

## The Influence of Demographic Factors on Teachers' Instructional Practices and Challenges in Including Students with Visual Impairment in Government Secondary Schools of Harari Region

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### ABSTRACT

The purpose of this study was to examine the influence of demographic factors on instructional practices and challenges teachers face in teaching students with visual impairments in the government secondary schools of Harari regional state. A quantitative method with a survey design was employed. The sample consisted of 100 (with 95% response rate) participants selected using simple random sampling technique. Data was collected using questionnaire in the form of Likert scale. Frequencies, percentages, means, standard deviation, independent t-test and One-Way ANOVA were used to analyze the data. The study revealed that teachers' level of qualification has implications to the instructional practices, namely their collaboration with other professionals, classroom supplies and equipment and teaching strategies. Teachers with training on inclusive or special needs education were found to use more specialized or individualized teaching strategies in the classroom for SVI than those who did not have training. Furthermore, years of teaching experience was found to influence teachers' collaboration with other professionals. Teachers with bachelor's degree and MA/MSc holders were found to face more challenges in adapting teaching strategies, materials and identifying the needs of SVI compared to teachers with diploma holders. The study concluded that the identified demographic factors were found to influence at least one of the teachers' instructional practices in inclusion of SVI. The study concluded that teachers' level of qualification has an influence on the challenges they face in teaching SVI in the government preparatory and secondary schools of Harari regional state.

**Key words:** Critical Disability Theory, Inclusive Education, Instructional Practices, Visual Impairment, Demographic Variables

### INTRODUCTION

According to McLaughlin and Rouse (2000), the underpinning principle of inclusive education is that all students and young people, with and without disabilities or other special needs, are learning effectively together in inclusive schools, with appropriate networks of support. This principle means that "we enable all students to participate fully in the life and work of inclusive settings, whatever their needs". There are many different ways of achieving this and inclusion is one way for it. According to Ainscow et al. (2006, p. 2), "an exploration of inclusion requires us to make explicit the particular values and their meanings and implications that we wish to see enacted through education". Inclusive education demands the class teacher to be flexible, creative, and ready to adapt the instructional or specialized teaching materials for SVI.

In the Harari regional state, the enrolment of students with disabilities in general and those with visual impairments in particular was low at all levels of general education

particularly in government secondary schools. According to the Harari Regional Education Bureau (2015), the total enrolment of students with special needs at primary and secondary school levels was 1502 (1408, in primary government schools and 34, in secondary schools). This shows that compared to the primary school, the enrolment of students with special needs in secondary schools is very low. Specifically, concerning the students with visual impairments, their enrolment at both levels of schooling was 308 (303, in primary schools, 5 in secondary schools). This indicates that compared to the primary school enrolments, the enrolment of students with visual impairments in secondary schools in the region is minimal.

In Ethiopia, though some studies were conducted focusing on the attitudes of teachers towards inclusive education (Beyene & Tizazu, 2010), the needs of SVI in learning English subject (Shifere, 2013), challenges and opportunities to implement inclusive education (Mitiku, Alemu, & Mengsitu, 2014), psychosocial and educational challenges and opportunities of students with visual impairment (Hadgu, 2015),

they were far from addressing the impact of demographic factors on teaching practices and challenges teachers face in government secondary schools. Thus, the present study intended to examine the influence of demographic factors on instructional practices and challenges that teachers face toward inclusion of SVI in the government secondary schools of Harari region.

### Research Questions

Specifically, the following basic research questions were used to guide the present study:

1. Is there statistically significant difference between the educational qualification of teachers on the existing practices and challenges of instruction for SVI in the selected government secondary schools?
2. Is there statistically significant difference between the teaching experiences of teachers on the existing practices of instruction for SVI in the selected government secondary schools?
3. Is there statistically significant difference between the training statuses of teachers on the existing practices of instruction for SVI in the selected government secondary schools?
4. To what extent does the class size influence existing practice of instruction for SVI in the selected government secondary schools?

### LITERATURE REVIEW

In this study, the Critical Disability Theory (CDT) was used as a framework. CDT is the synthesis of the medical and social models of disability which the World Health Organization calls the 'biopsychosocial model' (Watermeyer, 2009). This approach balances the contributions of impairment, personal responses to impairment and the barriers imposed by the social environment to the concept of disability (Hosking, 2008). CDT was used as a framework due to its philosophical stance that acknowledges the idea that the school system (e.g. teaching practices and resources) should be changed or modified (social model) without ignoring the impacts of impairment (medical model) for successful inclusion of students with disabilities. Accordingly, CDT recognizes and values diversity by adjusting the concept of equality for accommodating differences among students in schools (Hosking, 2008).

According to the CDT (Hosking, 2008), instructional improvement for inclusive education of SVI depends on collaboration among regular school teachers and other educational professionals such as itinerant teacher and educational assistants or vision specialists. In addition, Florian (2012) explained that disability professionals (visual specialist, itinerant teachers and educational assistants) collaborate with the classroom teacher in planning reasonable adjustments to instructional methods and materials to ensure access to curriculum tasks for students who are blind or with low vision.

### METHODOLOGY

#### Participants

The target population of this study was teachers. The study used purposive and simple random sampling techniques to select the schools and teacher respondents respectively. Harari region has seven government secondary schools, constituting six (6) general secondary schools and one (1) preparatory school namely Hamaresa, Harar Senior Secondary Abdulahi, Erer Woldiya Secondary, Aw Abdal Institute, Shekib Abedulahi Secondary and Abadir secondary schools and Aboker respectively (Harari Regional Education Bureau [HREB], 2015).

The study was conducted in one preparatory and two general secondary schools. Out of 222 teachers in the three government secondary schools, 105 were selected by using a simple random sampling technique to the survey study in which a questionnaire was administered in a face to face manner by the researchers.

#### Instruments

As data collecting instrument, a questionnaire was used. A Likert scale type questionnaire ranging from 'strongly agree' to 'strongly disagree' with 30 items clustered under four thematic areas including teachers' collaboration with other professionals (5 items), classroom supplies and equipment (12 items), teaching strategies (8 items) and instructional barriers (5 items) was constructed. Content validity of the items was checked by the subject experts in the Department of Special Needs and Inclusive Education at Haramaya University. Inter-rater reliability coefficients were computed for both the whole scale (total number of items) and subscales (for sub category) based on the ratings of the experts. Finally, all the 30 items that fulfilled the reliability and validity criteria were administered to 100 randomly selected teachers in the three sampled schools. In addition to the thirty items, four demographic items namely current teachers' academic status, teaching experience, class size and level of training in inclusive education were included in the questionnaire and used for the study.

#### Data Analysis

Frequencies, percentages, means, standard deviation, independent t-Test and One-way ANOVA were used to examine the study variables. Accordingly, frequencies and percentages were used to describe the data from demographic factors. Mean, standard deviation, independent t-Test and One-way ANOVA were used to examine the influence of demographic factors on the existing practices and challenges in inclusion of students with visual impairments.

### RESULTS AND DISCUSSION

The present study made an investigation to know whether the demographic variables affected the identified instructional practices and challenges of teachers for SVI in the selected schools.

**Demographic Characteristics of Respondents**

Table 1 reveals the demographic characteristics of teacher respondents. Accordingly, the sample included four different categories of teacher educators in relation to their years of teaching experience, namely 1 to 5 years (10%), 6 to 10 years (10%), 11 to 15 years, (15%), and above 15 years (65%). In general as the data indicated the majority of teachers in the selected government secondary schools of the Harari region have ample teaching experience. Thus, teacher development activities including their role in inclusive education are most effective when carried out collaboratively in an atmosphere of mutual support and encouragement from the experienced ones to the teachers at the induction period (MOE, 2010).

As indicated in Table 1, in relation to the academic qualification of teachers, among the total respondents, only 20 had MA/MSc degree, whereas the majority (78) of the respondents were first degree holders. There were also still few teachers 2 with diploma but under-qualified to teach in secondary schools. Upgrading the qualification of secondary school teachers teaching both in the first and second cycles to bachelor's and master's levels has been set as target of school improvement program and one of the school improvement indicators is the successful inclusion for students with visual impairments (MOE, 2016).

**Table 1.** Demographic characteristics of teachers

Categories of respondents	Value labels	No. of respondents
Teaching experience	1-5	10
	6-10	10
	11-15	15
	>15	65
	Total	100
Qualification	Diploma	2
	First degree	78
	MA/MSc	20
	Total	100
Training on Inclusive Education	Trained	32
	Untrained	68
	Total	100
Class size	40-50	56
	51-60	44
	Total	100

Source: Primary data compiled from the questionnaire, 2017

In line with the policy statements, the data in Table 1 indicated that majority of the teacher respondents in the sampled schools were first degree holders and above indicating that they were well qualified to teach secondary and preparatory school students including SVI. However, contrary to the policy of the country, still there were some diploma holders teaching in the selected schools. Moreover, the number of teachers with MA/MSc was not as many as the required number at preparatory level.

The size of their class also showed variation in which 56% of respondents were teaching a class which contained 40-50 students on average while 44% of respondents were teaching 51- 60 students. This implies that in reality, significant number of teachers in secondary schools were found to be teaching in large class size. As far as the teachers' training on inclusive education or special needs education is concerned, Table 1 portrays that 32 teachers had training whereas 68 teachers, who constitute the majority of respondents, did not get training.

**Instructional Practices and Levels of Qualification**

As shown in Table 2, generally the observed mean score for each instructional practice decreases as the level of qualification increases for teachers' collaboration with professionals [TCWP] (20, 11.5, and 10), classroom supplies and equipment [CRSE] (36, 27.63, and 21) and teaching strategies [TS] (22, 21.63, and 16.75). Accordingly, statistically significant difference was found for TCWP ( $F(2, 97) = 5.37, p < 0.05$ ), CS ( $F(2, 97) = 4.04, p < 0.05$ ) and TS ( $F(2, 97) = 3.09, p < 0.05$ ).

According to Table 3, the post hoc multiple comparison analysis was conducted to identify the specific groups of qualifications for statistically significant mean differences. Accordingly, a statistically significant mean difference was found between diploma and degree holders (MD=8.5,  $p < 0.05$ ) and diploma and MA/MSc holders (MD=10,  $p < 0.05$ ) for the teachers collaboration with other professionals category. This implies that teachers with diploma were found to be more collaborative and familiar with the other professionals who consult and support them with specialized equipment like Braille and other materials available to and used by students with visual impairments than teachers of degree and MA/MSc holders. This was also supported by the evidence that the observed mean score for the diploma

**Table 2.** One way ANOVA for comparing instructional practices by qualification

	Group	N	Mean	SD	Expected Mean	df	F	Sig.
TCWP	Diploma	2	20.000	0.000	15	2	5.37	0.006
	Degree	78	11.500	4.254		97		
	MA/MSc	20	10.000	3.987		99		
CRSE	Diploma	2	36.000	0.000	36	2	4.04	0.021
	Degree	78	27.628	10.269		97		
	MA/MSc	20	21.000	11.503		99		
TS	Diploma	2	22.000	0.000	24	2	3.09	0.050
	Degree	78	21.628	8.186		97		
	MA/MSc	20	16.750	6.695		99		

\* $p < 0.05$  Expected Mean (M): the expected average middle value in the scale for each item and sum of items

holders ( $m=20$ ) was greater than the expected mean score test value ( $M=15$ ), Table 2. This indicates that teachers with diploma holders were found to have more support from special needs educators in their respective schools and more appropriate and adequate inclusive education courses during their pre-service training than teachers of degree and MA/MSc holders.

As indicated in Table 3, there was also statistically significant mean differences ( $MD=6.63$ ,  $p<0.05$ ) between teachers with first degree and MA/MSc holders for the availability of CRSE for the inclusion of SVI. This implies that teachers with first degree qualifications were found to report their relative agreement about the sufficiency of available specialized equipment to be used for SVI in their inclusive classrooms or schools than teachers with MA/MSc qualifications. It was found that teachers with diploma qualification had got more attention from the SNE to be supported through modified or adapted resources due to their professional status (being diploma holders). However, Table 2 shows that both groups of teachers with first degree and MA/MSc holders reported that the classrooms they were teaching in was not sufficiently supplied with specialized materials appropriate for SVI since the observed mean scores for both groups respectively ( $M=27.63$ ,  $M=21$ ) were significantly less than the expected mean score ( $M=36$ ).

According to the results obtained in Table 2, the observed mean score of first degree holders ( $M=21.63$ ,  $SD=8.19$ ) was greater than that of MA/MSc holders ( $M=16.76$ ,  $SD=6.7$ ) for appropriate teaching strategies (TS) to be used for SVI. This difference was proved to be statistically significant as shown in Table 3 ( $MD=4.88$ ,  $p=0.05$ ). This means that teachers with first degree qualification were found to provide stu-

dents with visual impairments more opportunities such as instructional materials in Braille or large print format or read notes aloud while writing them on the board than MA/MSc holders. However, in Table 2, both teachers with the first degree and MA/MSc qualifications reported that the accommodations and adaptations of strategies were not at the expected level (below the test mean value,  $M= 24$ ).

In this section it was found that the teachers' level of qualification has effects on the instructional practices particularly their collaborations with other professionals, classroom supplies and equipment and teaching strategies. Accordingly, the present study found that having more qualification in general education does not mean that such teachers can teach in inclusive classrooms more effectively than the relatively less qualified teachers, and it does not mean that they do not need support from the other professionals. It also indicated the need for integrating special need and inclusive education courses to the teachers' general education curriculum during their pre-service training particularly at first degree and MA/MSc levels. In relation to this, earlier researchers suggested to have more training courses for general education teachers by which they should be taught about how to teach and work with children with special educational needs (Ruys, Van & Aelterman, 2010).

Similar to the present research findings, previous studies have reported mixed results regarding the impact of level of qualification in teaching students with special needs including SVI in inclusive school or classrooms. The previous research result by Mittal and Khanna (2010) reported that level of qualification did not significantly influence the teachers' instructional practices in inclusive schools. Some others found that the level of education a teacher achieves does appear to have an influence (Giangreco et al., 2011; Jobe & Rust, 1996). The higher the level of education attained by the teacher, the more negative attitude towards inclusiveness and less effectiveness in inclusion practices is observed (Jobe & Rust, 1996). One of the studies conducted in Ethiopia reported that level of qualification did not significantly influence inclusive education practices by teachers (Shifere, 2013).

### Instructional Practices and Class Size

This study also investigated if there was influence of class size on instructional practices of teachers for students with visual impairments. Accordingly, Table 4, portrays that teachers in both categories of class size were found to report that the instructional practices such as teachers' collaboration with other professionals ( $M=12.05$ ,  $M=10.5$ ), classroom supply and equipment ( $M=27.88$ ,  $M=24.68$ ) and appropriate teaching strategies ( $M=22.93$ ,  $M=17.77$ ) were not adequate and supportive for teaching students with visual impairments in their respective classes. This seemed to be true as the observed mean values in both case class sizes [40-50 and 51-60] across the sub categories of instructional practices were less than the expected mean values for TCWP ( $M=15$ ), CRSE ( $M=36$ ) and TS ( $M=24$ ) respectively.

According to Table 4, teachers who were teaching in smaller classes (40-50) felt comfortable with the adapta-

**Table 3.** Post hoc multiple comparisons across teachers qualifications for instructional practices

DV	(I) Current academic status	(J) Current academic status	Mean Dif (I-J)	Sig.
TCWP	Diploma	Degree	8.50000*	0.006
		MA/MSc	10.00000*	0.002
	Degree	Diploma	-8.50000*	0.006
		MA/MSc	1.50000	0.156
	MA/MSc	Diploma	-10.00000*	0.002
		Degree	-1.50000	0.156
CRSE	Diploma	Degree	8.37179	0.267
		MA/MSc	15.00000	0.056
	Degree	Diploma	-8.37179	0.267
		MA/MSc	6.62821*	0.013
	MA/MSc	Diploma	-15.00000	0.056
		Degree	-6.62821*	0.013
TS	Diploma	Degree	0.37179	0.948
		MA/MSc	5.25000	0.371
	Degree	Diploma	-0.37179	0.371
		MA/MSc	4.87821*	0.015
	MA/MSc	Diploma	-5.25000	0.371
		Degree	-4.87821*	0.015

\*The mean difference is significant at the 0.05 level

**Table 4.** Independent sample t-test for comparing instructional practices by class size

Group	N	Mean	SD	MD	Expected Mean	df	t-value	Sig.
TCWP	40-50	56	12.054	4.586	15	98	1.79	0.077
	51-60	44	10.500	3.938				
CRSE	40-50	56	27.875	11.599	36	98	1.48	0.143
	51-60	44	24.682	9.484				
TS	40-50	56	22.929	8.541	24	98	3.34	0.001
	51-60	44	17.772	6.339				

\*P<0.05 Expected Mean (M): the expected average middle value in the scale for each item and sum of items

tions and accommodations across all the sub-categories of the instructional practices than those who teach in relatively larger classes (51-60), [TCWP(M=12.05>M=10.5), CRSE(M=27.88>M=24.68) and TS(M=22.93>M=17.77)]. However, the t-test value proved that there were statistically significant mean differences between the two groups of respondents for only TS [t (98) =3.34, p<0.05]. This implies that teachers in smaller classes (40-50) found to relatively agree that they regularly use specialized or individualized teaching strategies such as reading materials in large print or Braille format or use real-life examples and concrete materials for SVI than those teaching in larger classes (51-60), (MD=5.16, p<0.05).

However, as shown in Table 4, there was no statistically significant mean differences between teachers with smaller class size and larger class size in instructional practices namely teachers collaboration with other professionals (MD=1.55, p>0.05) and classroom supplies and equipment (MD=3.19, p>0.05). This implies that the class size was not an influential factor for the two sub categories of instructional practices such as TCWP (t (98) = 1.79, p>0.05) and CRSE (t (98) =1.48, p>0.05).

The results of the present study regarding the impacts of class size on instructional practices align with the previous research which reports mixed results. Thus, it was found that teaching small classes give teachers with more occasions to create accommodating classroom and school environment by adapting appropriate teaching strategies for SVI than teaching relatively larger classes. However, both teachers with small and large class sizes were not different in reporting about the adequacy of classroom supplies and equipment and their collaboration with other professionals. Similarly, the findings from previous studies show that class size did not significantly affect the teachers' instructional practices in inclusive education settings (Hofman & Kilimo, 2014). For example, one of the studies conducted in Ethiopia reported that class size did not significantly influence the teachers' instructional practices in inclusive school settings (Shifere, 2013). The previous research findings by other researchers showed that implementing inclusive education by teachers was negatively influenced by the large number of pupils in inclusive classes (Rakap & Kaczmarek, 2010).

### Instructional Practices and Level of Training

This section was intended to look into the impact of teachers' level of training on their inclusive instructional practices such as collaboration with other professionals, classroom supplies and equipment and teaching strategies employed to

SVI. As shown in Table 5, the descriptive data that indicated the observed mean scores for both groups of teachers to TCWP (12.31, 10.93), CRSE (27.22, 26.12) and TS (18.87) were less than the expected mean values 24, 15, 36, and 24 respectively. Contrary to the untrained teachers, teachers who had training on special needs/inclusive education were found to use specialized teaching strategies for SVI as the observed mean (M=24.47, SD=9.17) was greater than the expected mean (M=24).

Moreover, teachers with training have reported to use relatively higher level of the instructional practices compared to the untrained teachers. This was supported by the evidence in Table 5 which shows that the observed mean differences between trained and untrained group of teachers for all instructional practices namely, TCWP (MD=1.39), CRSE (MD=1.1) and TS (MD=5.6) to be positive. However, a statistically significant mean difference was observed between the two groups of teachers for only teaching strategies (t (98) =3.42, p<0.05) indicating that teachers with training on inclusive or special needs education used more specialized or individualized teaching strategies in the classroom for SVI than those who did not have training.

As indicated in Table 5, for the rest of instructional practices such as TCWP (t (98) =1.49, p>0.05) and CRSE (t (98) =0.47, p>0.05), there was no observed statistically significant mean differences between the trained and untrained teacher respondents. This shows that the teachers were at similar status in practicing or responding to the three instructional practices. This implies that the level of teachers training was not found to significantly influence teachers' collaboration with other professionals and classroom supplies and equipment. Moreover, the present study indicated that in order to successfully accommodate students with visual impairments at inclusive school or classrooms level, teachers were found to face with lack of support through continuous or sustainable additional training on inclusive teaching practices.

Earlier researchers, in line with the present research findings, also reported mixed results. Accordingly, Agesa (2014) identified the issue of lack of training as a hindrance to inclusive classrooms and suggested that training general education teachers needs to be ongoing and individualized for the unique needs of specific students in inclusive classrooms. Giangreco, Suter, and Hurley (2011) in their research work also suggested that providing regular education teachers with additional training, expertise and skill in inclusive education would clearly ease some of the tension.

Some other studies (e.g. Mittal & Khanna, 2010) reported a number of reasons why inclusion is not always sup-

ported and one of these was inadequate training of general education teachers to work with students who have special needs such as SVIs. Findings also show that training in special needs or inclusive education did not significantly affect inclusive education implementation by general education teachers (Hofman and Kilimo, 2014). Teachers with more training used more teaching strategies in the classroom than those who did not have training in inclusive education (Cipkin and Rizza, 2010).

### Instructional Practices and Years of Teaching Experience

Under this section, it was intended to examine the influence years of teaching experience have on the identified instructional practices. However, the one way ANOVA results in Table 6 revealed that years of teaching experience was not an influential variable on the two sub categories of instructional practices such as classroom supplies and equipment ( $F(3,96)=0.54, p>0.05$ ) and teaching strategies ( $F(3,96)=0.24, p>0.05$ ). This implies that teachers across years of teaching experience were found to report in the same way on the status of two sub categories of instructional practices.

Table 6 depicts that there was statistically significant mean differences ( $F(3,96)=2.8, p<0.05$ ) across years of teaching experiences for teachers' collaboration with other professionals. Furthermore, to identify the specific groups of teaching experiences between which there was statistically significant mean differences, post hoc tests of multiple group comparison was conducted as indicated in Table 6.

Table 7 reveals that statistically significant mean difference was observed between two groups of teachers such as 1-5 and 11-15 years of teaching experience ( $MD=3.7, p<0.05$ ) and 6-10 and 11-15 years of teaching experiences ( $MD=4.6, p<0.05$ ). This implies that teachers with less professional experience (1-5 and 6-10) were appeared to agree that they were relatively more familiar with the other professionals who consult and support them in adapting the specialized equipment and teaching strategies for SVI compared to the relatively more experienced ones (11-15).

As shown in Table 7, it was also found that teachers with the less experience (1-5 and 6-10) were found to be consulted and supported by professionals more regularly compared to teachers who had relatively more experience (11-15). Therefore, it appears that less experienced teachers were found to be given more attention compared to relatively more experienced teachers considering that teachers with more teaching experience may not need training or support to teach in inclusive class, but the reality was not.

In the present research, it was found that years of teaching experience did not significantly influence teaching strategies employed to SVI in inclusive class. However, years of teaching experience was found to influence teachers' collaboration with other professionals indicating that less experienced teachers (1-5 and 6-10) were found to report the relative adequacy of support from and discussion with other professionals compared to the more experienced teachers (11-15).

Previous findings regarding the influence of years of teaching experiences on inclusive practices of teachers reported both different and similar results to the present research finding. Some studies found that years of teaching

**Table 5.** Independent sample t-test for comparing instructional practices by training

Group		N	Mean	SD	Mean difference	Expected mean	df	t-value	Sig.
TCWP	Trained	32	12.313	4.673	1.39	15	98	1.49	0.139
	Untrained	68	10.927	4.169					
CRSE	Trained	32	27.219	9.993	1.10	36	98	0.47	0.636
	Untrained	68	26.118	11.195					
TS	Trained	32	24.469	9.169	5.60	24	98	3.42	0.001
	Untrained	68	18.868	6.808					

\* $p<0.05$  Expected Mean (M): the expected average middle value in the scale for each item and sum of items

**Table 6.** One way anova for comparing instructional practices by years of teaching experience

Group		N	Mean	SD	Expected mean	df	F	Sig.
TCWP	1-5	10	12.7000	3.71334	15	3	2.803	0.044
	6-10	10	13.6000	4.00555		96		
	11-15	15	9.0000	3.22933		99		
	above 15	65	11.3692	4.53655				
CRSE	1-5	10	30.2000	9.47277	36	3	0.535	0.659
	6-10	10	26.2000	4.21110		96		
	11-15	15	24.6667	8.26928		99		
	above 15	65	26.3538	12.12233				
TS	1-5	10	22.7000	8.59005	24	3	0.236	0.871
	6-10	10	20.2000	6.74619		96		
	11-15	15	20.4667	6.22055		99		
	above 15	65	20.4615	8.59883				

\* $p<0.05$  Expected Mean (M): the expected average middle value in the scale for each item and sum of items

experience was appeared not to be a variable in affecting inclusion practices in schools (Florien, 2012; Villa, Thousand, Meyers & Navin, 1996). Years of teaching experience has not been shown to influence teacher implementation of inclusive education (Aesa, 2014; Jobe & Rust, 1996). To the finding that more experienced teachers had low interest to teach in inclusive classrooms, Giangreco, Suter, and Hurley (2011) suggested ongoing professional development and modeling of effective practices through collaboration and partnerships.

One earlier research in Ethiopia also reported that as teachers gain professional experience their participation in inclusion was reduced (Shifere, 2013). Shifere also justified that this was due to the limits in their knowledge. The finding that less experienced teachers had more willingness to include students with disabilities in their classroom defended that this may be a result of the philosophy of inclusion being promoted in pre-service teacher education programs (Hofman and Kilimo, 2014).

### Instructional Barriers and Level of Qualification

In Table 8, one way ANOVA was used to compare the status of instructional barrier across levels of qualification for teachers. It was found out that there was statistically significant mean differences across the levels of qualification ( $F(2, 97)=4.71, p<0.05$ ). Moreover, teachers with first degree ( $M=11.87$ ) and MA/MSc ( $M=10.15$ ) holders were found to experience more challenges than the diploma holders ( $m=20$ ) since their observed means were lower than the expected mean for the barriers ( $M=15$ ). This is expected for the diploma holders since they were found to report more positively for the instructional practices in the previous sec-

tions of this study compared to teachers with degree and MA/MSc holders.

Table 9 reveals the post hoc multiple group comparisons across levels of teachers' qualifications for instructional barriers. Accordingly, there were statistically significant mean differences between diploma and degree holders ( $MD=8.13, p<0.05$ ) and diploma and MA/MSc holders ( $MD=9.85, p<0.05$ ). This implies that as the level of qualification increases, teachers were found to face more challenges in teaching students with visual impairments. Moreover, this pointed out that having more qualification in general academic subjects to teach students with visual impairments in inclusive classrooms would not bring successful inclusion without additional support and training for teachers. Table 9 clearly indicate that even though the first degree holders were seemed to report less instructional challenges than the MA/MSc holders, it was not statistically significant ( $MD=1.72, p>0.05$ ).

Therefore, the results in Tables 8 and 9 regarding teachers' qualification and the impacts it had on instructional barriers were found to indicate that teachers with first degree and MA/MSc holders faced more challenges in adapting teaching strategies and materials and identifying the needs of students with visual impairments compared to teachers with diploma holders. Teachers with first degree and MA/MSc qualification also reported that they were found to have more challenge due to limited knowledge to link the expanded core curriculum with the subject matter they teach than the diploma holders. Regarding to the available training, teachers with first degree and MA/MSc holders have reported more training limitations on Braille reading, writing and use of specialized equipment compared to the diploma holders. Regarding to these findings, as reported in the following

**Table 7.** Multiple comparisons by years of teaching experience for instructional practices

Dependent variable	(I) Years of teaching experience	(J) Years of teaching experience	Mean difference (I-J)	Sig.
TCWP	1-5	6-10	-0.90000	0.637
		11-15	3.70000*	0.035
		above 15	1.33077	0.359
	6-10	1-5	0.90000	0.637
		11-15	4.60000*	0.009
		above 15	2.23077	0.125
	11-15	1-5	-3.70000*	0.035
		6-10	-4.60000*	0.009
		above 15	-2.36923	0.054
	above 15	1-5	-1.33077	0.359
		6-10	-2.23077	0.125
		11-15	2.36923	0.054

\* The mean difference is significant at the 0.05 level

**Table 8.** One way anova for comparing instructional barrier by level of qualifications

Group	N	Mean	SD	Expected mean	df	F	Sig.
IB	Diploma	2	20.000	0.000	15	4.71	0.01
	Degree	78	11.872	4.702			
	MA/MSc	20	10.150	3.528			

\*0.05 Expected Mean (M): the expected average middle value in the scale for each item and sum of items

**Table 9.** Multiple comparisons across teachers qualifications for instructional barrier (ib)

(I) Current academic status of teachers	(J) Current academic status of teachers	Mean difference (I-J)	Sig.	95% Confidence interval	
				Lower bound	Upper bound
Diploma	Degree	8.12821*	0.013	1.7732	14.4832
	MA/MSC	9.85000*	0.004	3.2687	16.4313
Degree	Diploma	-8.12821*	0.013	-14.4832	16.4313
	MA/MSC	1.72179	0.128	-0.5025	3.9460
MA/MSC	Diploma	-9.85000*	0.004	-16.4313	3.9460
	Degree	-1.72179	0.128	-3.9460	0.5025

\* The mean difference is significant at the 0.05 level

paragraph, many earlier studies have suggested or reported the issue of pre-service education in relation to special needs education or inclusive education for general education teachers.

Many previous studies have suggested that general teacher educators must possess important skills for inclusion settings, such as adapting instruction for students with disabilities and collaborating with special educators and related services personnel. However, in line with the present study finding, the study by Giangreco, Suter, and Hurley (2011) reported that many in-service teachers completed their professional preparation during a time of minimal inclusion of students in general education classrooms. Similarly, Ruys et al., (2010) found that significant training gaps exist even in teachers who have been more recently prepared as educators. The Study of Personnel Needs in Special Education (SPeNSE, 2001) reported that less than one third of professionals who had been teaching six years or fewer received any pre service preparation in special education collaboration and only half reported receiving any pre service preparation in curriculum modification and adapting instruction.

## CONCLUSION

The study concluded that qualifications of teachers significantly influence the instructional practices namely teachers' collaboration with other professionals, classroom supplies and resources, and teaching strategies. Thus, compared to those teachers with more qualifications, the less qualified teachers seemed to have more support from other professionals, have more support with resources and more likely to use appropriate teaching strategies for SVI. The study concluded that class size tends to significantly influence teaching strategies. Accordingly, teachers with small class size were found to have adequate time and more likely to support SVI in adapting and using appropriate teaching strategies than those teachers with larger class sizes. However, class size did not significantly influence the teachers' collaboration with other professionals and classroom supplies and equipment.

The study also concluded that training in inclusive/special needs education had a tendency to significantly influence adapting proper teaching strategies for SVI. Therefore, teachers who had training in inclusive/special needs education were more likely to adapt and use proper teaching strategies for SVI than those teachers who did not have training. However, there was no statistically significant evidence for the influence of teachers training on instructional practices

namely teachers' collaboration with other professionals and adequacy of classroom supplies and equipment.

Years of teaching experience was likely to significantly influence the instructional practice such as teachers' collaboration with other professional. Accordingly, teachers who had less years of teaching experience were more likely to have support from special need education professionals than teachers who had relatively more teaching experience. However, there was no evidence to infer that years of teaching experience had significant influence on classroom supplies and teaching strategies. Regarding, teachers' gender, school level, marital status, workload and experience of teaching SVI, there were no statistically significant mean differences on the identified instructional practices.

The study found out that less qualified teachers have more support from other professionals, have more support with resources and more likely to use appropriate teaching strategies for SVI. Thus, compared to teachers with diploma holders, teachers with first degree and MA/MSC qualification were found to have more challenges due to limited knowledge to link the expanded core curriculum with the subject matter they teach and training limitations on Braille reading, writing and use of specialized equipment.

Based on the findings and conclusions of the study, the following recommendations are made to improve the inclusion practices for the SVI in the government preparatory and general secondary schools of Harari region:

The special needs educators/itinerant teachers are recommended to provide continuous support and follow-up services in areas of adapting resources and teaching strategies to teachers with more years of teaching experience, teachers with limited training and first degree and MA/MSC qualification. The Harari Regional Education Bureau is also recommended to build additional classrooms to minimize the large class sizes and this will give adequate time for teachers' preparation on the adaptations of appropriate teaching strategies and the adequate spaces in the classroom will facilitate mobility of SVI.

If the future researchers conduct the same research at the same school level in the region by using school or classroom observation and document analysis, it will add new input and further validate the present research. Future research should also be conducted focusing on areas such as comparing the instructional practices and challenges between students with low vision and blindness in the same schools. Furthermore, in the future research, individuals such as sighted students,



focal persons in the regional education bureau and non-governmental organizations who work on inclusive education and related issues should be the target of the study.

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