United Nations
Educational, Scientific and
Cultural Organization

- Sustainable
- Development
- Goals

Removing Language Barriers
in Learning Assessments

Maggie Yue Zhao

The University of Hong Kong

Shuting Huo

ABSTRACT

The Asia-Pacific region is linguistically diverse and this creates a challenge for equitable, quality education. Approximately 40 per cent of the population in the region has very limited access to education delivered in his/her mother tongue (Malone & UNESCO, 2018). This thematic review is framed within UNESCO's commitment to quality education for all, and aims at addressing the following questions: 1) how to ensure educational assessment is equitable and fair for linguistically diverse students and 2) how learning assessments can be used as a tool to promote educational practices that directly address the need of linguistically diverse students.

The findings indicate that embracing linguistically diverse students' mother tongue in the learning assessment process is critical. This includes assessing students' mother tongue language skills and proficiency, and considering students' mother tongue language background when assessing skills in the dominant language. In addition, linguistically diverse students' needs should also be considered in the instruction and assessment of academic subjects other than language and literacy.

KEY WORDS

inclusive education, equity, mulit-lingual education, learning assessments, Asia-Pacific

NEQMAP
Network on Education Quality
Monitoring in the Asia-Pacific

Education 2030

INTRODUCTION

In many countries, large numbers of children are taught and assessed in languages that they do not speak at home, hindering the early acquisition of critically important reading and writing skills. Being taught in a language other than one's mother tongue can hinder the extent to which children benefit from education and live up to their potential (Benson, 2016). According to Malone and UNESCO (2018), an estimated 40 per cent of the world's population receives education delivered in a second/additional language and have limited access to instruction in their mother tongue. In the Asia-Pacific region, an incredibly ethnolinguistically diverse region, an estimated 3,200 languages belonging to 28 linguistic families (OCHA, 2011). Ethnolinguistic minority children often come from households of low social economic status, and are among the lowest performers, leading to the risk of dropping out of school or not progressing (UNESCO, 2019). An achievement gap between the majority group and ethnic groups is well documented in many countries such as Singapore (Dixon, 2005) and Australia (Klenowski, 2009). International and regional learning assessments confirm that when home and school languages differ there is an adverse impact on test scores (UNESCO, 2016).

Purpose

This thematic review is framed within Sustainable Development Goal (SDG) 4, which aims "to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2015). This thematic review examines more closely the commitment to quality education for all, specifically by looking at the following questions: 1) how to ensure linguistically diverse students have access to quality learning assessments, and 2) how learning assessments can be a tool to promote educational practices that directly address the need of linguistically diverse students.

The review looks at some specific intervention programmes for multilingual learners and how they used learning assessments to not only measure learning outcomes, but also as tools for programme evaluation, highlighting the important role learning assessments can play in policy interventions. In addition, the review presents how public examinations and school-based assessments can accommodate learners of second languages, particularly ethnolinguistic minorities learning through a separate dominant language.

BACKGROUND

The Asia-Pacific region comprises 47 countries located in or near the western Pacific Ocean throughout East and South Asia, Southeast Asia and Oceania. These counties are widely spread on the spectrums of political systems, income, and the level of cultural/linguistic diversity. Countries like Japan and Republic of Korea only officially recognize 2 or 3 languages (Baldauf & Nguyen, 2012). In contrast, many countries in South East Asia are much more linguistically diverse. While India recognizes 23 official languages, spoken in different parts of the country, and has no national language, the number of living languages in the country is 447, and 419 of which are indigenous. And in Thailand, there are 73 living languages with only one official language (Eberhard, Simons, & Fenning, 2019).

Policy

Language policy varies drastically across countries. Countries like Singapore adopt a bilingual approach in which English is the official language of instruction (LOI) and students have the opportunity to study one of the other three accepted official languages, Mandarin, Malay, or Tamil (Kosonen, 2017). However, only the four officially recognized languages of the country are offered in this bilingual approach even though there are 24 living languages in Singapore (Eberhard, Simons, & Fenning, 2019). Similarly, Indonesia relies only on its national language as the sole LOI although there are a total of 707 living languages in the country, making it the most linguistically diverse country in Asia (Eberhard, Simons, & Fenning, 2019).

On the other hand, language policy in countries like India celebrates the pluralistic nature of the country by taking a three-language approach utilizing the mother tongue or regional language, official language of the territory, and a national language. The Philippines presents an interesting example of an inclusive approach to language and education in policy. Republic Act number 10533, passed in 2013, strengthened the countries commitment to a MTB-MLE approach to learning by utilizing the learners' first and dominant language as the LOI in earlier years with a gradual transition to Filipino and English over time (Kosonen, 2017).

Policy for inclusive education also varies in accommodating language needs. The need of language support (except sign language) is not addressed in inclusive education policies in some countries (Japan) (Isogai, 2017), while more explicitly referenced in others (Lao PDR and Hong Kong (SAR China)) (Hong Kong Bureau of Education, 2013; Grimes, 2011). Various factors hinder the development or implementation of inclusive language policies throughout the region including but not limited to a lack of resources or political will, the practicality in areas with numerous language groups, limited understanding of the benefits of using mother-tongue languages in instruction, and the delicate relationship between nation building and language.

Achievement gap

Children who speak minority languages not taught in the classroom often enter school with low self-esteem and learning needs that teachers may feel unable to meet. This plays a significant role in the poor learning achievements of ethnolinguistic minority students. According to the 2011 PIRLS assessment, in countries where at least 10 per cent of students reported speaking a different language at home from the one they were tested in, these ethnolinguistic minority students' likelihood of achieving minimum learning standards in reading was lower than for students whose home language was the language of assessment (UNESCO, 2013).

Although there can be many factors contributing to this gap such as culture, gender and social economic status, language plays an important role even holding the above factors constant (Benson, 2016). It is indicated in the 2019 Global Education Monitoring Report (UNESCO, 2019) that many children have dropped out of school because they cannot understand their teachers in class. A direct solution to this problem is to provide instruction mediated in their mother tongue. This approach has been supported by research evidence with children of immigrant background in developed countries. Studies show that children with a history of leaning literacy in their mother tongue, in comparison to immigrant children without such a history, perform at a higher level in English language and literacy and other school subjects (e.g. Gunderson, D'Silva & Odo, 2012).

MOTHER TONGUE-BASED MULTILINGUAL EDUCATION (MTB-MLE) PROGRAMMES

South-East Asia has witnessed several mother tongue-based multilingual education (MTB-MLE) programmes in recent decades. MTB-MLE is an education programme for children who do not understand or speak the official school language when they begin school. MTB-MLE students learn to read and write first in their mother tongue. They use their mother tongue (MT) as the language of instruction for learning to understand, speak, read and write the official school language (and additional languages according to the curriculum). They use both their MT and the official language for learning in later grades. The goal of strong MTB-MLE programmes is that students will become fully bilingual, biliterate and bicultural and achieve a quality education (Malone & UNESCO, 2018).

Although supported by theory and evidence, formal education systems in the developing world were reluctant to embrace local mother tongues (Malone & UNESCO, 2018). Stakeholders are skeptical about the programme for several reasons, including: 1) learning one's mother tongue will hinder children's

development of proficiency in the dominant national language; 2) receiving instruction in students' mother tongue will result in poor performance in other school subjects, and 3) teaching students' mother tongue will result in conflicts and tension among ethnic groups. Several systematic evaluation projects have been conducted to evaluate the effectiveness of MTB-MLE programmes while addressing those concerns.

To highlight how mother tongue education can have an impact on learning outcomes, two recent studies evaluated the effectiveness of mother tongue based multilingual programmes in Thailand (UNICEF Thailand, 2018) and Timor-Leste respectively (Walter, 2016). Thailand and Timor-Leste are both multilingual societies with many languages of great vitality. However, in the regions where these MTB programmes were conducted, the population is largely monolingual, and speaking an ethnolinguistic minority language different from the dominant language. The background of the programmes is listed in Table 1.

Table 1: Background information of two MTB-MLE programmes in South East Asia

Programme	Patani Malay – Thai Bilingual/ Multilingual Education (PMT-MLE)	Ethnic Minorities based Language of Intstruction (EMBLI)
Dominant Language	Thai	Portuguese/Titun Dili
Language of Instruction	Patani Malay	Fatuluku in Lautem, Galoli in Manatuto, Baikeno in Oecusse
Programme goals	Fluency in oral and written languages in mother tongue and dominant language; acceptance of the communities; reaching academic standards in other subjects	Literacy in mother tongue, language proficiency in dominant languages, mathematical competency

The detailed specification of the programme goals and assessment purposes varied between the two programmes. The Ethnic Minorities based Language of Instruction (EMBLI) project in Timor Leste targeted young learners and the assessment focused on literacy skills in their mother tongue. The Patani Malay— Thai Bilingual/Multilingual Education (PMT-MLE) project was delivered to students from grade 1 to 6 and the purpose of assessment was to make inference about students' overall academic competencies. Each project used learning assessments as part of the evaluation process to determine the efficacy of the interventions, and to measure learning outcomes. They included the following, 1) to measure the extent to which the goal of full bilingualism is met, such that students develop oral and writing skills in both mother tongue and the dominant language, and 2) to convince stakeholders of the programmes' superiority over the status quo, which is the dominant-language-mediated education programmes.

Patani Malay-Thai Multilingual Education (PMT-MLE) Project

To address the concern that the MTB-MLE approach may hinder learning of other subjects, the PMT-MLE students' overall academic performance was compared against that of separate control schools.To make sure the result of the comparison is valid, the development of the instrument ensured that the content of the assessment matched the performance indicators published by the Ministry of Education. The team also consulted the teachers to ensure that the content of the assessment matched what had been taught in classes. This practice strengthens the fairness of the assessment so that students are not being tested on what they have not learned. The team also made efforts to remove the barriers that are irrelevant to the targeted construct. For example, students were given mock sessions and explained fully on how the multiple-choice questions work prior to the actual evaluations. For students in grades 1–3, the test was delivered in both Patani-Maly and Thai, and for students in grades 4–6, it was delivered in Thai. This was designed to match the language of instruction to the language of assessment. Pass rates on each academic subject were calculated for the PMT-MLE students and the control students. The pass rate serves as a better indicator for programme effectiveness than raw scores, as the former is easier to interpret and better aligned with educational goals and basic skills development.

This assessment was conducted annually for 7 years following two cohorts of students across the entire elementary school career. This design allowed the users of the assessment results to generalize across grades in elementary school. The findings indicated that PMT-MLE students consistently outperformed the control students in all subjects (Thai, Science and Mathematics). This result was used as evidence for the programme's effectiveness in providing equitable, quality education over the status quo. In addition to academic performances across the school calendar, the MLE students' relative standing in the national examinations in grade 6 was compared against the control students who receive education in Thai-English bilingual schools. Overall, the two groups of students were comparable on their performance in national examinations results, with little difference in overally learning outcomes. This finding served as convincing and credible evidence of programme's effectiveness.

Admittedly, the advantage of the PMT-MLE project is obvious. However, the researchers did not establish group equivalence at the start of the programme. As a result, it is hard to defend against the argument that the programme advantage is due to group differences before the start of school rather than the programme teaching. To address this concern, the academic gain calculated as the difference between two time points could serve as a better indicator of the programme effect. Since this method excludes the influence of group difference at the onset of teaching, and thus produces a conclusion of better validity. The group equivalence is hard to establish when evaluating the effectiveness of MTB-MLE programmes due to the variation of many factors. A possible solution is to include a large sample from both MTB-MLE and its corresponding comparison programmes, and collect background information as much as possible from both groups. The information can later be used to create matched groups of children who are from very similar background but receiving different educational programmes (Dehejia & Wahba, 2002). The group difference will then be measured at the end of the teaching period. If significant, it can thus serve as evidence of better validity.

Ethnic Minorities based Language of Instruction (EMBLI) Project

The EMBLI project in Timor-Leste kept many practices consistent with the PMT-MLE evaluation project. They both used standardized measures that have public credibility and curriculum-based assessment (CBA) measures that better assess students' academic performance.

Different from the PMT-MLE programme, the challenge of the EMBLI project was that MTB programmes were carried out in three districts with different community languages. To include teachers and students from the three districts in one evaluation project, the assessment procedure and instruments needed to be made equivalent across multiple languages. The local languages and communities for this project included: Fatuluku in Lautem, Galoli in Manatuto, Baikeno in Oecusse, while Tetun Dili and Portuguese are official languages. In the evaluation project, a master copy of the CBA was first produced in Tetun Dili using suggested content supplied in English. The Tetun Dili version was created by a native speaker of Tetun Dili. The version in Tetun Dili was checked and rechecked by other speakers of Tetun Dili and then reviewed yet again in a workshop in which the assessment team was being trained. By the end of the workshop, a reasonable degree of agreement was reached about the adequacy of the translation. A professional Portuguese translator who also spoke Tetun Dili did the Portuguese version of the CBA. Native speakers of the respective languages who spoke Tetun Dili translated the other three versions.

To address the goal of developing oral proficiency and literacy skills in the mother tongue language, the EMBLI team translated the Early Grade Reading Assessment (EGRA) into the three community languages. EGRA is a well-accepted literacy assessment instrument, which covers a comprehensive range of early literacy skills supported by reading theories, and has been widely used in different languages and countries. EGRA was used as a tool to document MTB-MLE students learning progress in their mother tongue from preschool to grade 2. Their performances were compared against other monolingual children who spoke the local language and received education in the dominant language mediated programmes. The results show that 72 per cent of EMBLI students became good readers by grade 2, whereas the percentage was 36 for the regular public programme that is mediated in the dominant language.

In addition to measuring the performance and learning outcomes of students, these projects demonstrate that learning assessments play an important role in educational equity is as an evaluative tool. Learning assessments can be used as a tool to provide evidence of effectiveness for educational practices that directly address the needs of linguistically diverse students. Mother tongue based multilingual education programmes that aim to improve academic performances of children whose mother tongue is different from the language of instruction and whose learning is impeded by the language mismatch at school (Malone & UNESCO, 2018). Results from rigorously designed- and-implemented evaluation/assessment projects can serve as evidence for effectiveness of these MTB programmes.

LEARNING ASSESSMENTS AND ACCOMMODATIONS FOR LINGUISTICALLY DIVERSE STUDENTS

Public examinations and school-based assessments are two types of learning assessments. The primary purpose they serve is to make inference about students' learning at individual level. Public examinations support inferences about students' final learning outcomes, thus are summative. School-based assessment, despite having a long history serving summative purposes, also serves a significant formative purpose, which is to facilitate students' learning (Ho & UNESCO, 2013). The following sections shows different accommodation practices for linguistically diverse students across these two type of assessments. In each case, varying arrangements and accommodations are made regarding the linguistic status of test takers, shedding light on how different societies with different educational systems and policies aim to provide inclusive and equitable learning outcomes.

Public examinations

Public examinations are specifically designed for the purposes of certifying or selecting students. Public examinations usually cover the main subject areas in the school curriculum and are delivered to all students at the designated age or grade level (usually at the end of upper secondary schooling) (Ho & UNESCO, 2013). Public examinations are standardized tests, which present the same or very similar test materials to all test takers, maintain close adherence to stipulated procedures for test administration, and employ prescribed scoring rules that can be applied with a high degree of consistency across individuals. Administering the same questions or commonly scaled questions to all test takers under the same conditions promotes fairness and facilitates comparisons of scores (AERA, APA & NCME, 2014).

However, public examinations are also high-stake tests, and failing or performing poorly on these tests can have dire consequences for learners' future studies and employment. Therefore, examination and assessment development teams attempt to accommodate linguistically diverse students to a certain degree to avoid unfair comparison against their counterparts who are native speakers of the dominant language in the society.

In China, the formal education system acknowledges multilingual educational programmes in which instruction is mediated in both students' mother tongue and Mandarin Chinese. These programmes are available in 11 minority languages including Uygur, Kazakh, Mongolia, Kirgiz, Tajik, Thibe, Uzbek, Tatar, Daur, Tibet, Russia (Zhou, 2014). For the National College Entrance Examination (NCEE) in mainland China, alternative test forms in minority languages are offered to linguistically minority students in all subjects except Mandarin Chinese. English, a mandatory subject in the original examination, is made elective in the alternative test forms. The rationale for this modification is that linguistically diverse students have fulfilled the language requirement by learning both mandarin Chinese and their mother tongue (CERNET Corporation, 2018). The alternative test forms are not equivalent with the ones in Mandarin Chinese. This is because the curricula are different between monolingual and multilingual programmes, and the context of the examination needs to match with the curricula. The Mandarin Chinese language test is not identical in the alternative test form to the original examination, as it is meant for students whose mother tongue is not Chinese and who learn Chinese as a second language (CERNET Corporation, 2018). Although the option of alternative test

forms is available, ethnolinguistic minority students can choose to take the original examination delivered in Chinese without modification. Besides the mandatory subjects, the students are required to take a language-and-literacy test on their mother tongue. The average score across mother tongue and mandarin Chinese is used to make inferences about their achievements in language and literacy. Linguistically diverse students in this condition are accredited extra points in provincial nomination for college admission using the test results.

Bilingualism is a national policy in Singapore, which recognizes four official languages: English, Mandarin Chinese, Malay and Tamil. In the formal education system, every child has to learn English, the neutral language, and one other official language as a school subject. Every student is assessed in their mother tongue at every level of national examinations until grade 12 (Lim & Tan, 1999). As bilingualism is official policy, there is no accommodation/modification for language in the national examination, the General Certificate of Education (GCE) at the end of secondary school, except that students can choose to take the language test consistent with the mother tongue subject they have learned in the curriculum.

Hong Kong Special Administrative Region (SAR), China, is a culturally diverse city, with 8 per cent of its population being ethnic minority or mobile residents. The majority of ethnic minorities in Hong Kong (SAR China) are from the Philippines, Indonesia, India, Nepal, and Pakistan (Government of Hong Kong, 2016). Children of ethnic minorities (referred to as non-Chinese speaking [NCS] students) take up 3 per cent of the student population in primary and secondary education (Hong Kong Education Bureau, 2012). However, the Hong Kong (SAR China) formal education system only accepts Chinese and English as the language of instruction and does not acknowledge NCS students' mother tongue. Accommodation of language-related needs is minimal and NCS students are not accommodated in the Hong Kong Diploma of Secondary Education (HKDSE) except in the Chinese language test (HKEAA, 2016). In Chinese language tests, a bilingual version of the test instruction, delivered in Chinese and English, is provided for NCS. The results of the alternative forms are acceptable for college application. Non-Chinese speaking students can also take the Chinese language test designed for learners who learn Chinese as an applicable language (Hong Kong Education Bureau, 2019a, 2019b).

School-based and formative assessment

School-based assessment is the process of collecting, synthesizing and interpreting information to aid school-based decision making, support student learning (formative assessment) and judge student performance at a specific point in time (summative assessment). Many countries in the Asia-Pacific region regard school-based assessments as more important for formative purposes, which is to facilitate and provide feedback for learning (Ho & UNESCO, 2013).

Although the accommodating measures offered to linguistically diverse students are limited in national high stake examinations in Hong Kong (SAR China), the government developed assessment tools to monitor NCS students' Chinese learning at the school level. The assessment is conducted annually with the NCS students, and the content of the assessment is aligned to the learning framework of learning Chinese as a second language (Hong Kong Education Bureau, 2014). In the rubric, the linguistic contrastive features between Chinese and students' mother tongue are considered. It is worth noting that using this tool, students' language proficiency is not compared against the native language speaker, but against the previous performance of their own. The letter grades in different learning areas are plotted to generate a learning profile of weaknesses and strengths of each student. The results can be used by schools and teachers to plan further instruction. A NCS student's Chinese language performance is only compared against that of native language speakers when the decision has to be made as to whether to admit the student into the mainstream Chinese language teaching.

Training teachers to utilize classroom-based assessment tools and diagnostic tools in the learners' mother tongue has potential to impact young learners with little to no knowledge of the dominant language of instruction. Early Grade Reading Assessments (EGRA) are designed to be administered orally in local languages to help teachers better evaluate young learners skills (UNESCO, 2016) and similar classroom-based tools can provide the necessary feedback and support to strengthen teaching and learning.

CONCLUSIONS AND RECOMMENDATIONS

Equity in education means quality education for all, and learning assessments are an essential component in quality education. In this sense, the purpose of assessment is to make inferences about individual student's learning (AERA, APA, & NCME, 2014). The principle of educational equity in learning assessments means that every student should have access to quality learning assessment, or in other words, assessments that are reliable, valid and measure what they intend to measure. In the case of linguistically diverse students, it means that assessment can or should adapt to the language related needs in order to obtain results on learning outcomes that are valid, reliable and fair. When assessing language and literacy abilities, a student's bilingual/multilingual status should be acknowledged.

The findings of the review indicate that current assessment practices mainly accommodate linguistically diverse students' needs in language subjects, such as mother tongue language and the dominant language. Accommodations for the assessment of other school subjects rarely takes into consideration language barrieres. This practice is under the assumption that subjects like math and science are independent of language, thus the language related accommodations are not necessary. This is problematic. Although math and science feature abstract principles and symbolic systems that are language independent, the learning of such subjects are mediated by language and contextualized. The ideal practice in assessment is to match language of assessment with language of instruction. However, the language alignment cannot be achieved in many cases. For example, an ethnolinguistic minority student has never learnt the subjects in his/her mother tongue. If context determines that the curriculum and assessment are delivered in one language, to minimize the bias against linguistically diverse students, the content of assessment items should be constructed in simple and clear language, and the writing of items should avoid using references that are culturally specific (Sireci & Faulkner-Bond, 2015).

Lessons can be learned from the MTB-MLE projects in Thailand and Timor Leste for how to utilize learning assessment results to inform education policy and practice. The design and development of learning assessments is important. The following factors need to considered: 1) the alignment between content of instrument/items and content of instruction, 2) multiple sources of evidence for effectiveness, and 3) detailed description of the experimental programme and a control group. These projects were able to show that education and assessing learners in their mother tongue was effective at improving learning outcomes, and addressed the concerns of stakeholders.

This thematic review examined different methods, accommodations and alternatives for assessing linguistically diverse students from across the Asia-Pacific region. The differing contexts, policies, and level of commitment to the inclusion of non-dominant languages make it evident that there is no one size fits all solution. The following practices are recommended for education systems, schools, teachers and governments to ensure that education programmes and assessments are inclusive and equitable for ethnolinguistic minorities.

RECOMMENDATION 1

Provide instructional assistance for ethnolinguistic minorities to learn in their mother tongue. For mother tongue based bilingual (or multilingual) education approaches to be effective, governments need to recruit teachers from minority language groups. The examples from the MTB-MLE projects in Thailand and Timor Leste suggest that learning outcomes are much improved when learners are allowed to learn and develop in their mother tongue first, or at least simultaneously to learning the dominant language. This requires finding teachers who speak the language or are from the same ethnolinguistic minority and who can be qualified to be in the classroom. This requires investment and time. In addition, education systems, schools or teachers would need to develop and/or translate curricula, pedagogical tools, and assessments into the target languages.

RECOMMENDATION 2

Provide reasonable accommodations for ethnolinguistic minorities in learning assessments. Education systems can embrace linguistically diverse students' mother tongue in the educational assessment process. This can be addressed in several settings. In public examinations and national assessments, instructions can be provided in languages other than the official languages. In classroom assessments, tools and materials can be prepared in alternative languages. A variety of assessment options reflecting the numerous instructional strategies used in the classroom can include authentic assessment, performance-based assessment, and portfolio (North Carolina Public Schools, 1999; Koh & Luke, 2009).

Teachers and support staff that understand mother tongues of the linguistically diverse students can provide support to teaching, learning and assessments. They can act as interpreters and translators to make sure the students understand instructions and the assessment. Education support staff can also be involved in the process of developing learning assessment tools as a culture and language consultant, providing inputs on whether test items are written in a biased way for minority students (Faulkner-Bond & Sireci, 2015). Resources should be allocated to provide assessment tools and assessment support in ones' mother tongue.

Students need to be taught and assessed in a language they can understand. To improve learning for all children, teachers need the support of assessment strategies that can reduce disparities in school achievement and offer all children and young people the opportunity to acquire vital transferable skills. These recommendations come with implications for available resources; however, the cost of not providing quality, equitable and inclusive education for all is much higher in the long run. By taking small measures now to improve the learning environments and the accommodations available to ethnolinguistic minority students, countries will reap the rewards and be closer to achieving SDG 4-Education 2030 targets.

Table 2: Glossary/Key Definitions

	Definition
Mother Tongue (MT)	First language or home language; the first language a child uses for communication in the home. MT and L1 are often used interchangeably. In some societies, children learn their father's language first. Nevertheless, those languages are also referred to as "mother tongues."
Dominant language (DL)	Language spoken by the dominant social group, or language that is regarded as the main language of a country. May have official or national language status even if it is not spoken by a numerical majority of the national population
Language of instruction (LOI)	Language of instruction (LOI) refers to the language designated for teaching in schools. It is sometimes called the medium of instruction. Education systems may designate the official and/or national language as the LOI at schools. Authorities commonly appoint particular LOIs for each subject area.
Mother tongue-based multilingual education (MTB-MLE)	An education programme for children who do not understand or speak the official school language when they begin school. MTB-MLE students learn to read and write first in their mother tongue. They use their MT for learning as they learn to understand, speak, read and write the official school language (and additional languages according to the curriculum). They use both their MT and the official language for learning in later grades. The goal of strong MTB-MLE programme is that students will become fully bilingual, billiterate and bicultural and achieve quality education.

	Definition
School-based assessment	School-based assessment is the process of collecting, synthesizing and interpreting information to aid school-based decision making, support student learning (formative assessment) and judge student performance at a specific point in time (summative assessment). It is primarily carried out by teachers in their classrooms.
Educational assessments/tests	Learning assessments gather information on what learners know and what they can do with what they have learnt, as well as offer critical information on the process and context that enable learning, and on those that may be hindering learning progress.
Standardized and high-stakes test	A standardized test is a test that is administered and scored in a consistent, or "standard", manner. Standardized tests are designed in such a way that the questions, conditions for administering, scoring procedures, and interpretations are consistent and are administered and scored in a predetermined and standard manner. High-stakes tests are ones that have important consequences. For example, school accreditation is tied to the scores.
Equity	Equity in education refers to the conditions for ensuring all learners have the right to education of good quality. The education system, including pedagogy, curriculum development, instruction, and assessment, should be sensitive to individual learner's characteristics that are relevant in the educational processes, and make efforts to accommodate those characteristics to remove barriers for learners to access quality education.
Fairness	In the context of learning assessment, fairness means the following 1) measurement of the construct (not outcome of assessment) is not biased; 2) the valid interpretation of the assessment results for the intended use are aimed for all individuals and relevant subgroups.
Accommodations	Accommodations are adaptations to test format or administration (such as changes in the way the test is presented, the setting for the test, or the way in which the student responds) that maintain the same construct and produce results that are comparable to those obtained by students who do not use accommodations.
Modifications	The term modification is used to denote changes that affect the construct measured by the test. With a modification, the changes affect the construct being measured and consequently lead to scores that differ in meaning from those from the original test.
Validity	Validity refers to the degree to which evidence and theory support the interpretations of assessment results for proposed uses of assessment.
Reliability	Reliability is used interchangeably with precision. It refers to the consistency of scores across replications of a testing procedure.
Programme evaluation	Programme evaluation is the set of procedures used to make judgments about a programme's design, its implementation, and its outcomes. Policy studies are somewhat broader than programme evaluations; they contribute to judgments about plans, principles, or procedures enacted to achieve broad public goals.
Alternative assessment	Alternative assessment is assessment designed for a specific group of students to take. The purpose of this type of assessment is for test takers to display their knowledge and skill on the construct being tested otherwise would not show in the regular assessment.

REFERENCES

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. 2014. *Standards for Educational and Psychological Testing*. Washington, DC: American Educational Research Association.

Baldauf, R., & Nguyen, H. 2012. Language policy in Asia and the Pacific. In B. Spolsky (Ed.), *The Cambridge Handbook of Language Policy* (pp. 617–638). CUP.

Benson, C. 2016. *Addressing language of instruction issues in education: Recommendations for documenting progress. In background paper prepared for the 2016 Global Education Monitoring Report*.

CERNET Corporation. 2018. 연2月8日). 新疆2018高考招考政策:考試部分. 擷取自 中國教育在線: https://gaokao.eol.cn/xin_jiang/dongtai/201802/t20180208_1585259.shtml

Dixon, L. 2005. Bilingual education policy in Singapore: An analysis of its socio-historical roots and current academic outcomes. *International Journal of Bilingual Education and Bilingualism*, 8(1), 25–47.

Dehejia, R. H., & Wahba, S. 2002. Propensity score-matching methods for nonexperimental causal studies. Review of Economics and statistics, 84(1), 151-161.

Eberhard, D. M., Simons, G. F., & Fenning, C. D. (Eds.). 2019. *Ethnologue: Languages of the World* (22 ed.). Dallas, Texas. Retrieved from http://www.ethnologue.com

Government of Hong Kong. 2016. 2016 *Population By-census Results.* Census and Statistics Department. Retrieved from 2016 Population By-Census: https://www.bycensus2016.gov.hk/en/bc-index.html

Grimes, P. 2011. *A Quality Education for All. A History of the Lao PDR Inclusive Education Project 1993–2009*. Save the Children Norway in Lao PDR. Retrieved from https://www.eenet.org.uk/resources/docs/A_Quality_Education_For_All_LaoPDR.pdf

Gunderson, L., D'Silva, R. A., & Odo, D. M. 2012 Immigrant students navigating Canadian schools: A longitudinal view. *TESL Canada Journal*, 142–142.

HKEAA. 2016,. *HKDSE Quality Assurance Framework*. Retrieved from Hong Kong Examination and Assessment Authority: http://www.hkeaa.edu.hk/DocLibrary/Media/Leaflets/HKDSE_QA_A4booklet_Aug2016.pdf

Ho, E.-c., & UNESCO. 2013. *Asia-Pacific Education System Review Series No. 5: Student Learning Assessment* (2 ed.). Paris, France: UNESCO. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000217816

Hong Kong Education Bureau. 2012. *Statistics on the Non-Chinese Speaking (NCS) Student Population in Hong Kong (2006–2011)*. Retrieved from https://www.eduhk.hk/diversityproject/Outputs%20and%20downloads/Doc/EDB%20Statistics%20on%20the%20NCS2012.pdf

Hong Kong Education Bureau. 2013. *Acceptance of alternative qualification(s) in Chinese Language for JUPAS admission*. (2013). Retrieved from Education Bureau in Government of Hong Kong Special Administrative Region: https://www.edb.gov.hk/en/student-parents/ncs-students/about-ncs-students/jupas-admission.html

Hong Kong Education Bureau. 2014. *Education Bureau Circular No. 8/2014, Enhanced Chinese Learning and Teaching for Non-Chinese Speaking Students*. Retrieved from Education Bureau, HKSAR: https://www.edb.gov.hk/attachment/en/student-parents/ncs-students/new/CM_2014%2006%2005_E.pdf

Hong Kong Education Bureau. 2019. *Applied Learning Chinese (for non-Chinese speaking students) – Course Information (2017–19 Cohort)*. Retrieved from Education Bureau, HKSAR: https://www.edb.gov.hk/en/curriculum-development/cross-kla-studies/applied-learning/applied-learning-chinese/course-information%20(2017-19%20Cohort).html

Hong Kong Education Bureau. 2019. *Education services for non-Chinese speaking (NCS) students*. Retrieved from Education Bureau, HKSAR: https://www.edb.gov.hk/en/student-parents/ncs-students/about-ncs-students/index.html

Hu, Y., & Ga, Y. 2016. Understanding the point accrediation policy for minority students in college entrance examination. *Journal of South-Central University for Nationalities (Humanities and Social Sciences)*, 05.

Isogai, K. 2017. Recent Developments in Japan's Special Needs Education: Promoting an Inclusive Education System. *NISE Bulletin*, 16. Retrieved from http://www.nise.go.jp/nc/wysiwyg/file/download/1/1266

Klenowski, V. 2009. Australian Indigenous students: Addressing quity issues in assessment. *Teaching Education*, 20(1), 77–93. doi:https://doi.org/10.1080/10476210802681741

Koh, K., & Luke, A. 2009. Authentic and conventional assessment in Singapore schools: An empirical study of teacher assignments and student work. *Assessment in Education: Principles, Policy & Practice*, 16(3), 291–318.

Kosonen, K. 2017. Language of isntruction in Southeast Asia. Paper commissioned for the 2017-8 Global Education Monitoring Report, Accountability in education: Meeting our commitments. Paris: UNESCO. Retrieved from http://unesdoc.unesco.org/images/0025/002595/259576e.pdf

Lim, E., & Tan, A. 1999. *Educational Assessment in Singapore. Assessment in Education: Principles, Policy & Practice*, 6(3), 391–404. doi:http://doi.org/10.1080/09695949992810

Malone, S., & UNESCO. 2018. *MTB-MLE resource kit: Including the excluded: promoting multilingual education* (2 ed.).

North Carolina School of Public . 1999. *Assessment, Articulation, and Accountability: A Foreign Language Project.* North Carolina State Dept. of Public Instruction, Raleigh. Div. of Languages

OCHA. 2011, May 1. *Major Language Families in Asia-Pacific.* Retrieved from https://reliefweb.int/sites/reliefweb.int/files/resources/OCHA_ROAP_Language_v6_110519.pdf

Sireci,S., & Faulkner-Bond,M. 2015. Promoting the Validity in the Assessment of English Learners. *Review of Research in Education.* Vol. 39, March 2015, pp. 215–252.

UNESCO. 2013. Children need to be taught in language they understand. EFA Global Monitoring Report 2013/4 policy paper. Paris: UNESCO.

UNESCO. 2015. Education 2030 Incheon Declaration and Framework for Action: Towards Inclusive and Equitable Quality Education and Lifelong Learning for All. Paris: UNESCO.

UNESCO. 2016. If you don't understand, how can you learn? GEMR Policy Paper 24, February 2016. Paris: UNESCO

UNESCO. 2019. 2019 *Global Education Monitoring Report. Migration, displacement and education: Building bridges, not walls.* Paris: UNESCO.

UNICEF Thailand. 2018. Bridge to a Brighter Tomorrow: The Patani Malay-Thai Multilingual Education Programme. Retrieved from https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-09/unicef%20Bridge%20to%20Brighter%20Edu-EN-low%20Res.pdf

Walter,S. 2016. The EMBLI Endline Evaluation Study. Retrieved from http://www.laohamutuk.org/educ/CAFE/EvalEMBLIFullEn.pdf

Zhou.Q. 2014. Reforming bilinual educational programs in China. Journal of Xinjiang Normal University (Edition of Philosophy and Social Sciences), 2, 122–128.

THA/DOC/EO/19/051-E