

## **Children's reading ability in early primary schooling: Challenges for a Kenyan rural community**

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School outcomes and good performance in different subjects depends on children's ability to read. Thus teaching children on how to read during early grades is critical in promoting learning to read. More advanced skills acquired in later grades depend on early grade learning, so children who do not acquire these reading skills in their early grades struggle to acquire more advanced skills usually absorbed through reading. This article report findings of a study conducted in rural public primary schools in Narok County, Kenya, focusing on the ability of children to read. The study sought to establish the factors influencing children's reading ability and whether there are differences in reading between boys and girls in grade three. A sample comprising 188 grade three children (94 girls and 94 boys) participated in the study, together with 18 head teachers, 66 teachers and 5 education officers from the 18 participating schools. A mixed methods research approach involving concurrent quantitative and qualitative data collection techniques was utilised. Early grade reading assessment tests for English and Kiswahili were utilised to collect quantitative data on children's reading ability. Key informant interviews with head teachers and education officers, and group interviews with teachers were conducted to collect qualitative data. Findings revealed that boys had slightly better mean scores in reading for the two subjects than girls. Availability of reading materials both at home and in school, together with getting supportive parents and teachers, were found to be critical in promoting children's reading.

### **Introduction**

Early grade reading helps learners expand their thinking skills, learn to concentrate and enlarge their vocabulary. However, reading can be a complex act requiring many years of experience and use in order to do well. Successful reading and writing involves comprehension, fluency, mastery of essential strategies and motivation (Strategic Marketing and Research, 2013). English reading and speaking is based on the alphabetic principle focusing on letter sounds which acquire meaning when the sound units are combined. Before reading or spelling, children must understand that written words are made up of sounds or phonemes.

Children's early language skills are the foundations on which reading well at primary schools is based (Read on Get on, 2014). For both boys and girls to learn foundational reading skills, they should be provided equal opportunities to access quality education (Piper & Mugenda, 2013). Many schools in Britain have achieved impressive results for their pupils in every challenging circumstance, demonstrating that while poverty often makes it harder for a child to learn and achieve, it should not be an excuse for low ambitions (Read on Get on, 2014). In developing countries however, the case may be different since children from poor backgrounds may be disadvantaged as their parents/guardians may not be able to provide them with educational materials likely to

enhance learning to read. Thus such children would end up attending school without the required reading materials, leading to low ambitions among them as compared to children from better backgrounds.

Research has shown that instruction in phonological awareness should begin in preschool to enable children learn that written words represent spoken sounds, a process known as decoding involving breaking a word into separate sounds (Strategic Marketing and Research, 2013). To decode, children need to be explicitly taught how to sound out words into phonemes. As children learn to decode and read words, they are able to focus on building their comprehension. The more a child is exposed to reading, the more likely he or she is to acquire the required skills for reading. Thus, children must learn that words on a page have meaning and that reading is done from left to right and from top to bottom. Children who have not been read to before they enter school may not have experienced listening to rhythm and sounds. They may not have developed an interest in reading and may not be motivated to learn to read (Strategic Marketing and Research, 2013).

Research has further shown that 50% of reading difficulties can be prevented if children are given effective language development experiences in preschool and effective reading instructions in primary grades (Slavin, Madden, Dolan & Wasik, 1996; Strategic Marketing and Research, 2013). Children's home settings have also been found to play a critical role in children's development of language and literacy skills (Levy, 2008). Levy in his study noted that print reading is one strategy which can be used to make meaning out of text. He argued that early years settings should value children's own construction of reading in the context of play. Other studies have shown that at 8 years children drop off reading engagement, indicating that older children are less likely to see benefits from reading and are less engaged in reading for fun. Girls more than boys have been found to have positive attitudes about reading and to regularly engage in reading for fun (Strategic Marketing and Research, 2013). Thus supporting both boys and girls to have a positive attitude to reading will enhance reading to learn, which is critical in higher grades of schooling.

The main goal in the teaching of reading is to have learners comprehend the ideas in a piece of text as they read. Skilled English readers for instance seek to understand and use the alphabetic principle on how the sounds of spoken speech can be represented by letters in the alphabet, and how letters are used to identify printed words. English readers have and use background knowledge of words and comprehension strategies to obtain meaning from print, and read fluently and effortlessly except when they come across unfamiliar text, when they consciously use the alphabet principle and comprehension strategies to make sense of what they are reading (Strategic Marketing and Research, 2013).

Kenya with more than forty two indigenous languages has two official languages, namely English and Kiswahili (Roy-Campbell, 2014). The language education policy in Kenya requires that instruction of the first three years of formal learning in grades one, two and three, happen in mother tongue or the language of the catchment area, that is spoken by the majority of inhabitants in the area where the school is located (Nabea, 2009, Roy-Campbell, 2014). However, most schools in Kenya do not apply this policy, as English is

used as a language of instruction right from grade one through to university. Additionally, Kiswahili, which is a national language, is also taught as a subject from grade one to university (Gathumbi, 2008; Bunyi, 2008; Roy-Campbell, 2014). With English being the language of instruction for most subjects learned in schools in Kenya, and Kiswahili being the national language, the current study sought to establish whether there exist differences in children's ability to read in the two languages.

### **Differences in boys and girls reading ability**

Research has shown that girls not only enjoy reading more than boys but also do it more often. More girls than boys read for longer periods of time and that girls and boys read different materials outside class (Clark, 2012; Clark & Douglass, 2011). Corpus Arellano (2013) noted that gender differences exist among secondary school students, where girls spend more time reading books and magazines in many countries while boys spend more time reading on the Internet. He further reported that "girls read diverse materials and use libraries more often than males". He argued that "girls prefer more demanding texts such as fiction while males are more likely to read comics and newspapers" (Corpus Arellano, 2013:71). While the differences highlighted by Corpus Arellano focused on secondary school students, similar findings were noted in a study conducted in Kenya by Ouko (2015).

Ouko (2015) in his study focusing on children's literacy skills in class one using teachers' ratings revealed that girls performed better than boys in literacy skills. He noted that the differences in literacy skills were statistically significant denoting that girls were better than boys. The study utilised teachers' ratings, meaning that different schools would have used different tests in assessing children's literacy. Studies using early grade reading assessment results in some African countries have shown poor results on most reading tasks for both boys and girls. According to USAID (2013) variations exist in early grade reading skills within a country and can be specific within a given context. In Ethiopia for instance, girls outperformed boys in urban schools while boys outperformed girls in rural schools. Findings from the same study indicated that in Kenya, girls outperformed boys in both urban and rural schools (USAID, 2013). The study however did not explore that factors that contribute to children's reading ability.

*Early Grade Reading Assessment* tests are used to measure how children acquire reading skills in early grades of primary schools. The results of these tests can tell whether boys and girls are progressing well in achieving reading fluency and comprehension, that is critical in children's learning to read, as they transit to reading to learn (USAID, 2013). USAID in their study noted that more girls than boys were not able to read. In Ethiopia for instance 79% of girls versus 60% of boys could not read. In Mali Songhoi language, 89% of girls versus 78% of boys could not read. Similar results were also noted in Uganda Lango region and language where 85% of girls versus 78% of boys could not read (USAID, 2013). The study further revealed that boys outperformed girls in Oromiya and Benishangul-Gumuz regions of Ethiopia, while girls outperformed boys in Guyana and Liberia. However, according to this study, there were no significant gender differences in

reading skills in the early grades. In addition to exploring gender differences in children's reading ability, the current study sought to establish the factors that influence children's reading.

### **Factors influencing children's reading ability**

The Education Standards Research Team UK (2012) pointed out that having access to reading resources and having books of their own has an impact on children's reading attainment. The number of books available in the home has also been found to be positively related to children's reading and attainment of reading skills (Clark, 2011). Children who have books of their own enjoy reading more, and read more frequently than children who do not have books of their own (Clark & Poulton, 2011).

Clark and Rumbold (2006) argued that parents and the home environment are essential supports for the early teaching of reading and fostering a love of reading. Children are more likely to continue to be readers in homes where books and reading are valued (Education Standards Research Team, 2012). Anderson, Anderson, Friedrich and Kim (2010) pointed out that family members can promote children's literacy through jokes and riddles, narratives, poetry and through informal conversations. According to them, child-shared book reading has been found to aid children's learning about print and decoding while they are still young.

Wambiri and Ndani (2015) noted that caregivers who perceive themselves as having a role to stimulate children's reading in the home environment are likely to get involved in supporting children to learn how to read. They further argued that household income determines the range and abundance of print materials available in the households, which in turn influences the caregivers' involvement in children's reading. Martucci (2014) noted that children are active agents in their communicative and learning experiences. Thus engaging them in reading story books has been found to inspire their quest for reading that promotes their reading skills.

An important factor in developing reading for pleasure is choice. Choice and interest are highly related when it comes to children reading for pleasure as they chose the materials they want to read (Clark & Phythian-Sence, 2008; Schraw, Flowerday & Reissetter 1998). Literacy targeted rewards such as books or book vouchers have been found to be more effective in developing reading motivation than rewards that are unrelated to the activity (Clark & Rumbold, 2006). Reading for pleasure is strongly influenced by relationships between teachers and children, and children and families (Cremin, Mottram, Collins, Powell & Safford, 2009). Thus creating a good relationship between families, teachers and children will encourage a reading culture among children. Teachers and family members who recognise children who are keen in reading, and commend them for this are likely to have children who are interested in reading, hence promoting their literacy skills.

Socioeconomic factors have also been found to influence children's reading, where children from lower socioeconomic backgrounds have been found to read less for

enjoyment than children from more privileged social classes. Studies have revealed that boys enjoy reading less than girls (Clark & Rumbold, 2006; Clack & Douglass, 2011; Education Standards Research Team, 2012). Research also shows a link between library use and reading for pleasure. Young people who use their public library are nearly twice as likely to be reading outside of class every day (Clark & Hawkins, 2011). This requires parents and teachers to encourage children to visit public libraries to enable these children develop a reading culture. Introducing children into using schools libraries could work to the advantage of encouraging the reading culture among children right from the time they are in early grades.

The factors discussed in this subsection favor children in higher grades of learning and therefore there was need for the current study to explore factors likely to influence children's learning to read and especially those in grade three in rural public schools among the pastoralist community.

### **Theoretical framework**

This article is based on Lev Vygotsky's theory (1978) which argued that learning is social where teachers, parents and caregivers verbally guide children within a zone of proximal development. According to Vygotsky, when children engage in structured activities, they acquire complex language behaviors. Through questions posed by parents and significant others, and statements phrased in a more sophisticated manner, children are able to acquire language skills and knowledge that broaden their learning (Anderson et al., 2010). Thus as parents, teachers, adults and significant others interact with children through print and reading activities, they will help children acquire reading skills and learn how to read during the early grades of learning.

The zone of proximal development as advanced by Vygotsky indicates that a less competent person will benefit from interacting with a more competent person, which enhances learning (Chaiklin, 2003; Vygotsky, 1978). According to Chaiklin, learning for the less competent person through interaction is dependent on interventions by a more competent person, and the ability of the less competent person to learn. Having a rich language environment with reading materials where adults and older siblings participate in reading and guiding young children on how to read, will facilitate improvement in reading skills among young children in early grades. This in turn will enhance the zone of proximal development which in this article is children's reading ability for both boys and girls. The more competent person in this case can be a parent, teacher, caregiver, older siblings and adults who assist children in early grades to learn to read. This article therefore seeks to explore answers to the following questions.

1. Are there differences in children's reading ability between boys and girls?
2. What factors influence children's reading ability?

## **Methodology**

### **Research design**

A mixed methods research approach involving concurrent quantitative and qualitative data collection was employed for this study (Creswell, 2012; Tashakkori & Teddlie, 1998). Quantitative data was derived from children's ability to read, assessed using the Kenya *Early Grade Reading Assessment* (EGRA) tests for English and Kiswahili, adapted from DFID Endline survey 2014 (King, Mugenda & Piper, 2014). Qualitative data was derived from key informants and group interviews.

### **Location of the study**

This study was conducted in public schools in Narok County, which is situated in Kenya along the Great Rift Valley and covers an area of 17,944 sq km. The Maasai Mara National Park is located in Narok County. The county is populated by the Maasai speaking people of Kenya who are nomads. As is their culture, the Maasai move from place to place in search of water and pasture for their animals, a life style that greatly impacts on their children's education. Narok County has six sub-counties, namely Kilgoris, Narok North, Narok South, Narok East, Narok West and Emurua Dikir. The current study was conducted in selected public primary schools in Narok North and Narok South Sub-counties.

### **Sampling technique and sample size**

Systematic random sampling involving the nth number was utilised to select the schools that participated in the study. Twelve schools from Narok North Sub-County and six schools from Narok South Sub-County were sampled for this study. Systematic random sampling was utilised to select boys and girls for the study. A total of 188 out of 711 class three learners were sampled for the study comprising 94 out of 399 boys and 94 out of 312 girls. Eighteen head teachers, 66 teachers, and 5 education officers from Narok County were also sampled for the study.

### **Data collection tools and procedures**

A triangulation of methods was applied to collect data. Learners' abilities to read in English and Kiswahili were assessed using *Early Grade Reading Assessment* tools. Learners were also interviewed to elicit information on home related factors likely to influence their reading ability. Key informant interviews were utilised to collect data from head teachers, and education officers. Group interviews were conducted for teachers teaching lower classes. A desk review was conducted to inform the study in relation to children's reading ability.

### **Pretesting of study tools**

Pretesting was done to measure the effectiveness of the tools and to eliminate errors while administering them. The research team identified two appropriate, non-sampled schools where the pre-testing of the tools was conducted. A feedback session followed while taking note of the weaknesses of the qualitative tool items and anything that would strengthen the data collection process. The EGRA tools were piloted to allow data enumerators familiarise themselves with the tools and to seek clarification on how to administer them.

Analyses of the responses and field researcher's observations were used to improve the qualitative tools and the data collection processes. Based on the pre-test, the qualitative tools were finalised for the study by the research team for data collection. The pilot-test was conducted in Narok North Sub-County, following induction of the research team.

### **Reliability and validity of data**

To enhance reliability of the findings, triangulation of data sources was used, where responses via quantitative data from EGRA were corroborated with verbatim responses from interviews and focus groups discussions (Creswell, 2012; Tashakkori & Teddlie, 1998). Credibility of the findings was enhanced by the principal investigator ensuring that data from various participants was captured to generate enough themes to answer the research questions. Trustworthiness of qualitative data was enhanced by using actual verbatim responses from participants.

### **Data cleaning and analysis**

Both quantitative and qualitative data were cleaned in preparation for entry and transcribing respectively. A coding frame was developed following themes of the study, while an entry platform on *STATA 13.0* was developed for quantitative data based on the EGRA tools for English and Kiswahili. Qualitative data was then transcribed into Microsoft *Word* files and translated into English for analysis. Analysis of qualitative data followed the thematic analysis procedures, while descriptive and inferential statistics were applied to analyse quantitative data. A t-test was used to look for significant differences between boys and girls in mean scores in children's reading ability. Bivariate regression analysis was used to establish home-related factors that influence children's reading ability. Further, the information from group interviews was analysed alongside interviews with individuals to corroborate and validate the information.

## **Results**

### **Children's reading ability**

The first research question sought to determine whether there were significant differences between boys and girls in mean scores in children's reading ability. In testing children's reading ability, the early grade reading assessment test for grade two adapted from the

DFiD 2014 endline survey for English and Kiswahili was used to assess children's reading ability (King, Mugenda & Piper, 2014). Boys and girls were given timed and untimed English and Kiswahili reading subtasks. The subtasks focused on letter sound knowledge, segmenting, vocabulary, invented word decoding, oral passage reading, reading comprehension, and sentence reading. Timed subtasks required every child to have equal time reading a given number of words or sounds/letters of the alphabet. Each child was required to read 100 sounds/letters of the alphabet within 60 seconds. The same child was supposed to take the same amount of time reading 50 simple three letter words, and oral passage reading of a simple passage of approximately 66 words. Assessors were required to mark the letters or words children would not read well and at the same time mark the last letter or word the child read when the 60 second period ended, and then stop the child from reading. Untimed tasks included reading comprehension and sentence reading.

Assessment tests for grade two level were used because it was assumed that a child who completed grade two English and Kiswahili syllabus successfully should have acquired basic reading skills. Such a child should be able to do any grade two level subtasks without any difficulty. In accord with this assumption, grade three children were given timed and un-timed reading subtasks for both English and Kiswahili.

A t-test was conducted to find whether there were any significant differences in children's reading ability. Tables 1 and 2 present findings on reading differences between boys and girls.

Table 1: Pupils score in English for boys and girls

Subtask	Boys		Girls		Sig.
	Mean	Std error	Mean	Std error	
Letter sound fluency (correct letter sounds per minute)	21.1	1.9	19.5	1.9	0.57
Decoding fluency (correct words per min.)	23.0	1.3	16.4	1.3	0.001*
Segmenting (%)	28.3	2.8	19.4	2.3	0.016*
Reading fluency (correct words per min.)	40.0	2.3	31.0	2.3	0.006*
Vocabulary (%)	54.1	1.3	56.2	1.5	0.24
Reading comprehension (%)	22.1	2.3	19.8	2.5	0.50
Sentence comprehension (%)	42.9	3.7	40.4	3.8	0.64

\* significant at  $p < 0.05$

On average, children who have acquired reading skills in grade two are expected to read 100 correct letter sounds per minute as well as 50 correct words per minute. The children are also expected to read a simple paragraph of approximately 60 words in a minute. However, as indicated in Table 1, both boys and girls performed far below average in all subtasks that were tested, except for vocabulary where they both scored slightly above average. This indicates that as a group the children in this study had not acquired the basic reading skills for English that ought to have been acquired by the time they completed class two level.

Table 1 shows that boys had slightly higher mean scores than girls in all of the subtasks in English, except for vocabulary. Additionally, statistically significant differences at  $p < 0.05$  were noted in the average scores for boys and girls in three subtasks, namely decoding fluency (0.001), segmenting (0.016) and reading fluency (0.006). For instance, in decoding fluency, boys scored 23.0 correct words per minute while girls scored 16.4 correct words per minute. In segmenting, boys scored 28.3% versus girls 19.4%. In reading fluency, boys scored 40 correct words per minute versus girls 31 correct words per minute, indicating that boys were slightly better than girls in these three English reading subtasks.

Similar results were observed in Kiswahili subtasks (Table 2) where, as in English, both boys and girls scored below the expected average in 5 out of 7 subtasks, while they scored above average in two subtasks. Boys had higher mean scores than girls in all the subtasks. Statistically significant differences in mean scores at  $p < 0.05$  were noted in syllable fluency (0.001), where boys scored 46.2 correct syllable sounds per minute, girls 36.4 correct syllable sounds per minute. In decoding fluency, boys scored a mean of 24.9 correct words per minute, girls 19.2 correct words per minute, with a statistical significance of 0.006. In words/non-words fluency boys attained a mean score of 60.1 correct words/non words per minute, while girls had a mean score of 53.1 words/non words per minute, with a statistical significance of 0.016 as indicated in Table 2.

Table 2: Pupils score in Kiswahili for boys and girls

Subtask	Boys		Girls		Sig.
	Mean	Std error	Mean	Std error	
Sauti za herufi (letter sound fluency) (correct letter sounds per minute)	24.5	1.6	23.6	2.1	0.59
Ufahamu wa silabi (syllable fluency) (correct syllable sounds per minute)	46.2	2.1	36.4	2.5	0.001*
Kutambua maneno ya kubuni (decoding fluency) (correct no. of words per min.)	24.9	1.4	19.2	1.6	0.006*
Kutambua maneno halisi na ya kubuni (reading fluency) (correct words per min.)	35.7	1.8	35.5	2.4	0.76
Ufahamu wa hadithi (reading comprehension) (%)	32.8	2.8	31.5	3.0	0.56
Hadithi ya kusikiliza (Listening comprehension) (%)	54.0	3.1	50.4	2.8	0.38
Words/nonwords (%)	60.1	2.0	53.1	2.3	0.016*

\* significant at  $p < 0.05$

As with in English, the findings in Kiswahili show that boys did slightly better than girls in reading.

## Factors influencing children's reading abilities

The second research question sought to explore the factors that influence children's reading ability. Participants were interviewed to identify the home and school related factors that are likely to influence children's reading ability. Structured interviews with learners and unstructured interviews with teachers, head teachers, and education officers

were conducted. Findings on home related factors were derived from children's interviews, while those focusing on both home and school were derived from teacher and head teacher interviews.

### Home related factors

The home related factors that were considered included whether the child had English or Kiswahili text books at home, there were other reading materials at home, whether the mother or father can read or write, and whether the child was absent from school for more than a week.

Bivariate regression analysis was utilised to estimate the effect of these factors on children's ability to read English text. Figure 1 presents findings on relationships between children's reading ability and home related factors as outlined by children.

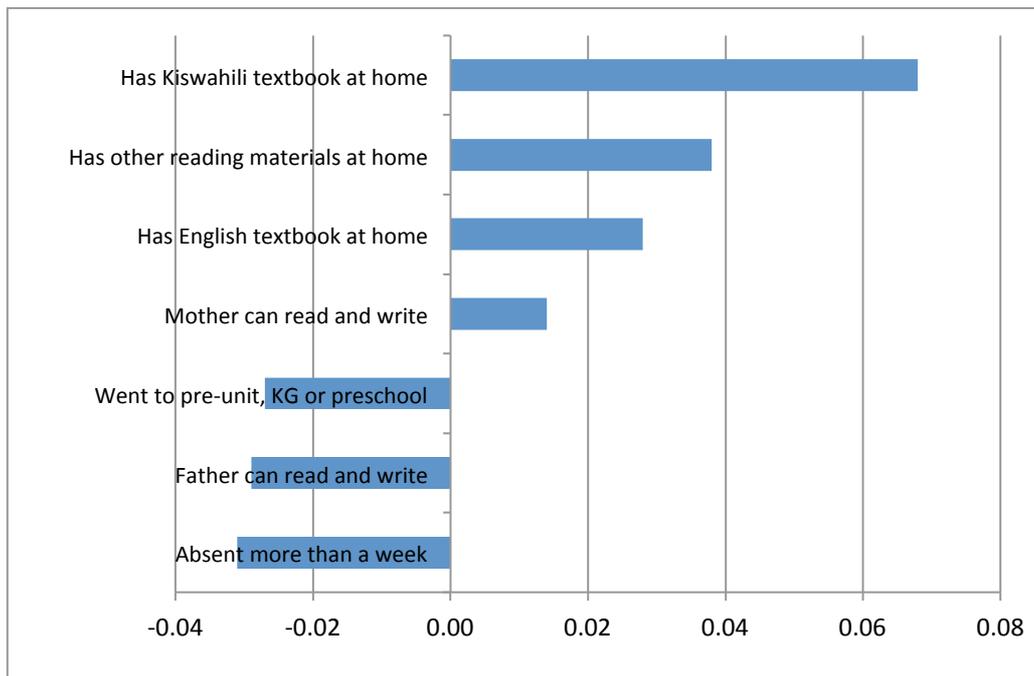


Figure 1: Relationships between reading with comprehension and home related factors (percentage change in average comprehension score)

Figure 1 indicates that children having English and/or Kiswahili textbooks at home was associated with 0.03% and 0.07% respectively better reading ability than those without. A statistically significant difference at  $p < 0.05$  was noted in reading among children who had Kiswahili textbooks at home. Having other reading materials at home was associated with 0.04% better reading.

Findings further revealed that having a mother who can read and write was positively associated with children's reading at 0.01% better reading. Children whose fathers were able to read and write had a 0.03% less reading ability than those with mothers who can read. However, this result was not statistically significant at  $p > 0.05$ . Absence from school for more than a week was associated with 0.03% less reading ability, and this result was statistically significant at  $p < 0.05$ .

### **Other factors likely to influence children's reading ability**

To gain more insights on children's reading ability, unstructured interviews with open ended questions for teachers, head teachers and education officers were conducted to identify additional factors likely to influence children's reading ability. The following factors were identified.

#### *Language used at home and in school*

Using mother tongue to introduce reading was considered to be one way of enhancing children's reading ability. One teacher from school B supported this factor by saying "Introducing reading using mother tongue can help children learn how to read."

#### *Teacher training*

Training teachers on how to teach reading to children was cited as one way of enhancing children's reading ability. As two participants put it,

Teachers' level of training and motivation to teach children to read is important (Sub-County Education Officer)

Training ECD teachers on how to teach children reading is key in enhancing children's reading ability (County Quality Assurance Standards Officer).

#### *Availability of teaching learning materials*

Having literacy text books, story books, charts, flash cards, and other print materials were identified as resources that can promote reading among children. Participants supported this factor by saying,

I think the learning materials such as charts, and books can help children learn how to read (Teacher school A);

Exposure to reading materials and media can help children learn to read (Sub-County Education Officer);

Having text books and story books is important in enhancing reading among children (Head teacher school E).

#### *Teacher child relationship*

It emerged that if teachers are motivated to teach and enjoy teaching reading, children are likely to benefit from this cordial relationship, as one teacher from school A pointed out, "Having a good relationship between the teacher and the learner can influence children's reading ability".

*Method of teaching reading*

Children introduced to reading by sounds and word formation are considered to acquire the basic reading skills more readily than those who are not. This requires that teachers are trained on how to teach reading and that they are competent in teaching it. Participants pointed out that,

The methodology teachers use to teach children is key in enhancing reading among children (Head teacher school E);  
Introducing learners into sound reading will promote reading among children (County Quality Assurance Standards Officer).

*Parents' support*

Parents can support children to acquire reading skills by; providing reading materials to their children such as text books and story books but also by reading to their children. In supporting this factor, participants pointed out that,

Parents should provide reading materials to their children such as story books, newspapers (Sub-County Education Officer);  
Parents also should monitor the progress of their children at home and at school (Head teacher school E)

*Starting school early*

Starting school early when children are still young was another factor identified as likely to influence children's reading ability. Children who attend pre-school are likely to learn to read earlier than children who did not. Participants supported this factor by saying,

Early going to school can help children learn to read earlier than those who did not (County Director of Education);  
Going to school when children are young is good as they learn and understand things better than when they are older (Teachers' Service Commission County Deputy Director);  
Preschool education is important because this is where children socialise with others and gain language skills (Sub-County Education Officer).

It is imperative therefore to fully recognise that both home and school related factors influence children's reading ability. Home related factors such as support from parents, provision of reading materials to children, starting school earlier and absenteeism from school were found to influence children's reading. The influence may be positive or negative, depending on the factor and how they affect the child. School related factors such as teacher-child relationship, teacher training, teaching methods and availability of literacy related materials in the school were also cited as key factors influencing children's reading ability.

## **Discussion**

### **Differences in children's reading ability**

Findings in this study revealed that although all children assessed were much below national average in their reading ability, boys were found to have better mean scores than girls in reading, for both English and Kiswahili. However, differences may have been influenced by other factors mentioned, such as cultural influences where boys are given preferences over girls for access to education, and girls being more frequently absent from school to care for their younger siblings. Also, as this study was done in rural schools serving pastoral communities, other factors may have contributed such as children sometimes being absent from school to herd animals, and a large distance from home to school causing children to get to school late every day. These are possible factors that may explain why all children performed much below average in the reading subtasks.

Ouko (2015) in his study established that class one girls had better mean scores than boys at 72 and 65 respectively. The differences were found to be statistically significant at  $0.03 < 0.05$ , indicating that girls were better in literacy than boys. However, the study relied on teachers' ratings and therefore one cannot establish the conditions under which the learners were assessed. Other research (Clark, 2012; Clark & Douglass, 2011) has shown that girls not only enjoy reading more than boys, but also read more often. More girls than boys read for longer periods of time, and girls and boys read different materials outside of class. The studies further revealed that girls are more likely than boys to have positive attitudes about reading and to regularly engage in reading for fun (Strategic Marketing and Research, 2013). These studies however, reported findings for upper grade levels and secondary schools.

Findings from the current study revealed that boys had higher mean scores than girls in English and Kiswahili, indicating that boys were better in literacy than girls. The findings are consistent with findings by USAID (2013) who established that in rural schools in Ethiopia, Mali and Uganda, boys outperformed girls in reading. However, the findings are not consistent with findings from the USAID study where they established that in the same study, girls in Kenya outperformed boys in early grade reading. The findings for the current study could have been influenced by the fact that the study was conducted in rural public primary schools, where other factors such as cultural practices and distance from home to school could be contributing to the kind of results reported. There is a need therefore for the County Government to come up with policy guidelines that discourage negative cultural practices likely to disadvantage girls by having a direct impact on their reading ability.

### **Factors influencing children's reading ability**

Access to reading resources such as books has been reported to have an impact on children's reading. Clark (2011) noted that there was a positive relationship between the estimated number of books in the home and attainment of reading ability. This was consistent with findings from interviews with learners, where regression analysis revealed

that children who had text books for English and Kiswahili and those who had other reading materials at home were better at comprehension than those who did not have such materials. Clark and Poulton (2011) supported this finding by pointing out that children who have books of their own enjoy reading more and read more frequently. This was consistent with findings by Clark (2011) which established that reading resources were associated with better reading ability among children who had such resources. These findings are also congruent with findings from other studies that have investigated this phenomenon (King, Mugenda & Piper, 2014; Piper, Oyanga & Mugenda, 2014).

The findings further revealed that children who had supportive parents performed better in reading. This findings confirm those by Clark and Rumbold (2006) who noted that supportive parents and home environment are essential to the early teaching of reading and fostering a love of reading. Children are more likely to continue to be readers in homes where books and reading are valued (Clark & Rumbold, 2006; Education Standards Research Team, 2012). The findings further confirm those by Wambiri and Ndani (2015) who revealed that home related factors such as caregiver's perception of their role in children reading, their education level, and availability of print materials in the home were all associated with caregivers' involvement in children's reading.

Starting school early came out strongly as a factor that could influence children's reading ability. This is consistent with findings by Ouko (2015) who established that children who attended preschool performed better in literacy skills than those who did not. There is consistent evidence that age affects attitudes to reading and reading behaviour, where children enjoy reading less as they get older (Clark & Douglass, 2011; Clark & Osborne, 2008; Topping, 2010). Some evidence further suggests that while the frequency with which young people read declines with age, the length for which they read when they read increases with age (Clark, 2011). Thus it is imperative that children should be introduced to learning to read while they are still young so as to acquire the reading skills that will be critical when they start reading to learn in later grades.

Findings from this study revealed that teacher child relationship and teaching methods are factors that could influence children's reading ability. The findings confirm those by Geske and Ozola (2008), who noted that teachers stimulating students' reading of full texts works well at primary school level. Therefore, in order to promote children's reading ability, the home and school environment should be stimulating enough with print materials. Parents and teachers should support children to learn to read during their early years of learning to acquire necessary skills that support reading ability.

## **Conclusions**

Findings from this study have shown that both boys and girls performed far below average in the reading subtasks for both English and Kiswahili. This could be a pointer that these children were not well prepared in the pre-reading skills acquired in preschool and the reading skills acquired in the early grades one and two. There is need therefore for the quality assurance and standards officers to ensure that teachers are well prepared for

teaching children reading. This could be done through induction of teachers in seminars and workshops.

Reading materials in this study were found to play a critical role in children's reading ability, which is supported by findings from other studies. There is need therefore for County Government to collaborate with parents and other education stakeholders to provide reading materials for children to read both at home and in school. The reading materials may include text books, story books and other print and non-print materials. Parents' ability to read was positively associated with children's reading ability. There is need therefore for County Government to put strategies in place to ensure that illiterate parents attend adult education to acquire reading skills to enable them to support their children in reading while at home.

Absenteeism from school was found to negatively influence children's reading ability. There is need for chiefs, assistant chiefs and village elders to ensure that all children within their jurisdiction attend school regularly. At the same time, they should identify those parents who engage their children in domestic activities that deter them from attending school regularly, so as to take action on them as it is the requirement of the Kenya Basic Education Act of 2013.

### **Limitations of the study and future directions**

The findings reported in this study were based on results from rural public schools, without assessing children's reading ability in urban public schools and in private schools both in rural and urban setups. Hence the findings cannot be generalised to all schools in Narok County. There is need therefore for a study to be conducted focusing on both public and private schools from rural and urban setups. The study was conducted among pastoralist community schools that could be experiencing unique challenges which may not arise to the same extent in other communities with different social and economic activities. There is need therefore to conduct a large scale study focusing on the different socio-economic activities, such as involving schools from agricultural communities, business communities and fishing communities. This will provide a clearer picture on whether there exist differences in children's reading ability based on the different socio-economic status of the parents. The study did not examine children's reading ability in higher levels of learning. Further study is needed to investigate whether boys continue to show higher ability in reading than girls at higher levels of learning.

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