

Foreign Language Speaking Anxiety and Computer Self-efficacy in an Online Emergency Remote Teaching Environment: Perceptions from EFL Learners¹

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Abstract

Foreign language speaking anxiety (FLSA) has been regarded as one of the main inhibitors of language development. However, the relationship between FLSA and factors that can be influenced by emergency remote teaching (ERT), such as computer self-efficacy (CSE), have been unexplored. It is pertinent to assess students' perceptions of FLSA in online environments that were affected by the abrupt change from face-to-face to online classrooms after the pandemic, as teachers can create strategies to tackle the lack of online learner engagement reported in the literature. Therefore, this mixed-methods study sought to assess students' perceptions of FLSA in ERT settings and understand the relationship between FLSA and CSE in such contexts. To this end, 124 Chilean university English as foreign language (EFL) learners were asked to complete the second language speaking anxiety scale (SLSAS) and the computer self-efficacy scale (CSES), followed by semi-structured interviews with 12 participants. Quantitative results revealed high FLSA and CSE scores, but no significant correlation was found between them. Qualitative results brought several aspects affecting FLSA to the surface, such as the impact of feedback/assessment, perceptions toward the teacher, the influence of peer interaction, technology-related aspects, and the impact of ERT. The study indicates a need for teachers to adopt strategies to reduce FLSA in an ERT setting, such as giving enough planning time, curbing aggressive stances toward speaking, and finding new ways of interacting with technology.

Resumen

La ansiedad por hablar un idioma extranjero (FLSA) ha sido considerada como uno de los principales inhibidores de la interacción con el lenguaje. Sin embargo, no se ha explorado la relación entre FLSA y los factores que pueden verse influenciados por la enseñanza remota de emergencia (ERT), tales como la autoeficacia informática (CSE). Es crucial evaluar las percepciones de los estudiantes sobre FLSA en entornos en línea que se vieron afectados por el cambio abrupto de clases presenciales a clases en línea, ya que los maestros pueden crear estrategias para abordar la falta de participación de los estudiantes en línea que ha sido informada en la literatura. Por lo tanto, este estudio de métodos mixtos buscó evaluar las percepciones de los estudiantes sobre FLSA en entornos de ERT y comprender la relación entre FLSA y CSE en dichos contextos. Con este fin, se pidió a 124 estudiantes universitarios chilenos de inglés como lengua extranjera que completaran la escala de ansiedad al hablar un segundo idioma (SLSAS) y la escala de autoeficacia informática (CSES), y entrevistas semiestructuradas con 12 participantes. Los resultados cuantitativos revelaron puntajes altos de FLSA y CSE, pero no se encontró una correlación significativa entre ellos. Los resultados cualitativos sacaron a la superficie varios aspectos que afectan a FLSA, como el impacto de la retroalimentación/evaluación, las percepciones hacia el maestro, la influencia de la interacción entre pares, aspectos relacionados con la tecnología y el impacto de la enseñanza remota de emergencia. El estudio indica la necesidad de que los maestros adopten estrategias para reducir FLSA en un entorno de ERT, como dar suficiente tiempo de planificación, frenar las posturas agresivas hacia el habla y encontrar nuevas formas de interactuar con la tecnología.

Introduction

Affective variables such as motivation, beliefs, and attitudes have been found to impact second language learning in various ways. One of such factors is foreign language anxiety (FLA), first defined by Horwitz et al. (1986) as "a distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of language learning process" (p. 128). Over the last 30 years, FLA has been correlated with many factors such as age, gender, and education level (Arnaiz & Guillén, 2012), language proficiency (Jugo, 2020), strategy use (Chou, 2018), personality factors (Babakhouya, 2019), and self-efficacy (Passiatore et al., 2019). Although these studies have provided relevant insights into anxiety in face-to-face classrooms, there is a dearth of research on specific aspects of FLA—namely, foreign language speaking anxiety (FLSA)—in online environments based on emergency remote teaching (ERT), that is, a temporary shift of instruction delivery from a face-to-face to a remote mode prompted by the pandemic (Iglesias-Pradas et al., 2021). In line with this, it becomes relevant to assess the relationship between computer self-efficacy (CSE) and FLSA. CSE represents an individual's convictions regarding their ability to execute the actions required to complete tasks successfully in settings

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that include computer assignments (Compeau et al., 2006). The shift to ERT during the recent pandemic influenced teachers' and students' levels of CSE. Although online education has brought learning advantages such as time flexibility, global reach, information accessibility, and efficiency in teaching and delivering instruction (Xie et al., 2020), it has also highlighted a socio-economic gap, as many students are not able to access their classes due to poor access to computers and internet connection issues (Devkota, 2021). Furthermore, other issues have emerged as a by-product of online education, such as the lack of a sense of belonging and connectedness, distractions in the household, and lack of engagement (Xie et al., 2020). Many universities worldwide were not prepared for ERT because teachers and learners lacked knowledge of new instructional technologies and felt anxious toward using them for language learning (Russell & Murphy-Judy, 2020).

Therefore, the relevance of the present mixed-methods study is explained by the need to assess students' perceptions of FLSA and CSE in online environments that were affected by the abrupt change from face-to-face to online classrooms in emergency remote teaching settings. Understanding learners' perceptions toward these aspects can contribute to the literature addressing FLSA and help teachers create strategies to tackle the lack of online learner engagement reported in the literature. Thus, this study sought to assess whether FLSA in emergency remote teaching environments can be related to CSE and explore adult EFL learners' perceptions on factors influencing their FLSA. We surmised that if CSE can influence attitudes toward computers and in turn be influenced by teacher support, it could also modify learners' perceptions of FLSA in a fully online course. The research questions guiding the study are as follows:

RQ1: Are perceptions of EFL learners regarding foreign language speaking anxiety in an emergency remote teaching context related to computer self-efficacy?

RQ2: How do EFL learners explain foreign language speaking anxiety in such settings?

Literature Review

Foreign language (speaking) anxiety

The construct of foreign language anxiety (FLA) has been extensively studied for the past 30 years. According to MacIntyre and Gregersen (2012), FLA "encompasses the feelings of worry and negative, fear-related emotions associated with learning or using a language that is not an individual's mother tongue" (p. 103). This type of anxiety is situation-specific, that is, it considers anxiety in particular situations that could trigger it, such as when learners are asked to speak the foreign/second language (Aichhorn & Puck, 2017). Thus, FLA could be viewed as situation-specific anxiety emerging from the uniqueness of the formal learning of a foreign language (Horwitz et al., 1986), and as such, contextual aspects need to be considered when addressing the construct.

Horwitz et al. (1986) identified three components in FLA: communication apprehension, test anxiety, and fear of negative evaluation. Communication apprehension is "a type of shyness characterized by fear of or anxiety about communicating with people" (p. 127). For example, shy learners who are separated from their friends in a speaking activity and have trouble speaking in a foreign language are likely to experience a higher degree of challenge when interacting with others.. Another type of anxiety when studying a foreign language is test anxiety, which is caused by fear of failure when performing on a test. Finally, a fear of negative evaluation is also relevant since it denotes nervousness toward being negatively evaluated by peers, and avoidance of evaluative situations in general. For example, some students tend to avoid speaking because they think that they will be judged by their peers. Based on these three components, Horwitz et al. (1986) developed the well-known foreign language classroom anxiety scale (FLCAS) to assess language learner anxiety.

Horwitz et al.'s (1986) seminal work, the authors state that in order to speak the L2, "complex and nonspontaneous mental operations are required", which may challenge the perceptions that an individual may have about his/her competence as a communicator, and can create feelings of "reticence, self-consciousness, fear, or even panic" (Horwitz et al., 1986, p. 128). Indeed, it has been found that foreign language speaking anxiety (FLSA) is one of the main inhibitors of language development (Cheng, 2017). Many factors have been linked to FLSA, namely cognitive factors, affective factors, performance factors, and situational factors (Hanifa, 2018). For example, one of the cognitive factors affecting students from speaking actively in class is fear of negative evaluation (Chou, 2018), which prevents learners from speaking in class due to fear of losing face in front of the class or being judged by their peers. Affective factors such as the feeling of not being comfortable or knowledgeable enough about particular topics may reduce the amount of speaking learners produce (Hanifa, 2018). Regarding performance factors, studies show that learners

with low oral competence tend to experience high levels of FLSA and avoid interaction (Heng et al., 2012). Finally, situational factors involve specific pedagogical conditions, i.e., the way in which the teacher provides language input – that can increase speaking anxiety (Hanifa, 2018). In this respect, researching FLSA in face-to-face environments may vary from online settings, as new technologies can impact FLSA among students learning an L2 online.

Foreign language speaking anxiety (FLSA) in face-to-face (FtF) and online EFL environments

In face-to-face (FtF) classrooms, FLSA has been correlated with variables such as personality factors, feedback beliefs, socio-biographical variables (e.g., age, gender, education level, age of onset of acquisition), and strategy use. Bouddage and Efatihi (2018) investigated the degree of FLSA experienced by 212 Moroccan baccalaureate students and the strategies that could help reduce it. By means of two questionnaires (FLCAS and a teacher questionnaire survey), focus-group interviews, and classroom observations, the researchers found that students displayed a high level of speaking anxiety and were concerned about their lack of vocabulary and speaking in class without preparation. Indeed, the speaking skill has been identified as an anxiety-provoking factor in many learning contexts (Akkakoson, 2016; Mak, 2011). For example, Chou (2018) investigated Taiwanese university students' anxiety, strategy use, and difficulties when speaking English in full and partial English-medium instruction contexts. By means of the FLCAS and a language-strategy-use survey, Chou found that the learners exhibited high FLSA, a lack of confidence, and negative feelings toward English learning. Similar results were obtained by Bagalay et al. (2021), who investigated how FLSA affected 31 Filipino college students. Interview results showed that the learners reported high anxiety because of a fear of making mistakes, self-abasement, and lack of self-confidence.

Akkakoson (2016) investigated English language speaking-in-class anxiety by asking 282 Thai university students taking English conversation courses at a university in Thailand to complete an adapted version of the FLCAS and semi-structured interviews addressing attitudes toward oral English, self-ratings of English-speaking ability and sources of speaking anxiety. The author found that a limited repertoire of vocabulary in students was a major source of FLSA. These results are in line with Bouddage and Elfatihi (2018), who concluded that "vocabulary restricts [learners'] speaking in terms of when they speak and how much they say" (p. 105). Regarding the dimensions of anxiety levels, learners have been found to experience communication apprehension, fear of negative evaluation, and test anxiety (Akkakoson, 2016; Heng et al., 2012). Mak (2011) investigated factors contributing to the class speaking anxiety of 313 Chinese ESL first-year university students in Hong Kong. The researcher used the FLCAS and factor analysis to identify five factors as sources of FLSA, namely, communication apprehension and fear of negative evaluation, discomfort when speaking with native speakers, negative attitudes toward the English classroom, negative self-evaluation, and a fear of failing the class/consequences of personal failure. Moreover, qualitative results found that speaking in front of the class without preparation and being corrected when speaking were also identified by the participants as crucial factors leading to FLSA. Santos et al. (2021) investigated FLSA among Filipino university students. The researchers administered the second language speaking anxiety scale (SLSAS; Woodrow, 2006) and a scale assessing stressors and coping techniques. Findings showed that giving an oral presentation, contributing to a formal discussion, and the teacher asking a question in the English class were regarded by the participants as anxiety-inducing conditions, results that were also reported by Martin's (2019) study conducted in the Philippines with university EFL learners.

Studies on FLSA in online learning environments have been scarce and have focused on the impact of new computer-mediated communication. Chen (2018) investigated FLSA among 12 adult EFL learners using a learning support system based on an interactive 3D holographic platform. Findings revealed that students preferred to speak using the technology in lieu of a real person because they had more time to clarify their thoughts before producing the language. They also felt relaxed and stress free, and some of them stated that they were able to identify their weaknesses and develop their confidence. Similarly, Bashori et al. (2021) investigated the effect of interacting with websites based on using automatic speech recognition on FLSA. Results revealed that students reduced their levels of speaking anxiety, increased their confidence, and felt less afraid of making mistakes with the websites. Furthermore, students evaluated the software positively and stated that they would rather use the technology for speaking practice at an initial stage before practicing with their classmates or teacher, so as to alleviate their speaking anxiety. Focusing on the relationship between students' FLSA and feedback as a potential anxiety inhibitor in an online oral synchronous communication task, Martin and Alvarez Valdivia (2017) administered the FLCAS and a corrective feedback belief scale to 50 university students. Quantitative findings showed that both high- and

low-anxiety groups strongly support provision of corrective feedback in oral tasks. Finally, Hurd and Xiao (2010) explored the factors creating anxiety in 550 English majors attending distance EFL courses, and the strategies adopted to reduce anxiety in such environments. Findings revealed that the learners lacked basic knowledge of grammar and vocabulary when using the language, which increased their anxiety. The authors also found that the learners did not apply affective strategies to cope with anxiety, and that although they acknowledged the role of the tutor in the course, they favored self-help strategies rather than seeking help from others.

Computer self-efficacy

Drawing from self-efficacy research, the concept of computer self-efficacy (CSE) is defined as “an individual’s perception of efficacy in performing specific computer-related tasks within the domain of general computing” (Karsten et al., 2012). CSE focuses on individuals’ convictions in their capacities to execute the strategies expected to finish explicit tasks successfully in settings that require computer-related tasks (Compeau et al., 2006). In a world where individuals have become dependent on technology and the internet (Asadi et al., 2020), EFL teachers have sought to implement teaching techniques that rely on technology to enhance students’ lessons and increase motivation and engagement (Wang & Tahir, 2020). Research has reported that learners who have grown up with technology and have a higher CSE will likely believe that learning about or through computers is advantageous for them (Namaziandost & Cakmak, 2020). Nonetheless, Zheng et al. (2020) warn that in order for students to acquire social-capital learning through digital platforms, factors such as the quality of online interaction, internet connection, computer self-efficacy, and learner personality must be considered. CSE is typically influenced by the perceptions of the learner during a task, so if learners do not see a fruitful relation between learning and the use of technology, they are prone to avoid the experience altogether (Heinecke & Adamy, 2010). Hauser et al. (2012) state that CSE can be affected by social aspects such as encouragement and lecturer support, by demographic variables such as experience, age, and gender, and by specific learning beliefs. In this respect, Sam et al. (2005) assessed whether gender was related with computer self-efficacy and computer anxiety. They asked 124 undergraduate students to complete a set of questionnaires asking about the number of hours the participants spent using the internet, the learners’ perceived computer anxiety, their attitudes toward the internet, and their CSE. Results showed that neither the level of internet usage nor gender was a factor related to higher CSE. However, the level of internet usage reduced anxiety levels among participants and increased positive attitudes toward the internet.

To sum up, factors such as feedback, a lack of confidence, and a lack of proficiency in the language are found to be major contributors of FLSA in face-to-face and online environments. Learners tend to believe that learning with computers represents an advantage for them, but that other factors such as the quality of online interaction, internet connection, learner personality, and CSE can diminish these positive perceptions. No studies addressing CSE and FLSA in ERT contexts were found in the literature, although CSE was found to be related to positive views regarding computers and to lecturer support. Thus, if CSE influences attitudes toward computers and in turn is influenced by teacher support, it can also modify learners’ perceptions of FLSA in an online course.

Methodology

The present study sought to examine the perceptions toward FLSA of Chilean students in an online environment and to find whether CSE is related to those perceptions. The study adopted a sequential explanatory mixed-methods design that allowed the researchers to first gather quantitative findings from a number of participants and then expand on those findings by collecting qualitative data (Creswell & Guetterman, 2019). The instruments employed in the study were a modified version of the second language speaking anxiety scale (SLSAS; Woodrow, 2006), the computer self-efficacy scale (CSES; Howard, 2014), and semi-structured interviews.

Participants and context

The study included data from 124 participants majoring in Nursing, Nutritional Science, Pharmacy, Dentistry, Obstetrics, Gynaecology, and Biotechnology Engineering. They were native Spanish speakers taking an EFL course at a Chilean private university with a goal of reaching A2/B1 levels (Common European Framework of Reference; Council of Europe, 2001). The institution adopted *Blackboard* as a learning management system to teach their students in a fully online format as part of an ERT setting. This involved multimodal arrangements for content delivery, such as audio, video, and synchronous and asynchronous chat

modalities. Real-time interaction between learners and teachers took place synchronously by means of videoconferencing through *Blackboard's* virtual classroom (*Blackboard Collaborate*). Students had 90-minute classes twice a week, and teachers were trained to support autonomous learning by means of worksheets, forums, and blogs. The EFL lessons at the university emphasize the learning of grammar, achieving basic tasks related to the four skills (reading, writing, speaking, and listening), and completing drills in an English textbook. In EFL settings such as this one, participants seldom speak or practice English outside the classroom (Montaño-González & Cancino, 2020), so most of the L2 real-time speaking practice these learners had was based on synchronous videoconferencing via *Blackboard*.

Instruments

Second Language Speaking Anxiety Scale (SLSAS)

In order to assess foreign language speaking anxiety, the SLSAS was adapted from Woodrow (2006). The original version of the questionnaire consisted of 12 Likert scale items ranging from (1) Not at all anxious to (5) Extremely anxious, assessing in-class and out-of-class anxiety. Since the context of the present study was an EFL setting, the researchers adapted the instrument to only include questions that applied to in-class anxiety, as learners did not communicate in English outside the online classroom. Moreover, the researchers further modified the items to refer to interaction in online environments. The SLSAS has been used to assess speaking anxiety in adult second language contexts (Martin, 2019; Santos et al., 2021), and the Cronbach's alpha value for the instrument in the present study was .85, which suggests very good reliability. The instrument was translated into Spanish to avoid comprehension issues and was then reviewed by two researchers for feedback that helped improve the translation. The Spanish version of the instrument can be found in Appendix 1.

Computer Self-Efficacy Scale (CSES)

The Computer Self-Efficacy Scale (CSES) adapted for the present study was developed by Howard (2014). The instrument contains 12 Likert-scale items ranging from strongly disagree (1) to strongly agree (5), which assess perceptions toward CSE aspects such as computer problem-solving skills, time spent on task, and persistence when addressing computer issues. The instrument has been validated in adult learning contexts (Loar, 2018; Schlebusch, 2018) and Howard (2014) states that the scale possesses good internal consistency, which was confirmed by the Cronbach's alpha values for the scale in the present study (.91). The instrument was translated into Spanish following the same procedures used in the CSES, and can be found in Appendix 2.

Semi-structured interviews

Semi-structured interviews were conducted to delve into participants' perceptions of foreign language speaking anxiety in ERT settings and to identify how they could be related to other factors such as CSE. The interviews were carried out in the L1 and the questions were based on relevant aspects of the quantitative instruments, as well as general questions addressing perceptions of FLSA, teaching approaches to speaking in the online classroom, CSE, and performance feedback. The interviews lasted 45 to 60 minutes, approximately.

Procedures

Pilot procedures

The SLSAS and the CSES were piloted with *Google Forms* to identify issues with items and to time the data collection schedule. First, both questionnaires were reviewed by two other researchers for clarity. Then, the instruments were administered to 15 EFL university students with similar majors. The pilot participants stated that the items in the instruments were clear and that there were no comprehension issues with the instructions. Afterwards, the pilot data was reviewed for reliability, and it was found that Item 2 (Speaking informally to my English teacher out of the online class) received mixed answers, which could have been due to the participants not being able to ascertain the language of the interaction being addressed. Therefore, the researchers adapted the item to refer to using the L2 to speak to the teacher.

As for the interviews, the researchers piloted the interview protocol through *Zoom* with two participants who were part of the quantitative sample. The interview questions were discussed first with other researchers and were then piloted, which allowed the researchers to add follow-up questions for specific items and adjust the length of the interviews. Pilot participants reported no comprehension issues.

Data collection and method of data analysis

After pilot procedures were completed, the researchers contacted the teachers in the available courses so that participants could complete the questionnaires during their class time. They completed both instruments with a single *Google Forms* link. The students had been selected following convenience sampling criteria, since they were willing and available to be studied (Creswell & Guetterman, 2019). Then, individual *Zoom* interviews were arranged by e-mail with participants who fit specific profile scores in both the SLSAS and CSES. Regarding ethical procedures, the participants were given an information sheet and a consent form where they were informed that they could withdraw from the study at any time, and that their personal information would be treated as confidential and would not be published. Data was analyzed by means of descriptive statistics and correlational analysis that contained SLSAS and CSES scores as variables. As for the interviews, thematic analysis was used. The researchers transcribed the interviews and identified codes by first analyzing broad themes of data (Creswell & Guetterman, 2019) and then sorting those codes into themes that would reveal the perceptions of the participants.

Findings

This section will present quantitative findings by means of descriptive and inferential statistics from the SLSAS and CSES survey data. As for qualitative findings, interview extracts will be presented to illustrate the themes identified.

Quantitative findings

Descriptive statistics

Descriptive statistics for the SLSAS and the CSES can be seen in Table 1 below.

	N	Minimum	Maximum	Mean	Std. Deviation
SLSAS	124	1.33	5	3.91	.82
CSES	124	1.67	5	3.62	.74

Table 1: Descriptive statistics for the SLSAS and the CSES.

The means for both instruments were rather high. These participants were highly anxious when speaking in an online class ($\bar{x}=3.91$). The highest mean score in the SLSAS instrument was found in the item "Giving an oral presentation to the rest of the online class" ($\bar{x}=4.43$). Figure 1 below presents the mean scores for every item in the SLSAS.

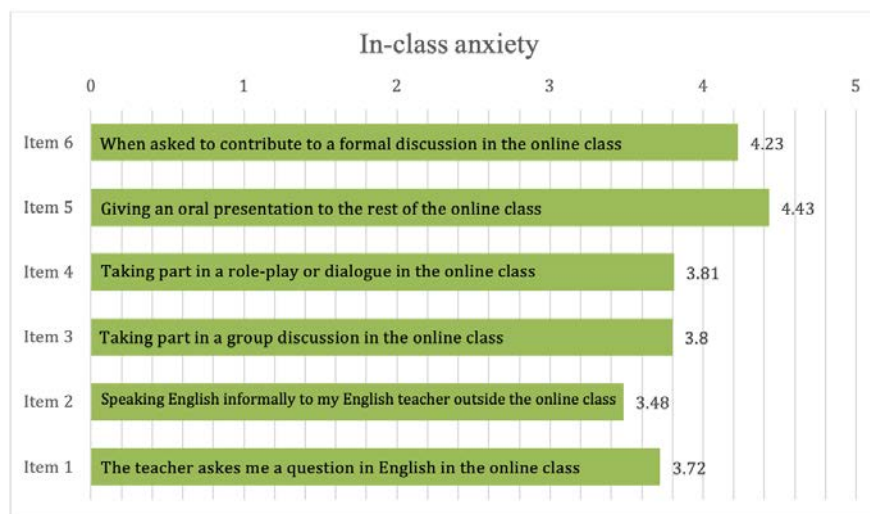


Figure 1: In-class anxiety item means in the SLSAS

As for CSE, participants perceived themselves as quite able to complete tasks on a computer, as they displayed moderately high scores ($\bar{x}=3.62$).

Pearson Correlation between SLSAS and CSES

A Pearson correlation was run between SLSAS and CSES scores, which revealed that their relationship was not statistically significant ($r=-.157$, $p=.081$). Although the negative direction of the relationship was

expected, it was not strong. This finding revealed that CSE as a single factor may not be related to the high anxiety reported by these participants.

Qualitative findings

Out of the 124 participants who completed the SLSAS and CSES, the researchers selected 12 students studying Nursing and Biotechnology Engineering to conduct the semi-structured interviews, based on the means they displayed in both questionnaires (1-2.4=Low; 2.5-3.5=Medium; 3.6-5=High). Thus, available profiles were separated into four profile groups: High SLSA/High CSE (Participants 1-4), Low-Medium SLSA/High CSE (Participants 5,6), High SLSA/Low-Medium CSE (Participants 7-10), and Low-Medium SLSA/Medium CSE (Participants 11, 12). These diverse profiles allowed the researchers to gather perceptions regarding FLSA in online settings from different participants' perspectives, along with the factors that may influence it. Demographic information of the 12 participants, along with their mean scores for each variable can be seen in Table 2 below.

Participant	Score profile	Gender	Age
Participant 1 (P1)	High SLSA (5.0); High CSE (4.5)	Female	22
Participant 2 (P2)	High SLSA (4.8); High CSE (4.8)	Female	22
Participant 3 (P3)	High SLSA (4.7); High CSE (4.7)	Male	20
Participant 4 (P4)	High SLSA (5.0); High CSE (4.0)	Female	22
Participant 5 (P5)	Medium SLSA (2.7); High CSE (4.8)	Male	20
Participant 6 (P6)	Low SLSA (2.2); High CSE (3.8)	Female	20
Participant 7 (P7)	High SLSA (4.8); Medium CSE (2.8)	Female	22
Participant 8 (P8)	High SLSA (5.0); Medium CSE (2.6)	Male	22
Participant 9 (P9)	High SLSA (5.0); Low CSE (1.7)	Female	21
Participant 10 (P10)	High SLSA (4.8); Low CSE (2.2)	Female	22
Participant 11 (P11)	Low SLSA (2.0); Medium CSE (3.3)	Female	22
Participant 12 (P12)	Medium SLSA (2.8); Medium CSE (2.9)	Female	21

Table 2: Students' interview profiles.

Regarding analysis, five main themes were identified: Impact of feedback/assessment, Perceptions toward the teacher, Influence of peer interaction, Technology-related aspects, and Impact of emergency remote teaching. These themes are addressed below.

Impact of feedback/Assessment

Regarding the effects of feedback on FLSA, some participants discussed how corrective feedback affected their speaking performance in an oral task, while others stated that corrective feedback was positive not only for the person who was receiving feedback, but also for the rest of the class. Participants stated that they preferred to receive feedback individually and at the end of the class, rather than receiving instant feedback, since the former lowered their anxiety and heightened their awareness as they took notes:

Participant 10 (High SLSA/Low CSE): *All the feedback that I have received has been after my presentations. I think one can be more aware and take notes [with this approach]. This methodology where you wait to be given feedback is really good; it's even respectful.*

Participant 4 (High SLSA/High CSE): *If it is right away, it makes me uncomfortable because I know that I'm getting it wrong... It is much better when feedback is provided at the end [of the class, privately] because one knows what one is getting wrong, and one can take notes.*

In line with her medium level of FLSA, Participant 12 (Medium SLSA/Medium CSE) expressed no issue with receiving immediate oral corrective feedback from the teacher in the online lesson, as this can help other learners:

I feel that feedback that is given to me may be useful to others. So, if it is useful to someone else, even better.

In general, most students welcomed receiving feedback on their speaking skills. However, fear of negative evaluation was frequently mentioned in the interviews. Most participants reported their inability to perform adequately when feeling judged, when they perceived they were losing face, or when they were being mocked by their classmates. These feelings caused participants to hold negative views regarding their abilities:

Participant 7 (High SLSA/Medium CSE): *I'm afraid of [...] making mistakes, I am afraid of what others may say, and it makes me feel embarrassed, and that's why I tend to isolate myself in the English class.*

Participant 10 (High SLSA/Low CSE): *Sometimes, because I'm so shy, so afraid of making mistakes and being mocked, I avoid asking questions and I prefer to look up the answers by myself or speak with someone I trust, rather than asking a "dumb question" to the teacher.*

According to these participants, they fear making mistakes in front of others because they may feel judged or mocked by their peers. Participants reported sweating, stomach aches, and stammering when communicating orally in the L2 in online settings:

Participant 2 (High SLSA/High CSE): *I feel cold, my hands sweat, my voice shivers, and my stomach aches a little bit.*

Participant 8 (High SLSA/Medium CSE): *I start shaking a little bit, I have chills, also I stutter a bit, especially when the teacher makes me say a phrase... the other thing is that I tend to blush a lot.*

Not only highly anxious learners experienced these symptoms. For example, Participant 6 (Low SLSA/High CSE) stated:

I speak extremely fast. Sometimes ... Speaking fast while being nervous or anxious in English makes me stammer.

Some participants felt that their anxiety and its manifestations when being evaluated would be reduced if enough time for preparation were given:

Participant 4 (High SLSA/High CSE): *[I get anxious] especially when it is something that appears out of nowhere. For example, sometimes the teacher makes us complete a task in five minutes and I get very anxious because I am afraid of making mistakes. It's different when the teacher gives us more time to prepare.*

Participant 7 (High SLSA/Medium CSE): *If I use [the vocabulary] in my own words, formulating the structure, it's just too hard. I mean... the teacher should give me at least five minutes to answer, but she tells me to speak now, and.... No, I truly cannot answer.*

Even a participant who was not highly anxious (Participant 12, Medium SLSA/Medium CSE) felt that she needed time to prepare to speak before a test:

[In the test] Having to see a picture and start thinking in the moment what I have to say is what gives me anxiety, because I do not have time to prepare.

Perceptions toward the teacher

The teacher was found to be a factor influencing learners' perceptions of the class and their FLSA. Positive behaviour by teachers were related to personality factors:

Participant 2 (High SLSA/High CSE): *[My teacher's approach is] interactive, empathetic, nice. Normally, she tells us an anecdote of what happened to her last week before she starts the class.*

Participant 11 (Low SLSA/Medium CSE): *I am going to insist a lot on the attitude of the teacher, because if the teacher is nice, the students are going to be nice as well ... If the teacher is nice, kind, entertaining, this lowers the level of anxiety a lot.*

Participants also reiterated how their teacher could help create an atmosphere of trust that would allow them to produce the language. However, teachers who adopted a more aggressive approach to the lesson could be seen as an obstacle for adequate use of online technologies. For example, Participant 9 (High SLSA/Low CSE) emphasised this problem:

[The teacher] yelled at us because we did not want to use the microphone. She constantly kept repeating how she wanted us to use it and harassed us about it, and I thought 'No, she can't make me do that'. That is something that affects whether someone learns or not. She got angry at us and treated us as if we were children. She told us that we cheated in the test, and that's not good.

Participant 9 highlighted the relevance of the teacher as a potential source of anxiety and how their approach to eliciting speaking can increase anxiety when adopting an antagonistic stance.

Influence of peer interaction

The impact of students' interaction with their peers on their FLSA was also addressed in the interviews. Participants stated that their classmates could influence the classroom atmosphere, but this did not always lead to an increase in FLSA. Peer interaction was seen as a positive factor promoting learning, depending on the degree of rapport and trust they achieve with their classmates:

Participant 1 (High SLSA/High CSE): *It depends on the classmate, if I interact with people that I know... I know that they can help me, because many classmates know a lot and they help me to establish a dialogue. If I am wrong, they correct me.*

Participant 5 (Medium SLSA/High CSE): *I do feel more confident due to the fact of having someone that I know in the class.*

The extracts above highlight the relevance of creating trusting relationships with peers to speak the language and reduce FLSA. Participants also discussed the feeling of being pushed to talk because no one else is willing to do so, and the anxiety that this can cause:

Participant 6 (Low SLSA/High CSE): *I feel like in every English class I am under pressure to provide answers and participate in class. My friend and I are the ones that participate, so if we don't do it, [we feel that] the teacher is 'talking to herself'. So, that's when I feel pressure... Why don't my classmates participate?*

Participant 11 (Low SLSA/Medium CSE): *To be honest, I don't feel embarrassed or uncomfortable when talking to others. The problem is that pressure is imposed when someone, somehow, must provide an answer no matter what. Generally, no one does it, and the environment feels tense behind the computer.*

These comments suggest that lack of student-teacher interaction influenced participants negatively in their learning, and increased their speaking anxiety in online settings, even if they were willing to participate. Similarly, Participant 8 (High SLSA/Medium CSE) referred to how no interaction in the group could affect his willingness to contribute to a discussion:

If there is no support from my classmates, or if they're not paying attention, then this does not motivate me to participate.

The lack of interest in interacting with other peers in the online setting can be further increased when EFL learners lack confidence in their linguistic abilities. Participants reported feeling less confident when participating in online group discussions as part of the lesson particularly when interacting with more proficient partners, which prompted them to avoid speaking:

Participant 3 (High SLAS/High CSE): *If I have to [speak] with a classmate that is proficient in the language, I'm worried that I may not be at the same level, or not being able to reply to him, or that the conversation gets stuck. That's when the anxiety kicks in.*

Participant 4 (High SLAS/High CSE): *Maybe I know much less than them [her classmate], and it worries me that I'm not at the same level.*

Technology-related aspects

Situational factors such as the use of technology when interacting with peers can influence FLSA. The interview data suggested that the computer self-efficacy (CSE) of the participants, their attitude toward using the camera and the microphone during online classes, and connectivity issues such as poor Wi-Fi connection could have impacted their engagement. Regarding CSE, participants expressed how being an efficacious user of a computer could make them feel less anxious in the online classes:

Participant 2 (High SLSA/High CSE): *[While] searching for information, they will not see me distracted. The immediate access to information for any question makes me feel less anxious and more relaxed.*

Participant 5 (Medium SLSA/High CSE): *If any problem pops up, I say... I know how I can solve it, it is not a problem for me, it does not trigger my anxiety, so I fix it. If I don't solve it one way, I end up doing something else to fix it.*

These students expressed confidence in their computer abilities, which helped them solve linguistic and computer issues. However, regarding the use of the camera and microphone, many participants admitted that the mere fact of knowing that they had to turn on the camera made them feel anxious:

Participant 4 (High SLSA/High CSE): *I feel that I'm showing it all, and the nervousness shows... It's not about having to speak, because anyone can make a mistake. But having the camera on is like... it's all shown.*

Participant 3 (High SLSA/High CSE): *If I'm the only one with the camera on, I think that gives me anxiety. The thought of... having other people watch me... I imagine I don't know anything, and they are laughing... It makes me feel insecure.*

Most students worried about how other people were going to evaluate or perceive them through the camera. Participants also felt that technical issues involving the camera and the microphone made them anxious and negatively impacted their participation and understanding in class, even if they displayed high CSE. For example, Participant 6 (Low SLSA/High CSE) stated:

[Sometimes] when it's my turn to speak or I want to speak and I turn on the microphone, I am like 'Nooo! It doesn't work'. And I get desperate... I know how to manage things but... if my camera or microphone do not turn on ..., I am like 'What do I do now?'

Interestingly, this participant displayed high CSE in the CSE instrument. However, she stated that even though she knew how to handle a computer, the immediate nature of the online interaction when she was

asked to speak increased her FLSA. A poor internet connection can also influence learner speaking anxiety when learners are unable to use the camera and microphone:

Participant 7 (High SLSA/Medium CSE): *I get super nervous because sometimes because of the internet, I cannot turn on my camera or microphone, and I can't explain what happened to my teacher.*

Participant 8 (High SLSA/Medium CSE): *When I use the camera, either I use audio or the camera, but not the two of them, my internet does not allow it.*

Impact of Emergency Remote Teaching

The aforementioned perceptions of the factors that influence FLSA were elicited by participants who interacted as EFL learners in an emergency remote teaching context. Thus, this theme relates to the issues that emergency remote teaching brought to the participants' lives and interactions in their EFL classes which were mainly related to the distractions in the household, the lack of speaking activities in online EFL settings, and the use of the chat window for communication.

Participants reported issues regarding their study environment and how they coped with the learning process in their homes, and how distractors such as family and house chores impacted their learning and their (speaking) anxiety:

Participant 2 (High SLSA/High CSE): *It's also about managing time, because in the house, even though you are in classes, our mothers may need help with chores.*

Participant 7 (High SLSA/Medium CSE): *Sometimes I have to do some stuff, like help my mom or prepare lunch, and I'm not focused. Sometimes I'm studying, sometimes I don't want to pay attention.*

Participant 7 recalled a situation where she was not able to work in groups to discuss a topic due to her disengagement from the online class:

The teacher separated us into pairs to discuss a topic, and I, of course, was helping my mom, I don't remember if I was making lunch or looking after my nephew. When I came back online my peer was looking for me like 'Hello?', 'Is someone there?'

Participant 6 (Low SLSA/High CSE) gave more examples of what can happen at home during online classes:

I can be in the English class with an open microphone and suddenly.... My mom drops by, or my brother starts looking for something in my bedroom and I get more nervous because they entered the room, or because they are listening to me speaking in English.

Students in online environments tend to avoid turning on their cameras or microphones because they have to look after children or pets, they have to complete house chores, and so on. On other occasions, it is the lack of speaking activities in the online classroom, that is, the reduced amount of time devoted to practicing the speaking skill, that sometimes prompts students to keep their microphones and cameras off during the lesson, a welcomed consequence for students with high FLSA:

Participant 9 (High SLSA/Low CSE): *I think that [the lack of speaking activities] is in a certain way an escape because no one is forcing me to speak. Watching videos was a very common activity in the lessons. I only had one lesson where I had to speak.*

Participant 12 (Medium SLSA/Medium CSE): *I've never had to do a presentation... We've never had to present anything.*

Students frequently reported that the chat window became the main means of communication among students and between students and the teacher:

Participant 4: (High SLSA/Low CSE): *I mean, in this semester, they haven't made us participate orally. We participate by writing in the chat window.*

Participant 7 (High SLSA/Medium CSE): *I prefer to write in the chat window because... Yeah, it is easier if I don't know a word.*

These responses highlight the extent to which the students avoided speaking which could have been either caused by the teacher, or sought by the learner. In both instances, a reduced number of opportunities for speaking likely reduced speaking anxiety but did not foster learning.

Discussion

RQ1: Are perceptions of EFL learners regarding foreign language speaking anxiety in an emergency remote teaching context related to computer self-efficacy?

The high levels of foreign language speaking anxiety (FLSA) displayed by these participants are consistent with studies reporting high L2 speaking anxiety levels by EFL learners (Bashori et al., 2020). Similarly,

Martin (2019) reported moderately high FLSA in a FtF learning context, with SLSAS scores that were very similar to the ones reported in the present study conducted in an online environment. However, Santos et al. (2021) reported lower mean scores in the SLSAS instrument. Their participants were only slightly anxious when giving an oral presentation, contributing to a formal discussion, and when the teacher asked them a question in English. It should be noted that all these studies reported FLSA levels in an FtF environment. We expected lower levels of FLSA in our participants since it has been suggested that online learning settings contributed to lessening FLSA among students (Jiang & Feng, 2020). However, as can be seen in Figure 1, participants may have still felt anxious about giving formal online presentations ($x=4.43$) and contributing to formal discussions in the online class ($x=4.23$), which were the highest means reported in the SLSAS. Therefore, these results suggest that there might not be a great difference regarding FLSA between online ERT settings and FtF environments. With respect to CSE, the scores on the CSES questionnaire indicated that these Chilean university students had relatively high levels of computer self-efficacy. This was somewhat expected due to the extended practice with computers that these students had undergone since the FtF classes were cancelled due to the pandemic. However, some items received lower scores. For example, Item 8 ("Generally, I can manage any computational issue that I face") displayed the lowest mean (3.18). Sam et al. (2005) state that even though undergraduates may have a high level of practice with computers, this may not translate into a high CSE in all aspects. Consequently, it should be noted that CSE is highly related to how individuals feel while using a computer and to whether they believe that learning about computers is useful for them (Pellas 2014), a belief that can possibly affect their performance and confidence. Finally, there was no significant correlation between FLSA and CSE, although mean scores were relatively high for both. This implies that CSE may not be a main factor when explaining foreign language speaking anxiety in ERT settings, and that there may be other aspects influencing it.

RQ2: How do EFL learners explain foreign language speaking anxiety in such settings?

The high FLSA reported by participants in the SLSAS was found to be related to the impact of feedback/assessment, their perceptions of the teacher, the influence of peer interaction, the role of technology, and the impact of emergency remote teaching. Regarding the impact of feedback/assessment, these students had generally positive views toward feedback, findings that are consistent with Martin and Alvarez Valdivia's (2017) results with higher education students. Their participants, regardless of their anxiety levels (high or low) in oral communication classes, favored corrective feedback. In our study, some of these students preferred individual feedback, in line with Bagalay et al.'s (2021) study, where ESL college student participants stated that teachers should discuss their linguistic mistakes privately and not publicly. Participants in the present study also feared being mocked or judged by their peers, which underscores the fear of negative evaluation as a major factor increasing English-speaking anxiety (Akkakoson, 2016; Mak, 2011). They displayed anxiety when pushed to talk, usually by means of psycho-physiological symptoms such as increased heart rate, rapid involuntary muscular twitching, and respiratory rate (Garrett-Ruffin et al., 2021), typically related to anxiety factors (Al-Saraj, 2014; Bashori et al. 2020). Participants also stated that being allowed planning time for their spoken interventions in the lesson and for the tests could be beneficial in lowering their FLSA. These findings are in line with Mak (2011), whose participants were not comfortable with real-time questions that forced them to speak without any preparation. Allowing students to write ideas on a piece of paper can help these learners to organize their thoughts before speaking (Bagalay et al., 2021).

Secondly, in relation to perceptions toward the teacher, the attitude and the approach adopted by the teacher when encouraging communication was identified as a factor increasing or reducing speaking anxiety. Engaging and empathetic teacher support has been linked with lower levels of FLA and higher levels of class enjoyment (Dewaele & MacIntyre, 2019). Moreover, EFL learners seek to participate in environments where teachers make them feel supported and encourage them to learn the language (Al-Saraj, 2014), which becomes particularly relevant in an ERT setting that relies on learners' self-regulation to complete asynchronous tasks. Teachers were regarded as a potential source of anxiety when they took aggressive stances toward them or their peers, which underscores the role of the teacher as a potential source of anxiety (Al-Saraj, 2014) that can be triggered when taking an antagonistic stance toward speaking or speaking mistakes, as perceived by learners (Bagalay et al., 2021).

Thirdly, peer rapport was perceived as supporting interaction in the online language learning classroom. Its absence increased pressure to talk in the students, along with their perceived lack of proficiency in relation to their peers, which could be an issue in online learning environments such as this one, where most of the participants are assigned to different groups every semester. Indeed, peer support has been found to be

the strongest source of support predicting student engagement (Ansong et al., 2017). Self-regulation skills can be crucial to increasing participation and learning in online settings that lack peer or teacher-student interaction, aspects that are more difficult to remedy in such learning settings when compared to traditional communication (Hamdan et al., 2021). Horzum (2015) argues that nurturing dialogue and decreasing the level of structure of an online course can increase social presence, that is, “the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop interpersonal relationships by way of projecting their individual personalities” (Garrison, 2009, p. 352). Social presence builds upon a proper environment that facilitates communication, even though participants have not had FtF interactions and are not sharing a common physical space. This can in turn increase the satisfaction of the students toward the class itself and can positively influence how they support each other in the learning process (Horzum, 2015). Furthermore, these EFL learners felt more anxious in classroom environments when they regarded their peers as more proficient in speaking tasks, in line with Yentürk and Dağdeviren-kırmızı (2020). This lack of confidence in one’s abilities reduces participation, as EFL speakers who are confident about communicating in English will tend to initiate communication in both online and offline settings (Lee & Chen Hsieh, 2019).

Fourthly, in relation to technology-related aspects, participants reported having healthy levels of CSE, and stated that being a proficient computer user could lessen their FLSA in online environments. However, this did not translate into positive perceptions toward using the camera and microphone. Students were concerned about their physical appearance when turning the camera on and being asked to speak, aspects that could increase anxiety in online learning settings (Castelli & Sarvary, 2021). Internet connection issues may also worsen these perceptions by increasing class disruption and FLSA (Shim & Lee, 2020), which causes dissatisfaction with online learning. Poor internet connections can also discourage learners from participating in the online setting (Chalise et al., 2021). Thus, anxiety toward technology may be more related to using the camera and microphone and poor internet connection issues rather than CSE, as they were identified as a source of anxiety when attempting to speak by learners with high CSE.

Finally, the impact of emergency remote teaching in these students’ FLSA was discussed in terms of the distractors that learners faced at home. Participants avoided turning on their cameras or microphones because of the various house chores they were prompted to complete during lesson time. They may think that by not turning on the camera or microphone, they are protecting their privacy (Chen et al, 2020). The lack of speaking activities perceived in these online settings was reinforced by the prevalence of the chat window as a means of communicating in the classroom, as they do not want to openly express their thoughts, opinions, or doubts in real time (Chen et al., 2020). A summary of the themes and subthemes discussed by participants is presented below in Figure 2.

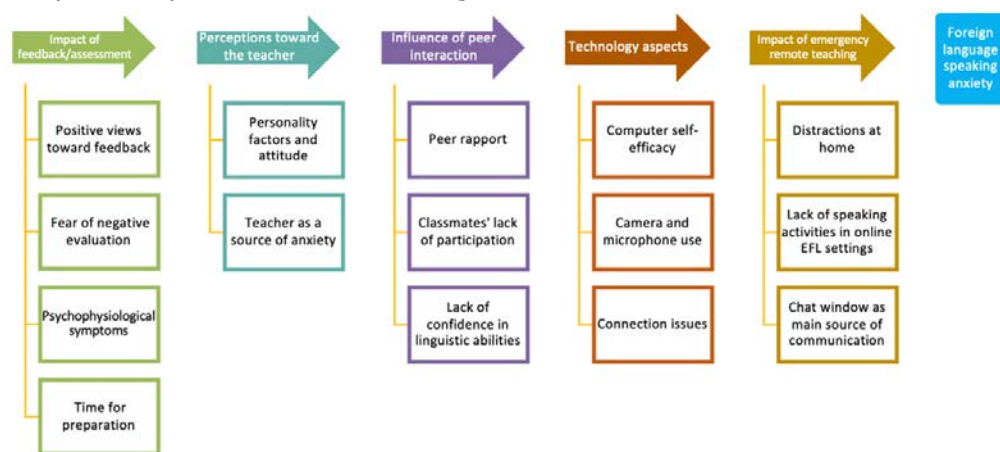


Figure 2: Main themes from the semi-structured interviews

Conclusion

The present study sought to explore students’ perceptions toward foreign language speaking anxiety (FLSA) and whether they were related to computer self-efficacy (CSE) and other factors. The first research question assessed the relationship between FLSA and CSE in an emergency remote teaching (ERT) setting. Results revealed that these participants displayed moderately high levels of FLSA and CSE, but that there was no significant correlation between them. The second research question sought to explore these learners’ views

and perceptions regarding their perceived sources of FLSA. Qualitative findings characterized a number of themes such as the impact of feedback/assessment, perceptions of the teacher, the influence of peer interaction, technology aspects, and the impact of ERT. It must be noted that the study results were limited by the convenience sampling approach used to recruit participants. Participants from different educational institutions and with a more equal gender distribution could yield more significant relationships between the CSE and FLSA, as gender seems to be a factor influencing CSE (Awofala et al., 2019).

Implications for pedagogy

The educational contexts influenced by the COVID-19 pandemic have changed the manner in which lessons are delivered. New methodologies and platforms have been adopted to cope with such challenges, and online learning settings in ERT contexts have proliferated over the last three years. Thus, teachers can benefit from assessing how their learners are being impacted by these changes. The lack of engagement reported by many teachers in their online classrooms may be explained beyond a lack of learners' interest in participating. The results obtained in this study suggest a need for teachers to adopt strategies that can lessen students' FLSA in emergency remote teaching environments, such as giving enough planning time, curbing aggressive stances toward speaking tasks, and finding new ways of using technology to nurture speaking in online settings, such as digital story telling (Arroba & Acosta, 2021). These strategies can help language teachers reduce the fear of negative evaluation that was reported in the present study and can support navigation through the uncharted waters of emergency remote teaching.

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Appendix 1

Items in Second Language Speaking Anxiety Scale (Woodrow, 2006).

1. El profesor me hace una pregunta en la clase online de inglés.
2. Hablar en inglés de manera informal a mi profesor fuera de la clase online de inglés.
3. Participar en las discusiones en grupo de la clase online de inglés.
4. Ser parte de un diálogo o juego de roles en la clase online de inglés.
5. Dar una presentación oral en la clase online de inglés.
6. Cuando se me pide participar de manera formal en una discusión en la clase online de inglés.

Appendix 2

Items in Computer self-efficacy scale (Howard, 2014) translated into Spanish.

1. Siempre me las arreglo para resolver problemas difíciles con el uso del computador si me empeño en hacerlo.
2. Si mi computador no está funcionando correctamente, a pesar de esto, puedo encontrar la manera de hacer lo que necesito.
3. Es fácil para mí lograr mis objetivos con el computador.
4. Tengo confianza de que podría manejar situaciones inesperadas con el computador.
5. Cuando invierto el tiempo necesario puedo manejar muchos programas computacionales.
6. Puedo mantener la calma cuando enfrento problemas con el computador porque confío en mis habilidades.
7. Cuando estoy enfrentado/a a un problema con el computador, normalmente puedo encontrar varias soluciones.
8. Normalmente puedo manejar cualquier problema computacional al cual me enfrento.
9. Fallar al hacer algo en el computador me incentiva a intentarlo con más ganas.
10. Soy una persona auto-suficiente (me las arreglo solo/a) cuando se trata de hacer cosas en un computador.
11. Hay pocas cosas que me cuesta hacer en un computador.
12. Puedo persistir y completar casi cualquier tarea relacionada con el computador.