Assessing the physical accessibility of Debre Markos University for students with disabilities

Birhanu Mekuria, Mulat Seneshaw, Alemihun Fenta, Samrawit Dessie
Lecturers at Debre Markos University in the Department of Special Needs and Inclusive Education, Institute of Education and Behavioral Science
Email: birhanu1992@gmail.com

Abstract

Educating students with disabilities in an inclusive school setting has been a global agenda. However, inaccessible social and physical environments may hinder these students from fully participating and benefiting in their education and social life. This study was therefore conducted to investigate the physical accessibility of Debre Markos University for students with disabilities. To achieve the objective, a mixed method design was employed. The study involved 56 students with disabilities who were selected using comprehensive sampling technique and Gender, HIV/AIDS and Disability Affairs Directorate Director and Disability Affairs Officer who were selected using purposive sampling technique participated in the study. Questionnaire, interview and observation were used to collect data for the study. Descriptive statistics such as frequency and percentage were used to analyze the data collected from questionnaire while the data from the interview and observation were analyzed qualitatively. The findings of the study showed that Debre Markos University was not accessible for students with disabilities. Specifically, lack of ramps; unsuitable roads; inaccessible academic and administrative offices; and uncomfortable and unsuitable classrooms, dormitories, libraries, bathing rooms and toilets were the major barriers that hinder the practices of inclusive education. .In addition, the finding of the study revealed that the University has not yet been ratified and enforced the rules and regulations regarding the education of students with disabilities. We recommended that the university should give emphasis in making its landscape, buildings, roads and service giving offices accessible and suitable for students with disabilities so that they can get the best out of their education and social life.

Key Words: physical accessibility, inclusive education, students with disabilities

1. Introduction

Education is not only one of the fundamental human rights, it also plays irreplaceable role in enabling children to achieve their overall development and making them productive citizen (Mutisya, 2010; Olaka, 2016; Meskerem, 2017). This fundamental human right to education, which is the core of inclusive education (IE) (UNESCO, 2005; Tichá, Abery, Johnstone, Poghosyan & Hunt, 2018), has been recognized and safeguarded by the United Nations (UN) (UNESCO, 2009; Armstrong et al., 2011, cited in Pappas, Papoutsi & Drigas, 2018).

With the Universal Declaration of Human Rights of the 1948 and its predecessors, it has been expected that students with disabilities (SWDs) would meaningfully gain access to quality education and support services (UNESCO, 2005; Tichá et al., 2018). The major impetus for IE was given by the World Conference on Special Needs Education held in Salamanca (Spain) in June 1994, to further the objective of education for all (EFA) by considering the fundamental policy shifts required to promote the approach of IE, namely enabling schools to serve all children, particularly those with special educational needs (UNESCO, 2008). Accordingly, there has been an increasing interest of educating these students in mainstream schools over the last three recent decades (Chimwaza, 2015).

The development of the educational system regarding SWDs has been passed through a series of stages during which different approaches have been explored to address the diverse needs and abilities of these students (UNESCO, 2005). Dominantly, three approaches have been implemented for educating SWDs: segregation, integration and inclusive education (IE) (Hardman, Drew & Egan, 2008; UNESCO, 2008; Hayashi, 2014). In segregation education, SWDs are separated from their "normal peers" and educated in special schools or at home. In integrated education, SWDs have been "mainstreamed" in the regular classrooms but the main challenge with integration is that "mainstreaming" has not been accompanied by changes in the modification of the ordinary schools in its physical, social and curricular affairs (UNESCO, 2005). In IE SWDs learn effectively in mainstream schools where the whole system has been changed to meet each student's unique needs (Tirussew, 2005).

In recent years, countries around the world have been moving towards adopting an inclusive education approach (Meskerem, 2017; Bansal, 2018). This is because regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes, creating child-friendly physical and social environments, building an inclusive society and achieving appropriate and quality education for all (Tirusew, 1999, cited in Asrat, 2013; Chan & Yuen, 2015; UNESCO, 2005). Moreover, IE provides an effective education to the majority of children and improves the efficiency and ultimately the cost-effectiveness of the entire education system (UNESCO, 2008).

Although IE has been recognized worldwide as appropriate philosophy for addressing the diverse needs of students with and without disabilities within a mainstream classroom where they are learning and playing together using the same human and material resources, it is not without challenges because it calls for the modifications in the physical and social environments to make them suitable for SWDs (Chan & Yuen, 2015). Bansal (2018) also emphasized that IE needs a change in roads and building designs, the arrangement of institutional facilities and infrastructures.

The government of Ethiopia has adopted and implemented the international legal and policy documents pertaining to the education of SWDs in the mainstream educational settings (ILO, 2013). More specifically, (Tirussew, Daniel, Alemayehu, Fantahun, Sewalem & Tilahun, 2014) stated that Higher Education Proclamation 650/2009 article 40 sub article 40.3 gives emphasis on accessibility issues in that the design and construction of any building, campus physical landscapes, and other infrastructures of institutions have to ensure suitability for persons with disabilities, especially for students with physical and visual disabilities.

A recent increase in the establishment of higher education institutions and the annual enrollment rate in Ethiopia are creating an opportunity in the increment of the numbers of SWDs joining higher education institutions (Tirussew et al., 2014). These students can participate successfully in activities and can learn in higher learning institutions if there are accommodations to the whole environment both inside and outside of the school compound. These include accessible physical and welcoming social environment that

facilitate positive and supportive communication and interactions with teachers, peers and administrative staffs.

Despite the government concern for the education of SWDs and the current increment of the number of these students in the Ethiopian universities, those who joined these universities have experienced challenges of different types, such as inaccessible physical environment, negative societal attitudes and lack of university wide legislation that will uniquely benefit SWDs (Tirussew et al., 2014). Studies conducted in other countries also confirmed that SWDs often encounter physical and social barriers in university environment (WHO, 2011; Peters, 2003, cited in Chimwaza, 2015).

Many studies had been conducted about the practices of IE and its challenges in primary schools in Ethiopia (Demisew, 2014; Asrat, 2013; Wondwosen, Yitayal, & Semahegn, 2014; Abiyot, Tewodros, Alemayehu & Arefayene, 2017). When it comes to higher learning institutions, to the best of the researchers' knowledge, only few researches had been conducted regarding the situation of SWDs in the Ethiopian universities (Getachew, 2018; Tirussew et al., 2014). In addition, even the focus of the existing studies conducted in higher learning institutions were not directly related to our research's focus. To fill this gap, the researchers are therefore interested to conduct a research on the area of assessing the physical accessibility of Debre Markos University for SWDs. Accordingly, the study has tried to answer the following research objectives:-

1. Is the physical environment of Debre Markos University accessible for SWDs?
2. What are the physical barriers that hinder the practice of inclusive education in Debre Markos University?
3. Does Debre Markos University have rules and regulations for students with disabilities?

2. Research Methodology

2.1 Design of the Study

The main purpose of this study was to investigate the physical accessibility of Debre Markos University for students with disabilities. In order to achieve the objective of the study, mixed method design was employed. According to Byrne and Humble (2007), a mixed method design incorporates techniques from qualitative and quantitative methods

to answer research questions. The use of mixed method design can neutralize some of the disadvantages of each other methods. It also helps that the strengths of each approach can complement to each other. Creswell (2014) also emphasized that mixed method design involves the collection and integration of qualitative and quantitative research and data in a research study. Qualitative data is gathered through in-depth interview, observation and open-ended questionnaire while quantitative data usually collects via closed-ended questionnaires. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. In this present study, quantitative dominant mixed method research approach (QUAN + qual approach) was employed where quantitative and qualitative data were collected and analyzed at the same time (concurrently) (Hansen, Creswell & Creswell, 2005; Johnson, Onwuegbuzie & Turner, 2007).

2.2 Population and Sample Size

The population of the study comprises of students with disabilities and Gender, HIV/AIDS and Disability Affairs Director and Disability Affair Officer. Comprehensive sampling technique was employed to select 66 students with disabilities (48 males & 18 females) and purposive sampling technique was used to select the key informants of Gender, HIV/AIDS and Disability Affairs Director and Disability Affair Officer.

2.3 Data Collection Tools

Self-developed questionnaire (that holds both open and close ended questions), in-depth interview and observation checklist were used to collect the necessary data from the participants of the study. Questionnaire was used to collect the data from 66 SWDs. Each close-ended item was rated on a five point Likert scale form that ranges from ‘Strongly Agree’ to ‘Strongly Disagree’. In other words, respondents were asked to rank on a five-level Likert scale in order to avoid forced choice or bias, which represents 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree. The questionnaire also consisted of some open-ended questions prepared to gather additional information that participants have about the issue under investigation that were not answered by close-ended questions.

In-depth interview was conducted with Gender, HIV/AIDS and Disability Affairs Director and Disability Affair Officer to gather information concerning the existence of rules and regulations for SWDs and whether Debre Markos University has ratified and implemented these documents effectively and efficiently. Observation checklist was conducted to check the accessibility and suitability of the physical environment of DMU for SWDs. The checklist mainly included major issues, such as the availability of ramps, the suitability of roads, the accessibility and comfortability of buildings, libraries, cafeterias, dormitories, classrooms, offices, sport fields, and other faculties for SWDs.

Before the actual data collection was made, pilot study was also conducted having 20 SWDs of Debre Markos University who were not involved in the actual sample. The reliability of all items in the questionnaire was tested using Cronbach Alpha method. All items (α= .810) were found to be reliable and internally consistent. After proving the internally consistency of the items, the questionnaire was distributed to 66 SWDs and 56 SWDs (a response rate of 84.85%) returned the distributed questionnaire by properly filling all the questions addressed in it. Therefore, 56 SWDs (41 males and 15 females) were included in the final statistical analysis of the study.

2.4 Methods of Data Analysis

After the data was collected, it was checked, coded, organized and recorded in to code sheet. In this study, both qualitative and quantitative methods of data analysis were employed. That means, the data obtained through questionnaires was analyzed quantitatively using descriptive statistics such as frequency and percentage whereas the data collected through interview, observations and open-ended questionnaire were analyzed qualitatively using words and direct narrations to substantiate the quantitative analysis. Finally, the data were interpreted and discussed to reach certain finding which in turn was used to give conclusion and possible recommendations.

3. Findings

3.1 Demographic variables

As it was depicted in Table 1 below, of the 56 study participants, 41 were male representing73.21% and 15 were female representing 26.79%. In terms of disability, 43 (76.79%) of the study participants had physical disability, 6 (10.71%) of them had visual

impairment, 5 (8.93%) of them had health impairment and the remaining 2 (3.57%) of them had hearing impairment. With respect to their year level, 10 (17.86%) of the respondents were from year one, 15 (26.79%) of them were from year two, 19 (33.82%) of them were from third year, 7 (12.5%) of them were from fourth year and the remaining 5 (8.893%) of them were from fifth year.

Table 1: Background information of respondents

No	Variables		Responses	
			Frequency	**Percentage**
1	Sex	Male	41	73.21
		Female	15	26.79
		Total	**56**	**100**
2	Types of disabilities	Physical	43	76.79
		Visual	6	10.71
		Health	5	8.93
		Hearing	2	3.57
		Total	**56**	**100**
3	Year level	First	10	17.86
		Second	15	26.79
		Third	19	33.93
		Fourth	7	12.5
		Fifth	5	8.93
		Total	**56**	**100**

3.2 Major findings

3.2.1 Physical accessibility of DMU for students with disabilities (SWDs)

Table 2: Respondents response regarding the suitability of DMU for SWDs

No	Items		Responses	
			Frequency	**Percentage**
1	Is the university's compound is comfortable for SWDs?	Yes	5	8.9
		No	51	91.1
		Total	**56**	**100**

As it is indicated in Table 2, 51 (91.1%) of the research participants responded that the university's compound was not comfortable for SWDs and the remaining 5 (8.9%) of the

respondents responded that the university's compound was accessible for students with disabilities.

In the open-ended items SWDs provided additional justifications regarding the unsuitability of the university's physical environment for SWDs. Regarding this; one of the study participants explained the following:

> It is difficult to think about the physical suitability of Debre Markos University. This is because; the existing roads and topography are not suitable for those students who use crunches and wheelchairs and for blind students. For instance, during meal times I observe that some students with physical and visual problems fall on the ground due to the slippery nature of the surroundings of the cafeteria.

In explaining how the physical environment of DMU was challenging for SWDs, another students with disability reported the following verbatim expression:

> The university's compound did not give due attention for students with disabilities, especially for we students who use wheelchair and crunches. Many areas of the physical landscape of the university is not suitable and accessible for us as there are many ups and downs, very rugged topography and the existing roads are very sloppy, have many obstacles and zigzag like features. Hence, we have difficulty attending our classes, getting services from different offices and moving easily.

From the above findings, it is possible to conclude that the physical environment of Debre Markos University was not accessible and comfortable for students with disabilities.

3.2.2 The major physical barriers that hinder the practices of IE in DMU

In order to answer the above question, SWDs were presented with 11 questions and asked to rate each question based on a 5-point Likert scale from 'Strongly disagree' to 'Strongly agree' For easy way of presentation and analysis, the responses of SWDs were grouped by changing them from the five Likert scale into three Likert scale. This was done by combining Agree and Strongly Agree and representing it as 'Agree', Disagree and Strongly Disagree and representing it as 'Disagree' and the 'Undecided' response is left

as it is to identify the percentage of respondents agreeing, disagreeing or not able to decide with each item.

Table 3: Respondents response regarding the physical barriers that hinder the practices of IE in DMU

No	Questions	Scales					
		Agree		Undecided		Disagree	
		F	%	F	%	F	%
1	Roads are not comfortable and suitable for SWDs	**50**	**89.3**	5	8.9	1	1.8
2	Each building has appropriate ramp for SWDs	10	17.9			**46**	**82.1**
3	Classrooms and other office doors consider SWDs	2	3.6	8	14.3	**46**	**82.1**
4	Administrative and academic services delivery offices did not consider SWDs	**48**	**85.8**	4	7.1	4	7.1
5	Toilets (toilet rooms facilities) consider SWDs	19	33.9	11	19.7	26	46.4
6	Sport and recreational centers are not accessible for SWDs	**43**	**76.8**	3	5.4	10	17.8
7	Libraries are comfortable and suitable for SWDs	23	41	2	3.6	**31**	**55.4**
8	Cafeterias are suitable and comfortable for SWDs	24	42.9	6	10.7	26	46.4
9	Dormitories are comfortable and suitable for SWDs	8	13.3	10	17.9	**38**	**67.8**
10	Learning and reading rooms have appropriate lighting	26	46.4	4	7.1	26	46.4
11	Cleaning rooms are not comfortable for SWDs	**37**	**66.1**	6	10.7	13	23.2

As it can be seen from Table 3, almost all 50 (89.3%) of the respondents replied that the existing roads are uncomfortable and unsuitable for SWDs (Item 1). The same number and percentage 46 (82.1%) of the research participants responded that each building does not have appropriate ramps for SWDs and classrooms and other offices doors did not give due consideration for SWDs respectively (Item 2 & 3). Regarding the administrative and academic services delivery offices, the majority 48 (85.8%) of the students agreed that the administrative and academic services delivery offices did not consider SWDs (Item 4).

When it comes to Item 5 of Table 3, 19 (33.9%) of the respondents agreed that toilets (toilet rooms facilities) consider SWDs, 26 (46.4%) of them disagreed that toilets (toilet rooms facilities) consider SWDs and the remaining 11 (19.7%) of them were not able to decide whether toilets (toilet rooms facilities) consider SWDs or not. Concerning Item 6, more than three-fourth 43 (76.8%) of the study participants agreed that sport and recreational centers are not accessible for SWDs. More than half 31 (55.4%) of the respondents responded that libraries are not comfortable and suitable for SWDs (Item 7). About cafeterias, 24 (42.9%) of the students agreed that cafeterias are suitable and comfortable for SWDs, 26 (46/4%) of them disagreed that cafeterias are suitable and comfortable for SWDs and the remaining 6 (10.7%) of them were not able to decided whether cafeterias are suitable and comfortable for SWDs or not (Item 8).

Table 3 also shows that more than two-third 38 (67.8%) of the respondents replied that dormitories are not comfortable and suitable for SWDs (Item 9). With regard to Item 10 of Table 3, 26 (46.4%) of the research participants agreed that learning and reading rooms have appropriate lighting and the same number and percentage of them disagreed that learning and reading rooms have appropriate lighting and the remaining 4 (7.1%) of them were not able to decide whether learning and reading rooms have appropriate lighting or not. Lastly, two-third 37 (66.1%) of the study participants responded that cleaning rooms are not comfortable for SWDs (Item 11).

Generally, it is possible to conclude that uncomfortable and unsuitable roads, inaccessible administrative and academic services delivery offices, lack of appropriate ramps in each building, inappropriate of classrooms and other offices doors, inaccessible sport fields

and other recreational centers, uncomfortable and unsuitable dormitories, uncomfortable bathing rooms and uncomfortable and unsuitable libraries were rated by SWDs as the major hindrance for their education and social interaction in the mainstream classrooms in particular and in their university life in general.

In the open-ended items SWDs were also asked to explain the major challenges they have faced with regard to the physical environment. One of the student participants said:

> From the very beginning, most buildings, roads and other facilities had been designed and constructed without considering SWDs. For instance, in many buildings offices, which deliver services directly related with students, are found at the G+1 and above levels of a building. Therefore, students with visual and physical impairments have faced difficulty in getting the necessarily services and information from concerned bodies. That is why; currently the university is not convenient to implement inclusive education.

To emphasize how challenging the physical environment of DMU in practicing IE, another student with disability reported the following:

> The roads are made of cobblestones, most of them are very narrow and some others are steep. Because of these, they are not suitable for we students with disabilities. In addition to the roads inconveniency, dormitory's buildings and their assignment to students, bathing rooms, entertaining centers, shops, toilets, libraries, and cafeterias did not consider students with disabilities".

From observation data, the researchers also confirmed that among 32 and more buildings, which have classrooms, instructors' offices and laboratory rooms only seven (7) of them have ramps at the ground level. In addition, even the existing ramps were constructed only in one side of each building. Moreover, among ten (10) buildings where the offices of the president, vice presidents, deans and directors who are serving students, only five (5) of the buildings have ramps at their ground level and only in one side of each building. Even, many of the roads that take through these buildings are not accessible for students who are using wheelchairs for blind students.

Surprisingly, not only the fact that the majority of the buildings did not have ramps but also the offices of the president, vice presidents, executive directors, deans, vice deans and many of the directors and vice directors who have been delivering services directly for these students were found at G+1 and above floors. Furthermore, the roads that take to these buildings were not comfortable for students with disabilities.

As far as libraries are concerned, from the three undergraduate libraries, only library no. 1 and 2 have comfortable ramps and roads but they do not have separate reading rooms (for the blind), adapted tables and chairs (for students with physical impairments) and have no separate entry and exit doors for these students. The main library has only one ramp without accessible road(s), has separate reading room for the blind with four internet computers but there were no Braille written reference books and jaw software. Therefore, all the libraries are not accessible and suitable for SWDs, as they have not yet been furnished with the necessarily facilities and infrastructures.

Regarding the dormitories, cafeterias and clinic, only one building (B-36) has been reserved for male students with disabilities and the university has tried to build ramp, toilets and bathrooms for these students at least in its ground floor. However, there is no special building reserved for female students with disabilities. From the three cafeterias, only one cafeteria has ramp but the surrounding roads that lead to the cafeterias are not accessible. Lastly, the clinic is accessible and comfortable for SWDs.

3.2.3 Does DMU have rules and regulations for students with disabilities?

When it comes to interview data, the researchers asked the Gender HIV/AIDS and Disability Affair Directorate Director and Disability Affair Officer about the existence of rules and regulations adapted by Debre Markos University that guide how to implement inclusive education in general and deliver services for SWDs in particular. Both of the respondents reported that though there is a draft manual it has not yet been ratified and implemented by the university.

Despite the lack of manual that enforces the implementation of inclusive education in relation to physical accessibility and creating barriers free social environment the interviewees reported that in collaboration with concerned bodies the directorate tried to build at least few of the existing ramps, enabling SWDs to get separate reading room,

dining rooms and dormitories and classrooms at least at the ground floor of a building. In addition, the directorate has conducted some awareness raising trainings, talk show programs and panel discussions for the university community concerning disability and students with disabilities.

4.2 Discussion

4.2.1 Physical accessibility of DMU for students with disabilities

Higher learning institution with an inclusive orientation needs to make the school system accessible so that students with and without disabilities can learn, play and benefit from their education and social life. Accessibility, according to United Nations Children's Fund (UNICEF, 2014), is a precondition for SWDs to live independently and participate fully and equally in society. It encompasses the usability of environments, amenities and resources. However, the findings of the present study revealed that Debre Markos University was not accessible and suitable for SWDs.

The finding of the study is consistent with the previous research findings in that SWDs can be successful in their education if the regular schools are accessible. Regarding this, Khan, Hashmi and Khanum (2017) sated that IE can be successful if a child friendly and accessible learning environment is provided to all children to ensure their inclusion in mainstream education system. Mutisya (2010) also emphasized that one of the most direct barriers to full inclusion of SWDs is found in the physical environment. Moreover, Meseret (2013) reported that the physical and architectural barriers play significant role in limiting the mobility of SWDs within the school compound, as well as in classrooms in Ethiopia

4.2.2 The Major physical barriers that hinder the practices of IE

The finding of the study showed that unsuitable roads, lack of appropriate ramps in each buildings, uncomfortable classrooms and narrow office doors, inaccessible academic and administrative offices that deliver services directly related with SWDs, inaccessible sport fields and other recreational centers, uncomfortable and unsuitable dormitories, libraries, bathing rooms and toilets were the major barriers that hinder the practices of IE. This finding is also supported by numerous studies. For instance, in describing how challenging the unfriendly physical environment for students with physical impairment

(Musasizi, 2010, cited in Ejuu, 2015) stated that physically challenged children have to crawl on the dirty latrine floor to use it because the pit latrines used in these schools have narrow doors and steps that are challenging for these children to access with or without a wheelchair.

As reported by the Ministry of Education (MOE, 2012, cited in Demisew, 2014) many educational settings (schools, higher educational institutions, adult education centers, etc) in Ethiopia are not conducive and friendly enough to accommodate SWDs due to lack of adapted toilet, adapted seats in library, adequate space for wheel chairs, ramps, appropriate classrooms, dormitories and other centers. In his research finding Getachew (2018) also showed that the physical environment including the roads, campus and buildings are inaccessible for SWDs. Inaccessible and faulty designs of roads, buildings, recreational centers and services delivery offices create physical and architectural barriers for children with disabilities. This hampers accessibility to education, both services and facilities (UNICEF, 2014).

4.2.3 Does DMU have rules and regulations for students with disabilities?

The successful practices of IE in the mainstream classrooms and school compound like Debre Markos University needs wider range of support systems extended from policy directives to school system. Support system at school level starts with making the existing physical environment, building designs and infrastructures appropriate and in line with the needs and characteristics of SWDs. In supporting this fact the Ethiopian Higher Education Proclamation No. 650/2009 in its article 40 sub articles 1-4 clearly proclaims that building design, campus physical landscape, facilities, computers and other infrastructure of the institution shall consider the interest and characteristics of SWDs (Wondwosen et al., 2014; Tirussew et al., 2014, Teferi, 2016). The finding of this study however signified that though there is a draft manual Debre Markos University hasn't yet been ratified and effectively implemented the manual (rules and regulations) regarding the education of SWDs. This go together with the findings of Lwise (2009, cited in Meskerem, 2017) that describe inclusive classes found in developing countries like in Ethiopia are characterized by low quality supports and lack of regulation concerning SWDS. Teferi (2016) also emphasized that though starting from 2006 the

Ethiopian government has developed a new legislative document, namely Special Needs Education Program Strategy, in order to apply inclusive education in regular schools and in higher education institutions and following the introduction of this policy document all regular schools and higher education institutions in Ethiopia have been required to implement inclusive education as a mandatory approach when educating SWDs, the actual implementation of an inclusive approach and the existing support systems in higher learning institutions are not fruitful as expected.

4. Conclusion and Recommendations

4.1 Conclusion

It is possible to conclude that the physical environment of DMU is not accessible and comfortable for SWDs. More specifically, unsuitable roads, lack of appropriate ramps in each building, uncomfortable classrooms and other office doors, inaccessible academic and administrative offices that deliver services directly related with SWDs, inaccessible sport fields and other recreational centers, uncomfortable and unsuitable dormitories, libraries, bathing rooms and toilets were the major barriers that hinder the effective practices of IE. This unfriendly physical environment should be given due consideration because it denies the rights of SWDs to be accessed to appropriate and quality educational services and other support provisions.

Despite the fertile grounds which have been laid in the form of rules, regulations and policies by the Ethiopian government in general and the higher learning education proclamation in particular regarding the education of SWDs and the current increment of the number of these students in Ethiopian universities, Debre Markos University's general support system did not give due attention for SWDs and the existing rules and regulations of the university has not yet been ratified and effectively communicated /disseminated to benefit SWDs.

4.2 Recommendations

Based on the findings and conclusions of this study, the following recommendations were made.

- Free movement in the university campuses and getting accessible services and supports are the basic rights of SWDs. However, in DMU the basic elements of physical accessibility, such as comfortable school compound, accessible and comfortable roads, classrooms, dormitories, halls, dining rooms, recreational areas, libraries, service delivery offices, toilets, exit passageways in emergency situations and bathing rooms are not adequately met. Therefore, the concerned bodies in the university should give due consideration in alleviating the above mentioned obstacles.
- The university should give emphasis in that all buildings should have appropriate ramps at least in their ground level and the roads that connect the existing few ramps and roads that connect the main roads with each buildings and /or offices should be accessible and comfortable for SWDs.
- In collaboration with Gender, HIV/AIDS and Disability Affairs Director the university should ratify and implement the existing rules and regulations regarding the education of SWDs so that these students can access to appropriate educational and other social service provisions.
- The university should provide SWDs with separate reading rooms that should be furnished with the necessary text books, internet computers with jaw software, adapted chairs and tables and other technological devices. And also each library should have separate entry and exit doors so that they are at ease for SWDs. The university should also provide SWDs with furnished resource rooms.
- College/institute/school deans who have SWDs in collaboration with departments should allocate classrooms and offices in the ground level so that these students can easily access their educational services, advices from their instructors and other valuable information from their deans, departments and other concerned bodies.

References

Abiyot, K., Tewodros, A., Alemayehu, E. & Arefayene, M. (2017). Challenges and opportunities in inclusion of students with physical disabilities in physical education practical classes in North Shewa Zone, Ethiopia. *American Journal of Sports Science, 5(2): 7-13.*

Asrat, D. (2013). Factors affecting the implementation of inclusive education in primary schools at Bahir Dar town administration. *Education Research Journal, 3 (3), 59-67.*

Bansal, S. (2018). Understanding teachers' perspective of inclusive education for children with special needs. *Educational Quest: An Int. J. of Education and Applied Social Science, 9 (1), 115-123.*

Byrne, J. & Humble, A. M. (2007). An introduction to mixed method research. USA: Atlantic Research Center for Family-Work Issues.

Chan, T. & Yuen, M. (2015). Inclusive education in an international school: A case study from Hong Kong. *International Journal of Special Education, 30 (3), 80-97.*

Chimwaza, E. S. (2015). Challenges in implementation of inclusive education in Malawi: A case study of Mountfort special needs education college and selected primary schools in Blantyre. Unpublished Master Thesis.

Creswell, J. W. (2014). Research design: qualitative, quantitative, and mixed methods approaches (4th. ed.). USA: SAGE Publications, Inc.

Demisew, A. (2014). Inclusive education practices of primary schools in Yeka sub city. Unpublished Master Thesis. Addis Ababa: Addis Ababa Printing Press.

Ejuu, G. (2015). Moving in circles along a straight path: The elusiveness of inclusive education in early childhood development in Uganda. *Journal of Childhood and Developmental Disorders, 2 (1), 1-11.*

Getachew, W. (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, (8) 19, 4-14.*

Hansen, W. E., Creswell, J. W. & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology, 52 (2), 224-235.*

Hardman, M. L., Drew, C. J. & Egan, M. W. (2008). Human exceptionality: School, community and family (9th. ed.). Boston: Houghton Mifflin Company.

Hayashi, M. (2014). Comparative Policy Analysis on the Impact of Inclusive Education in Asia and Africa: Focusing on the Right to Education for Children with Disabilities in Cambodia. *Journal of International Cooperation in Education, 16 (2), .21-42.*

ILO (2013). Inclusion of people with disabilities in Ethiopia.

Khan, I. K., Hashmi, S. H. & Khanum, N (2017). Inclusive Education in Government Primary Schools: Teacher Perceptions. *Journal of Education and Educational Development*, 4 (1), 32-47.

Johnson, R. B., Onwuegbuzie, A, J. & Turner, L. A. (2007). Towards a definition of mixed methods research. *Journal of Mixed Methods Research, 1 (2), 112-133.*

Meskerem A. A. (2017). Provision of inclusive pedagogy; support system in effect among public primary schools in Southern Ethiopia. *IOSR Journal of Humanities and Social Science (IOSR-JHSS), 22 (6), 92-100.*

Mutisya, C. M. (2010). Factors influencing inclusion of learners with special needs in regular primary schools in Rachuonyo district, Kenya. Unpublished Master's Thesis.

Olaka, R. A. (2016). School factors influencing implementation of Inclusive education in public primary schools in Homa Bay town sub county, Kenya. Unpublished Masters' Thesis.

Pappas, M. A., Papoutsi, C. & Drigas, A. S. (2018). Policies, practices and attitudes towards inclusive education: The case of Greece. *Social Sciences, 7 (90), 1-15*

Teferi, A. Z. (2016). The inclusion of students with visual impairment at Addis Ababa University, Ethiopia: challenges and prospects. Unpublished Doctoral Dissertation.

Tichá, R., Abery, B. H., Johnstone, C., Poghosyan, A. & Hunt, P. F. (2018). Inclusive Education Strategies: A Textbook. USA: Regents of the University of Minnesota.

Tirussew,T., Daniel, D., Alemayehu, T/M., Fantahun, A., Sewalem, T., Tilahun, A. & Yirgashewa, B. (2014). Assessment of the situation of students with disabilities in the Ethiopian universities: Unpublished paper.

Tirussew, T. (2005). Disability in Ethiopia: Issues, insights and implications. Addis Ababa: Addis Ababa University Printing Press.

United Nations Educational, Scientific and Cultural Organization (UNESCO, 2005). Guidelines for inclusion: Ensuring access for education for all.

UNESCO (2008). "INCLUSIVE EDUCATION: THE WAY OF THE FUTURE". Geneva: UNESCO.

UNESCO (2009). Towards Inclusive Education for Children with Disabilities: A Guideline. UNESCO: Bangkok.

United Nations Children's Fund (UNICEF, 2014). Access to School and the Learning Environment: Physical, Information and Communication.

Wondwosen, M., Yitayal, A. & Semahegn, M. (2014).Challenges and opportunities to implement inclusive education. *Asian Journal of Humanity, Art and Literature, 1 (2), 118-136.*

World Health Organization (WHO, 2011). World report on disability guideline