

Pedagogical approaches and Self-reliance: A Decolonizing Perspective on Education in Kenya

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ABSTRACT

Education is meant to develop capacity and enable members of society to become productive. African indigenous education systems inculcated self-reliance among members of society and every individual had a specific defined role within the society. The colonial education system introduced the aspects of unemployment, underemployment and job seekers. In an effort to address growing mismatch between expectations by graduates and societal employment provisions, the government has regularly formed commissions and made reforms in the education system. Despite these efforts there has been growing concerns on the effectiveness of the current education system to inculcate self-reliance among graduates. This study sought to establish the influence of decolonizing the pedagogical approaches Kenyan education system on self-reliance among students. The study was carried out in universities in Kenya. The study found that the contemporary pedagogical approaches influenced self-reliance to a small extent and that integration of selected elements of African indigenous curriculum was capable of improving the Kenyan curriculum to a large extent. It was concluded that decolonizing pedagogical approaches had a statistically significant relationship with self-reliance among students in the Kenyan education system

Key words: self-reliance, decolonization, pedagogical approaches, indigenous knowledge, integrating, anti-colonial

Introduction

The proponents of the 8-4-4 system of education in Kenya argued that it was relevant for the needs of the nation or it would meet the national demands for self-employment and self-reliance (Ambaa, 2015). The school curriculum adopted for 8-4-4 included learning opportunities which were meant to enable pupils to acquire a suitable basic foundation for the world of work in the context of economic and manpower needs of the nation, and to appreciate and respect the dignity of labor (Eshiwani 1993). To achieve the stated objectives, three subjects were emphasized as being of special importance: Art and Craft, Agriculture and Home Science. Art and Craft education featured content areas such as collage and mosaic, drawings, paintings, graphic design, clay and pottery, leatherwork, modeling and carving; fabric design, puppetry, wood work and metalwork. Learners in these courses were expected to produce functional and aesthetically appealing articles (Ambaa, 2015). Ideally, pupils were supposed to use the acquired knowledge and skills in order to design, implement and control small scale projects that would provide opportunities for self-reliance for both the learner and other members of the community (Eshiwani, 1993)

Various studies have been carried out examining the 8-4-4 education system with regard to its goal of producing self-reliant individuals for the Kenyan society. Ambaa (2015) observed that while the 8-4-4 system curriculum allowed for more options in technical and vocational subjects, it experienced serious shortages or lack of essential resources and facilities and the local communities could not be mobilized to provide the facilities required. This is also emphasized by Amutabi (2003) who noted that that 8-4-4 encountered numerous challenges such as lack of involvement of relevant stakeholders, infrastructures such as classrooms, workshops, curriculum, trained personnel, literature and pedagogy. This indicates that the goal of training graduates for self-reliance through introduction of a vocational oriented curriculum was bound to fail since the new curriculum required many facilities for practical subjects such as art and craft, agriculture, music and home science which were not available.

A curriculum for self-reliance requires pedagogical approaches and assessment procedures that enhance acquisition of skills for this goal. However, according to Amutabi (2003) the new system was theoretically oriented due to lack of infrastructure. In addition, at the schools level, standard examination in agriculture, art and craft, Music and Home Science consisted of multiple-choice type of questions (Ambaa, 2015). Although this type of examination has the advantage of objectivity and easy marking, its validity to predict the school leavers' ability in higher level of education training and self-employment was doubtful (Owino, 1997).

The 1999 Report of the inquiry into the education system of Kenya (Koech report) was believed to be a panacea to the challenges facing the 8-4-4 education system. It was termed as the Totally Integrated Quality Education and Training chaired by David Koech. The commission noted that the quality of education at primary and secondary school level had rapidly deteriorated, attributing this to overloaded curriculum, inadequate physical facilities, equipment and teachers (Ambaa, 2015). The various amendments made on the content of the 8-4-4 curriculum greatly impacted on the capacity of the system to produce self-reliant individuals as had been envisaged in its formulation. In addition, the concept of self-reliance had been narrowly conceived in that policy makers assumed that self-reliant individuals would be produced by just introducing vocational and practical subjects into the school curriculum.

Kenya started the process of overhauling its education system for the first time in 32 years in January 2018. The 8-4-4 system of education that the country has been operating on and whose guiding philosophy was education for self-reliance will gradually be replaced by the competency based 2-6-6-3 curriculum. Part of the reasons behind this huge overhaul is the realisation that Kenya isn't doing enough to produce school-leavers who are ready for the world of work (Sifuna, 2016). The government's own assessments have showed that the current system isn't flexible. It struggles to respond to individual pupils' strengths and weaknesses. The Kenya Institute of Education produced an evaluation report about the 8-4-4 system in 2008 which identified several weaknesses with the system of education: It found that the system was very academic and examination oriented; the curriculum was overloaded; most schools were not able to equip their pupils with practical skills and many teachers also weren't sufficiently trained (Sifuna, 2016). In this sense, the 8-4-4 system could be said to have failed in its core aim of preparing all learners to be self-reliant.

Drawing from the institute's evaluation and a 2012 report by the Ministry of Education, the government of Kenya developed a plan to reform education and training. Some of the plan's aims include: developing learners' individual potential in a holistic, integrated manner while producing

intellectually, emotionally and physically balanced citizens; introducing a competency-based curriculum that focuses on teaching and learning concrete skills rather than taking an abstract approach; establishing a national assessment system that caters for the continuous evaluation of learners; putting in place structures to identify and nurture children's talents from an early age; and, introducing national values, cohesion and integration into the curriculum (Sifuna, 2016). The proposed new system will try to develop vocational and technical skills in a bid to meet Kenya's demand for skilled labour and its push for greater industrialisation.

From literature reviewed on the 8-4-4 system of education, it is apparent that the core aim of the system from its inception was to prepare learners to be self-reliant individuals. The content of the curriculum was arranged so as to impart vocational type of skills to learners, with the hope of preparing them to be self-reliant. However, it is observed that the 8-4-4 was hurriedly implemented, without adequate consultation and involvement of stakeholders, provision of adequate facilities and infrastructure and training of teachers for implementing the new curriculum (Sifuna, 2016; Ambaa, 2015, Simiyu, 2001; Amutabi, 2003; Eshiwani, 1993; Kamunge, 1988). Parallels have been drawn between the manner in which the 8-4-4 education system was introduced and the way the 2-6-6-3 system was introduced at the beginning of 2018. Sifuna (2016) raised concerns over the cost of the new curriculum and the extent to which teachers and other implementers of the curriculum were prepared for the new curriculum approach. Kenya continues to produce graduates at all levels of education who lack knowledge, skills and attitude to rely on themselves and dependency levels continue to be a major challenge to the economy of this country. Not much attention has been paid to the role played by colonialism and the legacy of colonial education as well as the adoption of a Eurocentric type of pedagogical approaches after independence.

Pedagogy is the art and science of how teaching and learning is practiced, or how it unfolds, and how students learn what is taught (Fomunyan, 2013). Pedagogical practices include the manner in which teaching and learning takes place, the teaching and learning approach, the diverse ways through which content is taught and what students take home from the teaching and learning process (Fomunyan, 2017). Teaching and learning is what a teacher or lecturer should know, and the skills the lecturer has to command so as to make and justify the numerous different kinds of decisions that constitute teaching and learning (Cogill, 2008). Decolonising the pedagogical approaches would be one way of ensuring that the Kenyan education system is decolonised.

Heleta (2016) argues that decolonisation is about the incorporation African perspectives, experiences and epistemologies as the central tenets of the curriculum, teaching, learning and research in the education systems. Going back to African epistemological and ontological practices to develop the pedagogical approaches used in communicating knowledge would be one way of ensuring that African perspectives and experiences reach the forefront in education in general. The pedagogical approaches used before the advent of colonisation need to be revisited and developed to ensure the decolonisation of teaching and learning (Fomunyan, 2017).

McGregor (2012) argues that decolonising pedagogy is all about developing and using approaches that would help students come to the understanding that structures of colonisation still exist and be able to navigate or dismantle such structures. Decolonising pedagogy is also about developing and employing strategies and approaches which disrupt those structures at an individual and collective level, resulting in the re-centering of indigenous or African ways of knowing or teaching and learning, being and doing and facilitate engagement with possibilities for making change using the

learning experienced (Fomunyan, 2017). Pedagogical approaches therefore are key in the decolonisation of education and until this is done, decolonisation would still be a foreign term in education.

Statement of the Problem

Kenya, like many developing nations is facing the challenge of producing large numbers of school leavers and graduates of the school system with an economy that cannot sustainably create new jobs to cater for the new entrants into the job market. Since independence, the Government of Kenya has focused on producing self-reliant individuals through various education policies, including the introduction of the 8-4-4 system of education and development of Technical and Vocational Education and training. However, the World Bank, UNESCO and various researchers have questioned the extent to which the education system inculcates self-reliance among students. Not much attention has been given to the colonial experience in education and the subsequent introduction of Eurocentric curriculum, pedagogical methods, learning environment and colonial evaluation procedures to the Kenyan education system. This study sought to establish the influence of decolonizing the Kenyan education system on self-reliance among students.

Objectives of the Study

The following objective guided the study:

To establish the influence of decolonizing pedagogical approaches on self-reliance among students in the Kenyan education system.

Methodology

This study utilized the descriptive survey design and the correlational research design. The choice of these two research designs was informed by the fact that descriptive and inferential data analysis was required in this study. The study was carried out in Universities in Kenya. Students who are graduates of universities and have been out for at least two years also participated in the study. Members of the academic staff and fourth year students in the faculties or schools of education in the sampled universities were purposively selected to participate in the study. Simple random sampling was used to select at least 27 fourth year bachelor of education students in each of the selected universities to participate in this study. Fourth year students in the faculties of education were selected since they were expected to possess sufficient information regarding the education system in Kenya with regard to self-reliance and also about the colonial education and African indigenous education. A sample size of 384 respondents made up of 60 members of academic staff and 324 fourth year bachelor of education students was selected to participate in the study. For further exploration of issues under study, in depth interviews were carried out with deans of faculties of education in selected university as well as with individuals who have recently graduated from universities. Snowball sampling was used to select 15 graduates who have graduated in the last two years from universities to participate in the study. Graduates were selected since they are expected to have information on both the education system in Kenya and the world of work especially with regard to employment, underemployment, dependency, self-employment and self-reliance. The research instrument used for data collection included questionnaires and interview schedules

Results and Discussions

The objective of this study was to establish the influence of decolonizing pedagogical approaches on self-reliance among students in the Kenyan education system. Decolonizing pedagogical approaches as conceived in this study involves integrating aspects of African indigenous methods of instruction into the contemporary instructional (pedagogical) approaches in Kenya. Two sets of items were included in the questionnaire to measure the teacher's role, learner's role, content delivery method, teacher/learner relation, and choice of method of instruction in both the contemporary Kenyan education system and in the indigenous African education system.

Contemporary Pedagogical Approaches

Thirteen items were developed to measure the extent to which the Kenyan education system uses pedagogical approaches which theoretical and empirical literature indicates as important in promoting self-reliance. Respondents were required to rate the extent to which they agreed with the selected statements describing pedagogical approaches in the contemporary Kenyan education system. The findings are presented in Table 1

Table 11
Means on Contemporary Pedagogical Approaches

Statement	N	Mean	S.D	C.V
Teachers use group discussions effectively	384	2.85	1.23	43.24
The lecture method of teaching is not common in our school classrooms	383	2.46	1.27	51.56
There is extensive use of experimentation in Kenyan school classrooms	384	2.43	1.12	46.03
There is effective use of field study in the Kenyan education system	384	2.47	1.19	48.07
Resource persons are often used in classrooms	384	2.38	1.21	50.69
Teachers allow learners to learn through discovery	384	2.61	1.18	45.09
Teachers assign projects to learners	384	3.10	1.21	39.02
“Role play” is often used to explain concepts in classrooms	384	2.90	1.17	40.40
Teachers encourage problem solving skills rather than memorizing of facts by learners.	384	2.86	1.35	47.02
Learners choose what to learn and how to learn it.	384	2.16	1.28	59.28
Teachers focus on acquisition of competence, not coverage of syllabus	384	2.39	1.29	54.00
Teachers spend more time on practical lessons than on theory.	384	2.22	1.27	57.06
Overall Mean Score	384	2.57	1.23	48.45

Results on Table 27 show that the overall mean for the Items measuring the contemporary Kenyan pedagogical approaches was 2.57 with a standard deviation of 1.23. This shows that respondents disagreed with most of the statements describing the presence of selected pedagogical approaches in the contemporary Kenyan education. The suggestion that learners choose what to learn and how to learn it was rated lowest with a Mean of 2.16 and S.D=1.28. This shows that respondents do not think that learners make the choice on what to learn. Respondents also disagreed with the statement

that “teachers spend more time on practical lessons than on theory with a Mean of 2.22 and S.D=1.27. This means that lessons in Kenyan classrooms are mainly theoretical in nature. Other statements that respondents disagreed with include “Resource persons are often used in classrooms” (Mean=2.38, S.D=1.21) and “Teachers focus on acquisition of competence, not coverage of syllabus (Mean=2.39, S.D=1.29). This indicates that teachers hardly use resource persons in their classes and that focus is mainly on coverage of syllabus rather than acquisition of competence.

From the information presented on Table 1, it is clear that the contemporary education system in Kenya does not adequately employ pedagogical approaches that could promote self-reliance. Pedagogical approaches that develop learners’ creativity, confidence and innovativeness such as field study, experimentation, discovery method, practical lessons, projects and use of resource persons are not adequately utilized in the classrooms. Studies in other Countries have recorded similar findings. Vavrus (2009) in a study carried out in Tanzania reported that teaching was generally characterized by didactic and teacher-centered approaches that used rote memorization as the primary approach.

In another study in Tanzania, Ahmad (2014) found that at all levels of education, efforts were geared towards knowledge acquisition and the memorization of facts (rote learning) in order to pass examinations with good grades and qualify for the next level or, alternatively, to enter the labour market as unskilled workers. This was viewed as being contrary to the spirit of learning for self-reliance and the new reality of preparing pupils for jobs that demand marketable skills (Ahmad, 2014). Arenas, Reyes and Wayman (2010) observed that modern schools nurture mostly indoor, decontextualized, and academic learning whereby children spend about 1,000 hours a year at school, encircled by four walls for the vast majority of this time. Learners are exposed to the world second hand, through lectures, books, and electronic audiovisual materials, and their knowledge is divorced from the earth, plants, and animals that surround the school (Berry 1990; Smith 1992; Sobel 2004). Children end up learning the deceptive message that the actual experience of the phenomenon is pointless and intellectual discernment is the main reputable avenue for knowing. Mackatiani (2017) found that teachers in Kenyan schools concentrate on the impartation of knowledge through traditional approaches that concentrate on theoretical skills and rote learning approaches to enable pupils pass national examinations. Makatiani further concluded that pupils are enslaved through reliance on teachers who provide knowledge by use of teacher centered approaches.

African Indigenous Pedagogical Approaches

Decolonizing pedagogical approaches involves integration of elements of indigenous African pedagogy into the Kenyan education system. Nine items describing aspects of indigenous African pedagogical approaches were included in the questionnaires for this study. Respondents were asked to rate the extent to which each of the aspects would enhance the Kenyan education system. The results are presented on Table 2

Table 2
Means on African Indigenous Pedagogical Approaches

Statement	N	Mean	S.D	C.V
Learning practical skills from experts	384	3.62	1.29	35.53
Having teachers who take a close personal interest in the learner	384	3.75	1.22	32.61
Teachers seeing students as people who must be nurtured	384	3.90	1.13	29.09
Changing role of student from passive receiver of knowledge to a reflective thinker and problem solver	384	4.05	1.18	29.06
Making student actively involved in his/her own learning	384	3.89	1.18	30.28
Having teachers who are not transmitters of knowledge but facilitators of learning	384	3.85	1.22	31.62
Embracing parents, members of community and various experts as potential teachers for students	384	3.65	1.23	33.69
Insisting more on demonstration rather than explanation	384	3.87	1.20	31.08
Laying more emphasis on practical rather than theoretical learning	384	3.97	1.27	32.05
Overall Mean Score	384	3.84	1.21	31.67

According to information on Table 2, the overall mean for the African pedagogical approaches was 3.84 with a standard deviation of 1.21. This implies that respondents rated the selected elements of the African indigenous curriculum as useful to a large extent in improving the Kenyan education system. Respondents rated “Changing role of student from passive receiver of knowledge to a reflective thinker and problem solver” highest with a mean of 4.05 and S.D=1.18. This means that respondents considered the suggestion as useful to a large extent in improving the contemporary education system. Laying more emphasis on practical rather than theoretical learning was also highly rated with a Mean of 3.97 and S.D=1.27. This means that respondents considered the indigenous African approach of laying emphasis on practical lessons as useful to a large extent.

From the results presented in Table 2, respondents rated as useful to a large extent, the integration of elements of African indigenous pedagogical approaches into the contemporary Kenyan education as a way of improving it. This finding is in consonance with other studies on decolonization and integration of indigenous pedagogies into contemporary education systems. Kanu (2011) found that classrooms with the most thorough integration of indigenous pedagogy outperformed their counterparts on tests and examinations, showed higher-level thinking, and confidence, and among Indigenous students, there was better attendance. Kaya and Seleti (2013) in rooting for use of community experts posited that the wealth of knowledge that still exists among the elders and other knowledge holders in African local communities demonstrates the vibrant intellectualism to which African researchers and intellectuals should turn. Hamilton-Ekeke and Dorgu (2015) postulated that for learners and instructors, the inclusion of indigenous methods into schools often augments educational efficacy by providing an education that adheres to an indigenous person’s own characteristic perspectives, experiences, language, and customs, thereby making it easier for children to transition into the realm of adulthood.

Respondents were asked to suggest aspects of teaching/learning methods used in Kenyan schools that may limit development of self-reliant learners. Their responses are recorded on Table 3

Table 3

Pedagogical Aspects hindering Self-reliance

Suggestion	Percentage
Overuse of lecture method of instruction/Teacher-centred instruction	51%
Overuse of textbooks/copying notes from textbooks/dictation of notes	6%
Over-emphasis on passing exams/Drilling students/coaching/exam-oriented teaching	11%
Rote learning	6%
Emphasis on explanation rather than demonstration/Spoon feeding rather than problem solving/theoretical teaching	21%
Too much assignments/Homework	5%

Information on Table 33 shows that Majority of the respondents (51%) suggested that Overuse of the lecture method of instruction and teacher-centred instruction was an hindrance to acquisition of self-reliance by students. Emphasis on explanation rather than demonstration/Spoon-feeding rather than problem solving/theoretical teaching was suggested by 21% of the respondents. Over-emphasis on passing exams/Drilling students/coaching/exam-oriented teaching was suggested as a possible hindrance to acquisition of self-reliance skills by Kenyan students by 11 % of the respondents. Other aspects of the Kenyan education system suggested as likely to hinder self-reliance among students include: Overuse of textbooks/copying notes from textbooks/dictation of notes (6%), Rote learning (6%) and too much assignments/Homework (5%).

Other studies have argued against teacher-centred methods of instruction in favour of more heuristic approaches. Ogunniyi and Ogawa (2008) suggest that learners must be provided with opportunities to undertake problem-solving activities and to argue, dialogue, discuss and express themselves freely without feeling intimidated.

Correlation Analysis of Pedagogical Approaches and Self-reliance

The Pearson's Product Moment technique was used to carry out Correlational analysis to determine the relationship between indicators of contemporary Kenyan pedagogical approaches, decolonized (integrated) pedagogical approaches and self-reliance. It was meant to identify the strength and direction of the association between the indicators of these variables. The results are presented on Table 4

Table 4

Correlation Analysis of Pedagogical Approaches and Self-reliance

		Contemporary Pedagogical Approaches	Decolonizing Pedagogical	Self- reliance
Contemporary Pedagogical Approaches	Pearson	1		
	Correlation			
	Sig. (2-tailed)			
	N	384		
Decolonizing Pedagogical	Pearson	.807**	1	
	Correlation			
	Sig. (2-tailed)	0.000		
	N	384	384	
Self-reliance	Pearson	.660**	.749**	1
	Correlation			
	Sig. (2-tailed)	0.000	0.000	
	N	384	384	384

** . Correlation is significant at the 0.01 level (2-tailed).

The results of the Pearson's product moment correlation analysis as presented in Table 31 show varied degrees of interrelationships. The contemporary pedagogical approaches are statistically significantly correlated with self-reliance ($r= 0.660$; $p < 0.01$ and sig. 2 tailed = $0.000 < 0.05$). Similarly, decolonizing pedagogical approaches have a strong and statistically significant correlation with self-reliance ($r=0.749$; $p<0.01$ and sig. 2 tailed= $0.000<0.05$). This shows that that increase in both the contemporary and decolonizing curriculum would lead to increase in self-reliance among students. The results also reveal that the decolonizing pedagogical approaches have a stronger correlation with self-reliance than the contemporary approaches. This means that decolonizing the pedagogical approaches in the Kenyan education system would result in improvement in self-reliance among students.

Regression Analysis and Hypothesis Testing

The second objective of the study was to establish the influence of decolonizing pedagogical approaches on self-reliance among students in the Kenyan education system. Decolonizing Pedagogical approaches were conceived in terms of integrating elements of African indigenous pedagogical approaches into the contemporary Kenyan classrooms and pedagogical approaches. The measures of the Pedagogical approaches (contemporary and indigenous African) included the teacher's role, learner's role, content delivery method, teacher/learner relation, and choice of method of instruction.

Respondents had been asked to indicate the extent to which they agreed with statements about pedagogical approaches used in the contemporary Kenyan education system. Respondents were also asked to rate the extent to which various African indigenous pedagogical approaches would enhance the Kenyan education system. Self-reliance measures were composed of attitude, creativity, responsibility, autonomy, hard work, confidence in own capabilities and self-esteem. To determine the relationship between decolonizing pedagogical approaches and self-reliance, the following hypothesis was tested.

H₀₂: There is no statistically significant relationship between decolonizing pedagogical approaches and self-reliance among students in the Kenyan education system.

The results of the regression analysis of pedagogical approaches and self-reliance are presented in Table 5

Table 5: Regression Analysis of Pedagogical Approaches and Self-Reliance

a).The Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Contemporary	.660 ^a	0.436	0.434	0.48955
Decolonizing	.749 ^a	0.562	0.560	0.43145

b).The Overall Significance of the Model

Model		Sum of Squares	df	Mean Square	F	Sig.
Contemporary	Regression	70.630	1	70.630	294.712	.000 ^b
	Residual	91.549	382	0.240		
	Total	162.178	383			
Decolonizing	Regression	91.070	1	91.070	489.239	.000 ^b
	Residual	71.108	382	0.186		
	Total	162.178	383			

c).The Individual Significance of the Model

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Contemporary	(Constant)	1.219	0.127		9.623	0.000
	Pedagogical Approaches	0.680	0.040	0.660	17.167	0.000
Decolonizing	(Constant)	-1.174	0.206		-5.704	0.000
	Pedagogical Approaches	1.233	0.056	0.749	22.119	0.000

a).Dependent Variable: Self-reliance

The results in Table 5 show that decolonizing pedagogical approaches had a statistically significant relationship with self-reliance. The coefficients of determination for the contemporary pedagogical approaches and for the decolonizing pedagogical approaches were 0.436 and 0.562 respectively. This suggests that 43.6 % of variation in Self-reliance is explained by the contemporary pedagogical approaches. In addition, decolonizing pedagogical approaches explained 56.2% of variation in self-reliance. On the basis of this result the study revealed that Decolonizing pedagogical approaches have moderate significance towards self-reliance.

Information in Table 32 in addition indicate that the contemporary pedagogical approaches significantly influenced self-reliance with F Statistic =294.712 and a P-value of 0.000<0.05. The decolonizing pedagogical approaches with an F statistic =489.239 and a P-value of 0.000<0.05 was also revealed as having had a significant relationship with self-reliance. This implies that the model is statistically significant at 5% level of significance.

Table 5 further contains results that indicate that the contemporary pedagogical approaches were considered statistically significant with a regression coefficient of 0.680, a t-value of 17.167 and a P-value of $0.000 < 0.05$. This suggests that one unit change in the current Kenyan pedagogical approaches corresponds to increase in self-reliance by a factor of 0.680. Further, the study reveals that there exists a significant relationship between decolonizing pedagogical approaches and self-reliance at 5% level of significance (regression coefficient=1.233, t-value=22.119, and P-value $0.000 < 0.05$). This implies that for one unit change in decolonizing pedagogical approaches, there is an increase in self-reliance by a factor of 1.233.

In conclusion the study revealed that the contemporary pedagogical approaches and the decolonizing pedagogical approaches contributed significantly towards self-reliance. The Null hypothesis that there is no significant influence of decolonizing pedagogical approaches on self-reliance is not supported in the current study. The regression model for the prediction of self-reliance can be stated as follows:

$$Y = 1.219 + 0.680X_{21}$$

$$Y = -1.174 + 1.233X_2$$

Where:

X_{21} = Contemporary pedagogical approaches

X_2 = Decolonizing pedagogical approaches

Y = Self-reliance

1.219 = Y-intercept (constant). Estimate of expected value of self-reliance when contemporary pedagogical approaches is Zero.

-1.174 = Y-intercept (constant). Estimate value of self-reliance when decolonizing pedagogical approaches is Zero. (constant)

0.680 = an estimate of the expected increase in Self-reliance in response to a unit increase in Kenyan pedagogical approaches

1.233 = an estimate of the expected increase in Self-reliance in response to a unit increase in Decolonizing pedagogical approaches.

Based on the findings of this study, it was revealed that decolonizing pedagogical approaches (with a regression coefficient =1.233) have a greater influence on self-reliance that the contemporary curriculum (regression coefficient= 0.680). This shows that decolonizing pedagogical approaches would improve self-reliance among students.

This finding is in consonance with the opinions expressed by participants in the interviews on decolonizing pedagogical approaches and self-reliance. It was suggested that self-reliance as an outcome of education depended on among other things, the approaches employed to transmit knowledge, skills and attitudes to the learner. Self-reliance was seen as a consequence of possession of practical skills and a positive attitude towards work that learners could employ in their societies to earn a living. It was suggested that teachers need to pay more attention to the learning process by affording learners opportunities to participate in the discovery and construction of knowledge in a manner modelled along African indigenous education practices. Participants observed that the Kenyan education system was not sufficient to train learners for self-reliance because it still suffered “colonial hangovers” that sustained teacher-centred methods of instruction where the teacher (colonizer) dominated over the learners (colonized).

Participants opined that decolonizing the process of learning through integration would promote self-reliance since African indigenous educators employed methods of teaching and learning that

gave the learner the opportunity to acquire knowledge and skills in a manner that prepared them to use them to survive in their environment. Learning in the African indigenous sense emphasized acquisition of practical skills rather than theory. Educators taught mainly through demonstration rather than explanation and the children were trained mainly through solving of problems. Participants suggested that these methods of learning produced individuals who had skills for living a life of self-reliance in their own societies. It was suggested that the Kenyan education system needs to be enriched through integrating indigenous pedagogical approaches as a way of training students for a life of self-reliance. Learners need to be exposed to learning by doing. This is expected to facilitate the development of the learners' creativity which is vital in propagation independent individuals who are creative enough to use the knowledge gained in class to solve problems within their environment.

The findings in this study are in agreement with Omolewa (2007) who suggested that the holistic approach of African indigenous education as a strategy for teaching and learning is valid because the learner is liberated from the authoritarianism of the teacher, the curriculum and the institution frees him/her to develop self-discipline, engage in self-directed learning and self-fulfillment. The findings in this study are also in consonance with Okpara & Diovu (2016) in a study in Nigeria on integration of indigenous knowledge and practices into chemistry teaching and students' academic achievement where they found that integration of indigenous knowledge and practices into chemistry teaching enhances students' understanding and achievement in chemistry. Cadwallader (2004) also found that when indigenous knowledge was systemically and holistically included into schools, students' achievement improved. It is also in line with Abonyi (2002,) who revealed that ethnosience-based instructional package facilitates interest in science. The improved interest in ethnosience which is also indigenous science could be due to the wealth of knowledge and experiences of both male and female students from cultural practices.

Conclusion

The study showed that decolonizing the pedagogical approaches in the Kenyan education system through integrating elements of African indigenous education into the contemporary pedagogical approaches had significant relationship with self-reliance. Changing role of student from passive receiver of knowledge to a reflective thinker and problem solver as well as laying more emphasis on practical rather than theoretical learning had the highest mean scores. Teachers' insisting more on demonstration rather than explanation was also rated well for promoting self-reliance among students.

Recommendations

- i. Pedagogical approaches need to be reviewed so as to accommodate experts in the communities as potential instructors especially for community-centred skills and knowledge.
- ii. Curriculum planners should be encouraged to help to integrate self-reliance skills modeled along the lines of African indigenous educational practices into contemporary Kenyan education.
- iii. There is need to embrace the African practice of wholesome moulding of each child into a functional and self-reliant member of family and the community in which all members of the community participate in the education of children.

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