



Key Policy Areas for Student Assessment

1. Classroom Assessment

National syllabi, which are formal documents authorized by the Ministry of Education, include guidelines for classroom assessment. There are some system-level mechanisms in place to ensure that teachers develop skills and expertise in classroom assessment; however, there are limited resources (such as tools and materials) available to teachers for conducting classroom assessment activities. Classroom assessment practices are generally known to be weak, and there are limited formal mechanisms in place to monitor their quality.

Status

Emerging
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2. Examinations

The Basic Education Certificate Examination (BECE) is taken by students in Grade 9 for school cycle completion and admission to senior high school. The West African Secondary School Certificate Examination (WASSCE) is administered to students at the end of senior high school, and is used for certification of senior high school completion and admission to an institution of higher education. There is regular funding allocated to the West African Examinations Council (WAEC), which oversees both examinations. Funding covers all core examination activities as well as research and development and staff training. In addition, there is an adequate number of full-time and part-time staff to carry out the examinations effectively, with minimal issues.

Established
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3. National Large-Scale Assessment (NLSA)

The National Education Assessment (NEA) has been operating on a regular schedule (2005, 2007, 2009, 2011). There is regular (continuous and predictable) funding for the exercise, albeit allocated by non-government sources (specifically, USAID). This funding covers core NEA activities, but not research and development. The NEA measures performance against the national curriculum, and is largely accepted by stakeholder groups. However, the office in charge of carrying out the NEA is inadequately staffed to effectively carry out the assessment.

Emerging
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4. International Large-Scale Assessment (ILSA)

Ghana has participated in TIMSS 2003, 2007, and 2011. However, Ghana will not participate in TIMSS 2015, and there is no policy document that addresses the country's future participation in ILSAs. Funding for participation in TIMSS has come from World Bank loans. Although TIMSS results have been used for tracking the impact of reforms and informing curriculum improvement, it is still unclear whether decisions based on the results have had a positive impact on student achievement levels.

Emerging
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Introduction

Ghana has focused on increasing student learning outcomes by improving the quality of education in the country. An effective student assessment system is an important contribution to improving education quality and learning outcomes as it provides the necessary information to meet stakeholders' decision-making needs. In order to gain a better understanding of the strengths and weaknesses of its existing assessment system, Ghana decided to benchmark this system using standardized tools developed under The World Bank's Systems Approach for Better Education Results (SABER) program. SABER is an evidence-based program to help countries systematically examine and strengthen the performance of different aspects of their education systems.

What is SABER-Student Assessment?

SABER-Student Assessment is a component of the SABER program that focuses specifically on benchmarking student assessment policies and systems. The goal of SABER-Student Assessment is to promote stronger assessment systems that contribute to improved education quality and learning for all.

National governments and international agencies are increasingly recognizing the key role that assessment of student learning plays in an effective education system. The importance of assessment is linked to its role in:

- (i) providing information on levels of student learning and achievement in the system;
- (ii) monitoring trends in education quality over time;
- (iii) supporting educators and students with real-time information to improve teaching and learning; and
- (iv) holding stakeholders accountable for results.

SABER-Student Assessment methodology

The SABER-Student Assessment framework is built on the available evidence base for what an effective assessment system looks like. The framework provides guidance on how countries can build more effective student assessment systems. The framework is structured around two main dimensions of assessment systems: the types/purposes of assessment activities and the quality of those activities.

Assessment types and purposes

Assessment systems tend to be comprised of three main types of assessment activities, each of which serves a different purpose and addresses different information needs. These three main types are: classroom assessment, examinations, and large-scale, system level assessments.

Classroom assessment provides real-time information to support ongoing teaching and learning in individual classrooms. Classroom assessments use a variety of formats, including observation, questioning, and paper-and-pencil tests, to evaluate student learning, generally on a daily basis.

Examinations provide a basis for selecting or certifying students as they move from one level of the education system to the next (or into the workforce). All eligible students are tested on an annual basis (or more often if the system allows for repeat testing). Examinations cover the main subject areas in the curriculum and usually involve essays and multiple-choice questions.

Large-scale, system-level assessments provide feedback on the overall performance of the education system at particular grades or age levels. These assessments typically cover a few subjects on a regular basis (such as every 3 to 5 years), are often sample based, and use multiple-choice and short-answer formats. They may be national or international in scope.

Appendix 1 summarizes the key features of these main types of assessment activities.

Quality drivers of an assessment system

The key considerations when evaluating a student assessment system are the individual and combined quality of assessment activities in terms of the adequacy of the information generated to support decision making. There are three main drivers of information quality in an assessment system: enabling context, system alignment, and assessment quality.

Enabling context refers to the broader context in which the assessment activity takes place and the extent to which that context is conducive to, or supportive of, the assessment. It covers such issues as the legislative or policy framework for assessment activities; institutional and organizational structures for designing, carrying out, or using results from the assessment; the availability of sufficient and stable sources of funding; and the presence of trained assessment staff.

System alignment refers to the extent to which the assessment is aligned with the rest of the education system. This includes the degree of congruence between assessment activities and system learning goals, standards, curriculum, and pre- and in-service teacher training.

Assessment quality refers to the psychometric quality of the instruments, processes, and procedures for the assessment activity. It covers such issues as design and implementation of assessment activities, analysis and interpretation of student responses to those activities, and the appropriateness of how assessment results are reported and used.

Crossing the quality drivers with the different assessment types/purposes provides the framework and broad indicator areas shown in Table 1. This framework is a starting point for identifying indicators that can be used to review assessment systems and plan for their improvement.

Table 1: Framework for building an effective assessment system, with indicator areas

	Assessment types/purposes		
	Classroom assessment	Examinations	Large-scale, system-level assessment
Enabling context	Policies Leadership and public engagement Funding Institutional arrangements Human resources		
System alignment	Learning/quality goals Curriculum Pre- and in-service teacher training opportunities		
Assessment quality	Ensuring quality (design, administration, analysis) Ensuring effective uses		

Source: World Bank.

The indicators are identified based on a combination of criteria, including:

- professional standards for assessment;
- empirical research on the characteristics of effective assessment systems, including analysis of the characteristics that differentiate between the assessment systems of low- versus high-performing nations; and
- theory — that is, general consensus among experts that it contributes to effective assessment.

Levels of development

The World Bank has developed a set of standardized questionnaires and rubrics for collecting and evaluating data on the three assessment types and related quality drivers.

The questionnaires are used to collect data on the characteristics of the assessment system in a particular country. The information from the questionnaires is then applied to the rubrics in order to judge the development level of the country's assessment system in different areas.

The basic structure of the rubrics for evaluating data collected using the standardized questionnaires is summarized in Appendix 2. The goal of the rubrics is to provide a country with some sense of the development level of its assessment activities compared to best or recommended practice in each area. For each indicator, the rubric displays four development levels—*Latent*, *Emerging*, *Established*, and *Advanced*. These levels are

artificially constructed categories chosen to represent key stages on the underlying continuum for each indicator. Each level is accompanied by a description of what performance on the indicator looks like at that level.

- *Latent* is the lowest level of performance; it represents absence of, or deviation from, the desired attribute.
- *Emerging* is the next level; it represents partial presence of the attribute.
- *Established* represents the acceptable minimum standard.
- *Advanced* represents the ideal or current best practice.

A summary of the development levels for each assessment type is presented in Appendix 3.

In reality, assessment systems are likely to be at different levels of development in different areas. For example, a system may be *Established* in the area of examinations, but *Emerging* in the area of large-scale, system-level assessment, and vice versa. While intuition suggests that it is probably better to be further along in as many areas as possible, the evidence is unclear as to whether it is necessary to be functioning at *Advanced* levels in all areas. Therefore, one might view the *Established* level as a desirable minimum outcome to achieve in all areas, but only aspire beyond that in those areas that most contribute to the national vision or priorities for education. In line with these considerations, the ratings generated by the rubrics are not meant to be additive across assessment types (that is, they are not meant to be added to create an overall rating for an assessment system; they are only meant to produce an overall rating for each assessment type). The methodology for assigning development levels is summarized in Appendix 4.

Education in Ghana

Ghana is a lower-middle-income country in Sub-Saharan Africa. GDP per capita (current US\$) is \$1,570, and average annual growth from 2001 to 2011 was 4 percent, although growth in 2011 reached over 14 percent.

In order to sustain its impressive growth and further its goals of poverty reduction, Ghana recognizes the need to improve access to and quality of basic education.

Ghana has made significant progress in primary school enrollment, which has risen from 61 percent in 2002 to 84 percent in 2011 (net enrollment rates). The abolition of school fees, and the introduction of capitation grants in the 2005-2006 school year, were among the initiatives that helped to facilitate enrollment gains. Additionally, secondary school enrollment reached 58 percent in 2011, while tertiary enrollment was 12 percent (gross enrollment rates).

Ghana's commitment to education is reflected in its government expenditure, of which 24 percent is spent on education. Ghana's Education Strategic Plan for 2003-2015 laid out a number of policies to further improve access to and quality of basic education, including through increased provision of teaching and learning materials, improved teacher recruitment, preparation, and deployment, and the development of a reliable student assessment system.

Detailed information was collected on Ghana's student assessment system using the SABER-Student Assessment questionnaires and rubrics. It is important to remember that these tools primarily focus on benchmarking a country's policies and arrangements for assessment activities at the system or macro level. Additional data would need to be collected to determine actual, on-the-ground practices in Ghana, particularly by teachers and students in schools. The following sections discuss the findings by each assessment type, accompanied by suggested policy options. The suggested policy options were determined in collaboration with key local stakeholders based on Ghana's immediate interests and needs. Detailed, completed rubrics for each assessment type are provided in Appendix 5.

Classroom Assessment

Level of development



In Ghana, national syllabi, which are formal system-level documents authorized by the Ministry of Education, include guidelines for classroom assessment (referred to as school-based assessment). Every school is provided with one copy of each syllabus. However, there are not enough copies of the syllabi for all teachers to access.

There are scarce system-wide resources available to teachers for conducting classroom assessment activities. While the national syllabi outline what students are expected to learn in different subject areas at different grade and age levels, they do not contain information on tools or approaches that teachers can use to monitor or accommodate differences in student learning levels. Other useful resources for classroom assessment activities, such as scoring criteria or rubrics for evaluating students' work, and item banks or pools with examples of multiple-choice or open-ended test questions, also are not available to teachers.

There are some system-level mechanisms in place to ensure that teachers develop skills and expertise in classroom assessment, including pre- and in-service teacher training, and opportunities to participate in conferences and workshops. All teacher training programs include a required course on classroom assessment, and teacher supervision includes a component focused on classroom assessment. However, there are no on-line training resources on classroom assessment.

Classroom assessment activities are known to be weak. They commonly rely on multiple-choice, selection-type questions, and are mainly about recalling information. Teachers typically do not use explicit or a priori criteria for scoring or grading students' work. Uneven application of standards for grading students' work is also a serious problem as is grade inflation. Classroom assessment activities are commonly used as administrative or control tools rather than as a pedagogical resource. At the same time, assessment practices tend to be aligned with the curricular

framework and provide some useful feedback to students in this regard.

Apart from classroom assessment being a required component of a teacher's performance evaluation, and of school inspection (which is the responsibility of head teachers and circuit supervisors), there are limited systematic mechanisms in place to monitor the quality of classroom assessment practices.

Classroom assessment information is required to be disseminated to all key stakeholders. Schools are required to report on an individual student's performance to district education offices and Ministry of Education officials, parents, students, and School Management Committees (SMC). (Despite this, parents in particular are often poorly informed about students' grades). SMCs, along with school heads, are expected to hold School Performance Appraisal Meetings (SPAM) to discuss, among other topics, a school's reports on assessment activities.

There are adequate required uses (at least on paper) of classroom assessment to support student learning, including its use as an input for external examination results, diagnosing student learning issues, providing feedback to students on their learning, informing parents about their child's learning, planning next steps in instruction, and grading students for internal classroom uses.

Suggested policy options:

1. Introduce a variety of resources and materials at the system level to support teachers in their classroom assessment activities. For example, ensure that students' cumulative record books for each of the levels of pre-tertiary education are standardized and allow teachers and schools to keep meaningful assessment records on students' learning and progress across the education levels.
2. Introduce a variety of system-level mechanisms to ensure that teachers develop skills and expertise in classroom assessment. For example, introduce legislation for instituting yearly in-service teacher training opportunities in classroom assessment

- that are made available to all teachers on a regular basis. Additionally, review existing pre-service training mechanisms and adjust them to ensure that teachers receive sufficient training in classroom assessment.
3. Improve the quality of classroom assessment practices by clearly communicating to teachers criteria for evaluating students' work as currently the syllabi do not specify these. Additionally, ensure that classroom assessment practices focus on higher-order thinking skills, and train teachers to apply a variety of assessment mechanisms, including observation, oral questioning and feedback, or student presentations, in addition to multiple-choice, selection-type questions, to evaluate students' knowledge and skills. Also, introduce guidelines for conducting classroom assessment given the specific needs of student groups, including overage children; children from poor families; children from families with little exposure to education; and children in poor, remote, rural communities and deprived districts. In addition, develop products and training opportunities to clearly specify to teachers the purposes and uses of classroom assessment information, including the importance of even application of standards for grading students' work, informing parents of students' grades, and using classroom assessment as a pedagogical resource. Likewise, introduce monitoring mechanisms to ensure that teachers' classroom assessment practices are aligned with official purposes and uses of classroom assessment activities.
 4. Introduce varied and systematic mechanisms to monitor the quality of classroom assessment practices. For example, allocate government funding for conducting system-wide reviews on the quality of classroom assessment practices in Ghana and for identifying steps on how to improve them. Additionally, strengthen supervision mechanisms by ensuring that head teachers, curriculum leaders, and circuit supervisors focus on evaluating and strengthening teachers' classroom assessment practices.

Examinations

Level of development

Established



The Basic Education Certificate Examination (BECE) is administered to students in Grade 9 for student certification for school cycle completion and student selection to senior high school. Subjects assessed include the English Language, Ghanaian Language and Culture, Social Studies, Integrated Science, Mathematics, Basic Design and Technology, Information and Communication Technology, French (optional), and Religious and Moral Education. In addition to the BECE, the West African Secondary School Certificate Examination (WASSCE) is administered to Grade 12 student at the end of senior high school. Students take the WASSCE in topics relevant to their fields of study, with results used for certifying senior high school completion and determining selection to university or other higher-education institutions. Results are also used for monitoring education quality levels and planning education policy reforms.

The legislative assembly of the Gold Coast authorized the BECE and WASSCE through West African Examination Council (WAEC) Ordinance No. 40 of 1951. WAEC is a semi-autonomous council, accountable to the Ministry of Education, that has been in charge of running the BECE and WASSCE since 1990. BECE was first administered in 1990 and WASSCE was first administered in 1993. The policy document authorizing these examinations describes their purpose; authorized uses of the results; procedures to investigate and address security breaches, cheating, or other forms of inappropriate behavior; who can sit for the examinations; rules about preparation for the examinations; alignment with curricula and standards; and the format of the examination questions. The policy document does not outline the governance structure or distribution of power and responsibilities among key entities; funding sources; or procedures for special or disadvantaged student populations.

There are coordinated attempts to improve the examinations by stakeholder groups. For example, WAEC provides opportunities for researchers to make presentations at monthly seminars and workshops on

the examinations, and WAEC leadership discusses recommendations directly related to improving the examinations.

WAEC receives regular funding from the Ministries of Education of the participating countries as well as through the collection of student fees. This funding covers all core examination activities, as well as long- or medium-term planning of program milestones, staff training, and research and development. WAEC has state-of-the-art facilities and is adequately staffed with full- and part-time staff to carry out the examinations effectively. Apart from some cases of examination malpractice, largely due to the laxity of some supervisors, there have been minimal issues in carrying out the examinations effectively. University graduate programs and university courses on educational measurement and evaluation provide opportunities that prepare individuals for work on both the BECE and WASSCE. University of Cape Coast (UCC) offers a post-graduate program in educational measurement and evaluation; and UCC, University of Education, Winneba (UEW), and colleges of education offer introductory courses in educational measurement and evaluation. Funding is available to staff of examination units and centers as well as lecturers in universities for attending international programs, courses, and workshops on educational measurement and evaluation.

Teachers are involved in some examination-related tasks, including scoring and supervising the examinations. Teachers are generally hired as temporary or part-time staff to perform these examination-related activities. There are up-to-date, compulsory courses and workshops on the exams available to teachers who are appointed as examiners (marking scripts) and item writers (chief examiners).

There is a clear understanding of what the BECE and WASSCE measure, although some stakeholder groups question the meaning of the results. For example, in the case of BECE, some parents complain that even though their children may receive good aggregate scores, they do not receive a passing grade or obtain placement in their first-choice schools. This situation occurs due to the fact that the number of students receiving a passing grade on the BECE depends on the number of places available in particular high schools (and not on the

students' mastery of the material being tested). Stakeholder groups also expressed concern about the use of WASSCE results when the National Council for Tertiary Education advised against admitting students with D7 grades (low-passing grades) into university. This created concern among the heads of private universities that had admitted a number of students with D7 grades.

Although inappropriate behavior surrounding the examination process is high, in the case of the WASSCE, stakeholder groups perceive the exam as credible because there is no alternative to it for selection to tertiary education, and because stakeholder groups do not believe the scale of malpractice to be large enough to affect the credibility of the results. Inappropriate behavior for both the BECE and WASSCE has included leakage of the content of an examination paper or part of a paper prior to the examination; impersonation (when an individual other than the registered candidate takes the examination); copying from other candidates; using unauthorized materials such as prepared answers and notes; collusion among candidates via mobile phones, passing of papers or equivalent; issuing forged certificates or altering results information; and provision of external assistance via the supervisor or mobile phone.

Both BECE and WASSCE results are used by most stakeholder groups in an appropriate way, although some candidates fake their examination results when applying for further education or jobs. WAEC is taking steps to prevent the use of fake result slips for admission to higher education institutions and other fraudulent practices by issuing certificates that contain security features. Only limited systematic mechanisms, including internal and external reviews, and field testing, are in place to ensure the quality of the BECE and WASSCE.

Comprehensive materials are available to prepare for both examinations. These materials are accessible by virtually all students (over 90 percent) in a variety of learning contexts. However, there are very limited options for students who do not perform well on the examinations. At the same time, a permanent oversight committee and an expert review group are in place to

help ensure positive consequences of both examinations for students and the education system.

Suggested policy options:

1. Provide teachers with a wider range of opportunities to be involved in examination-related tasks, such as selecting or creating examination questions and scoring guides.
2. Introduce varied and systematic mechanisms to ensure the quality of the examinations. For example, through capacity building, improve the quality of test questions developed by WAEC to ensure that the examinations adequately assess knowledge, application, and reasoning. Additionally, fund research and analysis of the examination results to ensure that their use is as intended.
3. Ensure the credibility of the examinations by putting in place appropriate preventive and reactive measures against inappropriate behaviors that are clearly communicated to all key stakeholders, and that are monitored and consistently enforced. For example, strengthen protocol around the confidentiality of the examination paper in order to prevent its leakage prior to administration, and introduce provisions that make it more difficult for candidates to use mobile phones to receive assistance while taking the examination.
4. Provide more options for students who do not perform well on the examinations, including the options to repeat a grade or opt for a less selective school.
5. Introduce a greater variety of mechanisms to monitor the consequences of the examinations. For example, conduct a review to ensure that the use of examination results is fully aligned with the intended purposes and uses. Additionally, provide funding for independent research on the impact of the examinations, and regularly conduct focus groups or surveys with key stakeholders.

National Large-Scale Assessment (NLSA)

Level of development



The National Education Assessment (NEA) is a stable NLSA program that has been operating on a regular basis for several years (2005, 2007, 2009, 2011). The assessment is administered to a representative sample of students in English language and mathematics in Grades 3 and 6. The Education Sector Plan for 2003-2015, authorized in 2004 by the Ministry of Education and the Ghana Education Service, called for the establishment of such a program to monitor the quality of basic education in the country. The Ghana All Children Reading Plan, which will soon be shared with stakeholders, outlines the plan for the NEA in the next five years.

Most stakeholder groups support the NEA. Policymakers, teacher unions, educators, students, think tanks, NGOs, and universities all support the NEA, while the media and employers tend to be neutral towards it.

There is regular (continuous and predictable) funding for the NEA program, albeit allocated by non-government sources (specifically, USAID). Funding covers assessment design and administration, data analysis (which is generally carried out by a contracted USAID supplier who conducts the analysis with the Government of Ghana) and reporting, long- and medium-term planning of program milestones, and staff training. Funding does not cover research and development activities. There are no courses or workshops to provide teachers with the opportunity to learn about the NEA.

The Assessment Services Unit (ASU) is a permanent unit specifically created to run the NEA program. However, the office is inadequately staffed to effectively carry out the required assessment activities. Although there is a permanent, full-time staff of six people, it is insufficient to meet the needs of the program.

The NEA measures performance against national curriculum guidelines and learning standards. This measurement focus is largely accepted by stakeholder groups. Additionally, there is both regular independent and regular internal review by qualified experts of the

alignment between the assessment instrument and what it is supposed to measure.

Special plans are made to ensure that students in hard-to-reach areas are covered by the NEA; however, students in Special Schools (schools for children with visual impairments, hearing impairments, and severe learning needs) do not participate in the NEA. Additionally, some mechanisms are in place to ensure the technical quality of the assessment instrument. A comprehensive technical report on the instrument is produced, but its circulation is restricted.

NEA results are disseminated within twelve months after the assessment is administered. Dissemination includes workshops for key stakeholders on the results. At the same time, there is very little public engagement around the results because, although there is a large dissemination effort to stakeholders at the Ministry of Education, the media often are not involved.

The Ministry of Education and other development partners have used the NEA results in ways consistent with the stated purposes of the assessment. Additionally, expert review groups are in place to monitor the consequences of the NEA in terms of how the data are used to improve education quality.

Box 1 describes the School Education Assessment (SEA), another type of NLSA administered in Ghana that is meant to support educators at the school level to improve instruction.

Box 1: School Education Assessment (SEA)

In Ghana, the School Education Assessment (SEA) was administered to students in Grades 2 and 4 in 2006, 2008, and 2010. Its primary purposes were to monitor education quality at the system level, enhance student accountability, and support schools and teachers. The SEA measured student performance in English language and mathematics, with results indicating the degree of attainment of specific curricular objectives in the two subjects. SEA results supported schools and teachers in identifying areas of the curriculum that require improvement at the school level; however, they were not intended for comparison across schools and regions. Parents were able to access results of the SEA through Circuit Supervisors at the School Performance Appraisal Meetings (SPAMs).

Suggested policy options:

1. Introduce government funding, possibly initially in combination with donor funding, for carrying out key NLSA activities, such as design, administration, analysis, and reporting of results.
2. Review the structure of the ASU, as well as hiring timelines and practices, to ensure that it has sufficient staff and resources, particularly during the key stages of the NLSA process.
3. Provide teachers with opportunities to learn about the NLSA. For example, introduce a compulsory, regularly updated, high quality measurement and evaluation course, which addresses the NLSA and its use for monitoring students' learning, in all in-service teacher training opportunities offered through teacher education universities and for all pre-service teacher training offered through Colleges of Education.
4. Introduce products, such as technical documents and reports with assessment results that are directly targeted and disseminated to key stakeholder groups. Additionally, introduce system-level mechanisms to ensure dissemination of those products to stakeholder groups at, among others, the district, cluster, and community levels. For example, host media briefings to discuss the results and work with media to feature results in diverse outlets.
5. Clearly define a strategy and concrete goals for monitoring student learning through the NLSA and introduce measures to monitor progress over time. Mechanisms may include providing funding for independent research on the impact of the NLSA, as well as instituting a permanent oversight committee.

International Large-Scale Assessment (ILSA)

Level of development



Ghana participated in the Trends in International Mathematics and Science Study (TIMSS) at the Grade 8 level in 2003, 2007, and 2011. However, Ghana will not participate in TIMSS 2015 and there is no policy document that addresses the country's future participation in ILSAs.

To date, funding for participation in ILSAs has been provided by loans, such as a 13 million USD ten-year loan facility from the World Bank for Ghana's participation in TIMSS 2003, 2007, and 2011. This loan facility covered all core activities of the ILSA as well as research and development.

There is a team at the TIMSS National Centre, along with math and science experts, that is responsible for carrying out the TIMSS exercise in Ghana. The team is sufficiently staffed, both in terms of the quantity and quality of staff, because Circuit Supervisors working in the District Education Offices are selected and trained to help with carrying out the assessment exercise. The TIMSS National Coordinator has taken part in a "Capacity in Assessment" course and has been invited by other TIMSS participating countries to join their training on ILSA. Nonetheless, issues that have been identified in the carrying out of the TIMSS exercise in Ghana include errors or delays in the printing or layout of the test booklets, and errors or delays in scoring student responses to questions.

The ILSA team has attended some international workshops and meetings, an average of nine per assessment cycle. Higher attendance has been prevented by visa issues.

Ghana offers opportunities to learn about TIMSS to a wide audience of interested parties. For example, seminars are organized at the Ministry of Education for key stakeholders, including the media. The Ministry of Education also supports a series of in-service education and training workshops organized by the TIMSS

National Team for Junior High School mathematics and science teachers across the country.

To date, Ghana has met all technical standards required to have its data presented in the main displays of the TIMSS international reports.

The TIMSS 2003 and 2007 national and international reports were widely disseminated in Ghana, and articles by well-known academics that drew on these results were published in journals. The TIMSS 2011 report is underway and will be disseminated in the same manner as the previous years' (2003 and 2007) reports. Additionally, results for TIMSS 2003 and 2007 were provided to some, but not all, schools and educators. The media coverage of TIMSS 2003 and 2007 results has been limited, although there have been editorials, columns, and several small articles commenting on the results. Although there is general recognition that Ghana's results improved from TIMSS 2003 to TIMSS 2007, there has been little discussion in the country about how this happened.

Although TIMSS results have been used for tracking the impact of reforms on student achievement levels, informing curriculum improvement, and informing other assessment activities in Ghana, it is not yet clear that decisions based on TIMSS results have had an overall positive impact on students' achievement levels.

Suggested policy options:

1. Develop and make publically available a policy document that addresses Ghana's participation in ILSAs.
2. Introduce regular government funding for ILSA activities, particularly for core ILSA activities.
3. Ensure that the Assessment Services Unit (ASU) is adequately staffed to carry out ILSA activities to a high standard. This could be done by enhancing the capacity and efficacy of ASU staff in, for example, scoring student responses to questions and designing the layout of the test booklets.

4. Introduce a system-level strategy and monitoring mechanisms to ensure that ILSA information is communicated effectively to all key stakeholders. For example, include provisions for all schools and educators to receive feedback on ILSA results, and make national reports based on the ILSA results available online so that they may reach a wider audience.
5. Introduce mechanisms to ensure that results from the ILSA are used in a variety of ways to inform decision making in Ghana, such as to inform teacher training programs and resource allocation decisions.
6. Introduce funding for research on Ghana's participation in ILSAs, including in TIMSS, to evaluate the impact of ILSAs on teaching and learning in the country and to identify how ILSA results can better inform decisions that can improve student achievement levels.

Appendix 1: Assessment Types and Their Key Differences

	Classroom	Large-scale assessment Surveys		Examinations	
		National	International	Exit	Entrance
Purpose	To provide immediate feedback to inform classroom instruction	To provide feedback on overall health of the system at particular grade/age level(s), and to monitor trends in learning	To provide feedback on the comparative performance of the education system at particular grade/age level(s)	To certify students as they move from one level of the education system to the next (or into the workforce)	To select students for further educational opportunities
Frequency	Daily	For individual subjects offered on a regular basis (such as every 3-5 years)	For individual subjects offered on a regular basis (such as every 3-5 years)	Annually and more often where the system allows for repeats	Annually and more often where the system allows for repeats
Who is tested?	All students	Sample or census of students at a particular grade or age level(s)	A sample of students at a particular grade or age level(s)	All eligible students	All eligible students
Format	Varies from observation to questioning to paper-and-pencil tests to student performances	Usually multiple choice and short answer	Usually multiple choice and short answer	Usually essay and multiple choice	Usually essay and multiple choice
Coverage of curriculum	All subject areas	Generally confined to a few subjects	Generally confined to one or two subjects	Covers main subject areas	Covers main subject areas
Additional information collected from students?	Yes, as part of the teaching process	Frequently	Yes	Seldom	Seldom
Scoring	Usually informal and simple	Varies from simple to more statistically sophisticated techniques	Usually involves statistically sophisticated techniques	Varies from simple to more statistically sophisticated techniques	Varies from simple to more statistically sophisticated techniques

Appendix 2: Basic Structure of Rubrics for Evaluating Data Collected on a Student Assessment System

Dimension	Development Level				
	LATENT (Absence of, or deviation from, attribute)	EMERGING (On way to meeting minimum standard)	ESTABLISHED (Acceptable minimum standard)	ADVANCED (Best practice)	Justification
EC—ENABLING CONTEXT					
EC1—Policies					
EC2—Leadership, public engagement					
EC3—Funding					
EC4—Institutional arrangements					
EC5—Human resources					
SA—SYSTEM ALIGNMENT					
SA1—Learning/quality goals					
SA2—Curriculum					
SA3—Pre-, in-service teacher training					
AQ—ASSESSMENT QUALITY					
AQ1—Ensuring quality (design, administration, analysis)					
AQ2—Ensuring effective uses					

Appendix 3: Summary of the Development Levels for Each Assessment Type

Assessment Type	LATENT	EMERGING	ESTABLISHED	ADVANCED
	<i>Absence of, or deviation from, the attribute</i>	<i>On way to meeting minimum standard</i>	<i>Acceptable minimum standard</i>	<i>Best practice</i>
CLASSROOM ASSESSMENT	There is no system-wide institutional capacity to support and ensure the quality of classroom assessment practices.	There is weak system-wide institutional capacity to support and ensure the quality of classroom assessment practices.	There is sufficient system-wide institutional capacity to support and ensure the quality of classroom assessment practices.	There is strong system-wide institutional capacity to support and ensure the quality of classroom assessment practices.
EXAMINATIONS	There is no standardized examination in place for key decisions.	There is a partially stable standardized examination in place, and a need to develop institutional capacity to run the examination. The examination typically is of poor quality and is perceived as unfair or corrupt.	There is a stable standardized examination in place. There is institutional capacity and some limited mechanisms to monitor it. The examination is of acceptable quality and is perceived as fair for most students and free from corruption.	There is a stable standardized examination in place and institutional capacity and strong mechanisms to monitor it. The examination is of high quality and is perceived as fair and free from corruption.
NATIONAL (OR SYSTEM-LEVEL) LARGE-SCALE ASSESSMENT	There is no NLSA in place.	There is an unstable NLSA in place and a need to develop institutional capacity to run the NLSA. Assessment quality and impact are weak.	There is a stable NLSA in place. There is institutional capacity and some limited mechanisms to monitor it. The NLSA is of moderate quality and its information is disseminated, but not always used in effective ways.	There is a stable NLSA in place and institutional capacity and strong mechanisms to monitor it. The NLSA is of high quality and its information is effectively used to improve education.
INTERNATIONAL LARGE-SCALE ASSESSMENT	There is no history of participation in an ILSA nor plans to participate in one.	Participation in an ILSA has been initiated, but there still is need to develop institutional capacity to carry out the ILSA.	There is more or less stable participation in an ILSA. There is institutional capacity to carry out the ILSA. The information from the ILSA is disseminated, but not always used in effective ways.	There is stable participation in an ILSA and institutional capacity to run the ILSA. The information from the ILSA is effectively used to improve education.

Appendix 4: Methodology for Assigning Development Levels

1. The country team or consultant collects information about the assessment system in the country.

2. Based on the collected information, a level of development and score is assigned to each dimension in the rubrics:

- Latent = 1 score point
- Emerging = 2 score points
- Established = 3 score points
- Advanced = 4 score points

3. The score for each quality driver is computed by aggregating the scores for each of its constituent dimensions. For example:

The quality driver, 'Enabling Context,' in the case of ILSA, has 3 dimensions on which a hypothetical country receives the following scores: Dimension A = 2 points; Dimension B = 2 points; Dimension C = 3 points. The hypothetical country's overall score for this quality driver would be: $(2+2+3)/3 = 2.33$

4. A preliminary level of development is assigned to each quality driver.

5. The preliminary development level is validated using expert judgment in cooperation with the country team and The World Bank Task Team Leader.

For scores that allow a margin of discretion (i.e., to choose between two levels of development), a final decision has to be made based on expert judgment. For example, the aforementioned hypothetical country has an 'Enabling Context' score of 2.33, corresponding to a preliminary level of development of 'Emerging or Established.' Based on qualitative information not captured in the rubric, along with expert judgment, the country team chooses 'Emerging' as the most appropriate level.

6. Scores for certain key dimensions under 'Enabling Context' (in the case of EXAM, NLSA, and ILSA) and under 'System Alignment' (in the case of CLASS) were set as ceiling scores, i.e., the overall mean score for the particular assessment type cannot be greater than the score for these key dimensions. These key variables include formal policy, regular funding, having a permanent assessment unit, and the quality of assessment practices.

Appendix 5: SABER-Student Assessment Rubrics for Ghana

This appendix provides the completed SABER-Student Assessment rubrics for each type of assessment activity in Ghana. In each row of the rubric, the relevant selection is indicated by a thick border and an asterisk. The selection may include a superscript number that refers to the justification or explanation of the selection (as indicated by a thick border and an asterisk), which is provided in the “Development level rating justifications” section at the end of each rubric. If a row includes a superscript but not a thick border and an asterisk, such superscript indicates that insufficient information was available to determine the relevant selection in the row.

GHANA

Classroom Assessment

ENABLING CONTEXT AND SYSTEM ALIGNMENT

Overall policy and resource framework within which classroom assessment activity takes place in a country or system, and the degree to which classroom assessment activity is coherent with other components of the education system.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT AND SYSTEM ALIGNMENT 1: <i>Setting clear guidelines for classroom assessment</i>			
There is no system-level document that provides guidelines for classroom assessment.	There is an informal system-level document that provides guidelines for classroom assessment.	There is a formal system-level document that provides guidelines for classroom assessment. ¹ *	This option does not apply to this dimension.
This option does not apply to this dimension.	This option does not apply to this dimension.	The availability of the document is restricted. ² *	The document is widely available.
ENABLING CONTEXT AND SYSTEM ALIGNMENT 2: <i>Aligning classroom assessment with system learning goals</i>			
There are no system-wide resources for teachers for classroom assessment.	There are scarce system-wide resources for teachers for classroom assessment. ³ *	There are some system-wide resources for teachers for classroom assessment. ³	There are a variety of system-wide resources available for teachers for classroom assessment.
There is no official curriculum or standards document.	There is an official curriculum or standards document, but it is not clear what students are expected to learn or to what level of performance.	There is an official curriculum or standards document that specifies what students are expected to learn, but the level of performance required is not clear. ⁴ *	There is an official curriculum or standards document that specifies what students are expected to learn and to what level of performance.
ENABLING CONTEXT AND SYSTEM ALIGNMENT 3: <i>Having effective human resources to carry out classroom assessment activities</i>			
There are no system-level mechanisms to ensure that teachers develop skills and expertise in classroom assessment.	This option does not apply to this dimension.	There are some system-level mechanisms to ensure that teachers develop skills and expertise in classroom assessment. ⁵ *	There are a variety of system-level mechanisms to ensure that teachers develop skills and expertise in classroom assessment.

ASSESSMENT QUALITY

Quality of classroom assessment design, administration, analysis, and use.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 1: <i>Ensuring the quality of classroom assessment</i>			
Classroom assessment practices suffer from widespread weaknesses or there is no information available on classroom assessment practices. There are no mechanisms to monitor the quality of classroom assessment practices.	Classroom assessment practices are known to be weak. ⁶ *	Classroom assessment practices are known to be of moderate quality. There are limited systematic mechanisms to monitor the quality of classroom assessment practices. ⁷ *	Classroom assessment practices are known to be generally of high quality. There are varied and systematic mechanisms in place to monitor the quality of classroom assessment practices.
ASSESSMENT QUALITY 2: <i>Ensuring effective uses of classroom assessment</i>			
Classroom assessment information is not required to be disseminated to key stakeholders.	This option does not apply to this dimension.	Classroom assessment information is required to be disseminated to some key stakeholders.	Classroom assessment information is required to be disseminated to all key stakeholders. ⁸ *
There are no required uses of classroom assessment to support student learning.	There are limited required uses of classroom assessment to support student learning.	There are adequate required uses of classroom assessment to support student learning, excluding its use as an input for external examination results. ⁹ *	There are adequate required uses of classroom assessment to support student learning, including its use as an input for external examination results. ⁹ *

Classroom Assessment: Development-level rating justifications

1. There is a set of national syllabi (formal system-level documents authorized by the Ministry of Education), which include comprehensive guidelines for classroom assessment, referred to as school-based assessment. These include the Curriculum Research and Development Division Teaching Syllabi from 2007 for a) Mathematics (Primary 1-6), b) Natural Science (Primary 1-3), c) ICT (Primary 1-6), d) Mathematics (Junior High School 1-3), e) Integrated Science (Junior High School 1-3), f) Christian Religious Studies (Senior High School 1-3), and g) English Language (Senior High School 1-4).
2. Every school is provided with one copy of each syllabus. However, there are not enough copies of the syllabi for all teachers to access. At the Senior High School level, syllabi are made available on CD, although not all schools have technological capability to access them. The CDs are also distributed to District Education offices and are made available online on the Ghana Education Service website, although most schools lack internet connectivity to access the website. Additionally, the syllabi are available in colleges of education and in in-service courses for teachers.
3. The national syllabi outline what students are expected to learn in different subject areas at different grade/age levels. However, textbooks or workbooks and scoring criteria are not available for teachers for their classroom activities.
4. The national syllabi outline what student at different grade/age levels are expected to learn, but they do not take into account individual differences in student ability levels.
5. System-level mechanisms to ensure that teachers develop skills and expertise in classroom assessment include pre-service teacher training, in-service teacher training, requirements for a course on classroom assessment in all colleges of education, opportunities to participate in conferences and workshops, and teacher supervision. However, there are no on-line resources available on classroom assessment. Additionally, not all teachers have opportunities to participate in conferences (fewer than 0.005 percent of teachers at each level participate) and secondary school teachers have very little in-service training.
6. Classroom assessment activities are known to be weak. It is very common that classroom assessment activities rely mainly on multiple-choice, selection-type questions, and are mainly about recalling information. Teachers very commonly do not use explicit or a priori criteria for scoring or grading students' work and uneven application of standards for grading students' work is a serious problem. Grade inflation is a serious problem, and parents are often poorly informed about students' grades. Classroom assessment activities are very commonly used as administrative or control tools rather than as a pedagogical resource. However, assessment practices are generally aligned with the curricular framework and classroom assessment activities generally provide useful feedback to students. It is also not common to observe errors in the scoring or grading of students' work.
7. Classroom assessment is a required component of a teacher's performance evaluation and of school inspection or teacher supervision.
8. Schools or teachers are required to report on an individual student's performance to school district/Ministry of Education officials, parents, students, and School Management Committees (SMC). SMCs, along with school heads, are expected to hold School Performance Appraisal Meetings (SPAM) to discuss a

school's performance on the School Report Card, reports from assessment activities, as well as strategies to improve future school performance. SPAM involve school teachers and the entire community, with Circuit Supervisors in attendance.

9. Classroom assessment activities are required for diagnosing student learning issues, providing feedback to students on their learning, informing parents about their child's learning, planning next steps in instruction, grading students for internal classroom uses, and providing input to an external examination program.

GHANA
Examinations – Basic Education Certificate Examination (BECE)

ENABLING CONTEXT

Overall framework of policies, leadership, organizational structures, fiscal and human resources in which assessment activity takes place in a country or system and the extent to which that framework is conducive to, or supportive of, the assessment activity.

<p>LATENT</p> 	<p>EMERGING</p> 	<p>ESTABLISHED</p> 	<p>ADVANCED</p> 
<p>ENABLING CONTEXT 1: <i>Setting clear policies</i></p>			
<p>No standardized examination has taken place.</p>	<p>The standardized examination has been operating on an irregular basis.</p>	<p>The examination is a stable program that has been operating regularly.¹ *</p>	<p>This option does not apply to this dimension</p>
<p>There is no policy document that authorizes the examination.</p>	<p>There is an informal or draft policy document that authorizes the examination.</p>	<p>There is a formal policy document that authorizes the examination.² *</p>	<p>This option does not apply to this dimension.</p>
<p>This option does not apply to this dimension.</p>	<p>The policy document is not available to the public.³ *</p>	<p>The policy document is available to the public.</p>	<p>This option does not apply to this dimension.</p>
<p>This option does not apply to this dimension.</p>	<p>This option does not apply to this dimension.</p>	<p>The policy document addresses some key aspects of the examination.⁴ *</p>	<p>The policy document addresses all key aspects of the examination.</p>
<p>ENABLING CONTEXT 2: <i>Having strong leadership</i></p>			
<p>All stakeholder groups strongly oppose the examination or are indifferent to it.</p>	<p>Most stakeholder groups oppose the examination.</p>	<p>Most stakeholders groups support the examination.</p>	<p>All stakeholder groups support the examination.⁵</p>
<p>There are no attempts to improve the examination by stakeholder groups.</p>	<p>This option does not apply to this dimension.</p>	<p>There are independent attempts to improve the examination by stakeholder groups.</p>	<p>There are coordinated attempts to improve the examination by stakeholder groups.⁶ *</p>
<p>Efforts to improve the examination are not welcomed by the leadership in charge of the examination</p>	<p>This option does not apply to this dimension.</p>	<p>Efforts to improve the examination are generally welcomed by the leadership in charge of the examination.⁷ *</p>	<p>This option does not apply to this dimension.</p>

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 3: <i>Having regular funding</i>			
There is no funding allocated for the examination.	There is irregular funding allocated for the examination.	There is regular funding allocated for the examination. ⁸ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding covers some core examination activities: design, administration, data processing or reporting.	Funding covers all core examination activities: design, administration, data processing and reporting. ⁹ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding does not cover research and development.	This option does not apply to this dimension.	Funding covers research and development. ¹⁰ *
ENABLING CONTEXT 4: <i>Having strong organizational structures</i>			
The examination office does not exist or is newly established.	The examination office is newly established.	The examination office is a stable organization. ¹¹ *	This option does not apply to this dimension.
The examination office is not accountable to an external board or agency.	This option does not apply to this dimension.	The examination office is accountable to an external board or agency. ¹² *	This option does not apply to this dimension.
Examination results are not recognized by any certification or selection system.	Examination results are recognized by certification or selection system in the country. ¹³ *	Examination results are recognized by one certification or selection system in another country.	Examination results are recognized by two or more certification or selection systems in another country.
The examination office does not have the required facilities to carry out the examination.	The examination office has some of the required facilities to carry out the examination.	The examination office has all of the required facilities to carry out the examination.	The examination office has state of the art facilities to carry out the examination. ¹⁴ *

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 5: <i>Having effective human resources</i>			
There is no staff to carry out the examination.	The examination office is inadequately staffed to effectively carry out the examination, issues are pervasive.	The examination office is adequately staffed to carry out the examination effectively, with minimal issues. ¹⁵ *	The examination office is adequately staffed to carry out the assessment effectively, with no issues.
The country does not offer opportunities that prepare for work on the examination.	This option does not apply to this dimension.	The country offers some opportunities that prepare for work on the examination. ¹⁶ *	The country offers a wide range of opportunities that prepare for work on the examination.

SYSTEM ALIGNMENT

Degree to which the assessment is coherent with other components of the education system.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
SYSTEM ALIGNMENT 1:			
<i>Aligning examinations with learning goals and opportunities to learn</i>			
It is not clear what the examination measures.	This option does not apply to this dimension.	There is a clear understanding of what the examination measures. ¹⁷ *	This option does not apply to this dimension.
What the examination measures is questioned by some stakeholder groups. ¹⁸ *	This option does not apply to this dimension.	What is measured by the examination is largely accepted by stakeholder groups.	This option does not apply to this dimension.
Material to prepare for the examination is minimal and it is only accessible to very few students.	There is some material to prepare for the examination that is accessible to some students.	There is comprehensive material to prepare for the examination that is accessible to most students.	There is comprehensive material to prepare for the examination that is accessible to all students. ¹⁹ *
SYSTEM ALIGNMENT 2:			
<i>Providing teachers with opportunities to learn about the examination</i>			
There are no courses or workshops on examinations available to teachers.	There are no up-to-date courses or workshops on examinations available to teachers.	There are up-to-date voluntary courses or workshops on examinations available to teachers.	There are up-to-date compulsory courses or workshops on examinations for teachers. ²⁰ *
Teachers are excluded from all examination-related tasks.	Teachers are involved in very few examination-related tasks.	Teachers are involved in some examination-related tasks. ²¹ *	Teachers are involved in most examination-related tasks.

ASSESSMENT QUALITY

Degree to which the assessment meets quality standards, is fair, and is used in an effective way.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 1: <i>Ensuring quality</i>			
There is no technical report or other documentation.	There is some documentation on the examination, but it is not in a formal report format.	There is a comprehensive technical report but with restricted circulation. ²² *	There is a comprehensive, high quality technical report available to the general public.
There are no mechanisms in place to ensure the quality of the examination.	This option does not apply to this dimension.	There are limited systematic mechanisms in place to ensure the quality of the examination. ²³ *	There are varied and systematic mechanisms in place to ensure the quality of the examination.
ASSESSMENT QUALITY 2: <i>Ensuring fairness</i>			
Inappropriate behavior surrounding the examination process is high. ²⁴ *	Inappropriate behavior surrounding the examination process is moderate.	Inappropriate behavior surrounding the examination process is low.	Inappropriate behavior surrounding the examination process is marginal.
The examination results lack credibility for all stakeholder groups.	The examination results are credible for some stakeholder groups.	The examination results are credible for all stakeholder groups. ²⁵ *	This option does not apply to this dimension.
The majority of the students (over 50%) may not take the examination because of language, gender, or other equivalent barriers.	A significant proportion of students (10%-50%) may not take the examination because of language, gender, or other equivalent barriers.	A small proportion of students (less than 10%) may not take the examination because of language, gender, or other equivalent barriers.	All students can take the examination; there are no language, gender or other equivalent barriers. ²⁶ *

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 3: <i>Using examination information in a fair way</i>			
Examination results are not used in a proper way by all stakeholder groups.	Examination results are used by some stakeholder groups in a proper way.	Examination results are used by most stakeholder groups in a proper way. ²⁷ *	Examination results are used by all stakeholder groups in a proper way.
Student names and results are public.	This option does not apply to this dimension.	Students' results are confidential. ²⁸ *	This option does not apply to this dimension.
ASSESSMENT QUALITY 4: <i>Ensuring positive consequences of the examination</i>			
There are no options for students who do not perform well on the examination, or students must leave the education system.	There are very limited options for students who do not perform well on the examination. ²⁹ *	There are some options for students who do not perform well on the examination.	There is a variety of options for students who do not perform well on the examination.
There are no mechanisms in place to monitor the consequences of the examination.	This option does not apply to this dimension.	There are some mechanisms in place to monitor the consequences of the examination. ³⁰ *	There is a variety of mechanisms in place to monitor the consequences of the examination.

Examinations – Basic Education Certificate Examination (BECE): Development-level rating justifications

1. The Basic Education Certificate Examination (BECE) was first administered in 1990. Its primary purposes are for student certification for grade or school cycle completion and student selection to secondary school. Secondary purposes include school or educator accountability and promoting competition among schools. Students in Grade 9 are assessed in English Language, Ghanaian Language and Culture, Social Studies, Integrated Science, Mathematics, Basic Design and Technology, Information and Communication Technology, French (optional), and Religious and Moral Education.
2. The legislative assembly of the Gold Coast authorized the examination through West African Examination Council (WAEC) Ordinance No. 40 of 1951.
3. The policy document is not available to the public. However, certain information about the policy document is made available on the <http://www.ghanawaec.org/> and <http://www.ghanaweb.com/GhanaHomePage/education/waec.html> websites.
4. The policy document describes the purpose of the examination, describes authorized use of results, outlines procedures to investigate and address security breaches, cheating, or other forms of inappropriate behavior, specifies who can sit for the examination, identifies rules about preparation, explains alignment with curricula and standards, and explains the format of the examination questions. The policy document does not outline governance, distribution of power, responsibilities among key entities, funding sources, or outline the procedures for special/disadvantaged students.
5. There is an insufficient amount of information to be able to identify a development level rating.
6. There are coordinated attempts to improve the examination by stakeholder groups.
7. Efforts to improve the examination are generally welcomed by the leadership in charge of the examination.
8. There is regular funding allocated by the government and from student fees for the examination.
9. Funding covers long - or medium- term planning of program milestones and staff training.
10. Funding covers research and development.
11. WAEC is a semi-autonomous council that has been in charge of running the examination since 1990.
12. WAEC is accountable to the Ministry of Education.
13. Examination results are officially recognized in Ghana.

14. WAEC has computers for all technical staff, a secure building, secure storage facilities, access to adequate computer servers, an ability to backup data, and adequate communication tools.
15. There is an adequate number (in terms of quality and quantity) of full-time and part-time staff. Part-time staff members are responsible for activities such as paper setting, marking, and script checking. There have been minimal issues in carrying out the examination effectively, although there has been confusion in interpretation of the grading system and cases of examination malpractices, largely due to the laxity of supervisors.
16. University graduate programs and university courses on educational measurement and evaluation provide opportunities that prepare for work on the examination. University of Cape Coast (UCC) has a post graduate program in educational measurement and evaluation, and UCC, University of Education, Winneba (UEW), and colleges of Education offer courses in introductory educational measurement and evaluation. Also, funding is available for attending international programs, courses, and workshops on educational measurement and evaluation, which is largely available to staff of Examination units and centres, as well as lecturers in universities.
17. The examination measures the national school curriculum guidelines or standards as the examination syllabus is designed based on the teaching syllabuses of various nations, including Ghana.
18. Some stakeholder groups question what the examination measures. For example, some parents complain that their children receive good aggregate scores, but do not obtain placement in the schools of their first choice. The so-called "pass" in BECE is defined as gaining an aggregate score in the range of 6-30 in the best six subjects with a grade 5 or better in the core subjects (Mathematics, English, Integrated Science, and Social Studies). However, only the raw BECE exam score is used for selection/placement to senior high school, and the number of students who receive a "pass" in BECE depends on the number of places available in senior high schools.
19. The material is widely accessible by all students (over 90 percent) in a variety of learning contexts. Examples of the types of questions that are on the examination are available for sale to the public. Information on how to prepare for the examination is available online, and a report on the strengths and weaknesses in student performance is sent to key stakeholders and available for sale online.
20. There are up-to-date compulsory courses or workshops on examinations for teachers. Teachers who are involved in invigilation and supervision of exams attend workshops before the exams at exam centers. Also, teachers who are involved in scoring the constructed response papers of the exam are trained at Coordination workshops.
21. Teachers are hired as temporary/part-time staff for administering, supervising, and scoring the examination.
22. There is a comprehensive technical report, however, its circulation is restricted.

23. Internal review or observation by officials of the District Directorate of Education, external review or observation by WAEC officials, and pilot or field testing by the WAEC Test Development Division are in place to ensure the quality of the examination.
24. Inappropriate behaviors include: leakage of the content of an examination paper or part of a paper prior to the examination, impersonation (when an individual other than the registered candidate takes the examination), copying from other candidates, using unauthorized materials such as prepared answers and notes, collusion among candidates via mobile phones, passing of paper, or equivalent, issuing forged certificates or altering results information, and the provision of external assistance via the supervisor, mobile phone, etc. Sensitization programs are being organized for stakeholders to address the inappropriate behaviors.
25. Stakeholder groups perceive the exam as credible.
26. All students can take the examination; there are no language, gender or other equivalent barriers.
27. Examination results are used by most stakeholder groups in a proper way. However, some candidates fake their results when applying for further education or jobs.
28. Only the student and persons with a legitimate, professional interest in the test taker can know the results.
29. Students who do not perform well on the examination may retake the examination (in the following year(s)) or attend remedial or preparatory courses in order to prepare to retake it.
30. There is a permanent oversight committee and expert review groups to monitor the consequences of the examination.

GHANA
Examinations – West African Secondary School Certificate Exam (WASSCE)

ENABLING CONTEXT

Overall framework of policies, leadership, organizational structures, fiscal and human resources in which assessment activity takes place in a country or system and the extent to which that framework is conducive to, or supportive of, the assessment activity.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 1: <i>Setting clear policies</i>			
No standardized examination has taken place.	The standardized examination has been operating on an irregular basis.	The examination is a stable program that has been operating regularly. ¹ *	This option does not apply to this dimension.
There is no policy document that authorizes the examination.	There is an informal or draft policy document that authorizes the examination.	There is a formal policy document that authorizes the examination. ² *	This option does not apply to this dimension.
This option does not apply to this dimension.	The policy document is not available to the public. ³ *	The policy document is available to the public.	This option does not apply to this dimension.
This option does not apply to this dimension.	This option does not apply to this dimension.	The policy document addresses some key aspects of the examination. ⁴ *	The policy document addresses all key aspects of the examination.
ENABLING CONTEXT 2: <i>Having strong leadership</i>			
All stakeholder groups strongly oppose the examination or are indifferent to it.	Most stakeholder groups oppose the examination.	Most stakeholders groups support the examination.	All stakeholder groups support the examination. ⁵ *
There are no attempts to improve the examination by stakeholder groups.	This option does not apply to this dimension.	There are independent attempts to improve the examination by stakeholder groups.	There are coordinated attempts to improve the examination by stakeholder groups. ⁶ *
Efforts to improve the examination are not welcomed by the leadership in charge of the examination	This option does not apply to this dimension.	Efforts to improve the examination are generally welcomed by the leadership in charge of the examination. ⁷ *	This option does not apply to this dimension.

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 3: <i>Having regular funding</i>			
There is no funding allocated for the examination.	There is irregular funding allocated for the examination.	There is regular funding allocated for the examination. ⁸ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding covers some core examination activities: design, administration, data processing or reporting.	Funding covers all core examination activities: design, administration, data processing and reporting. ⁹ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding does not cover research and development.	This option does not apply to this dimension.	Funding covers research and development. ¹⁰ *
ENABLING CONTEXT 4: <i>Having strong organizational structures</i>			
The examination office does not exist or is newly established.	The examination office is newly established.	The examination office is a stable organization. ¹¹ *	This option does not apply to this dimension.
The examination office is not accountable to an external board or agency.	This option does not apply to this dimension.	The examination office is accountable to an external board or agency. ¹² *	This option does not apply to this dimension.
Examination results are not recognized by any certification or selection system.	Examination results are recognized by certification or selection system in the country.	Examination results are recognized by one certification or selection system in another country.	Examination results are recognized by two or more certification or selection systems in another country. ¹³ *
The examination office does not have the required facilities to carry out the examination.	The examination office has some of the required facilities to carry out the examination.	The examination office has all of the required facilities to carry out the examination.	The examination office has state of the art facilities to carry out the examination. ¹⁴ *

(CONTINUED)

<p>LATENT</p> 	<p>EMERGING</p> 	<p>ESTABLISHED</p> 	<p>ADVANCED</p> 
<p>ENABLING CONTEXT 5: <i>Having effective human resources</i></p>			
<p>There is no staff to carry out the examination.</p>	<p>The examination office is inadequately staffed to effectively carry out the examination, issues are pervasive.</p>	<p>The examination office is adequately staffed to carry out the examination effectively, with minimal issues.¹⁵ *</p>	<p>The examination office is adequately staffed to carry out the assessment effectively, with no issues.</p>
<p>The country does not offer opportunities that prepare for work on the examination.</p>	<p>This option does not apply to this dimension.</p>	<p>The country offers some opportunities that prepare for work on the examination.¹⁶ *</p>	<p>The country offers a wide range of opportunities that prepare for work on the examination.</p>

SYSTEM ALIGNMENT

Degree to which the assessment is coherent with other components of the education system.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
SYSTEM ALIGNMENT 1:			
<i>Aligning examinations with learning goals and opportunities to learn</i>			
It is not clear what the examination measures.	This option does not apply to this dimension.	There is a clear understanding of what the examination measures. ¹⁷ *	This option does not apply to this dimension.
What the examination measures is questioned by some stakeholder groups. ¹⁸ *	This option does not apply to this dimension.	What is measured by the examination is largely accepted by stakeholder groups.	This option does not apply to this dimension.
Material to prepare for the examination is minimal and it is only accessible to very few students.	There is some material to prepare for the examination that is accessible to some students.	There is comprehensive material to prepare for the examination that is accessible to most students.	There is comprehensive material to prepare for the examination that is accessible to all students. ¹⁹ *
SYSTEM ALIGNMENT 2:			
<i>Providing teachers with opportunities to learn about the examination</i>			
There are no courses or workshops on examinations available to teachers.	There are no up-to-date courses or workshops on examinations available to teachers.	There are up-to-date voluntary courses or workshops on examinations available to teachers.	There are up-to-date compulsory courses or workshops on examinations for teachers. ²⁰ *
Teachers are excluded from all examination-related tasks.	Teachers are involved in very few examination-related tasks.	Teachers are involved in some examination-related tasks. ²¹ *	Teachers are involved in most examination-related tasks.

ASSESSMENT QUALITY

Degree to which the assessment meets quality standards, is fair, and is used in an effective way.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 1: <i>Ensuring quality</i>			
There is no technical report or other documentation.	There is some documentation on the examination, but it is not in a formal report format.	There is a comprehensive technical report but with restricted circulation. ²² *	There is a comprehensive, high quality technical report available to the general public.
There are no mechanisms in place to ensure the quality of the examination.	This option does not apply to this dimension.	There are limited systematic mechanisms in place to ensure the quality of the examination. ²³ *	There are varied and systematic mechanisms in place to ensure the quality of the examination.
ASSESSMENT QUALITY 2: <i>Ensuring fairness</i>			
Inappropriate behavior surrounding the examination process is high. ²⁴ *	Inappropriate behavior surrounding the examination process is moderate.	Inappropriate behavior surrounding the examination process is low.	Inappropriate behavior surrounding the examination process is marginal.
The examination results lack credibility for all stakeholder groups.	The examination results are credible for some stakeholder groups.	The examination results are credible for all stakeholder groups. ²⁵ *	This option does not apply to this dimension.
The majority of the students (over 50%) may not take the examination because of language, gender, or other equivalent barriers.	A significant proportion of students (10%-50%) may not take the examination because of language, gender, or other equivalent barriers.	A small proportion of students (less than 10%) may not take the examination because of language, gender, or other equivalent barriers.	All students can take the examination; there are no language, gender or other equivalent barriers. ²⁶ *

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 3: <i>Using examination information in a fair way</i>			
Examination results are not used in a proper way by all stakeholder groups.	Examination results are used by some stakeholder groups in a proper way.	Examination results are used by most stakeholder groups in a proper way. ²⁷ *	Examination results are used by all stakeholder groups in a proper way.
Student names and results are public.	This option does not apply to this dimension.	Students' results are confidential. ²⁸ *	This option does not apply to this dimension.
ASSESSMENT QUALITY 4: <i>Ensuring positive consequences of the examination</i>			
There are no options for students who do not perform well on the examination, or students must leave the education system.	There are very limited options for students who do not perform well on the examination. ²⁹ *	There are some options for students who do not perform well on the examination.	There is a variety of options for students who do not perform well on the examination.
There are no mechanisms in place to monitor the consequences of the examination.	This option does not apply to this dimension.	There are some mechanisms in place to monitor the consequences of the examination. ³⁰ *	There is a variety of mechanisms in place to monitor the consequences of the examination.

Examinations – West African Secondary School Certificate Examination (WASSCE): Development-level rating justifications

1. The West African Secondary School Certificate Examination (WASSCE) is taken at the end of senior high school in Ghana and four other Anglophone countries, which include Nigeria, Sierra Leone, Liberia, and Gambia. WASSCE was first administered in December 1993 and covers core subjects in Senior High School, which are English language, Mathematics, Integrated Science, and Social Studies, and elective subjects, which include topics related to Agriculture, Science, General Arts, Business, and Vocational. Students in Grade 12 take the exam in the topics relevant to their chosen fields of study, with results used in certifying senior high school completion and determining selection to university or other higher-education institutions, as well as for monitoring education quality levels, and planning education policy reforms.
2. The West African Examination Council (WAEC) Ordinance No. 40 of 1951, from The Legislative Assembly of the Gold Coast, authorized the examination in 1951.
3. The policy document is not available to the public. However, certain information about the policy document is made available on the <http://www.ghanawaec.org/> and <http://www.ghanaweb.com/GhanaHomePage/education/waec.html> websites.
4. The policy document describes the purpose of the examination, describes authorized use of results, outlines procedures to investigate and address security breaches, cheating, or other forms of inappropriate behavior, specifies who can sit for the examination, identifies rules about preparation, explains alignment with curricula and standards, and explains the format of the examination questions. The policy document does not outline governance, distribution of power, responsibilities among key entities, funding sources, or outline the procedures for special/disadvantaged students.
5. Policymakers, teachers unions, educators, students, parents, media, think-tanks, NGOs, universities, and employers all strongly support the WAEC.
6. There are coordinated attempts to improve the examination by stakeholder groups. The Conference of Heads of Assisted Secondary Schools (CHASS) has taken steps to curb examination irregularities, and prominent educationists, teacher unions, and researchers from WAEC and tertiary institutions, are raising awareness through speeches, research, and meetings.
7. WAEC provides opportunities for researchers to make presentations at monthly seminars and workshops, and WAEC leadership discusses recommendations directly related to improving the examination.
8. All participating WAEC countries contribute government funding to WAEC. Funding is also provided through student fees.
9. Funding also covers long - or medium- term planning of program milestones, and staff training.
10. Funding covers research and development.

11. WAEC is a semi-autonomous council that has been in charge of running the examination since 1951.
12. WAEC is accountable to the Ministry of Education.
13. Examination results are officially recognized in Ghana and in the countries of the West African sub region.
14. WAEC has computers for all technical staff, a secure building, secure storage facilities, access to adequate computer servers, ability to backup data, and adequate communication tools.
15. There is an adequate number (in terms of quality and quantity) of full-time and part-time staff, many of whom have received training overseas on examination management. Part-time staff members take on work related to paper setting, marking, script checking, etc. There have been minimal issues in carrying out the examination effectively, though there have been cases of examination malpractices largely due to the laxity of supervisors.
16. University graduate programs and university courses on educational measurement and evaluation provide opportunities that prepare for work on the examination. University of Cape Coast (UCC) has a post-graduate program in educational measurement and evaluation, and UCC, University of Education, Winneba (UEW), and colleges of Education offer courses in introductory educational measurement and evaluation. Also, funding is available for attending international programs, courses, and workshops on educational measurement and evaluation, which is largely for staff of Examination units and centres and lecturers in universities who have researched or written papers.
17. The examination measures the internationally recognized and national school curriculum guidelines or standards, as the examination syllabus is designed based on the teaching syllabuses of various nations, including Ghana. However, most teachers do not see the WAEC examination syllabus, as it is only available to the examiners. The examination also measures the internationally recognized curriculum guidelines or standards. One of the major roles of WAEC's subject panels for the various WASSCE subjects is to ensure a good alignment or match between the requirements of the WAEC examination syllabus and the CRDD official curriculum.
18. Some stakeholder groups question what the examination measures. For example, heads of private universities expressed concern over the non-acceptance of the D7 WASSCE grades.
19. Examples of the types of questions that are on the examination are available for sale to the public. Some information on how to prepare for the examination is available online, and a report on the strengths and weaknesses in student performance is sent to key stakeholders and available for sale online.
20. Workshops are organized by WAEC for teachers who are appointed as examiners (marking scripts) and item writers (chief examiners). The workshops are need-based, but depend on the availability of funds at WAEC. Workshops are also offered to newly appointed staff.

21. Teachers are hired only as temporary/part-time staff for administering the examination, scoring the examination, and supervising examination procedures. Their work ends when the tasks are completed, although some are hired on a regular basis.
22. There is a comprehensive technical report, but circulation is very restricted. The report is not available to the public and even some permanent staff of the Council do not have access to it.
23. Internal and external review or observers and pilot or field testing are in place to ensure the quality of the examination.
24. Inappropriate behaviors observed include: leakage of the content of an examination paper or part of a paper prior to the examination, impersonation when an individual other than the registered candidate takes the examination, copying from other candidates, using unauthorized materials such as prepared answers and notes, collusion among candidates via mobile phones, passing of paper, or equivalent, issuing forged certificates or altering results information, and the provision of external assistance via the supervisor, mobile phone, etc.
25. Stakeholder groups perceive the exam as credible because there is no alternative for selection to tertiary education, and because they do not believe the scale of malpractice to be large enough to affect the credibility of the results. In 2011, WAEC reported malpractices to affect 2.83 percent of the total number of students who participated in the exam. Additionally, stakeholders have faith in the results because offenders are punished severely.
26. All students can take the examination; there are no language, gender or other equivalent barriers.
27. Some candidates fake their results when applying for further education or jobs; therefore, WAEC provides services for verification of results to organizations and institutions who want to authenticate the examination results of their prospective students and/or employees. WAEC is taking steps to prevent the use of fake results' slips for admission to higher institutions and other fraudulent practices by issuing certificates that contain some security features.
28. Only the student and persons with a legitimate, professional interest in the test taker can know the results.
29. Students who do not perform well on the examination may retake the examination or attend remedial or preparatory courses in order to prepare to retake it.
30. The Test Development Division (TDD) of the WAEC acts as a permanent oversight committee and expert review group.

GHANA
National (or System-Level) Large-Scale Assessment (NLSA)

ENABLING CONTEXT

Overall framework of policies, leadership, organizational structures, fiscal and human resources in which NLSA activity takes place in a country or system and the extent to which that framework is conducive to, or supportive of, the NLSA activity.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 1: <i>Setting clear policies for NLSA</i>			
No NLSA exercise has taken place.	The NLSA has been operating on an irregular basis.	The NLSA is a stable program that has been operating regularly. ¹ *	This option does not apply to this dimension.
There is no policy document pertaining to NLSA.	There is an informal or draft policy document that authorizes the NLSA.	There is a formal policy document that authorizes the NLSA. ² *	This option does not apply to this dimension.
This option does not apply to this dimension.	The policy document is not available to the public.	The policy document is available to the public. ³ *	This option does not apply to this dimension.
There is no plan for NLSA activity.	This option does not apply to this dimension.	There is a general understanding that the NLSA will take place.	There is a written NLSA plan for the coming years. ⁴ *
ENABLING CONTEXT 2: <i>Having strong public engagement for NLSA</i>			
All stakeholder groups strongly oppose the NLSA or are indifferent to it.	Some stakeholder groups oppose the NLSA.	Most stakeholders groups support the NLSA. ⁵ *	All stakeholder groups support the NLSA.

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 3: <i>Having regular funding for NLSA</i>			
There is no funding allocated to the NLSA.	There is irregular funding allocated to the NLSA. ⁶ *	There is regular funding allocated to the NLSA	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding covers some core NLSA activities: design, administration, analysis and reporting. ⁷	Funding covers all core NLSA activities: design, administration, analysis and reporting. ⁷ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Funding does not cover research and development activities. ⁸ *	This option does not apply to this dimension.	Funding covers research and development activities.
ENABLING CONTEXT 4: <i>Having strong organizational structures for NLSA</i>			
There is no NLSA office, ad hoc unit or team.	The NLSA office is a temporary agency or group of people.	The NLSA office is a permanent agency, institution or unit. ⁹ *	This option does not apply to this dimension.
This option does not apply to this dimension.	Political considerations regularly hamper technical considerations. ¹⁰	Political considerations sometimes hamper technical considerations. ¹⁰ *	Political considerations never hamper technical considerations.
This option does not apply to this dimension.	The NLSA office is not accountable to a clearly recognized body.	The NLSA office is accountable to a clearly recognized body. ¹¹ *	This option does not apply to this dimension.

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 5: <i>Having effective human resources for NLSA</i>			
There is no staff allocated for running an NLSA.	The NLSA office is inadequately staffed to effectively carry out the assessment. ¹² *	The NLSA office is adequately staffed to carry out the NLSA effectively, with minimal issues.	The NLSA office is adequately staffed to carry out the NLSA effectively, with no issues.
The country does not offer opportunities that prepare individuals for work on NLSA.	This option does not apply to this dimension.	The country offers some opportunities to prepare individuals for work on the NLSA. ¹³ *	The country offers a wide range of opportunities to prepare individuals for work on the NLSA.

SYSTEM ALIGNMENT

Degree to which the NLSA is coherent with other components of the education system.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
SYSTEM ALIGNMENT 1: <i>Aligning the NLSA with learning goals</i>			
It is not clear if the NLSA is based on curriculum or learning standards.	This option does not apply to this dimension.	The NLSA measures performance against curriculum or learning standards. ¹⁴ *	This option does not apply to this dimension.
What the NLSA measures is generally questioned by stakeholder groups.	This option does not apply to this dimension.	What the NLSA measures is questioned by some stakeholder groups.	What the NLSA measures is largely accepted by stakeholder groups. ¹⁵ *
There are no mechanisms in place to ensure that the NLSA accurately measures what it is supposed to measure.	There are ad hoc reviews of the NLSA to ensure that it measures what it is intended to measure.	There are regular internal reviews of the NLSA to ensure that it measures what it is intended to measure. ¹⁶ *	This option does not apply to this dimension.
SYSTEM ALIGNMENT 2: <i>Providing teachers with opportunities to learn about the NLSA</i>			
There are no courses or workshops on the NLSA. ¹⁷ *	There are occasional courses or workshops on the NLSA.	There are some courses or workshops on the NLSA offered on a regular basis.	There are widely available high quality courses or workshops on the NLSA offered on a regular basis.

ASSESSMENT QUALITY

Degree to which the NLSA meets technical standards, is fair, and is used in an effective way.

<p>LATENT</p> 	<p>EMERGING</p> 	<p>ESTABLISHED</p> 	<p>ADVANCED</p> 
<p>ASSESSMENT QUALITY 1: <i>Ensuring the quality of the NLSA</i></p>			
<p>No options are offered to include all groups of students in the NLSA.</p>	<p>This option does not apply to this dimension.</p>	<p>At least one option is offered to include all groups of students in the NLSA.¹⁸ *</p>	<p>Different options are offered to include all groups of students in the NLSA.</p>
<p>There are no mechanisms in place to ensure the quality of the NLSA.</p>	<p>This option does not apply to this dimension.</p>	<p>There are some mechanisms in place to ensure the quality of the NLSA.¹⁹ *</p>	<p>There are a variety of mechanisms in place to ensure the quality of the NLSA.</p>
<p>There is no technical report or other documentation about the NLSA.</p>	<p>There is some documentation about the technical aspects of the NLSA, but it is not in a formal report format.</p>	<p>There is a comprehensive technical report but with restricted circulation.²⁰ *</p>	<p>There is a comprehensive, high quality technical report available to the general public.</p>
<p>ASSESSMENT QUALITY 2: <i>Ensuring effective uses of the NLSA</i></p>			
<p>NLSA results are not disseminated.</p>	<p>NLSA results are poorly disseminated.</p>	<p>NLSA results are disseminated in an effective way.²¹ *</p>	<p>This option does not apply to this dimension.</p>
<p>NLSA information is not used or is used in ways inconsistent with the purposes or the technical characteristics of the assessment.</p>	<p>This option does not apply to this dimension.</p>	<p>NLSA results are used by some stakeholder groups in a way that is consistent with the purposes and technical characteristics of the assessment.²² *</p>	<p>NLSA information is used by all stakeholder groups in a way that is consistent with the purposes and technical characteristics of the assessment.</p>
<p>There are no mechanisms in place to monitor the consequences of the NLSA</p>	<p>This option does not apply to this dimension.</p>	<p>There are some mechanisms in place to monitor the consequences of the NLSA.²³ *</p>	<p>There are a variety of mechanisms in place to monitor the consequences of the NLSA.</p>

National (or System-Level) Large Scale Assessment (NLSA): Development-level rating justifications

1. The National Education Assessment (NEA) was held in 2005, 2007, 2009, and 2011. A representative random sample of students (including those enrolled in private schools) in Grades 3 and 6 were tested in both English language and Mathematics, with the purpose of monitoring education quality at the system level, and informing policy design, evaluation, and decision-making.
2. The Education Sector Plan (ESP) for 2003-2015, authorized in 2004 by the Ministry of Education and the Ghana Education Service (GES), called for the establishment of an assessment system to monitor the quality of basic education.
3. The ESP was distributed to stakeholder institutions, universities, and public libraries. Additionally, stakeholder dissemination meetings related to the policy document were held.
4. The Ghana All Children Reading Plan, which will soon be shared with stakeholders, outlines assessments planned for the next five years. Assessments planned include the NEA (as well as the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA)).
5. Policymakers, teacher unions, educators, students, think tanks and NGOs, and universities support the NEA, while the media and employers are neutral to it.
6. There is regular (continuous and predictable) funding allocated only by non-government sources, specifically by USAID.
7. Funding covers assessment design and administration, data analysis and reporting, long- or medium-term planning for program milestones, and staff training.
8. Funding does not cover research and development activities.
9. The NLSA office, the Assessment Services Unit (ASU), is a permanent unit created for running the assessment.
10. Dissemination of NEA results is sometimes hindered by political considerations though results have been published by international organizations.
11. The Assessment Services Unit (ASU) is accountable to the Deputy Director-General for Quality & Access and the Director of the Curriculum Research and Development Division (CRDD) in the GES, the Division responsible for pre-tertiary education in the Ministry of Education.
12. There is permanent or full-time staff, but it is insufficient to meet the needs of the NEA. ASU sometimes relies on CRDD staff for assessment activities.
13. The University of Cape Coast offers an M.Phil. program in Educational Measurement and Evaluation. Additionally, funding has been made available for teachers, education officers, and lecturers for attending international programs or courses or workshops on educational measurement and evaluation.

14. The NLSA measures performance against national/system or state-level curriculum guidelines or learning standards.
15. No opposition to the NLSA has been expressed by national or non-national stakeholder groups.
16. There is regular independent as well as regular internal review by qualified experts of the alignment between the assessment instrument and what it is supposed to measure. At every test item setting time, experts take part in reviewing the design and quality items, and trial testing is carried out on poor, average, and very high performing students.
17. There are no courses or workshops on the NLSA.
18. Special plans are made to ensure that students in hard to reach areas are covered by the NEA; however, students in Special Schools (schools for children with visual impairments, hearing impairments, and severe learning needs) do not participate in the NEA.
19. Some mechanisms are in place to ensure the quality of the large-scale assessment instrument: all proctors or administrators are trained according to a protocol, a standardized manual for large-scale assessment administrators exists, discrepancies must be recorded on a standard sheet, a pilot is conducted before the main data collection takes place, internal and external reviewers are part of the process, and test booklets issued are collected and not released into the public space.
20. There is a comprehensive technical report but with restricted circulation.
21. Results are disseminated within twelve months after the assessment is administered, and there are workshops or presentations for key stakeholders on the results. The main reports on the results contain information on overall achievement levels and by subgroups, trends over time overall and by subgroups, and standard errors. Copies of the technical reports are disseminated to all Divisional, Regional and District Education Offices. Copies of the Summary of the 2011 NEA Report was sent to all schools, both public and private. Though there is large stakeholder dissemination at the Ministry of Education, the media is often not involved.
22. The Ministry of Education and other Development Partners have used the NEA results in ways consistent with the stated purposes of the assessment; however, schools and District Directorates of Education have failed to act similarly in efforts to monitor progress.
23. Expert review groups are in place to monitor the consequences of the NEA.

GHANA
International Large-Scale Assessment (ILSA)

ENABLING CONTEXT

Overall framework of policies, leadership, organizational structures, fiscal and human resources in which ILSA takes place in a country or system and the extent to which that framework is conducive to, or supportive of, ILSA activity.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 1: <i>Setting clear policies for ILSA</i>			
The country/system has not participated in an ILSA in the last 10 years.	This option does not apply to this dimension.	The country/system has participated in at least one ILSA in the last 10 years.	The country/system has participated in two or more ILSA in the last 10 years. ¹
The country/system has not taken concrete steps to participate in an ILSA in the next 5 years. ² *	This option does not apply to this dimension.	The country/system has taken concrete steps to participate in at least one ILSA in the next 5 years.	This option does not apply to this dimension.
There is no policy document that addresses participation in ILSA. ³ *	There is an informal or draft policy document that addresses participation in ILSA.	There is a formal policy document that addresses participation in ILSA.	This option does not apply to this dimension.
This option does not apply to this dimension.	The policy document is not available to the public.	The policy document is available to the public.	This option does not apply to this dimension.
ENABLING CONTEXT 2: <i>Having regular funding for ILSA</i>			
There is no funding for participation in ILSA.	There is funding from loans or external donors. ⁴ *	There is regular funding allocated at discretion.	There is regular funding approved by law, decree or norm.
This option does not apply to this dimension.	Funding covers some core activities of the ILSA.	Funding covers all core activities of the ILSA. ⁵ *	This option does not apply to this dimension.
Funding does not cover research and development activities.	This option does not apply to this dimension.	This option does not apply to this dimension.	Funding covers research and development activities. ⁶ *

(CONTINUED)

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ENABLING CONTEXT 3: <i>Having effective human resources for ILSA</i>			
There is no team or national/system coordinator to carry out the ILSA activities.	There is a team or national/system coordinator to carry out the ILSA activities.	There is a team and national/system coordinator to carry out the ILSA activities. ⁷ *	This option does not apply to this dimension.
This option does not apply to this dimension.	The national/system coordinator or other designated team member may not be fluent in the language of the assessment.	The national/system coordinator is fluent in the language of the assessment. ⁸ *	This option does not apply to this dimension.
This option does not apply to this dimension.	The ILSA office is inadequately staffed or trained to carry out the assessment effectively.	The ILSA office is adequately staffed or trained to carry out the ILSA effectively, with minimal issues. ⁹ *	The ILSA office is adequately staffed and trained to carry out the ILSA effectively, with no issues.

SYSTEM ALIGNMENT

Degree to which the ILSA meets technical quality standards, is fair, and is used in an effective way.

LATENT ● ○ ○ ○	EMERGING ● ● ○ ○	ESTABLISHED ● ● ● ○	ADVANCED ● ● ● ●
SYSTEM ALIGNMENT 1: <i>Providing opportunities to learn about ILSA</i>			
The ILSA team has not attended international workshops or meetings.	The ILSA team attended some international workshops or meetings. ¹⁰ *	The ILSA team attended all international workshops or meetings.	This option does not apply to this dimension.
The country/system offers no opportunities to learn about ILSA.	This option does not apply to this dimension.	The country/system offers some opportunities to learn about ILSA. ¹¹ *	The country/system offers a wide range of opportunities to learn about ILSA.
This option does not apply to this dimension.	This option does not apply to this dimension.	Opportunities to learn about ILSA are available to the country's/system's ILSA team members only.	Opportunities to learn about ILSA are available to a wide audience, in addition to the country's/system's ILSA team members. ¹² *

ASSESSMENT QUALITY

Degree to which the ILSA meets technical quality standards, is fair, and is used in an effective way.

LATENT 	EMERGING 	ESTABLISHED 	ADVANCED 
ASSESSMENT QUALITY 1: <i>Ensuring the quality of ILSA</i>			
Data from the ILSA has not been published.	The country/system met sufficient standards to have its data presented beneath the main display of the international report or in an annex.	The country/system met all technical standards required to have its data presented in the main displays of the international report. ¹³ *	This option does not apply to this dimension.
The country/system has not contributed new knowledge on ILSA.	This option does not apply to this dimension.	This option does not apply to this dimension.	The country/system has contributed new knowledge on ILSA. ¹⁴ *
ASSESSMENT QUALITY 2: <i>Ensuring effective uses of ILSA</i>			
If any, country/system-specific results and information are not disseminated in the country/system.	Country/system-specific results and information are disseminated irregularly in the country/system.	Country/system-specific results and information are regularly disseminated in the country/system. ¹⁵ *	Country/system-specific results and information are regularly and widely disseminated in the country/system.
Products to provide feedback to schools and educators about the ILSA results are not made available.	This option does not apply to this dimension.	Products to provide feedback to schools and educators about the ILSA results are sometimes made available. ¹⁶ *	Products to provide feedback to schools and educators about ILSA results are systematically made available.
There is no media coverage of the ILSA results.	There is limited media coverage of the ILSA results.	There is some media coverage of the ILSA results. ¹⁷ *	There is wide media coverage of the ILSA results.
If any, country/system-specific results and information from the ILSA are not used to inform decision making in the country/system.	Results from the ILSA are used in a limited way to inform decision making in the country/system.	Results from the ILSA are used in some ways to inform decision making in the country/system. ¹⁸ *	Results from the ILSA are used in a variety of ways to inform decision making in the country/system.
It is not clear that decisions based on ILSA results have had a positive impact on students' achievement levels. ¹⁹ *	This option does not apply to this dimension.	This option does not apply to this dimension.	Decisions based on the ILSA results have had a positive impact on students' achievement levels.

International Large Scale Assessment (ILSA): Development-level rating justifications

1. Ghana has participated in TIMSS 2003, 2007, and 2011. This rubric is completed with regard to Ghana's participation in TIMSS 2011.
2. The country will not participate in TIMSS 2015. World Bank support for its participation in the survey has ended although the TIMSS National Centre in Ghana is exploring options to carry out TIMSS in a smaller sample of schools.
3. There is no policy document that addresses Ghana's participation in ILSA.
4. The World Bank allocated 13 million USD as a ten-year loan facility for Ghana's participation in TIMSS in 2003, 2007, and 2011.
5. The World Bank loan facility allocated for participation in TIMSS covered all activities, including international participation fees, implementation of the assessment exercise, processing and analyzing data collected from implementation, reporting and disseminating the assessment results in Ghana, and attendance at international expert meetings for the assessment exercise.
6. The World Bank loan facility covered research and development activities.
7. The TIMSS National Centre, along with math and science experts, are part of the team responsible for carrying out the assessment exercise.
8. The national coordinator is fluent in the language of the assessment.
9. The team is sufficiently staffed both in terms of quantity and quality because Circuit Supervisors working in the District Education Directorates are co-opted and trained to help with the carrying out of the international assessment. Circuit Supervisors (CS) are well trained educators stationed at the District Education offices, who have the responsibility to visit schools to offer continuing professional assistance, and monitor the activities of schools to make them operate efficiently and effectively. Each CS is put in charge of a maximum of 20 schools in an area (or circuit). Additionally, team members in charge of the international assessment exercise have attended some of the international meetings. The TIMSS coordinator has been trained on Capacity in Assessment and has been invited by other TIMSS participating countries to participate in their training on international large-scale assessment. However, issues identified in carrying out the international assessment include errors or delays in the printing or layout of the test booklets and errors or delays in scoring student responses to questions.
10. Team members have attended an average of nine international meetings per assessment cycle. Higher attendance has been prevented by visa issues.
11. Each year after the nation's participation in TIMSS, a national report on the survey is written by a team of experts and published by the Ministry of Education and Ghana Education Service (GES). Seminars are organized at the MOE for key stakeholders, including the media to disseminate the results. Additionally, presentations are made at education conferences (i.e. conferences organized by the Mathematical Association of Ghana (MAG), Ghana Association of Science Teachers (GAST), Mathematics for National Education and Development (MathNED)) attended largely by Junior High school mathematics and science teachers.

The MOE/GES also supports a series of in-service education and training (INSET) workshops organized by the National TIMSS team for Junior High School (JHS) mathematics and science teachers across the country. For the INSET training, experienced JHS mathematics and science teachers are first prepared in a 3 day training of trainers workshop, after which they replicate the contents of the workshop to teachers in their districts. Additionally, pre-service training programmes for mathematics and science teachers include a brief and general overview of TIMSS and Ghana's performance in the survey.

12. Members at the National TIMSS Centre have participated in workshops or meetings on using international assessment databases in countries such as the USA, Netherlands, and Germany. Furthermore, the national research coordinator has taken nine teachers to international meetings to learn about TIMSS. The TIMSS Research Center also trains test administrators and scorers, which comprise of classroom teachers and retired educationalists. Thus, only those individuals who are directly participating in the TIMSS research are provided with some opportunities to learn about it.

13. Individuals working at the National TIMSS Centre, University students studying assessment, and professionals interested in assessment benefit from learning opportunities.

14. The country/system met all technical standards required to have its data presented in the main displays of the international report.

15. Publications include:

- a) Mereku, D. K. and Anumel, C. R. (2011). Ghana's achievement in mathematics in TIMSS 2007. Mathematics Connection, Vol. 10. pp81-96. Available at Mathematics Connection, Vol. 10. pp81-96. Available at <http://www.ajol.info/index.php/mc/article/view/72801>
- b) Anamuah-Mensah, J., Mereku, D. K. and Ghartey-Ampiah, J. (2008). TIMSS 2007 Ghana Report: Findings from IEA's Trends in International Mathematics and Science Study at the Eighth Grade. Accra: Ministry of Education.
- c) Mereku, D. K. and Asabere-Ameyaw, A. (2008). 'Comparative analysis of performance of eighth graders from six African countries'. Proceeding of the IAEA Conference 2008, at Cambridge University, UK. . Available at <http://www.iaea2008.cambridgeassessment.org.uk/ca>.
- d) Anamuah-Mensah, J., Mereku, D. K. Asabere-Ameyaw, A. A. (2006). 'The Contexts for Learning and Instruction Influencing Ghanaian JSS2 Students' Dismal Performance in TIMSS-2003'. African Journal of Educational Studies in Mathematics and Sciences Vol. 4 2006: pp.15-31. Available at: <http://www.ajol.info/index.php/ajesms/issue/view/5490>
- e) Anamuah-Mensah, J and Mereku, D. K. (2005). 'On What Foundation is Africa Building its Science and Technology Base?: Africa's Participation in TIMSS-2003' Proceedings of the 1st African Regional Conference of Vice Chancellors, Provosts, and Deans of Science, Engineering and Technology p110-117. Available at <http://ebookbrowse.com/anamuah-mensah-and-mereku-paper-for-vcs-conference-doc-d142857256>

- f) Anamuah-Mensah J. and Mereku, D. K., (2005) Ghanaian JSS2 Students' Abysmal Mathematics Achievement in Timss-2003: A Consequence of the Basic School Mathematics Curriculum WAEC Seminar Papers, 2005. Available at <http://www.ajol.info/index.php/mc/issue/view/2771>
- g) Anamuah-Mensah, J., Mereku, D. K. and Asabere-Ameyaw, A. (2004) Ghanaian Junior Secondary School Students' Achievement in Mathematics and Science: Results from Ghana's participation in the 2003 Trends in International Mathematics and Science Study, Accra: Ministry of Education Youth and Sports. Available at http://wikieducator.org/images/3/34/Executive_report_TIMSS_3_january_20.pdf
16. The TIMSS 2003 and 2007 national and international reports were distributed to key stakeholders, country results were communicated through a press release, and brochures and PowerPoint presentations with the results were made available online or distributed to key stakeholders. The 2011 report is underway and will be disseminated in the same manner as the previous years' (2003 and 2007) TIMSS reports.
17. Results for TIMSS 2003 and 2007 have sometimes been provided to schools and educators.
18. For TIMSS 2003 and 2007, media coverage has been limited, though there have been editorials/columns and a few small articles commenting on the results. Results have been used for tracking the impact of reforms on student achievement levels, informing curriculum improvement, and informing other assessment activities in the system. In the 2012 review of primary and junior high school math and science syllabi, a number of changes were initiated to the curricula in order to address the curricular issues brought to light through the TIMSS exercise.
19. It is not clear that decisions based on ILSA results have had a positive impact on students' achievement levels.

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The **Systems Approach for Better Education Results (SABER)** initiative produces comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems. SABER evaluates the quality of education policies against evidence-based global standards, using new diagnostic tools and detailed policy data. The SABER country reports give all parties with a stake in educational results—from administrators, teachers, and parents to policymakers and business people—an accessible, objective snapshot showing how well the policies of their country's education system are oriented toward ensuring that all children and youth learn.

This report focuses specifically on policies in the area of student assessment.

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