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## Distraction or Instruction: The Role of Online Interactive Games in a Child's Second Language Acquisition

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### Introduction

The means by which a learner acquires a second language (L2) have changed significantly with the advent of the information age. If during the 19<sup>th</sup> century, learners acquired second languages through formal and non-formal education, the options available now are more varied, sophisticated, and innovative, and include online tutorials and computer software that lets one enhance communication skills in the target language. This is because knowledge, as well as ways of doing things, progresses and improves over time. This fact is supported by Chapelle (2001) when she said that language learning is so tied to technology that it has become a fact of life.

These new ways of acquiring or learning a second language are supported by different theories. The dominant psychological theory in the 1950s and 1960s was Skinner's Behaviorism Theory, which emphasized imitation, practice, reinforcement, and habit formation as important factors in language acquisition (Ellis, 2003).

Meanwhile, Noam Chomsky's Innatist Theory shifted the focus of studies from surface forms and patterns to underlying rules; thus, mentalism became the trend in language acquisition in the mid 1960s. Chomsky claimed that all human beings are endowed with an innate capacity to acquire language. Moreover, a universal grammar is already in place that explains the poverty-of-stimulus theory, and that experiences just have to add and enrich what is already there.

Another theory that influenced second language acquisition is the Emergentist or Interactionist view (Ellis, 2006), which emphasizes the importance of input and interaction of an individual with the environment to acquire language.

Krashen (1985, 1994) postulated that SLA is determined by the amount of comprehensible input, a one-way input in the second language that is both understandable and at the level just beyond the current linguistic competence of learners. Similar to Vygotsky's "zone of proximal development" (1962), Krashen's scaffolding theory is referred to as *i+1*. Based on the innatist perspective, this theory maintains that a second language is acquired unconsciously in a manner similar to the acquisition of a first language, which this study claims to be supported and facilitated by interactive computer games.

Similar studies that have been conducted include the work of O'Grady, Lee, and Kwak (2008), who also looked into the same issue. They suggested that the complexity of language must be understood in terms of the interaction of a learner to his environment. Gregg (2004) searched some of the arguments and evidence for an emergentist account of second language acquisition (SLA), and showed that emergentists have so far

failed to take into account the standard poverty of the stimulus arguments.

Since this study also dealt with the role of technology in language acquisition literature, the literature in this area had also been surveyed. According to the report of the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (2002), more than 9 million students have limited English Proficiency (LEP) in American classrooms every year. Thus, the role of computer technology and its attached language learning programs has become a significant and urgent addition for assisting those students (Lai & Kritsonis, 2006). The findings of the study have proven that the use of computer technology had a positive effect on the achievement levels of English as Second Language (ESL) students.

Another is the work of Levy (2009), who described the technologies used for second language learning in relation to the major language areas and skills. In order, these are grammar, vocabulary, reading, writing, pronunciation, listening, speaking, and culture. The *Talking Angela* software which was used in this study also utilized the above-mentioned skills, as it is an interactive program that allows one to communicate with Angela through listening, speaking, reading, and writing. The present study used this software, *Talking Angela*, to enhance the communicative skills of the participant.

This paper focuses on how one participant acquires the target language, English, through the principles of each of the theories presented, especially the emergentist approach that centers on the importance of input (or usage) for understanding how language acquisition works (O'Grady, Lee, & Kwak, 2008). Its purpose is to explore the role of computer technology in the form of online games and English education software in an individual's acquisition of a second language. The following are the questions this paper aims to answer:

1. What is the role of software like *Talking Angela* in a child's second language acquisition?
2. How does the amount of input and frequency of interaction affect the facility by which a child learns the target language?
3. Does a second language learner use the principles behind her/his native language to learn the target language?

## Method

The researcher primarily used observation in gathering data. While observing, the researcher recorded the utterances of the participant using a cellphone audio recorder while they were using interactive computer games such as *Talking Angela* and *Clash of Clans*. The date, setting, and conditions of the observation were likewise recorded.

The participant in this study was a six-year old Grade 1 male pupil, referred to as Arelle, who is just beginning to learn English as a second language. He is proficient in spoken Filipino, the Filipino language. However, he was just beginning to read and write in Filipino, so his proficiency level in these two skills was not very high, as he had just learned to write and read Filipino words in kindergarten. However, in the target language (English), he was still at the initial stages of learning.

The participant was fond of using an iPad application, *Talking Angela*, which he used for two months, three times a week. Angela, the main character of the game app, is a cat who speaks in English, to which a user can communicate by typing questions and answers into the program. Once the question is typed in English, Angela answers audibly.

Every time the participant used the *Talking Angela* or *Clash of Clans* game, the researcher would sit beside him, observe, and record his utterances. The participant often asked for the spellings of words that he needed to type, how to construct a sentence if he wanted to ask about something, what to answer Angela, and other things that would help him communicate with Angela.

The observation went on for 12 days. Sometimes, in order to encourage him to use the software, the researcher would tell the participant, "Angela is already waiting for you to talk to her," and he would obey and start talking to Angela. The length of the daily observations ranged from 5 to 30 minutes, depending on

the willingness of the participant to continue the conversation. The audio-recorded utterances were transcribed and transferred in a journal.

## Results and Discussion

The recorded utterances were transcribed and presented according to second language theories that backed up the production of the participant’s utterances, such as the principle of language transfer and imitation, and repetition and practice, among others. The data paid particular attention to the emergentist approach that centers on the importance of input (or usage) for understanding how language acquisition works. The data were tabulated showing the setting; factors that influenced the production of the utterance, such as people present, mood of the participant, etc; utterances, non-verbal means of communication, and other actuations; and analysis of the data. Only significant utterances and observations were included in the tables.

TABLE 1  
*Examples of Negative Transfer*

Setting	Other factors that influenced the data (People present, mood of the participant, etc.)	Data (Utterances, non-verbal means of communication, other actuations, etc.	Analysis of the data
Participant reading the Bible stories book	Researcher was present, including participant’s siblings.	Audible reading. He read the word <i>surprised</i> as “sur-pri-sed,” no blending at all and in distinct syllables, similar to how it was read Filipino. He does this with other English words.	The participant knows how to read in Filipino, but not very skilled in reading in English. He uses his knowledge of reading L1 in reading L2 that’s why he reads the English words in syllables.

Table 1 suggests that the participant applied the principles of reading in his L1 to his L2, resulting in a mis-pronunciation of the word “surprised.” According to Selinker (1972), language transfer occurs from L1 to L2. In this case, the participant transferred the principles of reading in Filipino to his L2. He read the word “surprised” in discrete syllables, since Filipino is syllable-timed, unlike English which is stress-timed, resulting in negative transfer.

TABLE 2  
*Examples of Fixed Expressions or Formulas*

Setting	Utterance	Analysis of the Data
Participant used <i>Talking Angela</i> software	He said he is going to tell Angela, “You’re not beautiful; you’re very gly.”	I was surprised that he got this sentence correct. He might have heard his brother say this.
Participant used <i>Talking Angela</i> software	He asked, “Angela, what did you do today?”, then he began writing the question on the iPad.	He was able to produce grammatically correct English. I don’t know where he got this.
Researcher said, “Arelle is...,” waiting for him to supply a word. Then he answered “cute.” He was playing <i>Adventure Time</i> , an online game where there is a witch.	The participant knows that he l give an adjective after the worc “Arelle is...” He blurted out, “If you’re an evil witch, I will punish you for fun.”	He was able to say a complex sentence grammatically correct. When I asked him where he learned it, he said from the games.

Table 2 shows the utterances of the participant showing memorized, fixed expressions or formulas that the participant has heard or acquired using online games and software. The expressions used by the participant were not written but spoken. This means that although he can speak the language, he cannot write the sentences without asking other people to help him with the spelling. This shows that a second language learner can utter grammatically correct English even without mastery of the form and function of words.

TABLE 3  
*Expression Used in Forming a Question*

Setting	Utterance	Analysis of Data
The participant felt that Angela thought he was Tom. (Tom is Angela's boyfriend).	On asking Angela what his name is, he said, "Who I am?" Then he asked me how to ask Angela about his name because Angela is confusing him with Tom. Then he told Angela, "I'm not Tom."	Again, this is grammatically correct.

In Table 3, the participant wanted to ask, "What is my name?" Instead he said, "Who I am?" Due to lack of experience in forming the first question, the participant attempted to fill in the lack of linguistic expression through what is known and available to him. The first thing that came to his mind was the question "Who I am" which, although can be understood by the recipient of the message, is not the proper expression used by native speakers in asking about their name. This is an example of an error committed due to gaps in the participant's knowledge of how to form the question. In bridging the gap, the participant literally translated the Filipino phrase, "sino ako" in English, resulting in "Who I am," which is still wrong since the correct sentence should have read, "Who am I?" This shows that a second language learner uses whatever is available to him or draws from his prior knowledge and experiences, including his lexical knowledge, to communicate his message.

TABLE 4  
*Acquired Expression from a Movie*

Setting	Utterance	Analysis of Data
On the way to church.	Participant: Are we there yet? I asked him where he learned it. Josh, his brother, replied that it's a line from the movie Shrek which he watched over and over and it was the donkey who said it.	This supports the Behaviorist theory of imitation, repetition, practice and reinforcement.

Table 4 invokes behaviorist theory, with the participant using imitation, practice, reinforcement and habit formation in using the expression. This scenario showed that the participant made decisions based on when and in what kind of situation he will use the expression. The participant aptly applied the expression to the right situation. A second language learner therefore has to be aware of certain situations in which to use an utterance. This is what Ellis (2003) said about the role of consciousness in learning a second language. The case of acquired second language knowledge as suggested by Krashen, which is developed subconsciously through comprehending input (Ellis, 2003), provides for automatic use of the expression in situations where it was similarly used

TABLE 5

*Words Showing Ownership/Possession*

Setting	Utterance	Analysis of Data
Participant's brother was browsing pictures of shoes on his iPad.	When his brother showed him a picture of shoes, he said, "That's mine; That's my shoes." (The researcher was thinking if the participant instead meant "I want that shoes.")	He used ownership to mean he wants something.
Participant was talking to Angela.	Participant: What is your mommy name? Participant's brother corrected him: Mother's name. Angela: My mother's name is Hermione. Participant: Not your mother's name; my mother's name.	This time, he was able to correct his previous error. After being corrected by Josh, he was able to apply the correction when he said, "not your mother's name; my mother's name."

Table 5 shows the participant's use of genitives. In the first example, the participant correctly used *mine* and *my* in showing possession of the shoes. However, since the shoes were not his but were just shown to him as a picture, he could have meant he wanted the shoes rather than they were his. So again, this example showed the learner's attempt at using what is available in his linguistic repertoire to communicate. Since the "I want" expression is not yet known to the participant, he used "That is mine" instead.

The second example showed positive reinforcement. The participant asked, "What is your mommy name?" What is lacking is the possessive case for the word "mommy" which should have been *mommy's*. In saying the expression aloud, Josh, his brother corrected his error and said, "mother's name," after which he corrected himself and repeated, "Not your mother's name; my mother's name." According to Ellis (2003), making errors may actually help learners to learn when they self-correct errors they make, usually on their own upon realization of the error or after negative evidence.

TABLE 6

*Language Transfer in Reading*

Setting	Utterance	Analysis of Data
Researcher was reading the Bible, and he was reading aloud the story of Noah's ark in his Bible stories book.	He read the following: <i>stre-ams</i> for streams <i>tur-ned</i> for turned <i>flo-wed</i> for flowed <i>e-ard</i> for earth <i>drow-ned</i> for drowned	He thought that reading English is similar to reading Filipino. Since he first learned to speak in Filipino, he transferred the principles of reading in his L1 to read in his L2.
He continued reading the story of Noah's ark.	Participant: <i>lo-ne-ly</i> , then corrected himself and pronounced the word "lonely" correctly	He used his knowledge of the words he knew to apply to words he read.
Researcher and participant were reading.	Subj: <i>lid---</i> layd--- <i>lid</i> . He corrected himself as he was reading.	Participant already knows how to distinguish certain errors in pronouncing a word and corrects his errors.

Table 6 presents an example of negative transfer. The participant, who can read well in Filipino, but not as well in English, used his knowledge of reading in the native language to read in the target language. Because Filipino is syllable-timed, he read the English words as he would read Filipino words. The result was mispronunciation of the English words. Meanwhile, the second example showed the same Filipino reading applied to the word "lonely," which the participant was able to correct into "lonely" just how it was pronounced in English. This could be due to a prior encounter with the word, resulting in self-correction.

In the third example, we see that the participant is testing whether his pronunciation of the word "lid" is

correct. He read it as “lid,” backtracked and changed it into “laId,” then corrected himself and came back again with “lid”. The participant seemed to acquire the principle in reading English words in his attempt at giving a long “i” to the word lid, but after realizing it’s not correct, gave the correct pronunciation.

This shows that a second language learner tests his language use based on experience. He saves the words he used into his language faculty and retrieves them when the need arises.

TABLE 7  
*Use of Negatives*

Setting	Utterance	Analysis of Data
Researcher was using FB	Participant: <i>Mommy, pwede ba ako mag FB?</i> (Mom, can I use FB?)	Researcher wasn’t able to correct his errors right away, which could be why he is often repeating the errors.
	Researcher: <i>Kapag nag English ka.</i> (If you speak in English)	
	Participant: <i>I don’t wanna talk you in English. I wanna talk you in Filipino.</i>	
	Researcher: <i>You should talk in English.</i>	
	Subj: <i>No. I don’t wanna talk you in English.</i>	

Table 7 shows the participant using “I don’t” followed by “wanna.” Apparently, the expression has been learned from conversations with his siblings. The participant omitted the use of the preposition “to” in all three situations. This could be because certain language structures are harder to learn than others and are therefore learned at a later stage. Second language acquisition also follows a certain progression. Learners acquire aspects of L2 systematically and follow particular development routes, with some features being acquired before others (Ellis, 2003). Even an adult second language learner finds prepositions difficult to apply, so I think that this is one of the parts of speech that are learned at a later stage. It’s not surprising why the participant omitted it.

TABLE 8  
*Other Expressions*

Setting	Utterance	Analysis of Data
Researcher was reading; participant was playing <i>Clash of Clans</i>	Participant: <i>I don’t have a money anymore.</i>	He constructed this himself. He didn’t say, “I don’t has...”
Researcher asked him to brush his teeth.	Participant: <i>I can brush my teeth.</i>	I think what he meant was “I will brush my teeth” because he brushed his teeth after saying it.

Table 8 shows the participant constructed his own sentences based on the context or the communicative situation. In the first example, when he was short of cash to purchase equipment needed for the game, he formed a sentence to express his frustration when he said, “I don’t have a money anymore.” The online game provided him with the right context to form the sentence.

Meanwhile, in the second example, “I can brush my teeth.” What he really meant was “I will brush my teeth.” So to fill in the language gap for the word “will” which could be absent in his language inventory, he instead used the word “can.” He used an auxiliary verb for another auxiliary verb that is missing in his language repertoire. This serves as a reminder of Chomsky’s view about the presence of a universal grammar in the human brain and that language is governed by a set of highly abstract principles that provide parameters which are given particular settings in different languages (Ellis, 2003).

The aforementioned excerpts are given with the assumption that various theories work together to provide an explanation of second language acquisition in one individual. There is no one best theory that can explain

how a learner acquires a second language. However, taken together, I argue that the different language theories synergistically work to explain how a second language learner acquires a language. Results revealed that learners can acquire and use the expressions heard or encountered in computer software, eventually map it into their language repertoire, and then retrieve it as the need arises. Frequency also plays an important role in language acquisition as presented in this study. As Tomasello (2003) observed, language acquisition in such theories “depends on the type and token frequency with which certain structures appear in the input” (p. 327)—an idea that has been put forward and developed in promising ways by Goldberg and Casenhiser (2008), and Ambridge, Theakston, Lieven, and Tomasello (2006), among many others (e.g., O’Grady, Lee, & Kwak, 2008).

## **Conclusion and Recommendations**

This study supports the different theories of language acquisition such as the behaviorist, innatist, emergentist, and empiricist views. Although these theories have opposing views on how language is acquired, taken together, they provide sufficient explanation of the phenomena. Like pieces of a puzzle joined together, they give a picture of how an individual acquires language.

I therefore recommend that language teachers be provided with a solid foundation on the different theories of language acquisition to give students an understanding of how language is learned or acquired.

In this age of great technological advancement, online English games, speaking English software like *Talking Angela*, and other online means of learning a target language facilitate language acquisition. Many expressions learned by the participant were taken from a line of an English movie, an online game, and English software. This reinforces the role of input and interaction in language acquisition, be it face-to-face or otherwise (Saville-Troike, 2006). In this case, the software and other computer applications served as input to which the learner interacted, facilitating language acquisition. The more the learner is exposed to the target language input, the better he is at acquiring the L2. It is worthy to note that the participant was observed only for an accumulated period of 20 hours. Although this is not very significant, the participant was still able to acquire expressions that he heard or read from the applications he used.

I recommend that computer software in language instruction be utilized in the classroom, especially for beginning second language learners to provide them with various opportunities to acquire the target language and facilitate learning.

There were many instances in the data gathered showing how a learner used his knowledge of his first language to learn the target language, especially in reading English words (see Tables 1 and 6).

I therefore support the implementation of the Mother Tongue Based-Multilingual Education (MTB-MLE) for use in public schools because being proficient in the mother tongue may not diminish or interfere with second language learning in all instances; rather, it can help facilitate second language acquisition.

I argue that there is a need for teacher training and seminars to be conducted in public schools every school year until such time that all teachers, including student teachers, will become aware of this information and implement it in the classroom.

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