

# Chapter 8

## Opportunities and Challenges in Household-Based Assessment of Life Skills



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**Abstract** Household-based assessments (HBA) in education are novel. Conducting household-based learning assessments has long been associated with non-government organisations as evidenced in India, other parts of South Asia, East, West and Southern Africa, and the Americas. The use of HBA to measure life skills expands the use of this approach that was long characterised by assessing foundational literacy and numeracy skills. Experiences from the Assessment of Life Skills and Values (ALiVE) by the Regional Educational Learning Initiative (RELI) reveal that opportunities for using HBA to measure life skills are immense. Through a collaborative initiative, ALiVE as a process delivered a tool that was used across Kenya, Tanzania, and Uganda mobilising stakeholders among policymakers, education researchers, teachers, civil society organisation leaders, local partner organisations and citizen assessors from areas where a sample of adolescents aged 13–17 was identified, selected and assessed on the value of respect and life skills of self-awareness, problem solving and collaboration. This household-based assessment approach reveals that despite the immense opportunities, there are also challenges. This chapter provides the context of ALiVE, traces the process of implementing ALiVE using the household-based approach, and discusses the opportunities and challenges associated with using HBA in measuring life skills. These opportunities include the ability to capture a larger range of children than can school-based assessments, the liberalisation of assessments, the inbuilt advocacy and technology opportunities, the deepening of external accountability systems, and engagement capabilities. Among the challenges discussed in using HBA for measuring life skills is the need to identify and define the purpose, the complexity of identifying groups to assess, the logistical challenges in implementation and associated costs, difficulties in scheduling, and the reality that still not all children will be reached. Despite this set of challenges, HBA demonstrate the opportunities that exist outside school to provide data at large scale for reporting and advocacy.

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## 8.1 Introduction

Nansubuga et al. (2024) provide a detailed description of methods available for assessing life skills. In this chapter, the focus is on the opportunities and challenges of using household-based assessments (HBA) for measuring life skills, drawing on the experience of applying the approach in the context of the Assessment of Life Skills and Values in East Africa (ALiVE) project. The chapter traces the origins of household-based learning assessments over the past one and a half decades when the approach emerged, principles and standards developed, methods defined, assessments created, and lessons learned, before delving into use of the approach in assessing life skills and values.

In this chapter, five critical processes in the ALiVE process that define its rigour (sampling, tools development, selection of assessors, training, and the actual assessment activity) are presented in detail to situate the opportunities that HBA bring to measuring life skills. HBA in education are recent strategies used for estimating the education system's efficacy, effectiveness, and efficiency in resource application. Although household-based surveys are a common epistemological approach in social sciences, the household as a point of identifying and assessing learning is relatively recent. The most documented HBA, also considered the prototype of household-based learning assessment in education, is Pratham's Annual Status of Education Report (ASER, 2005).

Pratham, one of the largest education non-government organisations in India that had been working across the informal settlements of Mumbai City, developed an innovative approach to establishing levels of foundational learning skills among children of school-going age. Motivated by the realisation that not all children of school-going age were actually in school, Pratham decided to use the household as the point of collecting the data. The Pratham assessment therefore harvested data on learning levels for out-of-school children as well as school attendees. Taking an age group of 6–16 years as the assessment group, the criterion-referenced learning assessment pegged on Grade 2 reading and numeracy expectations was the first step in universalising assessments at large scale. Citizen volunteers in their thousands were recruited from the sampled villages, trained, and deployed back in their communities (hamlets and villages), to sample-based identified 20 households within each, recorded details of all children in the target age group, and surveyed the children aged 6–16 regardless of their schooling status. The deployment of citizen volunteers for the complex task of assessing learning at household level, also led to referring to these assessments as citizen-led assessments. Sometimes the two terminologies i.e. household-based and citizen-led assessment have been used interchangeably or simultaneously (Nakabugo, 2016, 2021). The initial ASER citizen-led HBA in 2005 sampled more than 600 districts across India (Goodnight & Bobde, 2018).

The ASER approach would later spread across South Asia starting with Pakistan, later in the East African countries of Kenya, Tanzania, and Uganda, West Africa, and Latin America, in what became a horizontal transfer of learning across the global south. The East African initiative, named Uwezo (meaning ‘capability’), conducted its first pilot assessment in Kenya in 2009. Following the success of this pilot, the assessment was rolled out in Uganda and Tanzania in 2010, and other countries in Africa such as Mali and Nigeria, among others, also embraced the approach. By March 2020, citizen-led HBA had been embraced fully in 15 countries on three continents (Table 8.1) and had assessed over 8.5 million children in literacy and numeracy in over 30 languages including English, French, and Portuguese.

The ASER transfer maintained the original approach, but with adaptation of tools to meet the demands of each context (Mugo et al., 2016). The ASER tools and approach would later be called a method of education system feedback and program evaluation. The approach gained new names as adjustments were made to its use (as indicated in Table 8.1) while processes were adopted among them retaining the age of assessment, use of citizen assessors (and criteria such as levels of education), tools development, assessing at the household, retention of reading and numeracy as basic competencies to assess, and administration of instant feedback as essential elements in the assessments (Nakabugo, 2021).

**Table 8.1** Citizen-led assessment/household-based assessment initiatives globally (as of March 2020)

Name of the initiative	Country	Year of first [pilot] assessment
ASER Centre	India	2005
ASER Pakistan	Pakistan	2008
Uwezo Kenya (now operating as Usawa Agenda)	Kenya	2009
Uwezo Tanzania	Tanzania	2010
Uwezo Uganda	Uganda	2010
Bεεkunko	Mali	2011
Jàngandoo	Senegal	2012
MIA (Medición Independiente de Aprendizajes - ‘independent assessment of learning’)	Mexico	2014
LEARNigeria	Nigeria	2015
IID (Institute of Informatics and Development) and BRAC	Bangladesh	2015
TPC Mozambique	Mozambique	2016
ASER Nepal	Nepal	2016
VIdA (Valoración Intersubjetiva del Aprender – ‘intersubjective assessment of learning’)	Nicaragua	2017

Source: People’s Action for Learning (PAL) Network: <http://palnetwork.org/> In Nakabugo (2021, p. 51)

In the adaptation of the approach, generic steps required in large-scale assessment were taken, including: defining the purposes of the assessments that make them fit for purpose; definition of skills and competencies to be assessed (including defining rubrics as performance indicators); and establishing the elasticity of the tools across diverse targeted groups (through the iteration of several field trials), before the tools were deployed for use. This collaborative approach drew on curriculum development and assessment agencies in respective countries, and on researchers, psychometricians, and practising teachers to ensure rigour and quality (Mgalla et al., 2020). Since the assessments are household-based and within communities, the selection of assessors is a critical issue. According to PAL Network (2021), working with citizen volunteers requires the development of criteria that include identifying volunteers from communities where they are likely to work, and establishing their thresholds of education. For the former, the assumption is that by selecting volunteers (surveyors) who hail from their community, these are likely to participate in collectivising citizen agency, that is, citizens taking collective action to find solutions to the learning challenge, a key ingredient in the design and implementation of the citizen-led bottom-up approach to improving learning outcomes (Goodnight & Bobde, 2018).

Wiles et al. (2013) argue that when applying innovative approaches in research, uptake and acceptance of these new approaches and their findings in the broader social science community may often be slow. Yet, although HBA are novel, their implementation and role in altering the education landscape cannot be underestimated. The ‘World Development Report: Learning to realise the promise of education’ (World Bank, 2018) frames the learning poverty phenomenon based on data from these HBA.

It is because of the potential advantages of the household-based approach to learning assessment and its global acceptability as a credible research approach, that the Uwezo HBA approach that had been adapted in the East African context was embraced in ALiVE.

## 8.2 The ALiVE Study

In 2019, the Regional Education Learning Initiative (RELI) (an initiative of civil society organisations in East Africa) coalescing around its values and life skills thematic group, began consolidating experiences, literature, and practice of life skills and values in education across the East African countries of Kenya, Tanzania, and Uganda. This led to the development of a contextualised tool for measuring the selected life skills of collaboration, problem solving, and self-awareness, and the value of respect. HBA was undertaken across the three countries between April and August 2022, with its results reported in Ariapa et al. (2024). ALiVE’s rigour is drawn from five distinct processes of sampling, tools development, recruitment of assessors (citizen volunteers and teacher trainees), training and data collection methods/actual assessment.

## **8.2.1 Sampling**

The HBA approach involved drawing a population sample to assess life skills and values among adolescents aged 13–17 years who were both in and out of school. The assessment was conducted with a geographically representative sample of sub-national units (districts/counties) in each country, with 20 enumeration areas in each sub-national unit, and 20 households with adolescents selected to participate in the assessment. The ALIVE sampling was a three-stage process.

### **8.2.1.1 Sampling Stage 1**

This stage involved the selection of the sub-national units and enumeration areas to be visited. The relevant national Bureaus of Statistics undertook this task. The Bureaus identified the sub-national units from each national census frame and then proceeded to identify 20 enumeration areas (EA) in the respective sub-national units.

### **8.2.1.2 Sampling Stage 2**

This stage involved the physical identification of the selected enumeration areas and selection of households to be visited. ALIVE, being a collaborative undertaking, involved the use of sub-national partners based in their respective areas. The partners were mostly drawn from organisations which had previously conducted HBA (e.g. Uwezo learning assessments) in their respective areas. The selection of the households was supported by technology. Upon the liaison team (a district coordinator and two village coordinators) reaching the EA, they worked with relevant local government administration officers to identify the boundaries of the EA. Subsequently, they walked through the entire EA to list households with adolescents. This task, identified as household listing, used an online form that captured basic information about the name of the household head, number of the adolescents regularly living in the household, and a description of the household heads. These lists were collected and 20 households for each EA were sampled randomly.

### **8.2.1.3 Sampling Stage 3**

This stage involved the selection of the adolescents to be assessed. Households listed were those found to have adolescents. Once the assessors reached the households and introduced themselves, they re-established the number of adolescents in the households and selected two adolescents from five scenarios: (i) households with one adolescent (ii) households with two adolescents of either gender (iii) households with two adolescents of different gender (iv) households with more than two adolescents of the same gender (v) households with more than two adolescents of different gender.

### **8.2.2 *Tools Development***

ALIVE embraced a collaborative process of contextualising tools development for the assessment. This involved setting up a technical team drawn from the project core team members (from the three countries), experts from universities, practicing teachers, and officers from curriculum and assessment bodies from the respective countries. The team under the guidance of an external adviser identified the skills and values to assess, developed a skills framework, drafted items (tasks), pre-tested them, and piloted them before constituting a panel that assembled the final assessment tool. As the assessment was to be conducted at household level, was to involve in-school and out-of-school adolescents, and was to be conducted by non-conventional assessors (citizen volunteers and teacher trainees), extra attention was given to ensuring that the tasks were simple and could easily be understood by the assessors and adolescents and that they were relevant and acceptable in the local context. Pre-testing and piloting the tool in different social and cultural contexts helped in phrasing the assessment tasks appropriately.

### **8.2.3 *Recruitment of Assessors/Enumerators***

Since ALIVE was to be conducted at household level (not at school) and within communities, the selection of assessors was a critical issue. Given the more complex nature of the ALIVE tools compared to those assessing basic literacy and numeracy, the minimum education qualification of the assessors was set to a minimum of 6 years of secondary education (Advanced Level) for the citizen volunteers. Similar to Uwezo, ALIVE collaborated with district-based local organisations that mobilised qualified volunteers to carry out the assessment and obtain other relevant data across the households and community settings. Calls for volunteer posters were displayed in sampled villages to recruit competent persons living within the communities to undertake the assessment activities.

In Kenya and Uganda some assessors were teacher trainees who were pursuing a teaching qualification at diploma or degree level. These were selected through partnering or direct contacts with the selected teacher training institutions that were located in the sampled assessment districts. It was also important to select assessors who were ethically in good standing in the community or faculty. Hence, validation of this attribute, such as a recommendation from the local or teacher training institutional leadership, was critical for purposes of child safeguarding and credibility of the assessment process. The language of the assessor was also a consideration in the recruitment of the enumerators. While assessing at the household level, it was

important that the assessor was able to administer the tasks in a local language widely spoken in the area in case the adolescent being assessed opted for that. This was to ensure that the adolescents' responses to the tasks was not constrained by language barriers.

### ***8.2.4 Training of Enumerators***

A cascaded mode of training as is usually done with Uwezo learning assessments was applied to ALiVE. The first step was trainer recruitment from the existing pool of Uwezo trainers to supplement staff from ALiVE implementing organisations who had participated in the technical process of developing the assessment tools. Together with district coordinators, these constituted a team of trainers who would then train the enumerators at district level. The trainers underwent a 3-day training of trainers that was conducted by a select team of Master Trainers and staff from ALiVE implementing organisations. Those newly trained were then deployed in pairs to allocated districts, supported by two to three Village Coordinators, to conduct volunteer trainings. The volunteers were prepared through familiarisation with ALiVE, the assessment process, entry into the community, and acquired the necessary skills to assess, grade and record the assessment results for all adolescents, and abide by set safeguards and ethical standards. As noted above, selected trainers and district coordinators who followed a well-structured training manual designed by ALiVE, facilitated the district-based volunteer training.

### ***8.2.5 Data Collection***

Decisions on when to conduct data collection were devolved to respective countries. The timing of the assessments was aligned with the expected periods during which adolescents would be at home, considering that most adolescents were of school-going age and therefore would only be home when schools are closed.

In each household, up to two adolescents, preferably a male and a female, were selected and assessed in the selected life skills of problem solving and self-awareness and the value of respect. Each of these adolescents also undertook a literacy assessment pegged on the Grade 4 curriculum in their respective countries. Additionally, three groups of four adolescents per group in each EA (a male only, female only and mixed group) were identified and assessed on the life skill of collaboration. This process provided rich experiences that offer learning on the challenges and opportunities of using HBA to measure life skills.

### 8.3 Factors in Use of Household Based Assessment for Measuring Life Skills and Values

#### 8.3.1 Opportunities and Challenges Presented by Household-Based Assessment

The opportunities and challenges associated with using HBA are many and varied. Some of these are discussed in this section, informed by research studies and by the ALiVE experience.

Muñiz and Fonseca-Pedro (2019) list ten steps in assessment, Downing (2006) lists 12, and Foertsch (2014) lists five steps for effective test development (Table 8.2).

Analysis of these steps reveals the phases of pre-development, development, and post-development. The ALiVE process included the steps listed in Table 8.2 as well as some additional development activities. ALiVE included an extensive literature review; a contextualisation study of how the community regarded life skills and values leading to the contextual definition of the selected constructs (life skills and value); hypothesising the constructs' structures; drafting of tasks and accompanying rubrics; paneling of materials and revising the tools based on the responses

**Table 8.2** Steps in assessment

Muñiz and Fonseca-Pedro (2019)	Downing (2006)	Foertsch (2014)
<ol style="list-style-type: none"> <li>1. Stating the problem</li> <li>2. Writing specifications for the test</li> <li>3. Writing and moderating items</li> <li>4. Informal trialling of items on native speakers</li> <li>5. Trialling of the test on a group of non-native speakers similar to those for whom the test is intended</li> <li>6. Analysis of results of the trial; making of any necessary changes</li> <li>7. Calibration of scales</li> <li>8. Validation</li> <li>9. Writing handbooks for test takers, test users and staff</li> <li>10. Training staff</li> </ol>	<ol style="list-style-type: none"> <li>1. Overall plan</li> <li>2. Content definition</li> <li>3. Test specifications: Blueprinting the test</li> <li>4. Item development</li> <li>5. Test design and assembly</li> <li>6. Test production</li> <li>7. Test administration</li> <li>8. Scoring examination responses</li> <li>9. Establishing passing scores</li> <li>10. Reporting examination results</li> <li>11. Item banking</li> <li>12. Test technical report</li> </ol>	<ol style="list-style-type: none"> <li>1. Define traits</li> <li>2. Define test characteristics</li> <li>3. Develop/identify set of items</li> <li>4. Obtain item statistics</li> <li>5. Finalise specifications and procedures</li> </ol>



collected; field trials of the tools; finalisation of tool; assessment activity; scoring and reporting.

### 8.3.2 Opportunities

Five reflections on the opportunities that HBA bring in assessing life skills are shared, drawing on the ALiVE experience.

*Opportunity One: HBA can capture a larger range of children than can school-based assessments*

Using HBA as distinct from school-based assessment enabled ALiVE to access a wide range of adolescents, which suited ALiVE's target population that was age-based rather than grade-based. ALiVE's target population was adolescents aged 13–17 years irrespective of their schooling status. These included the out-of-school adolescents occasioned by three circumstances. First, there are adolescents who never enrolled in school. Second, there are adolescents who have completed a particular level of education and have not proceeded to the next. Third, there are adolescents who have dropped out of school. When assessments are school-based, these categories of adolescents would be disenfranchised since they are available only in the community spaces. It is this capacity that makes HBA a valuable facilitator in moving towards universalising data gathering that informs national information needs.

*Opportunity Two: HBA liberalise assessments by enabling non-government agencies to convene and coordinate assessment efforts*

Assessments have long been associated with formal education settings. Expertise, whether in or outside governments, mostly focuses on the school where mobilisation of learners is easy. Equally, approval processes for school-based assessments are faster to enable than assessments conducted outside the school and where multiple players are involved. Hence, there is little evidence of policy-driven assessments that have been conducted outside the school setting.

ALiVE demonstrates the convening power of non-government agencies. Through collaboration, ALiVE mobilised actors which included policy agencies (curriculum development and assessment bodies), practicing teachers, academia, and project managers to collaboratively design and implement an assessment around areas considered to be complex to assess. To a large extent, it can be argued that the convening power of the assessment rested with the non-government sector. Perhaps this was possible only because assessments were outside of the formal education system where no policy agency could claim to mark its territory. Although framed as an assessment, ALiVE cuts across sectors allowing for a sector-wide approach to planning and designing, including multiple players at both national and sub-national

levels, use of citizen assessors (not assessment experts let alone practicing teachers), and local administrators; all in the context of bringing assessment right into the household. This reveals the power that non-government organisations can have in convening to encourage complex policy processes.

*Opportunity Three: Inbuilt advocacy is an ingredient of HBA*

HBA have been designed specifically to engage with key education stakeholders at all levels, right from the smallest unit of society, the household unit, up to the national policy-making level in Ministries of Education. Nakabugo (2016) shares experiences on the Uwezo studies' influence on policy that has been punctuated with deliberate and early buy-in from stakeholders. Right from inception and similar to Uwezo assessment purposes, ALiVE was not only focused on collecting data on life skills and values but also on using the assessment evidence to trigger a national conversation at all levels to raise awareness of the need for all young people to acquire these skills and values. Hence, in agreement with Mayne et al. (2018) who argue that the data generation process for policy-based advocacy processes is as important as the data itself, the process was equally important for ALiVE. As such, policymakers and other key actors in the system, including parents and caretakers, ought to be part of the evidence generation and not be recipients at the tail end. The household-based approach enabled this to happen. Policy actors at national level were involved in the ALiVE assessment process either as members of the technical team that developed the assessment tools or as members of the Advisory Committee that was regularly consulted on the assessment plans or as observers of the actual assessment process.

Often, data generators exclude input from end users. As such, advocacy is left with responding to two issues; defending the method followed, and justifying the content of the findings. When findings are shocking, users look out for ways to question the evidence. And one such fallback position is often to query the method used in generating the data. Through co-creation, evidence users can be mapped early in the process, and spaces can be deliberately created for the users to interact with the process as the evidence is built. This was the case with the ALiVE assessment process. Ultimately, the users develop a deep understanding of the process and are then freed to deal with the evidence without doubting its source. This co-creation approach has been argued to deliver better advocacy results (Avermaet & Shohamy, 2022).

In the case of ALiVE, the co-creation approach adopted through the convening power of non-government efforts allowed for multiple partners to plug in to define the life skills, develop the skills structure, draft tasks, subject them to pre-tests, pilot, and assemble them before rolling out the assessment. At each point, the inclusion of different partners, organisations, policy institutions, and individuals helped to clarify questions about the definitions, skills structure, items, and assessment processes. This allowed learning to take place in real time. Ultimately, one may argue that ALiVE served the advocacy purposes of creating awareness around life

skills even while still engaged in generating the target illustrative evidence on the status of life skills among adolescents in East Africa. That the assignment was conducted at the household level meant that all the parents of the over 45,000 adolescents were sensitised on life skills. At each household, a message on nurturing life skills was left through a calendar containing a checklist of six things that a parent/caretaker could undertake to nurture life skills for the adolescents. This reveals the inbuilt advocacy power of HBA generating early positive effects. Since key actors were involved in the assessment process at different stages, one key stakeholder linked to a national assessment agency noted at the launch of the ALiVE report in Uganda in December 2022: “This assessment and its findings are timely. As we are in the process of preparing assessment tools for the first candidates going through the new lower secondary curriculum, we will invite ALiVE team to contribute to this process”. This level of acceptability was mainly possible because the official had interacted with the assessment process as a member of ALiVE Advisory Group.

*Opportunity Four: Technology is a facilitator of measuring life skills in HBA*

Use of Information and Communications Technology (ICT) in research has become more of a necessity than an option in contemporary research due to its advantages in easing administration, record keeping, capture, storage and analysis of data, and in report writing. Similarly, the ALiVE collaborative process benefited immensely from the availability of different technologies before, during, and after the assessment. Because of the many processes involved in executing HBA, the critical role of ICT in research was magnified. Before the assessment, the second stage of sampling (listing of households) was loaded on an Android enabled app – KoboCollect. This allowed for the collection of basic information on the eligible households for listing (households with at least one adolescent and the bio-details of the household head). During the assessment, the same technology was used by the assessors to read out the task and item prompts to the adolescent, and to record response codes. The inbuilt features of the tools allowed for skip logic (increasing data reliability by reducing errors). With data being recorded using technology, it was possible to process the data script, enabling data recheck before data collection was completed. The choice of such applications which allow for storage of data before being uploaded allows for iteration where corrections need to be made, on any smartphone, making them easier and cost-effective to use. As such, the turnaround for data submission is shortened and processing reports can take a shorter time. This demonstrates that HBA facilitated by technology is a feasible pathway to pursue when assessing life skills even in East African contexts.

*Opportunity Five: Using HBA to measure life skills may deepen external accountability for school systems*

School systems are the universal pathway to the acquisition of knowledge, skills, and attitudes necessary for societies to thrive. Ideally, schooling is available throughout childhood. Some school systems begin admitting and enrolling children as early

as 3 years and children exit secondary schools on the eve of adulthood. Within East Africa, the primary school starting age is 6 years in Kenya, Tanzania, and Uganda. With 12–13 year education systems, learners exiting the school are young adults. In some cases, the time in education varies due to delayed enrolment and grade repetition (a common phenomenon associated with resolving the challenge of delayed acquisition of grade-specific skills and competencies within cohorts).

Recent evidence indicates the prevalence of learning poverty, with more children reaching age 10 years without mastering foundational learning skills such as literacy and numeracy (World Bank, 2021, July). In an assessment of functional systems that realise better outcomes, Fullan and Quinn (2015) argue for external accountability as part of strengthening school systems to deliver quality education for all children.

The ALIVE initiative reveals that life skills can be measured, and can be measured at household level. It is possible to assess the extent to which adolescents have mastered these skills in the contexts where they are expected to demonstrate them. This is timely feedback to the education system; one that is formally charged with the responsibility of nurturing life skills and values. In analysis of who should undertake an evaluation, Tyler (2005) argues that external parties should be the ones to undertake evaluation. The opportunity availed by HBA, such as expanding assessment of life skills and values to a wider population and aiding multi-level advocacy, cannot be overemphasised. Nonetheless, the approach also faces some limitations, including inability to reach all children in the target population as well as cost implications caused by scattered samples, as distinct from centralised assessments where all those targeted are in one location (school). In the next section we describe some of these challenges.

### 8.3.3 Challenges

In this section, we reflect on the challenges that HBA face in assessing life skills, drawing on the ALIVE experience. The challenges relate to limitations of the approach in reaching all targeted children as well as administrative and cost implications of the approach.

*Challenge One: HBA programs face the additional effort of defining their purpose*

Whereas the purpose and functions of school-based assessments are well known, there is no generally recognised purpose for HBA. The purpose and functions of an assessment program dictate the nature of the program, the form of the assessment, and how it is reported. Assessment is generally a core business of schools. Hence, when assessment takes place outside the school boundaries, it is often subjected to more scrutiny than school-based assessments. This explains the questions that have been occasionally raised against HBA (Nakabugo, 2021). In one instance, a Ugandan State Minister is quoted as slamming findings of an Uwezo report that had indicated that a significant number of children in upper primary classes lacked Primary 2

literacy and numeracy competences. He described the report as “malicious since the assessment parameters were not systematic and their credibility was questionable” (Kugonza, 2017, in Nakabugo, 2021, p. 53). To counteract such accusations, the assessment procedures must be rigorous and transparent. Uwezo ensures this, and it was also ensured in the context of assessing life skills and values in ALiVE. The processes of how the ALiVE assessment was conducted are well documented from setting the scope, task development, through to when the final tools were finalised and used for data collection.

*Challenge Two: Identification of target groups to assess in HBA programs may not be straightforward*

While assessment within the formal education sector typically targets students’ performance by grades and subject levels, and selection of the students is therefore straightforward, HBA requires intentional and systematic sampling strategies to be implemented in order to meet program goals. Sampling for HBA requires more elaborate processes. In the context of ALiVE, systematic steps were implemented to reach the targets set in the sampling frame.

Clearly sampling for HBA is more elaborate than for those assessments conducted at school level. Hence, HBA may be more resource intensive than school-based assessments, a point elaborated below.

*Challenge Three: The processes, logistics planning and cost of HBA can be complex and intensive*

All assessment programs, whether school-based or community-based involve a series of pre-assessment, assessment and post-assessment activities, including mobilising people to undertake the different activities, introducing the assessment to different authorities, preparing related materials and tools, carrying out the assessment, monitoring and quality assuring the assessment processes, and receiving the field returns and checking them for completeness. In addition, however, HBA requires intensive engagement due to the different layers of stakeholders involved and the fact that the assessment is conducted door to door, unlike school-based assessments where children to be assessed are all in one place. In the case of ALiVE, multiple players were involved. They included the core team that convened the expertise and the assessment infrastructure, the technical team that contextualised the assessment tool through a co-creation processes, government delivery systems that were involved in the approval processes, and partners who coordinated the assessment, obtained approvals and consent at all levels and undertook the actual assessment. Costs associated with this process are due to the multiplicity of stakeholders and to the fact that a long-term infrastructure, such as exists in ministries of education, is not in place.

*Challenge Four: The choice of timing for conducting HBA is delicate*

A major challenge to HBA is to reach its target population. Unlike school-based assessment where the target group is already ‘captured’ and its availability known, this situation does not obtain in HBA. HBA must identify timing when likelihood of reaching the required samples (response rates) is maximised. HBA must be planned

and undertaken when the target groups are likely to be in the household. Therefore, assessments that target school-age individuals should be conducted after school and work hours (mostly evenings, weekends, and during school holidays). Since targeted respondents may well be temporarily out of the households when visits are made, the sampling strategy must include over-sampling estimates. Since likelihood of reaching target groups may vary, it is also necessary to undertake pre-assessment research to identify likely factors that might impact on availability.

ALiVE was conducted during the school holidays. As a regional initiative, ALiVE was alive to the fact that the school calendars across the three countries vary. As such, it was impossible to standardise the timing of the data collection even after the completion of the logistics related to the assessments were completed. Although the sampling design included oversampling to deal with non-response and attrition cases, ALiVE stretched the data collection process allowing for callbacks to households where adolescents were temporarily absent. In cases where listed households were completely unavailable, such households were replaced.

*Challenge Five: HBA may not reach all children after all*

HBA is presumed to have the power to obtain critical information about learning from all young people, not just those who attend school. Country-wide data on citizens is required, not just data on those who are 'easy to access', for country planning across social, educational and economic sectors. Yet HBA also exclude some populations such as children in foster homes, street children and those living in exclusive institutions such as refugee settlements and barracks (Nakabugo, 2021). Among the out-of-school in the home, there may be children who are living with sensory impairments of hearing and vision whose functional disabilities preclude them from fully participating in the assessments. The cost of adapting the tools and expertise needed to avail the assessments to all children in the household, including those with severe disability, was not possible for ALiVE; children living with sensory disabilities were excluded from the study.

In summary, HBA provide many opportunities to measure complex competencies such as life skills and values. Due to their broad target scope, HBA provide access to those who are not accessible through formal institutions such as schools. Despite the highlighted challenges of HBA, such as the populations they exclude and their resources and cost intensiveness, the network and collaboration of a wide range of stakeholders involved in their co-creation and execution makes them worthwhile. Most important to note is that life skills themselves are nurtured and demonstrated in spaces beyond schools such as households and communities. Explicit acknowledgement of these through the assessment initiative creates awareness of the importance and role of these skills and deepens conversations between citizen assessors and households.

## 8.4 Conclusion

The application of HBA in measuring education outcomes, especially life skills and values, is a relatively new idea. To date, influence of HBA, when applied to foundational skills of literacy and numeracy, on education policy and practice cannot be underestimated (World Bank, 2018). It has formed the basis for the World Bank framing the learning poverty phenomenon. In East Africa, program interventions have been designed and implemented in response to the body of knowledge generated from the Uwezo HBA. The Education Programme for Results has been implemented in Tanzania since 2014, targeting children attending public schools that constitute the majority of the children missing out on foundational learning competencies. Similarly, in Kenya, Primary Education Development Project, operational since 2016 and funded by the Global Partnership for Education, focused on improving the teaching and learning of mathematics in Primary Grades 1–2 in Kenya (Piper et al., 2017).

The process of applying HBA to life skills in ALiVE has revealed its immense capacity, and can seed consideration of assessment of other characteristics of interest. The approach can be replicated by assembling the right stakeholders to co-create the process. It is also clear that the process is not devoid of challenges. What is clear from the ALiVE process is that these challenges do not outweigh the opportunities that HBA present for accessing information across the population. The documentation of process by ALiVE provides a valuable resource that can inform refinement, uptake and replication in other contexts.

Finally, ALiVE has demonstrated that despite the challenges associated with assessing complex skills, it is possible to overcome them. What emerges is that HBA are agile and flexible to accommodate the measurement of skills considered complex such as life skills. By working with citizen surveyors and applying a collaborative contextualisation of the assessments, the policy intentions can be achieved and advocacy for life skills made possible.

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