

Using English as a Medium of Instruction in Maths and Science: Issues and Concerns from the Philippines

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ABSTRACT

The Philippines is known to be one of the largest English speaking countries in the Asian region. It has been recognized that one of our advantages over our Asian neighbours is the ability of a good portion of our population to communicate in English. This paper aims to share with the teachers in Malaysia, our experience in enhancing the capabilities of our teachers in using English as the medium for teaching mathematics and science. Recognizing that science and mathematics are tool subjects, the government has adopted the policy of using English as the medium of instruction. The paper will trace the historical roots of the national policy on making English as the medium of instruction and it will also discuss some of the very crucial issues and concerns that the Department of Education faced during its implementation. The paper will also include the efforts of the government and other stakeholders in improving the competence and proficiency of teachers and students in using English as a second language.

Introduction

In 1990, Tejero claims that the Filipinos "take inordinate pride in claiming that we are the third largest English-speaking nation on earth". A very ambitious claim but considering the rate the Filipinos as populating, we may be slowly going that way.

This paper aims to discuss the historical perspective of how English was adopted as the medium of instruction for science and mathematics in the Philippines. Also included in the discussion are issues and concerns in using and teaching English as a medium of instruction.

The concluding portion of the paper discusses the past, present and future efforts of the government to continuously enhance the English language competencies of the teacher to improve the teaching and learning of science and math.

Education During The American Period

During the Spanish regime, schools were mostly established, ran and maintained by the Roman Catholic Church. In 1863, the Education Decree established a system of education consisting of elementary, secondary and collegiate levels. Schools controlled by the church came under a system regulated by the state. Acceptance to schools during this period is strictly influenced by the socio-economic status of those wanting to enroll. Very few women were accepted in learning institution those times.

In June 12, 1898, the Philippines became the first Asian nation to gain independence after more than three hundred years under the Spanish rule. When the American occupied Manila and eventually the rest of the islands, the Americans allowed the continuance of the church established schools with the requirement of making the teaching of English language part of the curriculum. On January 1901, the second Philippine commission passed Act 74, also known as the Education Act of 1901, establishing the Department of Instruction. The same Act "ensure to the people of the Philippines a system of **free public schools**". This endeavor is to become the greatest contribution of America to the Filipinos. The Act also authorized the establishment of private schools but was mum on the control and regulation of such establishments.

The following year, on March 6, the Philippine Commission passed Act No. 372 forming an archipelago wide provincial high schools, trade schools and agricultural and farm schools. Included in the instruction are academic and commercial subjects, manual training, instruction in agriculture and normal-school instruction. The US soldiers assumed the task of teaching the English language to the natives. President McKinley directed the American soldiers in the Philippines to "fit the people for duties of citizenship of a civilized community." Focus of instruction were the 3R's: reading, (w)riting and (a)rithmetic. Initially, books imported from America were used for instruction since all existing reading materials were in Spanish. There was one problem though, since books were imported, the cultural biases and inconsistencies were very pronounced. Students and adults alike were learning things that are foreign and irrelevant to their needs.

At the time when the public school system was adopted, the Americans realized that there are at least eight major native languages: Tagalog, Cebuano, Ilocano,

Bicol, Waray, Ilonggo, Pampango and Pangasinan. Aside from these major languages, there are other smaller language groups bringing the total number to more than seventy languages. Needing a common medium of instruction, the Americans adopted English as the medium. The soldiers and the teachers from America – also known as Thomasites, after the U. S. Transport Ship “Thomas”, found that it was better and cheaper to teach them their language than to learn the different languages used by the natives. This gesture of teaching their language to the Filipinos was taken as goodwill by a people who were deprived from learning the language of their previous colonial masters.

The American teachers’ role was not limited to teaching their students academics, civics and livelihood, they also trained their native counterparts by improving their proficiency in English as well as the lessons to be taught in the future. Some American teachers would even hold evening classes for adults. The Americans catered to the thirst for knowledge of the Filipinos.

The American system of education, specifically, elementary education emphasized instruction in the English language and grammar, industrial arts and physical education. Physical aspects of the school environment were improved as an input to the delivery of quality education. Facilities and school locations were designed to make an environment most conducive to the learning needs of the students.

Post American Period

The Philippines was declared independent of America on July 4, 1946, the public school system has been institutionalized as well as English as the medium of instruction. During this period, an English speaking person could be understood in more areas than a Tagalog speaking one. This is how expansive the learning and utilization of English has been.

In the 1930’s, English continued to be the language of business and trade in Asia, and especially with the Americans and Britons who controlled the majority of the commercial transactions of the time. When the Bell Trade Act was signed in 1946, Philippine’s economic dependence on the United States for years to come was guaranteed. The Philippine Bases agreement of 1947 further cemented the economic relations between the Philippines and the United States by ceding land for U.S. Military bases on the islands. These economic and military agreements between the countries as well as the adoption of the American system of education guaranteed the continuation of English as a preferred language.

As early as the 70’s, even with the increasing nationalist sentiment, Filipinos continued to be dependent on the English language and American supported and controlled industry as the only means to reach their economic goals. In 1974, the Department of Education, adopting a bilingual education program, delegated the teaching of social sciences to Pilipino. Article XIV, Section 7, of the 1987 Philippine Constitution states: “For purposes of communication and instruction, the official languages of the Philippines are Filipino and, until otherwise provided by law, English.”

In 1989, Brother Andrew Gonzalez admits: *"Loyalty to English is still extremely strong and it is still seen as a means to social mobility. Let's face it, all the material rewards are still offered to those who speak English. As long as that is the case, English will exist."* (Scott, 1989:45)

Why English?

The use English by governments, schools and for economic advancement significantly affected the importance given to the learning of this language by the Filipinos. The prestige associated with knowing English, and later Pilipino, as a consequence of massive campaigns by the government, is another factor known to promote a shift in language. The government, specifically the Department of Education, has recognized early enough the fact that English is **the** international language.

The Philippines has adopted English as a medium of instruction in teaching math and science because of the availability of resources and references in English. With the advent of information and communication technology (also using English as a medium), the use and understanding of English allows the students better access to information available through the net. The use of English by most services also contributed to the adoption of English as a medium of instruction.

Issues and Concerns:

The adoption of English as a medium of instruction in the teaching of math and science was not as smooth sailing as it looked. Unlike in the early days of American occupation when there is no or little objection, objection to the use of English as a medium of instruction at present comes from different sides of society. Nationalist felt that children should be taught and learn Pilipino for patriotic reasons and to be able to understand their heritage. They argued that using English was pedagogically unsound for teaching Filipinos due to the intricacies of the language. Researches made by the academe concluded that using a English as a medium of instruction poses double difficulty for the students – that of learning and understanding English and learning and understanding the science and math concepts which are being taught. Simply put, Filipinos simply learn better in their own tongue than in English. The first president after the American occupation, Manuel Roxas, held responsible the use of English as a medium of instruction for the perpetuation of poverty and lack of intellectual development of the majority of the Filipinos.

PAST, PRESENT and FUTURE

Our past showed us that the persistence and hard work put in by the first teachers of English in the Philippines- the American soldiers, developed an English speaking nation to a point when people would not understand a Filipino language but would definitely be able to comprehend something said and/or written in English. This was up to the late 50's. After the American occupation, Filipinos started to spouse more nationalistic views which resulted to a renewed patriotism. Patriotism that shunned all things foreign, including the English language. The 60's and 70's ushered a period of rebellion not only of political nature but also culturally. There was a clamor for things Filipino and even the use of Filipino became fashionable. The Department of Education did not succumb to fashion. In 1974, it came out with a memorandum specifying that the

medium of instruction for science and math should be English. Textbooks which were initially bought and sourced from America were substituted with locally published textbooks. English however, stayed as a crucial part of the curriculum. Technically, Filipino is only used in teaching Pilipino. Filipino writers were still writing literature, poetry and technical papers and report in English. Students were exposed to English literature by both foreign and local writers. Focus of English teaching was grammar, spelling and phonics. Those who can speak English without a trace of their native or provincial roots were praised. Each child is expected to learn at least an elocution or a declamation piece. Training was both oral written. Students starting in Grade 1 were taught conversational English and were asked to do oral reading of the English Primer. Higher grade levels tackled more complicated lessons such as spelling and oral rendition of English poems or excerpts from plays. High school students were steeped in English literature starting with the classics to film exposure. Students were fined for not speaking English or when caught using the local language when conversing with their classmates. The students were forced to speak correct English and was reinforced by constant exposure to mass media. Until the late 70's the medium of mass communication was dominated by the English speaking and writing institutions and personalities. Even government officials were using English mostly in delivering their speeches and messages. There were two however who subscribed to code-switching – Presidents Diosdado Macapagal (father of our present president) and Ferdinand Marcos. It should be noted that the nationalist sentiments started during the term of these two gentlemen.

The 80's was a period of political upheaval. The discontent brought about by Martial law and the subsequent People Power gave rise to a more mass-based mass media. Media is now targeting the greater number of the citizenry. There was a compelling reason to shift from English to Filipino. This shift to Filipino proved to be costly for the English language. Due to the acceptance of Enggalog (English-Tagalog) and/or Taglish (Tagalog-English), our students became more comfortable with this language. Although the medium of instruction was English, English proficiency of both our teachers and students began slowly sliding down.

In May 17, 2003 the President has issued an Executive Order entitled “Establishing the Policy to Strengthen the Use of the English Language as a Medium of Instruction in the Education System.” The order specifically stated that the Department of Education should conduct training programs nationwide to develop and improve the proficiency of teachers. The Department of Education, administered a test for English, Science and Math teachers to determine their level of proficiency. The level of English proficiency of teachers was not dismal nor it is something to crow about. The results of the test presented the management a reason to conduct the National English Proficiency Program (NEPP) through the National educators Academy of the Philippines (NEAP), the training arm of the department. As a direct response to the call of the president, the NEPP is a program addressing the difficulties of the teachers of Science, Math and English in teaching using English as a medium of instruction. As an intervention, the NEPP is embarking into a mentorship program to help the teachers in their difficulties. A series of training program involving the future mentors, education supervisors and school officials were conducted to orient them on the program and the program design. The scheme adopted is very similar to the School-Based Training Program being done for science and math education. The enhancement program are school-based and the mentors are identified from those performed very well in their respective regions/divisions. So far, the department has trained 1,150 mentors, trainers

and administrators. The future doesn't seem so bleak. The department hopes to develop and train more teachers to help our students become more proficient in English.

The contribution of private sector in English education should be given proper credence. In the Philippines, although the majority of the people are now speaking and comprehending more Filipino than English, it should be noted that there are television programs which cater to the development and improvement of the English proficiency of our students. One such show is the locally produced APPLE, EPOL. Another is a canned program for children – Blues Clues. Cable TV also provides us with a variety of English programs which are very interesting and are popular with both adults and kids. Technology and communication, even mobile phones now allow us to express and be exposed to English through sms or texting. The possibilities for the future are endless if we think of the new and more sophisticated machines and conditions we are in. The teacher however is the key to our dream- if the teachers are proficient, then our students will become proficient. Our students can only learn what we allow them to learn and we can only give them what we have.

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