

## Human Resource Factors Influencing Gender Disparity in Development of Early Childhood Education Teaching Profession in Kakamega East Sub-County, Kenya

Roseline Kadogo<sup>1</sup>  
Dr. Edward Okaya<sup>2</sup>  
Dr. Manson Sichari<sup>3</sup>

<sup>1</sup>kadogoroselyn16@gmail.com

<sup>2</sup>eokaya@mmust.ac.ke

<sup>3</sup>msichari@mmust.ac.ke

<sup>2</sup><https://orcid.org/0000-0001-6513-1552>

<sup>3</sup><https://orcid.org/0000-0001-9881-814X>

<sup>1,2,3</sup>Department of Educational Psychology, Masinde Muliro University of Science and Technology, Kakamega, Kenya

### ABSTRACT

Education determines how well people can relate to and communicate with one another. Despite this view, the gaps in education opportunities in most developing countries are large. Public schools in Kakamega East Sub-County haven't escaped the waves of gender disparities that have affected both private and public schools in Kenya. This study, therefore, sought to establish the influence of human resource factors on gender disparity among ECDE teachers. The study was supported by social role theory. A descriptive survey study design was used, which is primarily concerned with the generic statistics that derive from the extraction of data from respondents. The area of study was Kakamega East sub-county, situated in Kakamega County, Kenya. The target population was 1,106, including head teachers, deputy head teachers, teachers, program officers, and quality assurance officers (QUASO). Data was collected from a sample of 260, comprising 37 head teachers, 37 deputy head teachers, and 184 teachers, using questionnaires and interviews. A pilot study was conducted to appropriately validate the research instruments in advance before the real research commenced. Cronbach's alpha ( $\alpha$ ) as a coefficient method to establish the reliability of the research instruments revealed a coefficient of 0.783, which shows that the instrument was reliable. Data was collected from the teachers in line with the three study objectives using questionnaires and interview schedules. Data obtained from the research instruments were analyzed inferentially and descriptively with the help of a statistical package for social sciences (SPSS) version 22. Quantitative data was summarized to quantify the strength of the association between the variables, and the researcher conducted a regression analysis to establish the effect of selected factors on gender disparity. Results were presented in tables. The findings revealed that human resource factors have a positive influence on gender disparity ( $t = 14.572, p < 0.05$ ) and explain 45.9% of the variance. It was concluded that human resource factors had a significant influence on gender disparity in the early childhood education profession. It was therefore recommended that human resource factors be considered in the recruitment of early ECD teachers. It is hoped that this study may help policymakers consider encouraging males to enroll in ECDE teaching.

**Keywords:** Early Childhood Education, Gender Disparity, Human Resource, Teaching Profession

### I. INTRODUCTION

Gender disparity can be described as the unfair treatment of a person on the basis of his or her gender (Wokocha, 2009). Gender disparity is the unequal treatment or perceptions of individuals based on their gender, which arises from differences in socially constructed gender roles. Women have taken a great deal of interest in teaching worldwide. Early childhood education is where children between the ages of one and eight begin their formal education (Sanders, 2016). This gendered professional preference may explain the low participation of male teachers in early childhood education. A 2004 study by Sargent in New Zealand found that male early childhood education was 1% in New Zealand and 2% in the United States, and that it was accountable for 4% of male early childhood educators in Germany (Sargent, 2004), respectively. In Europe, the highest number of male early childhood practitioners was just 9%, with Finland having the highest percentage of male elementary school teachers at 10% (Peeters, 2007). The current study, which was conducted in Kenya's Kakamega East sub-county, aimed to uncover the school factors influencing gender discrepancies in the growth of the early childhood education teaching profession.

The key explanation for a predominantly female workforce in early childhood education is that it has traditionally been considered women's work (Cameron, 2001). Early childhood education continues to be one of the most gendered professions. There is no empirical data to rely on in trying to solve this problem. Children and adults

from various racial, cultural, and gender backgrounds attend early childhood services and schools. According to Kay Sanders, "they (men) reach a zone of disparity when they take early childhood classes and are hired to work with young children. This cultural tension can lead to a daily sense of difference and isolation. Women are predominate in the early childhood field (Sanders, 2016). This begs the question of how early life fosters a female culture that extends beyond the obvious. In accordance with the inquiry, a considerable number of individuals within and beyond the domain of early childhood education assert that women possess an innate inclination to provide care for small infants, whereas men are perceived as lacking such inclination (Neugebauer, 2019). This is because women in most cultures, including Kenya, have the responsibility of raising children both at home and in collective ways. Contrarily, men are thought to make significant contributions to how they connect with themselves and with children in a program by being vibrant, entertaining, and playing. While it is true that certain female teachers exhibit high levels of physique and enthusiasm, there exist significant proportions who do not demonstrate such characteristics (Fagan et al., 2016). Consequently, this method may call into question the manner in which many children's programs function peacefully through sedentary activities that generate minimal waste.

### 1.1 Statement of the Problem

Social competency requires that a school create an environment conducive to the child's overall development. In addition to offering warmth and delicate touches, pre-school teachers are supposed to instruct the children as well as be a representation of authority, strength, and stability. The field of pre-school teaching has witnessed a notable rise in female representation. However, a significant gender disparity persists, prompting concerns and advocating for increased male involvement. According to Duncan Fisher, the Head Teacher of Christ Church, there is evidence indicating that guys exhibit distinct learning preferences compared to girls. Specifically, boys seem to choose experiential learning methods and engaging in physical activities as a means of releasing energy. The author asserts that the exuberant behavior exhibited during boys' play should not be misconstrued as evidence of their being unruly individuals. Furthermore, the author suggests that male teachers possess a unique ability to discern this distinction, which may not be as readily apparent to their female counterparts. According to his assertion, a male teacher may possess a higher capacity to endure explicit behaviors compared to a female colleague. Hence, it is widely acknowledged in the field of child development that children require a secure and supportive environment to foster the formation of positive gender identities. Several studies, such as King and Mason (2001), found that 75% of the men he polled intended to quit the classroom, 51% hoped to advance in their careers in education, and 20% desired to pursue careers outside of education. A multitude of factors were referenced, encompassing remuneration, wages, and quality of life. Married men were more vocal about their issues. Whereas a few studies have attempted to establish gender differences in the teaching profession, rarely have they looked at human resource factors that affect gender disparity among teachers in early childhood education. It is for this reason that the researcher sought to bridge the gap by establishing the influence of selected factors on gender disparities among teachers in early childhood education in Kakamega East Sub-County, Kenya.

### 1.2 Objective of the Study

The primary aim of this study was to identify the human resource factors that contribute to gender disparities in the development of the early childhood education teaching profession within Kakamega East Sub-County, Kenya.

### 1.3 Research Question

To what extent do human resource factors influence gender disparity among early childhood education teaching profession in Kakamega East Sub-County, Kenya?

## II. LITERATURE REVIEW

The subject of teachers' professional competence pertains to the expertise that teachers acquire through both academic and additional training, which they actively pursue in order to enhance their abilities in implementing the curriculum. Hence, the knowledge that individuals possess upon their entry into classes and subsequent activities can be perceived as an appropriate subject under examination. According to Ferguson and Hellen (1996), teacher skills and competence can comprise academic and professional qualifications, subjects, certification, and course work. These are crucial quality components with respect to the implementation of the curriculum. The existing body of literature pertaining to the credentials of teachers in highly developed nations such as Germany, the Netherlands, and Finland reveals a notable dearth of adequately educated educators within preschool settings. This scarcity can be

attributed to the substantial investments made by the respective governments of these nations in teacher education, which have been shoulder-to-shoulder mostly by the state. Consequently, instructors are able to implement the program in pre-school settings in these nations. Following their completion of teacher training, educators are required to exhibit their engagement in ongoing professional development activities. This serves the purpose of enhancing their own professional growth and ensuring their knowledge remains current in light of recent advancements or technological innovations that impact the area of education (Ferguson & Hellen, 1996).

Rutha's (2013) study focused on preschool teachers with university degrees, finding that they were more successful in implementing the curriculum than those without a college degree. Cook (2002) reported that in an Italian study on "Inclusive strengths and weaknesses of pre-service educators who participated in a curriculum-infusion teacher program based on Maria Montessori," pre-school teachers with a background in early childhood methodology helped to promote highly successful pre-school education. While the government acknowledges the need for teacher education in developing nations such as India, a significant hindrance to many pre-school teachers with inadequate teaching skills is the lack of practical experience. Consequently, their ability to effectively engage with and implement early childhood education curricula are compromised (UNESCO, 2010). Allinder (1995) discovered that teachers' knowledge and experience in implementing science topics influenced the verbal and scientific concept acquisition of their students. However, rather than teacher's awareness and experience, the current study sought to find out the human resource factors influencing gender disparity among male teachers in ECDE in Kakamega East sub-county, Kenya.

Jacob (2007) examined other qualities in the past, including subject matter, test scores, training institutions, advanced degrees, qualification, training and mentorship, professional development, and content-based pedagogical expertise. Nevertheless, the outcomes of obtaining an advanced degree in education exhibit a notable paradoxical nature, as do the incentives implemented to encourage the completion of teacher education programs, specifically. Furthermore, Jacob (2007) presents research findings that have explored the role of teacher certification as an indicator of teacher effectiveness. The study suggests that possessing full certification does not appear to be correlated with curriculum implementation, nor does it necessarily have a beneficial impact on student accomplishment.

Ballou and Podgursky (2000) have demonstrated, conversely, that emergency certifications tend to have no correlation with student performance or may even have a detrimental impact. One of the qualifications that regularly and significantly correlates with improved student accomplishment is a teacher's certification or authorization in a specific subject area, particularly in the context of secondary education. Nevertheless, the focus of the present study was on preschool settings. The issue of teacher quality is a significant matter that affects the implementation of curriculum throughout all educational levels, encompassing pre-schools, elementary schools, and secondary schools (Wilson et al., 2003). Teacher qualifications play a crucial role in identifying educators who contribute, to some extent, to the improvement of children's academic achievement. These studies, however, do not show the gender imbalance among these qualified teachers.

According to Sargent (2004), a study revealed that the rates of male participation in early education programs were found to be 1% in New Zealand, 2% in the United States, and 4% in Germany. These figures indicate that these countries have the lowest proportions of male early childhood instructors globally. Based on data from the U.S. Bureau of Labor Statistics Office (2007), it was found that 18.3% of primary and middle school teachers were female, while the proportion of male teachers was less than 3%. According to the Bureau of Labor Statistics (BLS) in 2016, the proportion of male instructors in primary and middle schools was 21.5%, while the percentage of male teachers in preschool and kindergarten settings was merely 2.5%. Between the years 2007 and 2016, there was a lack of observable growth in the United States. There is a little decline in the number of men in the early childhood education and care (ECEC) sector, as opposed to an increase. Maccoby (1998) argues that the division of labor based on gender has been present since the early stages of primitive cultures. This division has resulted in the consistent segregation of employees into different occupations based on their gender, and these disparities have persisted over extended periods of time. No European country has achieved the established target of 20% male instructors in the Early Childhood Education and Care (ECEC) sector in relation to their efforts to increase male representation. Norway outperforms other nations and recruits only 9 percent of male ECEC instructors (Vandenbroeck & Peeters, 2008).

According to Jensen (1996), Spain and Denmark both had a growth rate over 8%. In Europe, the proportion of male early childhood practitioners reached a maximum of only 9%. According to Peeters (2007), Finland possessed a 10 percent proportion of male educators in elementary school settings. Numerous studies and interviews have been undertaken over the years to try to get at the bottom of why there are so few ECEC citizens. Multiple studies have demonstrated that the state is associated with various adverse outcomes, including reduced earnings, inadequate social conditions, heightened apprehension over allegations of child abuse, and a scarcity of male companions (Klecker &

Loadman, 1999). In contrast to the global trend of predominantly promoting males to positions in early childhood education and care (ECEC), Ballema et al. (1999) have asserted that there are no inherent barriers preventing men from engaging in work with young children. The primary factor contributing to the primarily female composition of the early childhood workforce is the historical perception of this field as historically suited for women (Cameron, 2001).

Since 1999, there has been an average pre-primary pupil-teacher ratio of approximately 20 to 1 globally. However, it is expected that this ratio will improve due to increased enrolment since 2003, as reported by UNESCO in 2015. This improvement can be attributed to purposeful efforts aimed at enhancing access to basic training. Although the enrollment rates in preschool are generally lower compared to primary school, it is important to note that these ratios might vary across different regions and countries. In the regions of Central, Eastern Europe, and Central Asia, it is typically seen that the average pupil-teacher ratios (PTRs) are comparatively lower. Conversely, in South and West Asia, it is more prevalent to encounter higher proportions of PTRs. According to a report by Education International in 2010, it was found that in Nepal, a single teacher may have the responsibility of overseeing a classroom of more than 40 students.

In specific nations, there is variation in the ratio of children to adults due to the scarcity of personnel in rural regions. According to Sun et al. (2015), there was a significant disparity in the pupil-to-teacher ratio between rural and urban areas in China in 2008. In rural areas, the ratio was 51:1, indicating that there was one fully skilled teacher for every 51 pupils. In contrast, the percentage in urban areas was considerably lower, with around 25–28 pupils per teacher. Moreover, larger cities exhibited an even lower ratio, with approximately 16–19 pupils per teacher. In Sub-Saharan Africa, the average pupil-teacher ratio (PTR) across the area is approximately 29.1 per nation. However, it is important to note that the PTR can vary significantly within each country, with certain countries like Togo having a lower average PTR of 17.1, while others may have substantially higher ratios. Certain countries within the Arab States have experienced a downward trajectory. The median PTR declined from approximately 40 to fewer than 20 students per instructor in both Morocco and Oman between 1999 and 2005 (Shehadeh, 2008). The distinctions between public and private settings might also vary across different countries. The pupil-teacher ratios (PTRs) in private Early Childhood Development and Education (ECDE) centers in Ghana are significantly lower compared to those in public ECDE centers, with ratios of approximately 26:1 and 34:1, respectively. Insufficient availability of teachers and the subsequent increase in pupil-teacher ratios (PTRs) not only pose a threat to the quality of educational interactions and the extent of learning that takes place, but they can also impede access to education, as overcrowded classrooms may limit the inclusion of additional students.

Information about the implementation of the ECDE programs by devolved units in public pre-schools is scarce, as administration of the ECDE programs has been transferred to Kenya's 47 districts. Similarly, ECDE teachers who have been hired do not have a properly recorded professional qualification. It was therefore important to compare these variables between Kenyan counties. The task of the county government shall include the funding needed to develop the infrastructure necessary for elementary and training institutions for pre-primary education and childcare, centers of home arts, and village polytechnics under Section 26 of the Basic Education Act (Republic of Kenya 2012). In Kenya, it is the case that the national government has disbursed funds for dedicated schemes, including ECDE, that are placed under the management of county governments but not restricted to the education sector (Republic of Kenya, 2014). It was therefore important to compare and determine the status of quality teaching among different counties in the country. The findings from the 2014 school census in the government of Kenya (2014) provide an overview of the ECDE, primary and secondary education systems. The sector has shown considerable growth over the years as a result of the research provided. Between 2009 and 2014, the number of ECDE primary and secondary schools rose by 16.9%, an annual average rise of 3.2%. The highest annual growth in secondary schools is 8.2% of the three tiers, and primary schools have 5.1%, led by the ECDE at 1.0%. The sector has seen progress across the three stages in relation to gender parity. However, there are also differences between counties, with arid and semi-arid counties having the highest levels. Therefore, the current study sought to identify the human resource factors influencing gender disparity among ECDE teachers in Kakamega East sub-county, Kenya.

### III. RESEARCH METHODOLOGY

The study employed a descriptive research design. In this study, a correlational research design was appropriate because it enabled the research to explore the relationship between selected factors and gender disparity in the ECDE teaching profession. The researcher was interested in gathering facts on the influence of gender disparities on early childhood education teachers in Kakamega East Sub-County, Kenya. The 97 head teachers of public schools

were targeted because they are directly in charge of the school's administration, including the 611 teachers who receive instruction from them. The 97 section heads were also targeted because they are empowered by the Ministry of Education to handle certain administrative duties over teachers. In addition, the sub-county quality assurance officer and education officer were ideal for the study. In total, the study targeted a population of 807 who are involved in gender disparities in development among early childhood educators in Kakamega East Sub-county, Kenya. Stratified random sampling was used to sample schools as per their wards. Therefore, the sample size was 260, inclusive of the program officer and quality assurance officer. Both questionnaires and interview guides were used to collect data. Pilot testing was done to develop a research procedure and to evaluate the workability and sensible nature of the protocol. The researcher sought professional advice from the supervisors and lecturers within the department to assess the research instruments through the face validity method. The questionnaires were modeled to match the research objectives of the study. Using Cronbach's reliability coefficient, human resource factors had a coefficient of 0.756, indicating high instrument reliability. The data was analyzed using a simple linear regression model as well as descriptive statistics and presented in tables.

## IV. FINDINGS AND DISCUSSION

### 4.1 Human Resource Factors Affecting Gender Disparity

In its objective, the study sought to establish the human resource factors influencing gender disparity in the development of the early childhood education teaching profession in Kakamega East Sub-County, Kenya. The research question stated, "To what extent do human resource factors influence gender disparity among early childhood education teachers in Kakamega East Sub-County, Kenya?" Therefore, the selected human resource factors were career profession, job satisfaction, and career progression and opportunities. These were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive statistics entailing frequency counts and means

According to the findings in Table 1 at the end of this section, 91 (32.9%) of the teachers and 83 (32.9%) of the respondents strongly agreed that teaching preschools was a gender-related profession ( $M = 3.8$ ,  $SD = 1.14$ ), although there were significant variations in the responses. A high mean and standard deviation ( $M = 4.0$ ,  $SD = 1.28$ ), along with the fact that 119 (47.2%) of respondents strongly agreed, also pointed to education progress as a factor in the gender gap. Commitment to a career was another aspect of gender in the career profession, with a majority of 112 (44.4%) agreeing and support from 51 (20.2%) who strongly agreed, with a high mean and standard deviation ( $M = 3.4$ ,  $SD = 1.29$ ) on this issue. With a high mean and standard deviation ( $M = 3.2$ ,  $SD = 1.38$ ), capacity building was also evident among schools, as agreed upon by the majority, 90 (35.7%) and supported by 48 (19.0%). However, concerning training and development, the majority (93.9%) of the respondents disagreed that it displayed gender disparity. It can be noted from these findings that, whereas most of the constructs under career profession affected gender disparity, there were high variations among the respondents. Generally, its career profession scored a high mean ( $M = 3.4$ ,  $SD = .84$ ), implying that it was a considerable factor in gender disparity.

The second human resource factor indicating gender disparity was job satisfaction. According to the findings, 69 (27.4%) of the teachers supported 101 (40.1%) teachers who said they were very satisfied with their jobs. The statement rating was high ( $M = 3.6$ ,  $SD = 1.35$ ), although with a high standard deviation. It also emerged clearly that the majority, 104 (41.3%) of the teachers, strongly agreed that they were committed to their job, with a high rating ( $M = 3.9$ ,  $SD = 1.24$ ), and 94 (37.3%) strongly agreed that their job was good, with a high rating ( $M = 3.5$ ,  $SD = 1.46$ ). However, a larger number, 93 (36.9%) of the teachers, disagreed that they were motivated by good remuneration and were supported by 67 (26.6%), which is confirmed by a low mean and high standard deviation ( $M = 2.5$ ,  $SD = 1.40$ ). The majority of 115 (45.6%) and 99 (39.3%) of the teachers who strongly agreed and agreed, respectively, with high means and standard deviations of ( $M = 4.2$ ,  $SD = 1.04$ ) and ( $M = 3.8$ ,  $SD = 1.29$ ), indicated that proximity to ECDE centers as well as flexibility of work schedule emerged as gender disparity issues. The overall high mean ( $M=3.6$ ) and low standard deviation ( $SD=.48$ ) confirm the job satisfaction rating among teachers as a gender disparity issue in lower primary schools.

Finally, gender disparity in career progression and opportunity as a human resource factor are indicated. A high mean ( $M = 3.5$ ,  $SD = 1.34$ ) supported the findings that the majority of the teachers (88, or 34.9%), had accumulated significant teaching experience. Additionally, a high mean and standard deviation ( $M = 3.7$ ,  $SD = 1.36$ ), which also indicated that the majority of the teachers, 85 (33.7%), agreed or strongly agreed that they had acquired sufficient teaching skills. Most of the teachers (97 out of 210) agreed or strongly agreed that they had been promoted ( $M = 3.8$ ,  $SD = 1.28$ ), and a high mean ( $M = 3.2$ ,  $SD = 1.47$ ) showed that at least 87 (34.5%) agreed or strongly agreed

that they had moved up in rank. However, a low mean with a high standard deviation ( $M = 2.4$ ,  $SD = 1.43$ ) also indicates that the majority, 87 (34.5%), disagreed that they typically get more and better opportunities. The overall career progression and opportunities mean of 3.4 and standard deviation of 0.73 units support these findings, which suggest that career progression plays a significant role among lower primary teachers as a gender disparity issue. These findings imply that career progression and opportunities play a gender role among lower primary teachers. The overall mean of human resource factors was high ( $M = 3.4$ ,  $SD = .46$ ), implying that there was gender variability in human resource factors among lower primary teachers teaching pre-school learners. The findings were presented in Table 1.

**Table 1**  
*Selected Human Resource Factors Affecting Gender Disparity*

Statement	SD F (%)	D F (%)	U F (%)	A F (%)	SA F (%)	M	STD
<b>Career Profession</b>							
Gender related profession	10(4.0)	31(12.3)	37(14.7)	91(36.1)	83(32.9)	3.8	1.14
Advancement in education	23(9.1)	18(7.1)	12(4.8)	80(31.7)	119(47.2)	4.0	1.28
Commitment to a career	27(10.7)	47(18.7)	15(6)	112(44.4)	51(20.2)	3.4	1.29
Capacity building	34(13.5)	70(27.8)	10(4.0)	90(35.7)	48(19)	3.2	1.38
Training and development	65(25.8)	93(36.9)	23(9.1)	39(15.5)	32(12.7)	2.5	1.36
Mean and Standard deviation						3.4	.84
<b>Job Satisfaction</b>							
I am satisfied with my job	32(12.7)	34(13.5)	16(6.3)	101(40.1)	69(27.4)	3.6	1.35
I am committed to my job	13(5.2)	37(14.7)	17(6.7)	81(32.1)	104(41.3)	3.9	1.24
My job is good	31(12.3)	40(15.9)	24(9.5)	63(25)	94(37.3)	3.5	1.46
Good Remuneration	67(26.6)	93(36.9)	19(7.5)	36(14.3)	37(14.7)	2.5	1.40
Proximity to ECDE centre	12(4.8)	8(3.2)	21(8.3)	96(38.1)	115(45.6)	4.2	1.04
Flexibility of work schedule	24(9.5)	28(11.1)	14(5.6)	99(39.3)	87(34.5)	3.8	1.29
Mean and Standard deviation						3.6	.48
<b>Career Progression and Opportunities</b>							
I have gained many years of experience in teaching	28(11.1)	39(15.5)	26(10.3)	88(34.9)	71(28.2)	3.5	1.34
I have gained sufficient skills in teaching	28(11.1)	35(13.9)	19(7.5)	85(33.7)	85(33.7)	3.7	1.36
I have got promotion	24(9.5)	23(9.1)	15(6)	95(37.7)	95(37.7)	3.8	1.28
I usually get more and better opportunities	83(32.9)	87(34.5)	23(9.1)	16(6.3)	43(17.1)	2.4	1.43
Have risen in ranks	55(21.8)	27(10.7)	28(11.1)	87(34.5)	55(21.8)	3.2	1.47
<b>Mean and standard deviation</b>						<b>3.4</b>	<b>0.73</b>
<b>Overall mean and Standard deviation</b>						<b>3.4</b>	<b>0.46</b>

#### 4.2 Early Child Development Teaching Profession

In order to establish the gender disparity in the development of the early childhood education teaching profession, the study sought responses from teachers using a five-point Likert scale. The findings are presented as shown in Table 2 using frequency counts, percentages, means, and standard deviations.

**Table 2***Gender Disparity in Development of Early Childhood Education Teaching Profession*

<b>Early child development</b>	<b>SD F (%)</b>	<b>D F (%)</b>	<b>U F (%)</b>	<b>A F (%)</b>	<b>SA F (%)</b>	<b>M</b>	<b>SD</b>
Female teachers enhance good social development than male teachers	63(25)	66(26.2)	51(20.2)	44(17.5)	28(11.1)	2.6	1.32
Female teachers have higher mentorship activities as compared to male teachers	32(12.7)	47(18.7)	93(36.9)	24(9.5)	56(22.2)	3.1	1.29
There is good physical growth among pupils which is enhanced by female teachers	20(7.9)	16(6.3)	68(27)	62(24.6)	86(34.1)	3.7	1.22
Female teachers experience childhood care burden as compared to male teachers	7(2.8)	41(16.3)	64(25.4)	52(20.6)	88(34.9)	3.7	1.19
Female teachers have a higher positive attitude as compared to male teachers	11(4.4)	24(9.5)	61(24.2)	34(13.5)	122(48.4)	3.9	1.22
Female teachers enhance good logical skill development among pupils as compared to male teachers	9(3.6)	38(15.1)	57(22.6)	43(17.1)	105(41.7)	3.8	1.24
Female teachers contribute to better mental development among learners compared to male teachers	14(5.6)	26(10.3)	83(32.9)	49(19.4)	80(31.7)	3.6	1.19
<b>Mean and Standard deviation</b>						<b>3.5</b>	<b>.57</b>

From the findings in Table 4.16, a higher cumulative percentage of teachers, 51.2%, disagreed or strongly disagreed that female teachers enhanced good social development than male teachers, implying that there was little gender disparity, although 28.6% either agreed or strongly agreed. Similarly, a higher cumulative percentage of 31.7% of teachers agreed or strongly agreed that female teachers have higher mentorship activities as compared to male teachers, which was reflected by a high mean ( $M = 3.1$ ,  $SD = 1.29$ ). The findings further indicate that there is good physical growth among pupils, which is enhanced by female teachers, as strongly agreed by the majority (86, or 34.1%) of the teachers with a high mean and standard deviation ( $M = 3.7$ ,  $SD = 1.22$ ).

From the findings, female teachers experience a higher burden of childhood care as compared to male teachers, which was indicated by the majority of 88 (34.9%) of the teachers with a high mean ( $M = 3.7$ ,  $SD = 1.19$ ). It also emerged that female teachers have a higher positive attitude as compared to male teachers, as indicated by the majority. 122 (48.4%) of the teachers strongly agreed with a high mean ( $M = 3.9$ ,  $SD = 1.22$ ). The findings also show that female teachers enhance good logical skill development among pupils as compared to male teachers, as indicated by the majority, 105 (41.7%) of the teachers who strongly agreed with a high mean and standard deviation ( $M = 3.8$ ,  $SD = 1.24$ ). Finally, it was revealed by the findings that female teachers contribute to better mental development among learners compared to male teachers, as indicated by the cumulative majority response of 51.1% who either agreed or strongly agreed, with a high mean and standard deviation ( $M = 3.6$ ,  $SD = 1.19$ ). From these findings, an overall mean of 3.5 and a standard deviation of 0.57 implied that gender disparity among early childhood education teachers was highly rated, implying that it existed.

Further interviews with sub-county education officers also revealed that personal attributes also contributed to gender disparity among schools. For instance, one of the sub-county education officers was reported saying,

*"Some of the personal attributes that affect gender disparity among schools are economic development, where men are more development-oriented compared to women, who are more concerned with daily issues. There is also having a good sense of humour or being dependable. Urbanization, the position of women in society, and a lack of respect and acceptability are also some of the personal attributes that affect gender disparity."*

From these findings, it is clear that personal attributes also determine gender disparity among ECD schools in the study area. Men feel more dependent on and therefore find it difficult to accept a low-paying job, unlike women, who find it more of a professional issue and passion to handle children. According to the findings, men also find themselves unacceptable in society as a personal issue. Therefore, most of them move to urban areas for better pastures, unlike those who carry out the teaching profession in their ECDE schools from home. These findings agree with the descriptive findings on personal attributes. They also agree with the findings that personal attributes have a significant effect on early childhood professional development. The findings further collaborate with previous studies such as Drudy (2008) and Zhang (2017), who explain that the historical lack of male teachers has been triggered by several factors such as economic growth, urbanization, women's social status, the culture of masculinity, and low



social childcare values. To draw more men to the ground, it will not succeed to rely on any single factor. Therefore, it can be concluded that personal attributes have an influence on gender disparity among ECDE schools.

### 4.3 Regression Analysis

Further analysis was carried out to establish the human resource factors influencing gender disparity in the development of the early childhood education teaching profession in Kakamega East Sub-County, Kenya. A linear regression model was therefore used to establish this effect. The findings on the summary model results are presented as shown in Table 3 that follows.

**Table 3**

*Percentage Variance in Early childhood Development accounted for by Human Resource Factors*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.678 <sup>a</sup>	.459	.457	.58756	.459	212.331	1	250	.000

a. Predictors: (Constant), mean human resource factors

From the results in Table 3, an R value of 0.678 is indicative of a high multiple correlation between human resource factors and gender disparity in the development of the early childhood education teaching profession. Squaring the R value, we find an R<sup>2</sup> value of 0.459, which implies that human resource factors account for 45.9% of the variance in gender disparity in the development of the early childhood education teaching profession. The overall model was also significant, with an F-value of 212.331. This suggests that the choice of gender inequality in human resource factors as a factor that affected the growth of the ECE teaching profession was not made by accident. Furthermore, findings on the model coefficients are presented as shown in Table 4 below.

**Table 4**

*Model Coefficient on Effect of HRF on Gender Disparity in Development of ECE Teaching Profession*

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.312	.136		9.620	.000
	mean human resource factors	.689	.047	.678	14.572	.000

a. Dependent Variable: Development of ECE teaching Profession

The findings indicate that gender disparity among human resource factors has a positive and significant effect on the development of the ECE teaching profession ( $\beta=.678$ ,  $p<.05$ ). This means that the higher the gender disparity among the human resource factors, the better the development of the ECE teaching profession in schools. This further implies that the human resource-based involvement of female teachers is more likely to enhance their development in the ECE teaching profession.

An interview was carried out with sub-county education officers on whether human resource factors had an influence on teachers' gender parity in early childhood education. He was noted as saying,

*Teachers are subjected to log constraints during recruitment. There are no promotions in this sector. Most of the teachers train up to degree level, but they remain classroom teachers, earning peanuts. The job security is low, and teachers can be fired at any time from school without any procedure. There is no compensation or benefit for teachers, and this has led to poverty and a lack of direction. Teachers are not given training opportunities, leading to low development. Lack of funds required for the development of infrastructure for institutions. Some of the centers lack classrooms, and children learn under trees. Lack of furniture and feeding programs*

From the above findings, it can be noted that some of the human resource factors affecting gender parity in schools entail a mismatch between teacher training and their promotions, such that whether they train to higher levels, there are no promotions. In addition, there is a lack of benefits for the same teachers. Further discouraging factors include a lack of job security, and perhaps this is what drives male teachers away from the early childhood education profession. It also means that women could tolerate these human resource factors, but men are unable to tolerate these issues. These outcomes support the previous gender parity studies, which found that male early education attendance



was 1% in New Zealand, 2% in the US, and 4% in Germany (Sargent, 2004). However, on the contrary, other studies found that whereas more men are promoted to the ECEC worldwide, Ballema et al. (1999) indicated that no reason prevents men from working with young children. It can, however, be concluded that in the study area, human resource factors are a significant cause of gender parity in the early childhood education profession among teachers.

#### 4.4 Summary of Findings

Human resource factors were three, which included career profession, job satisfaction, and career progression and opportunities. All the aspects had high means, thus indicating potential factors that could impact gender disparity in the development of the early childhood education teaching profession. Using a simple linear regression model, the study established that human resource actors accounted for a significant amount of variance in gender disparity in the development of the early childhood education teaching profession. The findings also established that the selected human resource factors had a positive and significant influence on gender disparity in the development of the early childhood education teaching profession.

### V. CONCLUSIONS & RECOMMENDATIONS

#### 5.1 Conclusions

From the aforementioned findings on the effect of human resource factors on gender disparity in the development of the early childhood education teaching profession, two conclusions are drawn. First, human resources are important for considering the professional development of ECDE teachers, such that with proper job satisfaction, male teachers will be encouraged to build their profession in pre-schools. Secondly, human resource factors, when well catered for, positively influence the gender disparity in the development of the early childhood education teaching profession. It is known that in most cases, women are more tailored to teacher pre-school learners due to their humble and caring nature, and hence this is reflected in work flexibility and salaries, career profession, and progression, thus enhancing their profession as compared to male teachers.

#### 5.2 Recommendations

It was therefore recommended that human resource factors be considered in the career development of ECDE teachers to avoid bias in their professional development. Therefore, following the gaps, a study was conducted on the significant difference in gender during the recruitment process among ECDE teachers.

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