

# Competencies of A' Level Graduates as Future Labor Market Participants in Uganda

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**Abstract:** This study examined the current state of competencies of A' Level graduates in Uganda compared with the views of the desired competencies in line with society's needs and the world of work to guide the future A' level transformation. The study employed a mixed-methods approach and a cross-sectional survey design, involving various stakeholders, including university registrars, lecturers, human resource officers of different institutions, A' Level leavers, parents/sponsors, and other officials involved in training A' level students' completion. The study shows that A' Level graduates have deficits of desired competencies in line with society's needs and the world of work. The study reveals that A' Level graduates have expanded general knowledge of national and global issues and learn new concepts faster, but they lack creativity, hands-on practical skills and generic competencies. Contrarily, the society and the world of work believes that the A' Level leavers are not prepared to using the possessed theoretical knowledge in practice and are not grounded with critical thinking, creativity, ICT, communication, problem-solving skills, positive attitude towards vocational/hands-on work, resilience, and honesty. The study recommends a review of Uganda's A' Level curriculum that will focus on acquiring practical experiences through competence-based training, improving communication, ICT, business, and entrepreneurship skills, and incorporating vocational education to probably lead to the lessening of competence gap.

**Keywords:** A' Level Curriculum, Desired Competences, World of Work, Vocational Skills

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## 1. Introduction

The ever-changing requirements of society's needs and the world of work requires continuous scrutiny of education systems. The world of work (employers) are blaming the education systems for not producing graduates with other competences critical for the 21<sup>st</sup> century labour and society requirements [22, 23]. This has pressured many countries to review their education systems, for example, the United Kingdom and Singapore in 2012 and 2016 respectively launched reviews of the A-level curriculum, which led to the introduction of the A-levels with more emphasis on developing skills such as critical thinking, problem-solving, collaboration, and independent research [8, 9]. In Uganda, the education is seen as pivotal for the attainment of sustainable economic development, which can help Uganda achieve its

Vision of transforming from a peasant to a modern prosperous economy [51, 55].

The education system in Uganda, starts at the Early Childhood Development level and proceeds to Primary School, Lower Secondary Education, Upper Secondary Education (A' level), and tertiary or university education [62, 45]. The A' level was established in 1952 to train clerical officers for the colonial government and prepare students for the Cambridge Overseas School Certificate examination [65]. The A' level curriculum in Uganda offers a menu of 34 principal subjects and three subsidiaries, with candidates required to take a maximum of three principal subjects, General Paper (subsidiary), and either Subsidiary Mathematics or Subsidiary ICT. It against these offerings, that there is need to profile the A' level graduate against the society's needs and the world of work requirements. The A' level graduate profiles refer to the knowledge, skills, and

attitudes expected of A' level graduates for continuous learning and the world of work [48].

Although, the Uganda's A' Level education system has undergone various changes, including changes in skills requirements, policies, and pedagogy. For instance, in 1980, the government of Uganda introduced UACE to replace the Cambridge Overseas Higher School Certificate (COHSC) and the East African Advanced Certificate of Education [38]. In 2011, Uganda incorporated Subsidiary Information Communication Technology (Subsidiary ICT) and Subsidiary Mathematics (Subsidiary Math) as additional sub-subjects in the A' level curriculum [53]. The inclusion of these subjects aimed to offer students more options for subjects and to equip them with skills that would benefit them in their future studies and careers [54].

Despite, Uganda government's efforts towards improving A' Level education presently, Uganda like the rest of the world is grappling with: a high unemployment rate of 4.30% with youth unemployment standing between 64% and 70% [74]; skill and educational mismatches, where 28.9% of employed youth are under-skilled and 56.9% under educated [42, 56] with at least 63% of graduates lacking job market skills [26], and a very low Human Capital Index (HCI) at 38% of the population [74]. It should be noted that out of the 1,763,284 pupils who enrolled in Primary One in 2006, only 98,744 (5.6%) completed A level in 2018 [37]. This low completion rate leaves many questions unanswered.

Eliminating the competence gap between the A' Levels and desired competencies in line with society's needs and the world of work is key for improving efficiency of education system in Uganda. Therefore, this study examined the current state of competencies of A' Level graduates in Uganda compared with the desired competencies in line with society's needs and the world of work to guide the future A' level transformation. Specifically, the study will a) assess the current state of competencies of the A' level graduates in Uganda, and b) determine the desired competencies expected of an A' level graduate for continuous learning and absorption in the world of work.

## 2. Literature Review

### 2.1. Theoretical Review

The study was guided by John Dewey's philosophy of combining theory and practice in education [19]. Dewey believed that education should prepare students for active participation in shaping society, and that learning should be relevant and rewarding. He emphasized the importance of individual needs and experiences, continuous development, and the interaction of the individual with the environment [68]. Dewey argued that the curriculum should be relevant to students' lives and that delivery methods should aim at realizing learning outcomes through experiences such as group work, play, and examination of the natural environment [73].

The study was also guided by the Skill Acquisition Theory, according to Dekeyser (2007) is that the learning of a wide

variety of skills shows a remarkable similarity in development from an initial representation of knowledge through initial changes in behaviour to eventual fluent, spontaneous, largely effortless, and highly skilled behaviour and that this set of phenomena can be accounted for by a set of basic principles common to the acquisition of all skills [16]. Skill Acquisition Theory suggests that learning various skills involves a similar development process, leading to effortless and skilled behavior. However, it has been criticized for only being effective for similar tasks and not explaining the sequence of acquisition. Nonetheless, it is useful for studying development across different domains and identifying skill sequences in learning activities. Despite its shortcomings, the theory aligns well with other aspects of competence acquisition.

The study was also based on social constructivism or Vygotsky's Theory which emphasizes the importance of culture and interaction in the development of cognitive abilities. Vygotsky believed that learners can realize their potential abilities with proper guidance from others. Learning is considered to be a largely situation-specific and context-bound activity. The zone of proximal development states that students learn more when they receive guidance from someone with more skills in the subject they are learning. Vygotsky's theories have been influential in education and often applied by assigning tasks that students cannot do on their own, but which they can do with assistance. Despite criticisms, social constructivism or Vygotsky's theory offers a practical approach to competence attainment. The study integrates John Dewey's skill acquisition theory, social constructivism, and pragmatic education for skills development.

### 2.2. The Current State of Competencies of an A' Level Graduate

Several studies have highlighted the issue of students in developing countries enrolling in general education programs that do not equip them with relevant skills for job creation [11, 71, 35, 3]. The problem is particularly pronounced in Uganda's outlying regions and among vulnerable populations [11]. Low rates of absorption of graduates into the labour market have been attributed to shortfalls in relevant skills that promote entrepreneurship and competitiveness [12, 5]. Studies have noted that students in Uganda do courses that are not immediately relevant to the labour market [6, 47, 48]. This has been linked to low-level competence attainment at various levels of education in the country [52, 12]. However, there is no documented evidence to support claims of low competence attainment among Uganda's A' level education graduates. The study aimed to address this gap in the literature.

### 2.3. Desired Competencies Expected of an A' Level Graduate for Continuous Learning and World of Work

Competency-Based Education (CBE) is gaining popularity as an alternative path to a postsecondary degree in several countries [36, 30, 68]. It has been proposed as a potential remedy for escalating prices and stagnant graduation rates in higher education [13, 64]. The concept is gaining ground in

vocational and higher education in western societies, successfully connecting education initiatives with labor markets and societal demands [64].

The adoption of a Competency-Based Curriculum (CBC) is a new trend that could potentially leverage African education with the rest of the world [24, 27, 63]. However, many African countries still have a lot to do to catch up with international standards in the knowledge economy progress [40, 44, 73]. In the USA, CBE is characterized by the development of clearly defined competencies, a mapping of the curriculum to achieve those competencies, and an assessment process matched to the competencies [29]. Based on these scholarly claims, the needs assessment study of the A' level curriculum in Uganda was anchored.

The competencies valued in the job market vary among learners, workers, educators, and employers [75]. Graduate competencies have gained increased attention due to employers' reliance on employees to increase their competitiveness [10, 15]. Soft skills have been receiving greater attention in the world of work [66] and continuous learning [58]. Employers require graduates to have the fundamental technical skills necessary for their specific professions [34]. In the United Kingdom, a competitive, constantly changing workplace expects more than curriculum-specific academic knowledge and technical skills from employees [1]. In South Africa, communication, problem-solving, and time management skills are the most valued skills [19, 32, 46].

The study aimed to find out the most preferred competencies for the A level graduate by diverse employers in Uganda, where there is little information on the specific employability skills of A' level graduates. Competencies such as 'ability and willingness to learn', 'teamwork and cooperation', 'hardworking and willing to take on extra work', 'self-control' and 'analytical thinking' were rated important by employers [58, 28, 7]. Nganga (2014) and Ponge (2013) observed that at least 50% of the graduates produced in East Africa were "half baked" for the job market and lacked marketable skills [50, 59]. Gawrycka et al. (2020) found deficits in professional competencies among Polish graduates and employers [23].

Soft skills are more important and in higher demand by employers [60, 66, 33, 20]. According to Waller (2016), the areas with the greatest job growth require strong performance in science and mathematics [40]. Wamala, Tagoole & Omala

(2013) wrote that a higher level of vocational skills is desired for graduates [71]. The study aimed to establish the desired competencies expected of A level graduates in Uganda by the different segments of society for continuous learning and the world of work.

### 3. Methodology

#### 3.1. Research Design

The study followed a cross-sectional survey design and employed the mixed methods approach. Rather than relying on findings from a single method or single approach, the mixed methods approach regards the use of multiple sources as beneficial in terms of the quality and fullness of data it produces [16]. The use of mixed methods strengthened the findings because they were drawn from both qualitative and quantitative research, thus, minimizing the limitations of both approaches [14]. It as well enhanced the findings of the study since it allows researchers to have a back-and-forth data collection method from respondents. The data produced by the different methods were complementary and provided alternative perspectives that when combined, go further towards an all-embracing vision of the subject. In other words, researchers had the opportunity to allow their plans to evolve as they interacted with the respondents and natural settings more intimately [25].

In terms of scope, the study aimed to determine whether there are gaps in the Uganda A' level curriculum regarding current and future societal expectations by assessing the current competencies of A' level graduates and identifying the desired competencies expected by society for effective continuous learning and work.

#### 3.2. Population

The population for the study comprised various stakeholders in A-level education in Uganda, including registrars, lecturers, human resource officers, members of the Sector Skills Council, UNEB test developers, DIT assessors, UBTEB Learning Area Heads, members of the private sector, A-level leavers, parents/sponsors, A-level students, teachers, and secondary school head teachers. The total population was 505,327, and it was identified by mapping out the key stakeholders in A-level education in Uganda using the Uganda Bureau of Statistics (UBOS) statistical abstracts [69].

**Table 1.** Summary of population, sample size, sampling technique and tool used.

Category	Eligible number of respondents	Sample size	Sampling technique	Justification for choice of Sampling technique	Tool used
Head teachers	2,000	291	Systematic sampling	Reduced the need for extensive randomization procedures	Questionnaire
Teachers	10,000	1,746	Systematic sampling	Reduced the need for extensive randomization procedures	Questionnaire
S6 students	101,000	1,380	Convenience	Allowed the researcher to select participants who are easily accessible, such as those who have previously attended A' level	FGD guide
University registrars	42	8	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied	Interview guide
University lecturers	8,000	24	Purposive	Allowed researchers to select participants who have	Interview

Category	Eligible number of respondents	Sample size	Sampling technique	Justification for choice of Sampling technique	Tool used
University students*	200,000	384	Systematic sampling	had a range of experiences with the A' level leavers being studied Reduced the need for extensive randomization procedures	guide Questionnaire
University students		120	Convenience	Allowed the researcher to select participants who are easily accessible, such as those who have previously attended A' level	FGD guide
Tertiary institution registrars	140	20	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied	Interview guide
Tertiary institution lecturers	2,000	60	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied	Interview guide
Tertiary institution students*	100,000	383	Systematic sampling	Reduced the need for extensive randomization procedures	Questionnaire
Tertiary institution students		300	Convenience	Allowed the researcher to select participants who are easily accessible, such as those who have previously attended A' level	FGD guide
A' level leaver (employed, self-employed & un employed)	120,000	552	Convenience	Allowed the researcher to select participants who are easily accessible, such as those who have previously attended A' level	Interview guide
Parents	51,000	184	Convenience	Allowed the researcher to select participants who are easily accessible	Interview guide
Human resource officers (UPDF, UPF, UPS)	6	6	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
Sector Skills Council members	5	5	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
Members of the private sector (PSFU, UMA, UFA)	500	250	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
UNEB test developers	15	15	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
DIT Assessors	5	5	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
UBTEB Learning Area Heads	5	5	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
UNATU members	5	5	Purposive	Allowed researchers to select participants who have had a range of experiences with the A' level leavers being studied.	Interview guide
Stakeholder consultations		600			
TOTAL	505,327	6,343			

*\*University and tertiary institution students as direct products of the A level curriculum were subjected to more than one (1) data collection instrument.*

### 3.3. Sample Size Determination

The study selected 8 universities and 20 colleges as a sample for quantitative data. Using Krejcie and Morgan (1970) table, 97 out of 135 districts were selected, and from each district, 2 government A level secondary schools and 1 private A level secondary school were selected, with the head teachers from each school being chosen as part of the sample. Additionally, 3 A' level teachers (one from science, humanities, and vocational subject areas) were selected from each school, resulting in a total sample size of 291 head teachers and 1,746 A' level teachers.

For qualitative data, the sample size was determined based on saturation levels, with data collection stopping once

categories/themes were saturated. The study covered a total sample size of 6,343 respondents from all four regions of Uganda (Central, Northern, Eastern, and Western), which were split into 16 zones.

### 3.4. Data Quality Management

The study utilized questionnaires developed and reviewed by NCDC Research and Evaluation specialists and assessed for content validity by three independent educational research experts. The content validity index for both questionnaires (0.74 and 0.79) were found to be higher than the recommended threshold of 0.7, indicating good content validity [44]. Additionally, a pilot study was conducted in ten secondary schools from five districts to establish the reliability

of research instruments, and a test-retest pilot study was carried out in two schools outside the data collection program. The Cronbach Alpha reliability coefficient formula and SPSS software were used to calculate reliability coefficients, which were found to be 0.85 and 0.89 for the two questionnaires, indicating a high degree of data reliability. The interview and FGD guides were also piloted in six districts, and adjustments were made based on results discussed by the NCDC R&E working group to ensure instrument reliability.

### 3.5. Data Analysis

The study utilized the Statistical Package for Social Science (SPSS) version 22 to analyze quantitative data through descriptive statistics. This approach involved presenting summaries of the sample data, such as percentages, frequencies, measures of central tendency (e. g., mean, minimum, maximum), and measures of dispersion (e. g., standard deviation) in tables and graphs. This method is widely used in quantitative research as it offers a straightforward overview of the data, and it is consistent with the recommendations of Kothari (2005) and Amin (2005) that suggest it is a fundamental component of quantitative data analysis [31, 4].

The study used qualitative data collection methods such as interviews and focus group discussions, and analyzed the data using content analysis. The researchers transcribed the responses, interpreted them, and identified major themes and categories with the help of fellow researchers. The qualitative

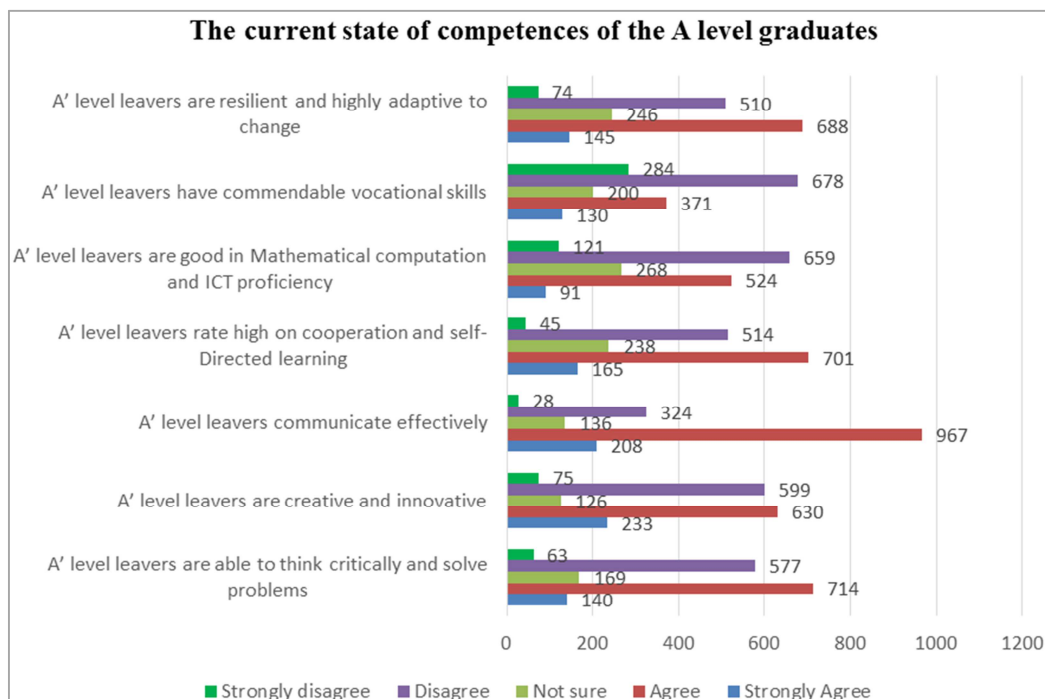
data was presented in line with the study objectives and complemented the quantitative data to validate the findings. The results were presented using quotes or paraphrases with consent from the participants. The content analysis approach used in the study is consistent with Kothari's (2005) recommendation for effectively extracting relevant information from qualitative data [31].

## 4. Findings

The purpose of the study was to establish whether there exist any gaps in the Uganda A' level curriculum in regard to the current and future society expectations. The study covered two specific objectives that included; assessing the current state of competencies of the A' level and determining the desired competencies expected of an A' level leaver for continuous learning and absorption in the world of work. The findings of this study are presented, analysed and interpreted in line with the study objectives.

### 4.1. The Current State of Competencies of the A' Level Graduates

The study sought to establish the current state of competencies of A' level leavers who were trained using the current A' level curriculum of Uganda. A number of question items were administered to Secondary School head teachers, teachers and students in universities and tertiary institutions in the questionnaire. Below are the findings:



**Figure 1.** Current state of competencies of A' level leavers.

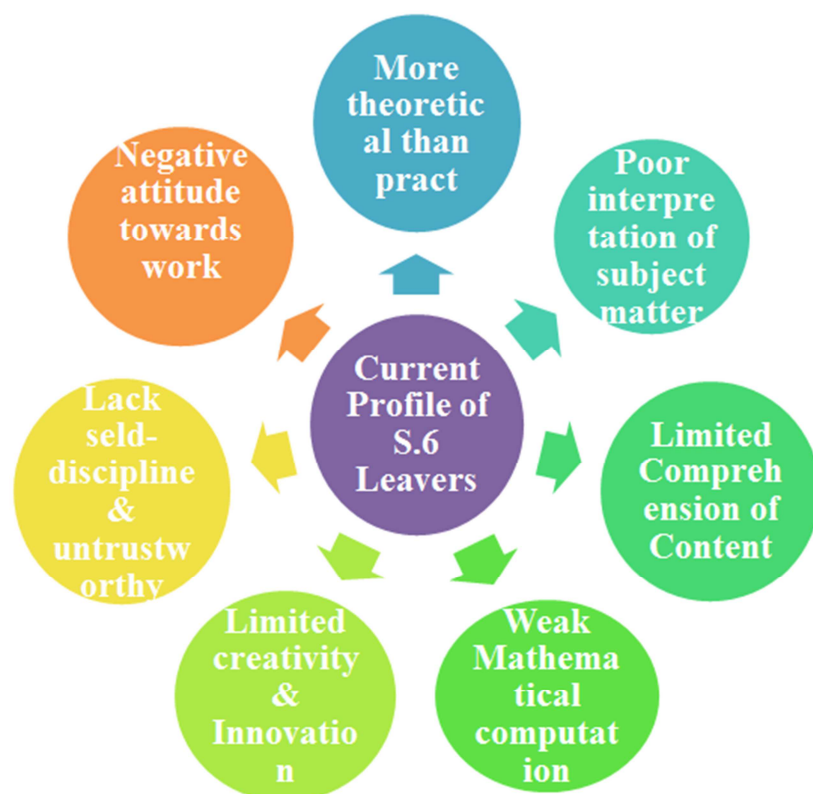
Out of 1,680 respondents, 688 (41%) agreed that A' level leavers are resilient and adaptive to change, while 962 (57.8%) disagreed on their vocational skills. 780 (47%) disagreed on

their proficiency in math and ICT. 701 (42%) agreed that A' level leavers excel in cooperation and self-directed learning, while 1,175 (70.6%) agreed on their communication skills.

Finally, 714 (43%) respondents agreed on their critical thinking and problem-solving abilities. Interviews were conducted with 403 respondents comprising university and tertiary institution registrars, lecturers, and A' level leavers. The implication of the findings is that while A' level leavers are considered to have strengths in areas such as communication, cooperation, and critical thinking, they may need further development in vocational skills, mathematical

computation, and ICT proficiency.

The Figure 1 below presents the key findings of the Profile of Current Senior Six Leaver study from interviews conducted with key stakeholders. The data in Figure 1 serves as a valuable resource for understanding the current state of Senior Six education and informing future policy and program decisions.



Source: NCDC A-level Needs Assessment Study Report 2022

**Figure 2.** Findings of the Profile of Current Senior Six Leaver.

#### 4.2. Desired Competences Expected of an A' Level Graduate for Continuous Learning and the World of Work

To investigate this matter, different stakeholders who included the following; teachers, head teachers, A level leavers in universities and tertiary institutions as well as those who are employed, the self-employed and the un-employed

were asked a number of question items. Others were major employers of A' level leavers who included members from the Private Sector Foundation Uganda (PSFU), Uganda Manufacturers Association (UMA) and Uganda Farmers Association (UFA) as well as registrars, lecturers and parents. Below are the findings:

**Table 2.** Desired competences of an A' level graduate.

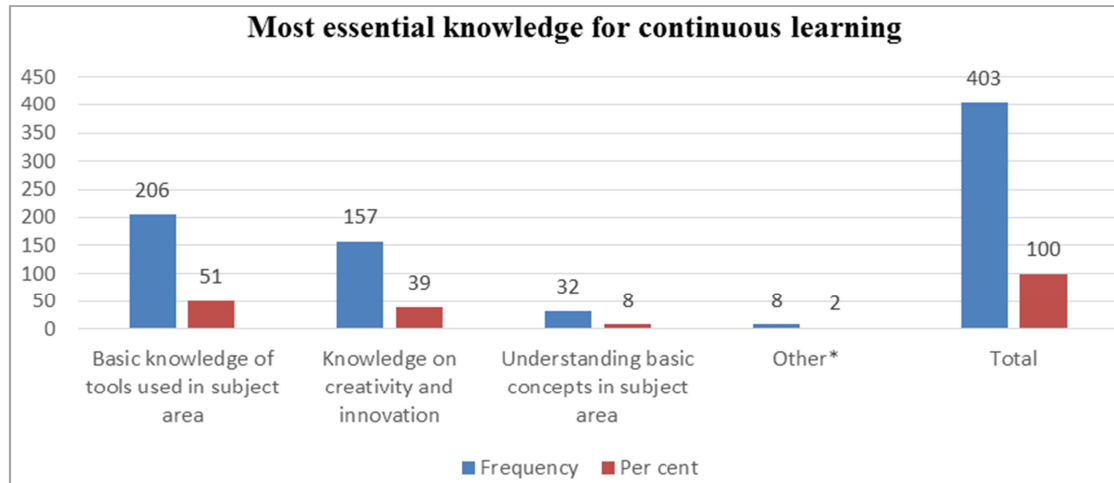
Competence/skills	Not relevant	Relevant	Very relevant
Critical thinking and problem solving	48 (3%)	529 (32%)	1086 (65%)
Creativity and innovation	73 (4%)	525 (32%)	1065 (64%)
Communication	50 (3%)	701 (42%)	912 (55%)
Cooperation and self-directed learning	60 (4%)	823 (50%)	780 (47%)
Mathematical computation and ICT proficiency	105 (6%)	809 (49%)	749 (45%)
Vocational skills	141 (9%)	725 (44%)	797 (48%)
Analytical thinking	73 (4%)	730 (44%)	860 (52%)
Resilience and adaptability	72 (4%)	829 (50%)	762 (46%)

Source: Field data, 2022

Table 2 shows that critical thinking and problem-solving [1086 (65%)] and creativity and innovation [1065 (64%)]

were the most relevant competencies according to respondents. Communication was rated as very relevant by 912 (55%) respondents, while cooperation and self-directed learning were relevant to 823 (49%) respondents. Mathematical computation and ICT proficiency were relevant to 809 (49%) respondents. Vocational skills were considered very relevant by 797 (48%) respondents, while analytical thinking was

relevant to 860 (52%) and resilience and adaptability to 829 (50%). In general, most competencies were considered either very relevant or relevant. Interviews with 403 respondents, including registrars, lecturers, and A' level leavers in universities and tertiary institutions, were conducted to identify desired competencies for A' level leavers in preparation for continuous learning.

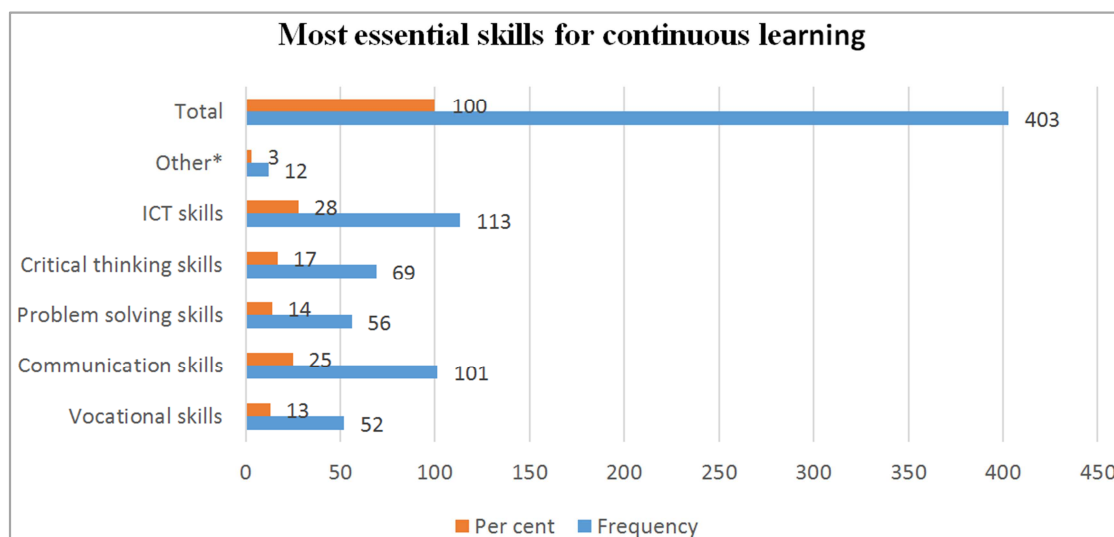


**Figure 3.** Most essential knowledge for continuous learning.

\*Entrepreneurship knowledge and the ability to analyse and evaluate  
Source: Field data, 2022

According to Figure 3, 206 (51%) of the 403 respondents in the interviews mentioned that possessing basic knowledge of tools used in the subject area is the most essential knowledge for A' level leavers in preparation for continuous learning in Uganda. Only a minority of respondents mentioned other

essential forms of knowledge, such as creativity and innovation [157 (39%)], understanding basic concepts in the subject area [32 (8%)], and other forms of knowledge [8 (2%)], such as entrepreneurship and analytical abilities.



**Figure 4.** Most essential skills for continuous learning.

Source: Field data, 2022

\*Entrepreneurship skills and research skills

Figure 4 shows that less than 50% of the respondents mentioned the most essential skills required by A' level

leavers for continuous learning. Specifically, 113 (28%) respondents mentioned ICT skills, 101 (25%) mentioned



communication skills, 69 (17%) mentioned critical thinking skills, 56 (14%) mentioned problem-solving skills, 52 (13%) mentioned vocational skills, and 8 (1%) mentioned other skills, such as entrepreneurship and research skills, as critical for A' level leavers in preparation for continuous learning in Uganda.

This implies that ICT skills, communication skills, critical thinking skills, problem-solving skills, vocational skills, and entrepreneurship skills are desirable for A' level leavers in preparation for continuous learning in Uganda.

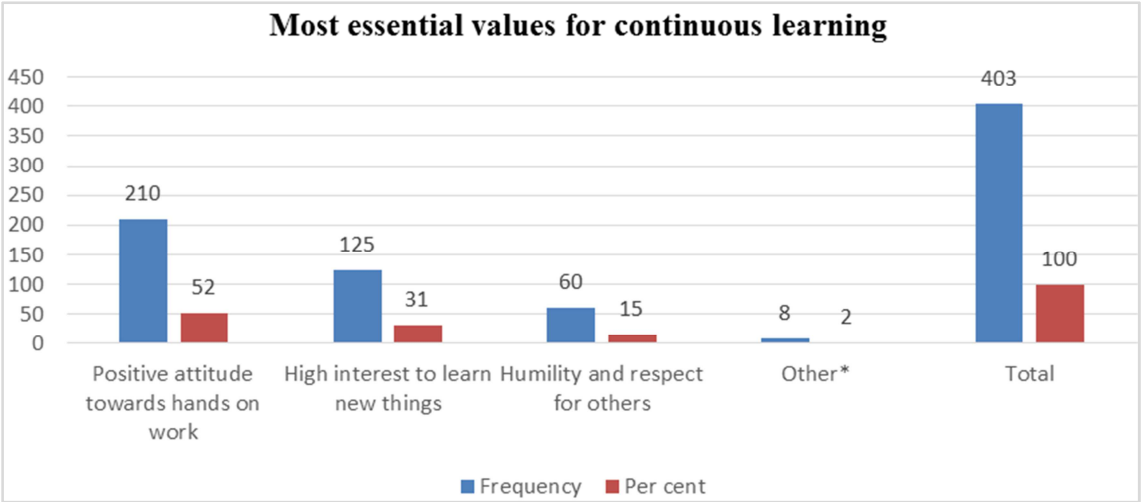


Figure 5. Most essential values for continuous learning.

Source: Field data, 2022  
\*Self-drive, honesty, resilience, flexibility, care for humanity and environment

As shown in Figure 5, the majority of respondents (52%) identified a positive attitude towards hands-on work as the most essential value for A' level leavers in preparation for continuous learning in Uganda. Other essential values mentioned by a minority of respondents included high interest in learning new things (31%), humility and respect for others

(15%), and other values such as self-drive, honesty, resilience, flexibility, care for humanity and the environment (2%). In terms of competencies for the world of work, interviews were conducted with 750 respondents. These included employers, A' level leavers, members of various organizations, UNEB test developers, and parents/sponsors of A' level students.

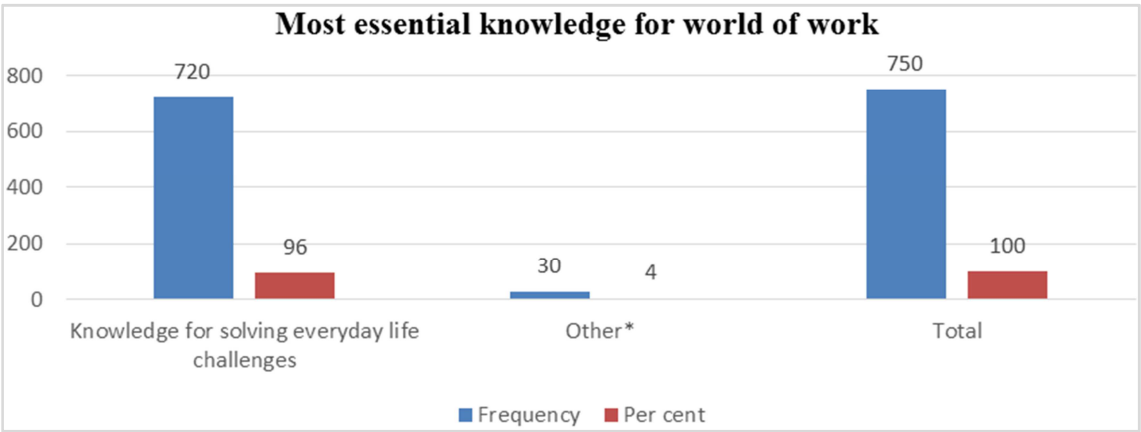


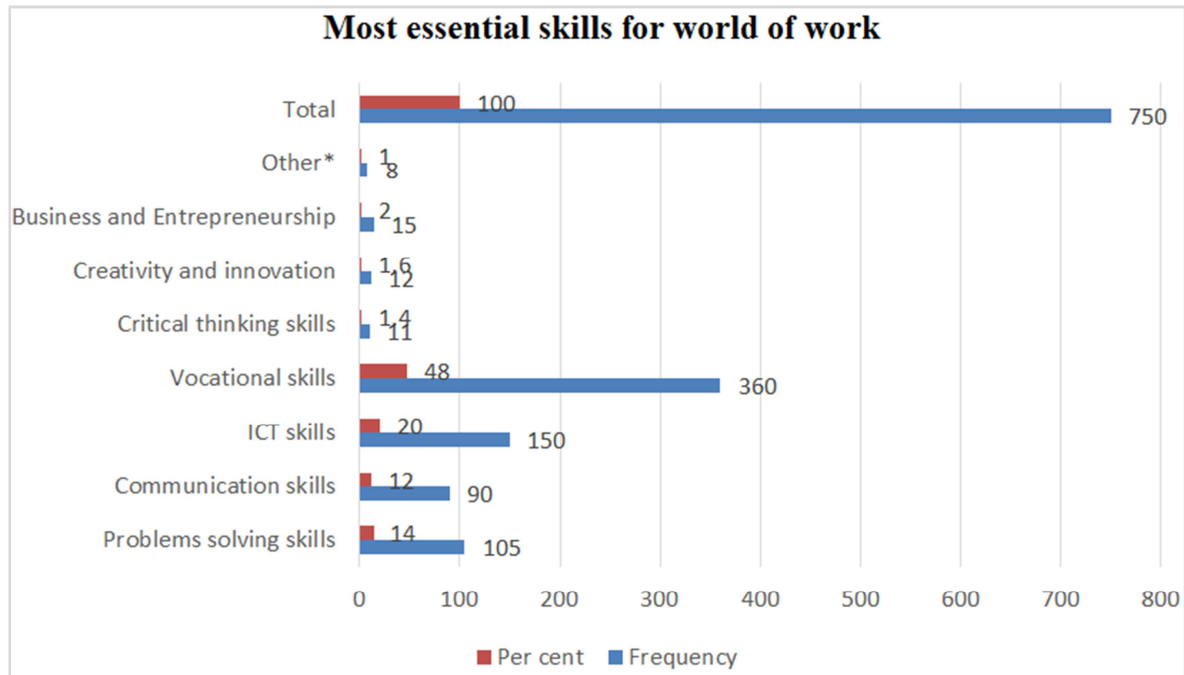
Figure 6. Most essential knowledge for world of work.

Source: Field data, 2022  
\*Knowledge on current affairs, knowledge about the country, mathematical computations, decision making

Figure 6 shows that 96% of the respondents, or 720 people, said that knowledge for solving everyday life challenges is the most essential knowledge expected of A' level leavers in preparation for the world of work in Uganda. Only 30 (4%) of

the respondents mentioned other essential forms of knowledge, such as current affairs, knowledge about the country, mathematical computations, and decision-making skills.





**Figure 7.** Most essential skills for the world of work.

Source: Field data, 2022

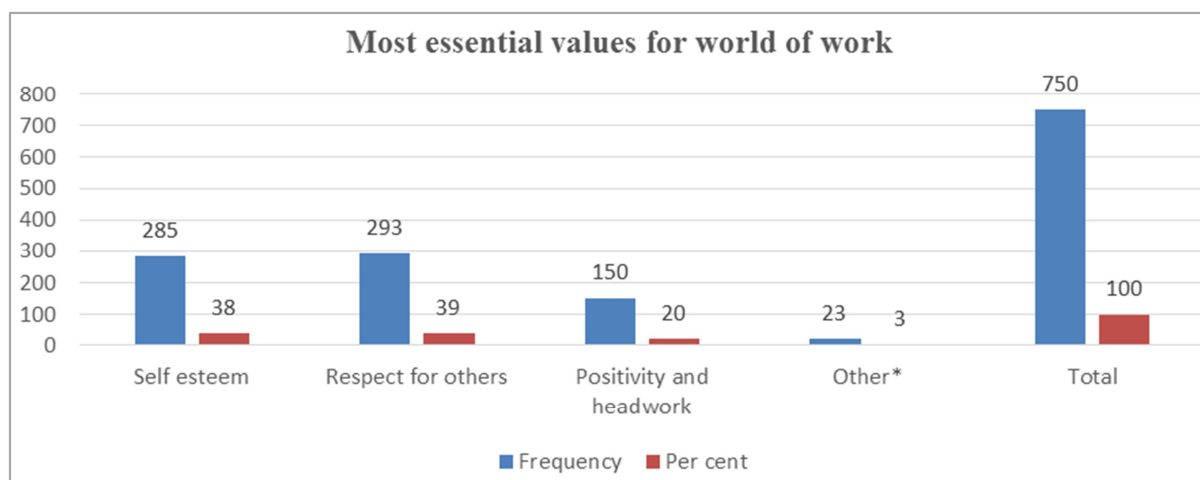
\*Public relations, project management skills, conflict resolution skills, report writing skills and presentation skills

In Figure 7, 360 (48%) respondents mentioned vocational skills as the most essential skill for A' level leavers in the world of work. Other skills were mentioned by fewer respondents, such as 150 (20%) mentioning ICT skills, 105 (14%) mentioning problem solving skills, 90 (12%) mentioning communication skills, 15 (2%) mentioning business and entrepreneurship skills, 12 (1.6%) mentioning creativity and innovation, and 11 (1.4%) mentioning critical thinking skills. Only 8 (1%) respondents mentioned other skills such as public relations, project management, conflict resolution, report writing, and presentation as critical for A' level leavers in preparation for the world of work in Uganda.

In corroboration, in an interview, a member of the Directorate of Education Standard (DES) in Kyambogo said;

The curriculum should prepare learners more for practical skills and innovations than theoretical knowledge to compete favourably globally. ICT should be integrated within other subjects to make them more meaningful and more practical. The learners should be equipped with research skills to come up with innovations.

This implies that vocational and ICT skills are much more needed as the current trend in the world of work. Therefore, the A' level leavers who are deficient of these skills are likely to find it difficult to fit into the world of work.



**Figure 8.** Most essential values for world of work.

Source: Field data, 2022

\*Composure, professionalism, integrity, honesty, patience and self-discipline

Figure 8 shows that only 293 (39%) of those interviewed mentioned respect for others as an essential value for A' level leavers in the world of work, while only 285 (38%) mentioned self-esteem. 150 (20%) mentioned positivity and hard work, and only 23 (3%) said that other values like composure, professionalism, integrity, honesty, patience, and self-discipline are critical for an A' level leaver in preparation for the world of work in Uganda. This implies that respect for others and self-esteem are the most desired values for A' level leavers seeking to join the world of work in Uganda.

To corroborate these findings, in an interview, a Staff member of the Directorate of Education Standards (DES) said; *"A' level students should be equipped with analytical skills, exploratory skills, self-confidence, honesty, creativity and art for exploration in order to fit into the world of work and for continuous learning."* Furthermore, in confirmation, a test developer from UNEB said *"A level graduates should have analytical skills, critical thinking, problem-solving, collaboration skills, communication skills and practical skills."*

### 4.3. Discussions

#### 4.3.1. Current State of Competences of A' Level Leavers in Uganda

The study found that A' level leavers in East Africa have expanded general knowledge and are able to understand and interpret technical concepts, but their knowledge is more theoretical than practical, they lack the ability to interpret subject matter, and have limited comprehension ability. Nganga (2014) and Ponge (2013) observed that at least 50% of graduates in East Africa lack marketable skills [50, 59]. This reflects the tendency of students in developing countries to enrol in general education programmes that prepare them for white-collar jobs [75, 35, 3, 11]. Uganda's Vision 2040 aims to transform the country into a modern and prosperous society, but according to UBOS (2017), firms perceive that new recruits lack a good attitude towards work, are not self-driven, lack initiative and creativity, require strong supervision, and have low work ethics, including time management skills [70].

The philosophy of education in Kenya, according to the Ministry of Education Science and Technology, is to prepare students for social cohesion, human growth, and economic development [59]. Kenya's 2017 curriculum is competence-based and seeks to address the skills gap in the education system, cultivate every learner's potential, and prepare students to compete in an industrialized nation [59]. It also aims to integrate special needs students into the general school population and expects teachers to create an Industrialized Education Programme (IEP) for every student with a disability.

In Singapore, education aims to equip students with competencies to navigate, participate, and contribute in a globalized world and develop their character, mind, and body [30]. The curriculum is designed to develop students' knowledge, skills, and dispositions, nurture their values, and provide opportunities for active interaction and bonding with

others in both physical and digital spaces [30]. The aim is to empower students to live life to the fullest, contribute to and care for their community and nation, pursue their passions, and fulfill their aspirations.

The education systems in East Africa have been criticized for not adequately preparing students with practical skills and work readiness. Kenya has adopted a competence-based curriculum and integrated special needs students to address these gaps. In contrast, Singapore's education system focuses on developing competencies for navigating a globalized world, nurturing values, and empowering students to contribute to their community. These approaches align with John Dewey's philosophy of combining theory and practice and the Skill Acquisition Theory's emphasis on practice and experience. Vygotsky's Theory emphasizes the role of social interaction, which is reflected in Singapore's curriculum. The discussion highlights the importance of balancing theoretical knowledge with practical skills and preparing students for real-world challenges and job market demands.

#### 4.3.2. Desired Competences Expected of an A' Level Graduate for Continuous Learning and the World of Work

From the study findings, the desired competencies and values for A-level graduates in continuous learning and the world of work include basic subject knowledge, ICT skills, communication skills, practical skills, problem-solving, creativity, adaptability, and a positive attitude towards vocational hands-on work. According to another study, A level graduates aspiring for continuous learning should possess basic knowledge of tools/content in the subject area, ICT skills, communication skills, practical or hands-on skills, critical thinking, problem-solving, creativity and innovation, and a positive attitude towards vocational hands-on work, resilience, and adaptability [23]. This finding is consistent with previous research that suggests soft skills are crucial for continuous learning. Pang and Hung (2012) found that soft skills have been receiving greater attention for continuous learning [57].

In South Africa, employers value communication, problem-solving, and time management skills the most [32, 46, 19]. Existing research highlights the importance of resilience and adaptability for A level leavers, which is also considered essential in South Africa to prepare graduates for a dynamic working environment characterized by uncertainty and change [23, 13].

Furthermore, according to the same study by Gawrycka, Kujawska and Tomczak (2020), the most desired competences expected of an A level graduate for the world of work were the ability to apply knowledge to solve everyday life challenges, vocational skills, ICT skills, businesses and entrepreneurship skills, creativity and innovation, problem-solving skills, flexibility and adaptability, critical thinking, project management skills, public relations, communication skills, and conflict resolution skills in line with the John Dewey and Skills-Acquisition theory [23].

The importance of soft skills such as communication, problem-solving, critical thinking, creativity and innovation, resilience, and adaptability for continuous learning and success in the dynamic working environment is emphasized. The practical application of knowledge and skills in real-world situations, as well as the role of social interaction and collaboration in learning, is highlighted. Incorporating soft skills in the education system and providing opportunities for students to develop these skills through practical application and social interaction is suggested, aligning with the assumptions of John Dewey's philosophy, the Skill Acquisition Theory, and Vygotsky's Theory.

## 5. Conclusion and Recommendations

### 5.1. Conclusion

The study indicates that the current curriculum in Uganda for A' level students is not competency-based and does not adequately prepare students for their future endeavors. There is a need for a curriculum that includes vocational education, soft skills development, inclusivity and diversity, and exposure to research. Learners need practical skills, business/entrepreneurship, and project management skills, as well as good communication, critical thinking, problem-solving, creativity, innovation, self-directed learning, and resilience. An inclusive curriculum that promotes awareness and the ability to live with others is also important.

### 5.2. Recommendations of the Study

The curriculum needs to be reformed to include vocational education, soft skills development, inclusivity and diversity, and exposure to research. Practical skills, business/entrepreneurship, and project management skills, as well as good communication, critical thinking, problem-solving, creativity, innovation, self-directed learning, and resilience should be included in the curriculum.

Teachers need to be trained to deliver the new curriculum effectively. They need to be equipped with the necessary skills and knowledge to teach vocational education, soft skills development, and inclusivity and diversity.

Adequate infrastructure and resources need to be provided to schools to facilitate the delivery of the new curriculum. This includes equipment and materials for vocational education, research, and project management.

The new curriculum needs to be monitored and evaluated regularly to ensure that it is achieving its intended outcomes. Feedback from students, teachers, and other stakeholders should be collected and used to improve the curriculum.

Collaboration with industry is crucial to ensure that the new curriculum is aligned with the needs of the job market. Industry experts can provide input on the skills and knowledge that are in demand and help to design practical components of the curriculum.

The new curriculum should be inclusive and promote diversity. It should promote awareness and the ability to live with others, and teach students to respect and appreciate

people from different backgrounds and cultures.

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