Multimodal Writing in a Second Language: CHAT and Duolingo

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In this article, Claudia Sánchez explores the notion of multimodality by means of a multimodal tool: Duolingo. With the help of CHAT, she gives an insight to the world of language learning and writing in a second language.

Intro to My World: Let's Get the Language Party Started!

I remember my English class when I was in high school; it was all fun and games until the day for dictation arrived, and it was once a week. On that day, the teacher would dictate a text and we had to write exactly what she was saying. At first it was chaotic; no one would get the right words, grades were low, and we were all worried about how it would affect our final grades. But then we decided to talk to our teacher. We talked to her about our concerns and how we found it really hard to follow the dictation since sometimes she would include new words. Her solution was simple: she would briefly introduce phonetics (the study of sounds of a language) so we could interpret the transcriptions of words in the dictionary and, therefore, recognize the words and sounds when we heard them. That went on for a few weeks and after that, she suggested that every day for around 10 minutes we should try to open an English dictionary on a random page and just try to pronounce the phonetic transcriptions, maybe even do it online and try to reproduce the audio piece of the pronunciation of the word. I thought this

was really fun and, honestly, it helped tremendously to improve my auditory skills. However, a few years later when I got to college, writing became something very different. It didn't involve dictations or simple exercises in which to identify the subject or right vocabulary word. Instead, we had to take a class on *academic* writing. Yes, you read that right. This writing class consisted of reading academic articles, identifying their thesis statement, considering arguments in favor or against them, and producing our own thesis statements from text excerpts. It was sort of boring and monotonous, but it helped me improve my writing skills for the several papers that I would have to write in the following years.

That said, as someone who has been instructed in and learned several languages (Spanish, Fala, French, Greek, Portuguese and English), writing has always been one of the most challenging skills to acquire when learning another language. When students of a second language are facing the new language, everything related to the four basic skills (writing, listening, speaking, and reading) seems difficult, and composition becomes a true challenge; students not only have to be aware of the vocabulary they use, but also be aware of other variables such as word order, verbal tenses, and formality. After reflecting on this, I began to wonder if there could be some tools out there that would help students tackle messy grammar and difficult vocabulary all at once; and so, I came across Duolingo through one of my friends. I started researching it and became really interested in exploring how Duolingo can help us improve our language skills (writing included) by means of multimodality and to what extent it could be considered an effective tool in language learning. To be able to do this, I explored the notion of multimodality and how the different modes through which it presents information affects language learning while also employing some CHAT terms to better understand how Duolingo works. A very brief CHAT definition so you know what I'm talking about is this: **cultural-historical activity theory.** It is a theory based on Lev Semyonovich Vygotsky's insights into the dynamics of consciousness. Along with Alexei Nikolaevich Leontiev, they both belonged to the school of Russian psychology, and they stated that the history of each person and their social and cultural experience shapes the way they perceive the world. CHAT helps by providing a framework through which we can analyze texts and "deconstruct" them into their most elementary parts and stages. You may ask, "how?" Well, by looking at the historical period and the culture in which it is situated. But you must be wondering, "how does this tie back to Duolingo?" The connection is easy; if we analyze a multimodal tool such as Duolingo by means of CHAT, we may be able to uncover the reasons behind its creation and the way it approaches its audience.

Different Types of Learners: How Do I Learn Best?

Before we get into deeper stuff about my life and my experiences (because that is what this is all about), we should understand that learning, whether it's about language or something else, is a very complex process that can work differently for different people. For example, there are kinesthetic learners (people who find it easier to memorize and understand by using physical movements), visual learners (people who learn by the use of visual stimuli like pictures or video), auditory learners (people who learn through the use of sounds), and reading/writing learners (people who find it easier to learn if there is reading or writing involved). In my case, I realized that visual stimuli, reading, and writing were the best strategies in order to memorize content or, in my case, learn Portuguese. That was another reason why I decided to give Duolingo a chance.

As a last note before we get to Duolingo as a tool, it's important to talk about the traditional classroom setting that we are all used to and what it implies. The issue comes when the instructor of a class has to teach certain material and, at the same time, fulfill the learning necessities of all her students. To do so, she has to make sure that she includes activities that involve most, if not all, of the requirements for the learners listed above. It is the same case for software developers when they need to create software or apps for language learning. They must include a variety of activities that attempt to cover the learning necessities of all the potential consumers.

How do software developers try to do this? By means of multimodality. You are probably wondering, "what the hell is that?" Let me explain: **multimodality** can be understood as combining different ways of communicating such as visual, gestural, spatial, or linguistic. When it comes to multimodal composition, we could understand the term as "works that use more than just words and letters to communicate a thought—they may include audio, video, photographs, drawings—basically, any visual element used to supplement the text in some purposeful way" (VanMaele). Duolingo is a great example of multimodality because it uses alphanumeric text and images to communicate with the audience.

Languages, CHAT, Writing, and … Wait, What?

I know this all may be a lot to process, but bear with me, don't give up just yet. Let's start from the basics so you know where I'm going with this. First I need to explain what it means to be fluent in a language other than our own and how it specifically transfers to writing skills; that way you'll understand

how I managed to improve my own skills in all those languages I mentioned before. According to the Merriam-Webster dictionary, "fluency" (noun \ˈflü-ən(t)-sē\) is "the ability to speak easily and smoothly; especially: the ability to speak a foreign language easily and effectively" (Merriam-Webster). Fluency also applies to listening, reading, and writing. Now, one of the hardest things for me when I started learning English back home was understanding the different kinds of writing that I may encounter in the future. There is nothing harder than trying to guess what an audio or someone is saying when you need to write it down, especially when you don't write the same thing you say! English is one of those languages with non-phonemic orthography; this means that words (as compounds of letters) do not always represent the sounds that each letter separately would represent. Instead, the letters within the word merge and produce new and different sounds. For example: the letter 'e' is pronounced /i/ if it stands alone; however, if we use the letter 'e' in the word 'merge' the first 'e' is pronounced /ɜ/ and the second one is not even pronounced. In contrast, Spanish (which is my first language) has 27[1] letters in its alphabet, and each of them represents a specific sound, regardless if they stand alone or in a word; now, this makes things way easier. As I have mentioned before, one of the tools that has been helping me cope with all the complications of languages such as this is Duolingo.

Why Duolingo?

As you can see, being a second language learner is far away from easy, so being able to access tools such as Duolingo can make things waaaaaaay easier. Let me explain a bit what Duolingo is and how I became an avid user. Duolingo is a phone app that was developed by Luis von Ahn and Severin Hacker in 2009 at Carnegie Mellon University in Pittsburgh. It relies on multimodality, which is why I thought it would be interesting to examine how it approaches different types of learners, including me. Duolingo seems to be an effective tool for addressing visual learners (since it has pictures associated with words in certain activities), auditory learners (since it includes audio in most of the activities) and reading/writing learners (since that is mostly what you do throughout all the activities); however, kinesthetic learners will have to (hopefully) wait for future updates in Duolingo's activities in order to fully enjoy their potential.

I first discovered the app back in 2013 when one of my friends (who also loves languages) told me about its existence. After doing a bit of research I realized how quickly socialization made Duolingo known around the globe. **Socialization** as understood through CHAT refers to the interactions of

people that were initiated by the creation or reading of the text and the types of language and cultural practices they engage in, as well as the ways that texts can help to shape cultural understandings (Walker 76). Although I was sad Duolingo did not include many languages to learn from Spanish, I was amazed. The languages accessible for Spanish speakers through Duolingo are German, French, Italian, English, Portuguese, and Catalan, and the languages accessible for English speakers include all of the aforementioned languages plus Dutch, Norwegian, Irish, Welsh, Swedish, Greek, and Esperanto. We could say that Duolingo makes an average of 5 language courses available for speakers of a given language; but think about all the possibilities that it presents to you so that you're able to socialize with so many speakers of other languages all over the globe! Anyway, since I wanted to try all the languages available for Spanish speakers that is exactly what I did; I ignored (partially) all the languages available for English speakers, although I could have accessed them or taken the language courses (I actually did access it to get the pictures I will show you in a bit). I started with Portuguese and was a bit skeptical since I had been hearing Portuguese and even speaking it almost my whole life. To my surprise, not only was I not as proficient in Portuguese as I thought I was, but there were also many words from the Brazilian variety of Portuguese that I had no knowledge of.

Although Duolingo is only available for electronic devices like smart phones or tablets, the service could be accessed by anyone who doesn't own any of these devices; for example, Duolingo could even be distributed by local libraries that have computer stations available for the public. According to Wikipedia, Duolingo offers 59 different language courses across 23 languages, meaning that people who speak any of these 23 languages will be able to access some of the 59 language courses available. Furthermore, there are 23 additional courses in development. What I meant by "distributed" a few lines back refers to what CHAT defines as **distribution**: to whom the text is given and where it can be found (Kostecki 82). Going back to Duolingo, this means that it can reach millions and millions of people who may be willing to learn a language, but it currently favors 23 languages. What's more, if Duolingo were distributed in different formats (let's allow ourselves to fantasize a little), such as if it were printed or even made into a podcast, it could become even more attractive to different individuals, even if it's just for pure convenience.

This sort of issue with distribution that we just talked about has a lot to do with the ecology of Duolingo too; CHAT defines **ecology** as referring to the biological and environmental forces that exist and impact many factors of the text (Walker 76). The fact that Duolingo is available for free is a

positive aspect of its ecology that most users take into account when trying to decide if they want it or not. But I believe that if the app were to cost let's say around $4, not as many users would consider downloading it; as a user, I wouldn't pay $4 for an app that has exercises so similar to one another and that can often become boring. Moreover, if the app were to be costly, it would directly affect its distribution, since they wouldn't be able to expand the number of languages available to reach a broader audience if the app itself is not very popular.

So, What Does Duolingo Have to Do with Me and Writing?

The first thing you notice when you start using Duolingo is that writing is involved in most of the activities that need to be completed in the game/app; these activities can resemble "drills" in a way because they are mostly repetitive. However, regardless what kind of learner you are, the activities manage to approach most learning styles. The different kinds of multimodal activities available for each of the languages vary in format, so let's take a look:

1. *Which of these is "…"*: In this activity, the user is presented with different pictures with the Portuguese word under it; the user has to check which picture is the equivalent for the word in their native language, just like this:
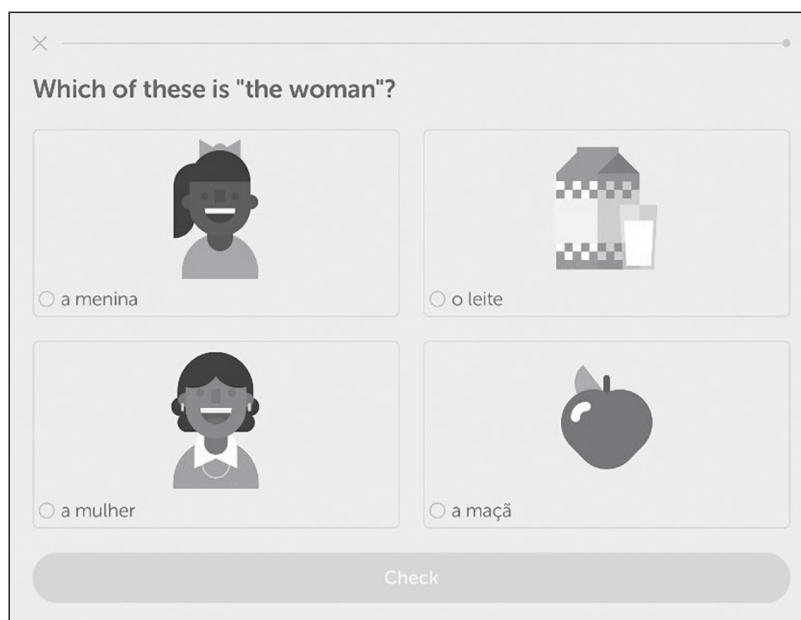

Image 1: Which of these is "…" activity example in Duolingo.

We can see how Duolingo uses this activity to appeal to visual learners as well as reading/writing learners. The first thing the user notices is a picture that they can relate to a concept in their minds they understand; once the concept is recognized, they don't need to go back to their native language to understand it. Instead, they are given the Portuguese word so as to relate concept to written form in the target language without the need to go back to the native language of the user.

2. *What did he or she say?*: The user is presented with a sentence in Portuguese and an audio of the sentence that can be played more than once. The user has to translate the sentence into their native language. Depending on the level, the sentence will be shorter or longer and use more complicated verb tenses or more simple ones. Here is an example:

Image 2: What did he/she say activity example in Duolingo.

Once again, Duolingo manages to effectively engage auditory and visual learners as well as reading/writing learners. While traditionally in regular second language textbooks students are only exposed to a written form of language when completing translation activities, Duolingo uses audio support in order to tackle both recognition of aural cues as well as written form of words.

3. *How do you say… ?*: This activity presents a word in the native language of the user, and they have to select the equivalent in Portuguese from a

selection of three to four words. Look at this example with English and Portuguese:
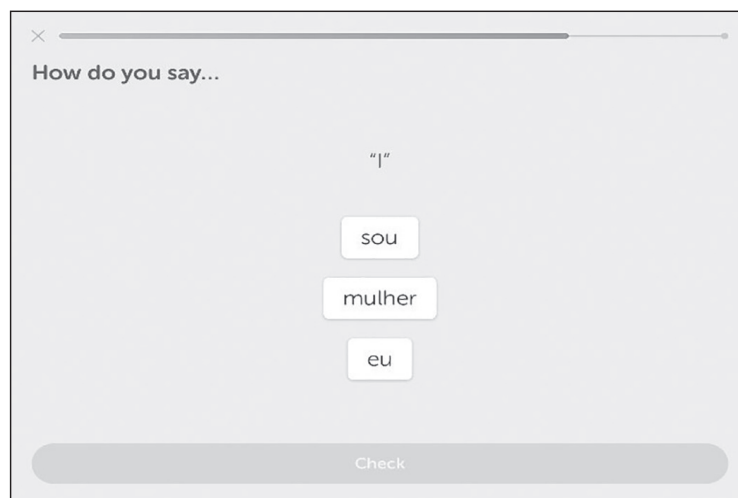

Image 3: How do you say activity example in Duolingo.

This activity could also be a good example of how Duolingo approaches reading/writing learners; once they memorize the written form of the word, they will automatically recognize the concept.

4. *Translation*: The user is given a sentence in their native language and he or she has to select the correct equivalent in Portuguese from three pre-made sentences (I'm sorry I couldn't find a pic for this one!). It is important to make a note on how much translation Duolingo uses; as a language teacher, I don't know how I feel about it (I don't believe is the most effective way to learn a language). But, nevertheless, it seems to work!

5. *Tap the pairs*: The user is given four words in Portuguese and their native tongue scrambled, and they have to tap on the Portuguese term and their native tongue equivalent for each word. Check it out:
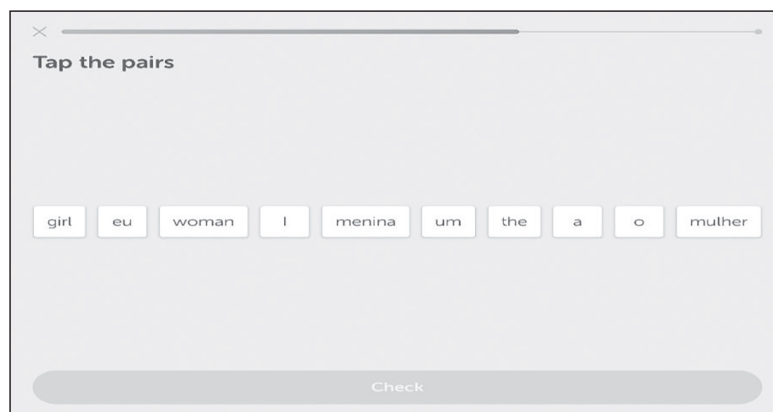

Image 4: Tap the pairs activity example in Duolingo.

Here Duolingo is using word recognition as a way to associate written form with mental representations of words. Reading/writing learners can benefit once more from this type of activity.

6. *Audio*: The user is presented with an audio without written support. The user can play it as many times as needed at a regular speed or at a slower one. They have to write in Portuguese what the audio says, just like this:
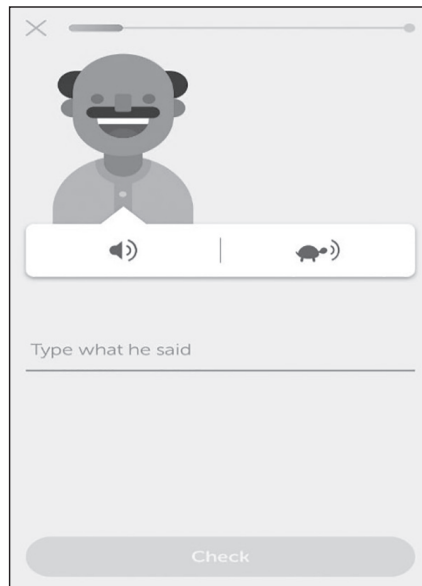

Image 5: Audio activity example in Duolingo.

As you can see, most of these activities do a good job of trying to approach most kind of learners with activities that go from recognition of aural cues to written form of the target language as well as production of the latter. However, reading/writing learners seem to be the most benefited in Duolingo activities.

So how exactly does Duolingo approach learners in general? I found it really interesting that Duolingo follows the education model of "one to one," meaning the app teaches the learner continuously while adapting to the learner; at the same time it also perfects a method for teaching that specific student by using the data collected from other learners that already took the modules. With this app, not only will you learn on your own without somebody else's help, but you will also have personalized learning. Not bad for a free app, huh?

Not Everything Can Be Perfect (There Must Be Something Weird about It …)

Like everything nice, there must also be something not so nice about this app; with regards to its limitations in **ecology**, the fact that it is only presented in electronic app format is a big disadvantage, but I guess this has to do with the app consisting of "drills" over and over. If the creators of Duolingo managed to make it a downloadable software in our computers, it could get higher exposure to all kinds of audiences. People could possibly even start to socialize through the software, find a kind of "electronic pen pal" with whom they could communicate in order to practice the target language (this is just a random possibility that I thought of, but there could be many more!). This also makes me think about the issue with distribution and the structure of the activities; the amount of foreign language to which users are exposed has a maximum length of that of isolated sentences; there are no paragraphs, no letters, emails, or other genres, just sentences. Again, based on my own experience as a student and teacher of languages, I believe the best approach to learning writing and composition would be the use of more complicated pieces as the difficulty of units rises. Furthermore, using this app can get really boring at times and even discouraging; this is due to it being composed almost solely of "drills" that make the different activities and even final tests of units very similar in format. In sum, I'd say the app lacks complexity with regard to production of written pieces by the user; after you have been using the app for a while, content as well as what's expected for you to produce as the user becomes predictable and not challenging at all. Yes, Duolingo seems to be an effective multimodal tool capable of reaching different types of learners, but the way it does so could use some improvement.

I personally believe learning with a physical, real teacher is more interactive and challenging, as well as amusing for that matter. Think about it: if, in addition to getting information and explanations from a teacher in a classroom, you can also have time to ask questions and get additional responses, and you are provided (verbally) with suggestions on how to improve, you are presented with a broader variety of activities to make sure you fully understood the concepts, and you are even introduced to new vocabulary more often instead of in small units like Duolingo…it can be so encouraging and exciting!

In Conclusion …

After all, I have to admit that CHAT helped me in part to understand not only Duolingo, but also the complexity of the writing within it. At first, I perceived CHAT as a tool to analyze texts, and by "text" I mean solely

papers, maybe posts online, and stuff like that; little did I know that CHAT would also help me understand the complexity of a language app such as Duolingo. By means of cultural-historical activity theory, as well as the notion of multimodality, I was able to analyze thoroughly the different elements that compose the app. At the same time, through the use of multimodality, I was able to analyze the way information and more specifically writing is presented to the user.

I also have to admit that Duolingo did indeed help me become a better writer through the use of multimodality. It helped me be more aware of word order differences and taught me certain letters such as "ã," which is similar to "an" in "angry," "êm," which is like a more nasal version of the "en" in "engine," and "ô" like "oa" in "coal." These new letters were present in the Portuguese alphabet but not in the Spanish one since they are nasal sounds; thus, I had to practice pronunciation and make sure I used them in the right context when writing or trying to spell words. Duolingo helped me with writing in a way that, later on, I felt confident enough to transfer that knowledge onto other platforms; I feel comfortable now when I post something in Portuguese on Facebook or when I write messages to my friends in Portugal. Maybe the way Duolingo approaches different types of learners is a bit selective in the sense that it focuses more on reading/writing, auditory, and visual learners, but the multimodality through which it does so seems to be an effective way to do it. I believe that Duolingo can help those who want to learn a language from the comfort of their homes and also everyone in general, which includes you, yes you, whoever you are, reading this article.

To sum up, just like I was hoping to find out, we could define Duolingo as a multimodal tool to help us improve our language skills (writing included) by using multimodality, so I believe that we can consider it an effective tool in language learning to a certain extent. I really hope you enjoyed this article about my craziness for learning languages and my growing support for CHAT theory in writing classes. *Muito obrigada* for exploring all of this with me. Oh, by the way, that literally means "I am very grateful" or, like normal people say, "thank you." So yeah, thanks for reading me, pal!

Works Cited

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Endnote

[1] There are actually five possible combinations of letters or digraphs ("ll," "gu," "rr," and "qu") that are considered independent letters by some, but we won't get into that.

Claudia Sánchez, a native from Spain, is a PhD student at Illinois State University who loves languages and traveling the world. She is currently working on language ideologies issues and is very much into linguistics. When she goes home, she likes spending time with family and her dog Fós (Greek: φως, English: Light). Her personal motto is Η δύναμή μου είναι η ψυχή μου. (If you wanna know what it means, you'll have to look it up!)