

# East African Journal of Arts and Social Sciences

eajass.eanso.org
Volume 8, Issue 1, 2025

Print ISSN: 2707-4277 | Online ISSN: 2707-4285

Title DOI: https://doi.org/10.37284/2707-4285



Original Article

# Effective Assessment of Generic Skills in Uganda's Secondary Schools

Joyce Bukirwa Rebecca, PhD<sup>1\*</sup>

<sup>1</sup> Muni University, P. O. Box 725, Arua, Uganda.

\* Author's Email: jbukirwa12@gmail.com

Article DOI: https://doi.org/10.37284/eajass.8.1.2711

Date Published: A

# ABSTRACT

20 February 2025

**Keywords**:

21st Century Skills, Generic Skills, Peer Assessment, Self-assessment, Mentor, Peer mentor, Formative Assessment, and Summative Assessment.

The curriculum for each level of education in Uganda is clear and sequenced to cater for the learners' needs that embrace it. However, many products of this curriculum fall short of the labour market expectations because school leavers lack the competencies compatible with the 21st century. A multitude of educationists in Uganda have emphasized the need to develop 21st-century skills as the main focus of the education system. Indeed, the National Curriculum Development Center has integrated these skills into the lower secondary education curriculum and has particularly referred to them as generic skills. This study aimed at the effective assessment of generic skills in Uganda's secondary schools. The objectives of the study included; highlighting the key generic skills needed in Uganda's schools as emphasized in the lower secondary education curriculum; suggesting effective ways of assessing generic skills and identifying the challenges of assessing generic skills. Narrative literature review method was adopted and content analysis of peer-reviewed articles was used. In content analysis, themes in tandem with the objectives were used to present data, making it possible to interpret the results as the researcher reflected on the informants' statements on the subject. The study revealed that the lower secondary education curriculum provides the learners with generic skills that include critical thinking and problem-solving; creativity and Innovation; communication, Cooperation and self-directed learning; and Numeracy and ICT. These skills are embedded in the subject syllabuses and teachers are expected to assess them using the learning outcomes. Formative assessment and summative assessment are carried out by individual teachers and UNEB respectively. Challenges exist in assessing a large number of learners by individual subject teachers and yet some teachers lack the competencies to be assessed. Most teachers and parents prefer the traditional methods of assessment. The study concluded and stressed the urgent need for a paradigm shift from current assessment strategies to those techniques that promote the assessment of generic skills specifically. The study recommended teachers become mentors to support the development of these skills in the learners; introduce peer mentors from among senior students; and conduct peer assessment and self-assessment in addition to teacher assessment. A panel of three teachers

# East African Journal of Arts and Social Sciences, Volume 8, Issue 1, 2025

Article DOI: https://doi.org/10.37284/eajass.8.1.2711

was recommended to assess each student on generic skills at a summative level to reduce subjectivity in assessment.

### APA CITATION

Rebecca, J. B. (2025). Effective Assessment of Generic Skills in Uganda's Secondary Schools. *East African Journal of Arts and Social Sciences*, 8(1), 221-233. https://doi.org/10.37284/eajass.8.1.2711

### CHICAGO CITATION

Rebecca, Joyce Bukirwa. 2025. "Effective Assessment of Generic Skills in Uganda's Secondary Schools". *East African Journal of Arts and Social Sciences* 8 (1), 221-233. https://doi.org/10.37284/eajass.8.1.2711.

### HARVARD CITATION

Rebecca, J. B. (2025) "Effective Assessment of Generic Skills in Uganda's Secondary Schools". *East African Journal of Arts and Social Sciences*, 8(1), pp. 221-233. doi: 10.37284/eajass.8.1.2711.

#### **IEEE CITATION**

J. B., Rebecca "Effective Assessment of Generic Skills in Uganda's Secondary Schools". *EAJASS*, vol. 8, no. 1, pp. 221-233, Feb. 2025.

# **MLA CITATION**

Rebecca, Joyce Bukirwa "Effective Assessment of Generic Skills in Uganda's Secondary Schools". *East African Journal of Arts and Social Sciences*, Vol. 8, no. 1, Feb. 2025, pp. 221-233, doi:10.37284/eajass.8.1.2711.

# INTRODUCTION

Sustainable Developmental Goal 4 focuses on achieving inclusive and quality education and promoting lifelong learning for all (MOES, 2019). Additionally, the Uganda Vision 2040 aims at transforming Uganda into a modern and prosperous nation. National Curriculum Development Centre (2019) made reference to UNESCO Education Strategy (2014-2021) whose recommendation is to promote societies that are just, inclusive, peaceful and sustainable by 2030. As such the education provided in Uganda's schools should be able to produce an effective workforce that can work independently, be self-driven, work with minimal supervision, willingly engage in lifelong learning, adapt to new work environments, communicate effectively using a variety of modes, interact effectively with others from diverse cultures, and work remotely in virtual teams. This set of cognitive and affective capabilities is often referred to as "21st-century skills" (National Academy of Sciences, 2011) and it is what Schools in Uganda are trying to instil in learners in the new lower secondary education curriculum to enable the country to attain a middle-income status in the anticipatable future. In this study, 21st-century skills are referred to as generic skills.

The Ministry of Education and Sports (MOES) has embarked on a number of curriculum reforms to equip young people with these requisite competencies to take hold of life's demands and thrive in tomorrow's world. Consequently, a review was conducted on the lower secondary curriculum in Uganda, based on the Education Sector Strategic Plan 2017-2020 (MOES, 2017). The government of Uganda rolled out the new lower secondary education curriculum in February 2020 which is a competency-based curriculum that incorporates generic skills to meet the learners' needs as far as employability is concerned. However, challenges of assessing these skills in schools have preceded the development of how to teach these skills (Altinyelken, 2010; Care and Vista, 2017). Additionally, Chan et.al (2021) reported that there are concerns in Hong Kong that the new curriculum is still examination-oriented which may sacrifice time for whole-person development. Under the new curriculum, teachers in Uganda are expected to conduct a formative assessment in the four-year cycle, get an average score and submit it to UNEB to contribute 20 percent in the final national examination grading. This tallies with Tan (2019) who observed that the importance of academic results is entrenched in the Asian culture and that parents commonly consider academic success as a successful life. The question to be answered is how

generic skills should be specifically assessed in Ugandan secondary schools so that the results from this assessment can clearly inform all the stakeholders.

# **Aim and Objectives**

The aim of this study was to draw stakeholders' attention to the assessment of the desirable generic skills in Uganda's schools.

Specifically, the study was guided by the following objectives:

- To highlight the nature of generic skills needed to be taught in Uganda's schools and the necessity for their assessment;
- To suggest ways of promoting effective assessment of generic skills in Uganda's schools
- To identify challenges to effective assessment of generic skills in Uganda's schools.

# **METHODOLOGY**

This study used a narrative literature review design (Noguchi, 2006; Ridley, 2008), characterized by using peer-reviewed articles as the major data source. Literature reviews serve a scientific field by providing a much-needed bridge between the vast and scattered assortment of articles on a topic. A narrative literature review is an integrated analysis of the existing literature used to summarize a body of literature, draw conclusions about a topic, and identify research gaps. Narrative reviews allow researchers to describe what is known on a topic while conducting a subjective examination and critique of an entire body of literature.

The researcher sampled relevant articles from which data was collected in the form of opinions, empirical findings and comments from credible documents, with utmost consideration of academic honesty (Gyaviira and Musisi, 2017 citing Mayer, 2009). Thematic analysis (Kombo and Tromp, 2006) was used for both data analysis and synthesis. The

themes were based on the objectives of the study. Findings were eventually organized and presented around themes that were in tandem with the specific objectives. To locate relevant peer-reviewed literature, the study used the Google Scholar search engine to obtain relevant articles such as: "Assessment of Generic Skills", "Teaching and Learning of Generic Skills", "Formative and Summative Assessment of Generic Skills and "Skilling Uganda" as the key search phrases (Noguchi, 2006). The search yield included journal and non-journal sources on such related phrases. The literature so obtained was explored and either taken or rejected depending on their relevance to the study. The study only considered published articles 21st-century skills, generic skills employability skills. The study excluded articles on subjects taught in schools like Mathematics, Physics, English, Chemistry, History, Geography etc.

Nevertheless, the study's primary reliance on the Google Scholar search engine might have limited the kind of studies that eventually became available. This glitch was however addressed by following up on key leads, links and sources the reviewed articles presented (Mayer, 2009). This enabled the researchers to locate further sources the researchers could have missed. The peer-reviewed articles and other sources used were available in the English language and had been published in the period between 2000 and 2021. For a conceptual study of this nature, the use of literature spanning almost 20 years enhanced the validity of the study (Gyaviira and Musisi, 2017). The process undertook four stages the first stage being decontextualisation where the researcher read through different articles to learn what is going on regarding the assessment of generic skills. Secondly, recontextualisation took place where the researcher checked whether all aspects of the content had been covered in relation to the aim. Thirdly, the categorization stage took place where the researcher identified themes in line with the objectives of the study. Lastly, where the

researcher began the writing process through the process of compilation.

### **FINDINGS**

# Nature of Generic Skills that Schools in Uganda Need to Promote

The 21st-century skills, commonly referred to as generic or employability skills (Stuart, 2018; Thoughtful Learning, 2018), are a set of abilities students need to succeed in today's volatile world (Partnership for 21st Century Skills, 2017) or competencies students need to think critically and reason logically to be able to meet today's challenges (Thoughtful Learning, 2018). The lower secondary education curriculum aims at providing the learners with generic skills that include critical thinking and problem-solving; creativity and Innovation; communication, Cooperation and selfdirected learning; and Numeracy and ICT. Among a multitude of categorisations of these skills, this study focused on the generic skills integrated with the lower secondary education curriculum. These skills are embedded within what Watanabe-Crockett (2016) refers to as essential fluencies. With this in mind, this paper partakes that integrating fluencies in the curriculum is one thing and assessing them effectively is another.

Critical thinking and problem-solving (Solution *fluency*) are the skills for solving complex problems in real-time. Therefore, as schools focus on students' ability to solve real-world problems, they promote students' success in dealing with the complex conflicts of modern living. As effective problem-solvers, learners need to be able to work independently, take initiative, take risks, and not be afraid to make mistakes. They will learn to plan and carry out investigations; sort and analyze information; identify problems and come up with a way forward; predict outcomes and make informed decisions; and evaluate different options. It is envisaged that the products of this training will be key assets the country needs to metamorphose into a middle-income economy. The important aspect in acquiring solution fluency, however, is the schools' readiness and ability to assess this skill.

Creativity and Innovation (*Creativity fluency*) is a skill that inspires students to see who they are and what they can do and accomplish. Students in Ugandan are faced with diverse challenges that require them to use their imaginations to explore possibilities; work with others to generate ideas; suggest and develop new solutions; try out innovative alternatives; and look for patterns and make generalizations. Creativity fluency is thus, fundamental in allowing students to succeed in producing and consuming information. However, this can only depend on how effective schools are in assigning students rewarding projects and meaningful tasks they need to be able to overcome challenges in a variety of imaginative ways.

Analytic thinking (Information fluency) is the ability to use higher-order thinking skills in dealing practically with problems of a social, mathematical, and scientific nature. It involves proficiency in comparing, contrasting, evaluating, synthesizing, and applying without instruction or close supervision. This skill enables students to interpret situations from different perspectives. With this skill, students can conceptualize, organize, classify, and synthesize knowledge, which is invaluable. Besides, these skills empower learners to make effective and level-headed decisions in their lives and relationships. Nevertheless, the development of effective assessment of information fluency is vital if schools are to produce analytical thinkers that can drive the country to middle-income status.

Co-operation and Self-directed learning (*Collaboration fluency*) is the ability to team up effortlessly in today's physical and virtual spaces, with real and virtual global partners. Collaboration fluency enables students to work effectively in diverse teams; interact effectively with others; take responsibility for their own learning; work independently with persistence; and manage goals and time. Collaboration fluency promotes learning, mental health and emotional health. This is thus, a

skill that schools must allow learners to exercise regularly through relevant assessment mechanisms.

Communication (Media fluency) is the ability to interact and share information using multi-faceted means. A 21st-century savvy student should be able to communicate, in multiple multimedia formats. While today's students love to communicate using technology, they must be taught to listen attentively and with comprehension; talk confidently and explain things clearly; read accurately and fluently; write and present coherently; and use a range of media to communicate ideas. Students should at all times be able to communicate clearly whether talking face to face or virtual. So effective assessment of media fluency is likely to encourage students to develop and refine the communication skills they need for personal and professional engagements.

Lastly, students require Numeracy and ICT literacy skills. If Uganda's schools are to produce well-rounded responsible 21st-century citizens, schools have to encourage learners to use numbers and measurements accurately; interpret and interrogate mathematical data; use mathematics to justify and support decisions; use technology to create, manipulate and process information; and use technology to collaborate, communicate and refine their work. Thus, schools need to embrace assessment strategies that will encourage and guide learners into becoming literate in numeracy and ICT.

# Need for Promoting Assessment of Generic Skills in Uganda's Schools

Assessment serves to inform the effectiveness of teaching and learning processes. It provides a reliable and valid measure of a student's learning and understanding as well as offering guidance to teachers and learners on a day-to-day basis (Watanabe-Crockett, 2016; Race, Brown & Smith, 2005). Asking students to demonstrate an understanding of the subject matter is critical to the learning process of generic skills. Besides,

assessment enables stakeholders to evaluate the degree to which the goals of education and standards of the lessons are achieved. In this regard, assessing generic skills is an integral part of teaching and learning these skills since it determines whether or not the goals of education are being realized (Cowan, 2005; Lucas Educational Foundation, 2018). In addition, according to Clegg et al. (2012) and Lucas Educational Foundation (2018), assessment affects decisions about grades, placement, advancement, instructional needs, curriculum and funding. Interest in assessment of generic skills is very timely because it inspires stakeholders to ask pertinent questions like: Are schools teaching generic skills? Are students learning generic skills? And, how can schools assess the teaching and learning of generic skills?

Stressing the importance of assessment, Race et al., (2005) noted that nothing done to, or for students is more important than an assessment of their work and the feedback given to them on it. Assessment results influence students for the rest of their lives in many ways. So, whether by summative or formative-based measures, effective assessment renders learners' thought processes visible, which enables teachers to adapt teaching strategies to meet students' needs. As a global shift in education toward generic skills, researchers have attempted to conceptualize the nature of these complex skills as they envisage how teaching methods, unbound by curricula, might progress from basic sophisticated forms (Greenhill, 2007). Just like in the 20th century, when assessment and evaluation methods helped to define intelligence and personality, the 21st-century assessment methods are calibrated to define and refine 21st-century skills (Care and Vista, 2017).

Uganda's schools employ both formative and summative assessment much as UNEB has been concentrating only on end-of-education cycle summative assessment. This includes; the Primary Leaving Examination (PLE), Uganda Certificate of Education (UCE) and Uganda Advanced Certificate

of Education (UACE) examinations, the National Assessment of Progress in Education (NAPE) and other system-wide tests, practical examinations used in schools, formal and informal classroom assessment (Allen, Elks, Outhred, and Varly, 2016). Thus, in keeping with Care and Vista (2017), when one thinks about assessment, what comes to mind are students shuffling papers at their desks, filling in short answers to questions, responding to multiplechoice style options, or writing essays. One also imagines students' cognitive effort, anxiously searching their memory to find appropriate responses to test items, or applying formulae to familiar problems. While such assessment may be effective in targeting and or promoting skills of storing relevant information and retrieving it upon demand (Lucas Education Foundation, 2018; Daily Monitor, 2017), it is not effective in promoting teaching and learning of generic skills.

Current assessment does not gauge how well students apply what they know to new situations or evaluate how they might use technologies to solve problems or communicate ideas. Secondly, while teachers and schools modify their practice based on standardized test data, tests are not designed to help teachers make decisions about how to target daily instruction. Thirdly, testing systems are rarely designed to measure a school's contribution to learning from a student's first to the last day in school (Fisher, 2018). Thus, assessment modes in Uganda focus on measuring students' abilities to recall factual knowledge of core content areas such as language, arts, mathematics, science and social studies (Care, and Vista, 2017; Alen et al., 2016; Clegg et al., 2012) at the expense of measuring ability to handle complex thinking and problemsolving tasks (Altinyelken, 2010; The Observer, February 17, 2018; Daily Monitor, Wednesday June 7, 2017). This explains the growing discrepancy between what students acquire in schools and what they need to succeed in the increasingly volatile 21st-century workplace (Stuart, 2018; Allen, 2016). This situation warrants the need for a shift from traditional assessment to one that measures 21st century skills which involves measuring the ability to think critically, examine problems, gather information, and make informed and reasoned decisions while using technology (The Partnership for 21st Century Skills, 2007).

Assessments of generic skills fall under the two broad categories of summative and formative assessment. Summative assessments are given at the end of an instructional unit to provide accountability and to measure how schools are progressing in terms of achieving the intended competency in their learners (Fisher, 2018; Allen et al., 2016; Ferrell, 2012; Jabbarifar, 2009; Partnership for 21st Century Skills, 2007; Cowan, 2005). In Uganda, this assessment includes; PLE, UCE and UACE NAPE, examinations, school promotional examinations and trial examinations (Allen et al., 2016). On the other hand, formative assessment is a process that occurs during instruction using activities that range from a performance task to a thoughtful and thorough conversation between teacher and student (Rowe, 2018 citing Sadler, 1989; Lai, and Viering, 2015; Pastore, 2013Cowan, Jabbarifar, 2009; 2005). In Uganda, these include classroom exercises, homework and some project work assigned to students from time to time. Experts agree that both formative and summative assessments should be part of any education system's or a school's overall assessment strategy because they are integrally tied to the teaching and learning of 21st-century skills (Care and Vista, 2017; The Partnership for the 21st Skills, 2007 Race et al., 2005).

The experts thus recommend a balanced approach of formative and summative assessments that both types are important in order to optimize teaching and learning (Cleg et al., 2012; Jabbarifar, 2009; Partnership for 21st Century Skills, 2007; Race et al., 2005). Thus, assessment is both an instructional tool for use while learning occurs (formative), and an accountability tool to determine if learning has occurred (summative) (Movina, 2016; Rust, 2013; Jabbarifar, 2009). While Uganda's assessment

system is a continuum of formative, interim, and national testing varieties, the system is barely seen as a means of helping children develop cognitive, academic, emotional and physical competencies (Educational Foundation, 2018; Partnership for 21st Century Skills, 2007). The system is instead seen as an end in itself since schools only focus on what is expected in exams instead of giving a wholesome education to enable students to learn and improve skills they need in life and the workplace (Talemwa Moses, The Observer, February 17, 2018).

Summative assessment of generic skills is carried out at the end of a program or cycle and it produces data that is useful, valid, reliable, and fair needed to inform curricular or policy decisions. This allows comparisons within and between successively larger populations of students (Fisher, 2018; Fisher, 2015; National Academy of Science, 2011; Movina, 2016; Partnership for 21st Century Skills, 2007; Greenhill, 2007).

Likewise, effective formative assessments of generic skills should be carried out regularly as instruction is ongoing. This improves students' skills and strategies, as well as knowledge transfer to parallel or related problems. The teachers should be able to measure or observe a student's mastery along several different axes. This assessment should be used to directly inform instructional practices that enable teachers to adapt teaching to meet students' needs and aim to build capacity for both teachers and students to help students integrate generic skills and knowledge into their learning (Fisher, 2018; Movina, 2016; Fisher, 2015; National Academy of Science, 2011; Partnership for 21st Century Skills, 2007). Formative assessment should also reflect an understanding of learning as multidimensional, integrated, and revealed in performance over time to enable students to focus on learning and integrating the skills to allow them to conceptualize and think about problems, rather than solely focus on procedures and answers (Partnership for 21st Century Skills, 2007; Fisher, 2018; Movina, 2016; Fisher, 2015).

Furthermore, effective assessment of generic skills requires that feedback information derived from assessment processes should come from teachers, self-assessment and peer assessment (García-Sanpedro, 2012). In addition, Sadler (1989) in Stuart (2018) affirmed that learners need feedback. Students need to know the goals they are working towards and when they become involved in the assessment process, assessment begins to look more like teaching and less like testing (Ferrell, 2012). This is because assessment is of much benefit to both teachers and students when viewed under the principles of assessment for learning. In the long run, it leads to improved performance and efficient service delivery (Gerald & Smith, 2004).

This means that effective assessment of generic skills in Uganda's schools requires feedback that is timely, specific, actionable, and useful. It is timely feedback that gives students an opportunity to relearn and practice the fluencies. Similarly, feed forward helps teachers decide what skills need to be taught again and to whom, which implies flexibility in planning and willingness to turn from whole class instruction (Heitin, 2012).

It is common practice in Uganda for teachers to give feedback at the end of the instruction unit or topic. Ferrell (2012), however, advises that feedback is meant to enhance student learning, and should not only be provided at the end of the unit that simply tell students where they have gone wrong. García-Sanpedro (2012) opines that to be effective, feedback needs to be a two-way dialogue which motivates students. Students need ongoing formal and informal feedback on their work (both assessed and non-assessed) throughout each unit, along with support on how to use it. It is also important to ensure students' awareness that the teacher is giving them feedback. This should be fairly clear when using written feedback, much as formative feedback may not always be written down. Besides, students need an opportunity to give teachers feedback on what they have learned. This helps teachers to determine whether teaching is helping learners

achieve the intended learning outcomes, which renders feedback a continuous process of conversation and reflection (Rowe, 2018; Wheatley, McInch, Fleming and Lord, 2015).

# How to Promote Effective Assessment of Generic Skills in Uganda's Schools

According to the new lower secondary education curriculum, generic skills are incorporated across the learning areas and they are not assessed separately. However, it is necessary to assess everything that is taught in schools including the generic skills in order to measure the level of attainment and to inform the teachers where to improve. To promote effective assessment of these generic skills in schools, there is a need for a revised assessment system that rewards the achievement of desired competencies. This means that the National Assessment Agency (UNEB) develops a system that: is criterion-referenced to assure that standards are maintained over time; measures knowledge application other than recall of facts; measures the appropriate range of generic skills; and uses both summative and formative techniques. Introducing modern assessment tools and ensuring that tests measure these fluencies will facilitate effective teaching and learning of generic skills (Allen et al., 2016).

In the lower secondary curriculum, each subject teacher is expected to continuously assess the generic skills of each learner and make a report. This implies that different teachers may give different reports on the same student for a particular skill. Besides, some of the teachers may themselves be lacking in some of these skills and there is likely to be a lot of subjectivity in this assessment. The question is how can you assess what you are not competent in?

At the school level, Fisher (2018) argues that getting the 21<sup>st</sup>-century skills elements into a teacher's current curriculum demands a change in their mindset by creating professional habits around *Replacement Thinking* (RT). Teachers can apply RT

across the curriculum; in instructional strategies, classroom activities, or in formative data collection. As a way forward, the following action steps can bring more contemporary ideas into the teachers' assessment of the generic skills:

Action step one: In every class, place generic skills into clubs where mentorship can be done and practice can be realized. Teachers need to ascertain that every student performs the skill in each club. These should be timetabled to allow for proper monitoring.

Action step two: Attach teachers to each generic skill club as mentors. Teachers should be attached to clubs where they have competence since they are supposed to support the students.

Action step three: Group the students in manageable teams for effective mentorship. Teachers should work with small groups of students to ensure that each student is attended to. Big numbers of students are hard to monitor for skills development. Amunga et al., (2020) pointed out that if the learners are many, it is very difficult to have individualized attention to the learner.

Action step four: Identify peer mentors from higher classes and attach them to students of lower classes. This is done to ease the work of the mentors who double as teachers as well with heavy workloads.

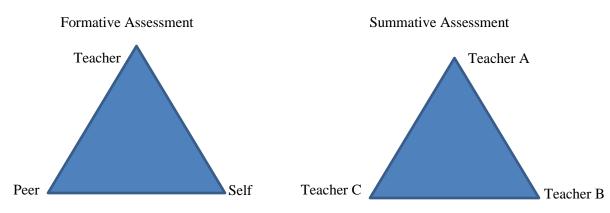
Action step five: Assign tasks to each student in the team to ensure that all students gain the skill. Each student should be given an opportunity to perform a given generic skill as the central person in the team. This means that the learning of generic skills should be expressed within the curriculum and be systematically taken into account in terms of intended learning outcomes, teaching methods, assignments and assessments (Hyytinen, Toom and Shavelson, 2019)

Action step six: Conduct formative and summative assessment of the generic skills. Formative assessment can be done in a triad: Self-assessment, Peer assessment and teacher assessment. Teachers

should allow each student to write their progress reports on each generic skill as a means of self-assessment. Teachers should task the peer mentors to carry out peer assessment and write a report for each student on the specific generic skill. Fangfang and Hoben (2020) said that we conceive empowerment as the chance to encourage discussion, reflection and actions with transformative potential that requires active

participation from learners. Teachers should make judgments on each student's performance at a specific generic skill. On the other hand, summative assessment should be done by panels of teachers only. Each student is expected to make a performance of a particular generic skill before a panel. This allows more than one person to make judgments of students' performance which increases its reliability.

Fig 1: Models of Assessment of Generic Skills in Schools



Since generic skills are behavioural in nature and must be performed, their assessment ought not to be tagged to marks as is the case for traditional assessment in schools. Notably, an individual either possesses the generic skill or not. This study suggests a grading system (LAGS) that will help

both teachers and students assess

the levels of attainment of generic skills. Here three levels of attainment of generic skills are sufficient and can be described in words as Excellent, Satisfactory and Unsatisfactory.

**Table 1: Rubric for Assessment** 

Grade	Justification
Excellent	The student performs the generic skill with ease and can integrate other generic skills
	while executing a given task.
Satisfactory	The student can perform a generic skill meaningfully but lacks the ability to integrate
	other generic skills in executing a given task.
Unsatisfactory	The student is unable to perform a generic skill meaningfully.

# Challenges of Assessing 21st Century Skills in Uganda

Effective assessment of generic skills is a process that poses considerable challenges. First and foremost, the country is challenged with the adjustment of the entire education system to align teaching and learning with the economic development demands of the 21st century (Clegg et

al., 2012). The key challenge is how to translate the adjustment effort into classroom realities (Altinyelken, 2010). For instance, most schools in Uganda assess students' learning at the beginning, middle, and end of the school term. The beginning of term tests are meant to ensure timely reporting of learners and thus prompt payment of school fees. Midterm tests are meant for monitoring content

coverage, while end-of-term exams are for accountability purposes.

This poses another challenge of how to proceed from the assessment using traditional tests which is still seen as a good-enough proxy measure of academic excellence, and where testing processes are implemented using traditional methods that stakeholders find convenient, systematic, and costeffective. Besides, there is the challenge of designing new and good-enough proxies of measuring generic skills i.e. assessment methods that measure the desired skills unequivocally. This is a challenge because the way alternative conceptualizations of a skill are explored determines the assessment approach, which can in turn have enormous implications for pedagogy and system-wide learning outcomes (Care and Vista, 2017).

Another challenge is teacher competence. A study about teacher perspectives on the thematic curriculum highlighted Continuous Assessment (CA) as the most important matter of teachers' concern. Teachers as a result preferred exams to CA much as they acknowledged certain benefits of CA in improving education quality (Altinyelken, 2010).

Apart from teachers, many parents raised concerns about the CA system which replaced examinations with periodic Progress Reports (PRs). The PRs made no reference to marks but included descriptions of how children are performing in predefined competencies in certain learning areas, and how they can improve their performance. Some parents failed to read the descriptions mentioned in the progress reports. Parents preferred to see marks and the position of their children within the classroom. Some parents who were dissatisfied with the new system transferred their children to private schools where the implementation of the thematic curriculum was delayed. Alarmed by similar parental dissatisfaction, some schools carried out exams or added marks and even the position of the child in the progress report. National Curriculum Development Centre had to revise the progress report to include both marks and descriptions on achievement levels in selected competencies (Altinyelken, 2010).

Most government-aided schools are highly populated which renders assessment of generic skills difficult. Writing comprehensive reports of each learner is not easy for a teacher who teaches more than one class and more than one subject.

Another challenge is that since interest in 21<sup>st</sup>-century skills is on behaviours rather than outputs, it is not clear what the insightful manipulation of behaviours can achieve. This renders it difficult to capture them for measurement purposes (Care and Vista, 2017).

# CONCLUSION

In conclusion, the study shows that the assessment of generic skills is the cornerstone of effective teaching and learning of these skills. In order to promote effective assessment of generic skills, a criterion-referenced approach should be adopted for both formative and summative assessment. Since most teachers facilitate two teaching subjects, it is important to be assigned to mentor 5-10 students with the support of a peer mentor who is a senior student and both should be assigned a generic skill of their competency. Lastly, the key challenges to effective assessment include; difficulty in adjusting the entire education system to align teaching and learning with the development demands of the 21st century, difficulty in changing the status quo, teacher competence and attitude, parents' attitude, and difficulty in designing accurate proxies for measuring generic skills attainment in schools.

# RECOMMENDATIONS

The study recommends that in order for the country to produce the human capital needed to propel Uganda to middle-income status, there is a need for the education system to introduce formative and summative assessment strategies to measure generic skills in particular. This requires teachers to become mentors to support the development of these skills

in the learners; introduce peer mentors from among senior students; and conduct peer assessment and self-assessment in addition to teacher assessment.

NCDC should review the current curriculum for primary and secondary schools and include an assessment of generic skills in particular. This will enable the products of this education to be self-reliant such that they do not have to wait to be employed here or elsewhere but can create their own employment.

Consequently, UNEB should develop standardized assessment strategies for both formative and summative assessment of generic skills. This can be achieved through the following procedures: Step 1: All students in Uganda should be entered into the UNEB database per academic year and networked with examination centres in the country. Step 2: UNEB should develop activities for each topic in the syllabus that can be given to learners across the country. Step 3: UNEB should provide timelines for accomplishing the given tasks. Step 4: Online submission of these reports should be made at the schools that are registered by the Ministry of Education and Sports. Once submitted, the reports cannot be revised by anybody. This is likely to reduce the cases of examination malpractices that have been a great problem in Uganda. Step 5: UNEB should award separate certificates on generic skills.

Additionally, MOES should come up with programs to retool practising teachers with generic skills, mentorship and assessment of generic skills. The government of Uganda should promote persons with generic skills to attract the current learners in similar directions which eventually will promote local industry.

The study recommends action research as a further study to be carried out on the assessment and evaluation of generic skills in Uganda's schools.

# **REFERENCES**

Allen, A., Elks, P., Outhred, R. and Varly, 1 P. (2016). Uganda's assessment system: A road-

- map for the enhancement of assessment in education. Health & Education Advice & Research Team, UK Aid.
- Altinyelken, H. K (2010). Curriculum change in Uganda: Teacher perspectives on the new thematic curriculum. International Journal of Educational Development. DOI: 10.1016/j.ijedudev.
- Amunga, J., Were, D., & Ashioya, I. (2020). The teacher-parent nexus in the competency based curriculum success equation in Kenya.
- International Journal of Educational Administration and Policy Studies, 12(1), 60-76. doi:10.5897/IJEAPS2020.0646
- Care, E and Vista, A. (2017). Education assessment in the 21st century: Moving beyond traditional methods. Center for Universal Education's Annual Research and Policy Symposium, April 5.
- Care, E. and Vista, A. (2017). Education assessment in the 21st century: New skillsets for a new millennium. Education Plus Development. Center for Universal Education's Annual Research and Policy Symposium, April 5.
- Clegg, C., Ottevanger W., Bregman J., Nannyonjo H. &Klosowska K. (2012). Uganda Secondary Education & Training Curriculum, Assessment & Examination (CURASSE) Roadmap for Reform. World Bank Report.
- Cowan, J. (2005) In: Designing assessment to enhance student learning
- Fangfang, G., and J. L. Hoben. 2020. "The Impact of Student Empowerment and Engagement on Teaching in Higher Education: A Comparative Investigation of Canadian and Chinese Post-Secondary Settings." In Student Empowerment in Higher Education: Reflecting on Teaching Practice and Learner Engagement, edited by S. Mawani and A. Mukadam, 153–166. Berlin: Logos Verlag Berlin.

- Fisher M. (2015). Digital Learning Strategies: How do I assign and assess 21st-century work? Connected Educational Month,
- Fisher, M. (2018). How to Design a 21st Century Assessment
- García-Sanpedro, M. J. (2012). Feedback and feed forward: Focal points for improving academic performance. *Journal of Technology and Science Education*, 2(2), 101-110. https://doi.org/10.3926/jotse.35
- George Lucas Educational Foundation (2018). What Works in Education; Edutopia and Lucas Education Research
- Gerald, S. & Smith, E. (2004). The role of feedback in student progress: A small scale experiment occasional paper 59. Cardiff university school of social sciences.
- Gill Ferrell (2012). A view of the Assessment and Feedback Landscape: baseline analysis of policy and practice from the JISC Assessment & Feedback program
- Greenhill, V. (2007). Partnership for 21st Century Skills 21st Century Skills Assessment. A Partnership for 21st Century Skills. E-paper
- Gyaviira, M. G. and Musisi B. (2017). "Educational Entrepreneurship (EE): Delineating the Domain and Highlighting its Importance and Feasibility in Educational Management in Uganda." American Journal of Educational Research, vol. 6, no. 1 (2018): 9-17. doi: 10.12691/education-6-1-2.
- Hyytinen, H., A. Toom and R. Shavelson (2019), "Enhancing Scientific Thinking Through the Development of Critical Thinking in Higher Education", in Redefining Scientific Thinking for Higher Education, Springer International Publishing, Cham, https://doi.org/10.1007/978-3-030-24215-2 3

- Jabbarifar, T. (2009). The Importance of Classroom Assessment and Evaluation in Educational System Proceedings of the 2nd International Conference of Teaching and Learning (ICTL).
- Karly O.W. Chan, Maggie K.W. Ng, Joseph C.H. So and Victor C.W. Chan (2021). Evaluation of Generic Competencies among Secondary School Leavers from the New Academic Structure for Senior Secondary Education in Hong Kong College of Professional and Continuing Education, The Hong Kong Polytechnic University, Hong Kong SAR, China
- Kombo, K. D. and Tromp, L. A. D. (2006). Proposal and thesis writing: an introduction. Nairobi: Pauline Publications Africa.
- Lai, E. R. and Viering, M. (2015). National Council on Measurement in Education Vancouver, B.C.(). Assessing 21st Century Skills: Integrating Research Findings.
- Lee Watanabe-Crockett (2016). The Critical 21st Century Skills Every Student Needs and Why
- Mayer, P. (2009). Guidelines for writing a Review Article.
- MoES. (2017). Education and Sports Sector Strategic Plan (2017-2020). Kampala: Ministry of Education and Sports.
- MoES. (2019). National Teacher Policy. Kampala:
  Ministry of Education and Sports. Retrieved
  from https://www.education.go.ug/wpcontent/uploads/2022/04/National-Teacherspolicy.pdf
- Movina, S.M. (2016). Characteristics of 21st Century Assessment
- National Academy of Science (2011). Assessing 21st Century Skills: Summary of a Workshop Rapporteur; National Research Council

- NCDC. (2019). Revised Lower Secondary Curriculum. Kampala: Ministry of Education and Sports.
- Noguchi, J. (2006): The science review article An opportune genre in the construction of science. Linguistic Insights Volume 17. Bern: Peter Lang.
- Partnership for 21st Century Skills (2007). 21st Century Skills Assessment. A Partnership for 21st Century Skills e-paper
- Pastore, S. (2013). Formative Assessment and Teachers' Practice: Implications for Educational Research and Professional Development
- Race, P. Brown, S. and Smith, B. (2005) 500 Tips on assessment: 2nd edition, London: Routledge.
- Ridley, D. (2008): The literature review a step-bystep guide for students. London: Sage Publications.
- Rowe, R. (2018). Formative feedback: Feedback for learning. Toolkit for Learning and Teaching, Feedback and Assessment. University of Sheffield.
- Rust, C. (2013). Purposes and principles of assessment Learning and Teaching
- Sadler, R. (1989) 'Formative assessment and the design of instructional systems', Instructional Science, 18:119-44.
- Stuart, V. (2018) Assessing 21st-CenturySkills and Competencies around the World. Global Cities Education Network
- Tan, C. (2019), "Parental responses to education reform in Singapore, Shanghai and Hong Kong", Asia Pacific Education Review, Vol. 20 No. 1, pp. 91-99.
- Thoughtful Learning (2018). What are 21st century skills? Briefing Papers Series. Oxford Centre for Staff and Learning Development.

- UNESCO. (2014). Shaping the future we want: UN Decade of Education for Sustainable Development (2005-2014) final report. Paris, France: United Nations Educational, Scientific and Cultural Organization
- Watanabe-Crockett, L. (2016). The Critical 21st Century Skills Every Student Needs and Why.
- Wheatley, L., McInch A., Fleming, S., and Lord, R. (2015). Feeding back to feed forward: Formative assessment as a platform for effective learning. Kentucky Journal of Higher Education Policy and Practice. Vol 3, Issue 2.