

Effect of Curriculum Content on Employability Competency of University Graduates in Nairobi City County, Kenya

¹Shilaho Jimmy Muteshi, ²Waruingi Alice, ³Kitur John

¹Lead Researcher, ²Primary Supervisor, ³Secondary Supervisor

¹Department of Education,

¹Africa International University, Nairobi, Kenya

Shilaho.Muteshi@AfricaInternational.edu, Alice.Waruingi@AfricaInternational.edu,

John.Kitur@AfricaInternational.edu

Abstract – Close to half Kenyan employers are dissatisfied with the level of skills of the graduates being churned out of Kenyan universities every year. This study sought to establish the effect that curriculum content has on the employability competency of the graduates produced by higher education institutions in Nairobi City of Kenya. The researcher utilized concurrent triangulation research design, a mixed method that provided for use of both qualitative and quantitative methods. A total of 379 fourth year students were randomly selected through stratified sampling from universities located within Nairobi County. Quantitative data was collected from fourth year students in their final semester of study in 15 universities in Nairobi City County and qualitative data collected from 30 curriculum developers and 25 potential employers in the labor market. At least 60.2% of the learners were satisfied with the curriculum content of the courses they had enrolled for, leaving out close to 40%. The study recommends restructuring of university undergraduate curricula, enhancing the vocational role of university courses, and introduction of work integrated learning and apprenticeship programs for learners.

Index Terms — Employability, employability competency, cognitive apprenticeship, situated learning, work integrated learning (*key words*)

I. INTRODUCTION

Access to skilled employees has in the past been identified as an ingredient for driving labor productivity, attracting direct foreign investment, and transitioning the economy of a country to a knowledge driven one, yet advanced economies have been grappling with insufficient supply of talent, with the demands of the workforce not matching the skill set supplied by higher education institutions (Jamil, 2020). Among engineering graduates from Malaysian Universities for example, studies report that graduates are not meeting the job market's expectations in terms of skills (Paramasivam, 2017). The author further reveals that changing the teaching mode and enhancing teaching and learning processes can produce graduates with greater employability competency.

Research reveals that in the United Kingdom, a similar gap exists between employers' expectations of employability and what the government has been doing, with the author noting that graduate employability is often used as an instrument of measuring the quality of education that a university provides (Cheng et al., 2021). In Australia, studies show a pronounced deficit among Australian Higher Education graduates, with most of them not being work-ready at the time of their graduation (Prikshtat et al., 2020). The authors established that vocational education and higher education institutions in Australia do not prepare graduates for work-readiness and called for an integrated approach from all stakeholders that could facilitate the shift from school to work and reduce the duration between graduation and employment.

Ayoubi, Alzarif & Khalifa (2017), while studying the employability of Syrian business graduates blame unemployment on a disconnect between employers and policy makers, while other researchers have presented the view that the primary purpose of universities should be to help graduates obtain the necessary knowledge and skills required by the labor market (Sato et al., 2021). In Nigeria, an economy that is larger but similar to Kenya's, several employers feel that the graduates produced by higher education institutions in the country are not employable and concludes that a better understanding of the needs of the labor market can enhance the prospects of those graduating (Okolie, Nwosu & Mlanga, 2019). In South Africa, a study established that 'there was a disjuncture between undergraduate economics skills and those required by the industry, even though employable graduates are an asset to employers (Ngulube, 2020). The study recommended that curriculum and pedagogy be adjusted to improve the work-readiness of graduates by aligning employability competency of graduates with the requirements of the labor market.

A report commissioned and published by the African Development Bank suggests that the number of graduates entering the labor market on the continent far exceeds the available job opportunities and decries the skill vs. opportunity mismatch that exists between what the graduates can do, and what the industry wants (African Development Bank, 2020). A study conducted in Namibia recommended that universities design stand-alone modules that cultivate employability competency, while integrating these modules

with many work-integrated learning experiences that will help students to practice employability attributes and technical skills (Shivoro, Shalyefu & Kadhila, 2017).

A recent study on employability of graduates conducted in Uganda among students of Kyambogo University and potential employers in the country established that there was a significant statistical difference between employability perceptions held by students, vis-à-vis those held by employers (Tagulwa et al., 2023). The study concluded that graduates not only require theoretical knowledge and skills, but also require other employability attributes such as creativity, entrepreneurship, innovation, a positive attitude, teamwork, and collaboration. The authors called on universities to make their graduates more employable by conducting job market analyses, establishing research partnerships and collaborations with local industries, and providing more field studies and practical sessions for their students.

In Kenya, there are very high levels of unemployment among graduates, with some researchers questioning whether the course designers in the country's universities understand the trends in the labor market (Kyuli & Mwebia, 2016). An article published in the University World News showed that close to half of Kenyan employers were dissatisfied with the level of skills of the graduates being churned out of Kenyan universities every year (Nganga, 2020). The author, while quoting results from a study conducted by CPS International, a market research firm, notes that an estimated 60% of the employers who were polled preferred skilled individuals who had either economics or business-related qualifications, as well as social or behavioral sciences as opposed to those who had studied sciences and technology.

Gateru and Kiguru (2014) posit that the higher education sector in the country has not been able to resolve the employability challenge, with more than half of the graduates not being job-ready upon graduation. According to their study findings, 35% of the lecturers did not guide their students in translating what they had learned in class to employability competency, and instead delivered theoretical knowledge only, with only 21% of the students feeling that extra-curricular activities enhanced their employability competency. A whopping 69% failed to articulate any employability skills that they had acquired through routine class work and could not translate what they had studied into real-life problem solving beyond the classroom.

On curriculum content, some authors critique the model of teaching employed by university lecturers in which instructors feel they must cover all the content in the syllabus and explain that this prevents students from meaningfully interacting with curriculum content (Petersen et al., 2020). According to the authors, courses should be revised to allow for evidence-based approaches that will identify key concepts and competencies, create an organizational framework for these competencies, and teach students how to learn in their disciplines, hence changing from the traditional teacher centered approach to more learner centered approaches. Vereijken & van der Rijst (2020) explain that the central aim of teaching in an institution of higher learning is to transform the conceptual understanding of disciplinary knowledge by students, and lecturers must decide on subject matter, as well as teaching approaches.

II. LITERATURE REVIEW

On curriculum content, some authors critique the model of teaching employed by university lecturers in which instructors feel they must cover all the content in the syllabus and explain that this prevents students from meaningfully interacting with curriculum content (Petersen et al., 2020). According to the authors, courses should be revised to allow for evidence-based approaches that will identify key concepts and competencies, create an organizational framework for these competencies, and assist learners to understand how to learn in their disciplines, hence changing from the traditional teacher centered approach to more learner centered approaches.

A study in the United Kingdom challenged universities to demonstrate the employability value of preexisting curricula instead of going for a total review or overhaul of their curricula (Daubney, 2021). Other researchers have vouched for different measures altogether, including dropping some courses, some course units, or some majors (Gelman, 2021). Vereijken & van der Rijst (2020) explain that the central aim of teaching in an institution of higher learning is to change the conceptualized understanding of disciplinary knowledge by students, and lecturers must decide on subject matter, as well as teaching approaches.

A study conducted among health sciences students revealed that while the content delivered served to enable students become work-ready, in terms of gaining the requisite knowledge and skills, introducing them to clinical placement, and ensuring support from peers, the substantial academic workload, and poor understanding of the healthcare system deeply affected their development of skills and impaired their work-readiness (Malau-Aduli et al., 2022). According to the authors, students decried lack of topics on building resilience, mental health, and adaptation skills in their curriculum and blamed this for their reduced employability competency.

The knowledge and skills that learners get during their university education has not lived up to the competency expected of graduates by employers (Paramasivam, 2017). The author studied engineering graduates from Hong Kong, Malaysia, Japan and Singapore and established that the content being taught in the countries' universities was deficient. Some authors have piloted internship opportunities and incorporation of work-integrated learning and in some courses in order to boost employability (Jackson, 2013). The author explains that the adoption of workplace learning for a one-year period by universities in the United Kingdom and United States has proven superior in producing work-ready graduates when compared to standard degree programs.

Studies in Australia revealed that students did not have sufficient work readiness skills such as self-management skills, written and oral communication, innovation and creativity, teamwork, among others (Priksat et al., 2020). Enhancing the content taught in higher education institutions with work integrated learning in UK, Australian and New Zealand universities have proven to be a key strategy of boosting graduate work-readiness (Rowe & Zegwaard, 2017). The authors call on universities to redesign their curricula to

place employability at the center of the content delivered to students. Jackson (2013) calls on universities to incorporate employability skills like core business skills, critical thinking, problem solving, collaboration with others, political skills, oral and formal communication skills, confidence, ethics, innovation, and related behavioral attributes in their curricula in order to boost employability.

A study on the possible employability of University of Port Harcourt's graduates in Nigeria called on the need for universities to teach relevant content as a prerequisite to gaining employability competency (Chidinma & Idoghor, 2020). The authors posit that a curriculum that is not well-planned leads to catastrophic effects on the students, particularly on their future, making impartation of relevant skills a necessary recipe for developing graduate competency. Through chi-square tests, the study positively correlated the curriculum content being implemented and the employability competencies of the University of Port Harcourt's education graduates, with employability attributes such as flexibility, commercial awareness, initiative, professionalism, problem solving, teamwork and collaboration, creativity, innovation, and ability to use new technologies being touted as important content that should be incorporated into the university curricula.

In South Africa, a study called on universities to do more in producing work ready graduates since qualifications were no longer enough (Ngulube, 2020). The author, while noting that not all employability attributes are accommodated in the university curricula, posits that university curriculum content should be adjusted to enhance employability. A study conducted among students of Kyambogo University students in Uganda on their work readiness revealed deficiencies in key employability attributes such as innovation, creativity, entrepreneurship, positive attitude, teamwork and collaboration, all of which can be incorporated into the curriculum content (Tagulwa et al., 2023). According to the authors, employers were more concerned with soft skills compared to hard skills.

An Ethiopian scholar posits that every university has the invisible product in the name of knowledge, which remains the most powerful component of any culture, from medieval times when universities focused on content such as church administration, law and the arts, and played the role of vocational schools that enabled their students to gain employment (Alemu, 2018). Alemu seems to suggest that this medieval role of universities has not changed, making the curriculum content offered in universities a cornerstone of graduate employability. In Namibia, a study concluded that employability be built into existing modules in order to contextualize skills and make graduates employable (Shivoro, Shalyefu & Kadhila, 2017). The authors call for integration of aesthetic responsiveness, effective leadership, global perspectives, communication, analysis, social interaction, problem solving, and decision-making into modules.

A report published by UNESCO on the Kenyan experience points out that the advent of the competency-based curriculum (CBC) in Kenya was meant to give learners the necessary skills, knowledge and attitudes that would help them to not only drive national development but also ensure their personal development (Kabita & Ji, 2017). The report further points out that CBC was meant to emphasize what learners could do instead of emphasizing what they were supposed to know like the previous curriculum. The researcher is of the opinion that the reorganization of the curriculum content that took place in basic education is also required in the country's higher education sector.

Some Kenyan scholars have called for a 'reloading' of the university curriculum in order to make it a lot more suitable in solving youth unemployment (Mugambi, Ochieng & Miriti, 2014). The authors further point out that the Kenyan educational system is the traditional type, with the knowledge and skills being acquired by learners being mismatched with the available job opportunities. According to the authors, reloading the curriculum with content such as life skills, technical, vocational and entrepreneurial education will help solve the employability competency challenges currently being witnessed. These findings are consistent with those of Kirui (2019). According to the author, inculcating the right skills such as work ethics, critical thinking, problem solving, leadership, effective communication, interpersonal skills, and other soft skills into the university curriculum.

A recent study questions the demand and market orientation of the curricula used in Kenyan public universities and points out that universities need to partner with the labor market when designing curricula, to ensure that students get the content that will enhance their employability (Mwebia & Kyuli, 2023). The author notes that the skills and knowledge received by university students are not relevant in the job market, and this can only be resolved by working with industry players on reviewing and redeveloping the content that university students are exposed to, if the education quality and the employability of university graduates is to be enhanced. These views are consistent with those of other researchers on the need for work integrated learning (Rowe & Zegwaard, 2017) and inculcating the right skills in the university curriculum (Kirui, 2019).

III. METHODOLOGY

The researcher utilized concurrent triangulation research design, a mixed method that provided for use of both qualitative and quantitative methods. Quantitative data was collected from 379 fourth year students in their final semester of study in 15 universities in Nairobi City County and qualitative data collected from 30 curriculum developers and 25 potential employers in the labor market. The qualitative and quantitative data collected were analyzed concurrently and results triangulated to understand the effects of curriculum design elements on the employability competencies of university graduates. A total of 379 fourth year students were randomly selected through stratified sampling from universities located within Nairobi County. The sample size was determined using Fischer et al. (1998) formula for determining sample size for stratified samples:

$$N = (Z^2 \times p(1-p))/d^2.$$

The study primarily focused on fourth year learners in their last semester of study, in programs that had graduated learners before, provided they were enrolled in campuses within Nairobi City County. Diploma, Post-Graduate Diploma, master's degree and PhD learners were excluded. Students enrolled by these universities in campuses in other counties, other countries or online were also excluded from the study. Students enrolled in university campuses within Nairobi, but whose main campuses were located without Nairobi City County were equally excluded. The researcher used the statistical package for social sciences (SPSS version 27) to produce descriptive statistics from quantitative data. Regression analysis was used to determine whether there are significant statistical differences between curriculum design elements as espoused by Kenyan universities and the employability competency attributes demanded by the Kenyan labor market. Qualitative data collected from curriculum developers and employers was analyzed through thematic analysis. Sentiment analysis was used to explain the nature of relationship between quantitative and qualitative data through triangulation.

IV. RESULTS

On whether the knowledge acquired in their university had adequately prepared them for work, only 46.4% of the respondents felt they were prepared for work, with the remaining 53.6% not sure whether the four-year undergraduate degree they had pursued was adequate preparation. Most importantly, knowledge acquired was deemed slight preparation by 12.7% of the respondents and moderate preparation by a significant 40.1% of the learners interviewed.

Table 4.1 Knowledge as preparation for work

Is the knowledge you have acquired in this university adequate preparation for work?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	3	.8	.8	.8
	Slightly	48	12.7	12.7	13.5
	Moderately	152	40.1	40.1	53.6
	Definitely	176	46.4	46.4	100.0
	Total	379	100.0	100.0	

On skills acquired during their four years of undergraduate studies, 54.1% were not sure whether they had been imparted with the necessary skills for the job market, with 40.4% believing they had been moderately skilled, courtesy of their undergraduate studies, while 10.3% felt the skilling was only slight. A total of 3.4% of the learners felt they had not benefited at all in terms of skilling for professional work. The table below summarizes these findings.

Table 4.2 Necessary skills required for professional work

Has this degree equipped you with the necessary skills required for professional work?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	13	3.4	3.4	3.4
	Slightly	39	10.3	10.3	13.7
	Moderately	153	40.4	40.4	54.1
	Definitely	174	45.9	45.9	100.0
	Total	379	100.0	100.0	

The study also sought to establish whether learners felt that the content they had been exposed to would be useful in their future workplaces, with the majority, 60.2% in agreement that they had adequately benefited from the content. However, a significant 39.8% felt otherwise, raising questions on whether some programs provided learners with useful content. Further sentimental analysis on this category can reveal which specific courses elicited this perception.

Table 4.3 Course usefulness at the workplace

Will the content you learned in this course be useful at the workplace?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6	1.6	1.6	1.6
	Slightly	32	8.4	8.4	10.0
	Moderately	113	29.8	29.8	39.8
	Definitely	228	60.2	60.2	100.0
	Total	379	100.0	100.0	

More than half of the respondents (50.7%) were not sure whether the course they had pursued had adequately addressed the objectives for which they enrolled. Of this category, 39.6% felt the objective had been moderately achieved by the course, 10.0% felt it had slightly been achieved, while 1.1% felt their course had not achieved their objective for enrollment at all.

Table 4.4 Undergraduate course objectives

Has this course adequately addressed the objectives for which you enrolled?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	4	1.1	1.1	1.1
	Slightly	38	10.0	10.0	11.1
	Moderately	150	39.6	39.6	50.7
	Definitely	186	49.1	49.1	99.7
	33.00	1	.3	.3	100.0
	Total	379	100.0	100.0	

The study also sought to establish whether the learners had adequate knowledge on career identification, with 59.1% of the respondents claiming they did not have adequate knowledge on the same. Of these respondents, 44.3% had moderate knowledge on career identification, 11.3% had slight knowledge, while the remaining 3.4% had no knowledge of career identification as revealed by the table below.

Table 4.5 Knowledge of career identification

Do you have adequate knowledge of career identification?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	13	3.4	3.4	3.4
	Slightly	43	11.3	11.3	14.8
	Moderately	168	44.3	44.3	59.1
	Definitely	155	40.9	40.9	100.0
	Total	379	100.0	100.0	

Respondents were also asked if they understood the needs of their potential employers, with 62.5% seemingly unsure of what future employers need in terms of competencies. Close to 5% did not know what employers required, 18.7% said they had slight knowledge, while 39.1% admitted to having moderate knowledge of employer needs.

Table 4.6 Understanding current needs of potential employers

Do you understand the current needs of your potential employers?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	18	4.7	4.7	4.7
	Slightly	71	18.7	18.7	23.5
	Moderately	148	39.1	39.1	62.5
	Definitely	142	37.5	37.5	100.0
	Total	379	100.0	100.0	

On whether the learners had attended interviews, mock interviews or practiced interviewing skills ahead of their graduation, a significant 26.9% had not, with the percentage of respondents who had moderately or slightly undertaken such practice rising to 65.2%. This is a key indicator that universities are not adequately preparing learners beyond the mere impartation of knowledge and skills. The table below breaks down this important statistic.

Table 4.7 Interviewing skills among undergraduates

Have you ever attended an interview, mock interview or practiced interviewing skills?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	102	26.9	26.9	26.9
	Slightly	59	15.6	15.6	42.5
	Moderately	86	22.7	22.7	65.2
	Definitely	132	34.8	34.8	100.0
	Total	379	100.0	100.0	

The study sought to establish the ability of learners to effectively communicate, with an overwhelming majority, 62.3%, claiming they were good at effective communication. However, 27.7% of the respondents ranked their ability to communicate effectively as moderate, 8.4% thought their ability was slight, while 1.6% had no ability whatsoever to communicate effectively. The role of the university in this ability or inability to communicate was, however, not clear and this calls for more in-depth studies on the same.

Table 4.8 Ability to communicate effectively

Are you confident in your ability to communicate effectively?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	6	1.6	1.6	1.6
	Slightly	32	8.4	8.4	10.0
	Moderately	105	27.7	27.7	37.7
	Definitely	236	62.3	62.3	100.0
	Total	379	100.0	100.0	

On decision making ability because of the course they had undertaken, the study established that only 26.7% of the respondents judged themselves to be very good in decision making, while directly attributing their ability to their degree of choice. A total of 73.1% thought they were either good (55.1%), average (17.2%) or poor (0.8%). The distribution of respondents based on courses pursued would possibly reveal the reasons behind this variability in perception.

Table 4.9 Student decision making ability

How good do you rate your decision-making ability because of this course?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	3	.8	.8	.8
	Average	65	17.2	17.2	17.9
	Good	209	55.1	55.1	73.1
	Very Good	102	26.9	26.9	100.0
	Total	379	100.0	100.0	

Regarding their ability to make presentations because of the training received at university, only 30.3% claimed to be very good, with the rest either good, average or poor. This could point to a likelihood of some universities granting learners the opportunity to practice presentation skills in front of their peers as part of their day-to-day learning. The table below sums this up.

Table 4.10 Ability to make presentations

How good are you at making presentations because of the training you received?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	4	1.1	1.1	1.1
	Average	100	26.4	26.4	27.4
	Good	160	42.2	42.2	69.7
	Very Good	115	30.3	30.3	100.0
	Total	379	100.0	100.0	

The study also sought to establish the role of the university in equipping learners with time management skills as part of their preparation for the job market, with 3.7% admitting they were poor at time management. Only 35.1% claimed to be very good in time management with the rest either good or average.

Table 4.11 Time management among undergraduates

How good are you with time management because of the training you received?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	14	3.7	3.7	3.7
	Average	80	21.1	21.1	24.8
	Good	152	40.1	40.1	64.9
	Very Good	133	35.1	35.1	100.0
	Total	379	100.0	100.0	

The study also sought to establish the role played by universities in inculcating teamwork and collaboration among learners, with only 41.2% claiming they were very good at this. A significant 18.5% felt they were still average in terms of teamwork and collaboration despite undertaking a four-year degree course, while 40.4% claimed they were good at it. The table below reveals the breakdown.

Table 4.12 Teamwork and collaboration among undergraduates

How good are you at teamwork and collaboration because of the training you received?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	3	.8	.8	.8
	Average	67	17.7	17.7	18.5
	Good	153	40.4	40.4	58.8
	Very Good	156	41.2	41.2	100.0
	Total	379	100.0	100.0	

On researching skills, the study established that only 28% of the learners surveyed felt they were very good at researching because of the training they had received at the university. A small percentage, 2.4%, felt they were poor in researching, 22.4% thought they were average, while 47.2% said they were good.

Table 4.13 Researching skills among undergraduates

How good are you in your research skills because of the training you received?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	9	2.4	2.4	2.4
	Average	85	22.4	22.4	24.8
	Good	179	47.2	47.2	72.0
	Very Good	106	28.0	28.0	100.0
	Total	379	100.0	100.0	

The study also sought to establish the ability of the learners to write good resumes and cover letters because of the four-year training they had received, with only 22.7% appearing sure of their capability. The remaining 77.3% thought they were either poor (4.7%), average (40.9%) or good (31.7%). This calls on universities to better prepare their graduates for the job market by incorporating CV and cover letter writing into their undergraduate programs.

Table 4.14 CV and cover letter writing ability

How good are you with CV and cover letter writing because of the training you received?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	18	4.7	4.7	4.7
	Average	155	40.9	40.9	45.6
	Good	120	31.7	31.7	77.3
	Very Good	86	22.7	22.7	100.0
	Total	379	100.0	100.0	

The study sought to know whether the finalists had already contacted potential employers ahead of their graduation with only 27.4% indicating that they had made such contact. Majority of the students only had moderate contact (35.1%), slight contact (18.7%), or no contact at all (18.7%). It is important that learners have prior contact with potential employers instead of doing this after graduation.

Inferential Statistics

The researcher used regression and analysis of variance (ANOVA) to establish whether curriculum content, curriculum objectives, instructional methods and evaluation methods had any effect on the employability of university graduates. Soft skills and hard skills imparted among learners had the greatest effect on employability, with changes in the content able to impact the ability of graduates to land gainful employment.

Table 4.14 Employability soft skills

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.409	.407	.55564
a. Predictors: (Constant), Curriculum Content				
b. Dependent Variable: Employability soft skills				

The result indicates an R^2 of 0.409 which implies that 40.9% of variation in employability soft skills can be explained by curriculum content indicating a moderate explanatory power.

Table 4.15 Analysis of variance for soft skills

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.043	1	13.043	238.621	.000 ^b
	Residual	126.304	374	.338		
	Total	139.347	375			
a. Dependent Variable: Employability soft skills						
b. Predictors: (Constant), Curriculum Content						

The overall significance of the model is statistically significant with F-value of 238.62 and a P-value of 0.000<0.05. This means the model was statistically significant at 95% confidence level.

Table 4.16 Regression coefficients for curriculum content

Regression Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.066	.172		12.042	.000
	Curriculum Content	.312	.050	.306	6.215	.000
a. Dependent Variable: Employability soft skills						

Regression coefficient value of the computed composite score of curriculum content of 0.312 with t-statistic of 6.215 and P-value of 0.000<0.05. This implies that a unit change in curriculum content effect change in employability soft skills by a factor of 0.312. Further, the results indicate that curriculum content significantly affects soft skills employability.

Table 4.17 Regression analysis for curriculum content – Hard skills employability

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.663 ^a	.440	.438	.53777
a. Predictors: (Constant), Curriculum Content				
b. Dependent Variable: Employability Hard Skill				

The table indicates an adjusted R² of 43.8%. This means that 44% of variation in employability hard skill is explained by curriculum content in the model and that 56% of the variation is due to factors not considered in this model.

Table 4.18 ANOVA for Curriculum content – Hard skills

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.312	1	5.312	118.369	.000 ^b
	Residual	108.158	374	.289		
	Total	113.470	375			
a. Dependent Variable: Employability Hard Skill						
b. Predictors: (Constant), Curriculum Content						

The overall significance of the model is statistically significant with F-value of 118.369 and a P-value of 0.000<0.05. This means that the model was statistically significant at 95% confidence level. This implies that curriculum content had a statistically significant effect on employability hard skill competencies of university graduates in Nairobi city County, Kenya.

Table 4.19 Regression coefficients for curriculum content

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.238	.159		20.390	.000
	Curriculum Content	.199	.047	.216	4.286	.000

Regression coefficient value of the computed composite score of curriculum content of 0.199 with t-statistic of 4.286 and P-value of $0.000 < 0.05$. This implies that a unit change in curriculum content effect change in employability hard skills by a factor of 0.199. Further, the results indicate that curriculum content significantly affects hard skills employability.

Table 4.20 Regression Analysis – Role of the university in employability

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739 ^a	.546	.545	.478
a. Predictors: (Constant), Curriculum Content				
b. Dependent Variable: Employability Role of University				

The table indicates an adjusted R^2 of 54.6%. This means that 54.6% of variation in employability role of university is explained by curriculum content in the model and that 45.4% of the variation is due to factors not considered in this model.

Table 4.21 ANOVA – Role of the university in employability

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.905	1	23.905	141.983	.000 ^b
	Residual	212.954	374	.569		
	Total	236.859	375			
a. Dependent Variable: Employability Role of University						
b. Predictors: (Constant), Curriculum Content						

The overall significance of the model is statistically significant with F-value of 141.983 and a P-value of $0.000 < 0.05$. This means that the model was statistically significant at 95% confidence level. This implies that curriculum content had a statistically significant effect on employability role of university graduates in Nairobi city County, Kenya.

Table 4.22 Regression analysis – Coefficients for curriculum content

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.302	.223		5.843	.000
	Curriculum Content	.423	.065	.318	6.479	.000

Regression coefficient value of the computed composite score of curriculum content of 0.423 with t-statistic of 5.843 and P-value of $0.000 < 0.05$. This implies that a unit change in curriculum content effects change in employability role of the university by a factor of 0.423. Further, the results indicate that curriculum content significantly affects employability role of the university.

Qualitative Study Findings

According to the curriculum developers interviewed, all universities had a mixture of courses, with the listed departments revealing lack of specialization in any of the academic fields. Courses ranged from arts, information technology, business and social sciences to natural sciences, and religious studies. In terms of who the content that is taught in the respective courses on offer, with curriculum review panels in different departments, subject area specialists in different fields, curriculum developers at departmental level, program leaders, and even program guides given to each lecturer to help come up with content. One of the universities mentioned industry trends and standards as a determinant of the content to be taught. For many universities, it was apparent that lecturers are at liberty to decide what content to deliver, while guided by the curriculum. One of the interviewees also mentioned professional bodies such as KASNEB, while another mentioned the Commission of University Education (CUE). Studies however reveal that the syllabus design template provided by CUE is silent on employability skills, lecturers do not follow this template when designing their course outlines (Maroko & Ndivo, 2021).

On the question of who determines the instructional methods employed by university lecturers teaching undergraduate programs, curriculum developers mentioned the department, industry players, ministry of education, CUE, University Senate, curriculum designers during development, with faculty encouraged to adapt learning strategies to suit different courses and contexts. Other curriculum developers claimed that instructional methods are ingrained in the curriculum during the development process, which are then picked up by the respective tutors. However, most developers said it was the sole prerogative of the respective faculty members, specifically the lecturer handling the unit, to come up with appropriate teaching or instructional methods. One developer even mentioned the university charter and policies as determinants of instructional methods.

On the question of whether universities aided their learners in securing internship and job placements with potential employers or not, all interviewees answered in the affirmative, except two. According to those who claimed to assist their learners, the universities tasked various departments to mentor fresh graduates before they proceeded for internship or placement. Internship offices, deans, campus placement offices, professionals in the field of study, internship workshops, and career guidance workshops were tasked with preparing learners for placement through mentorship. One university mentioned leaving the mentorship to lecturers during classroom teaching to provide this mentorship. Those who did not provide mentorship claimed they only trained fourth year students on how to conduct themselves outside the university. Another respondent claimed that the heavy workload on faculty members made it hard for meaningful mentorship for learners to take place.

Very few universities, among those whose curriculum developers were interviewed, had memorandums of understanding with potential employers on internship and job placement for fresh graduates. Of the few organizations mentioned, majority were schools that absorbed trainee teachers, hotel chains such as Hilton and Safari Park, state corporations such as TSC, KENGEN, KENHA and KPLC, banks such as DTB and KCB, unspecified county governments, and NITA. Most importantly, only 60% of the sampled universities (9 of the 15) had established memoranda of understanding of any sort to ensure their learners accessed internship opportunities, but not necessarily job placement after graduation, even though all of them thought their graduates were work ready.

When called upon to explain why they felt their graduates were work ready by the time they completed their four-year undergraduate programs, a variety of answers were given. One university, CUEA, claimed that most of its graduates landed jobs 'even before graduating' as an indicator of how employable they were but did not provide a specific percentage of those who had been absorbed into the job market before graduating. Another university merely stated that graduates were employable by the mere fact that they had gone through the programs and passed exams, while another claimed that the technical skills provided to their graduates, particularly in computing, made them employable. None of the curriculum developers linked the perceived employability of their learners to hard and soft skills sought after by potential employers.

Another university claimed that the industrial attachment to which they exposed their learners made them work ready, while another mentioned the soft skills imparted in terms of CV writing as a pointer to this work readiness. A curriculum developer at PACU claimed that the courses offered by the university were 'all round' and enabled graduates to work in 'any space' without providing details of how graduates had demonstrated this all-rounded-ness. USIU claimed that they undertake annual longitudinal program assessments, beyond the grades to 'determine and monitor academic progress' and ensure that learners 'have developed the necessary knowledge, skills and competencies' an interesting phenomenon that should be investigated further. No university pointed out what their graduates lack in terms of employability.

Respondents were asked about the employability skills that they impart in their learners to make them work ready, with many of them listing soft skills such as creativity, innovation, critical thinking, high discipline, CV writing, negotiation skills, problem solving, communication skills, higher order thinking, and multiculturalism. Hard skills such as web designing, research, project management, business planning, computer literacy, software development, and 3D software engineering were also mentioned. At least 11 out of the 15 universities (73%) claimed they had been approached by potential employers seeking graduates for internship or job placement. Those who had not been approached thought approaching the public service commission, large corporations, the United Nations, and the red cross would help intern their learners if approached.

Only 60% of the universities (9 out of 15) claimed to have work integrated learning programs in place, with one university citing Work Integrated Learning MOUs with Oracle, IBM, Safaricom, Google, and Cisco, another had MOUs with Wire products Davis and Shurtliff and KPLC, a third had MOUs with KCB, KBC, and Africa 24, while a fourth university had signed MOUs with Chosun University of South Korea, Equity Bank, Decathlon, and Britam. The fifth university listed NITA, the seventh had an MOU with MAERSK, MSC, Shinoko, and Dorman's, while the eighth had MOUs with KENET, Ministry of foreign affairs, Safaricom, and Safari Park Hotel. The ninth university stated that this was confidential information that could not be divulged.

Among those that had not incorporated work integrated learning, three said they were open to such integration, while another claimed it had no framework in place for incorporating work integrated learning. A curriculum developer interviewed stressed the importance of work integrated learning and claimed there was need to incorporate it into undergraduate training programs since it enabled 'the graduates to gain a lot of hands on experience through integrated learning and there was need to expand this to possibly reach the level of 50/50 dual training' if employability competency was to be assured, suggesting more emphasis on work integration.

The researcher purposively sampled the top 30 potential employers named by fourth year university students. Only 25 of the 30 entities identified, representing 83% of the sample, agreed to be interviewed. Of the interviewed CEOs and human resource managers, only 5 (20%) were drawn from public corporations, while the rest were from private companies, revealing the readiness of private company CEOs to provide information. At least 4 out of the 25 firms categorically stated they do not hire fresh graduates, citing company policy, lack of knowledge, lack of skills, and the unrealistic salary demands by fresh graduates as the reasons for not providing them with the opportunity.

Of those that admitted to employing fresh graduates, the most preferred source of fresh graduates was University of Nairobi, with 13 mentions, followed by the Technical University of Kenya, with 7, KCA University with 6, Strathmore University with 5 mentions, and Africa International University, also with 5. Africa Nazarene University, Pan African Christian University, USIU, and Pioneer International University had 4 mentions each, CUEA and Management University of Africa had 3 mentions each, Multimedia

University had 2, while Riara University had one mention. None of the potential employers mentioned Kiriri Women's University of Science and Technology, and Cooperative University of Kenya, despite contributing 1440 graduates to the job market in 2023.

The respondents who felt fresh graduates were competent cited positive attributes such as adaptability, willingness to learn, resilience, agility, curiosity, good interpersonal skills, open mindedness, energetic, industrious and passionate. On whether the fresh graduates given a chance were competent, 10 of the 21 potential employers stated that fresh graduates did not have the necessary knowledge and skills demanded by the job market, representing 47.6%. The respondents further claimed that the fresh graduates did not have expertise, lacked hands-on experience, lacked emotional intelligence, did not have corporate presence, lacked personal branding, lacked endurance, self-sacrifice, ability to handle pressure, ability to handle stress, lacked conflict resolution skills, lacked corporate posture, lacked commitment, and no eagerness to learn.

Respondents were also asked whether they had been contacted by universities seeking internship or job placement opportunities for their students, with 15 out of 25 (60%) stating they had never been approached. Among the 40% that had been approached for an MOU, only Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenyatta University, Strathmore University, University of Nairobi and Turkana University had signed agreements, mainly for work integrated learning and securing internship positions for their students ahead of graduation. However, most employers were willing to pilot work integrated learning with universities if approached, listing business courses, meat science, medicine, information technology, education, and food science and technology.

V. CONCLUSION AND RECOMMENDATIONS

According to the study results, curriculum content has an influence on the employability competencies of university graduates, with both soft skills and hard skills affecting work readiness. Sentiment analysis revealed that most university students do not feel that the education they have been exposed to has adequately prepared them for the world of work, with the expectations of potential employers that were interviewed not able to be met by fresh graduates. While fresh graduates had the knowledge, potential employers decried their lack of expertise, hands on experience, as well as a host of other soft skills, hence the need to restructure programs and improve their vocational relevance. Cognitive apprenticeship and situated learning are either rudimentary or non-existent among the universities studied. Most curriculum developers revealed there were no MOUs between their institutions and potential employers, and no work-integrated learning programs, with individual students tasked finding their own way before and after graduation, with little or no help from departments, alumni associations and the university in general. Potential employers had not been approached by most of the institutions of higher learning for such partnerships, with 60% of them feeling that fresh graduates lacked work readiness.

This study recommends that Universities re-establish employability as a core role of the undergraduate curriculum. While higher education may be important, there is need to scrap courses that have no profession attached to them or simply lack vocational relevance, in a third world country that is seeking solutions to its perennial problems. It defeats logic to continue enrolling thousands of learners in history, geography, political science, music, art, philosophy, sociology, literature, language, while the continent grapples with deficiencies in food, healthcare, manufacturing or entrepreneurship and innovation. Very few universities involve the industry in their training programs, hence the disconnect alluded to by research findings. This study recommends that universities sign Memoranda of Understanding with industry players to ensure high quality training and absorption of their graduates. MOUs should go beyond student internship and aim for properly structured work integrated learning and apprenticeship programs that enable learners from the second year onwards to learn alongside experts in their chosen fields. Learners should be introduced to the industry as early as second year, and for longer durations.

REFERENCES

- [1] African Development Bank. (2020). African Economic Outlook 2020: Developing Africa's Workforce for the Future. Abidjan: African Development Bank Group.
- [2] Ahmod & Zhang. (2021). An Effective Instructional Strategies Approach in Higher Education: A Pilot Investigation. *International Journal of Higher Education*, 10(5), 68-81.
- [3] Alemu, S. K. (2018). The meaning, idea and history of university/higher education in Africa: A brief literature review. *Forum for International Research in Education*, 4(3), 210-227.
- [4] Bidabadi et al. (2016). Effective Teaching Methods in Higher Education: Requirements and Barriers. *Journal of advances in medical education & professionalism*, 4(4), 170 –178.
- [5] Chan, R. Y. (2016). Understanding the Purpose of Higher Education: An Analysis of the Economic and Social Benefits for Completing a College Degree. *JEPPA*, 5(6), 1-41.
- [6] Cheng et al. (2021). Employability in higher education: a review of key stakeholders' perspectives. *Higher Education Evaluation and Development*, 16(1), 16-31.
- [7] Chidinma & Idoghor. (2020). Curriculum Implementation and the Employability of Education Graduates of the University of Port Harcourt. *European Journal of Research and Reflection in Educational Sciences*, 8(4), 41-50.
- [8] Daubney, K. (2021). "Teaching employability is not my job!": redefining embedded employability from within the higher education curriculum. *Higher Education, Skills and Work-Based Learning*, 12(1), 92-106. doi: <https://doi.org/10.1108/HESWBL-07-2020-0165>
- [9] Gehman, N. R. (2021). Exploring Managers' Perceptions of Workforce Readiness of Recent College Graduates. Drexel University.
- [10] Hussin & Aziah. (2019). Goals, components, and factors considered in university development. *Asia Pacific Education Review*, 10(1), 83-91. doi: <http://dx.doi.org/10.1007/s12564-009-9001-8>
- [11] Jackson, D. (2013). Delivering work-ready business graduates: Keeping our promises and evaluating our performance. *Journal of Teaching and Learning for Graduate Employability*, 4(1), 2-22.
- [12] Jackson, D., Sibson, R., & Riebe, L. (2013). Delivering work-ready business graduates - keeping our promises and evaluating our performance. *Journal of Teach* <https://doi.org/10.21153/JTLGE2013VOL4NO1>
- [13] Jamil, R. (2020). The effect of curriculum design on the employability competency of Malaysian graduates. *Management Science Letters*, 909-914.
- [14] Kabita & Ji. (2017). The Why, What and How of Competency-Based Curriculum Reforms: The Kenyan Experience. Nairobi: UNESCO.
- [15] Kamper, S. J. (2019). Reliability and Validity: Linking Evidence to Practice. *Journal of Orthopedic & Sports Physical Therapy*, 49(4), 212-287. Retrieved from <https://www.jospt.org/doi/10.2519/jospt.2019.0702>
- [16] Khaled & Khatib. (2020). Summative Assessment in Higher Education: A Feedback for Better Learning Outcomes. Conference: The International Arab Conference on Quality Assurance in Higher Education (pp. 1-9). Beirut: Lebanese International University.
- [17] Kirui, J. K. (2019). Employability of Graduates from Kenyan Universities: The Employer's Perspective. *Journal of Resources Development and Management*, 54(1), 39-51.
- [18] Kyuli & Mwebia. (2016). Effects of Curriculum Design on Employability of Kenyan University Graduates. *Journal of Advance Research in Business, Management and Accounting*, 3(1), 13-30.
- [19] Malau-Aduli et al. (2022). Readiness to enter the workforce: perceptions of health professions students at a regional Australian university. *BMC medical education*, 22(89), 20-24. doi: <https://doi.org/10.1186/s12909-022-03120-4>
- [20] Mugambi, Ochieng & Miriti. (2014). The Critical Role of Curriculum in Addressing Youth Unemployment in Kenya: Opportunities and Challenges. *International Journal of Education and Research*, 2(4).
- [21] Mwebia & Kyuli. (2023). Influence of University Curriculum Design on Employability of Kenyan Graduates: Public Universities Perspective. *Journal of Advance Research in Business, Management and Accounting*, 3(1), 13-30.
- [22] Nganga, G. (2020, May 13). Bleak future for graduates as employers get picky. Retrieved from University World News: <https://www.universityworldnews.com/post.php?story=20200513080145994>
- [23] Ngulube, B. (2020). Undergraduate Economics Curriculum and Employability Skills in South Africa. *Problems of Education in the 21st Century*, 78(6), 1000-1013. doi: <http://dx.doi.org/10.33225/pec/20.78.1000>
- [24] Okolie, Nwosu & Mlanga. (2019). Graduate employability: How the higher education institutions can meet the demand of the labor market. *Higher Education, Skills and Work-Based Learning*, 9(5), 620-636. doi: <https://doi.org/10.1108/HESWBL-09-2018-0089>
- [25] Paramasivam, S. (2017). Perception towards Development of Employability Skills by Students: A Module Analysis. *International Journal of Engineering and Technology*, 4353-4361.
- [26] Petersen et al. (2020). The Tyranny of Content: "Content Coverage" as a Barrier to Evidence-Based Teaching Approaches and Ways to Overcome It. *CBE life sciences education*, 19(2), 1-10. doi: <https://doi.org/10.1187/cbe.19-04-0079>
- [27] Prikshat et al. (2020). Australian graduates' work readiness – deficiencies, causes and potential solutions. *Higher Education, Skills and Work-Based Learning*, 10(2), 369-386. doi: <https://doi.org/10.1108/HESWBL-02-2019-0025>

- [28] Rawlusyk, P. (2018). Assessment in Higher Education and Student Learning. *Journal of Instructional Pedagogies*, 1-34.
- [29] Rowe & Zegwaard. (2017). Developing graduate employability skills and attributes: Curriculum enhancement through work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 18(2), 87-99.
- [30] Sato et al. (2021). Graduate employability and higher education's contributions to human resource development in sport business before and after COVID-19. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 28(1), 1-11. doi: <https://doi.org/10.1016/j.jhlste.2021.100306>
- [31] Shivoro, Shalyefu & Kadhila. (2017). Recognizing implicit employability attributes in management sciences curricula: A case of two Namibian universities. *Journal of Teaching and Learning for Graduate Employability*, 123-136.
- [32] Tagulwa et al. (2023). Students' and Employers' Perceptions of Employability Skills in Uganda. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(6), 2038-2044. doi: <http://dx.doi.org/10.11594/ijmaber.04.06.28>

