OECD Education Policy Perspectives
No. 34

National Assessment Reform: Core Considerations for Brazil

In 2017, the Brazilian government approved a new National Common Curricular Base (*Base Nacional Comum Curricular*, BNCC) and created a new model for upper secondary education that integrates previously separate general and vocational programmes. These reforms represent new approaches to teaching and learning that aim to improve the quality and equity of Brazil's education system so that all students have the chance to achieve national learning standards and thrive. The changes also present a unique opportunity to review the purpose and design of Brazil's Basic Education Assessment System (*Sistema de Avaliação da Educação Básica*, SAEB), which has been a critical source of information about student learning outcomes for the past 30 years. As a result, the federal government is currently discussing how to develop SAEB so that it aligns more closely with Brazil's new learning standards, in addition to providing data that can support a range of education actors – from the classroom to the Ministry – in their efforts to raise educational performance and reduce inequalities.

The OECD was invited to review a set of policy proposals for reforming the current SAEB. This review was based on background research and a series of virtual fact-finding interviews with key Brazilian stakeholders that took place in September and October 2020. Since then, the initial proposals have been reconsidered and potential changes remain under discussion, partly in light of resource challenges associated with the ongoing COVID-19 pandemic, as well as evolving government priorities and leadership changes in Brazil's National Institute for Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*, INEP), which manages SAEB. The findings from this OECD review are set out in the below policy perspective.

This review draws on an OECD knowledge base that has been developed through reviews of evaluation and assessment policies in over 25 education systems. The policy perspective provides a set of core considerations based on international evidence and experience that were selected based on their relevance to particular policy issues and the Brazilian context. The overall goal of this exercise is to support Brazilian policymakers in their reflection on the potential goals and design features for the future SAEB. The policy perspective may also provide input into the national debate on how SAEB can be transformed to align with the Brazil's education reform goals, achieve a better balance between the accountability and formative functions of the assessment and help raise educational quality and equity.

Note: OECD Reviews of Evaluation and Assessment in Education are available at https://www.oecd-ilibrary.org/education/oecd-reviews-of-evaluation-and-assessment-in-education_22230955.

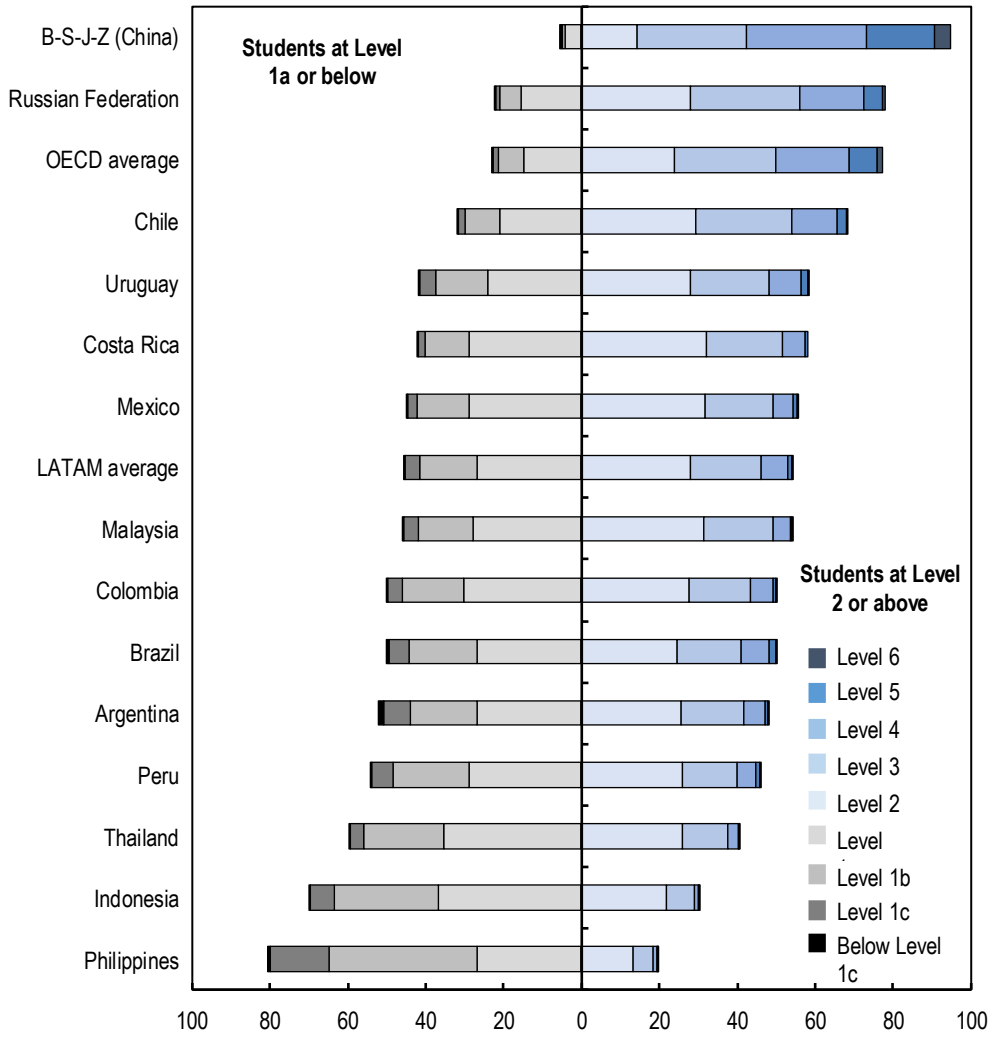
OECD
BETTER POLICIES FOR BETTER LIVES

Introduction and context

Education has been an integral part of Brazil's success story. With expanded access to basic education and improvements in literacy rates, young Brazilians are entering today's workforce with higher levels of education than previous generations. This educational progress has contributed to and benefited from the economic growth that helped improve living standards and, during the first decade of the millennium, lifted more than 29 million people out of poverty (World Bank, 2020[1]). Trend data from the OECD Programme for International Student Assessment (PISA) reveal that Brazil's increasing school participation rates have been realised alongside progress in education quality (OECD, 2019[2]). This is a remarkable achievement considering that many of the new students progressing through the education system come from disadvantaged backgrounds and often lack the socio-economic support that helps enable learning.

Nevertheless, PISA also reveals that the overall performance of Brazil's education system is well below the OECD average and other emerging economies, such as parts of China and the Russian Federation (OECD, 2021). One reason for this is Brazil's high share of students who do not achieve baseline proficiency, or Level 2 in PISA. Results from PISA 2018 show that 50% of Brazilian students failed to reach Level 2 in reading, meaning they can only complete basic tasks (see Figure 1) (OECD, 2019[3]). Brazil's share of low-performers was even higher in Mathematics and science (68% and 55%, respectively). At the other end of the spectrum, few students in Brazil were able to answer more difficult PISA questions, like inferring neutrality or bias in a text, which require skills that are increasingly important in today's world. The new approach to education, set out in the BNCC, aims not only to ensure that all students achieve basic cognitive skills but also develop the higher-order skills needed to solve complex problems of everyday life.

Figure 1. Percentage of students by proficiency level in reading, PISA 2018

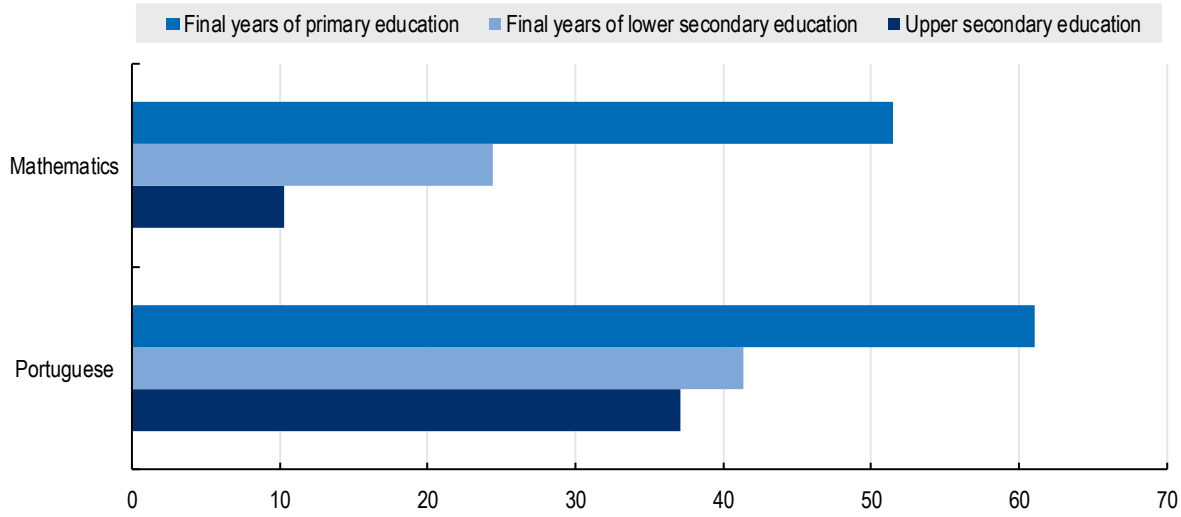


Notes: LATAM stands for Latin American countries. B-S-J-Z (China) is an acronym for the four Chinese provinces that participated in PISA 2018: Beijing, Shanghai, Jiangsu and Zhejiang.
Source: Adapted from (OECD, 2021[4]), *Education in Brazil: an International Perspective,* OECD Publishing, Paris.

Data from Brazil's national assessment system indicate that underperformance at the age of 15 (when students take PISA) starts in earlier years of schooling. For example, the majority of Year 5 students (around age 10) reached adequate proficiency levels in the 2019 SAEB Portuguese and Mathematics tests (Todos Pela Educação, 2020[5]). However, these shares get progressively smaller as students advance through the school system (see Figure 2), signalling a need to close learning gaps when they start so that students who fall behind do not get left behind. The type of census data that SAEB generates is extremely valuable in helping Brazil identify and address low performance, especially considering the substantial disparities in outcomes that are associated with student background, school type, geographic location and various other factors (see (OECD, 2021[4]) for a discussion on learning outcomes in Brazil).

Figure 2. Percentage of students reaching adequate levels of learning according to SAEB latest results, 2019

Data refer to final years of primary education (Year 5, ISCED 1), final years of lower secondary education (Year 9, ISCED 2) and upper secondary education (Grade 3, ISCED 3)



Source: Adapted from (OECD, 2021[4]), *Education in Brazil: an International Perspective,* OECD Publishing, Paris.

Brazil's size and diversity shape public governance and the delivery of education. As a result, the federal government shares responsibilities for school education (ISCED 0 to ISCED 3) with local levels. Specifically, the 5 570 municipal governments mainly deliver early childhood education and care, primary and lower secondary education, and the 27 federative entities (26 states and the Federal District) primarily deliver lower and upper secondary education. The federal government is chiefly responsible for higher education but has a range of other duties. For example, the Ministry of Education (*Ministério da Educação*, MEC) establishes Brazil's National Education Plan (*Plano Nacional de Educação*) in collaboration with local authorities and a range of other stakeholders. It also provides technical and financial assistance to the states and municipalities and works closely with INEP to manage central evaluation, assessment and monitoring systems, including SAEB. In theory, Brazil's decentralised structure functions as a collaborative regime; however, co-ordination is not always effective (OECD, 2021[4]; OECD, 2021[6]).

The 2015 economic recession, a polarised political landscape and now the ongoing challenges of the COVID-19 pandemic have reversed much of the socio-economic progress Brazil made in the early 2000s, especially for the most vulnerable individuals and communities (World Bank, 2020[1]; OECD, 2018[7]). Some 20% of the population were living under the poverty line[1] in 2018, up from 18% in 2014 (World Bank, 2020[8]; Medeiros, 2016[9]; OECD, 2020[10]) and unemployment, which was only 6.6% in 2014, is expected to reach nearly 15% in 2021 (World Bank, 2020[1]; OECD, 2020[11]). High public spending levels and a large government debt burden further threaten the country's fiscal sustainability (OECD, 2020[11]), potentially jeopardising national education reforms.

In this context, sustaining and strengthening Brazil's educational progress will be crucial to supporting the country's broader socio-economic recovery and achieving inclusive growth. As Brazil's national assessment system, SAEB already plays an important role in helping achieve these goals by providing valuable information on student learning and the factors that influence education outcomes. However, there is growing awareness of the need to align the system with recent reforms and ensure it helps address

[1] Poverty headcount ratio at USD5.50 a day (2011 PPP).

the country's most pressing educational challenges, such as closing learning gaps between the most advantaged and disadvantaged students. As a result, the federal government is considering potential reforms to provide actors on the ground (e.g. parents, teachers and school leaders) with more timely SAEB results that can inform instruction and drive improvement. However, Brazil will need to consider carefully the scale and timetable of reforms, especially in light of current fiscal constraints and the COVID-19 health and economic crisis. The following OECD education policy perspective aims to support Brazil in meeting these challenges by providing core considerations on potential ways to develop the national assessment system and advance the learning of all students.

Large-scale student assessments in Brazil

Brazil has a strong culture of student assessment created through longstanding participation in international assessments and its established national assessment system, SAEB (see Table 1). These instruments provide valuable data on student achievement both nationally and compared to international standards. Moreover, some 23 of Brazil's 27 federal units (states and the Federal District) have administered their own standardised assessments in recent years[2] and municipalities may also conduct assessments for their school networks. This arrangement is necessary in some respects, as local assessments in Brazil typically offer timely data that can be used for more formative purposes than the existing SAEB. However, the situation also presents challenges in terms of policy co-ordination since students in several parts of the country may take multiple external assessments that measure the same subjects during the same school year. This differs from other federal OECD countries, such as Canada and the United States**,** which take steps to promote complementarity in the purpose and design of standardised assessments across national and sub-national levels. Brazil's assessment co-ordination challenges are particularly important considering the diverse capacities and resources local governments have to develop high-quality assessment instruments and use the results to support teaching and learning.

Table 1. International and national assessments in the Brazilian school system (as of 2019)

Schooling level	Grades	Assessment type	Frequency	Population	Primary purposes
Primary	Year 2*	SAEB (national assessment)	2-year cycle	Sample	System monitoring
	Year 3	Latin American Regional Comparative and Explanatory Study	Varies	Sample	System monitoring
	Year 4	PIRLS (international assessment)	5-year cycle	Sample	System monitoring
	Year 5	SAEB (national assessment)	2-year cycle	Census (public schools) Sample (private schools)	System monitoring
Lower secondary	Year 6	Latin American Regional Comparative and Explanatory Study	Varies	Sample	System monitoring
	Year 9	SAEB (national assessment)	2-year cycle	Census (Portuguese and Mathematics for public schools) Sample (Portuguese and Mathematics for private schools + Natural and Human Sciences for both public and private schools)	System monitoring

[2] The number of states that administer standardised assessments varies by year.

Schooling level	Grades	Assessment type	Frequency	Population	Primary purposes
	Year 9/10 (age 15)	PISA (international assessment)	3-year cycle	Sample	System monitoring
Upper secondary	Grade 3	SAEB (national assessment)	Biannual	Census (public schools) Sample (private schools)	System monitoring
	Grade 3	ENEM (national examination)	Annual	Voluntary for upper secondary graduates	Selection into tertiary education

Note: * This SAEB test was previously called the National Assessment of Alphabetisation (*Avaliação Nacional da Alfabetização*, ANA, see Annex).

International assessments

Brazil began participating in large-scale international assessments of student achievement in 1997, starting with the Latin-American Laboratory for Assessment of the Quality of Education's First Regional Comparative and Explanatory Study (*Primer Estudio Regional Comparativo y Explicativo*, PERCE), followed by PISA in 2000. Participation in these assessments has been consistent over the years, allowing Brazil to measure national progress and benchmark teaching practices and learning outcomes with other countries. A sample of Brazilian schools also participate in the OECD PISA for Schools project, which gives individual schools an opportunity to compare themselves internationally (based on a common scale provided by PISA) and participate in peer-learning platforms. Brazil's decision to participate in this project not only helps educators become more familiar with competence-based assessments but also supports participating schools in using data to improve teaching and learning. In 2022, Brazil will take part in the Progress in International Reading Literacy Study (PIRLS) for the first time to help promote early literacy, a key goal of the current administration and in 2023, will participate in the Trends in International Mathematics and Science Study (TIMSS). Brazil's diverse experience with large-scale international assessments has helped shape national education policies, while also building the government's capacity to design and implement standardised assessments within the country.

National assessments and examinations

Created in the early 1990s, SAEB is a set of large-scale external assessments that serve as Brazil's main national tool for measuring student learning outcomes. The current version of SAEB, which uses item response theory and includes background questionnaires, has been administered every two years since 1995 and has a similar level of sustainability, reliability and validity as national assessment systems found in many OECD countries. Over time, Brazil has modified SAEB's design. For example, in 2003, INEP aligned the proficiency levels of SAEB with those set for PISA 2003. This change allowed Brazil to link SAEB and the government's long-term targets for educational improvement with PISA's international standards. In 2005, Brazil conducted its first census-based assessment at the national level, which provided comparable performance results of municipalities and schools. Another change is that Brazil's other standardised tests, which cover various target populations, have gradually been consolidated and are now referred to simply as SAEB, rather than by their old names and acronyms (INEP, n.d.[12]). The current SAEB now includes tests previously known as the National Assessment of Literacy (*Avaliação Nacional da Alfabetização*, ANA); the National Assessment of Basic Education (*Avaliação Nacional da Educação Básica,* ANEB); and the National Assessment of School Performance (*Avaliação Nacional do Rendimento Escolar*, ANRESC) (see Annex), representing greater coherence of standardised tests at the national level.

In addition to SAEB, students in Brazil may take the centrally administered National Upper Secondary Education Exam (*Exame Nacional do Ensino Médio*, ENEM) at the end of high school. ENEM is Brazil's main tool for selection into higher education; however, it is important to note that some Brazilian universities

also administer their own entrance exams as a substitute for, or in addition to, the central ENEM. Until recently, the federal government was planning to use the new annual SAEB in the last three years of high school as an alternative entry exam for selection into higher education. However, MEC has recently decided to consider an alternative reform that would pilot an extension of ENEM from a single exam at the end of high school, into a 3-year exam for entry into university. This new extended exam, referred to as ENEM Series (*Seriado*), would run in parallel to the existing 1-year ENEM. This change in policy approach will help maintain the distinct purposes of the SAEB and ENEM instruments, while allowing Brazil to explore the pros and cons of using annual examinations to motivate students throughout several years of upper secondary school.

Local assessments

A number of state and municipal governments in Brazil conduct their own standardised assessments of student learning. While the majority of state governments have established their own standardised assessment instruments, Brazil's municipal-level tests are typically found only in large and well-resourced (predominantly capital) cities (see Box 1). This distribution is unsurprising considering the high costs and resources required to implement large-scale standardised tests. In recent years, state governments have increasingly aligned their assessment's proficiency scales with the national assessment to ensure comparability; however, this is not always the case (see Table 2). Aligning the state proficiency scales with SAEB can help local actors better understand how their school systems perform across assessment instruments; however, there is little value and high costs associated with duplicating the purpose and design of the national assessment at the sub-national level. Reforming SAEB would be a unique opportunity, at a time of increased fiscal pressure and growing social needs, to improve co-ordination and enhance efficiencies. This policy perspective will focus in particular on how to improve the complementarity between Brazil's national SAEB and state-level assessments. The latter are much more common than municipal-level assessments and there are more capacities at the state level to develop the types of formative assessments (with test instruments designed intentionally to produce more pedagogical information) that could complement the system-monitoring functions of SAEB.

Table 2. List of Brazilian state-level assessments

Region	State	Name / acronym	Does it follow SAEB's proficiency scale?	Coverage	Subjects	Year/ Grade	External contractor**
North	Acre	SEAPE	No	State and municipal schools	Portuguese and Mathematics	Years 3, 5 and 9 and Grades 1, 2 and 3	CAEd
	Amapá	Sispaeap	No*	State and municipal schools	Portuguese and Mathematics	Year 2	CAEd
	Amazonas	SADEAM	Yes	State and municipal schools	Portuguese, Mathematics, Natural Sciences and Social Sciences	Years 4 and 7, and Grade 1	CAEd
	Pará	SISPAE	Yes	State and municipal schools	Portuguese and Mathematics	Years 4, 5, 8, 9 and Grades 1, 2 and 3	Fundação VUNESP
	Tocantins	SAETO	No	State schools	Portuguese, Mathematics, Sciences, Geography, Biology, Chemistry and Physics	Years 5 and 9, and Grade 3	Unknown
	Rondônia	SAERO	No	State schools	Portuguese and Mathematics	Years 5 and 7 and Grades, 1 and 2	CAEd

Northeast	Alagoas	SAVEAL	Unknown	State, municipal and private schools	Portuguese and Mathematics	Years 5 and 9 and Grade 3	CAEd*
	Bahia	SABE	Yes	State schools	Portuguese and Mathematics	Years 5 and 9, and Grade 3	CAEd
	Ceará	SPAECE	Yes	State and municipal schools	Portuguese and Mathematics	Years 2, 5 and 9 and Grade 3	CAEd
	Maranhão	SEAMA	Yes	State and municipal schools	Portuguese and Mathematics	Years 1 and 9	CAEd
	Pernambuco	SAEPE	Yes	State and municipal schools	Portuguese and Mathematics	Years 2, 5 and 9 and Grade 3	CAEd
	Piauí	SAEPI	Yes	State schools	Portuguese and Mathematics	Years 5 and 9and Grade 3	CAEd
	Paraíba	SOMA	Yes	State and municipal schools	Portuguese and Mathematics	Years 1, 2, 3, 5 and 9 and Grade 3	CAEd
	Rio Grande do Norte	SIMAIS	Yes	State schools	Portuguese and Mathematics	Years 5 and 9 and Grade 3	CAEd
	Sergipe	SAESE (still being implemented)	Yes	State and municipal schools	Portuguese and Mathematics	Years 2, 5 and 9 and Grade 3	Fundação Cesgranrio
Centre-West	Distrito Federal	SIPAEDF	Yes	Public and private schools	Portuguese and Mathematics	Year 2 and Grade 3	Unknown
	Goiás	SAEGO	Yes	State and municipal schools	Portuguese and Mathematics	Years 2, 5 and 9 and Grade 3	CAEd
	Mato Grosso	Avalia-MT	Unknown	State schools	Portuguese and Mathematics	Years 2, 4, 6 and 8 and Grades 1 and 2	CAEd
	Mato Grosso do Sul	SAEMS	Yes	State schools	Portuguese and Mathematics	Grade 2	CAEd
Southeast	Espírito Santo	PAEBES	Yes	State and municipal schools	Portuguese and Mathematics	Years 1, 2, 3, 5 and 9 and Grade 3	CAEd
	Minas Gerais	SIMAVE	Yes	State and municipal schools	Portuguese and Mathematics	Years 2, 5 and 9 and Grade 3	CAEd
	São Paulo	SARESP	Yes	State, municipal and private schools	Portuguese, Mathematics, Natural Sciences and Social Sciences	Years 3, 5, 7 and 9 and Grade 3	Fundação VUNESP
South	Paraná	SAEP	Yes	State and municipal schools	Portuguese and Mathematics	Years 5 and 9 and Grade 3	CAEd
	Rio Grande do Sul	SAERS	No*	State schools	Portuguese and Mathematics	Years 3 and 6 and Grade 1	CAEd

Notes: The information in the table may not be comprehensive or fully up to date. Participation in the tests may be compulsory or not depending the test and the school network. Information marked with an asterisk (*) is unconfirmed. (**) External contractors can change by each application year.
Source: Information in this table was retrieved in the website of the different state education secretariats across Brazil.

While there is some diversity in the subjects and grade levels measured by Brazilian state-level assessments, testing instruments typically reflect SAEB by evaluating at least Portuguese and Mathematics and assessing similar grades (Grupo de Trabalho de Avaliação do CONSED, 2018[13]). Most

state assessments also include background questionnaires administered to school leaders, teachers and students. These questionnaires typically collect socio-economic information and many emphasise aspects of the school infrastructure and learning environment (e.g. the prevalence of bullying). Such information helps contextualise results and provides valuable insights into factors associated with student outcomes.

State assessments in Brazil are usually annual, although this varies across the country and from year to year because education officials have the full autonomy to adopt, maintain or eliminate tests. State officials also determine which students take state assessments. Generally these instruments are census-based, although there are some exceptions whereby states use a combination of full-cohort and sample-based assessments. In 2019, for example, São Paulo administered its state assessment to a sample of students in the Year 2 and 7 of elementary education and a full cohort of students in other Grades (see Box 1) (Secretaria da Educação do Estado de São Paulo, 2019[14]). A 2016 census of state assessments in Brazil revealed that these tests usually also cover municipal public schools, in addition to state schools (around half of the state assessment systems in 2015 did so) (Grupo de Trabalho de Avaliação do CONSED, 2018[13]). However, it is uncommon for state assessments to evaluate private school students, which (until the economic shock of the COVID-19 pandemic), accounted for approximately 19% of primary, 15% of lower and 12.5% of upper secondary students, as of 2019 (INEP, 2020[15]). The variety in coverage of local assessments further demonstrates a need for co-ordination between national and local actors since schools do not have equal access to external student assessment data that can help them strengthen teaching and learning in the classroom.

The majority of states that implement their own assessment use results to develop and support teacher training and roughly one-third use results to administer rewards to teachers and school leaders (Machado, Alavarse and Arcas, 2015[16]). The latter practice is contested in many OECD countries because it risks ignoring non-school factors that influence student achievement, such as parental engagement (Rosenkvist, 2010[17]; Morris, 2011[18]). There is also evidence that the states of São Paulo (see Box 1), Amazonas, Espírito Santo, Goiás, Paraíba, and Pernambuco, use (or previously used) their state assessment to create indices of educational quality and set performance targets for municipalities and schools. Most of these indices are (were) based on state assessment results, student enrolment, repetition and completion rates (hereafter referred to as student transitions); however, some states also consider socio-economic factors.

State assessments are typically annual and offer a faster turnaround time for providing information about student learning, whereas SAEB takes place once every two years and it can take several months to report results. These features mean that state assessments are currently better suited to helping actors make timely administrative and pedagogical interventions based on results. One of Brazil's key goals through the national assessment reform is to decrease the time between when students take SAEB and when results become available. With this change, the federal government aims to use SAEB to generate pedagogical feedback that will better support actors on the ground. While it is positive that Brazil is considering ways to ensure the future SAEB serves a more formative purpose, more attention needs to be given to the complementarity with state-level testing instruments in terms of assessment design, content and use of results.

Box 1. Examples of state and municipal-level assessments in Brazil

State: São Paulo

The School Performance Evaluation System of the State of São Paulo (*Sistema de Avaliação de Rendimento Escolar do Estado de São Paulo, SARESP*) was established in 1996 as a tool for monitoring the state's education system and providing evidence to inform the design and implementation of education policies. The SARESP currently covers students in Year 2, 3 5, 7 and 9 of elementary education and in the last year of upper secondary school. The state government administers this assessment annually, measuring Portuguese, Mathematics and sometimes Human and Natural

Sciences subjects. The SARESP also collects information through student and parent background questionnaires that help account for some of the contextual factors that influence learning outcomes. São Paulo explicitly aims to prepare and disseminate results from its state-level assessment in a timely manner and disseminate the information in ways that meet the needs of schools and teachers. For example, a pedagogical report, "SARESP in Magazine" (*Saresp em Revista*), now published digitally, is available after each assessment cycle to support education staff in interpreting the SARESP results.

São Paulo's state assessment system also has its own educational quality index *(Índice de Desenvolvimento da Educação do Estado de São Paulo, IDESP)*, which classifies schools according to four performance levels – underperforming, basic, adequate and advanced. The IDESP, created in 2007, has become one of the main indicators of education quality in the state and sets annual performance targets for each school using the SARESP assessment results, student grade completion and dropout rates. Since 2009, São Paulo has also used the Index as a means to allocate rewards to individual schools for demonstrating improvement. When a school achieves at least part of its established target, it earns a performance bonus which is paid to teams of school staff based on working hours. For example, if a school reaches 50% of its IDESP target, it will receive a 50% bonus. In 2019, the State Secretary for Education in São Paulo paid a total of 350 million Brazilian reals (BRL) in bonuses for some 166 thousand educational staff teams. The city of São Paulo, within the State of São Paulo, also has its own standardised student assessment (*Prova* and *Provinha São Paulo*), the results of which are also used to compute a performance index (*Índice de Desenvolvimento da Educação Paulistana São Paulo*).

Municipality: Teresina

Every two years, students in Teresina – the capital of Piauí (a state located in the Northeast of Brazil), not only participate in the biennial SAEB and Piauí's annual state-level assessment but also the municipality's annual Educational Assessment System (*Sistema de Avaliação Educacional de Teresina*, SAETHE), which was administered for the first time in 2014. The SAETHE aims to monitor the quality of the municipal education system and provide information to design pedagogical interventions. Schools receive detailed reports of the SAETHE results, with information about the performance of students and classrooms. The Municipal Education Secretary also publishes aggregated school-level results on its website and organises workshops and professional development activities to help teachers interpret and make use of the results. Moreover, the Municipal Education Secretary meets with individual school leaders and pedagogical co-ordinators to revise pedagogical plans with the goal of addressing low performance and better supporting the learning needs of students.

Sources: (Governo do Estado de São Paulo, n.d.[19]) *Saresp permite monitorar avanços da educação básica no Estado [Saresp allows to monitor progress of basic education in the State]*, https://www.educacao.sp.gov.br/saresp (accessed on 13 November 2020); (Governo do Estado de São Paulo, 2019[20]), *Sumário Executivo: Saresp 2019 [Executive Summary: Saresp 2019]* https://saresp.fde.sp.gov.br/Arquivos/SEED1903_sumario_2019_final_v2.pdf (accessed on 13 November 2020); (Monte, 2018[21]), *Sistema de avaliação educacional de Teresina: apropriação e utilização dos resultados para a orientação e intervençoes pedagógicas [Teresina's educational evaluation system: appropriation and use of results for guidance and pedagogical interventions],* https://repositorio.ufjf.br/jspui/bitstream/ufjf/7163/1/jomairapereiramonte.pdf (accessed on 13 November 2020).

Agencies and actors responsible for developing and implementing assessments

Brazil has several agencies and actors that play a role in developing and implementing SAEB and other large-scale student assessments – the most relevant are listed below.

The Ministry of Education leads decisions about curriculum and national assessment

The Brazilian Ministry of Education is the main federal body responsible for steering and co-ordinating all levels of education, from early childhood to higher education. In collaboration with state and municipal

governments, MEC defines curricular guidelines (i.e. common competencies and subjects to be taught at schools and evaluates the education system through associated agencies, such as INEP, focused primarily on school education) and the National Committee for the Evaluation of Higher Education (*Comissão Nacional de Avaliação da Educação Superior*, CONAES, focused on tertiary education). Importantly, MEC leads the development and execution of Brazil's National Education Plan in collaboration with other relevant stakeholders. The Plan sets out national goals for the education system and serves as a key reference for local authorities to develop their own education plans.

The Ministry uses results from SAEB to help monitor progress towards achieving national education goals, a relationship that has influenced decisions about how and when to conduct external assessments. For example, one goal of Brazil's current education plan (2014-24) is to ensure that all children achieve basic literacy skills by the end of Year 3 of elementary education (MEC, 2014[22]). Until recently, the country's National Assessment of Literacy (since integrated to the SAEB suite of assessments, see Annex) evaluated students during this year of schooling to help monitor the goal. However, when the National Common Curricular Base (*Base Nacional Comum Curricular*, BNCC) was introduced in 2017, students were then expected to achieve a minimum level of cognitive literacy skills one year earlier. Partly because of this change and to better align the national assessment with the more recent policy goal, MEC decided to move the Year 3 national assessment to Year 2 of elementary education in 2019.

The National Education Council plays an important advisory role

The National Education Council (*Conselho Nacional de Educação*, CNE), is a collegiate advisory body to the Ministry of Education and has a normative role. It is responsible for legislation compliance and quality standards for all education levels. Together with MEC, it shapes and approves curricular guidelines (including the BNCC) and monitors the implementation of the National Education Plan. In terms of helping reform SAEB, the CNE provides technical advice and opinions on the concept, design and planning of the future national assessment system.

The National Institute for Educational Studies and Research is responsible for developing and implementing assessment instruments

One of Brazil's most prominent agencies associated with the federal government is the semi-autonomous National Institute of Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira*, INEP). With a high level of technical capacity, INEP collects reference information and statistics, conducts research and evaluates the Brazilian education system. In particular, INEP is responsible for establishing quality performance indicators at the national level, using both SAEB results and information from the annual school census to calculate the National Education Quality Index (*Índice de Desenvolvimento da Educação Básica*, IDEB) every two years.

Among its main responsibilities, INEP manages all of Brazil's national assessments (and examinations), in addition to the country's participation in international assessments (e.g. PISA). Staff at INEP have a range of skill sets and experiences, including with statistics and psychometrics, which make the agency well placed to design and implement standardised tests and analyse the data they produce. However, additional financial and human resources may be required if INEP is to deliver on all of the ambitious reform proposals under consideration, such as aligning SAEB instruments with the BNCC, increasing coverage and moving to computer-based testing, among others.

While INEP has traditionally had a strong, independent and influential voice in matters concerning SAEB (and evaluation and assessment more broadly), there are concerns that the agency is increasingly subject to political interference, reflected in frequent turnover of INEP's leadership. At the time of drafting this policy perspective, decisions about the future SAEB – which were initially being led by INEP – were moved under the leadership of MEC, with INEP now expected to play a narrower role focused on implementation. Shifting leadership of the SAEB reform to MEC could help ensure stronger links between the future SAEB and the BNCC, since the Ministry is responsible for developing national curricular guidelines. Many

countries, such as Ireland and South Africa, have taken a similar approach of leading national assessment reforms by way of their education ministries. However, national monitoring and the associated judgement of whether or not the system is achieving its objectives should ideally be subject to an independent evaluation process. Regardless of who leads national assessment reform, considering input from a range of actors is important to ensuring that technical judgements are not solely influenced by political or personal agendas. As a result, countries often establish clear governance arrangements to oversee important decisions about the design and direction of their assessment systems.

State and municipal education secretaries and councils may manage their own assessment systems, which creates challenges in terms of policy co-ordination

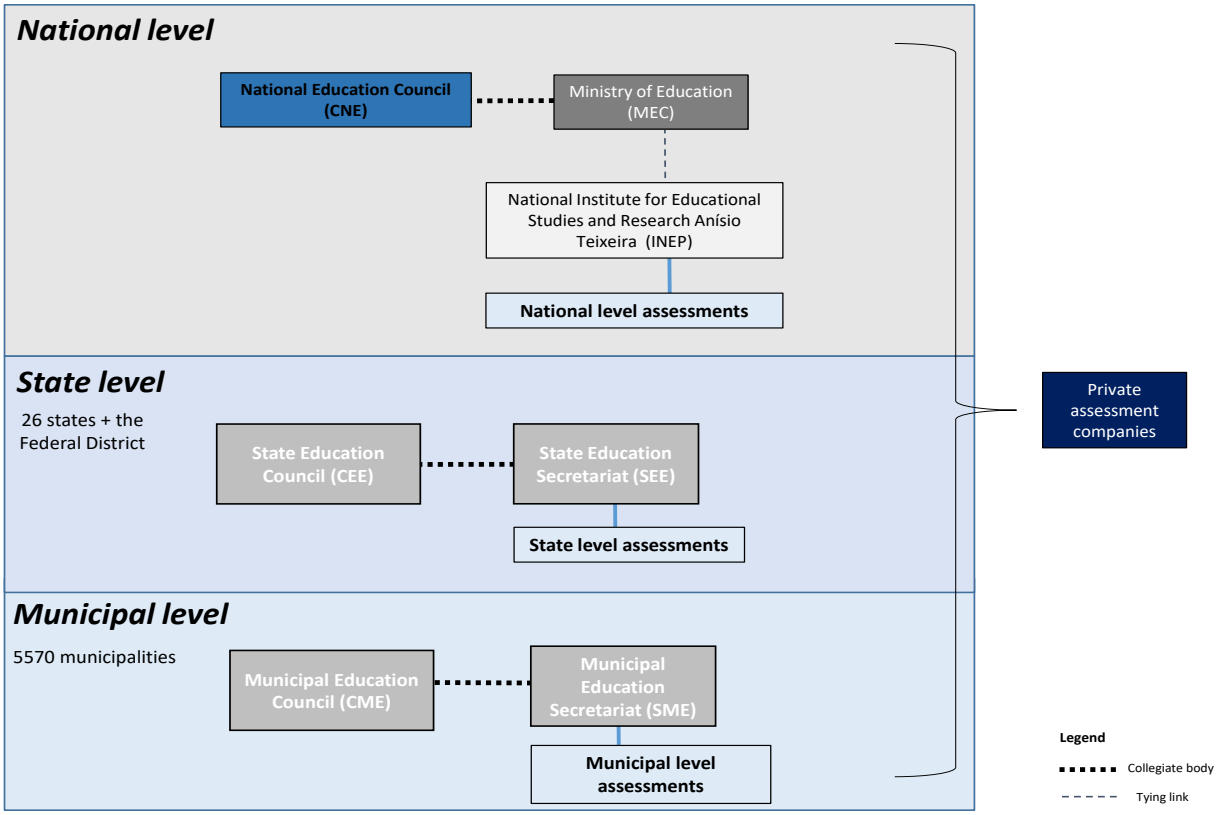
State and municipal governments manage their respective school sectors through education secretariats and councils. While education secretariats typically develop and implement education polices (e.g. on school curricula, hiring decisions, etc.), the councils generally provide more of a regulatory and monitoring role. MEC facilitates interactions among local authorities through the National Council of Education Secretariats (*Conselho Nacional de Secretários de Educação*, CONSED) at the state level, and the National Union of Municipal Education Managers (*União Nacional dos Dirigentes Municipais de Educação*, UNDIME) at the municipal level. However, the lack of clearly articulated roles and responsibilities for different government levels, including in relation to INEP, creates significant challenges in terms of policy co-ordination, often leading to the duplication of work, rivalry among stakeholders (who may compete for students and limited resources) and other inefficiencies (SASE/MEC, 2015[23]; SASE/MEC, 2014[24]). Co-ordination challenges associated with balancing power across levels of government are reflected in the way local assessments are organised in Brazil.

Private contractors provide significant technical support for Brazil's assessment systems

Government actors at the federal and local levels rely on private contractors – including private institutions and foundations – to operationalise large-scale assessments and examinations. Some of the main contractors involved in supporting Brazil's robust assessment systems are non-profit organisations, including: the Centre for Public Policies and Education Evaluation at the Federal University of Juiz de Fora (*Centro de Políticas Públicas e Avaliação da Educação da Universidade Federal de Juiz de Fora,* CAEd/UFJF); Foundation Cesgranrio (*Fundação Cesgranrio*); VUNESP Foundation (*Fundação VUNESP);* the projects unit at the Getúlio Vargas Foundation (*Fundação Getúlio Vargas FGV projetos*) and the Brazilian Centre for Research in Evaluation and Selection and Promotion of Events (*Centro Brasileiro de Pesquisa em Avaliação e Seleção e de Promoção de Eventos, Cebraspe*), linked to the federal University of Brasília. These contractors conduct a full range of activities related to Brazil's assessment systems, including the marking of open-ended questions, developing background questionnaires, data processing and analysing and reporting results.

Private assessment contractors have developed valuable knowledge and expertise that could help inform Brazil's national assessment reform. However, unlike the broad consultation processes that were organised in the past for reforms to ENEM and the BNCC, there has not been a formal consultation process to include the perspectives of private assessment contractors in the development of the future SAEB. While input from contractors is important, it is equally important that government actors (at all levels) ensure the integrity and reliability of the data collected and guarantee that the work of private contractors supports public interest, especially considering the large scale and scope of contracts associated with various standardised assessments that are administered across Brazil. The SAEB reform provides an opportunity for MEC and INEP to evaluate and strengthen current regulation frameworks.

Figure 3. Governance and delivery of external student assessments in Brazil



Notes: Not all states or municipalities carry out their own assessments. INEP also works with local education secretariats in the implementation of its national assessments. Tying link means that bodies are legally associated or linked.
Source: Authors and (Presidência da República, 2020[25]), *Constituição da República Federativa do Brasil de 1988 [1988 Constitution of the Federative Republic of Brazil]*, http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm (accessed on 19 August 2020); (Presidência da República, 1996[26]), *Lei Nº 9.394, de 20 de Dezembro de 1996 [Law No. 9.394 of December 20, 1996]*, http://www.planalto.gov.br/ccivil_03/leis/l9394.htm (accessed on 6 August 2020); (MEC, 2020[27]), *Organograma [Organisational Chart]*, https://www.gov.br/mec/pt-br/estrutura-organizacional/organograma (accessed on 6 August 2020).

Key features of SAEB and discussion of potential reforms

Given Brazil's ongoing education reforms, in particular implementing the BNCC and the new model for upper secondary education (see Box 2), now is an opportune moment to modernise the national assessment system so that it can help address the country's educational challenges and better support national goals. The following section will discuss some of the key features of the current SAEB. Since the federal government revoked a previously established set of SAEB reforms in early 2021 (set out in (MEC, 2021[28])) and has not yet made detailed decisions about its new reform agenda, this section will discuss some of the potential changes to SAEB that are currently being considered.

Table 3 summarises some of the main differences between the existing assessment system, the 2019-20 SAEB reform plan and broad ambitions for the future SAEB.

Box 2. Significant policy reforms in Brazil's school system since 2017

BNCC – National Common Curricular Base

The recently introduced National Common Curricular Base (BNCC) defines essential learning standards in each stage of basic education to overcome policy fragmentation and ensure that all students in Brazil develop the competences needed for everyday life, citizenship and the world of work. The BNCC is not a curriculum per se but offers content guidelines for curriculum planning. This achievement follows years of work and intensive consultation. In 2017, the BNCC was approved for early childhood education and development (children aged 0-5 years-old), primary and lower secondary education and a year later, for upper secondary education. Lower levels of education had until the beginning of the school year 2020 to implement the BNCC's guidelines – including curriculum adaptation, training of the teaching staff, updating the teaching materials, etc. For upper secondary education, schools will have until 2022 to apply these changes. There is a general awareness of the need for SAEB instruments to align with the BNCC's new learning standards.

Upper secondary reform

Under this reform, students will have longer study hours and follow a common curriculum programme (including mandatory Portuguese and Mathematics in the three years of high school), alongside options in one (or more) programmes: Languages; elective Mathematics; Natural Sciences; Human and Social Sciences; Technical and Professional Training. Vocational education is no longer a separate track but an optional component of students' upper secondary studies. This ongoing reform aims to improve educational quality, align the curriculum and instruction methods with student needs, offer more choice and make upper secondary education a more attractive and engaging option for young people, especially for the majority who will not progress to tertiary education – a key requirement given expanding enrolment and the high student dropout rates at this level. Federal, state, municipal and private school networks will also have the flexibility to develop their own curricula and programme offers. At the time of this review, the upper secondary reform was already being implemented across Brazil. However, the extent to which the future SAEB will reflect changes to the country's new upper secondary model remains unclear.

FUNDEB – Basic Education Maintenance and Development Fund

The Basic Education Maintenance and Development Fund (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*, FUNDEB) was implemented to replace its predecessor FUNDEF (Primary and Lower Secondary Education Maintenance, Development and Teacher Promotion Fund, *Fundo de Manutenção e Desenvolvimento do Ensino Fundamental e de Valorização do Magistério*), from 2007 until the end of 2020. FUNDEB redistributes financial resources across states and municipalities, backed by contributions from the federal government. In December 2020, the FUNDEB law was renewed (Law 14,113 of 25 December 2020) with a reformed mandate that considers SAEB scores as one of the metrics to help make funding allocations more equitable across school networks in Brazil.

Source: (OECD, 2021[4]), *Education in Brazil: an International Perspective*; (Ministério da Educação, n.d.[29]), *Base Nacional Comum Curricular [Common Core Curriculum]*, http://basenacionalcomum.mec.gov.br/images/BNCC_EI_EF_110518_versaofinal_site.pdf (accessed on 15 February 2021).

Table 3. Main areas for potential changes to the SAEB assessment system

Area	Existing SAEB	2019-20 SAEB Reform Plan	Future SAEB (proposals under discussion)
Frequency	2-year cycle	Annual	To be determined
Coverage	- Full cohort of students in public schools: (Year 5 and 9 of elementary and Grade 3 of high school) - Sample of students in public schools in Year 2 of primary education - Sample of private schools: same grades as above	All students in public and private schools: starting in Year 2 of elementary school until end of basic education (to be rolled out progressively starting with high school grades in 2021)	Gradually increase coverage of private schools until all (public and private) schools are included
Reference frameworks and subjects	- BNCC for Year 2 and 9 students in Human and Natural Sciences - SAEB Reference Matrices for Year 5 and 9 of elementary and Grade 3 of high school in Portuguese and Mathematics	- BNCC for all education levels and subjects (Portuguese, Mathematics and Human and Natural Sciences)	- BNCC for all education levels - Gradually increase coverage of Human and Natural Sciences to other education levels
Testing mode	Paper	- From Year 2-4 (Elementary School): on paper - From Year 5 (Elementary School) to Grade 3 (High School): digital (by 2024)	Pilot digital test administration for students starting from Year 5 (Elementary School) to Grade 3 (High School)
Items	- Multiple choice - Limited comparability of items with international assessments	- Multiple choice - Open-ended items (application to start in 2021) - No stated plans to increase item links with international assessment items	- To be determined - Improved comparability of items with international assessments
Construction of the items	Teachers submit items to the National Bank of Items	Teachers from state and municipal schools to participate in an “internship programme” with INEP to help develop test items	To be determined
Timeline of test administration and feedback	Tests administered October; feedback provided after one year (August)	Undetermined test administration (likely October); feedback provided after five months (likely March/February)	Increase turnaround time of results
Exam (admission to the University)	SAEB is not considered, only ENEM*	SAEB and ENEM can be considered, according to the decision of the University (starting in 2023)	- SAEB is not considered, only ENEM* - Pilot an extended ENEM across three years of high school (*ENEM Seriado*) for access to tertiary education

Use of the results of the assessment	- Policy analyses - Accountability (IDEB)	- Policy analyses - Accountability (IDEB) - Admission to the University - Engagement of the families and society - Improvement in classroom practices by the teachers	- Policy analyses - Accountability (IDEB) - Increase analysis to provide more pedagogical feedback - Make results more user friendly

Note: *Some higher education institutions may administer additional entry examinations in addition to ENEM. At the time of drafting this policy perspective, the timeline for administering the new SAEB was still being determined and therefore marked as TBD.
Source: (MEC, 2021[28]), Diário Oficial da União, Portaria nº10, de 8 de Janeiro de 2021 [Official Diary of the Union, Ordinance No. 10 of January 8, 2021], https://www.in.gov.br/en/web/dou/-/portaria-n-10-de-8-de-janeiro-de-2021-298322305 (accessed on 2 of January 2021); and input from MEC.

Grades and frequency

In Brazil, basic education includes early childhood education (ISCED 0), primary and lower secondary education (ISCED 1 and 2, also known in Brazil as elementary education, *ensino fundamental*), and upper secondary education (ISCED 3, known in Brazil as *ensino médio*). The different levels that compose elementary education are referenced as "Years" (i.e. in Year 1 of elementary education; students are around age 6) while the term "Grade" is used for upper secondary education (i.e. in Grade 1 of upper secondary education or high school; students are around age 15). The present battery of SAEB assessments are administered every two years to students in Years 2, 5 and 9 of elementary education and Grade 3 of upper secondary education. Students currently take SAEB at the end of a curriculum cycle (see Figure 4), except for Year 2 assessment. This approach to the frequency and timing of SAEB is similar to that of many other countries with national assessment systems.

Under the 2019-20 national assessment reform, Brazil had planned to administer SAEB on an annual basis starting from Year 2 of elementary education and gradually cover all levels of the basic education system. This substantial change aimed to allow more consistent monitoring of student progress and provide education staff with more timely evidence for classroom interventions. However, the cost and capacity to deliver this reform goal would likely present challenges since implementing an annual assessment for around 48 million children represents a much heavier exercise compared to the current SAEB system (INEP, 2020[15]). Compared to when the 2019-20 SAEB reform was initially conceived, increasing the coverage and frequency of the future SAEB, a proposal still under discussion, will likely be even more difficult today. Brazil must not only grapple with the immediate challenge of either maintaining, postponing or cancelling the 2021 cycle of SAEB in light of the COVID-19 pandemic but also face the medium and longer-term challenges of competing priorities in the context of strained public budgets (OECD, 2020[30]). The latter may limit the amount of resources available for expanding the future SAEB.

Figure 4. Structure of Brazil's pre-tertiary education system

ISCED 2011	Starting age	Administrative unit (primarily responsibility)	Grade/Year	Existing SAEB	2019-20 SAEB Reform Plan	Future SAEB (TBC)	Current ENEM*	Future ENEM seriado*	Education programme
3	15	States	Grade 3						Upper secondary education *(ensino médio)*
			Grade 2						
			Grade 1						
2	11	Municipalities and states	Year 9						Lower secondary *(anos finais do ensino fundamental)*
			Year 8						
			Year 7						
			Year 6						
1	6	Municipalities	Year 5						Primary *(anos iniciais do ensino fundamental)*
			Year 4						
			Year 3						
			Year 2						
			Year 1						
0	4	Municipalities							Pre-school *(pré-escola)*
	0								Early childhood educational development *(creches)*

Notes: 1. In Brazil, the different level which compose elementary education are referenced as Years (i.e. Year 1 of primary education) while Grade is used for upper secondary education (i.e. Grade 1 of upper secondary education).
2. Education programmes in light blue refer to those which are part of mandatory education.
3. *Existing SAEB* refers to the 2019 version of the assessment and *2019-20 SAEB Reform Plan* refers to the reform proposal that is now being reconsidered. The future SAEB reform is not included in this table because it is unclear how the coverage of education levels will be changed.
4. (*) These are high-stakes exams for students.

Target population

The existing SAEB is census-based, meaning it assesses the learning of all students who attend public school in either a state or municipal school network. No other large federal country has achieved this level of coverage in a national assessment (Bruns, Evans and Luque, 2012[31]), which provides valuable information about the extent to which students across the country are mastering basic skills and achieving the higher-order competencies set out in the BNCC. Since 1997, a sample of private schools has also been included in SAEB on an optional basis (INEP, n.d.[12]). Overall, around 19% of students in Brazil attend private schools (as of 2020) (Agência Brasil, 2021[32]). However, the latest edition of SAEB (2019), only included 7.4% of all private schools in the Year 5 assessment, 11.5% in Year 9 and 17.4% in Grade 3 (INEP, 2020[33]). Making SAEB optional for private schools and mandatory for public schools creates an unequal measure of accountability since the assessment will only generate data for a limited number of private schools, whereas each public school will have individual results. There is also a risk of bias in this approach since prestigious private schools may be more likely to participate in SAEB than low-performing private schools (e.g. so they can market high scores to attract potential students), distorting any comparisons between school types. To address such problems, Brazil plans to gradually extend the target population of the future SAEB to include a full-cohort assessment for both public and private schools. In the Year 5 assessment, the federal government anticipates this change will lead to an increase of around 519 568 students in 14 230 schools being included in the future SAEB (INEP, 2020[33]).

Testing mode

While the existing version of SAEB includes background questionnaires that school directors and secretaries of education can complete electronically, the assessment itself and associated questionnaires for teachers and students are paper-based. Current proposals for the future SAEB aim to keep a paper-based assessment for younger students in Years 2-4 of elementary school and introduce a digital pilot assessment for students in Year 5 onwards. An increasing number of OECD countries, as well as PISA and other international assessments, have also started moving towards digital delivery, as the technology allows for more innovative tasks (e.g. using hyperlinks to move or interact with text segments) and can help improve the efficiency and reliability of assessments.

Under the 2019-20 SAEB reform, INEP had planned to administer the digital assessment for older students through tablet-based software, with test questions and responses stored on the devices before being transmitted via Internet at a later time. This approach would allow Brazil to implement digital assessments in areas where Internet access is a problem, especially in rural primary schools where access to digital devices may present a challenge for implementation. Moreover, since students in different Years/Grades and schools will likely take the assessment on different dates, Brazil could use the same set of tablets to administer the future SAEB to all students. Sharing tablets in this way could help decrease some of the initial costs associated with conducting SAEB assessments digitally; however, it is unclear if the federal government still plans to use tablets for this purpose. While Brazil will need to organise the logistics, piloting a new digital mode as part of the future SAEB will support the country's longer-term plans of introducing computer adaptive testing (CAT) (see Box 11).

Tested subjects

Across all schooling levels for which Brazil administers the current SAEB, students are assessed in Portuguese and Mathematics. The existing reference frameworks for these tests were created in 2001 (INEP, n.d.[12]). Following the introduction of the BNCC, Brazil started updating the SAEB assessment frameworks. In the 2019 cycle of SAEB, the BNCC served as the reference framework for the Year 2 Portuguese and Mathematics assessments and the new sample assessments of the Human and Social Sciences, and the Natural Sciences for Year 9 students[3]. Brazil plans to continue developing or revising assessment frameworks for all other subjects and school levels to ensure that all instruments included in the future SAEB are fully aligned with the BNCC. This alignment reflects standards-based education reforms found in many OECD countries and is key if the future national assessment system is to have a positive impact on teaching and learning.

Item types and marking

The existing SAEB is considered a highly reliable assessment, as the questions are exclusively multiple choice and the established marking processes are secure. However, the SAEB Human and Social Sciences as well as the Natural Sciences tests introduced in 2019 included some constructed-response and open-ended questions. While the federal government has not yet determined what types of items will be included in the future SAEB, incorporating more diverse question types can help improve the assessment's validity by measuring a wider range of higher-order thinking skills and other competencies set out in the BNCC. Brazil already has much of the expertise and tools required for marking complex item types, such as open-ended questions, as these methods are used for other tests (e.g. ENCCEJA[4]). Nevertheless, applying new items to the future SAEB will require adjustments to existing marking procedures and scoring methods. This change will need to be accompanied by adequate resources to uphold and expand the rigor of the SAEB system.

Variables collected

The existing SAEB currently has several background questionnaires that collect information from students, teachers, school principals, and education secretaries at the state or municipal level (see Table 4). The information collected from the student questionnaires allows results to be disaggregated by gender and race, among other factors. There are also proxies for student and school socio-economic background, such as parental level of education, living arrangements ("Do you live with your father and mother?") and resource availability (e.g. a home or school library, Internet access, etc.). While these questionnaires

[3] Different samples of students took either the Human and Social Sciences or the Natural Sciences assessment; the same students did not take both tests.

4 The National Examination for the Certification of Youth and Adult Skills *(Exame Nacional para Certificação de Competências de Jovens e Adultos*, ENCCEJA*)* is a certification of Grade 9 / Grade 12 completion for adults also managed by INEP.

generate an abundance of contextual data about teaching and learning in Brazil, some of the requested data may be redundant since the same indicators are available through the annual school census. It is possible this overlap arises from a lack of a unique student identification number that is recognised across the school census and SAEB databases. As a result, SAEB must collect its own contextual data in order for actors to conduct analysis on factors that influence performance.

Importantly, the existing SAEB publishes some contextual data alongside school-level results, such as the school's socio-economic profile (on a scale of 1 being the most disadvantaged and 6 being the most advantaged) and the qualifications of teachers. However, Brazil does not fully exploit or analyse the data from these surveys to help schools understand how their performance relates to their specific context. As a result, SAEB results are not typically used to develop pedagogical interventions by school-level actors nor to inform policy. Instead, as discussed above, stakeholders frequently rely on results from local assessments for these purposes.

Table 4. Types of information collected by various SAEB background questionnaires

Questionnaire type	Type of information collected
State and municipal secretaries	Functioning of education networks, such as councils, curricula, evaluative practices and hiring of teachers.
School principals	Profile and experience of school managers, the activities developed, availability of resources and infrastructure of the establishment.
Teachers	Teacher training, professional experience, working conditions, students' learning difficulties, violence in the school environment, didactic resources and pedagogical practices developed at school.
Students	Gender, race, socio-economic status, family participation, time spent on school work, school learning environment, etc.

Source: (Ministério da Educação, n.d.[34]), *Sistema de Avaliação da Educação Básica (Saeb) [Basic Education Assessment System (Saeb)]*, https://www.gov.br/inep/pt-br/areas-de-atuacao/avaliacao-e-exames-educacionais/saeb (accessed on 11 May 2021).

Use of results

The primary purpose of the existing SAEB is to monitor the quality of Brazil's education system and measure progress towards achieving the goals set out in the National Education Plan. While the results may inform education policy, they also serve as an accountability measure through the high-profile IDEB, which was established in 2007. IDEB draws on aggregate results from SAEB, alongside administrative data on student transitions, to calculate a single quantitative indicator that measures education quality on a scale of 0 to 10. This process generates performance scores at the national, state, municipality and school levels that authorities use to set targets and develop improvement plans. IDEB and SAEB scores have become influential metrics in Brazil with high levels of media coverage thanks to the country's proactive approach to disseminating results. For example, INEP prepares reports for different levels of government, organises large communications campaigns and manages an online data platform that allows actors to compare schools in relation to regional and national averages (INEP, n.d.[12]).

If the future SAEB generates even more information (from across all schools and potentially additional levels of schooling), Brazil will need to reflect on what parts of the new assessment system will be included in accountability measures, such as IDEB calculations. Reforming the national assessment system also presents an opportunity to consider other potential ways that actors may use the data. One proposal under consideration is how to reinforce the formative, instructional value of SAEB at the school level (see1.2Consideration 5). Currently SAEB is not used for this purpose since results are reported more than a year after students take the test. While many large-scale assessments take several months to process and report results, Brazil's federal government hopes to deliver the future SAEB results in a timelier manner so they can be used to provide pedagogical feedback to teachers and families. This goal implies the future SAEB would have a more formative purpose, representing a shift from the existing primary purpose of system monitoring. However, providing faster results will require careful planning and adequate resources,

especially in light of other SAEB proposals under discussion, some of which risk increasing, rather than decreasing, the time needed to produce results (e.g. increasing coverage, including more diverse item types, etc.).

Another significant change of the revoked SAEB reform was that results were to serve as an alternative selection mechanism for entry into higher education. Specifically, each student's performance on SAEB across all three years of high school would translate into a single score that they could then use to apply for places in university. The federal government, led by MEC, has since changed course and is now planning to pilot an extended ENEM examination (the above-mentioned ENEM Series, *Seriado*) across all three years of high school starting in 2022. Details of the ENEM Series pilot are still under discussion. However, Brazil's decision to keep SAEB free of stakes for students will help maintain the distinct purposes of each instrument while still allowing Brazil to experiment with how changes to its examinations system might better motivate students throughout their high school careers and improve the broader backwash effects on teaching and learning. Policy considerations for how Brazil will operationalise ENEM Series and the extent to which state, municipal and private universities will accept composite ENEM scores as an alternative, or in addition, to their own entrance examinations and the original ENEM exam remain unclear.

Review of the context

Brazil's national assessment system has helped put student learning at the centre of national policy debates for more than a decade, from encouraging actors to look beyond issues of school access to making sure students are gaining basic knowledge and skills. However, there is substantial evidence that the existing version of SAEB is struggling to meet the evolving demands of Brazil's large and diverse education system – in particular, how the national assessment system can better support educational equity. As a result, the federal government has been discussing several proposals in recent years on how to enhance SAEB so that it aligns more fully with the new curriculum framework (BNCC), better supports the strategic planning of states and municipalities, and gives teachers, students and parents more timely information that can be used to improve learning outcomes. Undertaking such ambitious reforms would be a challenge for any country. However, the ongoing COVID-19 pandemic has made it especially difficult for actors in Brazil to collaborate and develop plans for designing and implementing a new national assessment system. The remainder of this policy perspective focuses on core considerations to support Brazil in addressing these challenges and conducting a strategic reflection on potential reforms.

Consideration 1. Clarify leadership and decision making processes to manage reforms to SAEB

Context

Similar to many OECD countries, Brazil has a specialised agency within its complex federal governance structure that is responsible for designing and implementing national policies related to evaluation and assessment (i.e. INEP). The fact that INEP has some independence from MEC helps ensure that judgements about the assessment system draw on technical knowledge as well as political opinions. It is also positive that there appears to be close co-ordination between the two bodies. However, challenges associated with the ongoing COVID-19 pandemic and the high turnover of leadership within both INEP and MEC have made it increasingly difficult to build consensus and establish a clear reform strategy for the future SAEB. Changes to SAEB that were initially announced have been set aside and MEC has taken over the leadership of the reform from INEP. A more stable approach to reforming the national assessment is important to avoid undermining the trust and high technical quality of SAEB.

Contributors to this policy perspective reported that when INEP was developing the 2019-20 SAEB reform plans, there had been little consultation with independent assessment specialists and private assessment contractors that currently administer SAEB. In addition, while representatives of CONSED had been

consulted on the proposed changes, municipality representatives, with a few exceptions, said they were not involved in reform discussions. It is challenging for many countries to keep elected officials at the sub-national level engaged in reform processes. However, ensuring that local officials in Brazil and other stakeholders are consulted and understand the rationale and potential usefulness of policy changes to SAEB, will be critical if the federal government is to achieve its broad ambition of establishing a national assessment system that better supports local actors. The resemblance of proposed SAEB reforms and local assessments further suggests a need to articulate how different levels of government can better co-ordinate and collaborate to ensure the distinction of external assessments and avoid duplicating efforts.

Brazil's approach to the SAEB reform contrasts with the ways that the country has introduced major education reforms in the past, such as the BNCC and changes to ENEM, both of which involved extensive public consultation processes during the design stage and were carefully rolled out to build trust among stakeholders (MEC, n.d.[35]). The decision to reconsider the overall SAEB reform provides a valuable second chance for the federal government to more actively share its reform goals and seek inputs from stakeholders. Such efforts can help ensure the future SAEB system is well placed to meet the diverse needs of Brazil's large and complex education system. The organisation and governance arrangements of the national assessment system in the United States provides an example that may be helpful for Brazil as it works to strengthen processes related to designing, building consensus and rolling out of the future SAEB (Box 3).

Box 3. Peer-learning example from the United States

Governance structure for managing the National Assessment of Educational Progress (NAEP)

Responsibilities for administering the national assessment system (NAEP) in the United States are shared by the National Centre for Education Sciences, within the Department of Education, and the Institute of Education Science. The specific governance structure of the national assessment is explicitly set out in law, which determines the roles of each agency involved in implementing the assessment system. In particular, the law states that the national assessment must be made by an independent Governing Board whose members are appointed by the Secretary of Education and represent a range of backgrounds. This Governing Board has regular meetings to set the assessment schedule, develop assessment frameworks, monitor external contracts, set achievement levels and manage other tasks related to the assessment process. Decisions taken by the Governing Board are published online to promote transparency. Setting out clear roles and responsibilities, and including input from a range of backgrounds could help structure Brazil's assessment reform process and provide a stronger foundation for making continuous improvements in the future.

Source: (NAEP, n.d.[36]), *The Nations Report Card,* https://www.nationsreportcard.gov/ (accessed on 26 May 2021).

Policy considerations for Brazil

Organise consultations to bring a wider range of actors along the SAEB reform journey

Ambitious deadlines and the unprecedented COVID-19 pandemic made it difficult for Brazil to organise consultations with stakeholders when INEP was developing the previous package of SAEB reforms. As the federal government is now reconsidering the overall concept and scope of changes to SAEB, the OECD review team recommends that Brazil initiate a more comprehensive programme of consultations. These consultations should be structured and include a wide range of stakeholders, notably representatives from state and municipal governments, associations of school leaders and teachers, and other groups that may be relevant, such as non-governmental organisations. These diverse actors can bring valuable insights to help shape the assessment reform and its later implementation.

For example, the federal government could ask actors which subject domains should be prioritised for inclusion in the future SAEB? Is it necessary to assess each grade annually or would less frequent assessments suffice? What type of information should the assessment system provide to states and municipalities and in what format(s)? What information should be provided to schools and students about their results? How will new digital version of SAEB be conducted in schools – especially remote rural schools? Some of these groups could also be consulted on plans to dissemination SAEB results to ensure the data provides helpful insights to improve teaching and learning (see Consideration 5). Public confidence in the new assessment system is likely to be boosted if a large and diverse group of stakeholders feel that their views have been considered.

Establish an expert focus group to support INEP in determining the technical details of the new SAEB system

Through its long history of conducting large-scale assessments of student learning, Brazil has developed a pool of well-respected assessment specialists. There would be benefits to using some of these external voices to review technical proposals that are being considered to the future SAEB. For example, creating new items to assess the higher-order competences required by the BNCC will require computer-based technologies. Since specialists from Brazil's assessment community (e.g. in universities, research institutions and private assessment contractors) will likely have relevant experience in this field, INEP could ask the focus group for technical input to support this part of the reform. Brazil could also invite international specialists who have experience introducing innovations to national assessments in other countries. Actively engaging external experts, both within and outside of Brazil, can help further enhance the reform decision making process.

Consider establishing new governance arrangements to manage changes to SAEB

In light of recent changes to the scope and management of the SAEB reform, the OECD review team recommends that Brazil consider establishing more transparent and structured governance arrangements to oversee current and future changes to the national assessment system. Transparency will be especially important considering the high costs associated with the development and capital costs of delivering some of the reforms under consideration, such as introducing a computer-based assessment to full cohorts of students (see Consideration 6). Moreover, Brazil will need sufficient funding to sustain the growing size of SAEB and may need to make trade-offs to ensure the scale and scope of reforms are feasible given the country's economic situation and likely impact of the pandemic. In terms of governance, the distinct roles of MEC and INEP should be clearly stated so that stakeholders understand how reform decisions are made, in addition to how and when they can provide input. In the long term, Brazil could also consider establishing a new national agency, similar to the Office of Qualifications and Examinations Regulations (Ofqual) in the United Kingdom to support some of Brazil's assessment reform goals, such as ensuring better co-ordination between national and local assessments.

Box 4. Peer-learning example from the United Kingdom

The Office of Qualifications and Examinations Regulations (Ofqual)

Since 2010, Ofqual has been working to maintain standards and confidence in UK assessments and examinations by serving as a national regulator. Having a similar independent body in Brazil could help guarantee the quality of standardised assessments used across the country, but would require careful consideration of associated costs, the acceptance by local authorities and other required legislative changes. Importantly, INEP would not be well placed to serve this function, as there would be a conflict of interest if the agency responsible for developing and implementing national tests was also responsible for regulating their quality.

Source: (Government of the United Kingdom[37]), *Office of Qualifications and Examinations Regulations (Ofqual)*, https://www.gov.uk/government/organisations/ofqual/about (accessed on 26 May 2021).

Consideration 2. Define and communicate the primary purposes of the future national assessment system

Context

National assessments can serve a variety of purposes. Generally, their primary purpose is to monitor system performance; however, they can also be used (among other things) to support school improvement and inform teaching and learning practices. Since fulfilling different purposes requires different design decisions, it is important that assessment systems explicitly define and prioritise the purposes of each test instrument (Newton, 2007[38]). Historically, SAEB has served system-level functions, including monitoring of national objectives and contributing to a universal education quality indicator that has reputational stakes for states, municipalities and schools. However, because of gradual changes to the education system and recent reforms (e.g. the introduction of the BNCC), Brazil's federal government is planning a major overhaul of the national assessment.

In undertaking this reform, the Brazilian government has an advantage over many other countries since the role of assessment data in evaluating educational quality and informing system planning is already widely recognised and respected. Assessment data is not only valued nationally but also among actors at the state and municipal levels. In addition, INEP has, over time, earned the trust of educational practitioners and the general public, strengthening its standing as a highly competent evaluation institution. This experience and trust allowed INEP to develop an initial set of plans to reform SAEB that were published in January 2021 (MEC, 2021[39]). However, these plans did not set out a coherent vision for Brazil's national assessment system and it was evident from the interviews conducted for this review that many actors remained unclear as to why, when and how changes to the existing SAEB would happen.

In light of the ongoing COVID-19 pandemic and recent changes in INEP's leadership, the federal government's decision to postpone and reflect on the overall SAEB reform agenda presents an important opportunity to develop a more strategic and feasible set of policy changes and adequately plan for their implementation. Drawing on international experience and research can support Brazil in this effort. A critical first step will be to set a clear conceptual foundation for the future SAEB that can serve as the basis for developing more comprehensive legal and normative documents, in addition to associated pedagogical materials.

Greater clarity of purpose for the future SAEB is particularly important in Brazil. By gradually increasing the assessment's coverage (a current reform proposal), the future SAEB would generate comprehensive datasets with the potential to hold agents accountable at various levels of the system. States,

municipalities, schools and teachers need to know who will have access to these data and how they will be used. The below peer-learning examples highlight how Mexico and South Africa have defined clear concepts to implement national assessment reforms. Like Brazil, both countries have a strong history of using large-scale assessments to monitor the performance of their education systems. However, the governments made significant reforms to the overall student assessment framework in order to strike a better balance between the different monitoring, accountability and formative purposes of assessments.

Box 5. Peer-learning examples from Mexico and South Africa

Mexico's National Plan for Learning Assessment

In 2015, Mexico's National Plan for Learning Assessment (*Plan Nacional para la Evaluación de los Aprendizajes*, PLANEA), replaced the country's previous school and student assessments and introduced a new system that combines three distinct standardised assessments. The various assessments included in PLANEA help monitor student learning outcomes in reading comprehension and Mathematics at different levels of the education system and generate data to support a range of actors in the education community. Specifically, these distinct assessments are:

- **Sample-based standardised student assessment.** The *Evaluación de Logro Referida al Sistema Educativo Nacional* is implemented every two years and covers students in the last Year of pre-school and Grades 6, 9 and 12. Results are made public at the national and sub-national levels in order to monitor student learning outcomes.
- **Formative census-based standardised student assessment**. The *Evaluación Diagnóstica Censal* is administered by schools and teachers on an annual basis to all students in Grade 4. The results are disclosed at the school level and used exclusively for formative purposes.
- **Standardised assessments for school communities.** The *Evaluación del Logro Referida a los Centros Escolares* is administered to students in Grades 6, 9 and 12 to cover all schools in the country – with results made public at the school level.

South Africa's National Integrated Assessment Framework

South Africa's education system previously administered a set of national assessments (i.e. Annual National Assessments). While these assessments did not carry stakes for students, they had significant consequences for teachers and schools. This situation led to an impasse between the central government and teacher unions, who argued that the frequency of the Annual National Assessments did not provide adequate time for teachers and schools to address identified weaknesses. Recognising the need for a more comprehensive approach to assessment that could help rebuild trust in external measures of student learning, the South African Department for Basic Education developed the National Integrated Assessment Framework (hereafter, the Framework), which it began implementing in 2018. The Framework outlines three complementary assessment programmes that each serve distinct purposes:

- **Systemic assessments** (i.e. national assessments) are designed to evaluate the overall education system. The Framework stipulates that this test will be sample-based, when it will be administered and which grades will participate. Similar to Brazil, South Africa's systemic assessment is also linked to participation in international assessments and surveys (e.g. the already-mentioned TIMSS, PIRLS and TALIS, as well as SACMEQ – Southern and Eastern Africa Consortium for Monitoring Educational Quality). These links help to ensure complementarity across the instruments and avoid overlap.

- **Diagnostic assessments** aim to support and strengthen the reliability of teachers' classroom assessment practice. Considering the historical and political sensitives around administering external tests on an annual basis, South Africa decided to provide teachers with centrally developed assessment tools, manuals, digital applications, exemplar tests and test items that they can use to identify the learning gaps of individual students. In turn, these supports can help improve assessments that teachers develop for use in their classrooms. Notably, the Department for Basic Education distributed the Early Grade Reading Assessment toolkit to around 4 700 schools in 2019 and plans to expand incrementally to 20 000 schools over the medium term. The toolkit has also been incorporated into initial teacher preparation programmes.
- **Summative assessments** (i.e. national examinations) are designed to certify student learning at the end of a curriculum cycle and cover select subjects. Currently South Africa has a summative assessment to mark the end of formal schooling (i.e. the National Senior Certificate, known as the "matric" in Grade 12) and plans to introduce a new examination, the General Education Certificate, at the end of Grade 9. The latter aims to ensure students have achieved national learning standards by the end of compulsory schooling and inform decisions about pathways into general upper secondary schools or technical and vocational education and training (TVET) colleges.

Importantly, the Framework emphasises using all three assessment programmes to support teachers in developing their practice. For example, reports based on national examinations (summative assessment) and assessment (systemic assessment) results should be comprehensive and tailored to target audiences. This example can provide Brazil with insights about how to co-ordinate and communicate the ambitions of the future SAEB within the context of the country's overall assessment goals and the BNCC and in particular, how to encourage the formative use of competence-based assessments within classrooms.

Sources: (OECD, 2018[40]); *Education Policy Outlook: Mexico,* https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Mexico-2018.pdf (accessed on 26 May 2021); (DBE, 2018[41]), *Official Guide to South Africa Education 2018/19*, https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/2012/09-Education-2018-19%28print%29%20.pdf (accessed on 26 May 2021); (DBE, 2020[42]), *Department of Basic Education Annual Performance Plan 2020/2021,* https://www.education.gov.za/Portals/0/Documents/Reports/Revised%20202021%20APP%20July%202020.pdf?ver=2020-08-26-095030-437 (accessed on 26 May 2021).

Policy considerations for Brazil

Prioritise the preparation of a concept note to set out a complete description and details of the future SAEB and rationale for multi-faceted reforms

Considering the scope of changes proposed for the future SAEB, it is important that the federal government clearly define and communicate the primary purposes of each assessment instrument (see Consideration 4 and Consideration 5 for a discussion on the potential purposes of the future SAEB). Doing so will allow diverse actors to appreciate the assessment's potential to help address national challenges, better understand how their roles and responsibilities will be impacted by the reform and ultimately, help drive improvements in teaching and learning. This review therefore recommends that the federal government prepare, as a priority, a concept note that clearly defines and communicates how the new SAEB assessments will impact each level of schooling and various actors (e.g. students, schools, etc.), in addition to explaining the rationale for these reforms. To do this, the concept note should:

- **Explain** how the new SAEB will, in the future, better serve the interests of the state governments and how the processes and data associated with the new assessment will complement those at the state level.

- **Describe** (in a separate document) how the new ENEM Series will serve an additional purpose as a selection mechanism for students who wish to enter higher education institutions.
- **Clarify** how the new SAEB will provide more detailed information on student achievement, which is crucial if Brazil wants to use the new assessment system for formative purposes.
- **Outline** how the new SAEB results will contribute to an improved measure of educational quality (i.e. a revised IDEB).

Addressing these elements will help reinforce the idea that Brazil's assessment culture stands to benefit all stakeholders and levels of the education system. The government should also consider organising a broad consultation process to inform the concept note (see Consideration 2), which in turn would help refine policy proposals and build greater ownership over the changes. Importantly, the concept note should not be overloaded with details about the assessment instruments or specific processes, as this risks burdening general readers and distracting them from the reform's main policy goals.

Develop technical assessment documents prior to implementation of the future SAEB

Details about the new SAEB's specifications and requirements should not be included in the aforementioned concept note. Instead, these should be described in separate technical documents, which would allow researchers and experts to critically evaluate and provide feedback to the federal government, thus helping improve the assessment system. INEP already produces technical documents for assessments under its responsibility and continuing this good practice will ensure that the future SAEB is developed more transparently and is well understood by both end-users and the general public. Importantly, technical supporting documents that define, for example, the competencies assessed by the future SAEB, new proficiency scales and rules on item development – will need to be developed prior to implementation of the new assessment. The federal government should consider the time needed to develop these materials when formulating the overall timeline for the SAEB reform.

Design and implement a comprehensive dissemination plan for the new SAEB concept

The final concept of the future SAEB will need to be communicated to a wide range of diverse stakeholders. Over the years, INEP has developed rather good communication channels with state secretaries of education and with those municipal secretaries who have actively engaged with decisions about the country's assessment system, namely through representative organisations (i.e. CONSED and UNDIME). However, communication with school leaders, teachers, and the wider civil society has not, in general, been as effective. Some stakeholders interviewed for this review explained that they were not aware of the proposed changes to SAEB and how these would impact the existing assessment system. Engaging these stakeholders in the critically important reform process may require different outreach strategies, including a dynamic public relations campaign that makes use of both mainstream and social media networks (see Consideration 2).

Consideration 3. Align the national assessment with Brazil's National Common Curricular Base (BNCC)

Context

Brazil's BNCC has the potential to improve educational outcomes by defining essential learning standards for each stage of basic education and setting the expectation that all students should develop core 21st century competencies. To realise this potential, it is important that states and municipalities develop and implement the new curriculum at the local level and that external assessments support this process by measuring the knowledge, skills and broader competencies that students are expected to achieve. Aligning SAEB with the BNCC will create test items that can serve as a model for good assessment practice and

help encourage teachers to adopt more valid and reliable classroom assessments that can serve both formative and summative purposes. If there is a mismatch between the curriculum and national assessment (or ENEM), teachers may not place sufficient emphasis on some of the important, innovative elements of the BNCC (e.g. creative thinking, empathy and co-operation skills, etc.) when implementing the curriculum and preparing their students for the future SAEB.

In addition to the above, the future SAEB will serve as a tool for monitoring the implementation of the BNCC at the national level. To achieve this, assessment frameworks for the new SAEB and its associated test instruments will need to cover the full range of knowledge and skills required by the curriculum. If some of the more complex competences of the BNCC (e.g. constructing arguments based on reliable data) are not evaluated, then INEP will not be able to report on student performance in these domains. At the same time, if the assessment frameworks of the future SAEB instruments are not sufficiently broad, teachers may limit the curriculum they deliver in their classrooms, undermining the flexibility intentionally built into the BNCC's design. In addition to the challenges raised by alignment with the BNCC, the future SAEB needs to support government initiatives to prioritise literacy and numeracy in the early years. This may require new assessment techniques and delivery methods to accommodate young learners.

Actors in Brazil are well aware of the need to align SAEB's assessment frameworks to the BNCC for all relevant subjects and levels of schooling. Indeed, work has already started on incorporating BNCC requirements in the new Natural Sciences as well as the Human and Social Sciences assessments for the Year 9 SAEB. However, once the federal government determines the overall concept of the assessment reform, INEP will need to prepare the necessary documentation (including assessment frameworks, test specification matrices, and sample assessments) for all subject domains and Years/Grades so item writers, assessment contractors, schools and teachers can prepare for the changes. The revoked 2019-20 SAEB Reform Ordinance from January 2021 called for INEP to create a new Special Commission to assist in the alignment process between BNCC and SAEB. However, at the time of writing this policy perspective, it remained unclear if the federal government would still establish this commission and how they would collaborate with subject specialists and other relevant stakeholders to develop foundational documents and testing materials.

To support the alignment of the new SAEB with the BNCC, Brazil can consider insights from Australia, which introduced new assessment frameworks in 2016 to align its national assessment system with major curriculum reforms. Similar to Brazil, Australian state and territory authorities have the autonomy and responsibility to decide how to implement the national curriculum within their jurisdiction. It was therefore important for the national assessments not only to measure student learning against national standards but also to help monitor implementation of the new curriculum across the country.

Box 6. Peer-learning example from Australia

Alignment of Australia's national assessment with curriculum reform

Following the introduction of a new national curriculum in 2015, the Australian Curriculum, Assessment and Reporting Authority took steps to align its longstanding National Assessment Program (NAP) in order to understand how students across the country were progressing against the new set of national learning standards. NAP is Australia's main national measure of student learning outcomes and consists of two programmes:

- **The National Assessment Program – Literacy and Numeracy (NAPLAN)**. Established in 2008, this annual assessment programme is taken by all students in Years 3, 5, 7 and 9 to determine whether or not young Australians have the literacy and numeracy skills needed for other learning and for their productive and rewarding participation in the community. NAPLAN represents one aspect of assessment for individual students and does not replace the extensive, ongoing assessments made by teachers about each student's performance.

- **The National Assessment Program – Sample Assessments.** First established in 2003, this assessment programme measures a sample of students in Years 6 and 10 on science literacy, civics and citizenship, and information and communication technology (ICT) literacy, on a rolling 3-year basis.

To align test constructs and question items with the national curriculum reform, Australia formulated new Assessment Frameworks that include detailed descriptions of how NAP tests reflect the learning domains, scope and sequence of the relevant curricula subjects. For example, the new framework explains how the structure of the NAPLAN English tests cover the national curriculum strands of language, literature and literacy; how the reading tasks set in the tests will include the three text-types set out in the national curriculum; and how the grammar constructs included in the tests will be those required by the national curriculum. A similarly rigorous approach to curriculum alignment is set out for the numeracy elements of the NAPLAN and the subjects covered by the Sample Assessment Program. Importantly, these frameworks were developed in close collaboration with assessment and subject area experts, which increased the credibility links between the curriculum and assessment. Having such assessment frameworks, which explicitly describe the processes by which the federal government has collaborated with states, municipalities and other relevant actors to align SAEB instruments with the content and spirit of the BNCC, should help reassure stakeholders – especially teachers and curriculum experts – that the tests are not in conflict with the curriculum.

Sources: (NAP, 2016[43]), *FAQs*, https://www.nap.edu.au/naplan/faqs (accessed on 26 May 2021); (Lambert, 2016[44]), *Educational Standards and Australia: a changed landscape,* https://dx.doi.org/10.1590/s2176-6681/291437381.

Policy considerations for Brazil

Prioritise the alignment of existing SAEB instruments with the BNCC before expanding to other domains and levels of schooling

To date, Brazil has taken a phased approach to aligning SAEB with the BNCC by adjusting assessment frameworks for existing instruments (i.e. the Year 2 Portuguese and Mathematics SAEB) and ensuring that newly introduced tests (i.e. the Human and Social Sciences, as well as the Natural Sciences SAEB for Year 9 students) already have assessment frameworks that reflect the BNCC. Continuing this type of measured approach can help Brazil keep the focus on foundational skills without compromising the integrity and quality of SAEB instruments as the federal government works to gradually increasing the assessment's coverage of different education levels and subject domains. As Brazil reflects on future changes to SAEB, there may be pressure to introduce innovative domains that directly align with the BNCC (e.g. assessments of civics or socio-emotional skills). However, OECD review team recommends the federal government prioritise updating SAEB's existing assessment frameworks and instruments so they are in full compliance with BNCC requirements before introducing new assessments. Importantly, Brazil will need to consider how to simultaneously align ENEM and ENEM Series with the BNCC, in addition to SAEB instruments.

Once the existing assessments have been aligned, Brazil can then work to introduce new assessments for additional grade levels and subject domains, in line with national priorities. For example, Brazil might consider developing assessments of foreign language or digital skills to help measure students' digital, cultural and communication competencies, which are among the BNCC's general competences. However, the development of innovative domains should be carefully designed and piloted (see Box 7). In deciding how to increase coverage to different levels of schooling, Brazil might prioritise introducing a new assessment in the earlier years because younger students will spend more time learning under the BNCC and by consolidating literacy and numeracy at this stage, students will be better prepared for success in the later years of school and life. Alternatively, Brazil could prioritise a new assessment for Year 7, as this would help monitor student progress in lower secondary education, a stage of education with relatively

fewer external assessments at the national level (see Figure 3). Regardless of what decisions are made, the expansion of SAEB to different domains and levels of schooling should be made in consideration of available resources and informed by evidence and input from stakeholders.

Strategically rolling out the SAEB reform across a multi-year timeframe and prioritising aligning of existing assessment frameworks before the development of new assessments will allow the federal government to ensure that the future SAEB reflects the construct and underlying philosophy of the BNCC as soon as possible. It will also provide more time for MEC and INEP to develop general policies and procedures related to SAEB and advise states, municipalities, schools, and teachers on how best to adapt local curricula, teaching practices, and learning materials. Together, these efforts can help prepare students and education actors for the future SAEB without narrowing the broader goals of the BNCC.

Box 7. Innovative assessment domains

Empirical evidence shows that social and emotional skills can play a crucial role in improving educational attainment, employability, work performance, and civic engagement. However, compared to cognitive skills, there is limited information on how to develop and assess these skills. The OECD defines social and emotional skills as: "…individual capacities that can be (a) manifested in consistent patterns of thoughts, feelings and behaviours, (b) developed through formal and informal learning experiences, and (c) important drivers of socio-economic outcomes throughout the individual's life" (OECD, 2015, p. 35[45]). To shed light on this topic, the OECD launched the Social and Emotional Skills Study in 2016 and carried out a survey with a focus on 10- and 15-year-old students across 10 cities in 9 different countries. The study aimed to:

- Provide participating cities and countries with robust and reliable information on their students' levels of social and emotional skills.
- Identify factors in students' home, school and peer environments that promote or hinder the development of social and emotional skills.
- Explore how broader policy, cultural and socio-economic contexts influence these skills.
- Demonstrate that valid, reliable, comparable information on social and emotional skills can be produced across diverse populations and settings.

The study was based on the Big Five model – a well-known framework in the field of social and emotional skills – which includes five broad domains: i) task performance; ii) emotional regulation; iii) collaboration; iv) open-mindedness; v) engaging with others; all accompanied by mutually related skills. A set of 15 skills were chosen for the OECD study based on their policy relevance, validity, reliability, malleability and comparability. To collect information on the selected social and emotional skills, the OECD applied four different questionnaires developed for students, parents, school principals and teachers. These questionnaires were divided in two main parts:

- Part A) Scales for assessment of students' social and emotional skills, which assessed students' social and emotional skills through self-reports, parent and teacher reports.
- Part B) Contextual questionnaires, which collected information on factors that might influence the development of students' social and emotional skills.

To develop these instruments, existing scales or questions were taken into account. For example, items from the PISA contextual questionnaires were used either in their original form or modified to align with the study. The process of developing the instruments was comprehensive: it included several rounds of empirical testing in various formats (both qualitative and quantitative) and scopes, in order to produce reliable, valid and comparable assessment instruments. An item bank with a group of questions for each of the 15 selected skills was also created. A significant number of these items were taken from the International Personality Item Pool (IPIP), a database with more than 3 000 items

belonging to more than 250 scales designed and used for the assessment of different personality characteristics.

Source: (Kankaraš, 2019[46]), *Assessment framework of the OECD Study on Social and Emotional Skills,* https://doi.org/10.1787/5007adef-en.

Allocate sufficient time and resources to produce new test items

Developing competence-based assessment tasks, field testing them, and calibrating them for incorporation into item banks and tests is a technically challenging and time-consuming activity. While INEP will be able to use, perhaps with some modification, pre-existing materials from SAEB's current item banks, some skills required by the BNCC will require new item types. For example, a constructed-response item, which does not exist in the current Portuguese and Mathematics SAEB, would be more appropriate for measuring a student's ability to formulate an argument to defend a point of view (one of the BNCC's general competences) compared to a multiple-choice item. Producing these item types, and therefore allowing Brazil to measure a more complete range of competencies set out in the BNCC, will require a significant amount of time and resources.

INEP has the technical expertise needed to develop innovative question items. However, at the time of this review, Brazilian officials expressed concerns about being able to deliver the changes under the previous reform agenda, which would have required writing new items for multiple subject tests across ten Years/Grades of schooling within a 5-year timeframe. INEP had planned to bypass the need for separate pilots to test items by hiding them amongst existing questions and bringing in teachers and technical staff from state and municipal secretariats to increase item-writing capacity. At the time of drafting this policy perspective, it remained unclear if the federal government still intended to pursue these actions to accelerate item-writing.

A benefit of using teachers and local education officials to help draft test items is that the experience can help build individuals' assessment capacities and allow the future SAEB to reflect a wider range of perspectives by using authors from different parts of the country. To this end, INEP may also consider working more systematically with groups of researchers to elaborate SAEB instruments and create specialised test items. Individuals who help produce new test items for SAEB will need to be trained on how to draft competence-based questions and the items they produce will need to be evaluated before being included in the SAEB item bank. As part of the broader prioritisation exercise discussed above, Brazil should plan for and allocate sufficient time and resources to develop new test items for the subjects and schooling levels that are selected to be among the first instruments aligned with the BNCC.

Ensure that the federal government establishes expert working groups in core subjects to evaluate the content and construct validities of new SAEB assessment instruments

INEP and the wider research community in Brazil have regularly evaluated past SAEB items and test instruments, a practice observed in many countries with sophisticated national assessment systems (OECD, 2013[47]). However, the introduction of a completely reformed assessment system will increase the importance of systematic evaluation of the future SAEB both in the design and implementation phase. In particular, qualitative and quantitative analysis will be needed to investigate the degree to which the new tests and their items relate to the target constructs (e.g. reading literacy, problem solving ability, etc.) and how closely they match the agreed assessment matrices. To this end, Brazil may consider adopting a Depth of Knowledge or Structure of Observed Learning Outcomes (SOLO) taxonomies to help classify items according to increasing complexity (Biggs, Collis and Edward, 2014[48]; Webb, 2002[49]). INEP has the capacity to provide all necessary quantitative data but the views of subject specialists and teachers will also be needed to gather qualitative evidence as to the tests' validities.

Consideration 4. Reflect on how information from SAEB can best support system and school accountability functions

Context

Disseminating national assessment results promotes transparency and can apply positive pressure to drive improvements across the system. There are several examples of good practices in terms of how Brazil already disseminates and uses SAEB data. For example, SAEB helps monitor progress towards achieving Brazil's National Education Plan and INEP reports results through an online data platform that allows actors to compare schools within the same network and in relation to regional and national averages (INEP, n.d.[50]). Another positive practice is that SAEB results are typically published alongside information on student transitions as part of IDEB. Brazil's present national assessment reform provides an opportunity to build on these good practices and reflect on how the future SAEB can best support accountability among actors at the system level (i.e. MEC, state and municipal education authorities and Brazilian citizens) and the school level (i.e. school leaders and teachers).

System accountability

The Brazilian Constitution guarantees the right to quality education, which implies not only that students must have access to and complete basic education, but that they must be supported to learn and develop key competencies needed for success. The current IDEB reflects these dimensions of educational quality (with SAEB as a measure of learning outcomes) and generates a single indicator that is easily understood by education actors and policy makers. As a result, the biennial IDEB score serves as a central accountability tool and provides a strong impetus for improving educational quality across Brazil. However, there are increasing signs that the Index's design is reaching the limits of its utility. In particular, student progression through formal schooling has risen significantly (in line with government targets) and there is a growing awareness that IDEB does not capture other major concerns like equity.

Brazilian researchers have already started exploring ways to measure educational disparities more effectively. For example, the Inequalities and Learning Indicator (IdeA) initiative captures inequities associated with gender, race and socio-economic status at the municipality level (Tide Setubal Foundation, n.d.[51]). INEP also established a commission in January 2021 to discuss proposals for reforming IDEB's overall design to include a more comprehensive set of indicators. At a minimum, if the future SAEB will include additional subject domains and grade levels, the federal government will need to decide what parts of the assessment will be included in future IDEB calculations. Policy changes to IDEB will have an important impact for system accountability since Brazil is debating how results might be used to identify which states and municipalities have fulfilled their IDEB targets and may therefore be eligible for additional resources as part of the next version of FUNDEB (see Box 2). While there are already cases of local authorities using their own education quality indices or IDEB scores to identify and reward schools for high or improving performance, if the future SAEB/IDEB is used in this way, it would represent the first time that student achievement data would legally have stakes – beyond public reputation – at the national level, as they would be used as performance indicators in the calculation of mandatory transfers from the federal government. The Republic of Korea "Zero Plan" offers an example of how attaching some formal accountability measures to national assessment results can be a powerful way to incentivise system improvement.

In addition to growing pressure to revise IDEB's formula, there are examples of the current Index being used in ways that may adversely impact learning. For example, while INEP avoids explicitly ranking schools by their average performance, the media and other actors (including some state secretaries) still use results to construct their own league tables. This was the case in the state of Rio Grande do Sul, which published a ranking list of schools according to their IDEB and SAEB results from 2019 (SEDUC, 2020[52]). While such practices may intend to apply internal and external pressure for schools to improve, they risk distorting perceptions of educational quality because they (typically) ignore the context in which the school

operates and/or the progress made over time. As federal government aims to include all public and private schools in the future SAEB, the potential for stakeholders to misuse assessment data will be even greater if steps are not taken to educate actors about constructive ways to compare systems and schools while avoiding some of the unintended and potentially negative consequences of having such data.

School accountability

Reflecting on the future SAEB's role in IDEB calculations is especially important since Brazil does not have a national school evaluation system. In this context, the only way for school leaders and teachers (along with other actors) to reliably compare school performance across the country is through INEP's School Bulletin Portal (*Boletim da Escola*), which provides valuable contextual information about individual schools (e.g. socio-economic level and share of qualified teaching staff) and average scores in assessed subject domains and levels of schooling. While many countries have similar portals to disseminate and analyse assessment results, Brazil's Federal Government's School Bulletin platform does not allow schools to review the distribution of students at each performance level of SAEB, nor does INEP provide this information to schools via tailored reports. However, civil society actors have created some tools to support further analysis of Brazil's assessment data, such as the Portal QEdu, which displays (among other things) the share of students who have achieved adequate levels of learning (Lemann Foundation[53]). In addition, SAEB results are only available once every two years, with long turnaround times between when the assessments are administered and when the results become available. As a result, many stakeholders who participated in this review said SAEB is not generally used by school-level actors to inform planning and pedagogical interventions.

Box 8. Peer-learning examples from South Korea and Colombia

South Korea's use of national assessment results to allocate additional support and improve system performance

The Republic of Korea's Ministry of Education has a formal accountability mechanism, known as "Zero Plan for Below-Basic Students", which aims to narrow achievement gaps, strengthen accountability for improvement and build a support system that strengthens connections between schools and local education authorities. Specifically, schools with large proportions of students who fall below the basic level of achievement on the National Assessment of Educational Achievement are eligible to receive additional administrative and financial support over a 3-year period. This support is provided by the central Ministry with mandatory matched funds from metropolitan or provincial level offices, who are responsible for allocating the subsidy depending on the school's characteristics, such as size, available finances, and efforts of the school leader to raise student achievement. Importantly, local education authorities are encouraged to deliver the subsidy as a lump sum, to provide principals with the operational flexibility to use the resources to best meet their school's needs. Among other things, the subsidy may be used to provide incentives for teachers, appoint assistant staff, develop and operate innovative education programmes, and support student study activities. Brazil might consider how formal accountability measures can foster partnerships between federal and local authorities to improve schools, while ensuring school-level actors have some autonomy over the use of such subsidies.

Colombia's Synthetic Index of Educational Quality provides a balanced way to communicate performance

Since 2015, Colombia's Synthetic Index of Educational Quality (*Índice Sintético de la Calidad Educativa*, ISCE) is a numerical indicator used to measure the quality of education in schools by education level (primary, lower secondary and upper secondary). The ISCE score ranges from 1 to 10

(with 10 being the best result possible), and is composed of four components: i) school performance (40%), based on students' learning results in the country's annual national external assessment (known as SABER), in Language and Mathematics; ii) progress (40%), which reflects the progress of student learning in the SABER tests compared to the previous year; iii) efficiency (10%), based on the schools' approval rates; iv) school environment (10%) based on information collected from context questionnaire given to students during the SABER tests (known as Associated Factors). The questionnaire aims to present students' perception about the learning environment in which they participate. This last component consists of two combined measures: classroom environment and monitoring of learning but these components are not calculated for ISCE scores in upper secondary schools. At this education level, the efficiency component counts for 20% of the calculation.

The ISCE was designed to provide stakeholders in the educational community and the general public with a simple indicator that was easy to interpret while also providing a comprehensive reflection of education quality in Colombia and areas for improvement. The ISCE allows not only schools to develop and adapt their plans to improve learning outcomes but also serves as a tool to guide educational strategies at the regional and national level. To do this, Colombia has, similar to what Brazil did with IDEB, established annual minimum improvement goals (*Metas de Mejoramiento Minimo Anual,* MMA) for each school, which accompany ISCE and were calculated based on the unique situation of each education institution. Such a model allows for the recognition of the progress made by each school based on its own particular context. Although already similar to IDEB (since Brazil's model served as inspiration for ISCE's design), the adaptations Colombia has made could support the Brazilian government in its current reflections on new ways to calculate IDEB.

Sources: (Kim, Ra and Rhee, 2019[54]), *Developing National Student Assessment Systems for Quality Education: Lessons from the Republic of Korea,* https://dx.doi.org/10.22617/TCS190597-2*;* (ICFES, 2016[55]), *ISCE: Guía Metodológica [ISCE: Methodological Guide],* https://www.icfes.gov.co/edicion-05-boletin-saber-en-breve (accessed 19 May 2021); (Mineducación, 2020[56]), *Índice Sintético de la Calidad Educativa - ISCE [Synthetic Index of Educational Quality -ISCE],* https://www.mineducacion.gov.co/1759/w3-article-397385.html?_noredirect=1 (accessed 19 May 2021).

Policy considerations for Brazil

Consider the IDEB's design in relation to the future national assessment system

Choosing which metrics to use and how to combine the data into a single or balanced set of indicators is, at least initially, a question of judgement and there will likely be several competing models for education authorities to consider. OECD review team recommends that the expert group INEP has commissioned reflect on key questions involving the future use of SAEB as a monitoring and accountability tool. First, how can Brazil reformulate IDEB to take full advantage of the data generated by the SAEB assessment system? Second, what background information should the future SAEB collect to complement, rather than duplicate, other sources of data that provide information to contextualise achievement results (see below)? The expert group should lead a consultation process to answer these questions and compare proposals for a revised IDEB formula or other policy approaches for using the future SAEB as a national performance metric. Overall, the new metric or metrics should strike a balance between being easy to interpret and having a strong impact, while allowing Brazil to more comprehensively identify, monitor and improve education quality and inform relevant school policies.

Review SAEB background questionnaires to ensure they provide relevant and valuable data on factors associated with teaching and learning in Brazil

Since IDEB, and the SAEB scores incorporated within it, serves as Brazil's most important source of data on school performance, INEP should take the opportunity afforded by the present reform to review the value of information traditionally collected by SAEB questionnaires and by the school census. These two

data collection tools serve different purposes but often work together (e.g. SAEB uses data from the school census to determine how many test booklets to print for each school) and their review should have two main aims: to ensure that the data collected covers all the major factors known to be linked with effective teaching and learning, and to ensure that the data collection process is as efficient as possible.

INEP has many years of experience in gathering contextual data both from its conduct of SAEB and its involvement in international studies. It can use this experience and historical data to review critically the content of its questionnaires. Are there any constructs (i.e. domains of interest) which can be eliminated without significant loss of information? Would any constructs be strengthened by including additional questions? For example, do questions about the use of new technologies in the home and in schools need to be expanded and updated? Reflecting on these and the potential for new constructs, like asking about school attendance or access to online learning during the COVID-19 pandemic, can help investigate immediate challenges, such as the pandemic's impacts on student participation and learning. The SAEB questionnaire review also provides an opportunity to increase the efficiency of data collection, which would allow INEP to focus on conducting analysis that provides policy makers, researchers and, ultimately, schools with more valuable, contextualised information to interpret results and benchmark performance equitable and meaningful ways.

Establish guidelines for the publication of school performance data and suitable accountability mechanisms that discourage public rankings

The future SAEB will have greater potential for use as an accountability tool compared to the existing assessment because it will collect data on the learning outcomes of all schools. In theory, this data could eventually be used to track the progress of individual students and, hence, measure the extent to which each school influences achievement. Given the potential scale and complexity of the future SAEB dataset, local authorities will need support in identifying appropriate accountability measures. For example, schools that perform better than expected given their socio-economic level, or demonstrate improvement over time, could be rewarded to help incentivise improvement in all schools, especially those operating in disadvantaged contexts.

Proposals to use SAEB/IDEB in the next version of FUNDEB represents a positive step in this direction (see Box 2). However, Brazil should be careful to avoid creating incentives that reinforce inequalities. In terms of rewards, for example, it may be more effective to recognise achievement through special titles or roles. For example, the Brazilian state of Minas Gerais introduced the IDEB Transformation Award (*Prêmio Ideb Transformação*) in 2020 to recognise schools in various categories based on SAEB/IDEB results (e.g. overall scores, improved performance, etc.) to influence the quality of teaching and learning in the state (Agência Minas, 2020[57]). This example from within Brazil could be a model for using results from the future SAEB/IDEB to identify and disseminate good practices in different areas, such as raising the literacy levels of young learners. Finally, schools which, according to the data, perform poorly could be offered additional support in order to bring them up to expected levels of performance. These practices would offer more constructive ways for local authorities to use the detailed (i.e. granular) SAEB data and in turn could help shift the focus from creating public ranking tables to helping students learn.

Initiate a consultation process to develop a data publication plan for the new SAEB

The states and municipalities interviewed during this review confirmed that their IDEB scores are eagerly awaited and receive much prominence. However, they also suggested that the information that they get from SAEB does not come at the right time and does not give them the information they feel they need for evaluation and forward planning. At the same time, actors were not in a position to give specific details about what type of information would be most helpful and how they would like to use the data (i.e. for what purposes). This indicates a need to work with these local authorities and schools to clarify what information they need from the future SAEB, when it is needed, and in what format(s). In order to design a detailed data publication plan, the federal government should lead a consultation process not only with

representatives of the states and municipalities but also with stakeholders directly involved in, for example, school management and the teaching of specific subjects.

Consideration 5. Maximise the formative potential of SAEB to improve teaching and learning

Context

In addition to supporting monitoring and accountability, national assessments can also inform pedagogy (i.e. the process of teaching and learning), especially when they are census-based. To do this, countries often create materials and opportunities to help educators better understand the assessment instrument and what implications the results have for their work (OECD, 2013[47]). Many countries also offer detailed analysis of how students performed on particular test items, which helps identify common errors that teachers should be aware of and try to address. These materials can serve as a basis for actors to discuss results and develop strategies to address areas of low performance. Despite being a census-based assessment, the existing SAEB's ability to inform pedagogy is generally limited. Reasons for this include the excessive time between the testing of students and the publication of results, the lack of detail (i.e. granularity) in reporting the results and the absence of an effective feedback system tailored to meeting the needs of local authorities, schools and teachers. The SAEB reform offers an opportunity for the federal government to design and implement measures with the potential to harness the assessment's rich dataset to better support pedagogy. Such efforts will be important if Brazil is to gradually increase coverage of its national assessment system (i.e. with full cohort tests across multiple levels of compulsory schooling).

One of the main goals of the SAEB reform is to establish the national assessment as a formative instrument at the classroom level. If Brazil is successful in achieving this objective (and reduces the time lag between data collection and reporting), the space for local assessments will likely decrease over time, as local authorities gain trust in the national assessment's ability to fulfil a more formative purpose that better meets their needs and those of their schools. Considering the variety in the quality and existence of local assessments across Brazil, this change has the potential to reduce duplication of testing and benefit state and municipal governments. However, the federal government will need to carefully plan for this transition and co-ordinate with relevant actors to phase out or adapt local assessments.

To fully realise the formative potential of the future SAEB, Brazil will need to provide more comprehensive reporting of results and support schools in using the results. The federal government could take inspiration from the school report template of the OECD PISA for Schools project[5] to support this reform goal or consider examples from Chile, which highlight how tailored reporting of national assessment results can serve as a valuable tool for improving instruction. An alternative approach would be to give local authorities and schools actors a variety of SAEB-related tools (e.g. test items) that they can adapt to support their individual needs, as done by the Smarter Balanced Assessment System in the United States.

Box 9. Peer-learning examples from Chile and the United States

Chile's comprehensive approach to reporting assessment results

Chile's student assessment programme, the System for Measuring the Quality of Education (*Sistema de Medición de la Calidad de la Educación,* SIMCE), has operated as a compulsory, census-based assessment of educational achievement since 1990. Traditionally, Chile's multi-purpose assessment

[5] Available at https://www.oecd.org/pisa/pisa-for-schools/PISA-for-Schools-School-Report-Template.pdf

has aims similar to those of Brazil's new SAEB, including to inform policy making processes within the Ministry of Education, hold schools accountable and provide pedagogical support to schools and teachers; however, in recent years the Chilean government has been making changes to SIMCE as part of a broader effort to create a more balanced evaluation framework for education. In particular, Chile's new National Assessment System now focuses *"…*on redefining the assessment of learning and promoting the transition from a vision that has been closely linked to accountability purposes to a vision focused on guidance and improvement" (Agencia de Calidad de la Educación, 2018, p. 10[58]).

To meet these aims, a sophisticated feedback system has been developed to connect various actors with relevant findings from the SIMCE. The assessment's current dissemination practices have evolved over more than a decade and new mechanisms are periodically added to better meet the needs of end-users. Recently, tailored reports that provide schools with their SIMCE results have been reviewed to make information more accessible and easier to understand. For example, the school reports now include results disaggregated by gender, socio-economic background and geographic location. The agency responsible for designing and implementing SIMCE has also introduced new tools to support teachers in the pedagogical use of SIMCE results. For example, reports explaining some of the common mistakes students made on subjects covered by SIMCE allow educators to identify the areas where their students struggle the most. Table 5 describes the some core features of SIMCE's dissemination strategy, many of which are already used by INEP to share results from the existing SAEB. However, the elements designed specifically to provide pedagogical support could be of particular interest to Brazil as it reflects on how to disseminate SAEB results in ways that are more useful to schools and teachers.

Table 5. Chile's comprehensive system for disseminating information from SIMCE

Element	Purpose	Audience	Content	Distribution and notes
Assessment guidelines (est. 1988)	Provide pedagogical support	School principal, pedagogical co-ordinators and teachers	a) Assessment framework and its relationship to the national curriculum. b) Examples of test questions with an analysis of the contents and skills required to answer them correctly.	Distributed to all schools before the assessment (usually in the middle of the school year). Also available online. Publication highly valued by teachers.
School report (est. 1998)	Provide pedagogical support	School principal, pedagogical co-ordinators and teachers	a) National-, school-, and class-level mean scores by subject areas and grades tested, disaggregated by gender, socio-economic level and geographic location. b) Differences between school mean scores and mean scores from the previous assessment, from the national mean, and from schools of the same socio-economic group. c) Percentage of students by performance level—advanced, intermediate, beginner. d) Examples of test questions with an analysis of the contents and skills required to answer them correctly. e) Workshop guidelines for the schools to analyse assessment results and set improvement plan.	Distributed to all schools that participated in the assessment once the SIMCE results are released (usually at the beginning of the next school year).
National report (est. 2006)	Inform policy	Decision makers, general public	a) National and regional mean scores in subject areas and grades tested, b) Percent of students by performance level—advanced, intermediate, beginner. c) Mean scores by socio-economic background, gender, public/private school. d) Trends in mean scores across years.	Distributed at the central, regional, and provincial offices of the Ministry of Education. Distributed to persons likely to be interviewed by the media (e.g., university professors).
Newspaper supplement (est. 1995)	Hold schools accountable	Parents, general public .	(a) School mean scores, and mean scores by subject areas and grades tested. b) Differences between school mean scores and mean scores from the previous assessment, from the national mean, and from the mean of schools from the same socio-economic group.	Published in a newspaper with national and regional coverage. Usually accompanied by rankings of schools

Parent report (est. 2005)	Hold schools accountable and involve parents in school.	Parents.	a) School mean scores, and mean scores by subject areas and grades tested. b) Differences between school mean scores, and between subject area/grade mean scores of schools from the same socio-economic group. c) Percent of students reaching different performance standards. d) Recommendations to support student learning.	Distributed to parents through the schools once the assessment results are released (usually at the beginning of the school year). Also available online.
Online item bank (est. 2007)	Provide pedagogical support.	Teachers.	Offers released test questions from all subject areas and target grades. Includes questions from both the national and international assessments.	Teachers can search test questions based on subject area, school cycle, and questions format (multiple-choice or open-ended).
Press kit (est. 2006)	Inform policy.	Journalists and regional offices of education.	PowerPoint presentation with main results.	Distributed to journalists during the press release or before with embargo.
Data files (est. 2005)	Inform policy, provide pedagogical support, and hold schools accountable, depending on research topic.	Researchers.	Data files with school-level results.	Data files with student-level results are provided upon request after justifying the research project and committing not to use the results to identify students or teachers.
Data analysis tool (est. 2007)	Inform policy, provide pedagogical support, and hold schools accountable, depending on the type of analysis.	Researchers and decision makers.	Computes mean scores, differences in mean scores, and percent of students reaching different performance standards. Computes results for different years, grades, public and private schools, subject areas, gender, and socio-economic level, among others.	Data file with student-level results are provided upon request after justifying the research project and committing not to use the results to identify students or teachers
Geo-referential system (est. 2010)	Hold schools accountable.	Parents.	Google maps with the geographical location of schools and their mean scores.	Parents can compare the scores of schools that are in the same geographic area.
Website www.simce.cl (est. 2001)	Inform policy, provide pedagogical support, and hold schools accountable.	General public.	All the mechanisms described above. Also purposes of the assessment, organisational structure of SIMCE, technical documents, and references to publications using SIMCE data.	
Report by axis (est. 2016)	Provide pedagogical support	Teachers.	Reports with pedagogical information to support teachers in idetifying challenging areas for students, by subjectTeachers received this information for students from upper secondary education for the Mathematics test.	Distributed to all schools that participated in the assessment once the SIMCE results are released.

The USA Smarter Balanced Assessment Consortia supports the assessment needs of individual states

The Smarter Balanced Assessment System in the United States (USA) was designed in 2010 with the goal of sharing an integrated and complementary approach to student assessment across the country. Based on the USA's Common Core State Standards for English Language Arts and Mathematics, the initiative provides states with an assessment toolkit to support instruction and learning. Specifically, the system has three main elements: i) interim assessments to help monitor student progress and support teaching and learning throughout the school year; ii) instructional tools, available in a digital library to support teachers in implementing formative assessments and other resources to enhance learning

processes; and iii) summative assessments for system monitoring and accountability purposes at the state and federal level. The three elements were designed to work together with the goal of supporting high-quality teaching, improving overall student learning and facilitating students' transition to higher education.

States independently opt in to the Smarter Balanced Assessment Consortia, which has been managed by the University of California since 2014. State education departments fund the system through membership fees paid to the University of California, which works in partnership with state education agencies, local governments, education professionals and schools to write test items, create and review assessment resources and disseminate best practices. The assessments created by the system are developed in the format of Computerised Adaptive Testing (CAT) and performance tests, which adapts tests to the demonstrated knowledge and skills of individual students (see Box 11). The system supports a shared approach to student assessment across the United States by specifying the distinct purpose and use of different assessment tools. This approach is particularly relevant for decentralised education systems, whereby student assessments might take place at different administrative levels, as it supports a more complementary and comprehensive approach to monitoring and supporting student learning.

Sources: (Ramírez, 2012[59]) *Disseminating and Using Student Assessment Information in Chile. Systems Approach for Better Education Results (SABER) student assessment working paper*, https://openknowledge.worldbank.org/handle/10986/17474 (accessed on 10 February 2021); (Agencia de Calidad de la Educación, 2018[58]), *Nuevo Sistema Nacional de Evaluación de Aprendizajes: La evaluación al servicio de los aprendizajes [New National Learning Assessment System: Assessment in the Service of Learning],* http://archivos.agenciaeducacion.cl/Sistema_Nacional_de_Evaluacion_17abr.pdf (accessed on 29 June 2021), (The Regents of the University of California, 2020[60]), *A Smarter System: A Decade of Advancing Teaching and Learning,* https://smarterbalanced.org/our-system/ (accessed on 11 May 2021); (California Department of Education, n.d.[61]), *Smarter Balanced Assessment System*, https://www.cde.ca.gov/ta/TG/sa/ (accessed on 11 May 2021).

Policy considerations for Brazil

Plan for the operational changes needed to reduce the timeframe for delivering results

A key goal of the SAEB reform is that it aims to provide information to states, municipalities and other end-users in a shorter timeframe than the existing system, which takes more than a year to deliver results and does not align with school planning cycles. Achieving this reform goal will likely require extensive use of new technologies and automated systems to process the administrative and professional elements of the national assessment cycle. These operational changes are especially important since the federal government is considering adding more open-ended test questions to the future SAEB that cannot be marked by current software. To this end, INEP will need to carefully plan and ensure sufficient resources are available to process and report assessment data within a shorter timeframe. The OECD review team recommends that Brazil concentrate on providing summary results early enough for states and municipalities to use this information in their strategic planning.

Co-ordinate the role of the national assessment system in relation to local assessments

Having more timely results from the future SAEB will likely raise questions about whether local assessments in core subjects are still needed. If local assessments continue to run in parallel to the new SAEB, INEP may need to adjust how it will provide results to school actors, as the abundance of information from external assessments could undermine rather than reinforce teachers' own judgements about student performance. At the very least, the federal government will need to clarify, in collaboration with local authorities, the distinct role of the future SAEB in relation to Brazil's local assessments. The question about duplication of assessment instruments also raises concerns about disrupting learning time in school, as students in some parts of the country will be required to take external tests in the same subjects multiple times per year. In addition to co-ordinating national and local assessment instruments,

the federal government, through INEP, could also work with local governments to strengthen technical assessment capacity across Brazil. For example, INEP could create in-person or online platforms for state and municipal governments to share how they develop assessment tools and use the results to inform policy and drive improvements in their jurisdictions.

Design and implement standardised report formats for schools and support actors in using the results to conduct school evaluations

Maximising the positive impact of new SAEB will depend on the extent to which the federal government can engage and influence key stakeholder groups, such as families, teachers, and school principals – in addition to the general public and policymakers. While INEP's current practice of producing general reports and headline findings are – and will continue to be – important, reports which directly address the concerns of school communities are more likely to bring about effective change in teaching and learning. This review therefore recommends that Brazil consider extending its data dissemination plan to include standardised reports for municipal and state-level education authorities, teachers and schools, as well as individual students and their families. This approach can help ensure school-level audiences receive information from SAEB that is easy to understand and directly relevant to their work (or child). Moreover, Brazil should consider putting in place local structures to support schools in using the data from their tailored reports to conduct self-evaluations or external evaluations in areas where local authorities have greater capacity. However, it will be crucial that Brazil take measures to prevent detailed and personal information about students from being used inappropriately. To this end, there should be strict protocols to protect student data and ensure that assessment information is used to support teachers and students, and not punitively.

Conduct item analysis and provide teachers with more detailed information to better understand student performance

The intended formative function of the future SAEB stands to especially benefit teachers, who can use the census-based assessment not only to moderate their own classroom marks but also familiarise themselves with the types of questions that capture the higher-order competencies set out in the BNCC. To this end, INEP's prior plans to involve teachers in developing test items have the potential to strengthen assessment and pedagogical capacity in schools. To further support teachers in using SAEB to inform their practice, this review suggests that INEP systematically develop pedagogical materials to disseminate alongside results. These materials may include specific examples of how students responded to carefully selected sample items and guidelines on how to interpret student performance and achievement levels in the domains of subject assessment frameworks.

In addition, INEP will have the information necessary to conduct item-level analysis of select curriculum areas or constructs and should consider publishing item maps for each subject covered by the new SAEB to show teachers what students can do across the ability range. Over time, INEP might also work with actors responsible for developing the BNCC (i.e. MEC and the CNE) to develop an open sourced item bank that would allow registered teachers to submit and share items mapped against the assessment framework and expected performance levels, with professional and/or peer curation to ensure quality. This has become an increasingly common practice in OECD countries and New Zealand provides an example of how such efforts can help develop teachers' assessment literacy and align classroom assessments with curriculum reforms.

Box 10. Peer-learning example from New Zealand

New Zealand's Assessment Resource Banks for teachers

Supporting teacher assessment literacy is an integral part of New Zealand's national assessment system. Specifically, this includes making sure that teachers:

- have the sufficient knowledge about sound assessment practices, including the different types of assessments and its terminologies
- know how to develop and use different assessment methodologies and tools
- are familiar with standards of quality in assessment
- know how to use assessment information to improve teaching and learning
- understand how aggregated achievement data (e.g. at the school, national or international level) relate to their classroom practices.

To achieve these objectives, the New Zealand Ministry of Education has established Assessment Resource Banks (ARBs), as one of the many tools available to support teachers in measuring student progress across the curriculum. The platform compiles nearly three thousand formative assessment resources that teachers can browse to select for example, the curriculum area they want to assess and compare the different assessment tools available. Teachers can also submit their own assessment resource/tool to be shared with others, as long as it respects the established criteria, which includes checking the reliability and validity of the assessment instrument. Importantly, the ARB provides specific item tasks to measure student learning in English, Mathematics and Science. These items are based on learning progression frameworks, which were created to present the main learning steps that students take as they develop their knowledge and skills. Establishing a similar platform in Brazil could provide teachers across the country with valuable resources to better understand how to assess students against the goals of the BNCC.

Sources: (Joyce and Fischer, 2018[62]), OTJs, Learning Progression Frameworks, and the ARBs, https://arbs.nzcer.org.nz/otjs-learning-progression-frameworks-and-arbs (accessed on 11 May 2021); (Ministry of Education, n.d.[63]), Assessment tool selector, https://assessment.tki.org.nz/Assessment-tools-resources/Assessment-tool-selector/(tab)/Choose-a-tool (accessed on 11 May 2021).

Implement a programme of targeted seminars and/or workshops to disseminate key findings to specific stakeholder groups

While reports published on paper and available through web portals are important, their impact can be enhanced through physical (or virtual) meetings where the content is tailored to the needs and interests of the invited audience. Therefore, following the publication of SAEB results, the OECD review team recommends that INEP organise a programme of seminars and/or workshops to communicate key findings to local officials and educators. Arranging such a programme would be particularly beneficial in the years immediately following the introduction of reformed SAEB, as this would increase familiarity with, and boost confidence in, the reformed assessment system.

Use results from SAEB to inform teacher education programmes

Once details about the SAEB reform have been determined, pre-service and professional development programmes for teachers should consider assessment frameworks and sample questions, results and questionnaire responses, as these materials serve as valuable sources of information that can inform teaching practices (Kellaghan, Greaney and Murray, 2009[64]). If the federal government decides to move forward with previous plans to recruit teachers to help draft items for the future SAEB, participating teachers will develop valuable expertise in creating questions that measure higher-order competencies aligned with

the BNCC. Building on this strategy, Brazil should consider ways to provide a wider range of teachers with opportunities to become more familiar with new approaches to assessment. For example, reviewing sample questions from the new SAEB during a professional development course would give teachers an opportunity to reflect on how their own assessment practices align with the aims of the BNCC. Insights from the new national assessment system can also be used to create pedagogical materials for initial teacher education programmes. Scotland (United Kingdom), provides flexible training opportunities and resources for teachers related to the Scottish National Standardised Assessments, which could serve as an example for the types of professional development programmes that Brazil could develop using SAEB.

Consideration 6. Manage Brazil's transition to computer-based testing

Context

INEP's previous plans to introduce an annual national assessment that measures all students in nearly all levels of schooling would have placed huge demands on the physical, human, and financial resources in any education system, especially one as populous and diverse as Brazil. The OECD review team commends the federal government's decision to reflect on the overall goals for Brazil's national assessment reform and strategically plan for expanding the coverage (and possibly the frequency) of the future SAEB. To achieve these goals, Brazil is considering ways to leverage new technologies that can help maximise efficiency and minimise costs. From an organisational perspective, the federal government's plans to continue the transition from paper-based assessments to computer-based assessments (CBA) for students in Year 5 of primary school onwards is a desirable and necessary objective.

CBA offers many advantages compared to pencil-and-paper formats. For example, it tends to be cheaper to administer (after initial capital investment), is less prone to human error and integrity breaches, and delivers results more quickly (OECD, 2013[47]). Many countries have also started implementing CBA in recognition of the fact that students are increasing learning and, in the future, will be working in a predominantly digital environment. However, this approach raises several questions and potentially significant challenges:

- **Validity**. Computer-based assessments often employ selected-response item types (e.g. multiple-choice formats), which are generally easier to deliver and score compared to constructed-response items that may include extended written responses. If Brazil still aims to use tablets to administer SAEB assessments to older students, INEP and contracting partners will need to demonstrate that the question items and this testing mode can accurately measure student achievement across all key domains of the BNCC.
- **Mode effects**. The proposal under discussion to introduce a digital version of SAEB will likely raise concerns about potential mode effects. Brazil will need to consider whether the digital version will be comparable with previous paper-based SAEB scores, thus allowing for trend analysis against historic results that date back to 1997. Moreover, students from disadvantaged homes and schools may be less familiar with working on computers and tablets than their more advantaged peers, a context that "introduces a construct-irrelevant factor in test scores" (Brown, 2019, p. 14[65]). Mode effects could be significant when using the data to compare performance and should be carefully studied to mitigate inequity within the assessment system and ensure that all teachers and students are familiar and comfortable with a computer-based version of the assessment.
- **Logistics.** Under the 2019-20 SAEB reform plan, INEP planned to use the same set of tablets to administer the new assessment to all students by administering the tests on different dates for different levels of schooling. This approach could help decrease some of the initial costs associated with purchasing enough tablets to conduct a census-based assessment. However, INEP will first need to carefully address logistical questions to implement a digital version of

SAEB, such as how the suitable hardware will be supplied (i.e. who will own it and how long will procurement processes take to complete), what software will be used and how will it be developed.

Box 11. Brazil's long-term plans to introduce computer adaptive testing (CAT)

INEP's long-term plan is to move towards computer adaptive testing (CAT) for at least some elements of the new SAEB. CAT has three potential advantages in the context of large-scale assessments. First, it is more efficient than conducting traditional tests because students are presented with just enough items to identify their level of achievement with a sufficient degree of precision, meaning there is little redundancy. However, Brazil may find it more effective to keep the test size constant and use the bonus items gained by increased efficiency to field trial items for the item bank. Second, because CAT delivers groups of items targeted at a particular student's level of ability, sufficiently precise measurements can be made across the full ability range, which is far more difficult to achieve using traditional tests. Third, because test-takers are not presented with a common test, there are fewer security issues at the student level (e.g. there is no physical test paper to keep secret). At the same time, it will be increasingly important to ensure the security of information technology (IT) infrastructure and item banks.

Against the advantages described above, there are three general disadvantages. First, CAT must, as the name suggests, be delivered on a computer. This generally limits the range of item types available and puts students who are less familiar with the technology at a disadvantage. Second, presenting each student with a set of items increasingly targeted at their latent level of ability requires a very large item bank in which all items perform according to the chosen item response theory (IRT) model and which have been calibrated accordingly. Building and maintaining such item banks is expensive and time consuming. For Brazil, this will represent a considerable amount of work in addition to the task of developing new items for the present SAEB reform. Third, CAT reports the ability of each test-taker as a score on a standardised scale derived from IRT. While scaled scores make the testing process more opaque and increases the difficulty of interpreting results at the level of the individual student, Brazil has already had success in implementing these types of models for large-scale assessments.

Other potential disadvantages of CAT relate specifically to its use in high-stake examinations. For instance, presenting each student with a different set of items is often perceived as unfair compared to traditional examinations whereby all students are presented with the same question paper. Issues of reporting student results are exacerbated since it is more difficult to explain a student's CAT score (i.e. a score derived from a complex mathematical model) than to explain a simple score based on the number of questions answered correctly. Finally, using CAT for student examinations reveals transparency concerns, as item secrecy is essential to the algorithm. Most high-stake examination systems around the world offer students the right to appeal against their results and to have their final score checked through open procedures. However, this process is not possible where CAT is used because the test, and the scoring system, is effectively a black box. It is for these reasons that it is rare to find international examples of high-stake, school examinations based on CAT.

Addressing these challenges will be crucial if the federal government is to work towards its longer-term goals of introducing CAT for parts of the assessment system. While not an immediate priority, introducing CAT into the future SAEB system will raise an additional set of benefits and challenges for Brazil to consider (see Box 11). As Brazilian policymakers debate on whether to establish the future SAEB as a CBA, the notable and well documented example of the United States' National Assessment of Educational Progress could provide relevant insights on how to achieve this reform goal.

Box 12. Peer-learning example from the United States

The United States' transition to a computer-based national assessment system

For 20 years, the National Center for Education Statistics, the agency responsible for the United States National Assessment of Educational Progress (NAEP), has been exploring ways of moving from paper-and-pencil testing to digital assessments. The first NAEP domain to use a computer-based delivery system was the assessment of writing skills in 2011 and was followed by a digital assessment for technology and engineering literacy in 2014. Moving from traditional modes of testing in the main curriculum subjects (Mathematics, science and reading) took several years because in addition to the technical difficulties of designing a suitable platform, the National Center for Education Statistics had to ensure that results from the new assessment modes could be compared with performance results from previous years that used paper-based tests. To overcome this challenge, a two-stage development strategy was adopted:

- Stage 1 involves the migration or trans-adaptation of items from paper to the screen. This assumes that the essence of the task, as experienced by the test-taker, is not significantly affected by the mode of presentation. For example, it is generally assumed that printed multiple-choice items can, in general, be converted to their screen-based equivalents without radically changing their characteristics. Such assumptions should be tested through piloting, which also allows for the psychometric properties of items delivered in the two alternatives modes to be compared. This quantitative evidence can be used to link performance levels and scores for the two modes thereby allowing historical trend lines to be maintained.
- Stage 2 involves the transition of tasks from paper to the screen. In this case, new ways of presenting tasks which are possible through a digital platform but not on paper can be explored. Piloting is necessary both to understand how test-takers respond to such innovative challenges and to determine the psychometric characteristics on new item types (NAEP, n.d.[36]).

Following the implementation of NAEP's digitally based assessments in Mathematics and reading in 2017, researchers carried out a comprehensive evaluation of the effects of the mode of delivery on test-taker responses. The findings, reported in Jewsbury et al. (2020[66]), show that while digital items prove, on average, to be more difficult than their paper-based equivalents, the mode of delivery does not significantly change the rank order of items when arranged by difficulty. Indeed, the high degree of correlation between the two modes means that statistical methods are available for linking the CBA scale with the paper-based scale without introducing any bias. This example from the United States demonstrates the significant technical challenges that INEP will need to address in order to develop CBA test items, evaluate their validity and psychometric properties and maintain trend lines with previous cycles of SAEB. These processes will require extensive research and time.

Policy considerations for Brazil

Conduct a feasibility study for using CBA and investigate potential mode effects

Moving from paper-based testing to CBA may be necessary if future SAEB is to be sustainable in the long term and achieve its reform goals. However, this transition will require time, expertise and significant investment. To evaluate the system's readiness for computer-based assessment, the OECD review team recommends that Brazil conduct a feasibility study for using CBA in various subjects and levels of schooling. In addition, INEP should investigate the potential effects that testing mode may have on student performance. Such an investigation will require a carefully designed research programme that should examine different age groups and schools with different socio-economic profiles. Understanding the extent to which test format affects diverse groups of learners is critical since Brazil will use these results to monitor

learning over time and compare differences across the country. To this end, INEP should ensure the digital mode links with paper-based SAEB scores to allow for trend analysis.

Ideally, studies on CBA feasibility and mode effects should be completed before MEC and INEP move forward with intended changes to SAEB. Considering the scale and complexity of the SAEB reform, it is likely that trade-offs will be required to introduce CBA as part of the new national assessment system. For example, it may be wise for INEP to delay the census testing of all grades in order to divert resources to delivering CBA in selected subjects and to older students (e.g. only the upper secondary level). Gradually developing the infrastructure for nation-wide computer-based assessment would allow INEP to develop a detailed implementation plan for introducing CBA, address remaining logistical issues and organise a communications campaign to prepare schools, teachers, parents and students for the planned changes.

Start detailed planning for developing, building and implementing computer-based systems for the introduction of the future SAEB

The future SAEB will need computer-based systems for general administrative functions, conducting tests, entering and processing student responses, and post-test analysis and reporting. All of the required system functions should be mapped and documented as soon as possible. Where possible, INEP's existing systems should be modified to meet the logistical demands of future SAEB. However, the country will likely need to develop and test additional technological systems before implementation. In addition, the necessary infrastructure will need to be installed and commissioned. Since introducing a national CBA, even with a phased approach, will have implications for states and municipalities, these actors should be involved from an early stage in planning for the required testing technologies.

Establish an expert group to evaluate the advantages and challenges of introducing CAT in selected elements of SAEB in the future

Brazil's extensive experience of using IRT in the conduct of SAEB means that it is better placed than most countries to use CAT in its large-scale assessments. However, there are many complex issues that need to be discussed and resolved before a final decision is taken. At an early stage, Brazil would benefit from establishing a forum where education specialists, assessment experts and psychometricians could discuss the pros and cons of introducing CAT into the national assessment for elementary grades. Special attention and extreme caution should be paid to the ethical issues associated with using CAT in selection examinations (i.e. ENEM and ENEM Series) where the stakes for individual test-takers are high.

Consideration 7. Distinguish the role of SAEB from national examination(s) at the upper secondary level

Context

Having a coherent approach to external assessments is important to ensure complementarity, reduce testing burdens and avoid conflating the primary purposes of instruments (i.e. that examinations have stakes for students, while international and national assessments do not). This is imperative at the upper secondary level, a stage of education when most countries use exams to either select students into higher education institutions, like Brazil, and/or to certify completion. Under the 2019-20 SAEB reform plan, the federal government considered adding a selection purpose to national assessments administered in Grades 1-3 of upper secondary school. This change would have essentially transformed the high school SAEB into a 3-year high-stakes examination. The proposal had several positive intentions, namely to motivate students to apply themselves more purposefully across all three grades of high school and to create more equal access to higher education by giving students multiple opportunities to demonstrate their knowledge and skills. However, there were several governance risks and technical challenges

associated with the approach, such as creating parallel procedures to university admissions and excessive pressure through the cumulative weight of having three years of exam scores.

MEC has since set aside plans to use an annual high school SAEB as an alternative pathway for higher education institution admissions and is currently considering a proposal to pilot ENEM Series across all grades of high school. This new proposal would better maintain the distinct purposes of SAEB and ENEM instruments. However, the goals and details of the reform remain vague. At the time of drafting this policy perspective, ENEM Series had the same general outcomes as the 2019-20 proposal to use SAEB results across three years of high school. While this OECD review team did not conduct an in-depth analysis of ENEM or ENEM Series proposal, the SAEB reform provides a valuable opportunity for Brazil to co-ordinate external assessments and address some of the broader challenges facing the upper secondary school system. The existing ENEM, in particular, has been criticised for encouraging schools and teachers to narrowly focus on preparing students for the exam, even students who do not plan – or are unable – to attend university (Schwartzman and Knobel, 2016[67]). Brazil's new upper secondary model will also warrant a discussion about the potential role of examinations in certifying the education of high school students who will follow more elective and vocational pathways, for which students will devote 40% of their learning time in high school. How will the new exam system reflect Brazil's broader goals of preparing all students for success?

If Brazil maintains the Grade 3 SAEB as a census test, students in their final year of high school may have to sit not only the SAEB, but potentially the ENEM and ENEM Series exams as well, all during the same year. The low-stakes of SAEB also risks decreasing students' motivation to save their efforts for the exams, potentially distorting SAEB results. Many OECD countries that administer national exams to secondary students do not also administer a national assessment at this stage, at least not to a full cohort. There are several reasons for this trend. Countries may choose to prioritise their limited resources on the more formative functions of national assessments in the earlier years, to better consolidate foundational numeracy and literacy skills. Moreover, if the majority of (or all) students take a national exam (e.g. it is required to certify the completion of compulsory schooling) and the test is curriculum-based, then results can be used to monitor curriculum implementation and system performance, as in France. However, some countries may decide to maintain a national assessment at this level, in addition to an exam, because they can pilot test items for inclusion in future exams and help monitor domains of national importance that may not be covered in international assessments, such as computer literacy, civics or history. Since any changes to ENEM and ENEM Series will have implications on the SAEB system, Brazil should consider these reforms together.

In addition to making decisions about the overall concept of the exam system and the future SAEB, Brazil will also need to decide how the new ENEM Series will be used as a route into higher education. Brazilian students, and those who prepare them for advanced studies, will require information about how the new ENEM Series will work and how it will relate to the existing ENEM results. Similarly, higher education institutions will need sufficient information so that they can design and implement new admissions processes. While no international example can offer a complete model for comparison, Brazil might consider insights from the United Kingdom to help inform selection policies in the longer term. The educational context in Brazil and the United Kingdom are very different; however, the latter has actively been addressing issues of equivalency across different academic pathways and types of examinations.

Box 13. Peer-learning example from the United Kingdom

The United Kingdom's qualification equivalency tariffs

The United Kingdom offers a range of alternative qualifications that applicants can use to apply for places in university of colleges. These qualifications can take various forms, such as a diploma, study certificate or examination results. The variety of available qualifications in the United Kingdom is partly

related to the fact that applicants from different parts of the country follow different school curricula, which in turn, lead to different qualifications. Some common examples of qualifications in the United Kingdom include:

- **National examinations**. In Scotland (UK), for example, secondary school leavers typically take examinations known as Scottish Highers and Scottish Advanced Highers, while in England (UK) the majority of applicants use examinations known as A-levels. Both the Scottish and English examinations consist of subject-specific tests that grade students using an alphabetical score (i.e. E, D, C, B, A, A* for A-levels and D, C, B, A for Scottish exams). Institutions tend to select applicants on the basis of a combination of these grades (e.g. ABB, BBC for A-levels etc.), rather than a single score.
- **International Baccalaureate (IB).** Some applicants in the UK will have attended secondary schools that use the International Baccalaureate (IB) system, which offers yet another examination (and curriculum) that can be used as an acceptable qualification for entering higher education. The IB diploma recognises students' successful achievement in a total of six components (subjects), some of which can be taken at what is called the Higher Level, and others at the lower Standard Level.
- **Vocational and technical qualifications.** In addition to the predominantly academic routes mentioned above, a significant number of applicants in the United Kingdom have qualifications related to vocational and technical studies.

Given the multiplicity of learning pathways and examinations, a major challenge for the UK University and Colleges Admissions Service is to establish tables of equivalence between results from independent qualification frameworks. Equivalency is achieved by assigning tariff points for the most common qualifications, which provide a common metric that tertiary institutions can use to evaluate applications. Table 6 provides an overview of the tariff points associated with some of the many qualifications that applicants can use when applying for study places in universities or colleges. A similar type of system in Brazil could provide universities and other institutions with a transparent and consistent way to compare a student's nominal results on ENEM and ENEM Series, perhaps alongside other acceptable qualifications. Ideally, INEP should investigate evidence from the databases that hold results to develop equivalence tables for Brazil's dual entry examinations. However, given that the populations of test-takers will not be comparable and that there may be no common items between the tests, it may not be possible to identify a robust, mathematical link between the alternative reporting scales.

Table 6. Equivalency tariffs for a selection of applicant qualifications in the United Kingdom

Grade	Tariff Points
A-levels (each subject)	
A*	56
A	48
B	40
C	32
D	24
E	16
IBO Certificate in Higher Level (each component)	
7	56
6	48
5	32
4	24
3	12

2	0
1	0
Scottish Advanced Higher Level (each subject)	
A	56
B	48
C	40
D	32
Scottish Higher Level (each subject)	
A	33
B	27
C	21
D	15

Note: Tariff points are for entry to higher education from 2021.
Source: (UCAS, 2021[68]), *UCAS Tariff tables, Tariff points for entry to higher education for the 2022-23 academic year*, https://www.ucas.com/file/63536/download?token=sxmdfCS- (accessed on 11 February 2021).

Policy considerations for Brazil

Consider broader changes and education reform goals when developing ENEM Series

It is positive that Brazil's federal government is adopting a careful, piloted approach for rolling out annual multi-year examinations across the upper secondary grades. The reform's general goals of motivating students and improving equity in access to higher education are positive. However, Brazil will also need to address several issues associated with the ENEM Series proposal if the new instrument is to achieve its expected goals and have a positive backwash effect on student learning. In particular, Brazil should reflect on key questions, such as:

- **How should the three year exam be used for higher education institutions admissions?** Within Brazil's complex and decentralised higher education system, there is a need for guidelines to inform higher education admission procedures once the 3-year ENEM Series is in place. These policy guidelines should be developed with input from a wide range of actors, including officials from INEP, MEC and the CNE, but also Rectors and decision makers from within Brazil's major public and private universities. In some countries, for example Israel and Sweden, issues around higher education entrance criteria and selection are the responsibility of a Higher Education Council subordinated to the respective ministries of education. As mentioned in the peer-learning example, the United Kingdom has developed transparent methods for using different instruments to compare applicants. In the longer term, Brazil might consider the benefits and challenges of having both ENEM and ENEM Series as university selection instruments.
- **How can ENEM Series reflect Brazil's broader upper secondary reforms?** Brazil should take this opportunity to consider how ENEM Series can evolve beyond a selection tool for university to better reflect the new upper secondary model and BNCC. This not only implies using test items that capture the BNCC, but also considering the potential of ENEM Series to serve as a universal certification tool that allows all students – regardless of their plans after graduation – to demonstrate achievement of the core knowledge and skills required by the BNCC. ENEM Series should also include tests in subject areas that align with the specialist pathways of the new integrated high school model. This change would reinforce Brazil's upper secondary reform but also give students a chance to showcase their abilities in areas they find interesting and which are considered valuable by the labour market. Many countries have reviewed their examinations systems in light of growing and diversifying upper secondary enrolment. For example, Kazakhstan and Serbia recently started requiring students to take a

limited set of core subject tests and an elective test (or several elective tests) chosen from a list of optional subjects (Maghnouj, S., et al., 2020[69]; OECD, 2020[70]). However, designing a comprehensive examination package that is flexible enough to accommodate diverse cohorts across a range of core and elective subjects represents a major shift from how the existing ENEM is conducted, which requires all students to take a narrow set of subject tests and leaves little flexibility for demonstrating their other abilities and personal interests.

- **How to manage the potentially negative effects of 3-year summative testing?** ENEM Series aims to be a motivating force throughout high school; however, there is a risk that students who have consistently poor results on the tests might disengage from school, which could in turn increase their chances of dropping out. This is a particular concern in Brazil since both international and national assessment data suggest that many students are advancing through the education system without mastering the core cognitive skills needed to do well on standardised tests. While ENEM Series certainly has the potential to drive improvements in student performance, the possible backwash effects of administering summative testing across all years of high school could undermine some of Brazil's broader education reform goals, namely the BNCC's ambition to recognise and support all students in developing a wider range of knowledge, skills and competencies. As a result, the federal government will need to manage these potential consequences carefully so that ENEM Series does not hinder educational equity.

Decisions about Brazil's higher education admissions policies and upper secondary examinations more generally are likely to be highly political. Therefore it is important that decisions regarding ENEM Series consider insights from a range of actors to build ownership and support for any new arrangements. Moving forward, managers and specialists in INEP and MEC should elaborate their ultimate vision for the 3-year ENEM Series, co-ordinate this with the existing ENEM and future version of SAEB in the upper secondary grades (see below) and ensure that sufficient resources are available to implement this vision.

Reflect on how the future SAEB can best compliment other large-scale student assessments at the upper secondary level, especially national exams

The OECD review team commends Brazil's decision to reconsider plans for using SAEB as a 3-year exam and piloting an innovative, multi-year exam through ENEM. This distinction between the ENEM and SAEB brands is important to avoid conflating the instruments' primary purposes. However, decisions about the purpose and design of the national assessment system at the upper secondary level should be situated within broader debates about the purpose and use of other large-scale student assessments that are administered in Brazil, namely the existing ENEM and ENEM Series (see Table 1). As Brazil reflects on how to gradually expand SAEB coverage, the federal government should consider whether a census-based assessment is necessary in Grade 3 or potentially in other high school grades. The frequency and subject areas for the future SAEB at this level should also be reviewed to avoid duplicating efforts and increasing the testing burden on students and schools.

This reflection and the subsequent design of the future SAEB and ENEM Series instruments will require time and resources that may be difficult to secure in light of the country's economic situation and the global COVID-19 pandemic. To this end, Brazil should establish a realistic and phased timeline for piloting ENEM Series and for the SAEB reform more generally. This approach will ensure that students and other stakeholders embark on a new national assessment framework with a clear picture of the entire process.

Conclusion

The core considerations and peer-learning examples included in this policy perspective aim to support Brazil in conducting a strategic reflection of potential reforms to its national assessment. Given the unpredictable and fast changing context of the COVID-19 pandemic, there is an even greater need for

policymakers and education stakeholders to collaborate and carefully plan for changes to the future SAEB. Such efforts are crucial to ensuring Brazil's complex national assessment system responds to current education challenges and helps improve teaching and learning across the country. The findings of this OECD review hope to provide purely technical insights that can complement the high level of competence and technical integrity that Brazil has at its disposal to deliver SAEB reforms.

Annex A

Table A.1. How Brazil's national assessments were organised before 2019 (now referred to as SAEB)

Name	Year*	Grades**	Subjects	Population	Frequency
Aneb	2005	Grade 4 and 8 of elementary education + Grade 3 of USE. In 2013, it became Year 5 and 9 of elementary education + Grade 3 of USE	Portuguese and Mathematics	Sample of public and private schools with at least 10 students enrolled (max 19) for elementary education + until 2017, sample of public and private schools in USE. After 2017, students in public USE were also assessed on a census basis	2-year cycle
Anresc (aka Prova Brasil)	2005	Grade 4 and 8 of elementary education. In 2013, it became Year 5 and 9 of elementary education	Portuguese and Mathematics	Census of public schools with at least 30 students enrolled	2-year cycle
ANA	2013	Year 3 of elementary education up until 2019. In 2019, students in Year 2 of elementary education were assessed instead.	Portuguese and Mathematics	Census of public schools with at least 10 students enrolled. In 2019, it was a sample assessment of public and private schools.	Annual

Notes: USE stands for Upper Secondary Education.
*Refers to the year in which the assessment officially became part of the SAEB system. As per 2019, the three different assessments are no longer referred to by their individual names and are now simply called SAEB (followed by the Year/Grade(s) in which the assessment is administered).
**In 2006, Law No. 11 274 regulated the 9–year elementary education (the duration went from 8 to 9 years), with mandatory enrolment from 6-years-old. The age of arrival at high school remained the same – 15-years-old – but students of the new system had one more year of preparation. The legislation established that the new model should be implemented by all schools by 2010. In practice, for example, the former Grade 1 of primary education became Year 2 and so on, up until the former Grade 8, which became Year 9.
Source: (INEP, n.d.[12]), *Histórico SAEB [Historical SAEB],* http://portal.inep.gov.br/web/guest/educacao-basica/saeb/historico (accessed on 11 February 2021).

Evaluation and Assessment

This document was prepared by the team responsible for evaluation and assessment in education reviews at the OECD.

The OECD Evaluation and Assessment Review provides analysis and policy advice on how the design, implementation and use of assessment and evaluation procedures can help countries achieve their educational objectives and improve student outcomes.

For more information

Contact: Elizabeth Fordham, Elizabeth.Fordham@oecd.org

See: OECD Reviews of Evaluation and Assessment in Education

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment, Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris*.

References

Agência Brasil (2021), *Censo Escolar 2020 aponta redução de matrículas no ensino básico [School Census 2020 points to a reduction in enrollments in basic education]*, https://agenciabrasil.ebc.com.br/educacao/noticia/2021-01/censo-escolar-2020-aponta-reducao-de-matriculas-no-ensino-basico (accessed on 25 May 2021). [32]

Agencia de Calidad de la Educación (2018), *Nuevo Sistema Nacional de Evaluación de Aprendizajes: La evaluación al servicio de los aprendizajes [New National Learning Assessment System: Assessment in the Service of Learning]*, Agencia de Calidad de la Educación, Santiago, Chile, http://archivos.agenciaeducacion.cl/Sistema_Nacional_de_Evaluacion_17abr.pdf (accessed on 29 June 2021). [58]

Agência Minas (2020), *Governo de Minas cria o prêmio "Ideb Transformação" [Government of Minas Gerais creates the "Ideb Transformation" Award]*, http://agenciaminas.mg.gov.br/noticia/governo-de-minas-cria-o-premio-ideb-transformacao (accessed on 26 May 2021). [57]

Bank, W. (ed.) (2012), *Achieving World-Class Education in Brazil : The Next Agenda. Direction in Development*, Wordk Bank, http://hdl.handle.net/10986/2383. [31]

Biggs, J., K. Collis and A. Edward (2014), *Evaluating the quality of learning: The SOLO taxonomy (Structure of the Observed Learning Outcome).*, Academic Press. [48]

Brown, G. (2019), "Technologies and infrastructure: costs and obstacles in development large-scale computer-based testing", *Education Inquiry*, Vol. 10:1, pp. 4-20, https://doi.org/10.1080/20004508.2018.1529528. [65]

California Department of Education (n.d.), *Smarter Balanced Assessment System*, https://www.cde.ca.gov/ta/TG/sa/ (accessed on 11 May 2021). [61]

CEDEFOP and European Center for the Development of Vocational Training (2017), *Job Opportunities: 2016 Skills Forecasts*, http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/job-opportunities (accessed on 17 August 2017). [72]

DBE (2020), *Department of Basic Education Annual Perforamnce Plan 2020/2021*, Department of Basic Education, Republic of South Africa, https://www.education.gov.za/Portals/0/Documents/Reports/Revised%20202021%20APP%20July%202020.pdf?ver=2020-08-26-095030-437 (accessed on 26 May 2021). [42]

DBE (2018), *Official Guide to South Africa Education 2018/19*, Department of Basic Education (DBE), Republic of South Africa, https://www.gcis.gov.za/sites/default/files/docs/resourcecentre/pocketguide/2012/09-Education-2018-19%28print%29%20.pdf (accessed on 26 May 2021). [41]

Government of the United Kingdom (n.d.), *Office of Qualifications and Examinations Regulations (Ofqual)*, https://www.gov.uk/government/organisations/ofqual/about (accessed on 26 May 2021). [37]

Governo do Estado de São Paulo (2019), , https://saresp.fde.sp.gov.br/Arquivos/SEED1903_sumario_2019_final_v2.pdf (accessed on 13 November 2020). [20]

Governo do Estado de São Paulo (n.d.), *Saresp permite monitorar avanços da educação básica no Estado [Saresp allows to monitor progress of basic education in the State]*, https://www.educacao.sp.gov.br/saresp (accessed on 13 November 2020). [19]

Grupo de Trabalho de Avaliação do CONSED (2018), *GT CONSED Avaliação da Educação Básica Relatório [CONSED WP Evaluation of Basic Education Report]*, CONSED, Instituto Ayrton Senna, Instituto Unibanco, Fundação Itaú Social, http://www.consed.org.br/media/download/59ef86cca3349.pdf (accessed on 25 November 2020). [13]

IBGE (2020), *Pnad Contínua: Características gerais dos domicílios e dos moradores 2019 [Pnad Contínua: General characteristics of households and residents 2019]*, Instituto Brasileiro de Geografia e Estatística, Rio de Janeiro, https://biblioteca.ibge.gov.br/visualizacao/livros/liv101707_informativo.pdf (accessed on 14 September 2020). [77]

IBGE (2019), *Desigualdades Sociais por Cor ou Raça no Brasil [Social Inequalities by Colour or Race in Brazil]*, Instituto Brasileiro de Geografia e Estatística, https://biblioteca.ibge.gov.br/visualizacao/livros/liv101681_informativo.pdf (accessed on 5 May 2020). [78]

IBGE (2019), *Síntese de Indicadores Sociais: Uma análise das condições de vida da população brasileira 2019 [Synthesis of Social Indicators: An analysis of the living conditions of the Brazilian population 2019]*, Instituto Brasileiro de Geografia e Estatística, Rio de Janeiro, https://biblioteca.ibge.gov.br/visualizacao/livros/liv101678.pdf (accessed on 23 April 2020). [79]

ICFES (2016), *ISCE: Guía Metodológica [ISCE: Methodological Guide]*, Instituto Colombiano para la Evaluación de la Educación, Bogotá, Colombia, https://www.icfes.gov.co/edicion-05-boletin-saber-en-breve (accessed on 19 May 2021). [55]

INEP (2020), *Censo da Educação Básica 2019: Resumo Técnico [Basic Education Census 2019: Technical Summary]*, Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, Ministério da Educação, Brasília, https://download.inep.gov.br/publicacoes/institucionais/estatisticas_e_indicadores/resumo_tecnico_censo_da_educacao_basica_2019.pdf (accessed on 15 February 2021). [15]

INEP (2020), *Data provided by INEP*, OECD. [33]

INEP (n.d.), *Histórico SAEB [Historical SAEB]*, http://portal.inep.gov.br/web/guest/educacao-basica/saeb/historico (accessed on 11 February 2021). [12]

INEP (n.d.), *National Institute of Educational Studies and Research Anisio Teixeira [Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira]*, http://portal.inep.gov.br/web/guest/educacao-basica/saeb/historico. [50]

Jewsbury, P. et al. (2020), "NCES 2017 NAEP Transition to Digitally Based Assessments in Mathematics and Reading at Grades 4 and 8: Mode Evaluation Study,", *NCES 2020*, https://nces.ed.gov/nationsreportcard/bda (accessed 09/02/2021). [66]

Joyce, C. and J. Fischer (2018), *OTJs, Learning Progression Frameworks, and the ARBs*, https://arbs.nzcer.org.nz/otjs-learning-progression-frameworks-and-arbs (accessed on 11 May 2021). [62]

Kankaraš, M. (2019), ""Assessment framework of the OECD Study on Social and Emotional Skills"", *OECD Education Working Papers* 207, https://doi.org/10.1787/5007adef-en. [46]

Kellaghan, T. and V. Greaney (2019), *Public Examinations Examined*, The World Bank, http://dx.doi.org/10.1596/978-1-4648-1418-1. [80]

Kellaghan, T., V. Greaney and T. Murray (2009), *Using the Results of a National Assessment of Educational Achievement National Assessments of Educational Achievement*. [64]

Kim, S., S. Ra and K. Rhee (2019), *Developing National Student Assessment Systems for Quality Education: Lessons from the Republic of Korea*, Asian Development Bank, Manila Philippines, https://dx.doi.org/10.22617/TCS190597-2. [54]

Lambert, P. (2016), "Educational Standards and Australia: a changed landscape", *Revista Brasileira de Estudos Pedagógicos*, Vol. 97/247, pp. 463-471, https://dx.doi.org/10.1590/s2176-6681/291437381. [44]

Lemann Foundation (accessed June 2021), *QEdu*. [53]

Machado, C., O. Alavarse and P. Arcas (2015), "Sistemas estaduais de avaliação: interfaces com qualidade e gestão da educação [State assessment systems: interface with quality and education management]", *RBPAE*, Vol. 31/3, pp. 667-680, https://doi.org/10.21573/vol31n32015.63800. [16]

Maghnouj, S., et al. (2020), *OECD Reviews of Evaluation and Assessment in Education: Serbia*, OECD Publishing, Paris, https://doi.org/10.1787/225350d9-en. [69]

MEC (2021), *Diário Ofical da União Portaria No. 10, de 8 de Janeiro de 2021 [Official Diary of the Union Ordinance No. 10 of January 8, 2021]*, Ministry fo Education and the National Institute of Educational Studies and Research Anísio Teixeira, https://www.in.gov.br/en/web/dou/-/portaria-n-10-de-8-de-janeiro-de-2021-298322305. [39]

MEC (2021), *Diário Oficial da União, Portaria nº10, de 8 de Janeiro de 2021 [Official Diary of the Union, Ordinance No. 10 of January 8, 2021*, Ministério da Educação e Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, https://www.in.gov.br/en/web/dou/-/portaria-n-10-de-8-de-janeiro-de-2021-298322305 (accessed on 2 February 2021). [28]

MEC (2020), *Organograma [Organizational Chart]*, https://www.gov.br/mec/pt-br/estrutura-organizacional/organograma (accessed on 6 August 2020). [27]

MEC (2020), *Perguntas e respostas sobre o Clique Escola [Questions and answers about Click School]*, https://www.gov.br/mec/pt-br/assuntos/noticias/perguntas-e-respostas-sobre-o-clique-escola (accessed on 11 February 2021). [82]

MEC (2014), *Plano Nacional de Educacao 2014-24 (PNE) [National Education Plan 2014-24], Ministry of Education*, http://pne.mec.gov.br/. [22]

MEC (n.d.), *Histórico da BNCC (BNCC History)*, http://basenacionalcomum.mec.gov.br/historico (accessed on 5 February 2021). [35]

MEC (n.d.), *Resultados [Results]*, https://www.gov.br/inep/pt-br/areas-de-atuacao/avaliacao-e-exames-educacionais/saeb/resultados (accessed on 2021 February 2021). [81]

Medeiros, M. (2016), *Income inequality in Brazil: new evidence from combined tax and survey data*, UNESCO, Paris, https://unesdoc.unesco.org/ark:/48223/pf0000245825 (accessed on 4 June 2020). [9]

Mineducación (2020), *Índice Sintético de la Calidad Educativa - ISCE [Synthetic Index of Educational Quality -ISCE]*, https://www.mineducacion.gov.co/1759/w3-article-397385.html?_noredirect=1 (accessed on 19 May 2021). [56]

Ministério da Educação (n.d.), *Base Nacional Comum Curricular [Common Core Curriculum]*, Ministério da Educação, http://basenacionalcomum.mec.gov.br/images/BNCC_EI_EF_110518_versaofinal_site.pdf (accessed on 15 February 2021). [29]

Ministério da Educação (n.d.), *Sistema de Avaliação da Educação Básica (Saeb) [Basic Education Assessment System (Saeb)]*, https://www.gov.br/inep/pt-br/areas-de-atuacao/avaliacao-e-exames-educacionais/saeb (accessed on 11 May 2021). [34]

Ministry of Education (n.d.), *Assessment tool selector*, https://assessment.tki.org.nz/Assessment-tools-resources/Assessment-tool-selector/(tab)/Choose-a-tool (accessed on 11 May 2021). [63]

Monte, J. (2018), *Sistema de avaliação educacional de Teresina: apropriação e utilização dos resultados para a orientação e intervençoes pedagógicas [Teresina's educational evaluation system: appropriation and use of results for guidance and pedagogical interventions]*, Universidade Federal de Juiz de Fora, Juiz de Fora, https://repositorio.ufjf.br/jspui/bitstream/ufjf/7163/1/jomairapereiramonte.pdf (accessed on 13 November 2020). [21]

Morris, A. (2011), *"Student Standardised Testing: Current Practices in OECD Countries and a Literature Review"*, OECD Publishing, Paris, https://doi.org/10.1787/5kg3rp9qbnr6-en. [18]

NAEP (n.d.), *The Nations Report Card*, https://www.nationsreportcard.gov/ (accessed on 26 May 2021). [36]

NAP (2016), *FAQs*, https://www.nap.edu.au/naplan/faqs (accessed on 26 May 2021). [43]

Newton, P. (2007), "Clarifying the purposes of educational assessment", *Assessment in Education: Principles, Policy & Practice*, Vol. 14/2, pp. 149-170, http://dx.doi.org/10.1080/09695940701478321. [38]

Nusche, D. et al. (2015), *OECD Reviews of School Resources: Flemish Community of Belgium 2015*, OECD Reviews of School Resources, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264247598-en. [74]

Nusche, D. et al. (2016), *OECD Reviews of School Resources: Austria 2016*, OECD Reviews of School Resources, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264256729-en. [76]

OECD (2021), *Education in Brazil: an International Perspective*, OECD Publishing, Paris, https://doi.org/10.1787/60a667f7-en. [4]

OECD (2021), *Education Policy Outlook: Brazil With a focus on national and subnational policies*, OECD Publishing, Paris, https://www.oecd.org/education/policy-outlook/country-profile-Brazil-2021-EN.pdf (accessed on 30 June 2021). [6]

OECD (2020), *"Strengthening national examinations in Kazakhstan to achieve national goals"*, OECD Publishing, Paris, https://doi.org/10.1787/0bf8662b-en. [70]

OECD (2020), *OECD Economic Surveys: Brazil 2020*, OECD Publishing, Paris, https://dx.doi.org/10.1787/250240ad-en. [10]

OECD (2020), *OECD Economic Surveys: Brazil 2020*, OECD Publishing, Paris, https://doi.org/10.1787/250240ad-en. [11]

OECD (2020), *OECD Economic Surveys: Brazil 2020*, OECD Publishing, Paris, https://doi.org/10.1787/250240ad-en. [30]

OECD (2019), *PISA 2018 Results (Volume I): What Students Know and Can Do*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/5f07c754-en. [2]

OECD (2019), *PISA 2018 Results (Volume I): What Students Know and Can Do*, PISA, OECD Publishing, Paris, https://dx.doi.org/10.1787/5f07c754-en. [3]

OECD (2018), *Education Policy Outlook: Mexico*, OECD Publishing, Paris, https://www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Mexico-2018.pdf (accessed on 26 May 2021). [40]

OECD (2018), *OECD Economic Surveys: Brazil 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-bra-2018-en. [7]

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eag-2017-en. [75]

OECD (2016), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264267510-en. [73]

OECD (2015), *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264226159-en. [45]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en. [47]

OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264087460-en. [71]

Presidência da República (2020), *Constituição da República Federativa do Brasil de 1988 [1988 Constitution of the Federative Republic of Brazil]*, http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm (accessed on 19 August 2020). [25]

Presidência da República (1996), *Lei Nº 9.394, de 20 de Dezembro de 1996 [Law No. 9.394 of December 20, 1996]*, http://www.planalto.gov.br/ccivil_03/leis/l9394.htm (accessed on 6 August 2020). [26]

Ramírez, M. (2012), *Disseminating and Using Student Assessment Information in Chile. Systems Approach for Better Education Results (SABER) student assessment working paper*, World Bank, Washington, DC, https://openknowledge.worldbank.org/handle/10986/17474 (accessed on 10 February 2021). [59]

Rosenkvist, M. (2010), *"Using student test results for accountability and improvement: A literature review"*, OECD Publishing, https://doi.org/10.1787/19939019. [17]

SASE/MEC (2015), *Instituir um Sistema Nacional de Educação: agenda obrigatória para o país [Instituting a National Education System: mandatory agenda for the country]*, Ministério da Educação, http://pne.mec.gov.br/images/pdf/SNE_junho_2015.pdf (accessed on 21 October 2020). [23]

SASE/MEC (2014), *O Sistema Nacional de Educação [The National Education System]*, Ministério da Educação, http://pne.mec.gov.br/images/pdf/sase_mec.pdf (accessed on 21 October 2020). [24]

Schwartzman, S. and M. Knobel (2016), *High-stakes Entrance Examinations: A View from Brazil*, International Higher Education, http://dx.doi.org/10.6017/ihe.2016.85.9242. [67]

Secretaria da Educação do Estado de São Paulo (2019), *Resolução SE nº 52, de 4-10-2019 [Resolution SE nº 52, de 4-10-2019]*, Secretaria da Educação do Estado de São Paulo, [14]

http://siau.edunet.sp.gov.br/ItemLise/arquivos/52_19.HTM?Time=25/11/2020%2008:36:48 (accessed on 25 November 2020).

SEDUC (2020), *Seduc divulga ranking do IDEB por escolas e Coordenadorias Regionais de Educação no RS [Seduc publishes IDEB ranking by schools and Regional Education Coordination Centres in RS]*, https://educacao.rs.gov.br/seduc-divulga-ranking-do-ideb-por-escolas-e-coordenadorias-regionais-de-educacao-no-rs (accessed on 17 February 2021). [52]

The Regents of the University of California (2020), *A Smarter System: A Decade of Advancing Teaching and Learning*, https://smarterbalanced.org/our-system/ (accessed on 11 May 2021). [60]

Tide Setubal Foundation (n.d.), *The Inequality and Learning Indicato (IDeA) for Brazilian Municipalities, accessed May 2021*. [51]

Todos Pela Educação (2020), *Anuário Brasileiro da Educação Básica 2020 [Brazilian Yearbook of Basic Education 2020]*, Todos Pela Educação, https://www.todospelaeducacao.org.br/_uploads/_posts/456.pdf?1969753478/=&utm_source=content&utm_medium=site-todos (accessed on 7 July 2020). [5]

UCAS (2021), *UCAS Tariff tables, Tariff points for entry to higher education for the 2022-23 academic year*, https://www.ucas.com/file/63536/download?token=sxmdfCS- (accessed on 11 February 2021). [68]

Webb, N. (2002), *Depth-of-Knowledge Levels for Four Content Areas*, http://ossucurr.pbworks.com/w/file/fetch/49691156/Norm%20web%20dok%20by%20subject%20area.pdf . [49]

World Bank (2020), *The World Bank in Brazil*, https://www.worldbank.org/en/country/brazil/overview#1 (accessed on 1 May 2020). [1]

World Bank (2020), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 1 May 2020). [8]