

**MASTERING MOTHER TONGUE
(ILOKO TUTORIAL)**

**BRENDA MAY C. ANTONIO
CARL JOEY A. BERZABAL
JAMIL M. RAMOS**

**A CAPSTONE PROJECT PRESENTED TO THE FACULTY OF THE
ILOCOS SUR POLYTECHNIC STATE COLLEGE
INSTITUTE OF COMPUTING STUDIES
STA. MARIA, ILOCOS SUR**

**IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE DEGREE
BACHELOR OF SCIENCE IN INFORMATION SYSTEM
(INTERACTIVE TECHNOLOGY)**

MARCH 2016



TABLE OF CONTENTS

PRELIMINARIES	PAGE
Approval Sheet	i
Acknowledgement	ii
Dedication	iv
Executive Summary	vii
Table of Contents	ix
List of Tables	xi
List of Figures	xii
CHAPTER	
I INTRODUCTION	
Project Context	1
Statements of Objectives	4
Purpose and Description	4
Scope and Limitation	5
II REVIEW OF LITERATURE	
III TECHNICAL BACKGROUND	
The Rapid Application Development (RAD)	14
IV METHODOLOGY	
Project Plan	16
Project Team Assignments	17
Instrumentation	18
Data Categorization	18

**V RESULTS AND DISCUSSION**

Features of the Mastering Mother Tongue	31
Testing the Usability of the Game	35

VI SUMMARY, CONCLUSION AND RECOMMENDATION

Summary	42
Conclusion	43
Recommendation	44

BIBLIOGRAPHY 45**APPENDICES** 49**CURRICULUM VITAE** 67



Chapter I

INTRODUCTION

Project Context

According to James Heide Smith 2002, few years ago there wasn't much to talk about. Now, however, computer game research is booming resulting in common terminology, competing paradigms and serious discussion on the subjects of games and gaming. Computer games, like other media, have taken some time to register on the academic radar screen. Film, although treated seriously early on was not considered an entirely valid research field until the 1960s which saw the birth of actual academic departments. Games, now 40 years old, are starting ' quite suddenly ' to attract attention from a wide range of disciplines. Only five years ago it would be possible to survey the entire field of game research without raising much of a sweat. Sociologists and psychologists had attempted to map behavioral effects, but not in ways that warranted special attention compared to similar studies on other phenomena in the same league. Today, scholars from fields as diverse as comparative literature, graphic design, computer science, film studies and theatre studies have contributed to the understanding of the phenomenon of computer games. In the following I try to convey a crude map of the field. I attempt ' but do not hope to succeed ' to provide a balanced view of what is essentially a non-



unified research community with huge differences in outlook and priorities.
(Smith, 2002)

As cited from Culturalsurvival.org (2012,)making English and Tagalog the official languages of the Philippines is a practical move, seeing as there needs to be language that can be used to do business and trade as well as to communicate on both national and international levels. Still, the constitutional declaration of these two languages as official and the other languages as auxiliary takes a discriminatory tone when looking at how it resonates in other policies and in the public sphere. However, a singular wish to teach children English at all costs, when coupled with punishment for using one's mother tongue, is both psychologically and culturally damaging. On the psychological level, a child's sense of identity is grounded in his or her mother tongue. If children are conditioned to pair English with success, they will increasingly view their own native language as irrelevant. They may not see the need to pass it on to the next generation, causing eventual language endangerment for minority languages, a significant cultural loss. (*Culturalsurvival.org, 2012*)

Furthermore, the definition of "mother tongue" is a contentious subject, as many parents teach their children English at home. "Mother tongue" is interpreted by some as the cultural language, but others as the language taught from birth, regardless of whether it is part of traditional



heritage. Without a clear agreement, resistance to the bill and confusion within communities will remain. (*Culturalsurvival.org, 2012*)

While questions and concerns remain regarding the implementation of this bill, proponents of cultural preservation do believe this MTB-MLE bill is a step in the right direction. The reluctance of educators and administrators does not necessarily mean resistance. Those with reluctance can take comfort in the success of those who had implemented a MTB-MLE system prior to the legislation. Among these schools is the Tarik Soliman Elementary School, a public school located at Brgy Sagrada Familia, Masantol, Pampanga, in the Philippines, whose principal asserted that they felt as if teaching in Kapampangan, the language of their village, has been the best policy. And crucially, this bill has opened up a national dialogue about the linguistic diversity in the country and how to deal with homogenous English-based education. The historic legislation brings the issue to the forefront of the country's mind, as it affects the future of Filipino children greatly. In this way, the years of linguistic discrimination, both intentional and unintentional, are now being discussed on a national level. The bill's passage also sends a clear message to those partaking in linguistic discrimination, that it is a practice that will no longer be accepted or ignored by the government. The bill itself can serve as an example for other countries seeking education reform. As No Child Left Behind expires in the U.S., the U.S. would do well to consider this bill when developing new policies. The MLB-MTE initiative was passed in when a complete education



overhaul was already underway. The time may be right for a U.S. attempt at education that accurately reflects the country's own linguistic diversity, especially when it comes to Indigenous languages in Native communities.

(Culturalsurvival.org, 2012)

Statement of Objectives

The aim of this study is to develop a computer game or application called "Mastering Mother Tongue (Iloko Tutorial)".

Specifically, the study sought to attain the following:

1. to gather the necessary data need in the development of the system.
2. to create and develop a game named Mastering Mother Tongue (Iloko Tutorial)
3. to test the usability of the game using the survey tool called SUMI in accordance to the following:
 - a) Efficiency
 - b) Attractability
 - c) Helpfulness
 - d) Controllability
 - e) Learnability

Purpose and Description

Teachers. This system may be used by the teacher as their strategic plan in teaching.



Pupils. This system may improve and test the knowledge of the pupils along the Iloko language dialect.

Researchers and Future Researchers. This work can provide a wide opportunity for the proponents to apply their capability in making a game and by searching a work or job by the use of their knowledge in building a game. This study may serve as their reference for the coming studies related to this in the future.

Scope and Limitation

This application can only be played in desktop computers. This study covers the Mother Tongue lesson for Grade I. This game has two choices called *Agay-ayam* (Play) and *Agsursuro* (Learn). The *Agsursuro* (Learn) part has three (3) categories namely: *Dingwen* (animals), *Maris* (colors) and *Numero* (numbers), while on the *Agay-ayam* (Play) the pupils just only answer those questions or guess the picture that appears on the screen.

This application is limited to desktop computers or personal computers. The language that used in this system is Iloko. This game is for single players only.



Chapter II

REVIEW OF LITERATURE

DepEd develops learning supplements using mother-tongue

As cited from www.gov.ph (2011), the Department of Education (DepEd) has released guidelines on the use of funds to develop learning materials for schools offering mother-tongue-based multilingual education (MTB-MLE). Mother tongue-based education prescribes the use of the language learners speak at home in delivering lessons and in classroom discussions. MTB-MLE is implemented from pre-school up to Grade 3 and in the alternative learning system. “Producing educational materials that suit the specific needs of learners will result to better learning outcomes,” said Secretary of Education Armin Luistro. Luistro explained that the DepEd came up with the guideline to synchronize and decentralize the production of indigenized teaching and learning materials as well as in the monitoring and evaluation of the MTB-MLE. (*www.gov.ph*, 2012)

According to Luistro, Local and international studies show that the use of the learner’s mother tongue or the language used at home is the most effective medium of learning. “It is the easiest way for children to access the unfamiliar world of school learning.” (*www.gov.ph*, 2012)

Educators say that when the use of mother tongue is discarded in favor of an unfamiliar language upon the children’s entry into grade school, the



learners lose interest in their studies because there is a disconnect in the language used at home and in school. Based on DepEd Order 90, the types of learning materials to be developed are story books in big and small book formats; flash/activity cards using letters and numbers; basic sight words (grade level words and picture dictionary); and thematic picture chart for oral literacy. The guidelines also specified that 50% of the allocated funds should go to the development and reproduction of the teaching and learning materials, 20% for monitoring and evaluation, 15% for research, and 15% for transportation. (www.gov.ph, 2012)

DepEd piloted the implementation of MTB-MLE in school year 2010-2011 in 879 public elementary schools nationwide. As of November 2011 some 2,288 field officials, non-government organizations, local government units, parent-teacher-community associations, and teachers have been trained to ensure the effective integration of this initiative into the curriculum. The languages used for instruction and learning under the MTB-MLE include Iloko, Pangasinense, Kalangoyan, Kapampangan, Sambal, Tagalog, Minangyan, Bikol, Hiligaynon, Aklanon, Cebuano, Waray-Waray, Chavacano, Yakan, T'Boli, Surigaonon, Adasen, Bunungan, In Laud, Maranao, and Maguindanaon. (www.gov.ph, 2012)

The Importance of Games in Education

As cited from www.teacherworkshop.com (2011), unquestionably, the field of language teaching has known a drastic change moving from the



classic educational model, wherein teaching is deemed a serious matter, to the most flexible and communicative approaches upon which contemporary methods are based. Thus, a funny low anxiety atmosphere in the classroom has become a prerequisite to effective learning. The use of games, which is the scope of this paper, is only one way among others to foster that atmosphere. There is a common perception that all learning should be serious and solemn in nature and that if one is having fun and there is hilarity and laughter, then it is not really learning. This is a misconception. It is possible to learn a language as well as enjoy oneself at the same time. One of the best ways of doing this is through games. Many experienced textbook and methodology manuals writers have argued that games are not just time-filling activities but have a great educational value. It is proven that the use of games in the field of teaching (game theory) has numerous advantages. Games can lower anxiety, thus making the acquisition of input more likely". Games are highly motivating and entertaining, and they can give shy students more opportunity to express their opinions and feelings. They also enable learners to acquire new experiences within a foreign language which are not always possible during a typical lesson. In the easy, relaxed atmosphere which is created by using games, students remember things faster and better. (www.teacherworkshop.com, 2011)

Games to be a good way of practicing language, for they provide a model of what learners will use the language for in real life in the future. Games encourage, entertain, teach, and promote fluency as well. Besides



being a welcome break from the usual routine of the language class, they also provide language practice in the various skills: speaking, writing, listening and reading. Vocabulary games, for instance, bring real world context into the classroom, and increase students' use of English in a flexible, meaningful and communicative way. In addition to this, the use of games in the classroom deepens a sense of collaboration, altruism, and socialization. (www.teacherworkshop.com, 2011)

Multiplication Monsters

As cited from www.learningsuccess.com (1999-2002), this is a fun, change-of-pace activity to learn multiplication facts. It is particularly effective in helping players learn any multiplication facts they are finding especially difficult to learn because it uses the powerful memory strategy of using dramatization and visual imagery. Have players draw a multiplication monster for each fact they wish to memorize. For example, a monster with four feet, and three toes on each foot, could be the $4 \times 3 = 12$ monster. (www.learningsuccess.com, 1999-2002)

Can You Read Me?

As cited from www.learningsuccess.com (1999-2002), in this game players read numbers of ever increasing size. Use regular playing cards, but remove the tens, aces count as ones, and face cards count as zeros. Leader shuffles cards. To start each round, leader puts down a card face up and



asks first player to read the number. He then places another card to the left of the first one, and asks the second player to read the resulting two-place number. This continues with each player having to read a number one place higher than the preceding player until a player misreads the number given to him. When that happens, the last player to read his number correctly wins all the cards in play. A new round starts with the leader presenting the next player with a one-place number to read. Game continues until all cards are played. Player having the greatest number of cards wins the game. A variation would be to include decimal numbers by using the king cards as decimals. Only one decimal would be allowed during a round. Any other decimal coming up would be placed aside. (www.learningsuccess.com, 1999-2002)

Subtraction Pig

Two or more players start out with 100 points each. Players in turn roll two dice and subtract that number from their points. A player on a turn continues rolling the dice and subtracting the resulting number from his remaining points until a **one** appears on any dice rolled. That player's turn ends and the next player takes a turn, rolls the dice, and subtracts the number from his remaining points. When a player has lost all of his points, he is out of the game. Last player in the game wins. .
(www.learningsuccess.com, 1999-2002)



Socrative - Student Response System

Socrative is an online student response system that allows teachers to easily create polls, quizzes and other educational exercises for their class and monitor their students' response and progress in real time.

Socrative is a good student response system for creating quick student engagement. Socrative allows users to work from any device while they are connected to the internet. It allows users to see the responses of their classmates and interact with them in real time. With Socrative, teachers can also have students' feedback on the lessons to see their effectiveness and improve if required. Also they can create poll questions for their entire class and seek real-time response. One of the good features is that teachers can create their own room to interact with a particular set of students (a class). With polls, quizzes and reports available on the platform as well as on email, users can easily access them and can download the results directly from Socrative. One of the best features is the 'Exit Ticket'. It's a very nice feature that teacher can use to extract students' response by asking questions like "what they learned through the day and what will be the topic for tomorrow" and hall all the tickets submitted online. (*edtechreview.in*, 2005)

Adobe Photoshop

Adobe Photoshop is a raster graphics editor developed and published by Adobe Systems for Windows and OS X. Photoshop was created in 1988 by Thomas and John Knoll. Since then, it has become the *de facto* industry



standard in raster graphics editing, such that the word "photoshop" has become a verb as in "to Photoshop an image," "photo shopping" and "photoshop contest", though Adobe discourages such use. It can edit and compose raster images in multiple layers and supports masks, alpha compositing and several color models including RGB, CMYK, Lab color space, spot color and duotone. Photoshop has vast support for graphic file formats but also uses its own PSD and PSB file formats which support all the aforementioned features. In addition to raster graphics, it has limited abilities to edit or render text, vector graphics (especially through clipping path), 3D graphics and video. Photoshop's feature set can be expanded by Photoshop plug-ins, programs developed and distributed independently of Photoshop that can run inside it and offer new or enhanced features.

(*Wikipedia.com, 1990*)

Visual Basic.Net (Vb.Net)

Visual Basic [.NET] (VB.NET) is a multi-paradigm, high-level programming language, implemented on the .NET Framework. Microsoft launched VB.NET in 2002 as the successor to its original Visual Basic language. Although the ".NET" portion was dropped in 2005, this article uses "Visual Basic [.NET]" to refer to all Visual Basic languages releases since 2002, in order to distinguish between them and the classic Visual Basic. Along with Visual C#, it is one of the two main languages targeting the .NET framework. Microsoft's integrated development



environment (IDE) for developing in Visual Basic .NET language is Visual Studio. Most of Visual Studio editions are commercial; the only exceptions are Visual Studio Express and Visual Studio Community, which are freeware. In addition, .NET Framework SDK includes a freeware command-line compiler called vbc.exe. Mono also includes a command-line VB.NET compiler. (*Wikipedia.com, 2003*)



BIBLIOGRAPHY

Online Sources

DePED.gov.ph. (2011). *DePED.gov.ph.* Retrieved January 12, 2016, from <http://www.gov.ph/2011/11/28/deped-develops-learning-supplements-using-mother-tongue/>

Garbes, L. (2012). *Mother Tongue Based Education in the Philippines.* Retrieved January 12, 2016, from <http://www.culturalsurvival.org/news/mother-tongue-based-education-philippines>

Kharback, M. (2011). *Importance of Games in Education.* Retrieved January 11, 2016, from <http://www.teacherstechworkshops.com/2011/09/importance-of-games-in-education.html>

Smith, J. (2002). *Computer Game Research 101 a brief Introduction to the Literature .* Retrieved January 11, 2016, from game-research.com:game-research.com/index.php/articles/computer-game-research-101-a-brief-introduction-to-the-literature/

(n.d.). Retrieved December 12, 2015, from https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpqhstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=aso&imgrc=nl34oipgzwiddm%3a

(n.d.). Retrieved December 12, 2015, from https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpqhstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=turkey&imgrc=yqdwsjwl1gr7um%3a

(n.d.). Retrieved December 12, 2015, from https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpqhstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=horse&imgrc=nyl0qykuobjyvm%3a

(n.d.). Retrieved December 12, 2015, from https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpqhstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=horse&imgrc=nyl0qykuobjyvm%3a



(n.d.). Retrieved December 13, 2015, from
https://www.google.com/search?sa=g&hl=en&q=tiger+walking&tbs=isch&tbs=simg:caqsjaeaiqelekju2aqaggcdasqsiyncbpicmaiaxiojqtqc8ijwgtdfvek3qupbpixb9jjoy3yglbq4jyqklzkyoy2ulrownrb6dswswhs_1ifyao8e_1xvyme_1ems37yuuzfzzv2w5myzrf0pxgg4a4roeowcciammcxc0rv4ig

(n.d.). Retrieved December 13, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=animals

(n.d.). Retrieved December 13, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=chicken

(n.d.). Retrieved December 14, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=dove

(n.d.). Retrieved December 14, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=milkfish

(n.d.). Retrieved December 15, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=carabao

(n.d.). Retrieved December 15, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=goat

(n.d.). Retrieved December 15, 2015, from
https://www.google.com/search?q=red&source=lnms&tbs=isch&sa=x&ved=0ahukewihyoxamppkahvjjpapkhsncpsq_auiubygb&biw=1366&bih=657#tbs=isch&q=cat



(n.d.). Retrieved December 17, 2015, from Retrieved from
<https://kidssearch.com/PicturesOfGazelle.html>

(n.d.). Retrieved December 17, 2015, from
https://www.google.com.ph/search?q=animals&hl=en&biw=1366&bih=657&site=webhp&source=lnms&tbo=isch&sa=x&sqi=2&ved=0ahu_kewjitbxuz_lahvdraykhxuqcamq_auibigb#hl=en&tbo=isch&q=crocodile

(n.d.). Retrieved December 17, 2015, from
https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpapkstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=turtle&imgrc=ufbquaytrbuawm%3a

(n.d.). Retrieved December 18, 2015, from
https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpapkstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=white+rabbit

www.learningsuccess.com. (1999-2002). *Ten Sample of Math Games*. Retrieved January 11, 2016, from www.learningsuccess.com:
http://www.learningsuccess.com/ten_sample_math_game.html

(n.d.). Retrieved December 18, 2015, from
https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpapkstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=brown+fruit

(n.d.). Retrieved December 18, 2015, from
https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpapkstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=orange

(n.d.). Retrieved December 18, 2015, from
https://www.google.com/search?q=red&source=lnms&tbo=isch&sa=x&ved=0ahukewihyoxllpvkahvjjpapkstncpsq_auibygb&biw=1366&bih=657#tbo=isch&q=rapid+application+development

(n.d.). Retrieved December 19, 2015, from
<https://www.google.com/search?sa=g&hl=en&tbs=simg:caesxweaxael ekju2aqabagbcakmcxcwjkcigmekxwgdeifjcksdpapkckkdrgodccedsqno 3ig4kbipzihqidsh0yfzkm43uskamiceantoy3riotpgnogukhczu3rbrkitn>



wfxvc_1epyg4sajuknvyqyr-0wqwgnjocaddasjq7-
cbokcggiarieigl9eqwlej3twqka

(n.d.). Retrieved December 19, 2015, from
https://www.google.com/search?sa=g&hl=en&q=cartoon+billboard&tbs=isch&imgil=bf4eeanot_k1mm%253a%253b_jjud78tmedqum%253bhttp%25253a%25252f%25252fwww.myfreephotoshop.com%25252fcartoon-animals-snakes-graphics-collection.html&source=iu&pf=m&tbs=simg:caeszgeay