Assessing Educational Outcomes in the 21st Century in Uganda: A Focus on Soft Skills

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Abstract

Human experience and empirical evidence suggest that assessing educational outcomes cannot be limited to testing or examining learners in the traditional subjects or hard skills alone as school graduates are often faced with life situations and employment challenges that require competences beyond hard skills. Assessing soft skills, or known as transferable skills or generic skills is increasingly recognised as critical for ensuring a holistic view of educational outcomes. This paper explores the kinds of educational outcomes required by employers on the labour market in Uganda, and how these educational outcomes can be measured and assessed. It is a description of part of educational interventions of Luigi Giussani Institute of Higher Education in Uganda (LGIHE). The first part of this paper draws on documentary and empirical evidence from key employers, supervisors and business owners to validate assertions from the available literature whereas there is increasing demand for soft skills from the employment sector, little effort has been invested in nurturing and assessing learners’ soft skills. The second part draws from literature and empirical step by step procedure in designing Soft Skills Assessment Tools (SSATs). The paper reveals that education outcomes required of potential employees are wider in scope than traditional examination grades, academic qualifications or hard skills. This paper outlines the key soft skills demanded by the labour market and the suggested steps taken in designing SSATs. Hence, the paper recommends deliberate steps to be taken by schools in nurturing and assessing soft skills.

Keywords: educational assessment, educational outcomes, softskills, secondary school, Uganda

INTRODUCTION

Investment in education has traditionally been justified by optimistic assumptions, the first being that an educated population contributes to the socio-economic development of the society as a whole, and the second, that education contributes to the well-being of individuals within the society (Fagerlind and Saha, 1989, P.3).

Over the years, the education sector in Africa has seen a steady progress. With most countries having achieved universal primary enrolment (above 90 per cent), attending primary school is becoming the norm. Such progress ties in with the Sustainable Development Goals (SDGs) on education and global focus on capacity building for national sustainable development. Following the Education for All (EFA) Conference, Jomtien (1990) on African national governments and the international community are keener on improving school enrolment and completion rates (Altinyelken, 2015; UNESCO, 1990). Although, nearly half of African countries have realised a modicum of gender parity in primary school access, some challenges concerning quality, completion rates, secondary and tertiary level enrolments, curricula and systemic reforms, and teacher capacity and infrastructural development still persist. Hence, there are also many African children and youth who are in school but either not learning or not learning what is relevant for their future life achievements.

At the regional level in East Africa, major steps have been taken towards increasing access to education and enrolment rates in schools across all levels. This is particularly true for women and girls as well as the rise in basic literacy skills. In this regard, for regional governments to make impactful contributions targeting sustainable development in education, distance learning, teacher preparation and languages, more inter-governmental capacity building efforts are necessary (Hudson & Akyeampong, 2016).

Nationally, Uganda has been commended for the remarkable improvements in school enrolments. In response to the Dakar Framework for Action appeal to nations and all education stakeholders to ensure that ‘recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills’ (UNESCO, 2000:17), the last two decades have witnessed a growing focus on measurement and assessment of educational achievements and a shift from inputs or outputs to outcomes and from processes to results (Altinyelken,

1 The Uganda National Development Plan II (NDPII, 2015/16) highlights the increased enrolment rates across the different levels of education.
2015). This phenomenon has led to a paradigm shift in the understanding of educational quality as that which recognises the holistic learner as a person with the capability for personal development, employability and ability to face the daily realities of life (Giussani, 2001). This is a firm commitment to capacity building for national sustainable development which is being progressed through assessment of educational outcomes in the 21st Century and the focus on soft skills.

Learning Outcomes for Sustainable Development

Various studies today suggest Uganda’s education has fallen short of achieving its intended objectives and aims as per the Government White Paper on Education (1992). Moreover, the 2004-2015 MoES Strategic Report argues learners are failing to acquire the skills and knowledge relevant for the world of work or further education. The report stresses that only a minority of students appear to be achieving at the expected levels in post-primary education. Hence far too many leave school ill-prepared to command the knowledge and skills that would enable them to participate in the labour market as productive citizens or workers with the capacity to contribute to the country SDGs targets (June 2004).

Currently, the Ugandan education system has failed to enable the development of key competencies that the World Health Organisation (WHO) defines as ‘essential skills.’ These are the soft/life skills of problem solving, creative thinking, critical thinking, effective communication, interpersonal relationships, self-awareness and empathy among others (WHO, 1997).

Actually, speaking of sustainable development, the growth of a country or its human capital development is associated with the ability of a country’s educational system to foster the growth of those competencies that individuals can use to create economic value for themselves or their communities. In Uganda, the soft skills required for modern work are currently underemphasized in most training programmes, even though employers identify them as an indispensable hiring criterion for entry-level jobs.

Correspondingly, Skilling Uganda Business, Technical and Vocational Education and Training (BTVET) Strategic Plan affirms that more than 60% of large and medium sized companies consider the training provided by BTVET institutions to be irrelevant to their requirements (MoES, 2011). Drawing on these concerns, the study sought to investigate the demand for soft skills in the Uganda education and employment sectors and to assess and measure learning outcomes for contribution to the public discourse on the effectiveness of the education system for future sustainable development.

Emerging Concerns on Efficacy of Assessment System in Uganda

Despite the attempts by different institutions such as the Uganda National Examinations Board (UNEB) to assess students’ learning outcomes at secondary school level, the results do not necessarily paint an accurate picture of the learning outcomes. Relatedly, the assessment and evaluation of Uganda’s secondary education emphasises cognitive skills through standardised examinations and tests scores that concentrate on students’ mastery of content knowledge and core academic skills, but neglects soft skills. Thus, confirming that the soft skills of: emotional intelligence, conflict resolution, communication, resilience, assertiveness, optimism, integrity, self-awareness and patience currently demanded by the Ugandan labour market are undeveloped and unapprised. Similarly, others like: motivation, time management, self-regulation, cooperation, conscientiousness, organisation, perseverance, goal setting, help-seeking, self-efficacy, self-regulation, self-control, self-discipline, motivation, convictions, effort, work habits, homework completion, study skills and learning strategies are either underemphasised or completely disregarded. This has presented a dichotomy between the general aims of education in Uganda and what is assessed in schools; and more importantly, between what is assessed and what is required of a student to cope with life after secondary school. Despite the growing evidence that soft skills affect academic performance and life after school, policy-makers and educators seem not to have leveraged that fact (Farrington et al., 2012).

Hence, the implications of soft skills on educational practice remain unclear leading the study to question whether they are malleable, especially for teachers through classroom practice. Nevertheless, the unsupported assumption is that policy-makers and educators understand the value of developing students’ soft skills, have concrete strategies to develop them and reliable tools to assess/measure their effect on students in close reference to the development of content knowledge and academic skills (Farrington et al., 2012). However, this seems not to be the case. The author reiterates that educators, employers and supervisors perceive the teaching-learning of soft skills as problematic compared to hard/technical skills that are normally taught according to a formal curriculum.

Soft Skills Assessment Tools (SSATs) Pre - Test Study

Luigi Giussani Institute of Higher Education (LGIHE) undertook a broad three- phase study about the integration of soft skills assessment in public examinations at lower secondary schools in Uganda. It was implemented as follows: Phase 1 - a Market
Survey and needs assessment of the types of soft skills on demand: **Phase II** – Development and pre-testing of the Soft Skills Assessment Tools (SSATs); and **Phase III** – investigating possible mechanism for mainstreaming the SSATs nationally (study underway). Phase II of the study, fulfilled the purpose of formulating a testable educational assessment framework for measuring soft skills aptitude. The SSATs were pre-tested at lower secondary education levels among students and teachers in five districts (i.e. Kampala, Kyenjojo, Pader, Pallisa and Wakiso). Altogether, two pre-tests were conducted (see Pre-tests I and II below).

This paper presents the findings from Phase II only; highlighting their implications for the implementation stage. The main objective of the pre-tests was to identify practical approaches of measuring and assessing soft skills in lower secondary schools. The study relied on both quantitative and qualitative methodologies to establish the efficacy of the SSATs. Through psychometric evaluation techniques, the SSATs generated valid and reliable survey and qualitative-type data reflective of, for example, the personality traits, mental abilities/aptitude, opinions or intelligence of the pre-test sample (i.e. lower secondary school teachers and students). Therefore, this paper reports about the validity and reliability of the SSATs as instruments for measuring specific soft skills and recommends their improvement in view of potential integration into the national educational system.

**The Study Context: Thematic Concerns on Assessment of Soft Skills**

Studies suggest that Uganda’s education system falls short of achieving its intended objectives and aims as per the Government White Paper on Education (1992)⁵. The Ministry of Education and Sports (MoES) Strategic Report 2004-2015 argues that learners are failing to acquire the skills and knowledge relevant for the world of work or further education. The report stresses that only a minority of students in post-primary education appear to be achieving at expected levels. Hence, many leave school ill-prepared to participate in the labour market as productive citizens or workers (MoES, 2004). Despite the attempts by different institutions such as the Uganda National Examinations Board (UNEB) to assess students’ learning outcomes at secondary school levels, the results hardly paint an accurate picture of students’ achievements. Relatedly, today’s assessment of Uganda’s secondary education achievements concentrates more on students’ mastery of content and core academic skills, but neglects soft skills. The system mainly emphasises cognitive skills, standardised examinations and tests scores. Thus, confirming that the soft skills of: emotional intelligence, conflict resolution, communication, resilience, assertiveness, optimism, integrity, self-awareness and patience demanded by labour market are undeveloped and unapprised.

Similarly, the soft skills of: motivation, time management, self-regulation, cooperation, conscientiousness, organisation, perseverance, goal setting, help-seeking, self-efficacy, self-regulation, self-control, self-discipline, motivation, convictions, effort, work habits, homework completion, study skills and learning strategies are either underemphasised or completely disregarded (Farrington et al, 2012). This situation created a dichotomy between the general aims of education and what is assessed in schools; or between what is assessed and what is required of students to cope with life beyond secondary school. Despite the growing evidence that soft skills affect academic performance and life after school, policy-makers and educators seem not to have leveraged that fact (Farrington et al, 2012). Hence, the implications of soft skills on educational practice remain unclear. Nevertheless, the unsupported assumption has been that policy-makers and educators understand the value of soft skills development, have concrete strategies to develop them and reliable tools to assess/measure their effects on students in close reference to content knowledge and academic skills (Farrington et al, 2012).

These concerns provide scope for evaluating what is taught and how it is taught to enhance the acquisition of soft skills as one of the major learning outcomes in Uganda’s secondary level education. Although there is an undeniable recognition and demand for a universalised access to education today, it is also widely understood that a nation’s ability to educate its youth cannot be measured by access to schooling or enrolment rates alone, but rather by its ability to enable students develop the requisite knowledge, values and skills to function as literate and numerate members of the wider society.

Moreover, the quality of education is no longer solely measured by students’ ability to apply cognitive skills as employers and the realities of work require a mastery of soft skills (Awada, 2014). This attests that soft skills are considered “more important by employers than one’s cognitive strengths or academic abilities” since they enable people to live a holistic life (Awada, 2014:1). Thus, this paper adopts the idea of holistic assessment of learning outcomes strategy as a means of highlighting that the existing

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⁵Psychometric evaluation refers to a test designed to reveal an individual’s personality, mental ability or opinions etc. It is a branch of psychology concerned with the design, administration, and interpretation of quantitative tests aimed at measuring psychological variables such as intelligence, aptitude, and personality traits etc.

⁶See, the National Assessment of Progress in Education (NAPE) in Uganda report of 2014 and the National Assessment of Educational Progress (NAEP), UNESCO (2015) and Uwezo (2015) reports for perspectives on educational achievements.
assessment approaches at lower secondary educational levels mostly concentrate on testing academic competences and not soft skills.

LITERATURE REVIEW
Conceptualisation of Soft Skills Assessment
Holistic quality education cannot be discussed in isolation of holistic quality educational assessment. However, educational assessment particularly high-stakes public/national examinations greatly influence what takes place in the classroom and how it happens (Altinyelken, 2015; Kellaghan & Greaney, 2004). Available studies and practical experience suggest that the current assessment and examinations fall short of evaluating the quality of education yet education cannot be limited to the knowledge or application of literacy; numeracy or science only (UNESCO, 2000). Therefore, without the adequate emotional intelligence (soft skills), the Intelligence Quotient (IQ) would not suffice for a person to live and work intelligently. Life thus, requires a number of abilities and skills that this paper describes as the soft skills or what is commonly known as life skills, social skills or emotional intelligence.

Soft skills are a broad set of skills, competencies, behaviours, attitudes, and personal qualities that enable people to effectively navigate life, understand their environment, work well with others, perform well, and achieve their goals (Lippman et al, 2015). Related studies variously defined the personal attributes that are not usually measured by IQ tests or achievement tests as: soft skills, personality traits, non-cognitive abilities, character skills, life skills and socio-emotional skills. These different descriptions have different connotations despite often being applied interchangeably (Almlund et al, 2011 and Borghans et al, 2008). “Traits” suggests a sense of permanence and also possible heritability. This may also suggest that traits are more natural or inherited than skills. But, the term “skills” suggests that these attributes can be learned. Skills denote a particular ability to do something. Farrington et al (2012) for example, categorises skills into cognitive and non-cognitive, arguing that some such as problem solving and critical thinking require deliberate and high cognition while others such as perseverance require “weak” cognition.

Therefore, the idea of rating skills according to the levels of cognition does not accurately differentiate them since in essence, all skills are cognitive. Farrington et al (2012) asserts that in addition to curriculum knowledge and academic skills, students must develop sets of behaviour, skills, attitudes, and strategies that are crucial for academic performance, even though these may not be reflected in students’ test scores. Hence, Farrington et al (2012) adopted the term factors to go beyond a narrow reference to skills and embrace strategies, attitudes, and behaviours. ‘Factors’ allude to an influence contributing to a result. This potentially and erroneously reduces skills to simply mean a contributory rather than a consequential outcome; as if they cannot be learning outcomes on their own(pre-test results below). Education and health related studies commonly refer to soft skills as ‘life skills.’ According to the World Health Organisation (WHO,1994) ‘life skills’ indicate the abilities for adaptive and positive behaviour, that enables individuals to deal effectively with the demands and challenges of everyday life. These are cognitive skills for analysing and using information, personal skills for developing self-awareness and managing oneself, and inter-personal skills for communicating and interacting effectively with others.

However, the term ‘life skills’ is often applied interchangeably with soft skills or non-cognitive skills (The World Bank, 2013). This paper adopts the term ‘soft skills’ and avoids life skills because the former emphasises the malleability of the latter. The understanding of soft skills as the 21st century skills informed the design of the SSATs and the purpose of the pre-tests discussed here. Awareness of Uganda labour market’s soft skills needs and definition provided scope to align the SSATs pre-tests with the soft skills that would be considered as the most important recruitment requirement for entry-level jobs (LGIHE, 2016). Although functional literacy and numeracy are key elements of the measure of the quality of education, they scarcely define quality education as the latter includes all “outcomes of education such as the knowledge, skills, competencies, attitudes, and values that learners acquire” (Wagner, 2011:23). In terms of soft skills proficiency as a measure of quality education, this paper leans on Wagner’s (2011).

METHODOLOGY
The study built on the preliminary qualitative data collected from a multi-sectoral group of respondents who identified critical current labour market needs-based thematic soft skills areas (LGIHE, 2016). The respondents, proposed the assessment of 11 specific soft skills domains/constructs, namely: problem solving, critical thinking, responsibility, achievement striving, grit, integrity/honesty, assertiveness, teamwork, compassion/empathy, self-control, and self-esteem because they are considered vital for work. The pre-tests relied on quantitative approaches to establish the validity and reliability of the SSATs in measuring the 11 soft skills constructs. Pre-test I identified 79 items associated with the 11 soft skills constructs and tried them on 380 secondary students of Grade 2 on a rating scale of or (a 1-5 Likert score space). The students responded by means of self-

41-5 Likert score space refers/describes the rating scale 1-5 that was used in the first pre-test and later lowered to 1-3 for students while 1-5 was adopted for teacher ratings in pre-test 2.
reporting. A sample of 10 students in each of the pre-5 test schools was rated by two teachers for the soft skills constructs qualities/attributes that the students responded to. Recommendations from Pre-test I, influenced the design of Pre-test II, which contained 71 items of eleven soft skill constructs. These 11 constructs were tested on 530 students of Grades 3 based on a rating scale of 1-3 or (a 1-3 Likert score space) as well as Literacy and Numeracy tests.

LIMITATIONS OF THE STUDY
The study sample was drawn from 26 Districts to represent the four geographical regions of Uganda. Although maximum effort was made to represent urban and rural districts, each district has got peculiar characteristics that may not necessarily be identical to other urban or rural. The researchers are aware of the differences in context between schools in sampled districts. In generalising the study findings to other districts, this limitation has to be borne in mind.

In terms of the study tools, most of the tools used were self-reported tools. The researchers are aware of the likely effects of social-desirability. In reading the study results and recommendations, one ought to keep in mind this limitation which would have been reduced through use of other rating options.

SUMMARY OF FINDINGS

Psychometric Soft Skills Assessment Results
The table below shows the number of items that were hypothesized per soft skills construct in Pre-test I; and the realized coefficients of reliability.

In addition to the above results, an option of teachers rating their students was checked. The level of teacher agreement, and the agreement between teachers and students was measured using Cohen’s kappa coefficient.

On the whole, the level of teacher rating agreement was very low at only 4.8%. School-wise, although the level of agreement between teachers about their students is low it was highest (10.2%) at Luigi Giussani High School, as shown in Figure 1.

Table 1. Matrix Showing Results of Soft Skills Assessment Tools Pre-Test I

<table>
<thead>
<tr>
<th>Soft skills construct</th>
<th>Number of items</th>
<th>Cronbach’s Coefficient</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Solving</td>
<td>8 items</td>
<td>0.53</td>
<td>Only 4 test items appropriately measured a single construct but their functioning didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>7 items</td>
<td>0.43</td>
<td>2 items were not significantly associated with the construct and were thus dropped from further analysis. Out of the 5 items that remained, only 4 appropriately measured a single general factor but their functioning didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Achievement Striving</td>
<td>5 items</td>
<td>0.58</td>
<td>The test items are functioning well according to the hypothesized construct order and four items actually measure a common general factor.</td>
</tr>
<tr>
<td>Responsibility</td>
<td>6 items</td>
<td>0.56</td>
<td>All the 6 items functioned well according to the hypothesized construct.</td>
</tr>
<tr>
<td>Gritt (Consistency and Perseverance)</td>
<td>10 items</td>
<td>0.50</td>
<td>Only 7 test items appropriately measure a single construct but their functioning didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Integrity/Honesty</td>
<td>5 items</td>
<td>0.37</td>
<td>The 5 test items measured multiple constructs with only 2 items being explained by a common general factor. However, even the 2 items didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>12 items</td>
<td>0.61</td>
<td>4 items were not significantly associated with the construct and were thus dropped from further analysis. All the 8 items that were retained appropriately measured a single construct but their functioning didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Compassionate/Empathy</td>
<td>4 items</td>
<td>0.47</td>
<td>The 4 test items didn’t seem to measure a single construct of compassionate/empathy.</td>
</tr>
<tr>
<td>Self-Control/Patience</td>
<td>7 items</td>
<td>0.40</td>
<td>Only 3 out of 7 items were a function of a common general factor. However, their functioning didn’t fully map the distribution of the students.</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>6 items</td>
<td>0.61</td>
<td>The 6 test items didn’t seem to measure a single construct.</td>
</tr>
<tr>
<td>Cooperation/Teamwork/ Sense of Belonging</td>
<td>9 items</td>
<td>0.42</td>
<td>Only 5 items appropriately measured a single construct but there functioning didn’t fully map the distribution of the students.</td>
</tr>
</tbody>
</table>

Figure 1: Percentage Level of Agreement between Teachers
To decide between teacher rating and student self-rating, an evaluation of the consistency between teachers’ ratings and students’ self-rating was conducted. Cohen’s estimated coefficients are largely negative, which is indicative discordance between teachers and their students’ ratings in almost all schools, as shown in Figure 2.

Figure 2: Percentage Level of Agreement between Teachers and Students

Consequently, the low levels of teachers’ agreement about their own students and the sharp inconsistencies between students’ and teachers’ ratings were considered indicative of how little the teachers knew their students. It was then preferable for students to self-report instead of being rated by their teachers. Therefore, the findings presented below are drawn from the results of pre-tests I and II. Table 2 below outlines results of the students’ self-reporting from pre-test II

Table 2. Matrix Showing Results of Soft Skills Assessment Tools Pre-Test II

<table>
<thead>
<tr>
<th>Tested Soft Skills Constructs</th>
<th>Items =Qualities/attributes/abilities test scored</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Problem-solving</td>
<td>Assessed using these 6 items: 1) First find out exactly what the problem is. 2) Thinking head to prevent problems. 3) Establish cause of problem. 4) Act impulsively. 5) I choose the easiest solution. 6) Take action related to solution.</td>
<td>Cronbach’s Coefficient=0.567 All 6 items were found suitable, reliable and valid for assessing this skill construct.</td>
</tr>
<tr>
<td>2. Critical Thinking</td>
<td>Assessed using these 5 items: 1) Easily recognise when in the wrong or right. 2) Identify best response to a problem. 3) Justify my opinions. 4) Put myself first mostly. 5) Pay attention to my inner feelings.</td>
<td>Cronbach’s Coefficient=0.437 All 5 items were found suitable, reliable and valid for assessing this skill construct.</td>
</tr>
<tr>
<td>3. Responsibility</td>
<td>Assessed using these 6 items: 1) Late reporting to school. 2) Finish all assignments before leaving class. 3) Hand my book for marking whenever required. 4) Inform teacher of my absence in advance. 5) Successfully complete the day’s work. 6) Get to class before the first morning lesson.</td>
<td>Cronbach’s Coefficient=0.552 All 6 items were found suitable, reliable and valid for assessing this skill construct.</td>
</tr>
<tr>
<td>4. Achievement Striving</td>
<td>Assessed using these 5 items: 1) Learn things that seem hard. 2) Persist to the very end. 3) Repeat till right. 4) Persist with difficult task till successfully done. 5) I do my best in all my activities.</td>
<td>Cronbach’s Coefficient=0.563 All 5 items were found suitable, reliable and valid measure of construct.</td>
</tr>
<tr>
<td>5. Grit (Consistency and Perseverance)</td>
<td>Assessed using these 8 items: 1) Focus for a short time then lose interest. 2) Often set goal but later choose to follow a different one. 3) Sometimes distracted from previous ideas by new ones. 4) Finish whatever started. 5) Not discouraged by challenges. 6) Hard worker. 7) Achieved goals after months of work. 8) Overcame challenges to achieve important goal.</td>
<td>Cronbach’s Coefficient=0.255 All 8 items were found suitable, reliable and valid measure of construct. But 1-3, required further review.</td>
</tr>
<tr>
<td>6. Integrity/Honesty</td>
<td>Assessed using these 5 items: 1) Help friends answer questions during an exam. 2) Ask classmates for help to answer questions during an exam. 3) Ask for permission to use friend’s materials (e.g. books, pens). 4) Sneak out of class when teacher not watching. 5) Tell lies to save self from punishment.</td>
<td>Cronbach’s Coefficient=0.525 All 5 items were found suitable, reliable and valid measure of construct. Yet, 1, 2, 4 and 5 skewed results towards socially acceptable implications &amp; need reviewing.</td>
</tr>
<tr>
<td>7. Assertiveness</td>
<td>Assessed using these 10 items: 1) When asked to do something, insist upon knowing why. 2) Enjoy starting conversations with new friends. 3) Show feelings through facial expressions. 4) Try to maintain eye contact when talking to others. 5) Look at friends’ face to understand their feelings. 6) Express feelings by words and actions together. 7) Take decisions that are fair to others. 8) Do not blame others even when hurt. 9) Try to calm friends down when they argue. 10) Apologize to others when caused them hurt.</td>
<td>Cronbach’s Coefficient=0.579 All 10 items were found suitable, reliable and valid measures of construct.</td>
</tr>
<tr>
<td>8. Cooperation/Teamwork/Sense of Belonging</td>
<td>Assessed using these 8 items: 1) Work well with peers. 2) Solve problems with peers without becoming rude. 3) Pay attention to how others are feeling. 4) Understand the feelings of peers. 5) Happy to be at this school. 6) Feel</td>
<td>Cronbach’s Coefficient=0.607 All 8 items were found suitable, reliable and valid measures of construct. Still, item 8 skewed results towards socially acceptable implications &amp; need reviewing.</td>
</tr>
</tbody>
</table>
Table 3. Students’ Self-Rating – Pre-Test II

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Items/Questions For Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of teacher-pupil relationship</td>
<td>Assessed using these 7 items: 1) My teacher punishes students without even knowing what really happened. 2) I feel safe and comfortable with my teacher. 3) My teacher always treats all students the same. 4) My teacher doesn’t care about what I think. 5) My teacher always keeps his or her promises. 6) My teacher really cares about me. 7) I feel like I can talk to my teacher about things that are bothering me. Cronbach’s Coefficient=0.741. All the 7 items were significantly associated with the construct, and of moderate reliability.</td>
</tr>
<tr>
<td>Inclusion of new and innovative teaching methods</td>
<td>Assessed using these 4 items: 2) I am learning a lot in this class. 3) My teacher expects everyone to work hard in this class. 4) My teacher expects me to do my best all the time in this class. 5) My teacher wants us to learn beyond just memorizing. Cronbach’s Coefficient=0.496. All the 4 items were significantly associated with the construct, and with a low measure of reliability.</td>
</tr>
</tbody>
</table>

Table 4. Teachers Self-Rating Pre-Test I

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Items/Questions For Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration among teachers</td>
<td>Assessed using these 5 items: 1) I often feel that I don’t have much to offer my fellow teachers in my school. 2) I feel comfortable sharing my challenges with my fellow teachers. 3) My contribution is valued by my fellow teachers.</td>
</tr>
<tr>
<td>Teacher’s job satisfaction and enthusiasm to teach.</td>
<td>Assessed using these 12 items: 1) I am satisfied with my role as a teacher. 2) Each day at my school seems like it will never end. 3) I find real enjoyment in my work. 4) I consider my teaching job to be rather pleasant. 5) I lead a purposeful and meaningful life. 6) My social relationships are supportive and rewarding. 7) I am engaged and interested in my daily activities. 8) I actively contribute to the happiness and well-being of others. 9) I am competent and capable in the activities that are important to me. 10) I am a good person and live a good life. 11) I am optimistic about the future. 12) People respect me.</td>
</tr>
<tr>
<td>Role of head teacher in continuing professional development.</td>
<td>Assessed using these 4 items: 1) My head teacher supports the use of alternative and innovative teaching methods. 2) On average teachers in my school prepare their daily lesson plans. 3) My head teacher provides feedback regarding my classroom performance. 4) My head teacher advises me about my teaching methods.</td>
</tr>
</tbody>
</table>
DISCUSSION OF FINDINGS FROM PRE-TESTS I AND II

Although, both pre-tests assessed numeracy and literacy skills, only the outcomes of the SSATs have been reported. According to the matrix in Table 2 the SSATs were found to be suitable, valid and reliable instruments for measuring the 11 soft skills constructs. All the soft skills qualities described as test items (Table 2) indicate that each of the skills can be assessed independently based on their own merits and attributes (or psychometric rigor). The SSATs made the student’s abilities or application of each skill easily identifiable and assessable. Six out of the 11 SSATs require minor modifications because some of their test items tended to skew results towards socially acceptable expectations. This implies that the students were merely reporting according to predetermined socially correct/acceptable attributes to appear to be doing the right thing (Table 2).

Comments on Teachers. Student Self-Rating

Teachers were assessed to determine how well their soft skills abilities would vary from or complement the students’. The results were different for both students and teachers; they highlighted how the student-teacher classroom/school relationships depend on the correct application of the correct soft skills in the correct contexts (Table 3 and 4). During self-rating, students rated teachers on eight major indicators, although only two indicators are cited in Table 3 above. The items assessed and highlighted how soft skills improve the quality of teacher-students’ relationships and the teaching-learning experience. Teachers self-reported on three major indicators namely: collaboration among teachers, teachers’ job satisfaction and enthusiasm to teach and role of the head-teacher in continuous professional development (Table.3). All three indicators led to the assessment of teacher-teachers’ interaction in a classroom or school environment.

The indicators assessed teachers’ job satisfaction, teamwork abilities, and how the school system contributes to their career advancement or personal professional development. The third tool that was used in Pre-test I for teacher-student rating. Two teachers in each participating Pre-test I school in rated the same students over a sample of test items. However, when evaluated against students’ self-ratings the teacher ratings of the students of the results specific teacher ratings, the level of teacher rating consistency was found to be low (4.8%). Pre-test I concluded that the results from the exploratory analysis of two teacher-students’ rating are indicative of limited teacher-student interactions and reflected the inconsistency of teacher ratings. This led to that specific SSATs (teaching-student rating soft skills tool) being dropped from Pre-test II.

CONCLUSION

In conclusion, this study has demonstrated that with the right tools, it is possible to assess soft skills. However, soft skills aptitude is sometimes influenced by both home and school factors. The 11 constructs of the SSATs indicate that learners have the potential to apply those skills variably depending on their social contexts. This largely explains why some items skewed or pre-determined student responses (Table 2). Self-reporting as seen in both pre-tests allows both students and teachers to self-evaluate, reflect and desire learning and change.

RECOMMENDATION AND POLICY IMPLICATIONS

An educational assessment framework that depicts students’ soft skills aptitude such as the SSATs provides scope for policy review and realignment of curriculum, and pedagogies with soft skills assessment methods, public examinations and student learning outcomes generally. This provides scope for further research and policy consultations to fill existing knowledge gaps regarding the assessment of soft skills as learning outcomes in the secondary education system. Thus, the study recommends:

i. Refining and adopting the SSATs for pilot implementation nationally;

ii. Establishment of similar continuous assessment tools for teachers as part of career and personal development; and

iii. Integration of the SSATs in all public examinations for accurate portrayal of students’ learning outcomes.

REFERENCES


