

# Using MALL to explore Language Comprehension of Non-native Speakers

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**Abstract:** The Philippines has a bilingual education policy that ensures the development of language literacy in its national language, Filipino, and the global language, English. However, being a linguistically diverse country, most of the population in the central and southern islands are non-native Filipino speakers and expressed that they are not comfortable using the national language and have difficulty using English as well. This study aims to explore Filipino and English comprehension of primary school students whose lingua franca is neither Filipino nor English through mobile-assisted language learning.

**Keywords:** Mobile-Assisted Language Learning, *Ibigkas!*, Learning *Likha*

## 1. Introduction

Language is a symbol of national identity and culture. In the Philippines, the 1987 Constitution designated Filipino as the national language. However, the Philippines has a linguistically diverse population with no absolute majority of speakers of any given indigenous language that even the distinction of what Filipino is remains unclear to most citizens. Many Filipino children's first language is different from the national language which poses an issue for the cultural communities, for whom Filipino is now their second (or even third or fourth) language. Moreover, the Philippines has a Bilingual Education policy that ensures the development of literacy in Filipino and English as essential to matriculate to higher education and secure a professional occupation (Madrurnio et al., 2016). In 2018, the Philippine Supreme Court decided to make the Filipino language optional instead of a required course in tertiary level. With this, it is imperative that students attain a certain level of English and Filipino proficiency at the primary or secondary education level. However, results from prior work (Yanagihara, 2007) indicate that students who are non-Filipino speakers were not comfortable using it. This study aims to use Mobile-Assisted Language Learning to investigate the Filipino and English comprehension of primary school students from rural and urban communities whose lingua franca is neither Filipino nor English.

## 2. Mobile-Assisted Language Learning – *Ibigkas!* and Learning *Likha*

Mobile-Assisted Language Learning (MALL) is a specialized field of mobile learning (mLearning) which utilizes mobile technologies so learners can autonomously study a second language as research show that mobile devices can indeed be effective tools for delivering language learning materials to the students (Kukulska-Hulme et al., 2017). In the current situation it also seems an opportune time to integrate MALL into the language curriculum as mobile phones are more common in the households compared to personal computers, hence, it can reach more underserved cultural minority communities.

The mobile games *Ibigkas!* (English and Filipino versions) and Learning *Likha* were developed to help improve English and Filipino literacy skills. *Ibigkas!* is a drill-type game that can be played in single player or multiplayer mode that focuses on word rhymes, synonyms, and antonyms. Learning *Likha*, is a narrative type game which targets comprehension skills by attention to details through written, oral, and visual language. Both these games were tested on students whose primary language is Filipino (Moreno et al., 2019; Rodrigo et al., 2019).

### 3. Data Collection

*Ibigkas!* (English and Filipino versions) and Learning *Likha*, will be deployed, through remote testing methods, to elementary students (*grades 4, 5, and 6*) from a rural public school and an urban public school in southern Philippines. The target number of participants will be 15 for each grade level from each school for each game, with a total of 270 participants. At the start of each session, the participants will be given a survey questionnaire that will assess their attitudes towards the Filipino and English usage and access to technology. The survey will adapt the format used in prior work (Moreno et al., 2019; Rodrigo et al., 2019) and will ask the participants to indicate their levels of agreement (strongly disagree to strongly agree) with statements about their attitudes and usage of Filipino and English. The participants will also be given a pre-test in relation to the learning content of the game. After collecting the survey questionnaires, the participants will play *Ibigkas!* after which they will be asked to answer the Game-Based Learning (GBL) Engagement Metric (Chew, 2017) and the Intrinsic Motivation Inventory (IMI) (Ryan, 1982) to measure their engagement and motivation. The participants will then answer a post-test in relation to the game's learning outcomes.

### 4. Analysis

The following data features are expected to be collected: responses to the survey questionnaire on the attitudes towards usage of Filipino and English and access to technology, Filipino and English comprehension scores (pre- and post-test), interaction logs, performance scores, GBL Engagement Metric components, and IMI components. Outliers will be identified and will be excluded from the data for analysis. A regression model will be developed to determine which among the data features will exhibit significant relationships with Filipino and English comprehension of the learners. These data features will include the learner's attitude towards Filipino and English, game score, tap counts, GBL engagement metric subcomponents, and IMI subcomponents. The relationship between the learner's attitude towards the usage of the Filipino/English and their GBL engagement subcomponents and IMI subcomponents and the difference between the Filipino/English comprehension, attitude towards the usage of Filipino/English, access to technology, and in-game performance of learners from the rural area and urban area shall be determined. The findings shall give MALL developers and teachers more insights on the challenges of learning the national and global language for non-native speakers.

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