HEAD TEACHERS ATTITUDE TOWARDS INCLUSIVE EDUCATION: THE KEY PREDICTOR OF EFFECTIVE IMPLEMENTATION OF INCLUSIVE EDUCATION IN PUBLIC PRIMARY SCHOOLS OF MURANG'A COUNTY, KENYA

Catherine N Mwarari

Tangaza University, Kenya

Corresponding author: cnyamaina@gmail.com

Article Info	Abstract
	Inclusive education has been accepted as the medium through which learners with disabilities and other special need will access and participate in quality education. Preparedness of implementers of inclusive education in terms of attitudes and knowledge is critical for the effective implementation of inclusive education. Based on the theory of innovation diffusion, this cross-sectional study sought to determine if head teachers and teachers' knowledge of and attitudes towards inclusive education were predictive of effective implementation of inclusive education. Data were collected from 66 head teachers and 462 teachers from Murang'a County, Kenya, using questionnaires and an observation guide. Multiple regressions was used to analyse the data and results indicated that though head teachers and teachers' attitudes towards inclusive education and knowledge of inclusive education predicted effective implementation of inclusive education, head teachers' attitudes had the greatest predictive strength. The implication of the findings is that concerted efforts should be put in place to ensure the acquisition of positive attitudes among implementers of inclusive education specifically head teachers and teachers.

INTRODUCTION

Education is a public good and is inextricably bound up with development. Indeed, Agabus Hontozenis, the Mesopotamia philosopher rightly posited that education is the Mirror of progress in society (Majawa, 2014). Unsurprisingly then, education for all is high on the international community's agenda as is affirmed in the various international, regional and local treaties and protocols (OAU, 1990; Republic of Kenya, 2010; UN, 1948; UN, 2015; UNESCO, 1990; UNESCO, 1994; UNESCO, 2015). In efforts to

ensure education for all, the Salamanca statement (UNESCO, 1994) ushered in a paradigm shift in the education of learners with special needs through the introduction of inclusive education. Inclusive education advocates that learners with special needs be accommodated in neighbourhood age- appropriate regular classes, this being the first placement option.

Of note is that placement in regular schools alone is not indicative of inclusive practises. Critical for effective implementation of inclusive education is teachers and school leaders who are well prepared for inclusive practises (Peebles & Mendaglio, 2014; Sharma, Simi & Forlin, 2015), sufficient teaching and learning resources (Gous, Eloff & Moen 2013; Mukhopadhyay, Molosiwa & Moswela,2009; Nyende, 2012; Charema, 2010) and a conducive physical environment (Buhere & Ochieng, 2013; Njoka, et al., 2011).

Over recent years, owing to greater moves towards inclusive education practices there is considerable interest in the preparedness of teachers and head teachers for inclusive education (Buford & Casey, 2012; Fayez, Dababneh & Jumiaan ,2011; Gous, Eloff & Moen, 2013; Mensa, 2016; Peebles & Mendaglio, 2014; Orphanos & Orr, 2013). Indeed, while endorsing inclusive education the Salamanca world conference called upon governments to ensure that both initial and in-service teacher training address the provision of inclusive education (UNESCO, 1994). Additionally, inclusive schools seek to admit all students from its locality; everyone is made to feel welcome; buildings are made to be physically accessible to all people; local communities are involved; discriminatory practices are minimised and all barriers to learning in all aspects are removed (Ainscow, Dyson and Weiner, 2012; Ainscow & Sandil, 2010; Booth & Ainscow, 2011). As alluded to earlier, positive attitudes towards inclusive education as well as knowledge of inclusive practices are also critical factors in efficacious implementation of inclusive education

Having knowledge, skills and positive attitudes towards inclusive education has been conceptualised as an indicator of preparedness for inclusive practice. Considerable literature has examined teachers' attitudes towards inclusive education (Chhabra, Srivastava and Srivastava 2010; Hadjikakou & Mnasonos, 2012; Mwangi & Orodho, 2014; Mwarari, 2019; Mukhopadhyay, 2013; Peter & Nderitu, 2014). However, positive attitudes alone may not render to readiness of teachers to implement inclusive education as aptly noted by Mensa, (2016) and De Boer, Pijl and Minnaert, (2011). Knowledge of inclusive practices is critical to enable teachers to effectively implement inclusive education (Mukhopadhyay, Molosiwa & Moswela, 2009; Peebles & Mendaglio, 2014). Ajuwon, et al, (2012) further notes that teachers' knowledge of inclusive practices and their perception of their preparedness impact on their attitudes and beliefs towards inclusive practices. Consequently, teachers in training need to be equipped not only with skills on managing inclusive settings but also with opportunities to practice their skills during teaching practice to enhance positive attitudes formation (Forlin & Chambers, 2017; Sharma, Simi and Forlin, 2015; Zagona, Kurth & MacFarland, 2017). Further, for effectual implementation of inclusive education, there is also the need for

school leadership to be prepared for inclusive practices. (Oswald & Engelbretcht (2013), Riehl (2000), Ainscow & Sandill (2010), and Hoppey & McLeskey, (2010). Angelides (2011) aptly contends "if we are interested in moving towards more inclusive practices one of the factors that have to be studied in depth is leadership and its role in the development of these practices" (p.2). Oswald and Engelbretcht (2013) explored school leadership as one determining factor which either affords or constrains inclusive practices and concluded that inclusive practices are successful when leadership activities in a school allow for active and collaborative engagement with a change initiative that wants to promote the implementation of inclusive education. Current research however is not clear on which between the two critical variables of implementers' preparedness (attitude and knowledge) has the greater predictive strength in as far as effectual implementation of inclusive education is concerned. It is against this backdrop that the study that influenced this paper was conducted to determine if teachers and head teachers' attitude and knowledge of inclusive education are predictive of effective implementation of inclusive practices in public primary schools in Murang'a County, Kenya. This will provide developers of teacher training programmes necessary information on what to include to ensure preparation of teachers and head teachers who are well equipped to effectively implement inclusive education more so in public primary schools.

METHODS

Cross sectional survey design was used in the study. The design enabled the researcher determine teachers and head teachers' knowledge of inclusive education concepts, attitudes towards inclusive education, as well as the extent to which inclusive education practices have been implemented in Murang'a County. Further, the cross sectional design allowed for examining if teachers and head teachers" knowledge of and attitudes towards inclusive education are predictors of effective implementation of inclusive education.

Murang'a County, the study's locale is one of the five counties in central Kenya. It has eight educational zones divided along sub counties boundaries with 473 public primary schools headed by 81 female and 392 male head teachers and 5600 teachers - 2657 male and 2943 female (Murang'a County Education Department, 2019). Four educational zones (50% of the target population) were used for this study. Random sampling technique was utilised to get three of the four educational zones. A sample of 66 head teachers, 14 female and 52 male, (30% of the total 221 head teachers in the four zones) was selected using stratified random sampling. To ensure that both female and male head teachers were selected in proportion to their representation in the population, proportional method of allocation was utilised.

Stratified sampling technique was used to get the teachers sample. The selected sample of schools was divided into two strata: lower primary consisting of classes one to three and upper primary consisting of classes' four to eight. In lower primary, one teacher, the class teacher who is responsible for the class and teaches all the seven subjects was

selected. One teacher was randomly selected to represent a grade where schools had more than one stream. In the upper primary, teachers were divided into 6 strata according to the subjects taught in upper primary. One teacher was randomly selected to represent the six subjects taught in upper primary. Thus, in the 66 sampled schools, seven teachers were selected from each school thus giving a total sample of 462 (66 X 7) teachers.

A questionnaire, an observation checklist and a document analysis guide were used for the study. The questionnaire comprised of three sections: demographic data, knowledge of inclusive education scale and an attitude scale - Attitudes towards Inclusive Education Scale (ATIES) developed by Wilczenski in 1992. ATIES has 16 items and was established to elicit participants' attitudes toward inclusion of learners with special needs into regular classrooms. The scale measures participants' attitudes towards four aspects of inclusive education: physical, social, academic and behavioural. Both the knowledge and attitude scales were tested for reliability and a Cronbach alpha of 0.79 and 0.83 were established respectively.

The observation guide was used to find out the extent in which inclusive education has been implemented in public primary schools in Murang'a County. Observations were on the presence or absence of indicators of inclusive education practices. The observation guide had three sections: presence or absence of different categories of learners with SEN in individual schools, availability of teaching learning resources, presence or absence of facilities and equipment necessary for effective implementation of inclusive education.

The documents analysed were: primary teacher education curriculum syllabus to establish if inclusive education is a component of teachers' pre service training; the National Special Education Policy framework was analysed to find out the policy guidelines on inclusive education and the Kenya Education Management Institute (KEMI) in-service training syllabus was examined to ascertain the extent inclusive education components are included in the module. Descriptive and inferential statistic were used to analyse the data collected

FINDINGS AND DISCUSSION

Implementation of Inclusive Education in Murang'a County

To determine the extent of inclusive education implementation key indicators of inclusive practices were sought namely: enrolment of learners with special needs in regular schools, availability of necessary resources that support inclusion, availability of adapted curriculum and curriculum support materials.

Enrolment of Learners with Special Needs

Head teachers and teachers were asked if there were children with special needs in their schools and their responses are shown in Figure 1.
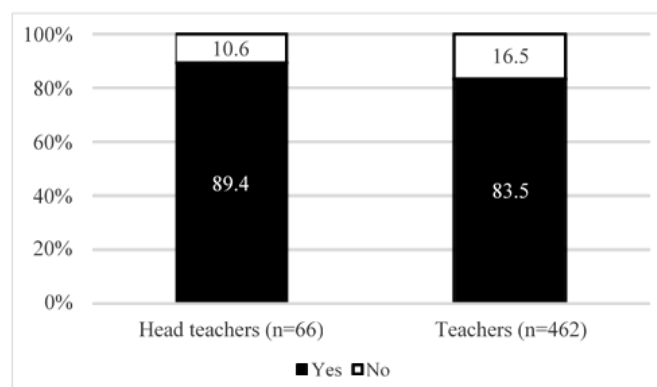

Figure 1. **Enrolment of Learners with Special Needs in Regular Schools**

Figure 1 shows that an overwhelming majority of head teachers (89.4 %) and teachers (83.5%) indicated that they have enrolled learners with special needs in their schools. Enrolment of learners with special needs in neighbourhood schools is a salient characteristic of an inclusive school. This finding is consistent with earlier literature (Booth & Ainscow, 2011). Thus, the presence of learners with special needs in regular schools indicates that there are elements of inclusive practices in Murang'a County.

Placement of Learners with Special Needs

The study sought to establish whether learners with special needs were in regular classes or in integrated units within the regular school. Findings are shown in Figure 2
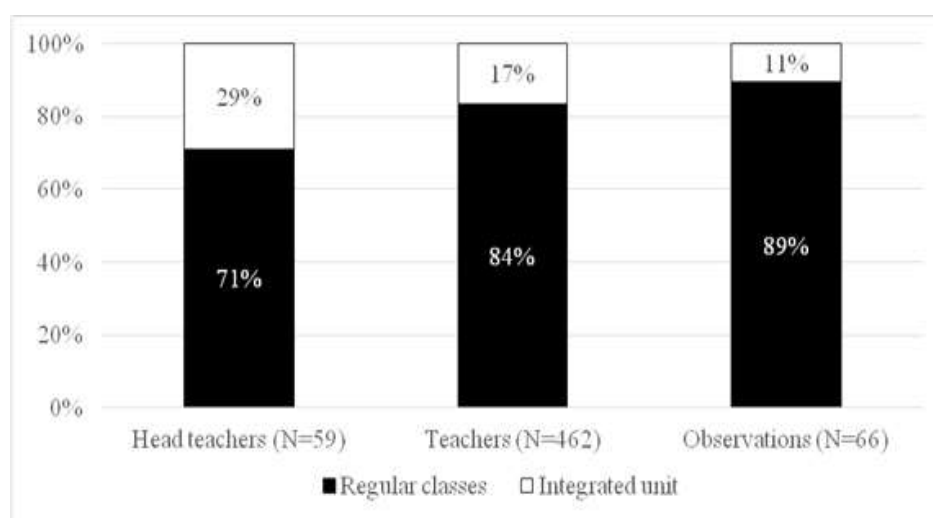

Figure 2. Enrolment of Learners with Special Needs

Figure 2 shows that learners with special needs are enrolled in regular classes as reported by majority (71%) of head teachers. This was corroborated by an overwhelming majority (84%) of teachers and observations made which indicated that majority of schools (89%) had learners with special needs in regular classes. The results revealed that more learners with special needs are enrolled in regular classes than in integrated units. This high enrolment rate of learners with special needs in regular classes is consistent with other studies (Odongo, 2012; Peter & Nderitu, 2014). Enrolment of learners with special needs in regular classes is a further indicator of inclusive practices in Murang'a County. The study further sought to establish if the learners were participating in learning by finding it if curriculum support materials and other facilities were available. The results are shown on Table 1

Table 1. Observation data on curriculum support materials and other facilities

Teaching learning Resources	Present		Absent	
	N	%	N	%
Adapted Curricula	7	10.6	59	89.4
Adapted Course Books	5	7.6	61	92.4
Adapted Text books	2	3.0	64	97.0
SNE Teachers	12	18.2	54	81.8
Support Services	7	10.6	59	89.4
Resource Room	4	6.1	62	93.9
G&C Department	56	84.8	10	15.2

Findings as shown on Table 1 indicated that an overwhelming majority of schools (89.4 %) lacked adapted curricula while 92.4 % of schools lacked adapted course books and 97.0 % had no adapted text books. This indicates a challenge to effective implementation of inclusive practices considering the role learning resources play in inclusive education implementation. This finding corresponds with other studies (Ainscow & Sandill, 2010; Booth & Ainscow, 2011). A safe and accessible school environment is essential for effective inclusive practices. The study examined the accessibility and safety of schools' environment. Findings are shown in Table 2.

Table 2 Observation data on facilities (Total No. observed = 66)

Facility	Present		Absent	
	N	%	N	%
Ramps	9	13.6	57	86.4
Assistive Devices	5	7.6	61	92.4
Wide Corridors	10	15.2	56	84.8
Wide Doors	11	16.7	55	83.3
Modified Washrooms	2	3.0	64	97.0
Modified Water Points	3	4.5	63	95.5
Feeding Programmes	27	40.9	39	59.1
Obstacle free Environment	15	22.7	51	77.3

Table 2 indicates that very few schools 22.7 % had obstacle free environment and only 15 % had constructed ramps. No more than 16.0 % of schools had conducive classrooms with wide doors and wide corridors while only a measly 3.0 % had modified washrooms. Further, feeding programmes which are fundamental in inclusive schools considering that they are a critical intervention for learners living in extreme poverty were lacking with only 40.9% of schools indicating they had feeding programmes. These findings strongly imply that though learners with special needs are enrolled in regular schools, they are hardly participating in learning due to the acute shortage of resources that support inclusive education. Adapted resources are designed to specifically compensate for the learning needs of learners with special needs. This consequently offers opportunities for learning experiences which facilitate the development of skills and knowledge. This finding is consistent with other studies in Kenya (KIE, 2011; Mwangi & Orodho, 2014; Peter & Nderitu, 2014). Additionally, inadequate aching learning resources is a recurrent barrier to effective implementation of inclusive education in other parts of Africa as observed by Mukhopadhyay, Molosiwa and Moswela (2009) in Botswana, Gous, Eloff and Moen (2013) in South Africa, Nyende, (2012) in Uganda and Charema, (2010) in Lesotho. Undoubtedly, provision of necessary resources then becomes a priority to individual governments if the inclusive is to be effectively implemented. As regards school's environment this study's findings are consistent with the results from previous studies (Buhere et al, 2014; KIE, 2011; Njoka et al, 2011).

In summary, the study indicates that save for enrolment of learners with special needs in regular schools, other major indicators of inclusive learning such as availability of adapting curricula and curricula support materials; adapted facilities and equipment; teaching learning resources and a safe and accessible environment are lacking. The following section aims at establishing another key component of inclusive education practices, the knowledge level and attitudes of teachers and head teachers.

Teachers' Level of Knowledge

The study sought to determine the knowledge level of inclusive education of teachers and head teachers through establishing their comprehension of concepts and skills for inclusive education. Their responses are shown on Table 3 and 4.

Table 3. Teachers' Response on Knowledge of Concepts on and Skills for Inclusive Education

Concept/Skill	Very Good		Good		Fair		Poor		Very Poor	
	N	%	N	%	N	%	N	%	N	%
Special Educational Needs	60	13.0	59	12.8	96	20.8	61	13.2	186	40.3
Inclusion	56	12.1	59	12.8	104	22.5	60	13.0	183	39.6
Inclusive Education	60	13.0	56	12.1	110	23.8	61	13.2	175	37.9
Mainstreaming/Integration	49	10.6	58	12.6	96	20.8	72	15.6	187	40.5
Whole school approach	37	8.0	48	10.4	96	20.8	87	18.8	194	42.0
Outcome based education	21	4.5	39	8.4	88	19.0	98	21.2	216	46.8

Inclusive Education Philosophy	31	6.7	37	8.0	81	17.5	76	16.5	237	51.3
International legislative support	16	3.5	41	8.9	72	15.6	76	16.5	257	55.6
MOE Policy on SNE	31	6.7	51	11.0	95	20.6	71	15.4	214	46.3
Principles of Inclusive education	33	7.1	36	7.8	88	19.0	75	16.2	230	49.8
Components of Inclusive Education	31	6.7	39	8.4	70	15.2	75	16.2	247	53.5
Individualised Education Programme (IEP)	50	10.8	42	9.1	74	16.0	68	14.7	228	49.4
Collaborative teaching	47	10.2	65	14.1	87	18.8	66	14.3	197	42.6
Teaching Strategies for learners with special needs	38	8.2	55	11.9	84	18.2	69	14.9	216	46.8

Table 3 indicates that teachers had limited knowledge on concepts related to inclusive education since nearly half (45.9%) of them rated the items on the very poor level. More than half of teachers 55.6 % reported very poor knowledge of international legislative support of inclusive education. Concerning skills for implementing inclusive education, only 10.8 % of teachers reported that they had very good knowledge on Individualised Education Programme. For head teachers, they comparably portrayed a fair level of knowledge of concepts and skills related to inclusive education than teachers as shown in Table 4.

Table 4. Head teachers' responses on level of knowledge of concepts and skills for Inclusive Education implementation

	Very Good		Good		Fair		Poor		Very Poor	
	N	%	N	%	N	%	N	%	N	%
Special Educational Needs (SEN)	9	13.6	19	28.8	25	37.9	10	15.2	3	4.5
Inclusion	10	15.2	15	22.7	29	43.9	8	12.1	4	6.1
Inclusive Education	11	16.7	11	16.7	28	42.4	11	16.7	5	7.6
Mainstreaming/Integration	6	9.1	11	16.7	27	40.9	17	25.8	5	7.6
Whole school approach	9	13.6	17	25.8	17	25.8	18	27.3	5	7.6
Outcome based education	2	3	13	19.7	24	36.4	20	30.3	7	10.6
Inclusive Education Philosophy	3	4.5	10	15.2	19	28.8	24	36.4	10	15.2
International legislative support	4	6.1	8	12.1	13	19.7	22	33.3	19	28.8
MOE Policy on SNE	7	10.6	22	33.3	10	15.2	21	31.8	6	9.1
Principles of Inclusive education	4	6.1	16	24.2	19	28.8	19	28.8	8	12.1
Components of Inclusive Education	3	4.5	20	30.3	19	28.8	19	28.8	5	7.6
Collaborative teaching	11	16.7	24	36.4	18	27.3	7	10.6	6	9.1
Teaching Strategies for learners with special needs	6	9.1	13	19.7	22	33.3	19	28.8	6	9.1
Creating and Maintaining inclusive schools	3	4.5	12	18.2	23	34.8	22	33.3	6	9.1

Table 4 shows that there was a higher response rate within the fair level since out of the 14 items, 9 items (64.2 %) fell within this level of response. Similar to teachers, head teachers had poor knowledge on international legislative support for inclusive education with 28.8% of head teachers indicating they had very poor knowledge on the concept. Creating and maintaining inclusive schools, a key skill for head teachers was also poorly comprehended with only 4.5% of head teachers reporting that they had very good knowledge on the skill.

This can be attributed to their participation in the KEMI diploma – an in-service course that is availed to all practicing head teachers. The findings largely indicate that head teachers and teachers have limited knowledge on concepts in inclusive education as well as skills to implement the same. This implies that teachers and head teachers who are the key implementers of inclusive education are not adequately prepared to successfully implement it. Lack of knowledge on concepts and skills on inclusive education is a finding that is corroborated by other studies (Ajuwon etal., 2012; Mukhopadhyay, Molosiwa & Moswela, 2009; Peebles & Mendaglio, 2014). It is apt therefore to conclude that if the inclusive agenda is to be pushed forward there is dire need to equip teachers and head teachers with adequate knowledge in inclusive education practices.

To further determine the extent inclusive education component is included in training documents an analysis of these documents was conducted. The documents analysed were: Diploma curriculum used by KEMI to in service head teachers and the PTE curriculum. Being an in-service course notwithstanding, the KEMI diploma portrayed a lack of in depth coverage of inclusive education issues. Firstly, inclusive education was only a topic under the unit on mainstreaming issues covered in only two pages. This evidently negatively impacted on its scope and depth of content. Secondly, only a definition of inclusive learning was provided and a mention of some categories of special needs. Key areas such as concepts in inclusive education, philosophy of inclusive education, characteristic of different categories of special needs, teaching strategies for learners with special needs and most importantly for head teachers, strategies for creating and maintaining inclusive schools were all not covered.

Similarly, an analysis of the Primary Teacher Education curriculum showed that inclusive education was not among the content in the curriculum. The topic on children with special needs served only as a basic introduction to learners with special needs. This then explains the gaps in knowledge of inclusive education by teachers and head teachers.

Such a distinct lack of knowledge of concepts on and skills for inclusive education by keys implementers as demonstrated by the findings is a clear indication of the lack of preparedness for implementing the same. This is due to the fact that knowledge of inclusive education enables teachers to have not only the theoretical foundation of inclusive education but also a practical understanding of inclusive practices in schools settings (Peebles & Mendaglio, 2014). Further, knowledge of inclusive education facilitates development of positive attitudes towards learners with special needs since it

creates a teacher who is empathetic, reflective and responsive to the diverse needs of learners (Mukhopadhyay, Molosiwa & Moswela 2009).

Preparing teachers for inclusive practices is a daunting task both in developing and developed countries. In a review of literature from the west on preparing teachers for inclusive classes Peebles and Mendaglio (2014) noted that lack of exposure to students with special needs and lack of development of practical skills negatively impacts teachers perceptions of their preparedness. Mukhopadhyay, Molosiwa and Moswela (2009) also observed that teachers in Botswana were not prepared for inclusive practices owing to limited knowledge on varied aspects of inclusive practices which even included basic functioning skills such as communication. In Kenya, lack of knowledge about inclusive education is a recurrent barrier to effective inclusive practices as identified by (Bii & Taylor, 2013; Gichaba, 2011; KIE, 2011; Mwangi & Orodho, 2014; Njoka et al., 2011; Ogolla, 2011; Peter & Nderitu, 2014). The present study is yet another voice on the dire need to adequately equip implementers of inclusive education with comprehensive knowledge to prepare them to execute their roles effectively.

Preparedness for teachers and head teachers to implement inclusive education as afore mentioned is also determined by presence of positive attitudes. Consequently, the study sought to establish teachers and head teachers' attitudes towards including learners with special needs in regular using ATIES. Head teachers' and teachers' attitudes were assessed across these four aspects of inclusion. The responses are shown on Figure 3.
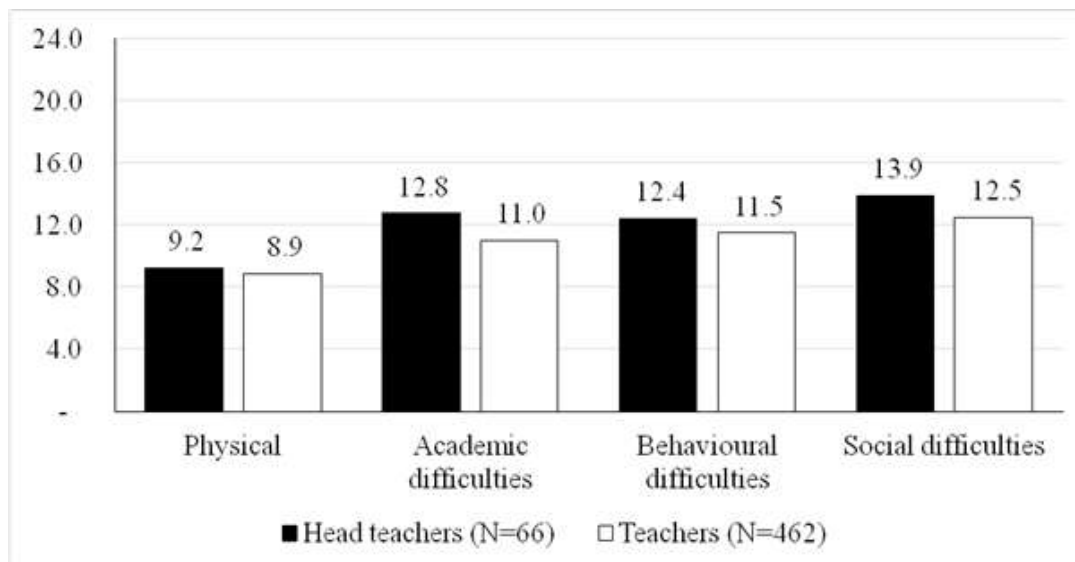

Figure **3. Aspect-Wise Means of Participants Attitudes towards Inclusive Education**

Findings on Figure 3 shows that social difficulties had the highest mean score 13.9 for head teachers and 12.5 for teachers. Social concerns (overt shyness, truancy, speech and or language difficulties) are special needs that are not considered problematic by most teachers. Most teachers hold the view that these concerns are resolvable through enhancing social interactions in the classroom and this explains the positive attitudes (Chhabra, Srivastava & Srivastava, 2010). Further, as shown on Figure 4, physical difficulties had the lowest mean score with a mean of 9.2 for head teachers and 8.9 for teachers. Including learners with physical disabilities such as sensory impairments in the regular class is considered a challenge. Most teachers are of the opinion that they need practical knowledge on how to include such learners (Khan, 2011; Mwakachola, 2010).

The study further sought to find out if teachers and head teacher knowledge and attitudes were predictors of effective implementation of inclusive education. The variable 'Implementation of inclusive Education' is an aggregate of observations on indicators of inclusive education as well as teachers and head teachers scores on implementation of inclusive education. Indicators of inclusive education were whether the school has enrolled pupils with special needs, if the teaching of pupils with special needs occur in regular classes, and availability of adapted teaching-learning resources. The variable was therefore computed as an average of the scores for head teachers', teachers' and observations' implementation scores for each school.

A multiple regression analysis was used to evaluate teachers' attitude, teachers' knowledge and head teachers' attitude as predictors of implementation of inclusive educational in public primary schools. The results are shown on Table 5

Table 5. Regression Model 1: Head Teachers' Attitude, Teachers' Attitude and Teachers' Knowledge as Predictors of Inclusive Education Implementation

	Unstandardized Coefficients		Standardized Coefficients	t	p-value	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.936	0.097		9.602	0.001		
Teachers' attitude	0.004	0.001	0.137	2.829	0.005	0.865	1.156
Teachers' knowledge	0.003	0.001	0.125	2.575	0.01	0.866	1.154
Head teachers' attitude	0.005	0.002	0.151	3.307	0.001	0.981	1.019

R=.262, R squared=.068, Adjusted R squared =0.062, Durbin Watson statistic=1.992, α=0.05

Dependent Variable: Implementation of IE score

Table 5 shows that despite all the predictor variables having significant predictive strengths to implementation, head teachers' attitude had a slightly greater predictive strength to implementation of inclusive education (β=.005, t=3.307, p=.005) than teachers' attitude (β=.004, t=2.829, p<.001) and teachers' knowledge (β=.003, t=2.575,

p=.01) as shown in Table 9. However, only a small proportion of the total variation (6%: Adjusted R^2=0.062) is indicated which imply that the percentage of the variance of inclusive education implementation attributed to the predictors' variables is low. Nonetheless, as (Itaoka, 2012; Rights & Sterba, 2019) asserts if a study reveals a low R-squared value but the predictors are statistically significant then, the researcher can still draw important conclusions about how changes in the predictor values are associated with changes in the response value. Regardless of the R-squared, the significant coefficients still represent the mean change in the response for one unit of change in the predictor while holding other predictors in the model constant. The implication of this finding is that a school with teachers with good knowledge and favourable attitude about inclusive education may only require a head teacher with favourable attitudes to successfully implement inclusive education. These findings are consistent with other studies (Sharma, Simi & Forlin, 2015; Urton & Hennemann, 2014; Yan & Sin, 2014) that have explored the predictive link between effective implementation of inclusive education and knowledge on and attitudes towards the same.

CONCLUSIONS

In conclusion it is apt to state that head teachers and teachers' positive attitudes towards inclusive education as well as their knowledge of the same predict effective implementation of inclusive education. Nonetheless, positive attitude has more predictive strength when compared to knowledge. Further, head teachers' positive attitude is the most significant predictor of effective implementation of inclusive education. It is therefore critical for teacher and head teachers training programmes to focus on positive attitudes formation. It is worth noting that the predictive strength of both attitudes towards and knowledge of inclusive education is low implying that it is necessary to determine the predictive strength of the other variables that account for effective implementation of inclusive education.

REFERENCES

Ajuwon, P. M., Lechtenberger, D., Griffin-Shirley, N., Sokolosky, S., Zhou, L., & Mullins, F. E. (2012). *General education pre-service teacher's perceptions of including students with disabilities in their classrooms.*

Ainscow, M. & Sandill, A. (2010). Developing inclusive education systems: The role of organisational cultures and leadership. *International Journal of Inclusive Education* 14 (1) 1-16| doi:10.1080/13603110802504903.

Ainscow, M., Dyson, A., & Weiner, S. (2012*). From exclusion to inclusion. A review of international literature of ways of responding to students with special educational needs in schools*. Retrieved from: (www.uhu.es/publicaciones/ojs/index.php)

Angelides, P. (2011). Forms of leadership that promote inclusive education in Cypriot schools, *Educational Management Administration and Leadership*, 40 (1), 21-36. doi: 10.1177/1741143211420614.

Bii, C. & Taylor, L. (2013). *Inclusive education in Kenya Assessment report Kenya/Somali Programme.* Nairobi, Handicap International. Retrieved from: (http://hiproweb.org/fileadmin/cdroms/inclusive).

Booth, T. & Ainscow, M. (2011). *Index for inclusion: developing learning and participation in schools*. Bristol. Centre for Studies on Inclusive Education, (CSIE).

Buford, S., & Casey, L. B. (2012). Attitudes of teachers regarding their preparedness to teach students with special need**s.** *Delta Journal of Education*, 2 (2) 16-30. Retrieved from: (http//www.deltastate.edu.).

Buhere, P., Ndiku, J., & Kindiki, J. (2014). Inclusive Education and School Culture: Integration Issues for Mainstream Primary Schools in Kenya. *International Journal of Education and Research*, 2(5), 423-432.

Buhere, P., & Ochieng, P. (2013). Usage of selected resources for inclusive education in mainstream primary schools: Issues and challenges from a Kenyan perspective. *Journal of Problems of Management in the 21st century*, (8) 16-24. Retrieved from: (http//www.scientiasocialis.it/pmc/files/pdf/16-24).

Charema, J. (2010). Inclusive education in developing countries in the sub Saharan Africa: from theory to practice. *International Journal of Special Education*. 25(1), 87- 93. Retrieved from: (http://www.files.eric.ed.gov/fulltext/EJ89056).

Chhabra, S., Srivastava, R., & Srivastava, I. (2010). Inclusive education in Botswana: The perceptions of school teachers. *Journal of Disability Policy Studies, 20*(4), 219-228. doi: 10.1177/1044209309344690.

De Boer, A., Pijl, S. J., Minnaert, A., & Post, W. (2014). Evaluating the effectiveness of an intervention program to influence attitudes of students towards peers with disabilities. *Journal of autism and developmental disorders*, *44*(3), 572-583.

Fayez,M., Dababneh, K., & Jumiaan, I. (2011). Preparing teachers for inclusion: Jordanian preservice early childhood teachers' perspectives. Journal of Early Childhood Teacher Education, 32 (4), 322-337. Retrieved from: (http://www.tandf.co.uk/journals).

Forlin, C., & Chambers, D. (2017). Catering for diversity: Including learners with different abilities and needs in regular classrooms. In *Life in Schools and Classrooms* (pp. 555-571). Singapore. Springer.

Gous, J. G., Eloff, I., & Moen, M. C. (2013). How inclusive education is understood by

principals of independent schools. *International Journal of Inclusive Education*, (ahead-of print), 1-18.

Hadjikakou, K. & Mnasonos, M. (2012). Investigating the attitudes of head teachers of Cypriot primary schools towards inclusion. *Journal of Research in Special Educational Needs,* 12, (2), 66–81.

Hoppey, D. & McLesky, J. (2010). A case study of principal leadership in an effective inclusive school. *The Journal of Special Education*, 46 (4), 245- 259. doi: 10.1177/0022466910390507.

Itaoka, K. (2012) Regression and interpretation low R-squared. In Proceedings of the presentation at Social Research Network 3rd Meeting, Noosa. Mizuho Information and Research Institute, Inc.

Khan, T., A. (2011). *Investigation of secondary school teachers' attitude towards and Knowledge about inclusive education in Bangladesh* (Master's thesis, University of Canterbury, New Zealand. Retrieved from: (http://www.ir.canterbury.ac.nz.bitstream/10092/6290/1/thesis_fulltext.pdf).

Kenya Institute of Education (KIE) (2011). Report on a situational analysis of the status of inclusive education in primary and secondary schools in Kenya.(*KIE Research Report Series* No. 98.) Nairobi, KIE.

Majawa, C. (2014). *Patristic Education*. Nairobi. Kijabe Printing Press.

Mensah, A. K. (2016). *Cross-cultural analysis of teacher perspectives and preparedness for inclusive education in Ghana and Germany: Implications for teacher education* (Doctoral dissertation, Universität zu Köln).

Mugenda, A.G. (2011). *Social science research: theory and principles*. Nairobi. Applied Research & Training Services.

Mwangi, E. M. & Orodho, J. A. (2014). Challenges facing implementation of inclusive education in public primary schools in Nyeri town, Nyeri County, Kenya. *Journal of Education and Practice, 5 (16), 118-125*. Retrieved from: (http://www.ir-library.ku.ac.ke).

Mukhopadhyay, S. (2013). Voices of experience: Botswana primary schools teachers on inclusive education. *European Journal of Educational Studies*, *5*(1).

Mukhopadhyay, S., Molosiwa, S.M. & Moswela, E. (2009). Teacher trainees level of preparedness for inclusive education in Botswana schools: Need for change. *International Journal of Scientific Research in Education*. 2 (2), 51-58. Retrieved from: (http://www.ijsre.com).

Murang'a County Education Department. (2019). Murang'a County Education Management Information System (EMIS). Murang'a. County Education Department.

Mwakachola, S. M. (2010). *Attitudes of preschool teachers towards inclusive education for children with hearing impairments in Makadara division, Nairobi, Kenya* (M.Ed Thesis), Kenyatta University, Nairobi, Kenya.

Mwangi, E. M. & Orodho, J. A. (2014). Challenges facing implementation of inclusive education in public primary schools in Nyeri town, Nyeri County, Kenya. *Journal of Education and Practice, 5 (16), 118-125.* Retrieved from: (http://www.ir-library.ku.ac.ke).

Mwarari, C. N. (2019). Teachers' attitudes towards inclusive education in public primary schools of rural Kenya. *International Journal of Social Sciences* 9 (2), 77-85.

Njoka, E., Riechi, A., Obero, C., Kemunto, W., & Muraya, D. (2011). Towards Inclusive and Equitable Basic Education System: Kenya's experience. *ADEA Working Document.*

Nyende, F. (2012). *Children with disabilities in universal primary education in Uganda: A rights based analysis to inclusive education.* (Unpublished Masters thesis). International Institute of Social Studies, Hague, Netherlands.

Odongo, G. (2012). *Examining the attitudes, perceptions and concerns of Kenya teachers toward the inclusion of children with disabilities in general classrooms* (Ph.D Thesis). Texas Tech University, USA.

Ogolla, P. J. (2011). *Factors influencing the implementation of inclusive education in public primary schools in Mombasa County, Kenya* (M. Ed thesis), University of Nairobi, Kenya.

Oswald, M. & Engelbretcht, P. (2013). Leadership in disadvantaged Primary Schools: Two Narratives of Contrasting Schools. *Journal of Educational Management Administration Leadership,* 41 (5), 620-639. doi: 10.1177/1741143213488377.

Organisation of African Unity (OAU). (1990). *African charter on the rights and welfare of the child.* OAU Doc.CAB/LEG/24.9/49 (1990). Addis Ababa; OAU.

Orphanos, S., & Orr, M. T. (2013). Learning leadership matters: The influence of innovative school leadership preparation on teachers' experiences and outcomes. *Journal of Educational Management Adminstration Leadership* doi: 10.1177/1741143213502187.

Peebles, J. & Mendaglio, S. (2014). Preparing teachers for inclusive classroom: Introducing the individual direct experience approach. *Learning landscape* 7 (2)

245-257. Retrieved from: (http://www.learninglandscapes.ca/...II-no14-peebles-mendaglio).

Peter, M. N., & Nderitu, M. N. (2014). Perceptions of Teachers and Head Teachers on the Effectiveness of Inclusive Education in Public Primary Schools in Yatta Division Machakos County. *Journal of Educational and Social Research*, *4*(1), 91. doi:10.5901/jesr.2014.v4n1p91

Republic of Kenya (2010). *Constitution of Kenya*. Nairobi. Government printer.

Riehl, C. J. (2000). The principal's role in creating inclusive schools for diverse students: a review of normative, empirical, and critical literature on the practice of educational administration. *Review of Educational Research*, 70 (1), 55-81. doi: 0.3102/00346543070001055.

Rights, J. D., & Sterba, S. K. (2019). Quantifying explained variance in multilevel models: An integrative framework for defining R-squared measures. *Psychological methods*, *24*(3), 309.

Sharma, U. Simi, J., & Forlin, C. (2015). Preparedness of pre-service teachers for inclusive education in the Solomon islands. *Australian Journal of Teacher Education,* 40 (5). http://dx.doi.org/10.14221/ajte.2015v40n5.6

UNESCO *(1990). World conference on Education For All*. Jomtien: UNESCO.

UNESCO (1994). *The Salamanca Statement and Framework for Action on Special Needs Education: World Conference on Special Needs Education: Access and Quality*. Salamanca. UNESCO.

UNESCO (2015). *Incheon Declaration: World Education Forum 2015: Towards inclusive and equitable quality education and lifelong learning for all*. Retrieved from: (*http://en.unesco.org/world-education-forum-2015/incheon-declaration).

United Nations (UN) (1948). *Universal declaration of human rights*. Paris: UN.

United Nations (UN). (2015). Sustainable Development Goals. Paris: UN.

Urton, K., Wilbert, J., & Hennemann, T. (2014). Attitudes towards inclusion and self-efficacy of principals and teachers. *Learning Disabilities- A Contemporary Journal, 12(2).*

Wilczenski, F. L. (1992). Development of a scale to measure attitude toward inclusive education. *Educational and Psychological Measurement, 55*(2), 291-299.

Zagona, A. L., Kurth, J. A., & MacFarland, S. Z. (2017). Teachers' views of their preparation for inclusive education and collaboration. *Teacher Education and Special Education*, *40*(3), 163-178.