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PhilEd Data: Strengthening Information for Education, Policy, Planning and Management in the Philippines

Local languages and literacy in the Philippines: Implications for early grade reading instruction and assessment

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PhilEd Data: Strengthening Information for Education, Policy, Planning and Management in the Philippines

Local languages and literacy in the Philippines: Implications for the early grade reading instruction and assessment

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Preface

As part of the Strengthening Information for Education, Policy, Planning and Management in the Philippines (PhilEdData) project, USAID has provided the Philippines Department of Education over a two-year period (2012-2013) with a comprehensive set of resources and guidelines that will support the use of the Early Grade Reading Assessment (EGRA) in the country for national (or regional) sample-based diagnostic purposes. A key output of this project is an “EGRA Toolkit” adapted to the Philippine context and needs. In developing this toolkit, RTI International, the organization contracted by USAID to support the Department of Education through the PhilEdData project, requested the services of a consultant to prepare an introduction that would provide background on existing experiences with the teaching and assessment of reading in the Philippines. The scope of work specified:

“Using the existing EGRA toolkit (2009, Section III: “Conceptual Framework and Research Foundations”) and its adaptations in French and Spanish (available through the website: www.eddataglobal.org) the consultant will draft a new introduction relevant to the Filipino context. This will involve:

- conducting an extensive literature review of Filipino and international research on reading acquisition in the languages of the Philippines (including English, but specific to Filipino learners).
- summarizing research findings in early reading acquisition and assessment in the languages of the Philippines.
- providing a brief overview of the 12 official languages of the MTB-MLE program in use in the Philippines and the implications for the teaching of reading."

This report is the product of that research, which took place between September and November 2013. The author reviewed Philippine and international journals and textbooks related to language, education, and reading; publications written or commissioned by organizations known for work in international education such as UNESCO, SIL, RTI International, and Save the Children; attended conferences and reviewed conference proceedings and abstract books; used Philippine census data from the National Statistics Office, and reviewed research studies produced by students, particularly of the University of the Philippines College of Education in Diliman, Quezon City, Philippines. The result is a report that may be one of the most comprehensive literature reviews covering language and literacy in the Philippines. While the purpose was to gather information about language characteristics and existing research on reading acquisition in Philippine local languages to inform the development and implementation of early grade reading assessments, the relevance of information collected in this paper goes far beyond just reading assessment. By wedding linguistic information (e.g. language characteristics, acquisition, use, and changes), sociopolitical context (historical background, law, and education, language, and cultural rights), and the reality of Philippine classrooms, this report could also inform curriculum, teaching methods, and policy development, particularly with regards to mother tongue-based multilingual education.

About the author. Firth McEachern lives and works in the Province of La Union, Philippines, helping local government units support the implementation of the Department of Education’s new K-12 curriculum and Mother Tongue-Based Multilingual Education (MLE).
Over the past three years, he has also assisted the provincial government in formulating a multilingual policy to improve information dissemination and expand the public’s communication options. In 2012, in coordination with local Social Welfare and Development Offices, he organized a language-in-education training for all day care workers in La Union to harmonize the transition between pre-school and the elementary level. Recently, he has facilitated Early Grade Reading Assessments as part of the PhilEd Data Project, and has assisted in teacher trainings and classroom observations for the Basa Pilipinas Program that aims to improve the reading of 1 million Filipino children by 2016. Both the PhilEd Data Project and the Basa Pilipinas are funded by the United States Agency for International Development (USAID). Firth teaches a course on MLE for teacher education students at Saint Louis College twice weekly. He completed his bachelor degree at Harvard University and is finishing a Master in Public Management from Ateneo de Manila University, concentrating in language-in-education policy. He is fond of learning languages, reading, surfing, and thinking about the marginalized periphery.

The research was supervised, and the report reviewed and edited by Sarah Pouzezvara of RTI International. Ms. Pouzezvara has been supporting the use of EGRA under the PhilEdData project since 2012.

Please address questions or comments on this report to: spouez@rti.org
I. Philippine languages: A background and history

About the Philippines

The Philippines is a multilingual and multi-ethnic country spread across an archipelago of more than 7,000 islands, measuring 1,850 km from north to south. The largest 11 islands make up 94% of the total land area of approximately 300,000 km$^2$. Being on the Pacific Ring of Fire and the Northwest Pacific typhoon belt, the country is prone to natural disasters that hamper development (Rappa & Wee, 2006). The Philippines is a developing nation with high population density and growth rate. Metro Manila, the seat of the national government, media, and most of the country’s biggest corporations, is home to 12 million of the country’s total population of 92 million people (National Statistics Office, 2013). About a quarter of the total population lives in poverty, and high income inequality has persisted for decades (ADB, 2009). As of 2011, the Philippines had a net enrollment ratio of approximately 91% in primary education, and a primary completion rate of 71%.

The Philippines is one of the ten most linguistically diverse countries in the world, and second most diverse in South East Asia after Indonesia (Lewis, Simons, & Fennig, 2013). It is noted as being one of 44 nations where no single language group exceeds 50% of the total population (Robinson, 1993). While the exact number of native Philippine languages is difficult to count, estimates range from 110 (Constantino, 1998) to 185 (Lewis, Simons, & Fennig, 2013). Different estimates arise from ambiguities in classification, whereby similar speech varieties may be classified as separate languages, dialects of the same language, a macrolanguage, or a dialect continuum (McFarland, 1983). New research can improve the classification and enumeration of languages, and also identify languages that are no longer used. Indeed, of the 185 native Philippine languages listed in Ethnologue (an online database of world languages managed by the Summer Institute of Linguistics [SIL]), four have gone extinct, 10 are dying, and 13 are “in trouble.” These numbers are likely an underestimate, as Headland (2003) lists all 32 languages of the Negrito peoples—the earliest inhabitants of the archipelago—as endangered, while others have observed symptoms of language loss among numerous non-Negrito languages too (see Anderson & Anderson, 2007; Bas, 2007; Cabuang, 2007; Cruz, 2010; Lapid, 2009; Lomboy, 2007; Quakenbush, 2007; Rappa & Wee, 2006; Ronquillo, 2013; Scebold, 2003).

Linguists believe that Philippine languages evolved from an Austronesian language imported by migrants from Formosa around 2,500 B.C. (Bellwood, 1995) or earlier. While groups such as the Negritos have inhabited the archipelago for much longer (up to 40,000 years), these early populations must have abandoned their original languages because, today, practically all native Philippine languages belong to the Austronesian language family. The one exception is Chabacano, a Spanish creole that developed within the Philippine islands in the last few hundred years. The Austronesian family includes over 1000 languages spanning the Pacific and Indian Oceans, including Taiwanese indigenous languages, Malay, Tetum, Maori, Hawaiian, and Malagasy.

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1 Gray, Dummond, & Greenhill (2009) applied Bayesian phylogenetic methods to lexical data from 400 Austronesian languages, placing a common origin in Taiwan (Formosa) about 5230 years ago.
Evolution of Filipino languages and colonial influences

Notwithstanding the uncertain future for some Philippine languages, the country owes its present linguistic diversity to a combination of physical, historical, and socio-political factors. Its island geography, with populations dispersed by both water and mountain chains, was conducive to the evolution of many ethnolinguistic groups, as in the case of Indonesia. Unlike many of its mainland neighbors, the Philippine islands were never under the complete suzerainty of an autochthonous empire that might have subjugated these ethnolinguistic groups. Even though the archipelago eventually became consolidated under one polity, the Spanish authorities’ support of local languages in religious life (Anderson, 1998; Gonzalez, 2003), coupled with no wide provision of Spanish language education until 1863 (Dolan, 1991) and generally few numbers of Spanish-speaking immigrants, ensured continued use of the native languages. At the end of 377 years of Spanish colonization, it is estimated that only 2-4% of Filipinos could use Spanish fluently (Collantes, 1977; Gonzalez, 2003), although these low figures are disputed (Andrade, 2001).²

While the Spanish language did not replace the indigenous languages, it influenced them in important ways. Philippine languages have a large number of Spanish loan words (up to one third of various word counts conducted³) and have incorporated a few Spanish grammatical patterns. These patterns include gender in select nouns (e.g. *pinoy/pinay, tisoy/tisay*); certain clause combinations (e.g. *pero* and *maske* in Tagalog; *por iso, miyentras tanto, and este* in Cebuano); some derivational affixes (e.g. *-ero, -eno, -ñño, konsi-, konde-, sin-, de-*); a few devices (e.g. like the comparative morpheme *mas* and the preposition *para* in several languages); and even phonology (Schachter & Otanes, 1983 in Bautista, 1986; Rubino, 2001). The vowels [o] and [u] are now recognized to be separate phonemes in Tagalog, Ilokano, and many other languages, whereas in Pre-Hispanic times these vowels were not contrastive; a similar divergence has occurred in the vowels [i] and [e] (although, again, not for all languages).

The Spanish also had a major impact on writing. As far back as 10 century AD, some Philippine languages had already been written down using one of several non-Roman alphasyllabic writing systems vaguely resembling the Vedic scripts of India (Malatesha & Aaron, 2006). The Ilokanos, Tagalogs, Pangasinenses, Visayans, Kapampangans, and Tagbanuas shared a similar curvilinear script, while the Mangyans had their own lineo-angular script. Rather than adopt the existing scripts, the Spanish applied their own writing system to transliterate local languages, predominantly for proselytization. Due to destruction of local writing materials, the inability of local scripts to absorb new Spanish sounds, and the economic and social attraction of learning the Roman alphabet, the indigenous scripts (commonly referred to as “Baybayin”) fell out of use by the 18th century (Santos, 1999). The isolated Mangyan tribe of Southern Mindoro, also referred to as Hanunóo, is the only group who continue to pass on their native writing system (Mangyan Heritage Center, 2002).

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² Andrade (2001) cites the 1903 Philippine census, among other historical accounts, as evidence for higher Spanish use at the turn of the 20th century. The 1903 census published a literacy rate of 20.2% Filipinos who could read and write (in any language) and 44.5% who could read but not write. Seeing that English medium education had just barely begun and that Philippine languages had never been formally included in the education system, one can assume that these literacy data relate primarily to the Spanish language.

³ Bautista (1986) cites Llamzon and Thorpe (1972), who studied 9129 word roots in contemporary Tagalog. 58% were autochthonous (indigenous origin) and 53% derived from Spanish, 4% from Hokkien, 4% from Malay, 1% from English, and less than 1% from Sanskrit and Arabic. In reviewing his 1972 Cebuano Visayan dictionary, Wolff (1973) reckoned that approximately 25% of all lexical entries were Spanish in origin, and slightly less than 10% came from English. See also Lopez (1965).
At the conclusion of the Spanish-American War in 1898, Spain transferred authority of the Philippine islands to the United States. The American administration established an English-medium public education system with imported teachers, methods, and even textbooks from the United States (Bernardo, 2004). A few attempts were made to include local languages in schools: in 1900 the General Superintendent of Schools recommended to officials of the American Military Government to use the native “dialects” as co-mediums of instruction, but this only resulted in limited printing of bilingual English-vernacular primary books which the American teachers had little capacity to use (Lopez, 1959). In 1907 the Philippine Assembly introduced a bill providing for instruction through the local “dialect” of each municipality, but it was not approved by the Philippine Commission. In 1925 the Monroe Education Survey Commission stated that “…the foreign medium of instruction was the greatest handicap in schoolwork,” but contradictorily, the “most serviceable solution and the one open to the fewest objections.” In 1931, Vice Governor Butte advocated for elementary teaching in native “dialects” but subsequent legislative proposals were defeated. In 1939, Secretary of Public Instruction Jorge C. Bocobo started to encourage the use of vernaculars for auxiliary purposes in the first and second grades, but substantive changes to the medium of instruction policy was stymied by World War II (Jardenil, 1962). English continued to dominate education, higher levels of government, and national media throughout the American period and even after Philippine independence in 1946 (Gonzalez, 2003). Nevertheless, English remained a second or third language to the vast majority of Filipinos, who used their native languages in the home and neighborhood (Otanes & Sibayan, 1969).

As part of the worldwide trend towards decolonization in the 20th century, the Philippines exercised several popular methods of nation-building, including the identification of a national language, based on Tagalog (Executive Order 134, 1937). Tagalog is a Philippine language native to Central Luzon, including Metro Manila and the provinces of Rizal, Cavite, Laguna, Batangas, Quezon, Bulacan, Nueva Ecija, and parts of Tarlac and Camarines Norte (Gonzalez, 1998). While the national language has gone through different phases of acceptance and even names (known officially as National Language, Pilipino, and then Filipino), the 1987 Philippine Constitution defines it as a language that will be enriched from other local and non-local languages.

Over the past few decades, several academics have proposed ways in which this enrichment could be realized (see, for example McFarland, 1994; Miranda, 1994; Santiago, 1984), while the University of the Philippines has published Filipino dictionaries that have intentionally inserted new words coming from other native languages. In practice, however, the structural base and majority of its lexicon—as used in media, education, and formal communications—is still Tagalog, with a significant number of loan words from Spanish and English (Gonzalez, 1998). While there are a large number of cognates across Philippine languages (McFarland, 1994), very few uniquely non-Tagalog words of Philippine origin have entered common usage in the formal register of the national language, apart from place or culturally-specific vocabulary like food. Understandably, therefore, Filipinos informally refer to the national language as Tagalog. In other cases, the distinction between Filipino and Tagalog is geographic. People may use the term “Tagalog” when referring to the language as spoken in its native region, and use “Filipino” in the context of its wider use across the country. Similarly, the Department of Education distinguishes between implementing the language as a mother tongue in Tagalog areas and its use at higher levels in all schools, by referring to the former as “Tagalog” and the latter as “Filipino.” This semantic distinction may reflect the
intention that “Tagalog” as a mother tongue should be taught in its vernacular form, embracing the dialect peculiar to an ethnic Tagalog locality; whereas, “Filipino” represents a more standardized Tagalog taught to various populations. According to Bloomfield’s metric of language change, Filipino is not (yet) a separate language from Tagalog because Filipino is mutually intelligible with the regional varieties of Tagalog (Bloomfield, 1926; McFarland, 2004). It is possible that in future the Filipino language as taught in schools will be further enriched with lexical, phonological, or morphological features of other Philippine languages, although this would take concerted planning, execution, and coordination, particularly by the Commission on Filipino Language (CFL, or KWF in Filipino).

The second half of the 20\textsuperscript{th} century witnessed an expansion of the domains of the national language at the expense of English (Bautista, 1986; Florangel, 1993; Jones, 1989), and to some extent, other Philippine languages. However, the recognition of the importance of English in trade, foreign policy, science and technology, business process outsourcing, tourism, the English teaching industry, and overseas work has prompted counter-measures to militate against weakening English proficiency, such as President Macapagal-Arroyo’s Executive Order 210 in 2003 to make English the main medium of instruction throughout basic education. As competing interests collide, neither English nor Filipino has managed to monopolize education since 1974, despite many policy issuances in support of each. Interestingly, the lack of consensus on what should be the main language in education has likely slowed the disappearance of the Philippines’ other language groups. Asia-Pacific countries with policies that institutionalize a single dominant language even more aggressively than the Philippines, have presided over accelerated loss of their indigenous languages; in fact, most of the world’s countries have witnessed declining linguistic diversity in the face of monocultural policies and the homogenizing effects of globalization (Krauss, 1992; Skutnabb-Kangas, 2004; UN Economic and Social Council, 2008). The Philippines is one of the few countries in South East Asia that boasts an array of widely used regional lingua francae. Interspersed among these lingua francae are many smaller indigenous languages found throughout the archipelago, with highest diversity found in the mountainous areas of northern Luzon and central and southern Mindanao (Lewis, Simons, & Fennig, 2013). In addition to the native Philippine language groups, there is a community of Chinese Filipinos who commonly use Hokkien among the adult population, having primarily emigrated from the Hokkien-speaking region of China in the last century. Finally, classical Arabic is used in religious activities among Muslim Filipinos, although it is not generally a home language (Gonzalez, 1998).

**Languages in education in the Philippines**

Following its proclamation in 1937, the national language was incrementally inserted into a range of domains by government decree. It was added as a subject in the fourth year of high school and teacher colleges in 1940; the subject was then expanded to all levels during the Japanese occupation (1942-1944) (Gonzalez & Villacorte, 2001); an annual National

\[4\] For example, the non-standard varieties of Filipino used outside Metro Manila could be studied and codified as natural sources of enrichment. Some linguists, however, believe that attempts to enrich the national language with elements from other languages (the so-called “Fusionist” model) are unrealistic, impractical, and will not change the way that the national language is actually used. Cena (2014) argues that it is hence misleading to imply that the national language is different from Tagalog or that it ever will be. If preemptive manual enrichment is ineffective, perhaps the best strategy is to invest in the promotion and development of other Philippine languages simultaneously. If native languages flourish, they are much more likely to influence the development of the national language, through natural contact and borrowing.
Language Week was established in 1954 (extended to a month’s duration in 1997); In 1967, President Marcos signed a law to name all edifices and buildings in Pilipino, shortly followed by several memoranda to use the same in all government letterheads and public service oaths; a few years later, Pilipino was made the medium of instruction for an array of subjects at all levels of basic education (Department of Education and Culture, Order 25, 1974); in 1978 the Minister of Education demanded all higher education institutions to teach 6 units of Pilipino in all degree programs, which was later expanded to 9 units in 1996 (Commission on Higher Education, Memorandum Order 59, 1996); a Presidential Executive Order No. 335 was released in 1988 enjoining all government departments and agencies to use Filipino in their official communications (with patchy implementation). At about the same time, national television media began to shift to broadcast primarily in Tagalog/Filipino, instead of English.

In the 1970s and 1980s a large volume of international research emerged on the potential benefits of bilingual education, accompanied by an increase in bilingual education programs around the world. These research studies and programs mostly involved the use of the first language alongside a national or foreign language. Tupas (2011) notes that nationalists drew upon these international experiences to justify the further integration of the national language in Philippine education, leading to an unorthodox version of bilingual education in which two relatively dominant languages were placed side-by-side—the national language and English—neither of which in fact are mother tongues for most Filipinos:

> Filipino was packaged as ‘the mother tongue’ which was superior to English, ‘the second language’ (Fuentes and Mojica, 1999) in terms of facilitating better learning outcomes in school…. In the process, this argument provided a broad framework for the use of Pilipino, the national language, as medium of instruction leading to the institutionalization of bilingual education in the early 1970s where English and Filipino would be used as media of instruction in particular subjects in school. Meanwhile, the rest of the mother tongues were…relegated to secondary roles to play in literacy development. (p. 112)

Research demonstrates that maintaining first language (L1) abilities and enhancing them through the development of literacy and academic language skills in L1 can lead to better academic outcomes in L1 (Palmer et. al., 2007), faster literacy development (International Reading Association, 2001), and better outcomes in second language learning (Lindholm-Leary & Borsato, 2006). Moreover, mother tongue-based instruction can improve a child’s self-esteem (Appel, 1988; Cummins, 1989, 1990; Hernández-Chavez, 1984), foster cultural identity (McCarty, 2008), reduce drop-out rates (Benson, 2004), and narrow achievement gaps between rich and poor, urban and rural, and male and female learners (Lopez & Küper, 2000; Hovens, 2002; UNESCO 2005b).

The plethora of first languages among Filipinos—coupled with the recognized difficulty of learning through second languages—has motivated at least a dozen mother tongue or vernacular pilot programs since Philippine independence, including the First Iloilo Experiment (1948-1954); the Cebu Experiment (pre-1960’s), the Antique Experiment (1952); the First Rizal Experiment (1953-1959); another Rizal experiment (1960-1966); the First Language Component Bridging Program (FLC-BP) Pilot Project in Ifugao (1986-1993); the Lubuagan Multilingual Education Program (1998-), the Lingua Franca Project (1999-2001), the Culture-Responsive Curriculum for Indigenous People–Third Elementary Education

These experiments had varied yet generally positive results. In the Iloilo Experiment, children who learned in their mother tongue (Hiligaynon) surpassed English-taught pupils in arithmetic, reading, and social studies, and demonstrated greater emotional stability, extroversion, and emotional maturity. Secondly, the Hiligaynon-taught pupils had no statistical disadvantage in their English language abilities (Aguilar 1949, 1961). In 1956, Jardenil (1962) conducted a follow-up study involving some subjects (both control and experimental) of the original Iloilo Experiment. Fifteen judges listened to anonymous audio recordings of the subjects, speaking and reading in English. The judges’ were unable to distinguish between the students who had been taught in the vernacular from those who had been taught purely in English; the researcher suggests that the teaching of the vernacular did not prevent good diction and fluency in English.

In the Cebu Experiment, which focused on social studies, it was found that teaching the subject through the vernacular (Cebuano) was one-third to two-thirds more efficient than teaching it through English. In the Antique Experiment, three language-in-education models were employed with different amounts of vernacular use. The experimental group in the school that used vernacular the most (70% of daily instructional time) scored higher than the control group in arithmetic, reading, language, and social studies; it was also found that the vernacular served as a “facilitator or catalyser for learning English” (Jardenil, 1962).

The First Rizal Experiment featured two sets of experimental schools and one set of control schools, sharing similar age and mental ability profiles. One set of experimental schools used the vernacular (Tagalog) as medium of instruction (MOI) in grades one and two, thereafter switching to English, while the other set used the vernacular as MOI up to and including grade three, followed by English. The control schools used English as MOI for all grade levels. During the first few years, pupils in the experimental schools outperformed the other group in all four areas measured—language, reading, social studies, and arithmetic—but this lead reduced in the upper elementary grades once the MOI switched to English. This result is expected considering current knowledge about the recommended length of mother tongue instruction: using the mother tongue as a MOI yields benefits in the first few years, but gains in student performance can be undermined if the mother tongue is removed too early (Halaoui, 2003; Ramirez, Ramay & Dena, 1991; Sampa, 2003; Thomas and Collier, 1997, 2002). Nevertheless, children in the vernacular models were noted to be better adjusted socially, extroverted, more interested in their studies, and had higher survival rates between Grades 1 and 6.

The second Rizal experiment consisted of similar groups as the first: a group that used Tagalog in Grades 1-2 followed by English in Grades 3-6, another group that used Tagalog in Grades 1-4 followed by English in Grades 5-6, and an all-English group (English medium in Grades 1-6). Tested in English at the end of Grade 4, the all-English group performed highest in language, reading, social studies, health and science, and arithmetic computation. However, for arithmetic problems, the all-Tagalog group (Tagalog medium in grades 1-4) attained the highest level of achievement. In the Tagalog version of the tests, the three groups showed about the same reading proficiency levels, but the all-Tagalog group attained the highest achievement levels in social studies, health and science, and arithmetic problems. The results indicated that the match (or mismatch) between medium of instruction
and medium of assessment has a strong impact on measured levels of achievement. Assessment at the end of Grade 6 revealed a different pattern, however. Despite showing strengths in the early years, the Tagalog groups performed more poorly in most subject areas regardless of the medium of assessment. Aguilar (1961) attributes the lackluster performance of the vernacular groups to the training received by the teachers and the instructional materials. Teacher training was concentrated in English and ignored in the home language. Hence, vernacular teachers spoke in Tagalog but followed methods based on English teaching. Similarly, Tagalog materials were anchored and made equivalent in quantity to the English materials. The Tagalog materials were mere translations of the English ones; linguistic and sociocultural differences were not considered in their development.

The principles espoused by the (FLC-BP) Pilot Project in Ifugao were: to teach and learn through the child’s first language during Grades One and Two; to use the child’s cultural model of the world to help process information; and to introduce new concepts and skills that build on existing knowledge structures (Hohulin, 1993). Both explicit and implicit bridging was practiced by teachers to help pupils transition from the Tuwali mother tongue to English and Filipino. Pretests and postests revealed greater improvements in English, Filipino, Grammar, and Maths among the children in pilot schools compared with the traditional (bilingual English and Filipino) schools in the division (Baguingan, 2000).

The Lubuagan program—involving several schools in Kalinga Province—aims to break down educational barriers through sequential steps of building on the native language (Lilubuagen) and culture of the learners (Walter & Dekker, 2011). Oral development of L1 continues as literacy in the L1 is introduced. Secondly, Filipino and English are taught through the mother tongue, rather than through immersion. After achieving oral proficiency in Filipino and English, literacy in these second languages is introduced. Content subjects, meanwhile, are taught in L1, integrating culturally-appropriate concepts. Data as early as 2001 showed that the experimental Lilubuagen-taught Grade 1 pupils outperformed control pupils in reading comprehension tests in all three languages—Lilubuagen, Filipino, and English (Dumatog & Dekker, 2003). The authors also note enhanced involvement among parents, greater pupil participation in class, and improved attendance. In 2008, tests were administered in Reading, Math, English, Social Studies, and Filipino for experimental and control pupils in Grades 1, 2, and 3. The experimental group scored 21 to 22 percentage points higher than the control group, averaged across all subjects and participating schools. Among all the pupils, 80% of the top 40 students were in experimental classrooms, while 90% of the lowest performing students came from traditional English-Filipino classrooms (Walter & Dekker, 2008).

In School Year 1999-2000, the then Department of Education, Culture, and Sports launched the Lingua Franca Project. Thirty-two schools (16 experimental and 16 control) were selected from 15 regions to participate. The experimental schools used one of three lingua francae—Tagalog, Ilokano, or Cebuano—as medium of instruction in Grades 1 and 2. The control schools continued the status quo of using Tagalog-based Filipino and English as medium of instruction. Gonzalez (2001) described the results of the project as “encouraging”. When compared to control classes, achievement in all subjects was slightly better and observations suggested an increased enthusiasm and vitality among pupils. Deeper conceptualization was said to begin within the first few weeks of school rather than the traditional focus on rote learning and memorization (Young, 2002).
The Culture-Responsive Curriculum for Indigenous People—Third Elementary Education Project (CCIP-TEEP) was a project from 2003 to 2007 in the southern island of Mindanao. Its main objective was to develop and implement an indigenous curriculum for a Manobo community—coupled with the use of the Minanubu indigenous language and the incorporation of indigenous knowledge and practices in the curriculum. Two multigrade schools used Minanubu as a medium of instruction in Grades 1 and 2. The CCIP-TEEP teachers inculcated spiritual and civic values in the children, witnessing a positive effect on their perception towards their culture, traditions, and values. Pupils showed consistent and significant increases in the Mean Percentage Scores in Division and National Achievement Tests. Drop-out and repetition rates also decreased (Quijano, 2010).

Despite the largely positive results of the aforementioned programs, projects, and experiments, English and Filipino maintained a near-monopoly on classroom instruction nationwide, except for the period of 1957 to 1973 in which vernaculars were patchily implemented as medium of instruction in Grades 1 and 2. Bautista, Bernardo, and Ocampo (2008) describe how the education system eluded reform for decades:

*For over 80 years, the recommendation to use the native (Monroe Survey, 1925), local (EDCOM, 1993 [sic]), mother (PCER, 2000) or the child’s (BESRA, 2006) language in schools (in the early years) as the medium of learning has been consistently disregarded. From the 1920s to the present, the political pressures exerted by different sectors and advocates in the name of national unification, global participation, regional identity, cultural integrity, or economic progress and overseas employment caused the policy decision-making on the language issue to swing from one extreme to another (Bernardo, 2004; Bernardo and Gaerlan, 2008). After such swings, the pendulum stopped dead center in 1973, resulting in the poorly formulated and unrevised Bilingual Education Policy (BEP).* (p. 20)

**Mother Tongue-Based Multilingual Education (MTB-MLE) in the Philippines**

Amid low levels of comprehension in Philippine classrooms, declining participation rates, and low cohort survival (ADB, 2009), the medium of instruction policy changed appreciably in July 2009 with the issuance of Department of Education Order No. 74: “Institutionalizing Mother Tongue-Based Multilingual Education (MTB-MLE)” (Department of Education, 2009). The Order cited the use of the learner’s mother tongue in improving learning outcomes and promoting Education for All—a tenet also highlighted in President Benigno Aquino’s 10-Point Education Agenda when he took office in 2010. This reform coincides with global movements towards the recognition of pluralistic societies, language and cultural rights (Stavenhagen, 1995; Thornberry & Gibbons, 1997; Kontra et al., 1999; Phillipson 2000; May, 2003; Skutnabb-Kangas, 2004), the importance of language to sustainable development (UNESCO, 2012), and a surge of multilingual education initiatives in various parts of the world (e.g. South America—see De Mejia, 2005; Asia—see UNESCO 2005a, UNESCO 2007).

In early vernacular education experiments, the mother tongue was seen as merely a bridge to learning other languages, but there has been growing recognition of its wider purposes. The Philippine Department of Education cites four forms of child development fortified by its MLE program: Language, Cognitive, Socio-cultural, and Academic (Department of
Education, Order No. 16, 2012). It also represents a shift from an exclusively bilingual orientation to a multilingual one, in which literacy in multiple languages is a key goal. Finally, the MLE program has somewhat liberated language-in-education policy from a nationalist political ideology (Tupas, 2011); ideally, the experience of children and education outcomes are now the central focus of language practices in elementary schools.

Following the release of Department Order 74, a Strategic Plan for implementation of the multilingual education program was completed in 2010. The Strategic Plan laid out specific activities to be undertaken, including advocacy, pre- and in-service teacher training, materials development, policy development, resource mobilization, and assessment, monitoring and evaluation. In School Year (SY) 2011-2012, over 900 schools across the country began using one of 12 major languages as mediums of instruction (MOIs) in Grade 1. In SY 2012-2013, these pioneer schools proceeded to do the same in Grade 2; simultaneously, all public schools began implementing the program in Grade 1, as the pioneer schools had done the year before. In SY 2013-2014, at least 7 languages were added as MOIs in Grade 1, while the first 12 languages are being used in Grade 2 classrooms across the country and in the Grade 3 classrooms of pioneer schools. In SY 2014-2015, all public schools will be implementing one of several mother tongues in grade K-3, both as a medium of instruction and as a separate language subject. The languages prioritized by the program are the most widely spoken and also have working orthographies, one of the requirements of inclusion. Additional languages may be added with time as capability and demand warrant. In addition to the languages that have been officially selected by the national government for implementation, a handful of smaller mother tongues are being used with the help of local governments and NGOs.

Originally, the mother tongue would only be implemented in Kindergarten to Grade 3, transitioning to English and Filipino as the mediums of instruction by Grade 4 (Department of Education, Order No. 31, 2012). Given the advantages of reinforcing the first language for longer (see ADEA, 1996; Baker, 2002; Bamgbose, 2000; Elugbe, 1996; Fafunwa, 1990; Garcia & Baker, 1996; Hartshorne, 1992; Heugh, 2003, 2010; Macdonald, 1990; Malherbe, 1943; Malone, 2008; Ramirez, Ramay & Dina, 1991; Sparks et al., 2009, 2012a; Thomas & Collier, 1997, 2002), the Enhanced Basic Education Act of 2013 tasks the Department of Education to formulate a mother tongue transition program from Grades 4-6. This shall yield a realistic pace for developing cognitive academic language proficiency (CALP) in multiple languages and is expected to ease the transition from mother tongue to the prescribed MOIs in high school.

The distribution of subjects according to language varies. Most public schools, in line with policy, are now using a mother tongue as medium of instruction in the early grades of elementary school, and English and Filipino thereafter. In some areas, however, a language has been chosen as the “mother tongue” when in fact it is not the first language of the pupils. In addition to cases of language shift in which a minority language might be being used as MOI for an area in which a dominant language has become the principal mother tongue (see section “Sociocultural influences”, further in this paper), there are also cases in which a dominant language is being used as the mother tongue when in fact the mother tongue is a minority language. Tagalog, for instance, is being implemented as the mother tongue in Romblon, but Romblomanon, Inonhan, and Bantoanon are the first languages of different

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5 Republic of the Philippines, Department of Education. Mother Tongue Based Multilingual Education Strategic Plan. 13 February 2010
parts of the province. Similarly, Ilokano—a lingua franca—is being implemented as a mother
tongue for much of the Cordillera region, but many areas retain indigenous languages as first
languages.

The practices of private schools are wide-ranging too. Few private schools have implemented
the mother tongue policy, choosing instead to continue the status quo. Depending on the
private school, the status quo is English as the medium of instruction for all grade levels and
almost all subjects (except the Filipino language subject), or using English for half the
subjects and Filipino for the other half. Some private schools have partially implemented
the mother tongue policy, incorporating the local language as a separate language subject but not
formally as a medium of instruction in other subjects. A few bold private schools are in the
process of switching to a local language as a full-fledged medium of instruction in the early
grades. On the other hand, there may be private schools that legitimately retain English as a
medium of instruction in compliance with Department of Education Order No. 74, s. 2009, as
English is the predominant home language of the pupils.\(^6\)

It is important to note that the language environment of elementary schools is not the first
setting in which children are exposed to language in an academic, group setting. Many
Filipino children attend preschool (day care) for one or two years before entering
Kindergarten. Paralleling the diversity of school language practices, preschools range from
pure English, ‘Taglish’ (Tagalog-English mix), or predominantly mother tongue
environments depending on the location of the pre-school, the socio-economic class of its
pupils, and the teacher. Early childhood education has been required by law to be delivered
in the mother tongue since the year 2000, more than a decade before the mother tongue was
introduced in elementary school through DepEd Order No. 74, but this mandate has never
been systematically implemented.\(^7\) Preschools are run by a hodgepodge of private
entities/individuals and local government units, with some oversight by the Department of
Social Welfare and Development. De facto, they operate with greater autonomy than
elementary and high schools in the formal education system, which are answerable to the
highly centralized Department of Education. With the Department of Education’s English-
Filipino bilingual system in effect from 1974-2012, however, preschool teachers in some
areas became habituated to using English and Filipino as well. This convergence of bilingual
language practice occurred—despite the fact that preschool was never beholden to the
bilingual policy—because preschool teachers were likely trying to prepare their pupils for the
elementary level in which the mother tongue was largely absent. It is crucial that preschools
are made aware of the Department of Education’s nascent mother tongue policy to facilitate a

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\(^6\) Some parts of the country have linguistic divisions along socioeconomic class lines. For example, the upper class may
speak English or Filipino to their children (who mostly attend private schools), even if the wider community and public
school children speak a local language. The retention of English or Filipino as MOI in such “language-island” private
schools is theoretically sound from a pedagogical standpoint, but it may give rise to serious complications. The exclusive use
of English or Filipino in private schools and the concomitant ghettoization of local languages in public schools may widen
the class divide and undermine the MTBMLE policy. Li (2010) noted that when Hong Kong allowed some schools to not
implement the 1998 mother tongue policy, the demand for enrollment in these schools skyrocketed and mother tongue
schools became synonymous with second rate education. Secondly, future graduates of private schools using just English or
Filipino will likely not have the language background to teach in public schools nor hold public office. It would be judicious
therefore if private schools formulate ways to integrate local languages in their curricula so as not to subvert support and the
utility of the MTBMLE policy in the public school system.

\(^7\) Republic Act No. 8980 or the “ECCD Act” of 2000 states that the early childhood care and development curriculum shall
focus on “children’s total development according to their individual needs and socio-cultural background” and that “it shall
use the child’s first language as the medium of instruction” (Section 5a).
re-convergence of language practice. The embrace of the mother tongue in preschools would not only ease the transition from early to basic education, but would also fulfill the law.

While stipulated in the Enhanced Basic Education Act of 2013, the mother tongue transition program in the upper elementary years has not yet been formulated by the Department of Education. The role of the mother tongue in Grades 4 to 6 will need to be harmoniously designed alongside other ongoing reforms—most notably the expansion of basic education from 10 years to 13 years (K-12, as opposed to 1-10), revised curricula for all subjects, and a new assessment framework.

II. Characteristics of Philippine languages: Implications for Reading and Assessment

How do Filipino children learn to read? Regardless of language, all children who learn to read advance from being nonreaders (unable to read words) to partial readers (can read some items but not others) to readers, whereby they can read all or a majority of items (RTI International, 2009). Research on reading acquisition highlights several key component skills that a child must have to read proficiently. The U.S. National Reading Panel of 2000 identified these skills, specific to alphabetic writing systems, as: phonological awareness, decoding and word recognition, vocabulary knowledge, oral reading fluency, and comprehension. While these terms can vary, and can be combined or broken down into different groupings, there is wide consensus that such skills—in addition to a variety of literacy practices including oral language development—are necessary for children to garner meaning from text.

Early reading skills are acquired in phases. The foundation skill of phonological awareness (the ability to hear, distinguish, and manipulate the sounds of a language) is usually acquired first, and helps support subsequent word decoding (the ability to read words based on knowledge of the letters of the alphabet and their corresponding sounds) and word recognition (being able to recognize a word in its entirety, without sounding out each letter). Once children begin to read parts of words, whole words, and sentences, they can be introduced to strategies that improve reading fluency (the ability to read accurately at an appropriate pace) and comprehension. All of these skills depend on mastery of the oral language as a prerequisite.

The Integrated Language Arts Curriculum of the Philippines’ new K-12 basic education system identifies fourteen “Language and Literacy Domains”, including: Oral language; Phonological awareness; Book and Print knowledge; Alphabet knowledge; Phonics and word recognition; Fluency; Spelling; Writing and composition; Grammar awareness and structure; Vocabulary development; Reading comprehension; Listening comprehension; Attitude towards language, literacy and literature; and Study strategies. While small adjustments are currently being made to the number and labels of these domains, they cover the 5-7 key

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8 Some local government units, like the Provincial Government of La Union, have sponsored trainings of day care teachers about mother tongue-based education to align preschool language practices with the K-12 reform in the formal education system.

9 In its own right, the use of the vernacular or first language at the preschool level has shown to have positive effects on the acquisition of early literacy in young Filipino children, as demonstrated by Ocampo’s early reading program in urban poor day care centers (1996).
reading skills cited by reading experts and include additional domains pertaining to reading practices. The curricula, teacher guides, and learning materials for the individual language subjects from Kindergarten to Grade 3—Mother Tongue, English, and Filipino—have been designed to incorporate all fourteen domains in progressive fashion. Relevant to the Philippine goal of multilingual literacy, research indicates that development of reading in a second language draws on similar underlying skills as reading in a first language (Arab-Moghaddam & Senechal, 2001), and several skills transfer across languages, such as phonological awareness, decoding (August & Shanahan, 2006), and reading comprehension strategies (Royer & Carlo, 1991).

**Phonology**

Most Philippine languages have simple phonologies, with fewer consonant and vowel phonemes than English. Consonant clusters, such as /str/, /lpr/, /ks/, /sp/ and /br/, are rare and found mostly in loan words. While it is relatively easy for Filipino children to learn the full set of sounds in their respective languages (given the small number of phonemes, which they are continually exposed to), they may face difficulty in the identification and manipulation of sounds in English. The more than 10 vowel sounds of British and American English varieties tend to be approximated to the nearest vowel sound familiar to a Philippine language speaker, typically: [i], [a], [ε], [o], or [u] (Gonzalez & Rafael, 1980). For example, the common unstressed central vowel in English, the schwa, is pronounced as a full vowel [o], [a], or [ε] (e.g. the final syllables of “tricycle” are pronounced /-sikol/ or /-sikal/ instead of /-sikəl/). The phonetic tendency toward unreduced vowels is related to the fact that Philippine languages are typically syllable-timed, so each syllable is given equal prominence. This isochronic characteristic influences the way Filipinos speak English. Syllables that would otherwise be shortened in the stress-timed rhythm of British and American English are granted more time and fuller pronunciation in Philippine English.

Many Philippine languages lack the labial-dental fricatives [f] and [v], so when Filipinos say English words that would normally employ such phones, they are often converted to the bilabial stops [p] and [b], respectively (e.g. “fern” is pronounced /pεrn/ and “very” is pronounced /bεr/). Similarly, the sounds [θ], [ð], and [ʃ], which are used in most native varieties of English, are typically converted to [t], [d], and [ʃ] in Philippine English, respectively. Hence, “bath” is pronounced /bat/ (“bat” is pronounced /dαl/, and “measure” is pronounced /mεʃ/). Note that the stops (/p/, /t/, /k/, /b/, /d/) are typically unaspirated, and remain unreleased at the end of words (denoted by the diacritic ^). Consonant blends are often spoken with epenthetic vowels inserted between them (e.g. “brown” is spoken as /baraun/, “glass” as /galas/) or have a vowel placed in front (e.g. /isport/ for “sport”). Syllable-final blends may have a consonant removed altogether, thus “absent” becomes /absen/ and “compact” becomes /kompak/ (Bautista, 1986).10

The aforementioned under-differentiation of phonemic contrasts, including lack of vowel reduction, are distinguishing features of Philippine English largely influenced by the phonologies of Philippine languages. In a study of phonological difficulties of Grade 2 pupils in Tabaco City, Albay Province, Durana (2013) found that public school pupils could not replicate most of the American English vowel sounds and nearly one-third of the consonant

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10 For a general description of Philippine English, see Bautista & Gonzalez (2006).
sounds. These difficulties are not universal, however. First, educated groups may distinguish and reproduce sounds more closely to that of American English (Bautista, 1986). Second, the way a Filipino child approximates a foreign sound varies according to the specific phonology of his or her first language.\(^{11}\)

Unique phonological characteristics may also be observed when Filipinos speak Philippine languages that are not their own. For example, the absence of the sound [h] in Kapampangan leads to the sound’s frequent removal when Kapampangans speak other languages (Gonzalez, 2005). Similarly, Kapampangan has no native /tʃ/ phoneme and makes minimal use of glottal stops. The author notes that Kapampangan accent is principally defined by vowel length, whereas in Tagalog, vowel length is accompanied by changes in intensity (loudness) and pitch too. Despite having fewer contrasting phonemes, Kapampangan has a richer morphophonemic subsystem than Tagalog, employing many allomorphs.

In common with their ancestral language, proto-Austronesian, most Philippine languages have four native vowel sounds. There are many exceptions however. Tina Sambal only has three contrastive vowels, whereas Tagabawa has six, T’boli seven, and Casiguran Dumagat has eight.\(^{12}\) Reid (1973) enumerates at least five Philippine languages with only three vowels, twenty languages with five vowels, a dozen with six vowels, three with seven vowels, and one with eight vowels. Common vowel sounds are [i], [ɛ], [a], [u], or [o], but other vowel sounds are also represented in Philippine languages, such as the close (high), back, unrounded vowel [u] (e.g. Ilokano, Pangasinan, Cuyonon) and the close/high-mid back unrounded vowel [γ] (e.g. Aklan). Many of the Sama languages, unlike most Philippine languages, have the mid-central vowel [a], the schwa.

Most Philippine languages have fewer than 18 consonants (Reid, 2005). Common consonant sounds in Philippine languages are [b], [k], [d], [g], [l], [m], [n], [ŋ], [p], [r], [s], [t], and [ʔ], distinguishable by speakers as separate unit phonemes. Other consonant sounds are also found in Philippine languages, either as the realization of distinct phonemes or allophones of the common ones. Several Northern Philippine languages (such as Ibatan, Finallig, Balangao, Ga’dang, Tuwali, Southern Kalinga) have one or more of the phonemes /f/, /v/, and /tʃ/; a few languages even have the velar fricatives, [x] and [ɣ], and bilabial fricatives, [β] and [β], in Guinaang Kalinga, the sound [dɣ] can be heard as a variant realization of the /l/ phoneme; Mamanwa has the phoneme /z/; Sibitu Sama has complex phonemes /dγ/ and /ŋγ/, voiced implosive stops, and lengthened contoids (and lengthened vocoids too); Pangutaran Sama also includes /dʃ/ and /ŋʃ/, as well as the bilabial fricative /x/; Maranao has both aspirated stops /kʰ/, /tʰ/ and unaspirated stops /k/, /t/, which are contrastive.\(^{14}\) Ibanag has the complete inventory of English consonant sounds (Dita, 2010)

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\(^{11}\) Gonzalez (1983) takes the view that differences in the way Filipinos hear and speak English is not problematic if they do not hamper communication. In teaching English, however, a standard (General American English) is necessary to adopt as a target, even if it is never fully reached. This contrasts with the views of Davidson (2006), Kachru & Nelson (2006), and Lowenberg (1993), who advocate for a more inclusive approach to teaching and assessing English, recognizing local varieties of English as legitimate. Swain, Kirkpatrick, & Cummins (2011) argue that local languages themselves should be included in the teaching of English. According to Canagarajah (1999, 2006), teaching English as a second language nowadays should approach ‘error’ as the learner’s active negotiation of choices, should focus on communicative strategies, and should strive for the learner’s competence in a repertoire of codes and the ability to shuttle between speech communities.

\(^{12}\) The examples of Tagabawa and T’boli phonologies are taken from Dubois (2006) and Forsberg (1992), respectively.

\(^{13}\) In Kapampangan, [x], [y], [β], and [ϕ] are allophones of the phonemes /k/, /ɡ/, /b/, and /p/, respectively (Gonzalez, 2005).

\(^{14}\) The examples of Guinaang Kalinga, Mamanwa, Sibitu Sama, and Pangutaran Sama, are taken from Gieser (1987), Miller & Miller (1991), Allison (1979), and Walton (1979), respectively.
The most common syllable patterns in Philippine languages are CV (consonant followed by vowel) and CVC (a vowel nucleus sandwiched between two consonants). Other syllable patterns like V, VC, CCV, CCVC also exist. Tboli and Blaan, for example, have unusual double consonants at the beginning of some words (Forsberg, 1992). The majority of common nouns in Philippine languages are two syllables long, but many multi-syllabic words can be constructed with affixes that provide both syntactic and semantic information. Philippine languages are non-tonal, but some have lexical stress and can distinguish between vowel length (Reid, 2005). Gemination (consonant elongation) occurs in some languages, such that two words that differ only in the audible length of a consonant can have distinct meanings. For example, /lalaki/ and /lal:aki/ mean man and men, respectively, in the Ilokano language.

Phoneme distribution—the positions in which phonemes can be found within syllables or words—vary. Most consonants can be found at the beginning (onset) and end (coda) of syllables, although there may be restrictions to the possible positions of some consonants, such as /h/ and /ʔ/, restrictions to what consonants can occur in clusters (if any), restrictions to what vowels can combine to form diphthongs, and restrictions to what vowels can appear with what consonants. For example, Manide and Inagta Alabat allow both preconsonantal glottal stops [ʔC] and postconsonantal glottal stops [Cʔ] in morpheme-internal clusters, whereas most other Philippine languages only allow one of the two combinations, if any (Lobel, 2013). In Tagabawa, /w/ is observed as a syllable coda but only when followed by the vowel /a/; whereas in Ilokano, /w/ can follow /a/ or /i/; in Pangasinan, /w/ can follow /a/, /i/ or /e/. In most Philippine languages, /t/ can be found in word-initial, word-medial, and word-final positions, but in Blaan, /t/ can only be found in the middle of words (Galzote et al., 2012). Many more phonological patterns could be compared and contrasted among Philippine languages, but their intricacies cannot be accommodated in this report.

The effect of native language phonology on phonological awareness and literacy development, both in the first and second languages, remains a hitherto unstudied topic for the majority of Philippine languages, including the largest ones.

Orthography

In written languages with transparent or “shallow” orthographies (that is, alphabetic systems with near one-to-one letter-phoneme correspondence), it is easier to predict the pronunciation of a word based on its spelling, and therefore easier to decode. One can learn how to read a language with a transparent orthography in less than a year; for languages with more complex or “deeper” orthographies, the process can take several years (RTI International, 2009).

In 1939, the Institute of National Language (INL) published a grammar book titled Balarila ng Wikang Pambansa and a Tagalog-English Vocabulary, made by Lope K. Santos. The Balarila became a gold standard textbook for teaching the national language, and it espoused a 20-letter Romanized alphabet called Abakada representing the limited number of phonemes found in Tagalog (Santiago, 1993). Essentially, the Abakada was an alphabetized version of the ancient Baybayin alphasyllabary. The spelling of all words, including loan words and proper nouns, was constrained to this 20-letter alphabet. Confusingly, the names assigned to

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15 For example, the Tagalog word ['pito] (spelled pito) means 'whistle', but if the stress is shifted to the second syllable, a different word is formed, [p'to], meaning 'seven' (also spelled pito).

16 For useful reference on the phonology of Philippine languages, see Reid (1973).
the letters were the same as the syllables that their ancient Baybayin counterparts represented. For example, the name of the letter B was pronounced as /ba/, K as /ka/, D as /da/, and so forth. Thus, despite the fact that each letter of the Abakada did in fact represent a single phoneme, teachers emphasized the syllabic nature of the language when teaching it; words were constructed and broken down into their component syllables rather than individual sounds and letters.

The official Filipino orthography has since undergone several revisions, including in 1976, 1987, 2001, 2006, 2009, and 2013. The latest 2013 national orthography (Ortograpiyang Pambansa) promulgated by the Commission on Filipino Language (Komisyon sa Wikang Filipino, or KWF) specifies a 28-letter alphabet. The alphabet adopts the English names for all the letters, except for Ñ, which derives from the Spanish alphabet. Below is the Filipino alphabet showing capital letters, small letters, and the letter names written according to the Filipino orthography (in italics):

<table>
<thead>
<tr>
<th>Aa</th>
<th>Bb</th>
<th>Cc</th>
<th>Dd</th>
<th>Ee</th>
<th>Ff</th>
<th>Gg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ey</td>
<td>bi</td>
<td>si</td>
<td>di</td>
<td>i</td>
<td>ef</td>
<td>dyi</td>
</tr>
<tr>
<td>Hh</td>
<td>Li</td>
<td>Jj</td>
<td>Kk</td>
<td>Ll</td>
<td>Mm</td>
<td>Nn</td>
</tr>
<tr>
<td>ets</td>
<td>ay</td>
<td>dyey</td>
<td>key</td>
<td>em</td>
<td>en</td>
<td>en</td>
</tr>
<tr>
<td>NGng</td>
<td>Ññ</td>
<td>Oo</td>
<td>Pp</td>
<td>Qq</td>
<td>Rr</td>
<td>Ss</td>
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<tr>
<td>endyi</td>
<td>enye</td>
<td>o</td>
<td>pi</td>
<td>kyu</td>
<td>ar</td>
<td>es</td>
</tr>
<tr>
<td>Tt</td>
<td>Uu</td>
<td>Vv</td>
<td>Ww</td>
<td>Xx</td>
<td>Yy</td>
<td>Zz</td>
</tr>
<tr>
<td>ti</td>
<td>yu</td>
<td>vi</td>
<td>dobyu</td>
<td>eks</td>
<td>way</td>
<td>zi</td>
</tr>
</tbody>
</table>

Most words in the Filipino language are written using the 5 vowels and the consonants B, D, G, H, K, L, M, N, Ng, P, R, S, T, W, and Y. The letters C, F, J, Ñ, Q, V, X, and Z are letters reserved for spelling proper nouns, words from various Philippine languages that include sounds represented by such letters; technical terms (e.g. “carbon dioxide”), and recent loan words from foreign languages, particularly English.

Except for recent loan words and proper nouns that retain their original and often opaque spellings, Filipino is transparently spelled. Spelling words the way they sound has been one of the guiding principles of the development of its orthography since the INL published the Balarila back in 1939. Hence Gonzalez & Rafael (1980) note that decoding a text written in the national language is “relatively easy since the spelling system of Pilipino corresponds very closely to its sound system, so that there is almost a one-to-one correspondence between phoneme and grapheme.” This contrasts with English, which has a deeper (less transparent) orthography. English phonemes can be represented by several graphemes, and English graphemes can represent many different phonemes, hence there is a more complex interplay between phonology, orthography, and meaning. Readers of English cannot rely entirely on phonetic decoding to correctly identify printed words, but also make use of context, visual memory, and explicit knowledge about the quirks of the orthography. Accordingly, teachers must diversify their strategies in teaching English reading.

Nevertheless, there are a few elements in Filipino orthographies that diverge from the ideal one-to-one correspondence. First, the glottal stop [ʔ] is not usually indicated in the spelling, unless it is found at the start of an internal-word syllable that begins with a [ʔV] combination and is preceded by a syllable that ends with a consonant; in this case the glottal stop is
signified by a hyphen (e.g. Tagalog pag-ása, Ilokano tig-áb). Second, while the sounds [ŋ], [tʃ], [ʃ], and [dʒ] exist in many Philippine languages, the national orthography generally employs digraphs to spell them: ng, tštltty, sylsi, and dylld, respectively. Words containing these digraphs pose a challenge to beginning readers who expect to be able to decode them by sounding out each grapheme separately, without realizing the digraphs should be read as one sound. It can also be seen from these digraphs that several orthographic elements can represent the same phoneme (e.g. ts, ti, and ty can all represent the phoneme /tʃ/), resulting in reduced sound-letter correspondence. With the acceptance of foreign words and their original spelling into the Filipino lexicon (e.g. pizza, duty-free, feng shui, jam), there is further loss in sound-letter and letter-sound correspondence, albeit in limited cases. Finally, accents are not usually written, so children have to rely on their oral language knowledge and contextual clues to anticipate the correct stress pattern of words, as in English. Children’s ability to differentiate stress is important in semantically and phonologically distinct words that share the same spelling (i.e. heterophones, also known as heteronyms). In many Philippine languages, for example, the words for ‘read’ and ‘wet’ are both spelled basa but pronounced /baː.sə/ and /ba.ˈsaʔ/ respectively.¹⁷

There are some common confusions in Filipino orthography, even among adult writers. Because the vocoids [o] and [u] are not always contrastive in Philippine languages, choosing to spell words with an O or a U (e.g. kumporme vs. komorme, from the Spanish conforme) can be a guessing game. For native words the regular pattern is to use an O in final syllables and a U for all other syllables, as this closely follows pronunciation in speech (e.g. tumutulong, pitu-pito, tuturo). Borrowed words, however, tend to be pronounced and spelled more liberally. The 2013 orthography provides guidelines for the use of these two vowels: words should retain the original Spanish vowel, unless the loan word has undergone a consonantal substitution, in which case the preferred vowel is U. For example, kontrata should be spelled with an O because the original Spanish word (contrata) is spelled with an O, and none of its consonants have shifted phonemic value in Filipino speech; whereas, kumporme should be spelt with an initial U (followed by an M) because the original [n] sound in the Spanish word conforme has evolved into an [m] sound in Filipino speech.

The letters I and E are likewise often interchanged in spelling. One may see the spellings eskandalo and iskandalo, escolar and iskolar, menudo and minudo. Again, the guideline is to preserve the vowel in the original Spanish word. Thus, eskandalo is correct because the original Spanish word (escandalo) begins with an E, not an I (escandalo). If however the loan word derives from English, and the English word begins with a sibilant-lead consonant cluster (e.g. /sk/, /sm/, /st/, etc), then the Filipino spelling affixes an initial I (e.g. iskul, istandard).

Most Philippine languages have diphthongs. Phonologically, vowels may combine with secondary vowel sounds (usually close vowels [u] or [i]), to form the diphthongs /au/, /ai/, /ui/, /ai/, /oi/ and others, which are typically represented in orthographies as AW, AY, IW, UY, OY, and so on. When close vowels are themselves followed by another vowel, they often become glides /uə/→/wa/; /ai/→/ya/. The following paragraph describes how these phonological environments are dealt with in spelling.

Foreign languages have introduced a variety of diphthongal settings in Philippine phonology, which pose spelling challenges. The Spanish term for water carrier is aguador, spelled with

¹⁷ Note: the latest 2013 revision of the national orthography advocates for the use of accents for clarity, which can assist phonics instruction.
UA. But how should this loan word be spelled in Filipino? The 2013 Filipino orthography specifies that Spanish-like vowel combinations U+(A, E, I) should be spelt as W+(A, E, I). The pertinent vowel combinations in the Spanish words agUAdor, chinigWElas, and prejUcio are therefore rendered in Filipino as agWAdor, sinigWElas, and perWIsyo. Similarly, Spanish-like vowel combinations I+(A, E, O) should be spelt as Y+(A, E, O), so the Spanish words acacIA, tenIEnte, and beneficIO are rendered as akasYA, tenYEnte, and benepisYO. The 2013 orthography provides 4 exceptions to this rule: if the diphthong is in the first syllable of the original word; follows a consonant cluster; follows the glottal fricative /h/; or is not a true diphthong (that is, the two adjacent vowels in the original word span two syllables), then the Filipino spelling requires an epenthetic glide placed between the vowels (e.g. plAno→pIYAno; infImErno→impIYErno; collegIO→kolehIYO; economIAno→ekonomIYAno, respectively). If one would like to remove a vowel, say, to match pronunciation better, then one should signify its absence with an apostrophe (e.g. imp’yerno, p’wersa).

In practice, one will encounter spellings that do not conform to the above rules, even in textbooks and media, because previous orthographic reforms have advocated different conventions. For example, the 1986 orthography favored the replacement of U with W and I with Y in all diphthongal settings of the type U+(A, E, I) and I+(A, E, O), even in the first syllable and near consonantal clusters. Hence, the orthography preferred the spellings bwitre and eleksyon over buwitre and eleksiyon, in contrast with the 2013 orthography. As in 1986, the 2001 orthography introduced new rules that are not retained in the 2013 orthography. It advocated for use of the letters F, J, V, and Z to spell not just recent loan words like fax, jam, vase, and zoo, but even loan words that have long been given indigenous pronunciations and spellings: revisyon instead of rebisyon, alfabeto instead of alpabeto, jeep instead of dyip, etc.

There are several spelling issues for which rules have not yet been clearly defined. On one hand the 2013 Filipino orthography says that new loan words should not be respelled (hence, vertebra, zigzag, jazz, and folder should be spelt as is when writing in Filipino). This principle is emphasized for technical or niche words. On the other hand, the orthography explicitly allows and encourages experimental respelling, such as iskul (school), anderpas (underpas), gradweyt (graduate), tsanselor (chancellor), and masinggan (machine gun), unless the respelling is: 1) laughable or silly; 2) harder to decipher than the original; 3) undermines the cultural, religious, or political significance of the word; 4) is not popular; or 5) creates confusion because the respelling is similar to an existing Filipino word with a different meaning. These guidelines require knowledge about which loan words are old and which are new (old is defined as all loan words that were already found in the Diccionario Tagalog-Hispano of 1914 or the Diksyunaryo Tesauro Pilipino-Ingles of 1972). If the loan word classifies as old, then the Filipino version should be spelt in the indigenized way (e.g. keso, instead of queso); if new, then the individual must judge the relative appropriateness of adopting the original spelling or “filipinizing” it instead. Considering this subjectivity, one can anticipate the emergence of two parallel spellings of recent loan words; hence, neither highway nor haywey can be considered incorrect in Filipino orthography at this time.

The above conventions and irregularities pertain to the national language orthography. If history is to serve as a guide, future adjustments will be made. Scholars propose a range of...

18 The authors of Diccionario Tagalog-Hispano and Diksyunaryo Tesauro Pilipino-Ingles are Pedro Serrano-Laktaw and Jose Villa Panganiban, respectively.
reforms in the Filipino spelling system. Cena (2010; and in press), for example, presents spelling rules based on the phonotactics of Tagalog as an alternative to the 2013 KWF rules.

The status of orthographies of other Philippine languages is mixed. NGOs like the Summer Institute of Linguistics (SIL) and Translators Association of the Philippines (TAP) have been assisting communities in developing orthographies for many decades. Numerous Philippine languages, even minor ones, have orthographies. Some are more developed than others, providing extensive detail of spelling rules, while others are cursory. Orthographies may diverge in their treatment of vowels, diphthongs, complex phonemes, digraphs, geminations, loan words, and other features.

The largest regional languages, such as Cebuano, Hiligaynon, and Ilokano, have fairly stable spelling systems as they have a longer history of publication. But the existence of an orthography that has been agreed upon and used by writers for decades is no guarantee for consistent spelling practices. The long exclusion of local languages in the education system has deprived the wider public from knowing the spelling conventions of their languages. Even dictionary compilers may be ignorant of the established orthography; it is thus important that education authorities 1) check what orthographic systems exist for a language, if any; 2) if some exist, identify which one is most widely recognized as the standard; 3) acquire or make materials according to that standard; 4) train teachers and teachers-to-be on the established orthography. If an orthography does not exist, or the existing ones are not acceptable to users, then one should be developed by the community in a participatory way with educators, linguists, information technology experts, and whoever else may positively contribute to the process. Questions to consider in the making of an alphabet (and a spelling system in general) are: Is it easy to teach, read and write? Can it be typed? Will words be too long? Do people like it? What are the conventions and possible influences of other languages and their writing systems? (Easton & Wroge, 2012).

The Department of Education’s institutionalization of Mother Tongue-Based Multilingual Education (MTB-MLE) has spawned a flurry of activity to make or improve upon standard language orthographies. Language congresses have been held in many parts of the country for this purpose, including in the Bicol, Waray, and Cebuano regions. Children now have a better chance of being taught how to read and write their own languages than ever before. Questions of authority have arisen, however. The Department of Education’s Order 74 s. 2009 emphasized community acceptability in the choice of an orthography, but has made recent announcements that orthographies should be approved by the Commission on Filipino Language (KWF). So as not to impede the implementation of MTB-MLE, schools have proceeded to use “working orthographies” (Ocampo, 2013). This may be the most practical decision given the potentially long process of seeking approval from an agency that may not have the capability to guide, monitor, and approve community-acceptable language orthographies in a short period of time.

Another uncertainty has arisen from the promulgation of the new national orthography to all schools through Order No. 34 (Department of Education, 2013). The Order suggests its use for all languages of the Philippines, despite the fact that the preface of the orthography itself, published by the KWF, states that the national orthography pertains to the national language and not necessarily to all Philippine languages. While the thrust of Order 34 for a unified orthography would ideally aid consistency, it might be impossible to prescribe a single

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19 Some languages, such as Kapampangan, have been subject to major orthographic disputes (Pangilinan, 2006).
orthography for all languages. Many languages have their own orthographies, some of which have already been approved by past administrations of KWF. Will the users of the existing orthographies want or even be able to abandon established conventions? Secondly, is the 2013 national orthography versatile enough to account for all the phonological and morphological quirks of Philippine languages? The adherence to one principle of the national orthography may simultaneously violate another principle when applied to a different language. For example, many Philippine languages share similar loan words, which are sometimes pronounced differently. Should loan words be faithfully spelt how they are pronounced, thereby resulting in many spellings of the same loan word across languages (e.g. *eskwela, eskuwela, eskuyla*, etc.); or should they be consistently spelled, regardless of pronunciation? Adhering to one principle or another will affect the experience of reading and bridging.

That said, the national orthography can act as a guide to the development or revision of other Philippine language orthographies. In fact, since the government began developing an official orthography for the national language as far back as 1937, it has naturally served as a precedent for other orthographies made since. Fortunately, therefore, existing orthographies tend not to diverge radically from the Filipino orthography. It is natural that they exhibit some innovations in order to appropriately address spelling issues specific to each language. In terms of assessment, it would be prudent to accept either spelling in the few instances in which the working orthography and the national orthography differ. This is in light of the fact that the Department of Education has already begun using language-specific orthographies in schools and has also endorsed the national orthography.

**Morphology & Syntax**

Morphology refers to the structure of words: specifically, how words are constructed and how they are distinguished from other words. Relevant to this topic are the boundaries between prefixes, suffixes, and infixes in relation to root words, and the boundaries between words themselves. Syntax refers to the structure of sentences, such as the arrangement of words and their inter-relationships (Aitchison, 2010).

“Philippine-type” languages are generally predicate-initial languages with complex, head-marking, highly affixing morphologies. Many derivations of root words can therefore be made with the addition of prefixes, infixes, suffixes and circumfixes, to create new semantic forms; roots themselves also exhibit reduplication patterns. In Ilokano, for example, the root *turog* means “sleep” (n), which can be transformed into *maturog* “to sleep”, *makaturog* “to be able to sleep”, *makapaturog* “sleep-inducing”, *pagturogan* “sleeping place”, *katurog* “sleeping companion”, *mannaturog* “good sleeper”, *agpaturog* “to put to sleep”, *pannakiturog* “the act of joining someone in sleep”, etc. Prefixes are the most abundant affixes.

Philippine languages have been described by linguists as morphologically ergative-absolutive (Aldridge, 2002; De Guzman, 1988; Gerdts, 1988; Payne, 1982; Reid & Liao, 2004). That is, the argument (i.e. subject) of an intransitive verb usually behaves like the object (i.e. patient) of a transitive verb. This contrasts with most Indo-European languages, including English, which are nominative-accusative languages. In English, for example the argument of an intransitive verb takes the same nominative case as the agent of a transitive verb. Hence, the nominative form “She” is used for the subject of both an intransitive clause (e.g. “She slept”)
and a transitive clause (e.g. “She scolded her”). The object of a transitive clause, on the other hand, takes a different case: the accusative case. Hence, the accusative form “her” is used as the object of the verb “scolded” in the given English example. Compare this pattern with a Cebuano example:

**Example 1: Intransitive sentence**

Natulog  ang=babaye.
PJV-slept   ABS=woman
“‘The woman slept’”

The argument of the intransitive verb natulog (“slept”) is ang babaye (“the woman”), which takes the absolutive case as indicated by the absolutive case particle ang. In another Cebuano example we have a transitive construction:

**Example 2: Transitive sentence**

Gidayeg  sa=tawo  ang=bata.
PJV-praised ERG=person ABS=the child
“‘The person praised the child’”

In the above example, tawo (“person”) has the case particle sa instead of ang in front of it. Notice that the agent (tawo) of the transitive verb (gidayeg) does NOT take the same case as the argument in an intransitive clause, as dealt with in Example 1; instead, it takes the ergative case as indicated by the case particle sa. It is the patient (in this case, bata) of the transitive verb that takes the same case as the argument of an intransitive verb. This is why the absolutive case particle ang is used with bata (“child”) in the transitive example and also with babaye in the intransitive example. This pattern of case alignment is common among Philippine languages.

Not all linguists agree that Philippine languages should be classified as “ergative-absolutive.” Some linguists have analysed them as nominative-accusative languages (Guilfoyle, Hung, & Travis, 1992; Kroeger, 1993; Rackowski, 2002; Rackowski & Richards, 2005). Others have argued that Philippine languages exhibit their own alignment system that is neither accusative nor ergative (Foley 1998, 2008; Kaufman, 2009; Naylor, 1980). Machlachlan (1996) presents examples, particularly in Tagalog, simultaneously showing elements of both ergative-absolutive and nominative-accusative clause structures.

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20 If one interprets and analyzes Philippine languages as having ergative-absolutive morphosyntax, then the argument of an intransitive verb and the patient of a transitive verb are in a case known as absolutive. Meanwhile, the agent of a transitive verb is in the ergative case. Some authors however prefer to use the terms nominative and genitive, respectively. The term ‘nominative’ is preferred because it is more general. ‘Genitive’ is used because in Philippine languages, the case-marking of agents of transitive verbs is usually identical to the case-marking of possessors of nouns. For example, the case marker ng of the agent bata (‘child’) in the Tagalog construction Kinañin ng bata ang pizza (‘The child ate the pizza’) is the same case marker used for the classically genitive possessor bata in the construction Ang buhok ng bata (‘The hair of the child’). Declaring the noun bata to be in the ‘ergative’ case in the first construction and ‘genitive’ in the second might imply a contrast between the two, when in fact they look and behave the same; hence, authors like Reid & Liao (2004) opt to use just one term, ‘genitive’, for both types of constructions. In this report we use absolutive for the arguments of intransitive verbs and the patients of transitive verbs; and ergative for the agents of transitive verbs.

21 Although many descriptions of Philippine languages identify the determiner (e.g. ang) preceding the head of a Nominative noun (e.g. bata) as a case marker, Reid & Liao (2004) claim that most Nominative full noun phrases are unmarked morphologically, and are distinguished primarily by position.
There are several possible types of intransitive constructions in Tagalog (Cena, 2012); if viewed in terms of verb voice marking, the lone argument of these constructions can behave like the patient, agent, or even indirect object of a transitive construction. This complexity, among other debated processes like topicalization, has lead to debates about what should be labeled the syntactic “subject” in a Tagalog sentence. In English, the actor (i.e. agent) automatically assumes the function of subject, as agency is generally considered to be a defining property of the subject of the basic clause. Some linguists, such as Carrier-Duncan (1985), Gerdts (1988), Guilfoyle, Hung, and Travis (1992), and Richards (1995), have applied the same definition for Tagalog (and other Philippine languages), assuming the subject is whatever/whoever is the actor in a sentence. But the agent-as-subject definition is not universally recognized as the most appropriate paradigm for Philippine languages. In the early years of Philippine linguistics, Bloomfield (1917), Blake (1925), and McKaughan (1973) treated nominals like *ang* and *si* as markers of the grammatical subject. Sparking an influential shift in thinking, Schachter (1976, 1977) pointed out that the syntactic role- and reference-related properties of the typical English subject do not converge on one noun phrase in Philippine languages, but rather, the role- and reference-related properties are divided between the actor and the "topic", which is most often the patient. Kroeger (1993) subsequently suggested that the topic of the sentence is the subject, while Foley & Van Valin (1984) and Cena (1995) argued that Tagalog sentences are subjectless. These numerous perspectives highlight how syntactic concepts like subject and object, which are well defined in English, are not easily transferable to other languages as they may map differently to semantic concepts like patient and agent.

The salient point is that the morphosyntax of Philippine languages contrasts significantly with English, which has important implications for language learning and literacy. Jarvis and Odlin (2000) studied the written compositions of Swedish and Finnish adolescent learners of English. Finnish has a complex verb and case system, whereas Swedish more closely resembles English in terms of number of cases, subject-verb agreement, and prepositions. The authors found that the morphological and syntactic differences in the learners’ native languages resulted in different patterns of their written English. In another study, McDonald (2000) found that the much greater structural differences between English and Vietnamese children in mastering English compared with Spanish children. In the Philippines, Barrios and Bernardo (2012) discovered that Chabacano children had more difficulties using Filipino/Tagalog case markings than Cebuano children. Chabacano is a nominative-accusative language like English and Spanish, while Cebuano’s case system is more like Tagalog’s (the authors describe Cebuano and Tagalog as ergative-absolutive). When asked to judge the grammaticality of correct and incorrect Tagalog case markings in intransitive clauses, both Chabacano and Cebuano children performed well. However, when confronted with transitive clauses, Cebuano children outperformed the Chabacano group. Difference in morphosyntactic alignment, which manifests itself in the transitive condition, was cited as the cause of the more confused use of Tagalog case markers (*ang, ng, sa*) among Chabacano pupils when presented with transitive clauses.

While grammatical differences between native and foreign languages bear significance for foreign language learning, it is important to note that Filipinos can also encounter grammatical differences when learning each other’s languages. Morphology may differ in terms of the number and function of affixes, and their relation to roots. Tboli, for example, has very few prefixes compared to other Philippine languages (Forsberg, 1992). The
versatility of affixes may vary too. Depending on the language, some affixes may be widely used while others have more restricted applications. Native speakers usually have no difficulty in identifying the root of a word, although sometimes it is altered when affixed, making it less transparent (Rubino, 2000). Languages may also differ in their degree of agglutination. Ilokano is more agglutinative than Tagalog, with a myriad of morphemes for location, number, abstraction, concomitance (shared participation), reciprocity, resemblance, ownership, origin, kinship, intensification, comparison, distribution, verbal focus, aspect, potential, stasis, inchoativity, frequency, immediacy, causation, pretense, smell, and other information that are integrated or attached to the root word they modify, rather than stand alone. Enclitics, both adverbial and pronominal, are also attached to other words. For example, the English statement “We (exclusive) are bathing now” translates as:

\[
\begin{align*}
Ag\text-dig\text-digos&=kami=n \\
\text{ACTFOC.INTR-IPFV}&=\text{-bathe}=1\text{PL.EXCL}=\text{ADV} \\
\text{Bathing}=\text{we (excl)}&=\text{now}
\end{align*}
\]

\[
\begin{align*}
Na-li\text{-ligo}&=na=kami \\
\text{ACTFOC.INTR-IPFV}&=\text{-bathe}=\text{ADV}=1\text{PL.EXCL} \\
\text{Bathing}=\text{now}&=\text{we (excl)}
\end{align*}
\]

The adverbial clitics =n (Ilokano) and =na (Tagalog) both mean “now” in these statements, and the pronomial clitic =kami, meaning “we”, is the same for both languages. The main difference is that many clitics in Ilokano morphosyntax (and indeed orthography) are bound to words, whereas in Tagalog/Filipino they are free. In this example, therefore, three Tagalog forms convey the same information that a single, albeit longer, Ilokano form does.

As previewed above, Philippine languages can differ in the average number of morphemes per word. Those languages with more morphemes/word will tend to have longer words. This has several implications to reading. Early readers may be intimidated by longer words and may struggle to read them with speed and accuracy, hampering understanding. Conversely, Gonzalez (1980) notes that the extensive reduplication in Philippine languages can be a boon to beginning reading. While sometimes long, words can be easily broken down into digestible and often repetitious components. Nevertheless, the variety in word length must be considered in the assessment of reading skills, particularly the fluency measure. A child reading 50 correct words per minute (cwpm) may actually be processing the same amount of information as a child reading 70 cwpm in another language, depending on how words are defined and how long they tend to be. Test construction must determine an operational definition of a word (e.g. will enclitics count as individual words, whether or not they are orthographically attached to other words?) and analysis must use different standards of assessment for languages that exhibit significant differences in word length. Benchmark values for fluency in a particular language can be established by determining the average cwpm rate that correlates with a certain level of comprehension, as measured by tools like EGRA.

\[\text{Provided is a morpheme-by-morpheme gloss to provide information of the meanings and grammatical properties of the example Ilokano and Tagalog statements. Note that linguists may characterize the morphemes slightly differently depending their school of thought. Philippine linguists disagree, for example, on the use of the terms “focus,” “voice,” and “topic” (Quakenbush 2005).}\]
Besides word length, Philippine languages exhibit a range of other syntactic differences. They may have different sets of determiners (articles, demonstratives, etc.) that convey information about their associated nouns (or noun phrases), including case, number, definiteness, personal vs. impersonal, specificity, and spatial reference (Reid & Liao 2004). Tagalog has three main case-markers for impersonal nouns (ang, ng, and sa). Cebuano also three (ang, ug, and sa). Hiligaynon has four (ang, sing, sang, sa), and Central Bikol has five (an, su, ki, kan, and sa). The particle mga is used alongside these to express plurality. Each of these languages also has a set of case markers for personal nouns. Some languages have determiners that indicate several attributes of the nouns to which they refer, simultaneously. The Ilokano determiner kadagidiay, for instance, expresses plurality, distal location, and the oblique case (e.g. kadagidiay lugan = “to/with those vehicles”). The most diverse determiner systems are found among northern Philippine languages and some Negrito languages, while the simplest are found in the south, such as Cotabato Manobo, Tboli, and Blaan (Reid & Liao 2004).

Commonalities and differences among Philippine languages are exhibited in many more features of their syntax. See Reid & Liao (2004) and their follow-up monograph for a thorough characterization of Philippine verb clauses (transitive and intransitive), verbal complementation structures, existential verbal structures, causative structures, topicalized constructions, noun phrase structure, clause combinations, negation systems, and more. In the introduction of the 2004 paper, the authors comment, “despite considerable overlap in syntax and morphology, there is a wide range of typological variety found among the more than one hundred Philippine languages.”

**Vocabulary**

Languages of the Philippines share considerable lexical similarity. When the Commission on National Language was created in 1936, they were tasked to study the major ethnic languages and compare their vocabularies. In descending order, the Commission estimated Tagalog as having 59.6% lexical similarity with Kapampangan, 48.2% with Cebuano, 46.6% with Hiligaynon, 39.5% with Bikol, 31.3% with Ilokano, and so forth (Bernales et al., 2013). Despite their lexical overlap, these languages are not mutually intelligible. McFarland (2004) estimates that at least 70% of core vocabulary must be shared between two speech varieties in order for their speakers to understand each other properly.

Lexical similarity is greatest among basic words (see Table 1, adapted from McFarland, 1983). One may gain a better sense of the diversity of Philippine languages, at least superficially, in translations of complete sentences (Table 2).

<table>
<thead>
<tr>
<th>English</th>
<th>head</th>
<th>bone</th>
<th>water</th>
<th>person</th>
<th>cat</th>
<th>night</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ivatan</td>
<td>oho</td>
<td>tuhang</td>
<td>danum</td>
<td>tawu</td>
<td>pusak</td>
<td>mahip</td>
</tr>
<tr>
<td>Ibanag</td>
<td>ulo</td>
<td>tulang</td>
<td>danum</td>
<td>tolay</td>
<td>kitaw</td>
<td>gavi</td>
</tr>
<tr>
<td>Ilokano</td>
<td>ulo</td>
<td>tulang</td>
<td>danum</td>
<td>tao</td>
<td>pusa</td>
<td>rabii</td>
</tr>
<tr>
<td>Pangasinan</td>
<td>ulo</td>
<td>pukel</td>
<td>danum</td>
<td>tuo</td>
<td>pusa</td>
<td>labi</td>
</tr>
</tbody>
</table>

23 For other lexicostatistical studies, see Dyen (1963), Walton (1977), and the online Austronesian Language Database (Greenhill, Blust & Gray, 2008) wherein different estimates of lexical similarity are made. Dyen, for example, reported a shared vocabulary between Tagalog and Kapampangan of 39.2%.

24 Whereas McFarland (1983) spells the example words using his own universal orthography, we have chosen to spell the words in the respective orthographies of the languages. Please note that there may be variant spellings for some words.
A quick survey by Lopez (1974) estimated that about 400 of the top 2000 Tagalog words correspond to identical or cognate words in at least one other major Philippine language. In some cases, almost all languages share the same word or a close variation thereof, such as the word for ‘eye’ (*mata*), ‘tongue’ (*dila*), and ‘head’ (*ulo*). Nevertheless, the corollary of Lopez’s finding is that over 1000 of the commonest Tagalog words do not have cognates in the other major Philippine languages. In some cases, the other regional languages share similar forms but Tagalog does not. The word for ‘shoulder’ is *abaga* in most regional languages but *balikat* in Tagalog. Similarly, the word for ‘roof’ is *atop/atep* in most languages but *bubong* in Tagalog.

McFarland (1994) constructed a list of the 2000 most frequent Tagalog words based on a corpus of written Tagalog literature. Of these, 300 have Spanish origin and 50 have English origin. Loan words are found in semantic categories of color, employment, time, religion, politics, transport, trade, technology, and others. Spanish-derived loan words include such examples as *berde*—‘green’; *guwapo*—‘handsome’; *kusina*—‘kitchen’; *lola*—‘grandmother’; *misa*—‘mass’; and *pulis*—‘police’. English examples include *apartment, baby, okey, order,* and *miss*. McFarland surmises that the majority of these borrowed words are used across Philippine languages. The author also notes that the number of English borrowings into Philippines languages continues to rise through contact.
Shared native and borrowed words mean that Filipino children already have a battery of familiar words when they learn to read another Philippine language. This is a partial relief for children from migrant or minority groups whose mother tongue is not among the languages of instruction and literacy in a particular area. Lexical commonalities can also assist in the reading of the national language by non-Tagalog children. Finally, the large number of English loan words used regularly in Filipino speech means that, even if a child is not conversationally fluent in English when she enters school, she has stored vocabulary which can help her connect printed words to meaning.

A caveat should be made however that despite the sharing of forms between languages, a child must be aware of differences in pronunciation, spelling, and meaning. While *pusa* is the spelling for ‘cat’ in both Tagalog and Pangasinan, the former carries stress on the first syllable while the latter carries stress on the second—a common stress pattern of Pangasinan words. This is problematic for cases when a mispronunciation is in fact a different word in the target language. Secondly, children may make spelling errors in their second language(s) if they sweepingly apply the spelling conventions of their mother tongue. While *eskula* may be considered correct spelling in Waray orthography, it is not standard in Filipino (*eskuwela*). Thirdly, there are a multitude of shared forms between languages that in fact have completely different meanings. For example: *pating* means ‘dove’ in Hiligaynon but ‘shark’ in various other languages; *sira* means ‘fish’ in Bikol but ‘broken’ in Tagalog; *diri* means ‘no’ in Waray but ‘here’ in Cebuano; *labay* means ‘like’ in Pangasinan, ‘mix broth’ in Ilokano, ‘pass by’ in Hiligaynon, and ‘dispose’ in Cebuano; and so on. Such false cognates may confuse children when reading ambiguous text in a Philippine language that is not their own. The above examples illuminate why English and Filipino should be taught as second languages to children who speak, read, and write other languages as first languages, so differences may be overtly flag-posted by teachers. And whatever the designated medium of instruction is in a particular place, grade level, or subject, teachers should be conscious of the language backgrounds that may be represented among their pupils and how these backgrounds may affect learning. This awareness would allow the teacher to adjust the pace of instruction, emphasize problematic areas in both instruction and assessment, and interpret assessment results holistically.

**Typology**

Typology refers to the classification and grouping of languages based on patterns of word order, morphology, vocabulary, and other characteristics (Aitchison, 2010). The more similarities two languages have, the more related they are likely to be; that is, they share a common ancestral language. Languages that have recently evolved from a common ancestor tend to have more overlap in phonology, morphology, syntax, and lexicon than languages that diverged a long time ago. By comparing languages and noting how they may have changed over time, linguists can attempt to construct a family tree illustrating what languages are related to each other, and how closely.

While linguists agree that all the languages spoken natively in the Philippines belong to the Malayo-Polynesian branch of the Austronesian language family, they still debate on how these languages fit within the Malayo-Polynesian branch and how they can be further subdivided.

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25 Except Chavacano, a Spanish creole.
Assuming that the languages found in the Philippines and nearby areas form a distinct macrogroup (a hypothesis for which there is strong evidence), McFarland (1983) proposed dividing them into 7 sub-groups: Ivatan languages, Northern Philippine languages, Meso-Philippine languages, Southern Philippine languages, Sama languages, South Mindanao languages, and Sangil. Rubino (2008) consolidated them into only 5 sub-groups: Northern Philippines, Meso-Philippines, Southern Philippines, South Mindanao, and Sama-Bajaw. In Adelaar and Himmelmann (Eds., 2005), the languages are divided into 6 sub-groups: Northern Philippine, Kalamian, Greater Central Philippine, South Mindanao, Sangiric, and Minahasan. Blust (1991) proposed 9 sub-groups of Philippine languages: Bashic, Cordilleran, Central Luzon, Inati, Kalamian, Greater Central Philippine, Bilic, Sangiric, and Minahasan. The 2013 edition of Ethnologue lists a slightly modified set of 9 sub-groups: Bashic, Northern Luzon, Central Luzon, North Mangyan, Kalamian, Greater Central Philippine, Bilic, Sangiric, and Minahasan (Lewis, Simons, & Fennig, 2013).

Most of the languages in the proposed groupings are natively spoken in the Philippines, but a few of them are spoken in neighboring countries like Taiwan (e.g. Yami language) and Indonesia (the Minahasan languages and some Sangiric languages). These may be considered Philippine languages in a linguistic sense, as part of the Philippine macrogroup, even if they are found outside the modern borders of the Philippines. Conversely, there are languages spoken in the Philippines that may not actually belong to the group of “Philippine-type” languages identified by some linguists. Ethnologue lists the Sama-Bajaw languages—which include Yakan, Abaknon, Mapun, Sama Central, and other Sama languages spoken in the southern part of the Philippines—as members of the Greater Barito group of the Malayo-Polynesian languages, not the Philippine group.

A standout feature of the existing proposals is that the majority of Philippine languages belong to just two sub-groups. In the nomenclature of Ethnologue, these are the Northern Luzon and the Greater Central Philippine (GCP) sub-groups. The former sub-group includes Ilokano, Pangasinan, and the languages of the Cordillera mountain range. The latter sub-group includes Hiligaynon, Kinaray-a, Aklanon, Waray, Cebuano, Tagalog, Tausug, Bikol languages, and others. Taken together, the aforementioned GCP languages are more closely related to each other than any of them are to the northern languages (McFarland, 2004).

It is important to note that the sub-groups are not equally diverse in terms of the number and characteristics of their languages, and the internal diversity of individual languages is also quite varied. McFarland (1983) notes that Tagalog and Ilokano exhibit relatively low internal variation compared with Bikol and Waray, for example. Some languages have high internal variation, composed of dialects that are in fact not all mutually intelligible with one another. In these so-called ‘language complexes’, each speech variety is mutually intelligible with at least one other variety in the complex but not to all, making the boundaries between one language and another hard to define (Hockett, 1958). Kalinga, Bontok, Kankanaey, Ifugao, and Subanun may be considered language complexes or a group of closely related languages, for they each have an assortment of speech varieties that are partially intelligible to one another. Language complexes (also known as L-complexes, dialect continua, or dialect chains) pose a challenge to educators in the selection of the medium of instruction: while it would be easier to produce learning materials in a single standard variety of the L-complex, this may undermine comprehension for speakers of some of its more divergent varieties.
The linguistic relationships between languages found in the Philippines are relevant to language acquisition and literacy. Many of the Visayan and Mindanao languages are more similar to Tagalog than the northern Luzon languages are, despite the fact that most parts of Visayas and Mindanao are geographically further away from native Tagalog-speaking areas. The Sama languages of the deep south, however, are even more distinct from Tagalog than the northern Luzon languages. In summary, the linguistic ‘jump’ that children need to make in learning to speak and read Tagalog-based Filipino or any other Philippine language is not the same for all ethnic groups. Likewise, it is a reasonable assumption that there would be some variation across Philippine language types in the way English (and other foreign languages) are acquired and used by children. Finally, the complexities of a language or language group may affect how long students need to acquire early reading skills in their mother tongue (Seymour, Aro, & Erskine, 2003).

Significant advances have been made in characterizing, comparing, and classifying native Philippine languages in the last century. Belated realization of their importance to education, however, has left gaps in our knowledge of how individual languages shape language acquisition, literacy, and learning. The late Dr. Jose Aguilar, former dean of the University of the Philippines College of Education, Director of the Philippine Center for Language Studies, and the principal investigator of the First Iloilo vernacular experiment (1948-1954), realized early on the importance of research:

> We must now look to academic research in institutions of higher learning to motivate a continuous study of the linguistics not only of the second but also of the first languages. Such study should include administrative decisions, based on certain criteria, on what native languages may be used for lower-grade instruction. It should also include writing in depth of teaching materials in the native languages, which research shows to be capable of wide and workable use, in all subjects of the lower grades to ensure mutual transfer of training between first and second languages. (Aguilar 1961)

Aguilar asserted that universities and colleges need to prepare teachers in using local languages in education in order for them to succeed:

> Should not the Elementary teacher be given courses in vernacular teaching? The teacher is trained in English; he cannot be expected to make a proper transition to the vernacular by himself. So far the practice has most often been that English teaching materials are merely translated into the vernacular. In the early grades these materials are bound to be of the ‘This is a boy/This is a girl’ variety designed to teach English as mere language. The basic difference between using English and using the vernacular is this: the teacher using English is like the builder who has first to make the tool that she needs; the teacher using the vernacular finds the tool already made and ready to use.

With the implementation of MTBMLE, Aguilar’s appeal is equally germane today. There is ample opportunity and demand for Higher Education Institutions (HEIs) to conduct research on appropriate pedagogy, standards setting, and assessment of reading in local languages. This is in addition to the need for formal instruction of local languages, exposure to literature, instructional material-making, and language enrichment for teacher education students before they can use the local medium as an effective vehicle for literacy.
III. Sociolinguistic Factors: Implications to Literacy and Assessment

Multilingualism and multiliteracy in the Philippines

Filipinos are impressively multilingual. Outside traditionally Tagalog areas, such as in Northern Luzon, Bicol, Visayas, and Mindanao, the majority can speak a regional language, Tagalog (Filipino), and English to varying proficiencies. Minority groups in these areas commonly speak a fourth language as their mother tongue.

In native Tagalog areas, most people speak Tagalog as their first language, and know how to speak English to varying degrees. Minority groups in these areas, as with non-Tagalog areas, can usually communicate in their own languages too. In the 2010 Census, approximately 55% of inhabitants of the National Capital Region claimed to be ethnically Tagalog (National Statistics Office, 2013). The other 45% are made up of migrant Ilokanos, Visayans, Bikolanos, and other ethnicities. Even in the national capital region, therefore, a large number of people are likely bi-or tri-lingual.

To have more than one language in one’s linguistic repertoire is common. One’s languages can fulfill different social functions (Rappa & Wee 2006). A resident of Mt. Province, for example, may use Kankanaey in the home, Ilokano at church, and learn English and Tagalog in school. A second-generation immigrant in Manila may use Tagalog in the home and streets, Hiligaynon when he visits his relatives in Bacolod, and English at church and school. A child from an affluent family in Baguio may grow up speaking English as his first language, learn Tagalog and Chinese at school, and pick up basic Ilokano on the street. A native of Jolo who transferred to Zamboanga City in elementary school may use Bahasa Tausug with his parents, Chavacano and Cebuano with his friends, and Chavacano, English and Filipino in the classroom.

Out of the 116 statistical areas (provinces and highly urbanized cities) in the 2010 National Census, 91 areas had a dominant ethnic group representing more than 50% of the population. The other 25 areas did not have any dominant ethnic group. These are provinces and cities that tend to be highly multilingual, either with delineated areas of separate languages, or a true linguistic potpourri without clear geographic boundaries. In such multilingual areas, there can be several community languages used side-by-side or just one—typically a dominant lingua franca. In the Surigao provinces, for example, where no ethnic group comprises a majority, Cebuano (also known as Sinugbuanong Binisaya) is the most common community language. In Apayao province, also without a majority, Ilokano serves as the lingua franca. On the multi-ethnic island of Palawan, Tagalog is the most dominant lingua franca, and Cuyonon to a lesser extent. In North Cotabato province, Hiligaynon, Cebuano, Maguindanaao, and Tagalog are all used as community languages. In Pangasinan province, Pangasinan is the lingua franca in one half of the province, Ilokano is the lingua franca in the other half, and Tagalog serves as an overall lingua franca between the two halves.

One phenomenon occurring in some areas is language shift. While the area around Baguio City is traditionally Ibaloy-speaking, most villages now predominantly use Ilokano; in the City’s center, one can frequently hear Kankanaey, Ibaloy, Ilokano, and Tagalog—the latter two being the dominant trade languages and, increasingly, home languages. In Bukidnon province and other parts of Mindanao, speakers of minority languages like Bukidnon,
Cagayanen, and Higaonon are shifting mostly to Cebuano. In Tarlac, which is traditionally a part-Kapampangan and part-Ilokano province, many children are being raised as first language Tagalog speakers. In areas in which English has a popular image and obvious economic potential (e.g. cities with many call centers), some families, especially the upper class, use English inside the home. Language shift tends to be more pronounced in areas of greater ethnic mixing and closer to urban areas. The trends of language shift are not known precisely, however, for there has been no recent large-scale data collection on language shift vis-à-vis geographical location, socioeconomic status, gender, age, and other variables.\textsuperscript{26}

Language shift complicates the implementation of multilingual education (MLE) and early literacy. Typically, mother tongue-based MLE programs start with first language—the one the child speaks and understands best since birth—and subsequently introduce others. According to this metric, the language to which the community has shifted should be used as the initial language of literacy, not the native or heritage language\textsuperscript{27}. However, language shift is a gradual process, and only in the most advanced stages of language shift can one say that children no longer know their native language. In cases where language shift is still ongoing, there are children whose first language (L1) may be the indigenous language, while others’ L1 may be the encroaching dominant language. Even those children who speak the dominant language as their L1 may demonstrate competence in the native language. In such cases, the native language may still be a viable option as a language of early literacy.

In the case when children are no longer familiar with their community’s traditional language, is education in that language completely ruled out? Most of the research that supports using a familiar (home) language for developing literacy applies to linguistic minorities, for whom the home language typically has a lower prestige than the second languages. Almost all language groups in the Philippines fall under this category, as they are outnumbered by speakers of the national language, and moreover, their native languages have limited access to the controlling domains of education, media, and government. In contrast, language majority students (e.g. L1 speakers of international or widespread languages like English or Filipino) can effectively cope in a second language school environment under well-resourced conditions (Genesee, 1987; Ovando & Collier, 1998). Therefore, it is possible for children who have shifted to a dominant language to learn and use their ancestral language in school, provided sufficient resources. There are abundant examples of MLE programs that successfully use heritage languages as vehicles of learning, as in New Zealand, Hawaii, continental U.S., Canada, Wales, Ireland, and Rapa Nui. In these programs, cross-linguistic transfer of literacy skills, positive correlation in language proficiencies, and pupil confidence are observed (Boseker, 2000; Choosri & Sisombat, 2003; Hinton & Hale, 2001; Holobow, Genesee, & Lambert, 1987; McCarty, 2002, 2008; Usborne, et al., 2009). In formulating a role for heritage languages in education, planners should consider the level of support of the community, teacher availability, the country’s international obligations\textsuperscript{28}, and the legal rights of minorities and indigenous groups in using and developing their own languages, cultures,

\textsuperscript{26} Old surveys that looked into language shift, among other inquiries, include Caballero (1983), Dumaran (1980), Mendoza (1978), Llamzon (1984), Olonan (1978), and others.

\textsuperscript{27} Heritage language is used in this paper to refer to a native and historically-dominant language of a community or region that might still be valued culturally even if it is no longer dominant. Heritage languages are often tied to ethnic identity. Some children in a community in which a non-local language has become dominant may still speak the heritage language as a first language, learn it alongside the dominant language, or learn it after having acquired the dominant language.

\textsuperscript{28} Some international conventions and declarations enjoin signatories to respect and protect diversity, such as the UN Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities (1992) and the UNESCO Universal Declaration on Cultural Diversity (2002).
and education systems. Indeed, the exclusionary education policies of the past are partly responsible for language shift phenomena; the incorporation of heritage languages in education can be a vehicle to redress this marginalization. In choosing the dominant language as the exclusive medium of instruction, on the other hand, authorities run the risk of erasing what remains of the communities’ linguistic heritage.

The teaching approaches employed in heritage MLE programs and typical mother tongue-based MLE programs are not identical. Children may have difficulty in learning to read if they are being taught in a poorly-understood heritage language without the support of explicit strategies found in successful heritage MLE models. If a school is using a particular medium of instruction under the assumption that it is the pupils’ first language, when in fact it is not, this may contribute to poor reading outcomes. While involving a heritage language in early reading can produce good results in both the heritage and dominant language, programs need to be conscientiously designed to account for the unique conditions of children of communities undergoing language shift.

Related but not identical to language shift is the issue of language change. There are languages that are transforming due to contact with other languages. The Kapampangan language, for example, has been heavily influenced by Tagalog in the last few decades, phonologically, lexically, and syntactically (Gonzalez, 2005; Coloma, 2011). Rubrico (2011) has described an emerging variety of Filipino or “Bislog” in Davao City, retaining the morphosyntax of Cebuano (Bisaya) with lots of lexical borrowings from Tagalog and English. Wolff (2012) reflects on the diminution of grammatical complexity in urban Cebuano over the last 50 years. Likewise, the Tagalog spoken on the streets of Manila in the 21st century is not the same as the Tagalog spoken there when the nation became independent.

**Oral language environment of Filipinos inside and outside the classroom**

Ocampo (1996) outlines three basic realms of awareness or knowledge necessary for reading: i) life experience; ii) oral symbols (language); and iii) printed symbols. Life experience develops a child’s understanding of the concepts and processes of the world, a prerequisite for realizing that things can be labeled, described, and explained. Language is a tool for this purpose, and enriches life experience itself in a two-way feedback. The potential of a language to translate the world around us and deepen our understanding of it is limited by a child’s mastery of the language. Mastery of language likewise limits how much meaning can be obtained from a series of printed symbols, i.e. text. If a child does not have a stored set of oral vocabulary, with known sounds and meanings, reading is futile. Even if a child has been taught the link between sounds and printed symbols, she will not understand what she is

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29 Hogan-Brun & Wolff (2003) provide insight on aligning policy with rights: “Language rights and language policy, therefore, are two important aspects within a wider framework of minority protection, and only if this framework is right, will it be possible to put the conditions in place in which language minorities can preserve their language as part of their identity, if they so wish. That is, members of minorities should be able to make a choice, individually and collectively, about how important a component their language is for their identity. Thus, while the protection of a minority language may not be the most important criterion for the preservation of a minority identity, its forced absence will leave a void in this identity with consequences not just for the individual, but also for society as a whole.”

30 A question for makers of instructional materials is: what form of language should be adopted on print? Should materials reflect as close as possible the informal language on the street, or adopt a more stilted language that is nevertheless recognized by the public as more ‘correct’? How open to loan words should our textbooks be? Do rural varieties of speech, which tend to be less subject to change, have more legitimacy, or do urban varieties serve as more practical standards because they typically have wider influence on the population?
reading if she is not already familiar with most of the words being represented on the page. Hence, if a child’s mastery of the oral language is weak, progress in reading is difficult and slow (Angeles-Bautista, 1999; Ocampo, 1996).

Oral language begins in the home, but continues to develop substantially through all years of elementary education (McLaughlin, 1992). Numerous studies have shown correlations between first language (L1) development and literacy in both L1 and L2 (see Gabriele et al., 2009). As children learn to read in their L1, oral L1 continues to support all learning activities. Walqui (2006) explains that oral language, both L1 and L2, are involved in the learning of L2. The home language is a supportive language that can precede and follow the L2 lesson. Swain & Lapkin (2005) identify several functions of the L1 in general academic environment: developing strategies to manage the task, helping learners scaffold each other, maintaining intersubjectivity, externalizing inner speech, and socializing. The authors discuss many examples of how the L1 is used by pupils in preparation of superior L2 written and oral output.

Overall, it is hard to generalize the oral language condition of Filipino children when they begin school. The languages a Filipino child learns to speak and to what level depend on the community in which he grew up, the home environment, and the school environment.

Communities may be effectively monolingual, bilingual, or multilingual. Some of the remotest and/or poorest areas are monolingual in daily life. In multilingual communities, both urban and rural, the domains of life (home, church, market, etc.) may be open to multiple languages, or there may be clear divisions whereby each domain is dominated by a specific language. Communities may also differ in attitudes towards language. In a survey of secondary school students from different regions, Smolicz and Nical (1997) found that the Ilokano group used and preferred Filipino (Tagalog) more than English, while the Cebuano and Waray groups used and preferred English over Filipino. All groups used and maintained a positive attitude towards their respective vernaculars.31 The vernacular was reported to be dominant in the market and home domains for all groups. For the school and office domains, Filipino dominated for the Ilokano group while English dominated for the Cebuano and Waray groups. A similar result was found by Barcelona (1977), in that linguistic communities in Luzon favored ‘Pilipino’ as a second language, whereas communities in Visayas preferred English.

As for the home environment, the paramount factors affecting oral language development are the language interactions between members of the family (parents, children, grandparents, siblings, others), which may be influenced by socioeconomic status, intermarriage, and migration. Some children do not grow up with the mother tongue of their parents; most children do. Media also plays a role in the development of children’s oral language in the home. Children with access to cable TV have greater exposure to English than children with

31 Smolicz & Nical’s respondents’ positive view of their mother tongue is not universal. Other authors, such as Pangilinan (2009), have observed an increasingly negative attitude of Kapampangan youth towards their native language, calling it “vulgar”, “unromantic”, and even “unpatriotic”. McEachern (2011) notes that some Ilokanos in La Union consider their language to be low-class, corny, and uneducated. These self-deprecating views are predictable under the structures of marginalization which historically existed in the Philippines and continue to exist to some extent, such as: the exclusion of local languages in the education system, including the fining of students for speaking their native tongues; the focus of the national government on English and Filipino; the mandated celebration of Filipino Language Month without a corresponding celebration for other native languages; the dominance of Tagalog and English in television and film; etc. Similar mechanisms are in place in many post-colonial countries. Rahman (2003) and Alexander (2005) explore the negative effect state-facilitated marginalization can have on the value people assign their linguistic and cultural identities.
access to the standard channels, which broadcast in Tagalog, a few regional languages, and rarely in English (except in commercials). Radio, which is a significant medium especially in rural areas, is commonly in the regional language.

The environment of schools also affects the oral language development of children, including the language proficiency of teachers\(^{32}\), the extent to which teachers and students code switch\(^{33}\), the language of a child’s peers, and language practices outside the classroom (administration, informal interactions between teachers and pupils, extracurricular activities, and so on). Researchers have taken both positive and negative stances on code-switching among pupils: traditionally, it has been viewed as a symptom of insufficient command of an individual’s languages (Gonzalez, 1983), but it can also be a manifestation of expanding verbal repertoire, modelling multilingualism. Code-switching among teachers is also a controversial topic. While there is ample evidence for the facilitative effects of first language in second language reading (Kern, 1994) and writing (Kobayashi & Rinnert, 1992; Qi 1998), evidence about the benefit of first language in second language oral development is mixed. According to Turnbull & Dailey-O’Cain (eds., 2009), one school of thought calls for the exclusive use of the target language when teaching children a new language (the “virtual” position); other scholars consider a little use of the first language a necessary evil (the “maximal” position), while a growing amount of research supports the “optimal” position—whereby the first language is used in explicit and strategic ways to help learn the target language. Macaro (2009) concludes,

> *What emerges is an increasing possibility that banning the first language from the communicative second language classroom may in fact be reducing the cognitive and metacognitive opportunities available to learners*” (p. 49).

We are reminded in the same volume that

> *...too much focus on teacher target language use, with long periods of input modification, may result in teacher-fronted lessons in which individual learners may only be speaking the second language for limited amounts of time...which goes against the very nature of communicative classrooms.* (p. 5)

In summary, some children have multiple mother tongues, learning several languages simultaneously at a young age; others have only one mother tongue and learn additional languages sequentially at a later age. Some children learn Filipino as a first language, many learn it as a second language, and some even learn it as a third language—the same for English. Children may be trained to use specific languages in certain domains or may approach language use more fluidly. A few children may grow up to be balanced bi-/multi-

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32 According to a 2013 study by the National Educational Testing and Research Center (NETRC), teachers’ English proficiency in the Philippines was rated low to moderate on measures of “structure,” “written expression,” and “reading comprehension.” De Guzman (2005) investigated the English vocabulary knowledge of pre-service teachers in both private and public teacher education institutions in seven regions across the country. On average, the subjects did not even demonstrate mastery-level knowledge (85%) of the 2000 high frequency words necessary for daily communication in English. Scores were higher among subjects from public vs. private institutions, senior level vs. freshman level, and Regions II, VI, XI, and NCR compared with Regions III, VIII, and X. The generally low scores do not augur well for the teachers’ own reading comprehension, for which vocabulary knowledge is essential (Lafer & Sim 1985; Hu & Nation 2000). Language proficiency is not only a concern of English. Bañez (2013) found that while La Union teachers’ Ilokano language competence was enough to teach the mother tongue, there is a need to further improve their language, particularly their orthographic knowledge.

33 Code-switching has been extensively observed in the Philippines. See examples: Bacorro & Villazor (1979); Barrios et. al. (1977); Caballero (1983); Sibayan & Segovia (1980); Sobolewski (1982); Bautista (1991, 1995); Pascasio (1973, 1977, 1984, 1996); Sarreal (2008); and Thompson (2003). Most studies analyze English-Tagalog (Filipino) code-switching, but the phenomenon also exists for other language combinations.
linguals, equally proficient in their languages, but most will have a hierarchy. Children learn language in different environments, such as the home, neighborhood, and community; sometimes there is continuity in the languages present across these domains, sometimes there is not.

In an effort to respond to the linguistic complexity of the country, the Department of Education issued guidelines on the selection of the medium of instruction in the early grades. Department Order No. 16. s. 2012 presents two models. Ideally, one of the 12 (now 19) major languages in the MTB-MLE program is the majority mother tongue of students in a school, so that will be the MOI selected. In schools were there are three or more mother tongues and no obvious majority, the lingua franca in the area is to be selected. In such cases, the Department Order states that “Special classes offering the children’s MT may be held twice a week if a teacher is available for the development of oral fluency.” The oral fluency skills shall be bridged to the designated MOI for the “development of reading and writing.”

Department Order 16 further states:

*When an approved orthography of the [mother tongue] MT is available and learning resources have been developed with trained teachers, the schools are encouraged to use the desired MT. In such situation [sic], the school head (SH) shall inform the Division Office (DO) so that technical assistance could be provided and learning resources could be evaluated to meet the national standards for learning resources.*

It thus appears that the selection of a single medium of instruction across a multilingual division (such as Tagalog in Romblon province) may be a temporary measure while orthographies are developed and teachers are trained in the division’s other prominent mother tongues—resources providing. Afterall, policy allows for schools to select a medium of instruction not included in the program’s current 19 major languages. If schools in minority language areas exercised this allowance, there would be fewer instances of mismatch between the language of instruction and the native language of children. Nevertheless, the inclusion of 19 languages is still a significant improvement in access to first language (L1) education and literacy. In the former bilingual Filipino-English system before 2011, only 26% of Filipino children had access to L1 education, the third lowest rate in South East Asia (Kosonen, 2005). These were the children with Tagalog/Filipino as their mother tongue. With 19 languages in formal use, around 90% now have access to L1 education, an estimate based on the population sizes of corresponding ethnic groups (National Census, 2010).

Although applicable to many, Department of Education’s schema for language progression (L1=MT, L2=Filipino, L3=English) does not reflect the real sequence of language acquisition for everyone; nuanced language-in-education policies informed by reliable data are needed to adapt to the wide-ranging backgrounds of children. Even so, no matter what policy is employed, there will always be classrooms containing some pupils whose first language is not the medium of instruction and who may require additional support in vocabulary development and the other key components of reading.

A child’s linguistic repertoire can definitely affect the process of reading. Sanchez (2013) found that while Waray was the dominant medium of communication among thirty-seven 5 to 7 year-old pupils in Tacloban, 83.78% used a combination of Waray, English, and Filipino at home. The pupils knew the Waray words for most of the pictures presented to them, but sometimes the English or Filipino translation would be said automatically (e.g. ‘flower’
instead of ‘bukad’). This weakened the efficacy of the primer that Sanchez developed following the “Accuracy Track” of the two-track method (Malone, 2010). New letters, according to the frequency of their use in the Waray language, were introduced one-by-one to the pupils. Pictures, meanwhile, would ideally spark recognition of key Waray words that contained the new letter. However, when the pupils would associate a picture with an English word instead of a Waray word, there was no guarantee that the English utterance contained the lesson’s featured symbol. This would spark confusion as to what sound the symbol was supposed to represent—a lost opportunity to relate print to sound. Sanchez therefore recommended that teachers explicitly solicit pupils for mother tongue words (if the teacher is teaching reading in the mother tongue), conduct vocabulary-building exercises (particularly for those with weaker oral language), and be cautious with the use of pictures in prompting keywords.

Aquino (2012) analyzed the literacy skills of Filipino-speaking preschoolers before and after an 8-week literacy program following the ‘Four-Pronged Approach’ (Licmo, 1994). The preschoolers were divided into three groups, each treated with a different medium of instruction: monolingual English, monolingual Filipino, and bilingual English and Filipino. Each group took post-tests in both English and Filipino. All three groups improved their literacy skills in both languages, giving weight to the central processing theory of biliteracy described in Wagner & Torgesen (1987) and others. That is, underlying cognitive and linguistic skills (e.g. verbal memory, speed of naming, phonological awareness, etc.) support the development of reading skills in any language; furthermore, literacy skills developed in one language can predict literacy skills in another language, regardless of the language or script involved. Interestingly, however, Aquino did not encounter uniform improvement in all three groups. The group taught monolingually in Filipino (the pupils’ L1) improved the most after 8-weeks, followed by the English group, and then the bilingual group, highlighting the effectiveness of mother tongue-based instruction. Moreover, both the Filipino-medium and English-medium groups demonstrated greater gains in the Filipino post-test than the English post-test, on average. This agrees with the idea that characteristics of the language itself, such as the greater orthographic transparency of Filipino compared to English, affect the speed of acquisition of literacy skills. While this ‘script-dependence’ may seem contradictory to the central processing theory, Aquino concludes that her study exhibits complementarity in the two theories: both underlying skills and the specific language influence literacy development.

In an investigation of nearly 500 bilingual Filipino-English children from Grade 1 to 6, Ocampo (2005) found that a reading skill or underlying cognitive ability in one language (e.g. rapid visual naming, recall, and other phonological processes) was highly correlated to the same skill or ability when assessed in the other language, which supports the central processing hypothesis. Some results, however, pointed to the language-dependence hypothesis: i) the correlation between word-reading ability and underlying skills in one language was higher than the correlation between word reading ability in the same language with underlying skills in the other language; ii) Filipino non-word reading ability was higher in Filipino, the children’s dominant language, than in English. In the third part of the study, the author used step-wise regression analysis to determine the best predictors of word reading

34 The monolingual Filipino-medium group had the highest gains in 4 out of 8 skills in the Filipino post-test and 3 out of 8 skills tested in the English post-test. The monolingual English-medium group had the highest gains in 3 skills in the Filipino post-test and 2 in the English post-test. The bilingual medium group had the highest gains in no skills in the Filipino post-test and 1 skill in the English post-test.
ability. For Filipino word reading, these were English non-word reading, Filipino non-word reading, Filipino rapid naming, and Filipino word span (recalling and repeating a series of words). English word reading scores had the same set of predictors, plus English rapid naming and English listening comprehension. Ocampo concludes that both hypotheses explain word processing. That is, a focused number of factors predict reading ability, which are similar regardless of language. On the other hand, script characteristics influence the development of reading skills to some extent, as noted in Gholamain & Geva (1999) and Geva & Siegel (2000).

Another researcher found that language background even has an effect on the reading process of adult readers. Arias (2004) analyzed the way bilingual Filipino-English teachers processed academic text written in English. Arias observed that no two readers process a text the same way. Nevertheless, the participants utilized both their L1 and L2 in processing the L2 texts, translating or code-switching as they read to fill lexical gaps. The author concludes that readers should not be discouraged from employing their L1 when reading and discussing L2 texts, as it can aid comprehension. Multilingualism is a strength that can facilitate literacy development. As Lo Bianco (2000) asserts “many children utilize complex literacy awareness and talent daily; literacies which invoke ethnic, ideological, religious, script, technical and national-identity statuses in [a] marketplace of authorized, traditional and hybrid forms… Diversity in the plural literacy practices…have within them the power to open up new intellectual worlds.”

Bearing in mind the variegated linguistic environments of Filipino children, more research is needed about how language background responds to different approaches of literacy instruction. The Department of Education’s encouragement of teachers and administrators to conduct local research is providential. In a large recent conference on the new K-12 Philippine education system, Villarama & Peteza (2013) demonstrated the impact on literacy performance of regularly regrouping pupils based on mother tongue oral reading tests; Balacano & Daligdig (2013) tested the effectiveness of mother tongue storybooks on pupil achievement; Regidor & Regidor (2013) presented an English remedial reading program for Grade 2 non-readers; Lobis-Nieva (2013) outlined a planned investigation of mother tongue instructional materials development; and Cabug (2013), Capobres (2013), Ladic (2013), and Moises (2013) evaluated the implementation of Mother Tongue-Based Multilingual Education (MTBMLE) in their respective schools/divisions. If methods are rigorous, replicable, and scalable, even small-scale research—when considered collectively—can be informative to policy and practice.

**Literacy Environment of Filipinos Inside and Outside the Classroom**

In order to become fully literate—that is, readily derive meaning from text (when reading) and produce meaningful text (when writing)—building component skills is not sufficient. Children must continue to develop their oral language abilities, be exposed to and engage a wide range of texts, and have motivation to practice their literacy skills in an integrative way.

Many Filipino researchers have written on the ingredients for literacy development beyond the component skills of phonological awareness, decoding and word recognition, vocabulary knowledge, oral reading fluency, and comprehension.

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Pado (2002) states that, while direct instruction of skills like decoding is necessary, children should be exposed to print early and should be allowed to develop literacy non-linearly. Comprehension skills (e.g. being able to sequence events, classify information, identify cause and effect, etc.) can be practiced even before children know how to read, through oral-aural activities. Likewise, writing can be practiced before reading, in light of observations that children attempt to write very early when given the freedom to do so, and that many activities like scribbling are now seen as bellwether literacy events, or “emerging literacy” (Medrano, 1997). Both Pado and Medrano encourage a focus on free error-tolerant engagement with writing at the initial stage, instead of emphasizing the mechanics of writing such as handwriting, capitalization, and punctuation. This inspires putting ideas to print, creativity, and meta-cognitive appreciation for the purpose of writing.

Responding to international research on the schema theory of reading, Hermosa (1991, 1992) agrees in adopting a broader perspective on reading in Philippine classrooms, focussing not just on the written text and the component skills with which to tackle the text, but also on what prior knowledge the reader brings to the reading process. The degree of comprehension achieved by the reader is influenced by the degree of match between the reader and the text’s schemas. Similarly, Ocampo (2006) cites Lipson & Wixson (1991) in the three factors that influence reading performance and comprehension: the reader, the text, and the context. Poor reading performance is not always the ‘fault’ of the reader, Ocampo stresses, as each of the factors need to align synergistically. If the content and language of the text does not sufficiently overlap with the child’s prior knowledge—conceptual, socio-cultural, and linguistic—comprehension becomes harder. This is particularly relevant to readers of second languages. According to Parmer (2005), an L2 reader might not understand the complete idea of a passage because of unfamiliar content, form, and language. Context too is vital for good reading performance. If the purpose of reading is not well conveyed, the physical setting is not conducive to reading, and the instruction on how to read is poor, children will face an uphill struggle to read well. Ocampo therefore recommends the expansion of the assessment of reading to include all three factors, whereby the reader is assessed (formally and informally, both skills and attitudes), the text is assessed (content and language), and the context is assessed (quality of reading instruction and environment).

Traditionally, classroom and remedial reading instruction in the Philippines relied upon skill development (Hermosa, 1992). A number of Filipino researchers have highlighted the role of literature and literary practices to integrate such skills. Ediger (1990) and Aquino (2005) discuss the importance of diverse, high quality literature to motivate children to read, attend class, and master literacy skills. Basadre & Hermosa (2010) comment that different types of texts can be used as teaching tools to scaffold learning and to build reading confidence. Hermosa (1992) states, “We learn by reading real or authentic texts for real purposes, whether for information or enjoyment.” Citing Bruner (1990), the author describes literature as a doorway to literacy because it encompasses the wide range of human experience, distills meaning from events, and is the driving force behind deeper language learning. According to Sibayan (1991), one needs to have some knowledge and language before learning to read, but one must also read to acquire more knowledge and more language. These insights are related to the set of beliefs of the ‘whole-language’ movement, based on the following ideas: i) language conveys meaning and has purpose; ii) writing is language; iii) the cuing systems of language (phonology, morphology, syntax, semantics) are always present in language use; iv) language use is situational; and v) situations are critical to meaning-making. Cullinan (1992)
breaks down ‘whole language’ into three ideas: i) children learn to read by reading; ii) reading is a part of language and is learned in similar ways as other forms of language; and iii) learning in one area of language helps learning in other areas. Through the lens of ‘whole language’, reading instruction should naturally integrate reading with listening, speaking and writing, and should help students enjoy the process of obtaining and generating meaning from text. More concretely, whole-language reading programs typically consist of teachers reading to children, shared book experience, sustained silent reading, guided reading, individualized reading, language experience, children’s writing, modeled writing, opportunities for sharing, and content area reading and writing (Hermosa, 1991).

In integrated literature-based reading and language programs like “whole-language,” reading is viewed as a process of constructing meaning by encountering language through a whole variety of real-life texts such as magazines, newspapers, signages, commercial labels, books, and computer resources. In response to criticism about whole-language programs neglecting direct skills development, Philippine reading experts have made attempts to integrate the two philosophies of skills-based instruction and rich literature environments. The University of the Philippine’s College of Education formulated the Integrated Literature-Skills Instruction or “LINKS” framework, whereby specific reading skills are embedded in literature-based lessons (Hermosa, 2005). Lessons follow the standard format of basal readers, with pre-reading, reading, and post-reading exercises, but are enriched to better integrate the four language areas (listening, speaking, reading, writing). The reading material should be authentic, interesting, purposeful, and well-motivated beforehand. Post-reading activities—both by groups and individuals—galvanize more personal interaction of the reader with the text, and target the development of specific reading skills. Teachers play a key role in modelling skills and strategies to let the pupils ‘in on the secrets of good readers’.

Ocampo (1996) designed a 3-month literature-based program for the teaching of reading and language in two poor day care centers. Children who underwent the program exhibited significant gains in more areas of early literacy than the control group. Orencia (2005) implemented a whole-language reading program for Grade 3 pupils, seeing improvement in comprehension, attitudes about reading, recall of stories, creativity, individuality, and ownership of the pupils’ output. Padilla (2010) ran a summer literature program for urban poor children aged 7-10 based on LINKS lessons, observing high attendance, enthusiasm, and at least 75% lesson mastery among 85-90% of the pupils. Such experiences inform us that through explicit instruction of literacy skills and rich engagement with literacy materials, most, if not all children can become successful readers at an early age. Indeed, Serquiña & Ocampo (2010) identified 85 schools around the country that score high in National Achievement Tests despite being in the most economically depressed municipalities (4th-6th class). The schools share a set of attributes to which the researchers credit their high performance: strong instructional leadership; knowledgeable, competent language teachers; an in-school reading program protecting time for reading instruction, practice, and intervention; and active parent/community involvement.

Reading and writing are cognitively challenging tasks. It is worth emphasizing that a wealth of reading materials encourages individuals to become literate, gives them the chance to practice their literacy skills, and hones their ability to discriminate between good and poor writing (Chhetri and Baker, 2005; UNESCO 2005c). Unfortunately, the literacy environment and literacy instruction for most Filipino children are not as nourishing as those found in the aforementioned experiments and high-performing schools. To appraise the literacy
environment of a multilingual country, the environment of each language community should be considered, both inside and outside school. While having ample texts in second languages is better than nothing at all, a lack of L1 texts in particular is a missed opportunity for children to experience reading as a richer meaning-making activity (Kosonen 2005). Exposure to L1 print has been correlated with better L1 skills (particularly phonemic awareness, word decoding, and spelling, but also reading comprehension, vocabulary, and listening comprehension), L2 aptitude, L2 proficiency, and L2 classroom achievement (Sparks, et al., 2012b).

The history of publication in Philippine languages is sporadic (de Ungria, 2009). Likewise, the penetration of languages in contemporary literacy domains varies. Major languages such as Cebuano, Hiligaynon, and Ilokano have larger corpuses than other local languages, generated by a limited number of local newspapers, magazines, comics, and the occasional novel. The Carlos Palanca Memorial Award for Literature—the most prestigious in the country—currently includes the three aforementioned languages in the Short Story category. Literature and language advocacy associations exist in most of the regions, such as Akademiyang Bisaya (Cebuano), Gunglo dagiti Mannurat nga Ilokano (Ilokano), Timpuyog dagiti Mannurat iti Iluko (Ilokano), Katik Waray (Waray), Amunang Sisuan (Kapampangan), Ulupan na Pansiansay Salitan Pangasinan (Pangasinan), Sumakwelan Writers Association (Hiligaynon), and others. Local government units, the National Commission of Culture and the Arts (NCCA), and other organizations like the Unyon ng mga Manunulat sa Pilipinas (Union of Writers in the Philippines) occasionally hold writeshops and competitions for the production of literature in native languages, often in cooperation with the individual language groups.

Because of the historical lack of state sponsorship of local languages—particularly in the realm of education—levels, patterns, and trends of local language literacy are largely undocumented. People can develop familiarity with the written form in some formal settings, like church, and may have learned it in school if they attended Grade 1 and 2 during the period of vernacular education from 1957 to 1973. Dictionaries exist in many Philippine languages, but only those for the most prominent languages are commercially available. Local newspapers and magazines provide added opportunity to read in the major regional languages, but the mere existence of such materials does not guarantee vibrant literacy practices. Having not received formal training in their own language, many Ilokanos for instance find it cumbersome to read local publications, hence readership is low (Almodovar, pers. comm.). Sugbo (2003) adds that exclusionary language policy in the country has bred an attitude against literature in their own languages, dating as far back as World War II. In a national survey of different linguistic groups when Philippine languages had minimal role in the education system, English was the most popular choice among respondents for reading a range of materials (books, newspapers, religious texts, government info), as Filipinos were not equipped to be literate in their mother tongues (Otanes & Sibayan, 1969). A bigger percentage of respondents in the survey did not regularly read at all. As Shiohata (2010) points out, “even if communities and households were filled with reading materials, it is unlikely that people would automatically begin reading them. Whereas people can access

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36 Unfortunately for teachers, the better the dictionary, the more prohibitive the cost! Local government units and school boards are potential funders for the acquisition of dictionaries, grammars, books, and the making of in-house instructional materials.

37 Eddy Almodovar is the publisher of Banat, an English-Ilokano weekly newspaper in San Fernando City, La Union.
electronic media such as television and radio without having been to school, they need education before they can access reading materials. Filipinos’ per capita consumption of books and magazines is well behind its East Asian neighbors (Ople, 1993; Orencia, 2005).

Barring the individual’s own initiative to seek out mother tongue materials and develop his own reading ability, most Filipinos’ exposure to the written vernacular is incidental, catching sight of it on public notices and the rare commercial billboard. Particularly for smaller language communities and rural areas, the literacy environment in the Philippines is similar to most low-income countries: people are “unlikely to be confronted regularly with printed matter in the home in newspapers and magazines, on covers of boxes and wrappings . . . and outside in the forms of billboards and public signs” (Greaney, 1996). While upper-class and urban denizens generally have more access to literacy materials (a pattern observed in both developing and developed countries—see Neuman & Celano (2001) and Shiohata (2010), they are predominantly in English. Sibayan (2002) describes a 7-level hierarchy of languages in terms of literature wealth, with English occupying the top tier, followed by Filipino/Tagalog, then large lingua francae like Cebuano, Ilokano, and Hiligaynon, smaller regional languages like Waray and Bikol, provincial languages like Kankanaey, sub-provincial languages like Tuwali, and finally languages that have not yet been reduced to print—chiefly the smallest languages spoken in just a few villages.

A paucity of local language materials in the general environment is a concern for early reading development. However, even with regard to English and Filipino, which command greater presence in the environment and have been used in the education system for many decades, motivation to read outside the classroom is low and there are many frustration-level readers. In 2002, 40% of Grade 1 children from the National Capitol Region (NCR) moved to Grade 2 without knowing how to read (Pado, 2006). For perspective, the average Filipino spends 3.6 hours reading the newspaper per week (Sunstar, 2011) but watches 5 hours of television per day (Osorio, 2012). Sibayan (1991) laments the ubiquitous distraction of TV and the culture against reading. Even in the highly urbanized area of Greater Manila, broadsheet, tabloid, and magazine readership hovers around 20% (Inquirer 2011).

While technology can be a ‘distraction,’ it can also be a platform for literacy practices. A new dimension to reading and writing is mobile and internet communication. Over 80% of Philippine households have at least one mobile phone (Roa, 2013), and 35% have access to

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38 Among the large lingua francae of Cebuano, Hiligaynon, and Ilokano, Cebuano is the most developed. It has more speakers, more newspapers with greater circulation, larger music output, and is even included in the services of prominent tech companies like Google Inc. and Globe Telecom.

39 Fortunately, non-government and religious organizations have worked many decades to put previously oral languages onto paper. SIL has developed materials in more than 70 Philippine languages (UNESCO 2005a), has produced about 60 dictionaries and word lists as of 2002, and has published over 1000 vernacular literacy and translation-related materials (Quakenbush, 2005). Another positive development is the growth of movements to use and promote local languages. Several local governments—such as the Provinces of La Union, Pampanga, Pangasinan, and Zamboanga City—have passed legislation promoting their respective native languages that could in theory enhance the visibility of local language in the environment, allowing children to practice listening to and reading the mother tongue in a variety of contexts outside the classroom and home. See Zamboanga Ordinances 109, 233, 374 and Resolutions 177 and 206; Pampanga Resolutions 138, 147, and 1193; Pangasinan Resolution 195; La Union Ordinance 026 and Resolutions 111 and 139.

40 This statistic is particularly worrying since NCR is among the best-performing regions in the country. Gove & Cvelich (2011) describe how reading ability is much worse in Mindanao than in Manila. While the causes of the disparity are manifold, Skoropinski (2013) identifies the former bilingual language policy as one of the vitiating factors: “Students in the Manila area enjoy the benefits of being taught first in their first language and of having a substantial body of written literature available in their mother tongue (MT), a luxury that most pupils in most other regions of the country do not have. In particular, those in rural communities who are not regularly exposed to Filipino and English would seem to be most at risk of failing to learn to read.”
internet in 2013, up from 29% in 2011 (Agcaoili, 2013). Around 50% of Filipinos in their 20s access the internet. The increasing rates of usage of mobile and internet have lead to a surge in informal typing in Philippine languages, big and small (Harvey? Lido?). Again for lack of formal mother tongue education, mechanics of texting (especially spelling) is highly divergent, as people infer the conventions of their language based on what they know of Filipino/Tagalog; Gonzalez (1998) calls this transfer of literacy a “washback effect.” The introduction of mother tongue-based instruction will likely reduce the need for such guessing in future, and facilitate more literate use of vernaculars.

The literacy environment of the home varies tremendously. Parents who lack literacy skills themselves (in any language) are limited in their capacity to assist their children in reading. Children of challenged readers, which are more common in poor, rural, and minority communities, have less support in learning how to read. Children of monolingual homes will have more difficulty learning how to read second languages than those who have oral and visual exposure to such languages. Children left alone at home by their parents, who have limited reading materials at home, and have no time to read are more likely to experience reading difficulties (Abraham-Mella, 2013). Parents who work as Overseas Filipino Workers (OFWs) may be entirely absent to guide their children, even if they can provide for their families economically. Several researchers have studied the parental and home effects on language and literacy development (e.g. Basco 1993; Dugenia, 1987; Molina-Felix, 2012; Pado, 1990; Yasay, 1991; Din-Garcia, 2013).

Economic standing plays a significant role in the literacy development of children. The fact that many poor children perform below grade level is not surprising given the disparities in literacy environment, literate behaviors, and access to participation in literary events between the lower and upper classes (Padilla, 2010). Maminta (2005) explored the types of sociolinguistic environments in which cross-lingual transfer of literacy skills occurred under the old bilingual system. Grade 3 bilingual English-Tagalog pupils of the affluent University of the Philippines Integrated School (UPIS) scored higher in Tagalog (Filipino) reading proficiency tests than their more disadvantaged peers at the Balara Elementary School, even though the Balara pupils were more exposed to Tagalog as a community and home language. Furthermore, there was stronger correlation in the English and Tagalog reading scores of UPIS pupils, unlike the Balara pupils. Maminta refers to the literacy situation of the Balara pupils as a “sad state of semi-lingualism”, characterizing their “impoverished linguistic and conceptual background” as “restricting factors in promoting literacy skills in both languages.” Interestingly, the Grade 3 pupils of another public school included in the study—Vigan Elementary School—had similar result to UPIS, even though its pupils are of lower socio-economic status and speak Ilokano as their native language. The Vigan pupils’ readings test scores were higher than the scores of the Balara pupils, and the scores correlated across the three languages they were assessed in (Ilokano, English, and Tagalog). The author cites strong community use, pride, and support for the local language which gives the pupils a solid L1 foundation for the parallel development of their second languages.

Since home and community disparities are not easily fixed, it is vital that schools provide a rich literacy environment—particularly in first languages—so that children who otherwise are
starved of reading experiences are given the opportunity to practice skills and develop positive attitudes towards reading as soon as possible. Sibayan (1991) describes a perennial lack of classroom reading materials, but the Department of Education has made strides in rectifying the shortage through the empowerment of the regional, division, and school units to produce their own localized materials, particularly storybooks. Production varies considerably, with some units taking a more active role in establishing targets, organizing regular workshops, and sharing and digitizing outputs.

While quantity is important, quality of the materials is also an important consideration. Providing children with interesting and meaningful texts is more important than simply increasing their number (Elley, 1996). Sibayan (1991) observes that reading materials in Philippine classrooms are often too hard, too easy, or not engaging enough. This complaint is valid for new mother tongue materials too. Standards for text difficulty at each grade level have not yet been made for many of the local languages, and readability tests like SMOG and FRY for English have not been adapted to Philippine languages (Morauda-Gutierrez, 2013). These gaps are corroborated by teacher comments, namely that language materials (mother tongue, Filipino, and English) sometimes use stilted language and vocabulary not suitable for the assigned grade level. A misconception of some writers of Philippine language texts (including Filipino and other languages) is that in order for them to be ‘correct’ and ‘proper’, they must not contain borrowed words from Spanish and English. In reality, loan words have become integrated into the regular lexicon of Philippine languages and in some cases are used far more frequently than the indigenous synonym (e.g. kolor, from the Spanish color, is more familiar to Ilokano speakers than the native word maris). To completely avoid such loan words makes for unnatural and more difficult text.43

Another aspect of instructional material quality is the harmonization of content between subjects, particularly the language subjects. While the three language subjects (mother tongue, Filipino, and English) are supposedly guided by an Integrated Language Arts Curriculum, it is unclear to what extent the existing Teacher Guides (TGs) and Learner Materials (LMs) of each subject complement each other. For example, certain domains or literacy skills in the Integrated Language Arts Curriculum (e.g. ‘book and print knowledge’) do not need to be taught in the English and Filipino subjects if they have already been introduced early in the mother tongue subject. If TGs and LMs are not developed strategically in relation to other subjects, teachers risk spending too much or not enough time on teaching each literacy skill.

Aside from instructional materials, teachers greatly influence the environment and culture of literacy in the classroom. According to Samuels & Farstrup (2002), teachers are one of the most critical variables for pupil’s success in learning to read. Wray et al. (2002) assert that teachers of reading should be knowledgeable of the subject just as teachers of regular content subjects are.44 Brady & Moats (1997) state that teachers must have a conceptual foundation

43 Increasing the volume of mother tongue reading materials and maintaining quality are two very important goals in improving the environment of reading in the elementary grades. Finding the correct balance between centrally and locally-lead initiatives to achieve these two goals is an ongoing effort in the Department of Education (Ocampo, pers. comm.)

44 Specifically, teachers should be knowledge of the content of the subject (e.g. What is that children need to learn to become literacy? What is the relationship between written and spoken language? How is language organized, and how does it change?), the pedagogy of the subject (e.g. What are the accepted principles and strategies of teaching children how to read? What activities should be done, when, and how?), and the context of reading (e.g. How do children learn to read? How are children similar and different in language learning and developing literacy? What external factors help or hinder this development?).

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of how reading is acquired and must know the causes of failure so that they may take remedial action. Snow, Burns and Griffin (1998) similarly opine that a teacher’s knowledge base is central to prevent reading difficulties. Unfortunately, Pado (2004) notes that pre-service and in-service training in the Philippines is often not sufficient for producing good reading teachers. Teachers hold many misconceptions about the normal pace of literacy acquisition, differences in teaching reading in first and second languages, and the purpose of writing, to name a few. Villanueva (2004) conducted a Subject Matter Knowledge Test on preschool and elementary teachers, which displayed weak grasp of the concepts important to teaching literacy. On the bright side, a post-test revealed that even after a brief training teachers’ knowledge gained significantly.

Educators’ personal practices and attitude toward reading also matters. Hornedo (1999) notes with distress that no one among the 300 school supervisors he encountered in Bulacan province admitted to reading a book that year, a pattern likely shared by teachers. Low readership among the people who are managing and implementing reading programs raises questions about their own mastery and love of reading, their ability to inculcate the same in children, and their capacity to model good reading practices. Teachers at all levels should be encouraged to read. In the early grades, teachers should actively seek out and trade reading materials, especially in the mother tongue as the language of initial literacy. Teachers’ individual efforts must be matched by programmatic initiatives to bolster the production and availability of such materials. According to Elwert (2001), literacy campaigns in developing countries often fail because they are carried out “without proper regard to the language and learning needs of the communities concerned.” For sustainability, literacy campaigns should institutionalize the spreading of writing, particularly in local languages (Olson & Torrance, 2001).

As much as possible, teachers should convey to their pupils enthusiasm about reading. One factor that can help or hinder attitudes about reading in the mother tongue is the way it is situated in education policy. Piper & Miksic (2011) point out that—because Kenya and Uganda allocate little role for the mother tongue beyond Grade 3, and maintain English as the medium of high-stakes national assessments—teachers, pupils, and students are ambivalent about the utility of the mother tongue policy in the early grades. Thus, it is imperative that governments that adopt mother tongue do so carefully and comprehensively so as not to undermine the purpose of its inclusion. Piper & Miksic remark, “The failure (thus far) of governments to deliver high-quality instruction in mother tongues tends to undermine the potential that researchers know exists.” While communities may be resistant to the proposition of a language reform, eventual support will prove elusive if the components pivotal to the reform’s success are not in place. Such components for mother tongue-based multilingual education include, but are not limited to: accurate demographic and linguistic data for effective decision making; a high quality and volume of instructional materials; language and pedagogy training for pre-service and in-service teachers; adequate length of

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45 The Subject Matter Knowledge Test included questions to test linguistic knowledge, literacy teaching approaches, and concepts related to reading difficulties.

46 Building a repository of language materials involves corpus planning (Cooper 1989). Production of mother tongue instructional materials should be institutionalized within the education system, centrally or devolved, and integrated in donor projects, public-private partnerships, and NGO activities.

47 Training should endow teachers with the knowledge (content, pedagogy, and context), skills (best honed by practice), and conducive attitudes for teaching literacy. As language is fundamental to literacy, training should also equip teachers with proficiency in the first and second languages, a long process that extends all the way back to their own elementary schooling.
first language instruction;\textsuperscript{48} consistency in the medium of assessment;\textsuperscript{49} gradual introduction of other languages;\textsuperscript{50} in-built policy flexibility to account for different sociolinguistic conditions; an institutional culture valuing pluralism; information dissemination to raise awareness and support of stakeholders; parent and community involvement in program planning, implementation, and evaluation, a strong organizational structure;\textsuperscript{51} and research that drives continuing improvement of the system.

Including the mother tongue as a language learning area in basic and higher education will aid future teachers in refining their first language competency, just as with the second languages of English and Filipino.

\textsuperscript{48} A 2011 report (Pinnock, Mackenzie, et al.) on school language in low and middle-income countries states, “Robust evidence from several countries shows that children who do not use mainstream languages at home need to learn in their own language for at least six years, at the same time as being introduced to new languages that they will need later in life.” (p.6).

\textsuperscript{49} The language of assessment normally matches the language of instruction. It is notable, however, that several approaches to assessment vis-à-vis language exist. Assessment can be monolingual, bilingual, or multilingual. Language of assessment could also be a choice at the level of a division, district, school, teacher, or even the pupil himself.

\textsuperscript{50} A 2011 UNESCO literature review on multilingual education states, “Research and theory support the gradual introduction of L2, first through formal instruction in L2 as a subject of study, and subsequently, through the use of L2 in a gradually increasing number of academic subjects in the curriculum. However, this second step should not be taken too soon.” Although children may develop functional language for social situations within a year, achieving academic literacy has been estimated to take 5 or more years for second-language learners (Cummins, 2000, 2001).

\textsuperscript{51} Ideally, there are people identified within the education system to facilitate the planning, implementation and monitoring of MTBMLE in general, and language/literacy instruction in particular. The Philippine Department of Education’s identification of MTBMLE coordinators at every level is beneficial. If resources allow, point people can be assigned to handle each language included in the system so that they may serve as conduits of information about issues specific to a language. With a linguistic rather than a geographic purview, they would also be able to coordinate activities like instructional material making and assessment across the divisions in which the language is used.
Appendix A: Philippine Language Maps

All ethnolinguistic groups (northern Philippines)

Source: Ethnologue (2013)
All ethnolinguistic groups (southern Philippines)

Source: Ethnologue (2013)
Principal geographic areas of L1 speakers of major Philippine languages

This is a map of the areas where most of the mother tongue speakers of the following regional languages reside: Ilokano (ILO), Pangasinan (PAG), Kapampangan (PAM), Tagalog (TGL), Central Bicol (BCL), Waray (WAR), Hiligaynon (HIL), Cebuano (CEB), Maranao (MRW), Maguindanaoan (MDH), Chavacano (CBK), and Tausug (TSG)

## Appendix B: Population of Philippine ethnolinguistic groups of over 100,000 people

Source: 2010 National Census

<table>
<thead>
<tr>
<th>Ethnolinguistic group</th>
<th>Population</th>
<th>Principal Provinces and Highly Urbanized Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tagalog</td>
<td>23268228</td>
<td>Bataan, Bulacan, Nueva Ecija, Aurora, Zambales, Olongapo City, Batangas, Cavite, Laguna, Rizal, Quezon, Lucena City, Marinduque, Occidental Mindoro, Oriental Mindoro, Puerto Princesa City, City of Manila, Mandaluyong City, City of Marikina, Pasig City, Quezon City, City of San Juan, Caloocan City, Malabon City, Navotas City, Valenzuela City, Las Piñas City, Muntinlupa City, Parañaque City, Pasay City, Pateros, City of Taguig</td>
</tr>
<tr>
<td>Ilokano (Ilocano/Iloko/Iluko)</td>
<td>8,074,536</td>
<td>Ilocos Norte, Ilocos Sur, La Union, Pangasinan, Cagayan, Isabela, Nueva Vizcaya, Quirino, Tarlac, Aurora, Zambales, Abra, Apayao, Baguio City</td>
</tr>
<tr>
<td>Hiligaynon (Ilonggo)</td>
<td>7,773,655</td>
<td>Guimaras, Iloilo, Iloilo City, Negros Occidental, Bacolod City</td>
</tr>
<tr>
<td>Bikol (Bicol)</td>
<td>6,299,283</td>
<td>Albay, Camarines Norte, Camarines Sur,</td>
</tr>
</tbody>
</table>

53 The 2010 National Census (National Statistics Office, 2013) collected data on ethnicity, not language. While most people of an identified ethnic group speak a language of the same name, the ethnic population and the language population are not exactly the same. First, not all ethnic divisions are language based. Some ‘ethnicities’ included in the 2010 Census, like Boholano, Cebuano, and Bisaya, typically speak the same language (i.e. Cebuano, the native name of which is Sinugbuanong Binisaya). Moreover, some people identify as one ethnicity but speak a language associated with a different ethnicity—a common occurrence in the cases of miscegenation, language shift, and migration. Over 200,000 people claimed to be Mamanwa ethnicity but the number of people who actually speak Mamanwa is only a few thousand, according to Ethnologue. Languages like Ilokano and Cebuano, on the other hand, have more speakers than the number of people who identify as Ilokano or Cebuano, respectively, because they are regional lingua francae spoken by other ethnicities too. Thus, while the ethnic data provided in the table can provide a rough idea of the magnitude of most language populations, it is not an accurate proxy for some. In this data set, the Cebuano, Boholano, and Bisaya populations are combined as one ethnolinguistic group. Likewise the estimated Tagalog-speaking population is a combination of the Census categories of Tagalog and Caviteño (the latter being a geographically-based identity, the vast majority of whom speak Tagalog as their first language).

54 The principal provinces and cities of an ethnicity are defined in this report as i) any province/city in which the ethnicity comprises more than 25% of the province/city’s population, or, ii) any province/city in which the ethnicity’s population makes up at least 10% of the ethnicity’s total national population. Places in parantheses almost meet either of the two criteria and are recognized as important locations for the stated ethnolinguistic group.

55 Many Filipinos identify as ethnic Bikolanos, yet they speak several closely related languages—the same with ‘Manobo’, ‘Sama.’, ‘Ifugao’, ‘Subanon’. The Census does not make any distinction between the different language communities that make up the generic ‘Bikol’ or ‘Subanon’ ethnicities, so we cannot determine the number of speakers of each of the languages that these generic labels comprise. On the other hand, the Census does include several Sama categories: for
<table>
<thead>
<tr>
<th>Language/Region</th>
<th>Population</th>
<th>Area of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waray (Samar-Leyte)</td>
<td>3,660,645</td>
<td>Eastern Samar, Northern Samar, Western Samar, Biliran, Leyte, Tacloban City</td>
</tr>
<tr>
<td>Kapampangan</td>
<td>2,784,526</td>
<td>Tarlac, Pampanga, Angeles City</td>
</tr>
<tr>
<td>Pangasinan (Pangasinense)</td>
<td>1,823,865</td>
<td>Pangasinan</td>
</tr>
<tr>
<td>Maguindanao (Magindanawn)</td>
<td>1,456,141</td>
<td>Cotabato City, Maguindanao, Sultan Kudurat, North Cotabato</td>
</tr>
<tr>
<td>Maranao (Meranaw)</td>
<td>1,354,542</td>
<td>Lanao del Sur, Lanao del Norte</td>
</tr>
<tr>
<td>Tausug (Bahasa Sug)</td>
<td>1,226,601</td>
<td>City of Isabela, Sulu, Tawi-Tawi</td>
</tr>
<tr>
<td>Capiznon (Capiseño)</td>
<td>710,273</td>
<td>Capizeño</td>
</tr>
<tr>
<td>Masbateño (Masbatenyo)</td>
<td>677,942</td>
<td>Masbate</td>
</tr>
<tr>
<td>Karay-a (Kinaray-a/Hinaray-a)</td>
<td>600,534</td>
<td>Antique</td>
</tr>
<tr>
<td>Akeanon (Aklano/Inakeanon)</td>
<td>559,416</td>
<td>Aklan</td>
</tr>
<tr>
<td>Manobo</td>
<td>549,784</td>
<td>Agusan del Sur, (Agusan del Norte), (Butuan City), Davao del Sur, Surigao del Sur, (North Cotabato), Sultan Kudurat</td>
</tr>
<tr>
<td>Subanong (Subanen)</td>
<td>492,978</td>
<td>Zamboanga del Norte, Zamboanga del Sur, Misamis Occidental, Zamboanga Sibugay</td>
</tr>
<tr>
<td>Zamboangueño Chavacano</td>
<td>427,354</td>
<td>Zamboanga City, City of Isabela</td>
</tr>
<tr>
<td>Ibanag</td>
<td>402,591</td>
<td>Cagayan, Isabela</td>
</tr>
<tr>
<td>Sama (Samal)</td>
<td>369,553</td>
<td>Tawi-Tawi, Sulu, Basilan</td>
</tr>
<tr>
<td>Surigaonon</td>
<td>367,278</td>
<td>Surigao del Sur, Surigao del Norte</td>
</tr>
<tr>
<td>Kankanay</td>
<td>362,833</td>
<td>Mt. Province, Benguet, Baguio City</td>
</tr>
<tr>
<td>Higaonon</td>
<td>338,078</td>
<td>Bukidnon, Misamis Oriental,</td>
</tr>
<tr>
<td>Mandaya</td>
<td>304,210</td>
<td>Davao Oriental, (Davao del Norte), Compostela Valley, (Agusan del Sur)</td>
</tr>
<tr>
<td>Blaan</td>
<td>301,620</td>
<td>Davao del Sur, Sarangani, South Cotabato</td>
</tr>
<tr>
<td>Cuyonon (Cuyonen)</td>
<td>278,349</td>
<td>Palawan, Puerto Princesa City</td>
</tr>
</tbody>
</table>

Example, a survey respondent may choose the label ‘Sama Bangi’i’, ‘Sama Laut’, ‘Sama Badjao’, or just simply ‘Sama.’ Still, we cannot determine for sure the population of each component group because some respondents may have selected one of the more specific labels like ‘Sama Bangi’i’ while others may have opted for the general identification ‘Sama’, without revealing what category of Sama they are. The same problem pertains to the Ifugao and Manobo people. 102,030 and 349,784 people identified as ‘Ifugao’ and ‘Manobo’, respectively, but additional Ifugao and Manobo populations are accounted for in other, more specific Census categories. For detailed descriptions of the inter-dialectical relationships of the Manobo, Bikol, Sama, and Ifugao ethnicities, see Elkins (1974), McFarland (1974), Pallesen (1977), and Walrod (1979), respectively.
<table>
<thead>
<tr>
<th>Language</th>
<th>Population</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iranon</strong> (Iranun/Iraynon)</td>
<td>269,544</td>
<td>Maguindanao, Cotabato City</td>
</tr>
<tr>
<td><strong>Davaweño</strong></td>
<td>263,744</td>
<td>Davao City, Davao Oriental, (Davao del Norte)</td>
</tr>
<tr>
<td><strong>Itawis</strong></td>
<td>253,016</td>
<td>Cagayan</td>
</tr>
<tr>
<td><strong>Zambal</strong></td>
<td>204,610</td>
<td>Zambales</td>
</tr>
<tr>
<td><strong>Mamanwa</strong></td>
<td>204,416</td>
<td>Surigao del Norte</td>
</tr>
<tr>
<td><strong>Yakan</strong></td>
<td>202,314</td>
<td>Basilan</td>
</tr>
<tr>
<td><strong>Ibaloy</strong> (Ibaloi)</td>
<td>189,730</td>
<td>Benguet, Nueva Vizcaya, Baguio City</td>
</tr>
<tr>
<td><strong>Bukidnon</strong></td>
<td>168,234</td>
<td>Aklan, Negros Oriental, Bukidnon</td>
</tr>
<tr>
<td><strong>Kalinga</strong></td>
<td>163,167</td>
<td>Kalinga</td>
</tr>
<tr>
<td><strong>Romblomanon</strong></td>
<td>157,398</td>
<td>Romblon</td>
</tr>
<tr>
<td><strong>Tboli</strong> (T’boli)</td>
<td>144,951</td>
<td>South Cotabato, Sarangani</td>
</tr>
<tr>
<td><strong>Tagakaulo</strong></td>
<td>121,420</td>
<td>Davao del Sur, Sarangani</td>
</tr>
<tr>
<td><strong>Bago</strong></td>
<td>103,388</td>
<td>Ilocos Sur, La Union</td>
</tr>
<tr>
<td><strong>Teduray</strong></td>
<td>103,139</td>
<td>Maguindanao, Sultan Kudurat</td>
</tr>
<tr>
<td><strong>Ifugao</strong></td>
<td>102,030</td>
<td>Quirino, Nueva Vizcaya, Isabela</td>
</tr>
</tbody>
</table>
Appendix C: Population of Provinces and Chartered Cities of the Philippines, with each of their top five ethnolinguistic groups

Source: 2010 National Census

<table>
<thead>
<tr>
<th>Region</th>
<th>Provinces and Highly Urbanized Cities</th>
<th>Population</th>
<th>Top 5 Ethnolinguistic Groups (descending order of population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ilocos</td>
<td>Ilocos Norte</td>
<td>567006</td>
<td>Ilocano (95%), Tagalog, Itneg, Isi</td>
</tr>
<tr>
<td></td>
<td>Ilocos Sur</td>
<td>657902</td>
<td>Ilocano (83%), Bago, Kankanaey, Itneg, Tagalog</td>
</tr>
<tr>
<td></td>
<td>La Union</td>
<td>740710</td>
<td>Ilocano (86%), Kankanaey, Bago, Tagalog, Pangasinan</td>
</tr>
<tr>
<td></td>
<td>Pangasinan</td>
<td>2777449</td>
<td>Pangasinan (49%), Ilocano, Tagalog, Bisaya, Bikol</td>
</tr>
<tr>
<td>2 Cagayan Valley</td>
<td>Batanes</td>
<td>16530</td>
<td>Ivatan (95%), Ilocano, Tagalog, Bisaya, Bikol</td>
</tr>
<tr>
<td></td>
<td>Cagayan</td>
<td>1123570</td>
<td>Ilocano (65%), Itawis, Ibanag, Tagalog, Malaueg</td>
</tr>
<tr>
<td></td>
<td>Isabela</td>
<td>1488518</td>
<td>Ilocano (67%), Ibanag, Tagalog, Yogad, Gaddang</td>
</tr>
<tr>
<td></td>
<td>Nueva Vizcaya</td>
<td>420676</td>
<td>Ilocano (56%), Kalanguya, Ifugao, Ibaloy, Tagalog</td>
</tr>
<tr>
<td></td>
<td>Quirino</td>
<td>176467</td>
<td>Ilocano (64%), Ifugao, Tuwali Ifugao, Ayangan Ifugao, Kankanaey</td>
</tr>
<tr>
<td>3 Central Luzon</td>
<td>Bataan</td>
<td>685167</td>
<td>Tagalog (80%), Bisaya, Kapampangan, Ilocano, Bikol</td>
</tr>
<tr>
<td></td>
<td>Bulacan</td>
<td>2919370</td>
<td>Tagalog (77%), Bisaya, Bikol, Ilocano, Waray</td>
</tr>
<tr>
<td></td>
<td>Nueva Ecija</td>
<td>1953716</td>
<td>Tagalog (78%), Ilocano, Bisaya, Bikol, Kapampangan</td>
</tr>
<tr>
<td></td>
<td>Tarlac</td>
<td>1271743</td>
<td>Kapampangan (43%), Ilocano, Tagalog, Bisaya, Pangasinan</td>
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<tr>
<td></td>
<td>Aurora</td>
<td>200799</td>
<td>Tagalog (46%), Ilocano, Bikol, Bisaya, Kankanaey</td>
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<tr>
<td></td>
<td>Pampanga (Excluding Angeles City)</td>
<td>2010219</td>
<td>Kapampangan (82%), Tagalog, Bisaya, Ilocano, Bikol</td>
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<td></td>
<td>Angeles City</td>
<td>324510</td>
<td>Kapampangan (64%), Tagalog, Bisaya, Ilocano, Bikol</td>
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<tr>
<td></td>
<td>Zambales (Excluding Olongapo City)</td>
<td>532836</td>
<td>Zambal (30%), Tagalog, Ilocano, Bisaya, Ayta</td>
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<tr>
<td></td>
<td>Olongapo City</td>
<td>220118</td>
<td>Tagalog (71%), Bisaya, Ilocano, Zambal, Kapampangan</td>
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<tr>
<td>4A Calabarzon</td>
<td>Batangas</td>
<td>2374327</td>
<td>Tagalog (95%), Bisaya, Bikol, Ilocano, Hiligaynon</td>
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<td>Cavite</td>
<td>3078727</td>
<td>Tagalog (66%), Bisaya, Bikol, Waray, Hiligaynon</td>
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<tr>
<td></td>
<td>Laguna</td>
<td>2665732</td>
<td>Tagalog (83%), Bikol, Bisaya, Ilocano, Hiligaynon</td>
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<td>Rizal</td>
<td>2480966</td>
<td>Tagalog (61%), Bisaya, Bikol, Ilocano, Waray</td>
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<td></td>
<td>Quezon (Excluding Lucena City)</td>
<td>1738015</td>
<td>Tagalog (90%), Bisaya, Bikol, Ilocano, Masbateño</td>
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<tr>
<td>Region</td>
<td>Province</td>
<td>Population</td>
<td>Primary Languages</td>
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<tr>
<td>--------------</td>
<td>---------------------</td>
<td>------------</td>
<td>--------------------------------------------</td>
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<tr>
<td>4B Mimaropa</td>
<td>Lucena City</td>
<td>245242</td>
<td>Tagalog (94%), Bisaya, Bikol, Ilocano, Waray</td>
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<tr>
<td></td>
<td>Marinduque</td>
<td>227582</td>
<td>Tagalog (96%), Bisaya, Bikol, Ilocano, Waray</td>
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<tr>
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<td>Occidental Mindoro</td>
<td>450779</td>
<td>Tagalog (53%), Bisaya, Ilocano, Iraya, Alangan</td>
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<td>Oriental Mindoro</td>
<td>784375</td>
<td>Tagalog (75%), Bisaya, Hanunuo, Ilocano, Romblomanon</td>
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<td>Romblon</td>
<td>283482</td>
<td>Romblomanon (39%), Bantoanon, Ati, Bisaya, Karay-a</td>
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<td>Palawan</td>
<td>768800</td>
<td>Cuyonon (25%), Hiligaynon, Bisaya, Palawano, Tagalog</td>
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<td>Puerto Princesa City</td>
<td>216910</td>
<td>Cuyonon (28%), Tagalog, Bisaya, Hiligaynon, Ilocano</td>
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<td>5 Bikol</td>
<td>Albay</td>
<td>1231607</td>
<td>Bikol (96%), Tagalog, Bisaya, Agta-Tabangnon, Ilocano</td>
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<td></td>
<td>Camarines Norte</td>
<td>542315</td>
<td>Bikol (83%), Tagalog, Bisaya, Ilocano, Waray</td>
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<td>Camarines Sur</td>
<td>1818699</td>
<td>Bikol (94%), Tagalog, Agta-Tabangnon, Bisaya, Agta</td>
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<td>Catanduanes</td>
<td>245574</td>
<td>Bikol (96%), Bisaya, Tagalog, Waray, Ilocano</td>
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<td>Masbate</td>
<td>833638</td>
<td>Masbateno (66%), Bisaya, Bikol, Hiligaynon, Tagalog</td>
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<td>Sorsogon</td>
<td>739688</td>
<td>Bikol (96%), Bisaya, Tagalog, Agta-Tabangnon, Ilocano</td>
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<td>6 Western Visayas</td>
<td>Aklan</td>
<td>533573</td>
<td>Akeanon (91%), Bukidnon, Hiligaynon, Tagalog, Romblomanon</td>
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<tr>
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<td>Antique</td>
<td>545204</td>
<td>Karay-a (81%), Cuyunon, Ati, Iranon, Panay-Bukidnon</td>
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<td>Capiz</td>
<td>718961</td>
<td>Capizeño (94%), Panay-Bukidnon, Hiligaynon, Bisaya, Akeanon</td>
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<td>Guimaras</td>
<td>162734</td>
<td>Hiligaynon (98%), Karay-a, Bisaya, Ati, Tagalog</td>
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<td>Iloilo (Excluding Iloilo City)</td>
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<td>Hiligaynon (98%), Bisaya, Tagalog, Capizeño, Karay-a</td>
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<td>2393087</td>
<td>Hiligaynon (93%), Bisaya, Bukidnon, Karulano, Karay-a</td>
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<td>Bacolod City</td>
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<td>Hiligaynon (95%), Bisaya, Tagalog, Karay-a, Chinese</td>
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<td>7 Central Visayas</td>
<td>Bohol</td>
<td>1252793</td>
<td>Bisaya (98%), Tagalog, Hiligaynon, Waray, Davaweño</td>
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<td>Negros Oriental</td>
<td>1284351</td>
<td>Bisaya (94%), Hiligaynon, Bukidnon, Karay-a, Tagalog</td>
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<td>Siquijor</td>
<td>90975</td>
<td>Bisaya (98%), Hiligaynon, Tagalog, Waray, Ilocano</td>
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<td>Cebu (Excluding Cities)</td>
<td>2613842</td>
<td>Bisaya (99%), Hiligaynon, Tagalog, Waray, Chavacano</td>
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<td>Cebu City</td>
<td>860942</td>
<td>Bisaya (96%), Hiligaynon, Tagalog, Waray, Chinese</td>
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<td>Lapu Lapu City</td>
<td>350422</td>
<td>Bisaya (96%), Hiligaynon, Tagalog, Maranao, Waray</td>
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<td>Mandaue City</td>
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<td>Bisaya (97%), Hiligaynon, Tagalog, Waray, Chavacano</td>
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<tr>
<td>8 Eastern Visayas</td>
<td>9 Zamboanga Peninsula</td>
<td>10 Northern Mindanao</td>
<td>11 Davao</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------</td>
<td>---------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Eastern Samar</td>
<td>Eastern Samar</td>
<td>Bukidnon</td>
<td>Davao Del Norte</td>
</tr>
<tr>
<td>427974</td>
<td>427974</td>
<td>1294877</td>
<td>937785</td>
</tr>
<tr>
<td>Waray (98%), Bisaya, Tagalog, Bikol, Surigaonon</td>
<td>Waray (96%), Bisaya, Tagalog, Bikol, Yogad</td>
<td>Bisaya (68%), Subanen, Kalibugan, Tausug, Sama</td>
<td>Bisaya (64%), Hiligaynon, Ilocano, Mandaya, Davaweño</td>
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<tr>
<td>Northern Samar</td>
<td>Western Samar</td>
<td>Camiguin</td>
<td>Davao Oriental</td>
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<td>587586</td>
<td>731669</td>
<td>83676</td>
<td>516475</td>
</tr>
<tr>
<td>Waray (93%), Bisaya, Tagalog, Bikol, Hiligaynon</td>
<td>Waray (93%), Bisaya, Tagalog, Bikol, Hiligaynon</td>
<td>Bisaya (60%), Hiligaynon, Subanen, Tausug, Chavacano</td>
<td>Bisaya (42%), Mandaya, Davaweño, Kalagan, Hiligaynon</td>
</tr>
<tr>
<td>Western Samar</td>
<td>Southern Leyte</td>
<td>Misamis Occidental</td>
<td>Compostela Valley</td>
</tr>
<tr>
<td>398577</td>
<td>161250</td>
<td>566340</td>
<td>686704</td>
</tr>
<tr>
<td>Bisaya (98%), Waray, Tagalog, Surigaonon, Hiligaynon</td>
<td>Bisaya (58%), Waray, Tagalog, Hiligaynon, Bikol</td>
<td>Bisaya (88%), Subanen, Hiligaynon, Ati, Maranao</td>
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