

THE CRITICAL INTERSECTION OF HERITAGE LANGUAGE LEARNING AND eTANDEM LEARNING ENVIRONMENTS

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ABSTRACT

At first glance, the growing popularity of eTandem mobile applications for language learning purposes seems to facilitate the connection and collaboration of speakers from all different locations and walks of life. However, when looking more deeply at the design of these applications, an exclusive dichotomy is revealed that prescribes use only by Native Speakers (NS) and Second Language Learners (L2), leaving no consideration for the needs of Heritage Language Learners (HLL). This perpetuation of the hierarchical ranking of language learners and speakers mirrors these same power structures that are present in society (Valdés, González, López García, & Márquez, 2003). In order to explore the apparent lack of space for HLL, this study critically analyzes two eTandem mobile applications, HelloTalk and Tandem. By means of Content Analysis (Krippendorff, 1989) of the applications' affordances informed by a Critical Applied Linguistics framework (Pennycook, 2001), the study finds that there are various features that might offer HLL a space within this environment and foster their affective and educational needs. However, these features are not a primary focus of the application design and the way in which these features could be used to support HLLs' development is totally dependent on the individual experiences of each user. Utilizing these findings, the investigators offer a set of suggestions for future research in order to advocate for social change manifested by the inclusion of HLL in language learning technologies. In addition, they discuss pedagogical implications for the current state of affairs in order to prepare HLL for interaction with these virtual power structures.

INTRODUCTION

The idea behind tandem learning is to connect Native Speakers (NS) of different languages with partners so that each can learn a second language (L2) while teaching their first language (L1). With constant technological advances, tandem learning has expanded into digital platforms, creating eTandem applications that are available to any language learner in the world with an

internet connection (Cziko, 2004). These platforms provide the potential for learners to receive corrective feedback and focus on form, as well as cultural insight from their learning partner. Unfortunately, the focus of these applications on only NS and L2 learners creates a false dichotomy that leaves little room for heritage language learners (HLL), those individuals who have acquired the language in familial and/or community setting (Valdés, 2000).

With this push toward the digitization of education to best serve the needs of all types of students, it is vital that educators and students themselves take a critical approach when implementing new technologies inside and outside of the classroom. It is important to consider who these technologies are designed to benefit and who they may inadvertently exclude. As we see an increasing presence of HLL in academic settings, both in mixed classes of HLL and L2 students and in heritage language (HL) programs (Carreira, 2012, 2014), the needs of HLL should be taken into account, not only from a social justice perspective but also from an academic perspective (Vollmer Rivera 2017)."

Specifically regarding the eTandem mobile application, HelloTalk, Vollmer Rivera (2017) notes the dichotomous nature, NS versus L2, of the majority of these applications' designs. She also calls for the need to take into account the presence, contribution, and language development of HLL within these digital spaces. These learners deserve to be taken into account in these contexts, not only from a social justice perspective but also from an academic perspective. For example, as we see a strong presence of HLL in academic settings, both in mixed classes, which include HLL and L2 students, and in heritage language (HL) programs (Carreira, 2012, 2014) it is logical to give our students the most appropriate educational tools possible.

LITERATURE REVIEW

Specific Considerations for HLL

In order to evaluate how technologies take into account HL users, it is important to understand who HLL are and to explore some of the unique characteristics of this population. While more than one definition has been proposed as to who is considered a HLL, for the purposes of this study we will be utilizing the narrow definition first proposed by Valdés (2000) and refined by Beaudrie, Ducar, and Potowski (2014) as "those individuals who have developed some proficiency in the heritage language due to exposure during childhood" (p.32). This population of language learners tends to have a very diverse background historically, linguistically, and educationally. As previously mentioned, HLL often have received the majority or all of their schooling in English, or the dominant language of the country, rather than in their HL. Therefore, most of their experience with the HL comes from familial and informal contexts in which they employ informal registers of the language (Potowski, Jegerski, & MorganShort, 2009).

Due to the lack of formal schooling in their HL, these learners have often not had the opportunity to acquire the standard variety of their HL, the variety that tends to be favored in L2 classrooms, and consequently in language learning technologies (Leeman, 2005). The dialects that these HLL bring to the classroom are also an important aspect to consider. HLL tend to speak stigmatized dialects of their HL, which include linguistic phenomena such as code switching,

borrowings, and extensions which are common in language contact situations, as well as rural or vernacular varieties (Potowski, 2005).

Many HLL have internalized negative attitudes about their HL variety that stem from these stigmatized linguistic features (Potowski, 2005). As these characteristics differentiate HLL from L2 learners, Valdés (1995) proposed six goals for HL instruction, which were later expanded by Aparicio (1997) to include a seventh goal. The goals are summarized in Beaudrie et al. (2014):

- 1) Language maintenance
- 2) Acquisition or development of a prestige language variety
- 3) Expansion of bilingual range
- 4) Transfer of literacy skills
- 5) Acquisition or development of academic skills in HL
- 6) Positive attitudes toward both the HL and dialects of the language and its cultures
- 7) Acquisition or development of cultural awareness

These goals take into account the specific educational and affective needs of HLL, such as the need to develop/acquire a more formal register as well as to strengthen writing and reading skills (Parodi, 2008).

These seven goals and needs should be at the center of evaluation, design, and implementation of HLL materials, including computer assisted language learning (CALL) materials. CALL offers many affordances that can facilitate these goals. While these affordances were originally intended for L2 learners, they can be expanded to include HLL. Some of these affordances include increased input in written forms, an area which tends to be weaker for HLL, and the facilitation of individualized feedback, which can be helpful in a heterogeneous group such as HLL. CALL also facilitates broad use of authentic materials available online and accommodates different learning styles owing to the multimodal and collaborative nature of Web 2.0 technologies. Finally CALL platforms encourage students to advocate for themselves and to take more responsibility for their learning (Henshaw, 2016).

RESEARCH QUESTIONS

Both the literature thus far and existing language learning courseware reflect a false dichotomy that prioritizes roles for NS and L2 learners. However, considering the special affordances that virtual communities offer, there is clear potential to foster a space for HLL. This study aims to critically analyze existing eTandem platforms in order to assess and explore the inclusion, or lack of inclusion, that may exist for these learners. This study will use Content Analysis (CA), which analyzes data “within a specific context in view of the meanings someone -a group or a culture- attributes to them” (Krippendorff, 1989, p. 403). As noted by Krippendorff (1989), CA can extend

beyond verbal interaction by going “...outside the immediately observable physical vehicles of communication and relies on their symbolic qualities to trace the antecedents, correlates, or consequences of communications, thus rendering the (unobserved) context of data analyzable” (p. 403). We therefore define CA to include both visual and unobserved content, in the form of text and design features respectively, found both within the applications and their accompanying websites. This approach provides an analytical framework to examine a variety of data, such as courseware, with the goal of identifying meaningful patterns that represent and connect to larger social issues.

While CA tends to focus on critical issues, in and of itself it is not a critical form of analysis. As the current research seeks to bring the exclusion of HLL into focus, the researchers carried out CA through the lens of Critical Applied Linguistics (CALx). Pennycook (2001) operationalizes a “strong” definition of applied linguistics by extending it to other domains, as well as explains the need to not only draw connections between language use and society, but to do so from a critical perspective that seeks transformation. This specific framework and strong definition lends itself to justifying the extension of the space for HLL to other domains, specifically the field of CALL and the context of eTandem applications. In addition, it advocates for the need to create changes based on the critical analyses. The present study intends to do just that: analyze the space for HLL in eTandem applications in order to lay the groundwork for future studies that look to analyze and create applications that take into account HLL. With this in mind, we operationalize the aforementioned definition by using a CALx informed approach to CA in order to explore and evaluate the content within HelloTalk and Tandem in order to create a base from which future empirical research and both societal and industrial change can be realized. In order to do so, this qualitative study will be guided by the following research questions:

1. To what degree do the affordances of eTandem applications such as HelloTalk and Tandem include or exclude HLL?
2. To what degree do the affordances of these applications correspond to the seven goals of HL instruction (Aparicio, 1997; Valdés, 1995)?

METHODOLOGY

With the rise of CALL and mobile assisted language learning (MALL), qualitative researchers also need to develop more appropriate methods to collect what Marotzki, Holze, and Verständig (2014) call virtual data. This includes “all data that are generated in cyberspace and gathered for the purpose of scientific research” and mobile data, which is data that are “generated or edited on mobile phones, smartphones and other mobile devices” (p. 450). Within these umbrella terms, researchers are likely to encounter static data, or data that undergoes little change over time and is not created by various users, and/or dynamic data, or data produced by various users. In the case of the current study, the eTandem applications, HelloTalk and Tandem, were chosen due to their collaborative and interactive nature that includes different types of language learners. For this reason, this study will focus only on static data and features that are interactive in nature and community-based.

Although neither of these applications mentions a specific language learning pedagogy that is used to inform application design, in order to frame these interactional and community-based features, this study will call upon the Cognitive-Interactionist Theory of SLA which posits that interaction is a crucial aspect of language acquisition for all learners (Long, 1996). For example, through the text and video chat features in both applications, interaction between conversational partners is required, which could potentially lead to negotiation of meaning, a necessary step in the process of language acquisition (Schmidt, 1990).

In addition, the built-in design features offer opportunities for users to develop an identity as well as foster a sense of community within the platform, which has been noted as a motivating factor for HLL participation in language maintenance (Alarcón, 2010). Finally, although these applications have an accompanying website for informational and registration purposes (<https://hellotalk.com/> and <https://www.tandem.net/>), their actual use is constrained to a mobile application platform. This mobile access may allow for higher motivation and greater access both for academic and personal use.

Coming from a CALx perspective, the affordances of the chosen eTandem mobile applications and their relation to the aforementioned goals of HL teaching (Aparicio, 1997; Valdés, 1995) and the inclusion or exclusion of HLL were evaluated utilizing CA (Krippendorff, 1989). Various measures were taken in order to maintain the validity of the present study, both at the design and data analysis levels. Drawing upon a strong theoretical framework, the two researchers worked together to analyze this data, resulting in inter-rater reliability, as well as collaborated through dialogic engagement in regard to the data analysis process and experience itself (Ravitch & Mittenfelner Carl, 2016).

As previously stated, the goal of the present study is to create a critically analyzed base from which future language learning technologies can be evaluated and reformed, if necessary, to include HLL. In addition, by utilizing a CALx perspective to analyze these eTandem applications, this study also works to contribute to the fields of both CALL and HL as well as inform future changes, as there currently exist very few studies that merge the two within the context of HL acquisition, specifically the HL acquisition of Spanish. The implementation of a qualitative methodology including CA provided the researchers with the opportunity to interact in an in-depth and critical evaluation and analysis of the current standings of existing CALL technologies and how they can be built upon in the future.

RESULTS AND DISCUSSION

Data Analysis

Due to the qualitative nature of the present study, it is important to take into account the researchers' positionalities as bilinguals within a society that perpetuates the underpinnings of *differential bilingualism*. This term coined by Aparicio (1998) refers to the "unequal value accorded by the English monolingual majority to the bilingual skills of Anglo members of the language majority, which tend to be seen as a resource and achievement, and those of Latinos and other language minority or immigrant groups, which tend to be seen as a problem and a deficiency"

(Cashman, 2006, p. 42). In the case of the present study, the two researchers are L1 speakers of English and L2 speakers of Spanish working to understand the experiences of language learners that have most likely experienced discrimination for their (United States) Spanish language variety (Loza, 2018). In addition, both investigators are also Spanish language instructors with a background in CALL who have training in both HL pedagogy and its focus on implementing a sociolinguistically and critically informed approach. In order to account for this positionality, various measures were taken to maintain validity (e.g., inter-rater reliability, dialogic engagement) which were addressed in the previous section and informed the data analysis process.

The data analysis process was divided into two categories: affordances of the applications and their compliance with or deviance from the seven goals of HL instruction. These findings were then utilized to answer the first research question regarding the inclusion and/or exclusion of HLL within these applications. The researchers utilized the static data collected from both the mobile applications and the information available on their accompanying websites.

Affordances

In order to answer the first research question regarding the affordances of eTandem applications, here we analyze the space for HLL in such applications. First various aspects of the affordances were examined in order to provide a descriptive evaluation of their design and use capabilities. These include the registration process and identity assignment of the users, the goals or proclaimed purposes of the application, the types of communicative interactions available to the users, as well as the pedagogical underpinnings of the applications. Based on a review of the available features of the applications, the researchers deemed these aspects to be most relevant to HLL and representative of eTandem applications. The affordances of each of these categories in both HelloTalk and Tandem will be presented in the following sections.

Registration process and identity assignment. Both HelloTalk and Tandem allow users to create personal accounts, free of charge. They can connect to an account on another social media platform (i.e.: Facebook, Weibo, etc.) or create a new profile using an email address. As they create their accounts, both applications require users to include their name, gender, age, photo, and information about the languages they speak and are hoping to learn. While HelloTalk focuses mostly on the linguistic interests of the user, such as their native language and what language they are learning, Tandem also requires users to answer questions about the type of language partner(s) they would like to find, the topics they would like to discuss in the target language, and what their goals are with respect to the target language. Tandem also projects a more exclusive process as users have to wait to be “accepted” by the application after submitting their information.

Once learners have created an account they must then develop their profile. It has been noted that internet profiles provide a space in which users can create their own identities (Marotzki et al., 2014), although the options for users to create such a profile vary between the two applications. HelloTalk requires users to choose the country they are from, and then automatically assigns a flag to their profile photo, disregarding the user’s possible national and/or personal identification. Users also choose one native language and a language that they are learning, which controls how possible partnerships appear within the search feature. These design features exclude many HLL who have

lived a bilingual and bicultural life which may lead them to identify with more than one native language or culture. The proficiency level of the target language is self-reported by the user, based on five levels: beginner, elementary, intermediate, advanced, and proficient. There are no descriptions given as to what constitutes the parameters of each of these levels. In addition, users have the option to expand their profiles with a written and/or oral introduction or by tagging interests, hobbies, and desired travel destinations.

In the Tandem application learners choose languages to fill in the three categories of “I am native in...”, “I also speak...”, and “I am learning...”. It should be noted that learners can choose only one option for “I am native in...”, but have the option to choose more than one language for each of the other two categories. In Tandem, the use of flags that appear when searching for potential conversation partners are not representative of the user’s country of origin but rather representative of the languages spoken and the target language(s). Interestingly enough, there is only one flag assigned to each language (e.g., American flag for English, Spanish flag for Spanish). Again, this design feature excludes users, such as many HLL, who navigate bicultural identities in which there may be a disparity between their home country’s flag and their native language. This feature also points toward the perpetuation of hegemonic language ideologies by assigning only one country’s flag per language.

Goals and purposes. Both HelloTalk and Tandem present their applications as mediums through which users can practice the target language by means of exchanges with NS. For example, HelloTalk claims to have “Over 5 million native speakers worldwide as your teachers” (HelloTalk, 2017). It also claims to make language learning “easier” and “intuitive”. Interestingly, the site does not expand on any of these three claims. Therefore it can be assumed that the availability of the tool as a mobile application is what is making language learning “easier” and more “intuitive”. This claim should be taken with caution as the availability of language learning interactions vis-à-vis a mobile device rather than face-to-face does not necessarily make the process any easier or more intuitive. Therefore, these two terms seem to more aptly describe the user interface of the application, rather than its pedagogical features.

Tandem’s claims are quite similar, stating that “Our app helps you find native speakers of almost any language who want to learn your language in exchange. Practice listening, improve your pronunciation, and learn to speak a foreign language like a local -- no matter where you are” (Tandem, 2017). Within both of these applications, the use of the term native speaker is presented in a way that positions the NS as the expert and the teacher within these language exchanges. For example, both of these applications stress the opportunity for practice with NS, which highlights the importance of the NS’s role as the expert in these exchanges. This further strengthens the confusion that HLL may experience in self-identifying as a NS or learner of the target language. Typically, a speaker is considered a native of the first language to which they were exposed (Bloomfield, 1933). This is a problematic definition for learners that have grown up in a bilingual context. For example, some HLLs may have been first exposed to Spanish, but for various reasons (e.g., status as a minority language, social discrimination, educational policy discrimination) they may identify as being more dominant in the majority language (English). This raises questions such as what role the bilingual users will choose as well as whether or not a NS of a non-English language can be from the United States.

Types of interactions. As these applications are based on the premise of communication, each app offers various ways that partners can interact that promote speaking, listening, reading, and writing skills. For example, both HelloTalk and Tandem allow for communication vis-à-vis video calls and text chats, including full use of an emojis board, as well as access to the mobile device's photo gallery and camera capabilities. In addition, HelloTalk extends communication options through the use of recorded audio messages, doodles, location sharing, and the opportunity to send greeting cards to other users. In addition, this application has created a community space called "moments", where users can write updates and post pictures regarding their experiences with the language, culture, or any other topic that they have on their minds. As can be seen, although both applications focus on the interactions between users, HelloTalk offers a wider range of communication possibilities than Tandem.

Compliance with the Seven Goals of HL Instruction

As previously mentioned, the seven goals of HL instruction (Aparicio, 1997; Valdés, 1995) should be central in language materials design, evaluation, and implementation for HLL. Therefore, this section will continue to delve into the first research question by evaluating the affordances' compliance, or noncompliance, of HelloTalk and Tandem with the goals of HL instruction.

Goal 1: Language maintenance. Some of the main tenets that are thought to promote HL maintenance are the increase of learners' competence in language skills, activities that transcend the classroom through an array of authentic contexts in the HL, and the participation of various important figures, such as the HL community and parents (Beaudrie et al., 2014; Carreira, 2000). Although these eTandem applications do provide learners the opportunity to practice the four language skills in an authentic context, the extent to which the learners take advantage of the various features that allow for this type of interaction is dependent on the conversation partners.

In addition, a possible motivating factor for HL maintenance is the sense of community that can be built around the experiences of the HLL (Alarcón, 2010). One of the principal features of these applications is for the user to take part in this virtual community of learners. However, in contrast to HL instructional settings where the principle goal is connecting learners to their local HL community, these virtual communities are comprised of users from all over the world. These NS or L2 users may not even be aware of HL communities, and may not have an interest in working with HLL. Another way in which users can interact with other community members is through the use of public spaces within the platforms. Both HelloTalk and Tandem only offer one public space that allows for users to post and interact with each other, moving beyond the one-on-one interactions typically fostered in the application. HelloTalk's "moments" feature and Tandem's "topics" feature may help to promote the sense of community that is crucial for language maintenance.. Tandem does look to extend connection possibilities to other virtual communities vis-à-vis an option to share topics through other social media platforms, like Facebook. HelloTalk also creates a more intimate opportunity to support this infrastructure by means of a group chat.

Goal 2: Acquisition or development of a prestige language variety. An important consideration for this specific goal is that learners do not need to develop or acquire a prestige variety of the HL in order to be competent in the HL; rather, they may need to have knowledge of

this variety in order to defend their own variety and language use. For example, Martínez (2003) emphasizes the necessity for classroom-based dialectal awareness that draws the learner's attention to the power dynamics and potential prejudices associated with a "standard" language variety. HL users and their conversation partners most likely will not have knowledge of this empowering approach which could consequently enforce the power structures associated with the prestige variety.

In order to develop or acquire a prestige variety of their HL, users of these mobile applications must take on the responsibility themselves. First, it is up to the HLL to communicate with a NS and position themselves as the learner, or to position themselves as the expert and participate in a language exchange with an L2 learner. Only by positioning themselves as the learner would the HLL be likely to be exposed to more "prestigious" varieties.

These applications do not offer any features that specifically aim to teach a prestige variety of the target language. However, by means of an implicit contrastive analysis within a language exchange, a very autonomous learner may be able to note differences between their own variety and that of a partner. One option would be for the HLL to position themselves as the learner to gain greater exposure to more "prestigious" varieties; if the user who takes on the role of NS corrects non-standard (but legitimate) language use of the HLL, however, this could prove detrimental to the affective needs and linguistic self confidence of the HLL (Valdés, 2000). The HLL might also position themselves as the expert and participate in a language exchange with an L2 learner, but this would give minimal exposure to a prestige variety.

Goal 3: Expansion of bilingual range. While HelloTalk and Tandem provide resources for HLL to expand their bilingual range, whether or not they do so is dependent on the user's choices within the application. As these applications offer options that encourage the use of all four language skills, it is important that the HLL and their partner choose to interact in a way that allows each learner to practice their weaker skills. For example, it has been noted that HLL tend to have weaker writing skills and stronger oral skills; in other words, they have stronger skill sets in these capacities that are developed earlier in life (Montrul & Perpiñan, 2011). Another important facet of meeting this goal is the need for HLL to expand their vocabulary and knowledge on a variety of topics, as they tend to be most experienced with more familiar contexts due to the nature of their acquisition of the HL (Beaudrie et al., 2014). Here again, the HLL could take advantage of a few design features that could assist them in choosing suitable partners, such as the profiles in HelloTalk and the "topics" element in Tandem. Through the use of these features the HL users can sift through conversational partners in order to find one who can facilitate discussions on topics of interest.

Goal 4: Transfer of literacy skills. An important consideration in reference to the transfer of literacy skills by HLL is that it cannot be assumed that strong literacy skills in English ensure strong literacy skills in their HL. It is possible that a HLL may have weak skills in both languages, or stronger skills in one of the two languages. It is vital, however, that we understand that although HLL may not possess strong literacy skills in an academic or classic literature context, this does not mean that they do not possess literacy skills in more familiar contexts, such as the use of social media (Beaudrie et al., 2014).

A potential drawback for the use of HelloTalk and Tandem in HLL writing development is that they do not have features that focus on extended formal writing. Rather these applications focus on the production of output in short bursts. This is seen in contexts such as informal text chat messaging or short bio blurbs on users' profile pages. However, for HLL with lower levels of literacy skills, writing in these short bursts may serve as a good starting point from which they can progress to more complex forms of writing. As they will be producing some sort of written output, although shorter in length, they can still tackle difficulties they may have in regards to spelling or other problem areas (Beaudrie, 2011). In addition, the confidence to produce these smaller quantities of language may lead them to utilize the HL in other real life situations.

Goal 5: Acquisition or development of academic skills in HL. Potowski and Carreira (2004) note that HLL typically come from lower resource areas and that there is often a gap between the academic skills of these students and the students who have English as an L1. This gap is most noticeable in terms of the academic opportunities and socialization opportunities that are available to these students. In order to develop the academic skills to compensate for this gap, Carreira (2007) suggests that it is necessary to support biliteracy in English and Spanish, to support and facilitate learning across the curriculum, to socialize HLL and their parents to the American education system, and to utilize the resources of HLLs' culture to advance their educational and social needs. Although these apps do encourage users to learn other languages (and thus support biliteracy), there are no design features that address the social justice-based gap in academic skills. This is due to the non-academic and personal nature of these eTandem applications.

Goal 6: Positive attitudes toward both the HL and dialects of the language and its cultures. Due to the manner in which HLL have acquired the HL, it is probable that their particular variety will contain stigmatized features, often resulting in feelings of inferiority when compared to monolinguals (Carreira, 2000; Potowski, 2005). For this reason, an important goal of HL pedagogy is to foster positive attitudes towards the learners' HL(s) and culture(s). Neither of the applications have any specific features that foster these positive attitudes; rather, this will be determined by the unique experiences that take place within the community spaces and between conversational partners.

The only purposeful attempt is set forth by Tandem, which requires users to sign a "social contract" to avoid behavioral misconduct before gaining access to the communicative features of the application: "Tandem is a place where cultural differences are celebrated, not discriminated. Harassment, racism, or rude behavior towards any person or group of people has no place here" (Tandem, 2017). In addition, a potential way in which this goal of HL instruction could be supported within language exchanges is by means of the profile features on both applications, the "topics" feature on Tandem, and/or the "moments" feature on Tandem. In addition to providing HLLs a public arena with the potential to highlight their linguistic expertise, these spaces may also provide an opportunity for HLL to position themselves as cultural experts, fostering positive attitudes toward their HL (Carreira, 2004; Potowski & Carreira, 2004). One evident feature that contrasts with this goal of HL instruction is the way in which both applications position the NS as the expert and teacher within all language exchanges. For example, a selling point that appears on HelloTalk's (2017) website claims that it is a "... language app where your teachers are native language speakers from around the world."

As has been evident in many of the previously analyzed aspects of these applications, many of the alignments between the applications and the goals of HL instruction are dependent largely on the unique experiences of the users. For example, when users create their profiles within the applications, Tandem and HelloTalk's previously described assignation of flags to the user's profile could contribute to the imposition of a majority culture on the learner. Another previously discussed design feature, the selection of only one native language in both applications, may be a positive aspect for HLL who feel they have a dominant language which could be categorized as their native language. In contrast, if HLL identify both their HL and English as their L1, this may contribute to difficulty in establishing their linguistic identities. However, it should be noted that Tandem makes an effort to compensate for just such learners by offering three options: "I am native in...", "I also speak...", and "I am learning..."

Similar to the findings in relation to goal 2, within the language exchanges, there are two sides to the coin for the features that allow feedback. For example, if the HLL positions themselves as the expert and offers corrective feedback to the L2, this may be an opportunity to grow their linguistic self-confidence and foster positive attitudes about their HLL. On the flip side, if these HLL position themselves as the learner, they may find themselves on the receiving end of corrective feedback which may or may not be given in a sociolinguistically informed manner.

Goal 7: Acquisition or development of cultural awareness. When seeking to foster cultural awareness among HLL, Beaudrie et al. (2014) explain that "instructors should help students appreciate not only the cultures they bring to the class but also other cultures that in some way have influenced the global heritage language community" (p. 67). One feature of both HelloTalk and Tandem which may allow for users to both present themselves culturally and to be exposed to the cultures of other users is through the affordances offered by the user profiles. These profiles may include photos, language identity, and/or autobiographical information. The two applications do offer some unique self-presentation options, such as HelloTalk's nickname and text or audio introduction components, as well as Tandem's implementation of the user's local time on their profile.

Although both HelloTalk and Tandem provide a platform through which language partners could *potentially* exchange cultural information, this is completely dependent on the interests and unique interaction of each pair of learners. Neither application offers the development of cultural awareness as one of the goals or desired outcomes of their products. Therefore, while there is potential room for the development of cultural awareness by the HLL through these tandem language exchanges, it is not a prescribed focus of their use of these applications.

FUTURE RESEARCH AND LIMITATIONS

Although the results of the current study could be extended to other eTandem applications, only two were specifically examined. In order to generalize these findings, more applications should be analyzed. In addition, the researchers excluded all eTandem applications that charge a subscription fee and did not explore the features of both HelloTalk and Tandem that are offered at an additional cost to the users. The language learning features of these two applications are also

available only in the form of mobile applications, which left out the analysis of any desktop-based courseware or websites.

By means of exploring these mobile applications, only static data was analyzed and interpreted by the investigators. So as to account for any potential biases of the investigators and the unique experiences of the users, it is vital that future research implement the analysis of dynamic data created and reflected on by actual HLL. Only the reactions and experiences of HLL can act as a window into these users' perceptions of the space (or lack of space) available to them within these digital platforms. Using this information, pedagogues and application developers could eventually come together in order to create a pedagogically and critically enlightened set of guidelines that will inform the design of more inclusive online environments for HLL, disrupting the current power structures in place that favor L2 and NS.

CONCLUSIONS AND IMPLICATIONS

The goal of the present study was to create a critical framework to analyze the affordances of the eTandem applications HelloTalk and Tandem in reference to the seven goals of HL pedagogy (Aparicio, 1997; Valdés, 1995). The current study found that although there are various features that have the potential to offer HLL a space within these online language learning environments, the efficacy of these features is totally dependent on the unique experiences of the users. These applications also explicitly enforce the power and authority of NS as experts and teachers, whether intentionally or unintentionally, through their publicized descriptions. In order to prepare HLL to defend their position and to carve their own space in these virtual communities, these learners should be provided with critically and sociolinguistically informed training (Carreira, 2000; Leeman, 2005; Martínez, 2003).

Although some of the features of the applications could possibly inspire HL users to find an identity and/or support the goals of HL instruction within the application, this was not found to be a primary focus of the design of either application. For example, Tandem does include the "social contract" which takes a step toward creating a respectful environment which could foster positive attitudes toward the user's HL, however, this is clearly not the goal of this feature. Most other features that have the potential to include HLL and their needs, such as the use of HelloTalk's "moments" feature to position the HLL as the cultural expert, are completely dependent on the unique experience of the user and their interactions within the application.

In contrast, the ways in which these applications seem to exclude HLL is much more extensive. In general, there is a heavy emphasis from both platforms on the importance of NS as teachers and experts within the language exchanges. This dichotomous view toward language learning, separating NS and L2, enforces the power dynamic that tends to appear at both a societal and educational level and creates a linguistic limbo in which HLL have no clear status. This power structure could be problematic in other features of the applications. For example, this is visible in the provision of feedback, the assignation of majority culture imagery in the form of national flags to users' profiles, and the forced choice by the users to designate only one native language and to assign titles to their other language abilities such as "I also speak..." or "I am learning...".

From these findings and this proposed framework, future language learning technologies can be evaluated and restructured to create a more inclusive environment for all potential learners as well as to potentially encourage the maintenance of HLs. The current societal exclusion of and negative attitudes toward minority languages and cultures in a monolingually dominated country (Leeman & Serafini, 2016) is also reflected in the seeming indifference to HLL needs in these language learning applications which continues to perpetuate the view of language-as-a-problem. By taking into account the findings of this study and advocating for the recognition and inclusion of HLL within these learning communities, we can begin to shift the perspective toward that of language-as-a-right and language-as-a-resource (Ruiz, 1984).

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