturers talk without writing on the board about coverage and timing of examination, elaboration of diagrams, class rescheduling, assignments and so on. Informants and discussants also revealed that there are interpreters who cannot communicate in English language and there is also a problem of understanding the subject matter that they are interpreting for them on the interpreters' side. When the interpreters failed to understand what the instructors have said they opted to escape intentionally. Absence of sign language interpreters inside AAU and KMU campuses limits the social services that students with hearing impairment must get from clinics, registrar, dining rooms, dormitories, and so on. Thus, absence of and/or insufficient number and competency problem of sign language interpreters in AAU and KMU impeded visually impaired students from getting academic and social services that they must get from their respective Universities and thus have negative impact on their academic achievement.

Students with physical impairment have also critical concern on the unavailability of personal assistants who can help them in pushing their wheelchairs, washing clothes, shopping, and in getting other social service is in the three Universities. There are wheelchair user students who cannot go anywhere even to the toilet without the support of others. The case of a female student in KMU shows that since toilets are inaccessible for her, she stays the whole day without going to toilet.

SWDs complained that their respective universities do not assign assistants who can help them in their day- to-day lives. Instead, some volunteer students without disabilities are providing different kinds of assistance although the support systems are not organized, regular and sustainable. Since universities do not assign personal assistance, getting support from their non-disabled peers cause SWDs to feel as they are dependent.

The quantitative data shows that unlike the other two universities, AAU is better in terms of providing financial support, encouraging best achievers, providing guidance and counselling service, availing learning aids (such as braille paper, slate, styles, computer) and providing assistive devices (like wheelchairs, white cane, crutches, hearing aid, orthoses etc.). However, it does not mean that ECSU and KMU are not providing any form of support. The FGD and interview results in the sample Universities shows that there are different kinds of support services such as reasonable accommodation in/around dormitory, library and cafeteria and so on to SWDs which can be taken as opportunities for their academic success.

All the sample Universities were supporting SWDs financially although the amount of payment differs from University to University. For instance, the ECSU was supporting from 750 to 350 Ethiopian Birr per month according to the severity of the disability type. Also, additional money was given for graduating class of SWDs when they conduct research. KMU was also provided 250 Ethiopian Birr monthly pocket money for all students with disabilities. But in 2019 the FDRE Ministry of Finance issued a guideline that decided the monthly pocket money and readers' payment in examinations for the visually impaired students to be 250 and 80 Ethiopian Birr, respectively. The Ministry of Finance's guideline obliged the Universities to assign sign language interpreters for students with hearing impairment. But this guideline does not include the concerns of students with physical disability. Therefore, during the data collection period, ECSU is following the guideline whereas KMU pended the payment. This has become a source of complaints for all most all SWDs in these two Universities. This is because on one side, it excludes students with physical disability, on the other side, the allowed payment could not be sufficient to support SWDs. The finding of the study is in line with Wolanin and Steele (2004) regarding support service provision to SWDs that mostly emphasized more of administrative rather than creating academic adjustments (accommodative assessment, curriculum, teaching-learning process and so on).

To sum up, living together in the university environment help them to support SWDs each other emotionally and facilitate the flow information that concerns them among themselves. From this finding it is possible to understand that SWDs are getting different kinds of support from their respective Universities which have positive role in their academic success, although the available support services are inadequate to address their differential needs as per their disability type. Moreover, it is also possible to conclude that, the academic and administrative support services of SWDs are not sufficient and guided systematically.

The Effect of the Main Challenges and Support Services on Academic Performance of SWDs

Table 5 presents the regression result. Accordingly, the result shows that, among the explanatory variables included in the model, accessibility of infrastructures, high school GPA, monthly expenditure of students, occupation of parents, disability type and mother's education are significantly affecting the academic performance of SWDs. However, the attitude towards disability, academic environment, and the support services (material/financial support, assistive device support and personal support) provided by the universities are not significantly affecting the academic performance of SWDs. This implies that although the universities are providing different support services, the services are inadequate to address the differential needs of SWDs. Similarly, the attitude towards the SWDs and the academic environment is not contributing to academic performance of students with disabilities.

The regression clearly showed that as students' satisfaction towards infrastructure accessibility increases by one scale their CGPA raises by about 0.117 point. These findings are consistent with the research results of Nel *et al (*2015), Ahmad (2016), Kendall (2016)., and Mutanga (2017). The figure reported in Table 5.5 also shows that when monthly expenditure increases by 1 Birr, CGPA raises by about 0.0001 point. This implies that the high economic status (high income) can fulfil their material needs

and get better educational facilities which boost their academic performance marginally.

Further, the regression result shows that some types of parents' occupation influence academic performance of students with disability. As compared to the students who have farmer family background (reference category), students with unemployed family background are more likely to score 0.74 less CGPA point. Obviously, the unemployed family (low-income family) could not fulfil the educational and non-educational material need of their children. As a result, students with extremely poor family background might score less CGPA. This finding is similar with the findings of Maingi-Lore (2016) and Casanova (2005).

Again, there is a significant difference in CGPA between some types of disability. Those students with hearing impairment are more likely to score lass CGPA as compared to the reference category (visually impaired students). On average, students with hearing impairment are more likely to score 0.29 point less CGPA than that of visually impaired students (reference category). Students with hearing impairment may face different challenges that affect their performance in the classroom. They may have difficulty of following lectures if the teacher speaks quietly, rapidly or unclear; classroom environment, qualification of the sign language interpreters (Maingi- Lore, 2016). In addition, as compared to the other groups of disabled students, the probability of getting volunteer students who could help

Table 5. The Effect of the Main Challenges on Academic Performance of SWDs

Dependent Variable= CGPA	Coef.	St. Err.	t	P>|t|
Accessibility of infrastructure	0.117	0.059	1.98	0.050*
Attitude towards disability	0.040	0.047	0.84	0.403
Academic environment	0.018	0.048	0.37	0.709
Support provided	0.003	0.061	0.04	0.964
High school GPA	0.001	0.001	2.13	0.036**
Age	0.022	0.014	1.66	0.100
Expend	0.0001	0.0001	1.89	0.061*
Internet hour	0.016	0.028	0.59	0.558
Study hour	0.015	0.021	0.73	0.464
Occupation of parents				
Merchant	-0.043	0.097	-0.44	0.661
Civil Servant	-0.163	0.121	-1.34	0.183
Unemployed	-0.737	0.214	-3.44	0.001***
Others	-0.109	0.117	-0.93	0.353
Disability type				
Hearing impairment	-0.292	0.096	-3.04	0.003***
Physically disabled	0.098	0.116	0.85	0.399
Others	-0.009	0.437	-0.02	0.983
University joined				
ECSU	-0.456	0.316	-1.44	0.152
KMU	-0.144	0.256	-0.56	0.574
Mother's education				
Diploma	-0.032	0.170	-0.19	0.850
Above Diploma	0.325	0.158	2.05	0.043**
Sex				
Female	0.115	0.087	1.31	0.192
Constant	1.629	0.442	3.69	0.000***
Obs =134 R-Squared = 0.4420 Adj. R-Squared = 0.3373 VIF=1.75				
Breusch-Pagan test for heteroskedasticity (chi2= 0.11 Prob > chi2 = 0.7401)				

Source: survey result, 2019 Note: *** p<0.01, ** p<0.05, * p<0.1

their day-to-day learning activity (sign language interpreters) is very law. Hence, in the presence of these challenges, their result is expected to be lower than the other students. This finding is consistent with the findings of the research conducted by Hatiye (2016), Agyire-Tettey et.al (2017) and Safder, et.al. (2012).

Mother's education is also another variable which affect the academic performance of students with disability. The regression result clearly shows that those students with mother's education above diploma level are more likely to score high CGPA as compared to those who have below diploma level. Specifically, on average, students with mother's education above diploma level are more likely to score 0.33 more than those who have below diploma level (reference category). This implies that mother's education is a key factor behind children's academic performance (quality of children's education). Parents with a high educational qualification are curious about their children education and try to provide learning materials to their children that in turn facilitate their learning and academic performance. This is consistent with the findings of Takeda & Lamichhane, (2018), Bakar, Mamat, & Ibrahim (2017) and Maingi- Lore (2016).

Conclusion and Recommendations

Conclusion

This study focused on assessing the challenges faced and opportunities available for SWDs in ECSU, AAU and KMU. The overall challenges that SWDs are facing include structural or architectural, attitudinal, curricular and others. Most buildings and their internal facilities, service providers' offices, and others are not accessible especially for those who are visually and physically impaired students. Besides, uncovered ditches and unnoticeable holes on the main roads and/or sidewalks and lack of having certain permanent bus stations in Universities' compounds are their common challenges.

Except in ECSU, most lecturers in AAU and KMU found to be insensitive in addressing the concerns of SWDs. Knowledge and skill gaps of lecturers and administrative staff in the three Universities are also identified as the root causes as SWDs failed to get support as expected. The finding revealed that reasonable accommodations during lectures and assessment are almost negligible.

The opportunities that SWDs have in the respective University's context include having reasonable accommodation services in/around dormitory, library and cafeteria and getting recognition/award for best scorers. Having training and induction programs (except KMU) and computer centers and getting educational materials and supportive/assistive devices are also the opportunities which have positive role for their academic success. Monthly financial support can be taken as one positive measure by the Universities to support SWDs.

Conversely, inabilities of disability affair offices to coordinate the overall support services (except AAU) are identified as hindrances for their success. One of the most critical challenges identified by SWDs is difficulty of getting personal assistants in the day-to-day academic and non-academic lives of SWDs according to their respective disability type. Regression result also confirms the different support services (academic support, material/financial support, assistive device support and personal support) provided by the universities have a positive effect on the academic performance of students with disabilities, though the coefficients are not statistically significant. Moreover, it is also possible to conclude that, the academic and administrative support services of SWDs are not guided systematically. There is no University which has specific guideline that

can address the needs and concerns of SWDs in organized and sustained ways.

Recommendations

Based on the findings of the research the following recommendations are given.

To address the physical inaccessibility, the sample Universities should work to modify the entrance of buildings and make reasonable accommodation on classroom assignments, washing areas, toilets around classrooms, libraries, offices of lecturers and support staff. In addition, the Universities should prepare signals and other alternative means that can notify ahead as the area is dangerous for SWDs when the roads and/or sidewalks have holes. Furthermore, the respective Universities need to work to prepare a permanent bus stations as to reduce the physical barriers that SWDs are facing,

In order to reduce the negative attitudes of lecturers towards SWDs, compulsory disability sensitization and awareness creation/raising training tailored to their respective roles should be given on regular basis,

The finding has shown that the instructional and assessment (timing, space and diversification) modes of lecturers are not tailored to the special learning styles of the diverse disability types of students. Therefore, appropriate reasonable accommodation on course/module delivery and assessment processes needs to be made,

Lack of personal assistants and the incompetency of readers in all sample Universities as well as sign language interpreters (in AAU and KMU) are also identified as the most critical concerns of SWDs. Therefore, the Universities should set strategies to organize and encourage voluntary services by staff and students without disabilities so as to strengthen their supports. Besides, the Universities should reduce the dependency of SWDs on assistants for their day-to-day academic and social lives through availing assistive technologies like braille embossers and providing training on how to use Job Access with Speech (JAWS) software and basics of computer mainly for those visually impaired students. Also, the Universities should work with other governmental and non-governmental organizations to provide motorized wheelchairs that can easily be manipulated by physically impaired students by themselves,

Disability affair offices especially in ECSU and KMU are found weak in coordinating the overall support services of SWDs. Therefore, they need to be strengthened through availing human and non-human resources. On the other side, since the issues SWDs are found cross-cutting, the respective Universities should work to mainstream disability issues across all their respective departments theoretically (in policies, guideline, plans and so on) and practically (in implementation) instead of cornering it the offices/centers,

To address the academic and other support service concerns of SWDs in organized, consistent, fair and sustainable way, separate policies and/or guidelines need to be issued in the respective Universities.

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References

Abdulfettah, M. (2018). Campus Physical Environment Accessibility for Person with Disabilities in the Ethiopian Public Universities. International Journal of Multicultural and Multireligious Understanding, 5(5), 286-302.

Abebe, M. & Siseraw, D. (2010). Research on Standard Disability Survey Tools and Measurement. Ethiopian National Disability Action Network (ENDAN) & Comitato Collaborazione Medica (CCM). Addis Ababa. Available at https://www.scribd.com/document/64773468/Guidelines-for-Disability-Data-Collection-Tools-and-Measurement.

Agarwal, A., & Steele, A. (2016). Disability considerations for infrastructure programmes. UK Department for International Development (DFID), 5.

Agyire-Tettey, E. E., Cobbina, M., & Hamenoo, E. S. (2017). Academic Challenges of Students with Hearing Impairment (SHIs) in Ghana. Disability.

Bakar, N. A., Mamat, I., & Ibrahim, M. (2017). Influence of parental education on academic performance of secondary school students in Kuala Terengganu. International Journal of Academic Research in Business and Social Sciences, 7(8), 296-304.

Beyene, W. M., Mekonnen, A. T., & Giannoumis, G. A. (2020). Inclusion, access, and accessibility of educational resources in higher education institutions: exploring the Ethiopian context. *International Journal of Inclusive Education*, 1-17
.

Bhat, M. A., Joshi, J., & Wani, I. A. (2016). Effect of socio economic status on academic performance of secondary school students. *The International Journal of Indian Psychology*, *3*(4), 32-37.

Blessinger, P., Hoffman, J. & Makhanya, M. (2018). Towards a More Equal, Inclusive higher Education. Available at https://www.universityworldnews.com

Casanova, P. F., García-Linares, M. C., de la Torre, M. J., & Carpio, M. D. L. V. (2005). Influence of family and socio-demographic variables on students with low academic achievement. Educational psychology, 25(4), 423-435.

Connell, W. (2013). The Visible Invisible Disability. Available at https://invisibledisabilities.org.

Connery, M. (2016). Disability Housing: What's happening? What's challenging? What's needed? Available at http://www.jchs.harvard.edu/sites/default/files/connery_disabilityhousing

Degener, T. (2016). A human rights model of disability. In Routledge handbook of disability law and human rights (pp. 47-66). Rutledge.

Endalkachew, M., & Dessalegn, M. (2017). Academic Challenges of Visually Challenged Female Students in Addis Ababa University Ethiopia. Global Journal of HUMAN-SOCIAL SCIENCE: Linguistics & Education, Vol. 17, No.4, PP 36-42.

Federal Negarit Gazeta (2009). Ethiopian Building Proclamation No. 624/2009. Addis Ababa: 2009-05-06, No. 31, pp. 4673-4700.

Federal Negarit Gatherta, (2009). Higher Education Proclamation Proclamation No. 650/2009 5th Year No. 64. Addis Ababa: 17th September 2009, pp. 4976-5044.

Farooq, M. S. (2012). Problems faced by students with special needs in ordinary Pakistani schools. Journal of Quality and Technology Management, 8(1), 13-27.

Getachew Walelign (2018). The Provision of Support Services for Students with Disabilities in the Selected Higher Education Institutions of Amhara Regional State-Ethiopia. Research on Humanities and Social Sciences, www.iiste.org, 8(19), 1-14.

Guri-Rosenblit, S., Šebková, H., &Teichler, U. (2007). Massification and diversity of higher education systems: Interplay of complex dimensions. Higher education policy, 20(4), 373-389.

Hatiye, D. D. (2016). Academic challenges of deaf students in inclusive class and perception of their inclusion in regular classroom at Ligaba primary school, Wolaita zone, Ethiopia.

Hu, C. (2017). Students, computers and learning: Where is the connection? *Education and Information Technologies*, *22*(6), 2665-2670.

ICED (2019). Delivering Disability Inclusive Infrastructure in Low Income Countries. Available at ICED_DII_LICs.pdf (icedfacility.org)

Kendall, L. (2016). Higher education and disability: Exploring student experiences. Cogent Education, 3(1), 1256142.

Khomera, S. W., Fayiah, M., & Gwayi, S. (2020). Challenges faced by learners with hearing impairments in a special school environment: A case study of Embangweni primary school for the deaf, Mzimba district, Malawi. *World Journal of Vocational Education and Training*, *2*(1), 21-36.

Kochung, E. J. (2011). Role of higher education in promoting inclusive education: Kenyan perspective. Journal of Emerging Trends in Educational Research and Policy Studies, 2(3), 144-149.

Lehman, B. J., David, D. M., & Gruber, J. A. (2017). Rethinking the biopsychosocial model of health: Understanding health as a dynamic system. Social and personality psychology compass, 11(8), e12328
.

Maingi-Lore, M. (2016). Factors Influencing Academic Performance of Students with Special Needs in Institutions of Higher Learning. The Case of Middle Level Colleges in Machakos County
.

MoLJCA (1996). The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) M (1995). In Part II, Section 1 of the Extraordinary Gazette of India.

Morgado, B., Cortés-Vega, M. D., López-Gavira, R., Álvarez, E., &Moriña, A. (2016). Inclusive Education in Higher Education? Journal of Research in Special Educational Needs, 16, 639-642.

Mutanga, O. (2017). Students with disabilities' experience in South African higher education–a synthesis of literature. South African Journal of Higher Education, 31(1), 135-154.

Muzemil, A. (2018). Campus Physical Environment Accessibility for Person with Disabilities in the Ethiopian Public Universities. *International Journal of Multicultural and Multireligious Understanding*, *5*(5), 286-302.

Nel, K., Rankoana, S., Govender, I., Mothibi, K., & Moloantoa, M. (2015). The challenges experienced by students with a physical disability (SWPD) at a higher education institution in South Africa. *African Journal for Physical, Health Education, Recreation & Dance*.

ODI (2010). Guidance on matters to be taken into account in determining questions relating to the definition of disability. Government Equalities Office. Available online at https://assets. publishing. service. gov. uk/government/ uploads/system/uploads/att achment_data/ file/570382/Equality_Act_2010-disability_definition. pdf(last accessed 7/12/2019).

Otaah, T. P. & Mohamed, B. M. (2015). Disability Rights Awareness and Inclusive Education: Building Capacity of Parents and Teachers A Manual for in service Training and Community Education. Available at https://www.un.org/disabilities/ documents/unvf/DisabilityRights.

Rao, S. (2004). Faculty attitudes and students with disabilities in higher education: A literature review. College Student Journal, 38(2), 191-199.

Retief, M., & Letšosa, R. (2018). Models of disability: A brief overview. HTS Teologiese Studies/Theological Studies, 74(1).

Safder, M., Akhtar, M., Fatima, G., & Malik, M. (2012). Problems faced by students with hearing impairment in inclusive education at the university level. *Journal of Research and Reflections in Education. Vol*, *6*.

Smeltzer, S. C. (2007). Pregnancy in women with physical disabilities. Journal of Obstetric, Gynecologic & Neonatal Nursing, 36(1), 88-96.

Takeda, T., & Lamichhane, K. (2018). Determinants of schooling and academic achievements: Comparison between children with and without disabilities in India. *International Journal of Educational Development*, *61*, 184-195.

Tirussew, T., Daniel, D., Alemayehu, T., Fantahun, A., Sewalem, T., Tilahun, A., & Yirgashewa, B. (2014). Assessment of the situation of students with disabilities in the Ethiopian Universities. Unpublished research) done in collaboration Addis Ababa and Vienna Universities. Sponsored by Appear Austrian Development Cooperation.

Thomson, S. (2018). Achievement at school and socioeconomic background—an educational perspective.

Wolanin, T. R., & Steele, P. E. (2004). Higher education opportunities for students with disabilities: A primer for policymakers.

Wondwosen, T. (2018). Ethiopia: Disability in Higher Education- From Policy to Practice. Available at https:// www.universityworldnews.com/ post.php?story=20180307105907347

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Manuscripts

Manuscripts need to be problem-solving research outputs. They can be original articles, systematic reviews, or short communications. Thematically, the Journal has broader aim and scope on issues of development broadly defined and the name "Africa" in its nomenclature displaying its commitment to engaging scholars from Africa as well as addressing regional matters of development. The Journal will accept manuscripts from disciplinary, multidisciplinary, and interdisciplinary policy and development sciences, social and behavioral sciences, humanities, education and language, health, agriculture, socio-economic development, and political economy.

However, manuscripts of pure disciplinary focus that do not have explicit development relevance are outside of the scope. Manuscripts should be submitted in English except in the case when the theme of the study requires it in Amharic. The title should be precise and clearly describing the content of the manuscript. A short running title of fewer than 160 characters is advisable. Never use abbreviations or formula in the running title. All submitted manuscripts must follow the following structure:

Manuscript Structure

Title: The title must be informative and specific. It should be easily understandable by readers and reflects the content and motive of the research paper. **Author name affiliation and email address**: author/s' first name and last name only. Please don't include salutations like Dr/ Mr./Prof, et cetera. If possible, provide only your professional/ institutional email address.

Abstract: one paragraph containing at most 150 words. The abstract should be informative and explainable without reference to the text. It should state succinctly the problem, objective method, result, and conclusion and recommendation of the paper. The use of abbreviations and citations is not advisable here.

Keywords: 5-6 most important terms that describe your research domain and the specific problem area investigated.

Introduction: A brief section usually not more than a page. It should be informing the reader of the relevance of the research. It should further serve as a gateway and a pre-taste of your research endeavor;