

## DO WE REALLY NEED A WEBCAM? – THE USES THAT FOREIGN LANGUAGE STUDENTS MAKE OUT OF WEBCAM IMAGES DURING TELETANDEM SESSIONS

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**Abstract:** *The use of webcam images in online interaction poses several challenges to research in the fields of language learning and intercultural communication. This article brings the results of an investigation about the role of webcam images in online interactions of students when learning foreign languages in teletandem by using instant messaging software such as Skype, OoVoo or Windows Live Messenger. It starts with an overview of the theoretical grounds of the study in terms of images, gestures, non-verbal language and teletandem. Data were collect by means of a questionnaire responded by 22 students and analyzed from a qualitative, interpretive paradigm of educational research - hermeneutic phenomenology. The research questions were: (a) What teletandem practitioners see in their own images during conversation? (b) What teletandem practitioners see in their partners' webcam images that come to them? and (c) To which image window do partners look when they talk with and when they listen to their partners? Results of the analysis show the impact of webcam images over online intercultural communication and learning, vocabulary learning, control of self-appearance, making technical adjustments, control of one's own reactions during communication, and what students look at their partners' body, reactions and surroundings.*

**Keywords:** *Teletandem; Webcam images; language learning.*

### Introduction

The focus of the study presented in this paper is on the use of webcam images by teletandem partners when they virtually interact in order to learn the language of the other. This is a distinguishing feature of this foreign language learning context – a feature that actually characterizes teletandem and

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approaches it to face-to-face interaction. However, a close look poses several challenges to research on the on-line interaction within this learning context and to its pedagogical applications in the fields of language learning and intercultural communication: (a) the webcam image frequently frames the person from the chest above (partners, therefore, get the power to control what the other is able to see, or what is to be seen); (b) eye gaze never reaches the eye-to-eye contact of face-to-face interaction, unless both partners keep looking at the webcam, yet are unable to see each other; (c) most instant messaging software today allow us to see our own image while simultaneously being able to see our partner's image, and that gives a distinctive characteristic to this interaction in terms of identity and alterity construction (most frequently, we never see our own faces while interacting with others). In addition to these challenges, there are the pedagogical ones: how to educate language learners to take the best profit of these software resources; how learners take the best control and use of these images during the interaction in order to maximize the learning of the language and culture of the other; what impact do webcam images can have on the feelings of presence of a partner who speaks a foreign language and is from a different culture? Grounded on empirical data collected from teletandem practitioners, the objectives of this paper is (a) to offer an overview of these issues; (b) to prompt into the behavior of speakers and listeners (Kendon, 1970/1990) in order to better understand how they make use of webcam images of instant messaging software when interacting during teletandem sessions; and (b) to plot themes of research regarding the use of webcam images during on-line teletandem interaction.

The first part of the paper, due to restrictions of space, provides a fast overview of the theoretical grounds the study in terms of images, gestures, non-verbal language (Kendon, 1967; Streeck, 1992) and *teletandem* (Telles, 2006; Telles & Vassallo, 2006). In the second part, I place the study within the qualitative, interpretive paradigm of educational research and describe the field, the participants, data collection instruments, procedures and analysis. The third part presents the data analysis results. I conclude with a few comments building upon a hermeneutic analysis approach to the data, and present an overview of research perspectives that this data analysis suggests.

## **1. Theoretical foundation**

### ***1.1. About tandem learning and teletandem***

*Foreign language learning in- tandem* (Brammerts, 2003, Lewis & Walker, 2003) involves pairs of (native or competent) speakers whose aim is to learn each other's language by means of bilingual conversation sessions. Within this autonomous, reciprocal and pair collaboration learning context, each partner becomes both a learner of the foreign language and a tutor of his/her mother

tongue (or language in which he/she feels proficient).

*Teletandem* (Telles & Vassallo, 2006), in turn, is a virtual, collaborative and autonomous context within which the principles of foreign language learning in-tandem are applied by using the reading, writing, speaking, listening and video resources of instant messaging software, such as *Skype*, *Windows Live Messenger* or *Oovoo* (just as examples). The advancement and relatively low cost of instant messaging software has helped foreign language learners who live in isolated places of the Earth and in countries with huge geographical dimensions (therefore, making traveling quite an expensive luxury) to easily get in touch with other languages and cultures of the world.

Vassallo & Telles (2006) and Telles & Vassallo (2006) have settled the theoretical and practical grounds for teletandem practices that are carried out on relatively similar bases of the commonly agreed and shared principles of reciprocity and autonomy of tandem learning, as specified by Brammerts (2003). The first research results on (a) the use that teletandem practitioners make out of the software available in market today, (b) on its virtual interaction dimensions and (c) on teacher development within the teletandem context can be found in Telles (2009). The team of researchers of the *Teletandem Brasil Project: Foreign languages for all!*<sup>1</sup> has offered new pedagogical perspectives on using the multimodal resources of instant messaging software and teacher mediation of teletandem partners (see Telles, 2009).

### **1.2. About the use of images and their importance to communication in a foreign language**

Though still quite different from face-to-face interaction, the use of webcam images during teletandem interactions brings back the old discussions on the importance of the non-verbal dimension of communication in foreign language and on the challenge of non-verbal awareness that started in the sixties and went through the seventies and eighties (Kendon, 1970/1990; Dunning, 1971; Kirch, 1979; Pennycook, 1985). These attempts continued until the end of the nineties (see Allen, 1999) and, nowadays, these issues return within the context of on-line multimodal communication, such as in Jauregi & Bañados (2008) who investigate video-web communication tools and their contribution to enriching the quality of foreign language curricula. An extensive account on the value of videodata and video links in mediated communication can be found in Anderson et al. (2000).

**Research question:** What uses do foreign language students make out of webcam images during their teletandem sessions?

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## **2. Methodology**

From the ontological point of view, the methodology used in this study falls into the qualitative and interpretive approaches to research and constructivist- hermeneutic approach to data analysis. According to Guba & Lincoln (1998), these approaches see multiple realities that are apprehended in the form of multiple mental constructions that are socially and empirically grounded, situated and specific in nature. From the epistemological point of view, the findings are constructed from making sense and meaning construction once the researcher is in contact with the data and the research evolves. According to Guba & Lincoln (1998), researcher and the object of research are interactively linked. From the methodological point of view, the personal and variable nature of the social constructions suggests that individual constructions of my participants can be elicited and refined between me and them.

### **2.1. Method**

#### **2.1.1. Participants**

The 22 participants in this study were first to fourth year university students. The levels of foreign language proficiency varied from basic (German language, for instance) to advanced (English, French, Italian and Spanish). At the end of their fourth year of university, most of these students will become teachers of the foreign language they are studying, after having a year of teaching practicum in their fourth year. Most participating students had a minimum of four weeks to a year of teletandem practice using the webcam image device of their instant messaging software.

#### **2.1.2. Data collection instrument and procedures**

The majority of these participants had at least two months (about 16 hours) of teletandem practice when they were asked to answer a questionnaire composed of 10 questions. Each of these questions aimed at gathering the participants' view of their experiences in using webcam images of instant messaging software such as *Skype*, *Windows Live Messenger* or *Oovoo*. These questions and their respective objectives are described in Table 1, below:

QUESTION	OBJECTIVE
1. In your opinion what is <i>the contribution of webcam image resources to your teletandem</i> ?	<ul style="list-style-type: none"> <li>To obtain participants' verbal accounts of webcam images as a learning resource</li> </ul>
2. In your opinion, what is the difference between having a teletandem session <i>with and without webcam images</i> ?	<ul style="list-style-type: none"> <li>To obtain participants' points of view on the differences between using and not using a webcam for teletandem sessions</li> </ul>
3. What do you see in the <i>image that comes of your partner</i> ? Why?	<ul style="list-style-type: none"> <li>To access the meanings that participants construct when they look at the window that shows the images of their partners abroad</li> <li>To know the roles that these images play in the language learning process</li> </ul>
4. What do you see <i>on the screen that shows your own image</i> ? Why?	<ul style="list-style-type: none"> <li>To access the meanings that participants construct when they look at the window that shows the images of themselves</li> <li>To know the roles that these images play in the language learning process</li> </ul>
5. During your teletandem session <i>to which window do you look longer, your own or your partner's</i> ? Why?	<ul style="list-style-type: none"> <li>To obtain information on how learners manage the use of their partners' and their own images during the interaction process</li> </ul>
6. During a teletandem session, <i>when do you look at your own image</i> ? Why?	<ul style="list-style-type: none"> <li>To obtain information on how learners manage the use of their own images during the interaction process</li> </ul>
7. <i>When you talk with your partner, do you look at his image or at the camera</i> ? Why?	<ul style="list-style-type: none"> <li>To obtain information on how learners use the webcam to manage eye gaze, <i>as they talk</i> with their partners during the interaction process</li> </ul>
8. <i>When you listen to your partner, do you look at his image or at the camera</i> ? Why?	<ul style="list-style-type: none"> <li>To obtain information on how learners use the webcam to manage eye gaze, <i>as they listen</i> to their partners during the interaction process</li> </ul>
9. Do you <i>spruce or pay attention to how you are dressed and combed before your teletandem session</i> ? Why?	<ul style="list-style-type: none"> <li>To obtain information on how learners wish to show themselves to their partners during the interaction process</li> </ul>
10. Are you concerned with the <i>webcam images that you will be sending to your partner (position of the webcam, what will be behind you, focus, etc.)</i> ? Why?	<ul style="list-style-type: none"> <li>To confirm previous question, but with focus on other aspects rather than on oneself.</li> </ul>

TABLE 1: The questions in the questionnaire and their objectives

All the participants had the time they wished to answer the questions.

### **2.1.3. Procedures for data analysis**

Data analysis was conducted following a hermeneutic approach (van Manen, 1990). First, the answers to each of the questions was read carefully, highlighting the parts that were relevant to the objective of the question. Secondly, these parts were grouped by themes (thematic analysis) in attempt to reach an the overall meanings of all the answers given to each of the questions.

According do van Manen (1990), the process of writing about the results, assigning meaning to the answers that were given by the participants and trying to organize these meanings in relevant themes are parts of a hermeneutic, interpretive approach to data analysis.

## **3. Results**

### **3.1. The contribution of the webcam images to the teletandem sessions**

The majority of the students who participated in this study believe that the webcam images have an impact over (a) the communication and learning; and (b) the non-verbal dimension of communication in the foreign language.

#### **3.1.1. The impact over communication and learning**

*We did the first two sessions without video, because my partner said she did not have a webcam in her computer. From the third session on, she started using her husband's laptop that had a cam. Goodness! What an improvement! She herself, when saw her image, exclaimed: 'Wow, that's a different thing with two images!' As for me, I could see her smile and face expressions and how excited she was in practicing teletandem with me; and that motivated me even more. [P51]*

According to the students, the webcam images give them feelings of closeness, informality, reality, credibility and mutual identification during the communication with their teletandem partners. In terms of learning, webcam images help them to solve vocabulary and to learn cultural aspects by just showing something through the webcam. In addition, the images provide cues whether they are or are not being understood, and allow them to explore the space of communication. The answers prompt us researchers to further explore what the students have meant by "mutual identification" and "exploration of the space of communication". Being able "to see" (behaviour, ways of dressing, gestures and the living environment of) the people from a different culture certainly adds new content and involvement when studying their language and interacting with them.

### **3.1.2. The impact over the non-verbal dimension of communication in the foreign language**

(...) through images and gestures, we can also learn new words. [P29]

The answers given by the students show that their use of webcam images during teletandem sessions focus on partners' face expressions and gestures. Students said that the image resource of instant messaging software provide feelings of closeness, familiarization, warmth and sense of face-to-face interaction. Not only that, webcam images affect the quality of communication because they provide access to partners' face expressions, and through them, they can interpret partners' reactions to what is being said. Students will also know whether the subject being discussed is pleasant. However, even though being a minority, a few students reported that the images can work on the opposite way, making conversation more tense and formal, particularly in the first teletandem sessions, when you are starting an interaction with someone that you do not know and wish to keep some distance (we must remember that webcam images by most instant messaging software gets a close of our faces from chest up).

In sum of questions one and two of the questionnaire, regarding the contribution of the resources to and the differences of practicing teletandem *with* and *without* webcam images, we could say that students believe that webcam images: (a) make teletandem sessions more interactive and dynamic; (b) provide access to facial and gesture reactions of their partners to what they say; (c) facilitate comprehension by providing visual cues whether they are being understood or whether the conversation topic is enjoyable; (d) provide partners with a sense of self-confidence and security in regards to conversation; (e) allow a better coordination of turn-taking during conversation (preventing overlapping of conversational turns); (f) provide a sense of proximity and intimacy. Students have also reported that teletandem without webcam images make conversation merely technical, electronic, artificial, impersonal, and resembles telephone conversation (distant).

Nevertheless, a few students have showed unfavourable opinions about the use of webcam images. They reported that they felt ashamed when using them while speaking a foreign language, and that webcam images can become quite intrusive, by exposing feelings, gestures and reactions that they preferred to hide from their partners.

### **3.2. The mirror: What teletandem practitioners see in their own images during conversation?**

Since most instant messaging software show one's own image while interacting with the partner(s), and since this is a distinguishing feature that makes instant messaging interaction distinctive from face-to-face interaction, it is important for us to know what exactly students observe in their own images

that are simultaneously shown with those of their partner's during teletandem conversations.

The majority of the students' answers to questions 4, 6 and 9 of the questionnaire fall in the purpose of control; that is, they use of one' own webcam image to keep control of something during the interaction. Students reported that they look at the window that shows their own image to: (a) control their self-appearance; (b) make technical adjustments of the webcam (to control the framing of their own image) and (c) to control one's own reactions during communication. Within these three categories that have controlling purposes, we have access to more complex dimensions of on-line webcam image use during interactions.

### **3.2.1. Using one's own images to control self-appearance**

According to students' answers, they look at their own images with the purpose to control how they are being shown to their partners. Their concern is mainly on face, hair, clothes and looking neat, in order to give a good impression (an impression that can turn to be an impression of their country – Brazil, in the case).

*I observe myself because I feel like controlling and following up how I am being shown to my partner. [P25]*

*I believe that nobody on the other side wants to see someone in "rags". So, I always spruce and waste precious minutes by observing my own webcam image before starting a session. [P23]*

*(...) in front of a webcam I will be exposed, I will be observed, just like by anybody else that I see in the street, etc. So, I must be at least "presentable". [P19]*

*Yes[I spruce]. I like to look good, particularly on video. And, who knows, maybe I will find a nice marriage! [P11]*

*I spruce before a session, because it is not nice to catch your partner with a messy hair, or with a low neckline, showing your boobs or a number of other things. [P52]*

*Hum... I keep trying to see if I look beautiful... I am serious... our image says a lot about who we are, and without us being aware of it... I always try to look neat, so that I will not convey a sloppy image. After all, I represent Brazil abroad, at least a part of it, and I wish to convey a good impression of it... [P53]*

### **3.2.2. Using one's own images make technical adjustments of the webcam**

Students also look at their own images to make technical adjustments of their webcam, with the purpose to control the quality of the image they will be sending to their partners. The reports that fall into this theme were frequently focused on the aim to improve (a) the quality of the interaction and (b) the improvement of foreign language comprehension.



*I check if I am framed appropriately, because I have the custom to move my body a lot and, sometimes, I get out of frame, with only part of my face showing up. [P54]*

### **3.2.3. Using one's own images to control one's own reactions during communication**

Students also reported that they use they look at their own images to control their non-verbal reactions that are being sent to their partners. Such control has the purpose of either improving the quality of the foreign language communication, to convey an image to the partner, or to hide undesirable responses:

*I try to keep a close watch over [the word used in Portuguese was close to "to police"] and to control some reactions that I might have and that I do not wish to convey to my partner.[P23]*

*(...) when I did not understand the explanation and to refrain from making weird faces when showing that I did not understand my partner's explanation. [P52]*

*(...) to make sure that I am not making too many undesirable "faces and mouths". [P23]*

*(...) to check if I am showing my reactions to my partner appropriately, how I am feeling in relation to her or to what she is saying; that is, if I understand or not, if I am interested, if I liked it or not. (...).[P51]*

### **3.2.4. Other uses of one's own images during teletandem interactions**

Other three uses that students make of their own webcam images during their teletandem sessions are related to (a) control of the surroundings; (b) avoidance, and (c) conveying cultural aspects. The three may be mingled to the particular purposes of their communication during teletandem sessions. The first case has to do with control of what is shown about the environment that surrounds them. In the second case, they either wish to avoid sending the image or pay little or no attention to it. Finally, the third case, one's own image or the image of one's own surrounding is used to convey cultural information (such as is the case of a grandmother passing in the background, a dog that comes on the lap, an interruption by a phone call during a teletandem session).

*What surrounds me, if I am presentable, if I am focused.[P9]*

*(...) and what there is behind me. [P14]*

*I almost do not look at my own image, because I keep observing the image of my partner.[P2]*

*Nothing, because I do not look at it (the image) [P17]*

*I don't usually look at my own image, because my attention is focused on my partner.[P29]*

### **3.3. What teletandem practitioners see in their partners' webcam images that come to them?**

By order of importance, teletandem practitioners first look at the body of their partners, then to their reactions, then to the surroundings where their partners are and, finally, with a minimum of attention, to their clothes.

#### **3.3.1. What do students look at their partners' body?**

Because the webcam framing of the person is restricted to the chest above, students mainly look at the face and its parts (particularly mouth and eyes), searching for meaning expressions; at least by what they have stated in their responses. However, we do have informal reports regarding sexuality, sensuality and gender during teletandem sessions, even though these are quite difficult to obtain data about (students usually report information about these issues to their classmates and not to us researchers or teachers). For example, one of the respondents of this questionnaire reported: "In the first session, I observe how my partner looks physically" [P51]. They report they observe the mouth (a smile, a movement of it) for pronunciation, word articulation and comprehension purposes, the eyes to check if their partners are paying attention, and the face, as a whole, to verify reactions of interest, comprehension, irony, etc.

*(...) I keep looking at the mouth, particularly during the time in Spanish (the foreign language I study), so that I can imitate him when I talk.[P7]*

#### **3.3.2. What do students observe in their partners' reactions?**

They wish to know (a) how the partner responds to what they say, (b) if their behavior shows interest, (c) if they feel at ease or shy, (d) if they are afraid of making mistakes, (e) if they feel tired, (f) to what extent they can go on with the argument or topic, and (g) how the partner expresses himself verbally and non-verbally. All these reports are turned to the potential of webcam images to affect the quality of on-line video-communication.

*One can observe many aspects by means of the webcam images, even the perception of certain values of your partner, particularly if you can or cannot develop certain subjects. For example: suppose someone is talking about a subject such as homosexuality. By means of the webcam image and the return that it gives to us (partner's reaction), it is possible to even perceive your partner's values and how deep you can go on with the conversation. [P23]*

### **3.3.3. What do students observe in the surroundings of their partners' images?**

They observe the place where their partners are and look for cues from which to draw cultural meanings. They believe that the surroundings of where their partners are can provide them with information regarding the country and the life their partners lead.

*I observe my partner, his expressions, gestures and also his house or the place where He is. My partner from Texas has showed me all parts of his house – indoors and outdoors. It was cool to see the desert and the cactus in his backyard.[P25]*

*I see what the surroundings are, what he is dressing, how he is combed, etc., that reveals a lot about his culture, what we have in common, how different we are. [P19]*

### **3.4. To which image window do partners look when they talk with and when they listen to their partners?**

Finally, eye gaze during teleconferencing communication through instant messaging functions quite differently from face-to-face communication. This is due to the fact that, if we wish to look at our partners' eyes, we must look at the object called webcam, whether or not we like it. At least, this will be true until a device that works simultaneously as a screen and a webcam is invented. For the time being, we must look at the webcam if we want to show our partner we are looking at his/her eyes. Many students who responded the questionnaire are aware of that, but they reported having problems in looking at an object (the webcam), instead of at a person's eyes. For them, this is quite strange. Therefore, most of the students reported that they look at their partners' image window, whether they are talking or listening to them, for many many reasons already stated above. Only a few students said they shift from their partners' image window to the webcam while interacting.

*I know I should look at the webcam when I talk with my partner during the sessions, but that is practically and unconsciously forgotten. [P23]*

*This is kind of strange. I try to look at my webcam [when he talks], but it is difficult. We are used to looking at people's eyes when we talk, so it seems more natural that we look at the window of my partner's image. [P54]*

## **Final Comments**

Due to the restrictions of space, my attempt in this paper was to plot a few important issues pertaining to the use that foreign language students make out of webcam image resources that are offered by recent instant messaging

software available in the market. The particular context which these images were used in the paper – intercontinental communication by means of teletandem foreign language practice, raised several issues that still deserve much investigation from linguistic, pragmatic, sociological, anthropological, intercultural, and multimodal communication perspectives.

I have posed a few challenges with which we have been dealing in the Project *Teletandem Brasil: Foreign languages for all* ([www.teletandembrasil.org](http://www.teletandembrasil.org)). The research perspectives are quite intriguing and themes plotted by the students' answers that were thematically organized in ways that can offer several research perspectives.

In response to the first question posed in the title of this paper – *Do we really need a webcam?*, the results obtained from the analyses show that the answer is “yes, we do need it” if we wish to take advantage of the multimodal communication resources that instant messaging software have to offer to distant foreign language teaching and learning nowadays. The days of using frontal teaching, blackboard and chalk to teach foreign languages are gone, at least in many parts of the world where people can have access to computers and the internet; and that will soon be true in developing countries, as communication hardware and software become less expensive. Students of the XXI century will be able to access the languages and cultures of the world faster than we can think of, and they will be able to interact with the target language, culture and social spaces virtually, as the Brazilian student reported to enter the backyard of his partner in Texas and see a cactus.

Finally, the students' answers to the questions posed by the questionnaire, poses us several research challenges, particularly to foreign language pedagogy and teacher development that adopts instant messaging technology. Teachers, students and their pedagogical environment, must be prepared for that. For example, one of the challenges of such pedagogy is the collaboration between foreign language teachers and their respective institutions around the world – they must collaborate pedagogically, even though their teaching environments and cultures may be quite different. After all, this is the gratifying task of teaching and learning foreign language – the diverse and intercultural contact amongst the different people, languages and cultures of the world.

## TELLES, J. A. NÓS REALMENTE PRECISAMOS DE UMA WEBCAM? - O USO QUE OS ALUNOS DE LÍNGUA ESTRANGEIRA FAZEM DAS IMAGENS DA WEBCAM DURANTE AS SESSÕES DE TELETANDEM

**Resumo:** *A utilização de imagens de webcam na interação online coloca vários desafios para a pesquisa nos campos da aprendizagem de línguas e comunicação intercultural. Este artigo traz os resultados de uma pesquisa acerca do papel das imagens de webcam nas interações virtuais de alunos aprendendo línguas estrangeiras em teletandem, utilizando aplicativos de mensageria instantânea tais como Skype, OoVoo ou Windows Live Messenger. Início com um rápido panorama do embasamento teórico do estudo em termos de imagens, gestos, linguagem não-verbal e teletandem. Os dados foram coletados por meio de questionário respondido por 22 alunos e analisado da perspectiva do paradigma qualitativo interpretativista da pesquisa educacional – a fenomenologia hermêutica. As perguntas de pesquisa foram as seguintes: (a) O que vêem os praticantes de teletandem em suas próprias imagens de webcam durante a conversação? (b) O que eles vêem nas imagens que chegam até eles por meio da webcam dos parceiros? (c) Para qual janela de imagem eles voltam seus olhares quando eles falam e quando eles escutam os parceiros? Os resultados da análise revelam o impacto das imagens de webcam sobre a comunicação intercultural em termos de aprendizagem de vocabulário, de controle da auto-imagem, de ajustes técnicos, de controle sobre as próprias reações durante a comunicação, daquilo que os alunos olham nos corpos, nas reações e no que está atrás da imagem de seus parceiros.*

**Palavras-chave:** *Teletandem; Imagem da Webcam; Aprendizagem de línguas.*

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