

© Juan Marcelo Pereira



SOCIAL REPRESENTATIONS ON REMOTE TEACHING DURING COVID-19
PANDEMIC IN TEENAGE STUDENTS IN A NON-BILINGUAL PUBLIC SCHOOL IN
BARRANQUILLA, COLOMBIA

BY:

Juan Marcelo Pereira

Submitted in partial fulfillment of the requirements
for the degree of MAGISTER EN LA ENSEÑANZA DEL INGLÉS in Instituto de
Idiomas, Universidad del Norte, 2022

Barranquilla, Atlántico
Colombia

Master's Research Paper Supervisor

Nayibe Rosado Mendinueta (PhD)

Abstract

This article presents the results of a research aimed at understanding the social representations of secondary school students about English classes during the Covid-19 pandemic in an educational institution in Barranquilla. The process of digital adoption of methodologies and tools in the pandemic lead to new conditions and dynamics for the development of classes which in turn, trigger changes in school achievement, performance and learning experiences. The present research involved 8th grade students who had experienced the temporary change from face-to-face to remote English classes. The method used was the structural approach of social representations, along free association techniques to describe its contents, and hierarchization techniques complemented to Likert-type scales to create a hypothesis about the central core. The results show that the most salient element is attitudes, significantly polarized between approval and disapproval of remote English classes, with "Learning", "Fun", "Easy", as well as "Difficult", "Complicated" or "Stressful" being central terms. The findings point to the need to explore further the heterogeneity of students' conditions of access to technology, and their personal experiences, which would merit future studies based on such experiences.

Keywords: English language teaching, social representations, Covid-19, digital education.

Resumen

En este artículo se presentan los resultados de una investigación dirigida a conocer las representaciones sociales de estudiantes de secundaria sobre las clases de inglés durante la pandemia por Covid-19 en una institución educativa de Barranquilla. El proceso de adopción digital de metodologías y herramientas en la pandemia lleva a nuevas condiciones y dinámicas para el desarrollo de las clases. Esto lleva a cambios en aprovechamiento escolar, rendimiento y experiencias de aprendizaje. La presente investigación contó con estudiantes de grado 8vo que habían vivido el cambio temporal de presencialidad a virtualidad en las clases de inglés. El método utilizado fue el enfoque estructural de las representaciones sociales, junto con técnicas de asociación libre para describir sus contenidos, y técnicas de jerarquización complementadas con escalas tipo Likert para crear una hipótesis sobre el núcleo central. Los resultados muestran que el elemento más saliente son las actitudes, polarizándose significativamente entre aprobación y desaprobación de las clases virtuales de inglés, siendo términos centrales “Aprendizaje”, “Divertido”, “Fácil”, al igual que “Difícil”, “Complicado/a” o “Estresante”. Los hallazgos señalan la necesidad de profundizar en la heterogeneidad de las condiciones de acceso a la tecnología de los estudiantes, y de sus experiencias personales, lo que ameritaría estudios futuros basados en sus vivencias y experiencias.

Palabras clave: enseñanza del inglés, representaciones sociales, Covid-19, educación digital.

Table of Contents

Tables	7
Figures	8
Chapter 1: Introduction.....	9
Research inquiries	11
Significance of the Study	11
Chapter 2: Theoretical Framework.....	13
Social representations theory	13
Structural Approach in Social Representations	15
Attitudes as part of social representation theory	19
Literature Review.....	22
Social Representations Research in Education	22
Covid-19 impact in education	23
Chapter 3: Materials and Methods.....	28
Research Type	28
Research Approach.....	28
Participants and sampling	28

Research Design: Structural Approach Research.....	29
Techniques and instruments for data collection	30
Central Core Hypothesis Production in Structural Approach	33
Data Collection and Analysis	35
Ethical Considerations	37
Chapter 4: Findings and discussion	39
Social Representations Contents	39
Social Representations Hierarchy	45
Central core hypothesis	48
Attitudes related to central core elements	51
Discussion	57
Conclusions	65
References	68
Appendix A: Tasks.....	76
Appendix B: Informed Consent and Assent	84

Tables

Table 1 <i>Expected Sample properties (Age and Sex)</i>	29
Table 2. <i>Social Representations multimethod design proposal</i>	36
Table 3. <i>Most frequent words organized by column (order after the inductor term)</i>	39
Table 4. <i>Inventory of every term used and statistic count.</i>	39
Table 5. <i>Central tendency analytics on sorting spot in hierarchization task.</i>	46
Table 6. <i>Block Hierarchization conversion frequencies</i>	46
Table 7. <i>Central tendency analytics for each item</i>	51
Table 8. <i>Correlation matrix with Spearman's rho of pairs of items which scores tend to vary together.</i>	53
Table 9. <i>Bartlett Sphericity Test for the 16 items factor analysis.</i>	55
Table 10. <i>Structure matrix, factor loadings for all items. Exploratory Factor Analysis based in correlation.</i>	55
Table 11. <i>Polarized attitudes related terms</i>	56

Figures

Figure 1 <i>Abric and Flament ideas on the constitution of a social representation</i>	18
Figure 2 <i>Central Core Theory disposition for word/idea frequency analysis</i>	34
Figure 3. <i>Example of social representations central core hypothesis organization based in frequency and sorting spot mean</i>	35
Figure 4. <i>Total absolute frequency of each term summing all columns</i>	43
Figure 5. <i>Word Cloud using wordcrusher module in Atlas Ti 8</i>	44
Figure 6. <i>Hierarchization graphic representation after summing coded frequencies</i>	47
Figure 7. <i>Social Representation Central Core Hypothesis based on sorting spot and frequency</i>	49
Figure 8. <i>Social Representation Central Core Hypothesis based on hierachisation coding</i>	50
Figure 9. <i>Attitudinal Likert score mean for each of 16 top hierarchized representation elements</i>	52

Chapter 1: Introduction

Currently, the outbreak of the Covid-19 pandemic (caused by the SARS-COV-2 virus) has opened up a field of studies related to the multiple consequences on human life. This broad trend of studies has sought to explain aspects as disparate as the consequences on physical and mental health, as well as the adaptation of policies and transformations in education, work and consumption to the new conditions.

The impact of Covid-19 on educational realities has been tangible. Initially, social distancing and lockdown measures led to the closure of schools around the world, which in the best of cases meant a transfer of the classroom to virtual environments, but in the worst of cases, definitive closures, dropouts and the rupture of the educational project (DAAD, 2020). This also involved the intensive search for new alternatives to mitigate learning losses and delays, the optimization of digital learning, the safe reopening of institutions and the catching up of those students who, for various reasons (usually lack of internet access or digital literacy), were unable to keep up with other students (Farnell et al., 2021).

Changes in the education system in the face of Covid-19, specifically those involving the adoption of digital technologies and the virtualization of face-to-face education, have created conditions that differ greatly from those of planned virtual learning environments. This is called Emergency Remote Teaching, and it is characterized by an accelerated and accidental attempt to make decisions that would allow for the continuity of institutional pedagogical projects (Aguilar-Nery, 2020; Hodges et al., 2020). However, even with the new potentialities related to the use of digital resources, these conditions also led to a widening of the education gap as inequalities in access to technology and digital literacy became a difficulty in bringing education from the classroom to all students (Aguilar-Nery, 2020).

Given the above, the impact of the changes associated with the Covid-19 pandemic is a topic of great interest and relevance today, as there are still many unknown elements of this experience. This initiative proposes the use of the theory and methodology of social representations to make a systematic approach to this social reality.

Social representation is understood as a system of interpretations of reality, that determines, to some extent, the behavior of human beings, insofar as it influences the way in which people relate to their physical and social environment (Rateau & Lo Monaco, 2013). In particular, the central core theory, also known as the structural approach to social representations, is a theoretical and methodological tool suitable for the study of these forms of social thinking. The structural approach is based on the idea that social knowledge is constructed collectively through communicative exchanges; in this knowledge, certain nuclei can be identified, which are difficult to alter, and which play an important role in giving meaning to lived reality, through articulating and generating ideas applicable to a variety of different situations (Abric, 2001, 2003). As Rouquette (2011) states, social representations appear in three conditions: a) when there is a social group sharing the same or similar representations, usually attached to group identity; b) when there is a concrete object of representation, and c) when there is a particular and historical situation that shapes the cognitions and communication interchanges toward the object of representation.

This research project arises from the pragmatic experience in the Institución Educativa Distrital Salvador Suárez Suárez in the city of Barranquilla, an educational institution where teaching children and adolescents with special learning needs coexists with social integration with students without disabilities. The presence of the researcher in the context of the study made it possible to highlight aspects that profoundly affect the school reality. This implies some phenomena caused by the pandemic, such as the school dropout of

disabled and non-disabled students during the years 2020 and 2021, the overall decrease in academic performance and in the subjects established in the curriculum, the decrease in the average scores in the state standardized tests (SABER), as well as the accentuation of intrafamilial and interpersonal problems affecting students psychosocial well-being.

Social Representations theory and methods were chosen as an alternative to deepen the knowledge about shared elements on the subjective experience of these students, on what they think and how they experienced the change to remote environments and what lexical elements are attached to this experience. Also, it allows to explore if there is a shared social representation, as they belong to the same social category (students), and what are concretely the more salient elements of this knowledge body.

Research inquiries

Taking into consideration the arguments above, the research question guiding this work are the following:

What is the composition and structure of social representations about remote English teaching in students without disabilities from a special education school in the city of Barranquilla?

Significance of the Study

This study is justified in the intention of deepening the state of knowledge about how secondary school students experienced and experienced measures of confinement. It is also an introduction to the field of studies on the impacts of Covid-19 on educational systems around the world. Likewise, it will allow to deepen the conceptual construction in terms of social representations regarding more specific aspects of the Covid-19 pandemic.

In the Colombian case, despite the efforts made by governments during the last decade around policies of access to information and communication technologies (Departamento Nacional de Planeación, 2014; Ministerio de Educación Nacional, 2017), there are still gaps in technological access that can determine differences between students in terms of their performance in remote classes (Banco Mundial, 2020). In the pandemic situation, the virtualization of classes appeared to institutions as a logical alternative to the policies of confinement and preventive isolation. However, it is important to identify closely how students experienced learning in terms of the mediations exerted by technological media, considering not only the differences in access to technology and the Internet but also the disparities in digital literacy.

In this regard, the structural approach of social representations is an alternative that, by using a methodology based on quantification of ideas and meanings related to participation in the digital English learning environment, can explore the differences related to such experience. The usefulness of this information derives in the possibility of redesigning pedagogical and didactic decisions to allow a more equitable access to the effective use of digital technologies, and to compensate the lags based on the specific learning needs of students with greater difficulties in technological access (Rafalow & Puckett, 2022).

Chapter 2: Theoretical Framework

Social representations theory

Throughout the development of the social sciences in their history, the way in which people acquire and build knowledge in a shared way has been one main research topic. The theory of social representations is both a theoretical and methodological tool that emerges from the synergy between cognitive psychology, phenomenological sociology, interest in how the media shape social knowledge, and the popularization of qualitative research trends as much as experiment for the study of social behavior (Rochira et al., 2020). The purpose of Social Representations Research is to understand the ways in which people think about and talk about social and cultural phenomena. Social representations are established as a way of understanding the world, which is reflected in a way of acting upon it (Calixto-Flores & Amigón, 2018). Social Representations Theory is a framework for studying the psychological processes that underlie these representations, and how they are shaped by individual beliefs, values, and experiences, as well as by broader social and cultural factors.

This theory is proposed in the 1960s by Sergéi Moscovici, in the course of his studies on how scientific concepts and notions are adopted in an uncontrolled and informal way by ordinary people, so that behavioral predispositions are produced (attitudes), distortions of original content, as well as behavioral decision-making and concrete social practices (Moscovici, 2008). People know reality through explanations they draw from the processes of communication and social thought, in social representations these explanations are synthesised and consequently, social representations refer to a specific type of knowledge: common sense knowledge (Rochira et al., 2020).

In a way, it's a *commonsense* psychology, that tries to explain how cognitions that shape everyday life and decisions and opinions are structured and formed in the terrain of

social interaction. Rochira et al (2020) understand social knowledge as the product of a recursive process that derives an ontological solidity based on the processes of social interaction, so that communication, explanation and social and intergroup dynamics shape the reality in which people live.

According to the SRT, this basic interaction is understood as the semiotic triangle (e.g., Ego-Alter-Object) and it constitutes the condition for the formation of social knowledge. Given this epistemological tenet, there can be no production, diffusion or transformation of common sense outside a given interactional context (Rochira et al., 2020)

However, not all forms of social cognition can be studied as social representations. Despite the fact that it is a theoretical current that can be applied to as many topics of study as social objects of representation may exist, social representations necessarily share three main features according to Rouquette (2011).

- a. They develop and put into practice in the context of social groups. When a representation is widely extended and is not specific to a group with a definite identity, the correct denomination is collective representations.
- b. They are directed to a social object. It cannot be called social representation if there is not a definite object where to redirect the logic construction of causes, descriptions, consequences, or attitudes it can have.
- c. They are tied to the social and historical context. Social objects, as well as social practices, behavior and communicational interchanges that form a social representation are a product of specific circumstances. Distinct historical periods can have idiosyncratic and highly specific representations. The same

representation can still exist but does not remain the same as historical time advances.

In this sense, they are a kind of network of relationships between social groups and the constituted and constituent universe of their practices, both cultural and communicational. Therefore, the expression refers to two complementary aspects of these relationships: first of all, the influence of social factors on the contents of thought, judgments, beliefs, actions derived from social belongings and the process by which they are defined. Second, how these elements and processes organize themselves around specific elements of the social world, constituting "social objects" that exist only intersubjectively. In this line of reasoning, social representations starts from the assumption that most knowledge objects that compose everyday life exist because there is a social process that makes them exist, and the way those knowledge objects are established, and the positions taken around them is a manifestation of relationships between the individual and the social groups and categories, and between these groups and other ones and the rest of institutions in society (Rateau & Lo Monaco, 2013).

Structural Approach in Social Representations

There are different ways in which researchers can study and understand social representations, depending on the specific research question and context. Social Representations theory recognizes that social representations are not static, but rather are constantly changing and adapting to new information and experiences. As a result, researchers can take different approaches to studying the stability and change of social representations over time, and to exploring the factors that contribute to their stability or change. This flexibility and adaptability is one of the key strengths of the theory (Rateau & Lo Monaco, 2013; Rouquette, 2010). It's commonly stated in the theoretical literature on

social representation that there are at least two extended approaches in social representations studies.

The first one is the *sociogenetic* approach, that continues the work inaugurated by Moscovici (2008) oriented to the constitutive process, but not necessarily the structure or contents. What matters to this approach is the way interpretation and reinterpretation occurs, what kind of events happen in the social interaction spaces that end up consolidating shared ideas (Jodelet, 2008).

The second one is the *structural* approach. It is an empiricist perspective focused on the content of representation and the cognitive processes involved in social representation. In this perspective, social representations have a structure that consists of a central nucleus around which auxiliary or peripheral ideas are articulated that support and explain them. These ideas are generated from that core through inference, or by articulating new ideas to it. The central nucleus is resistant to change and is "protected" by a series of peripheral ideas through which the propositions that comprise it are applied to the different social situations that the person may encounter (Abric, 2001).

Other authors identify a third one, a *sociocultural* perspective, directed to examine and understand the influence of mass communication in shaping everyday life practices (Banchs, 2000). In this approach, representations should be contemplated within a social dynamic that places social actors in a situation of interaction, in which individuals take positions that are characteristic of their social affiliation.

This research is proposed from the structural approach in social representations. This starts from the assumption according to which social representations behave as if they had a dynamic structure, widely shared and enduring over time, treated as if it had its own ontological autonomy (Flament, 1994). Obviously, assuming its ontological integrity is a

necessary methodological assumption, but this body of shared ideas is found only in the mental processes of the subjects that are part of a group. Instead, it's very similar to the cognitive therapy assumptions on the formation of human automatic beliefs (Beck, 1979).

Structural approach researchers believe that every social representation is organized around a central core. This is the fundamental element of the representation since it determines both the significance and the organization of the representation. The representation core guarantees two essential functions: is the element through which the significance of the other constituent elements of the representation are created and transformed. Through the central core, new elements, beliefs, attitudes, opinions, explanations, information, acquire meaning and value. Also, central core has an organizing function: it determines the nature of the links between the elements of the representation among themselves. Central core is the unifying and stabilizing element of representation. It constitutes the most stable element of the representation, guarantees coherence and perennialism in movable and evolving contexts. It will be the element in the representation that will most resist change. In fact, any modification of the central nucleus causes a complete transformation of the representation (Abric, 2001).

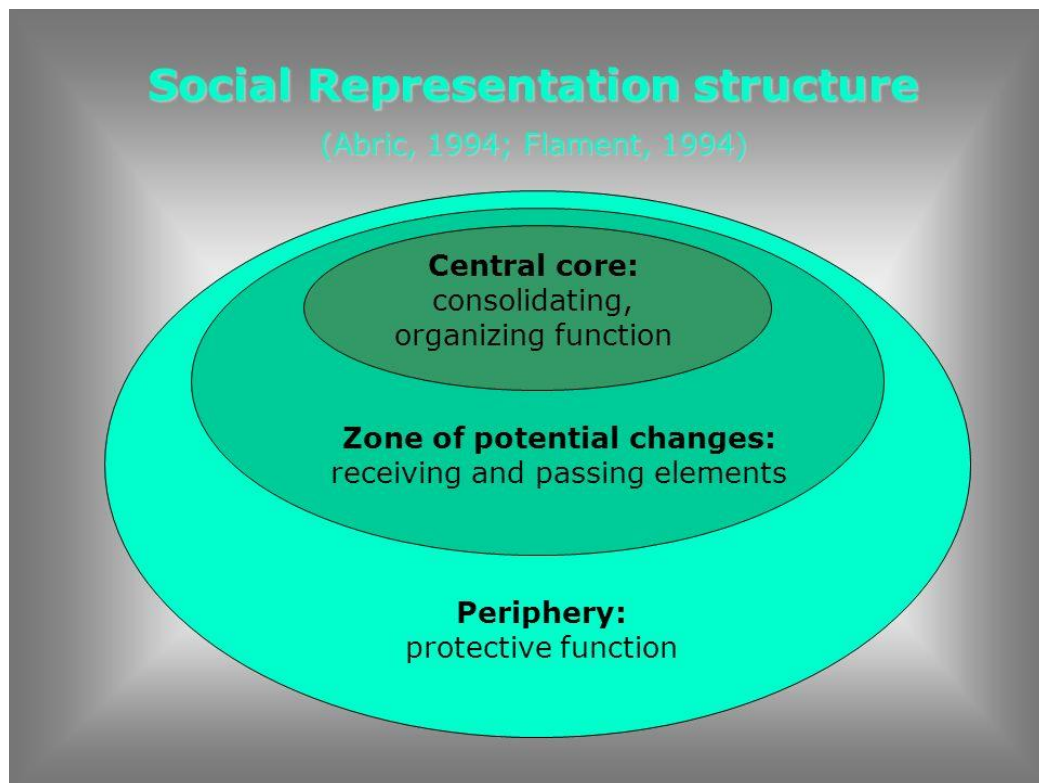
Social representations can have three components:

- a. A Central Core defined for a solid and highly extended consensus and has an originative and organizing role.
- b. A conjunct of Peripheral Ideas: Peripheral ideas are real world applications of the logic that remains in the central core. Peripheral ideas are not very consensual, but are more individual.

- c. A zone of potential changes, a group of non-consensual but non-individual ideas that, in a way, “negotiates” both peripheral ideas and central core and helps to integrate and explain contradictory information.

Figure 1

Abric and Flament ideas on the constitution of a social representation.



Representations are always made up of a relatively consistent central core and a more elastic, shifting periphery, which constitutes the accessible, vivid, and concrete part of the representation. Broadly speaking, these peripheral elements are made up of stereotypes, beliefs and information that "protect" the central core, incorporating, accommodating and absorbing uncomfortable novelty.

According to Abric (2003) and Lo Monaco (2012), there are several advantages to using a structural approach when researching social representations. Some of the main advantages of this approach include:

- a- It allows researchers to study the underlying structures and patterns that shape social representations. By examining the structure of social representations, researchers can gain insight into the organizational principles that govern the way people think about and talk about a particular topic.
- b- It allows researchers to study the relationship between social representations and other social phenomena, such as social identities, values, and norms. By examining the structural relationships between social representations and other social phenomena, researchers can gain insight into the broader social and cultural contexts in which these representations are embedded.
- c- It allows researchers to study the stability and change of social representations over time. By examining the structural patterns of social representations, researchers can track changes in these representations over time and explore the factors that contribute to their stability or change.
- d- It provides a systematic and rigorous approach to studying social representations. The structural approach to studying social representations is based on well-established theoretical frameworks and methods, which allows researchers to conduct studies that are reliable, valid, and replicable.

Attitudes as part of social representation theory

Attitudes are a fundamental concept in social psychology, and they refer to a person's evaluation of a particular object, person, or issue. This evaluation can be positive, negative, or neutral, and it can influence a person's behavior and decisions. Attitudes are often seen as a kind of mental shortcut that helps us to quickly make judgments and navigate complex

social situations. Additionally, the shared nature of attitudes within a social group helps to create a sense of cohesion and shared identity within that group (Munoz Sanchez et al., 2004).

In social representations theory, attitudes are understood as a key component of the mental representations that individuals have of the social world around them. These mental representations are shared by members of a particular social group, and they help to shape the way that individuals think and behave. Attitudes are seen as an important part of these mental representations because they help to organize and structure our beliefs and knowledge about the world (Moscovici, 2008).

However, attitudes are more complex than their dual nature suggests. The dual nature of attitudes refers to the idea that attitudes have both cognitive and affective components. The cognitive component of an attitude refers to the beliefs and knowledge that a person has about a particular object, person, or idea. The affective component of an attitude refers to the feelings and emotions that a person has toward that object, person, or idea. While the dual nature of attitudes is a useful starting point for understanding these psychological constructs, many researchers argue that attitudes are actually much more complex than this simple model suggests. For example, some researchers have suggested that attitudes may also have behavioral and physiological components, related to evaluation processes, in addition to the cognitive and affective components (Zanna & Rempel, 2008).

From the beginning of the social representation theory, Moscovici identified attitudes as the affective dimension of social representations. The theories constructed by people about objects of representation are accompanied by a positive or negative valence, an opinion or predisposition to approval or rejection, either of the object itself or of other objects. Entrenched beliefs cause certain ideas, activities and entities to be favored or rejected (Moscovici, 2008). The relevance of attitudes for social representations theory lies in the fact

that they provide a way for individuals to evaluate and make sense of the social world around them. By having attitudes towards different objects, people, and issues, individuals can more easily navigate complex social situations and make decisions. Attitudes can influence how people interpret and evaluate information, how they interact with others, and how they make decisions (Moliner & Tafani, 1997).

Variation is a core feature of attitudes in social representations theory because people can hold a wide range of attitudes about different topics, and these attitudes can vary across individuals and within individuals over time. Attitudes can be positive, negative, or neutral, and they can be based on a variety of factors, such as personal experiences, exposure to media or social norms, or underlying values and beliefs. Because attitudes are personal and subjective, they can vary widely across individuals and within individuals over time. Attitude variability can pose challenges for both validity and consistency in research on attitudes. Researchers must take this variability into account when developing research designs and measures in order to ensure that their studies accurately capture the attitudes of the participants and produce consistent and replicable results. For example, two people may have very different attitudes about a particular political candidate, and a person's attitude about a particular topic may change over time based on new information or experiences. (Munoz Sanchez et al., 2004).

Overall, attitudes are an important concept in both social psychology and social representations theory, and they play a key role in shaping our thoughts, beliefs, and behaviors.

Literature Review

Social Representations Research in Education

Currently, although Social Representations Theory has expanded significantly in the field of social sciences, its use in the field of education is still discreet despite its methodological and practical potential. Social representations research can help schools identify areas where students may be struggling and develop targeted interventions to support them. Research can also help schools evaluate the effectiveness of existing programs and make evidence-based decisions about which programs to continue or expand. Additionally, research can provide valuable information to teachers, parents, and policymakers about what is and is not working in education, helping to drive improvements in the education system overall.

Another trend found is the use of the social representations to evaluate issues related to environmental education. Social representations of the environment have positioned themselves as one of the most frequent topics in the educational field due to the wealth of resources they can generate for environmental education (Baquiano & Mendez, 2015; Moloney et al., 2014). Climate change is a phenomenon that has been covered in the media, as well as being a central topic of international discussion promoted by multilateral bodies such as the UN and by a growing number of activist groups, and has been investigated as a constant influence on global public opinion on environmental issues (Lynam, 2016). Seems to be a subject on which anyone can have an opinion, even if it is not on notions that are very clear or familiar to them (Moscardo, 2012).

In a way, social representations of climate change are a good example of the phenomena examined by Moscovici (2008) was interested in. The knowledge of everyday life has a relationship with scientific knowledge; it has a process of diffusion and

appropriation by the general community in such a way that it is transformed and deformed until it gives rise to new ideas, as well as practices based on these ideas, which are imposed on people as a solid, factual reality (Rochira et al., 2020).

Free association techniques, such as textual production or drawing, have been used successfully for the analysis of relatively large samples of university students. One study was found with 105 undergraduate students in pedagogy, psychology and other social studies. A protocol was used that asked students to draw freely from the inductor term "climate change", and then applied questions to define the content and hierarchy of the elements of the representation. "Contamination" was one of the most central and frequent terms on the research. It was found that the representation of climate change is related to human responsibility and consequences on the environment, such as droughts or floods, delimiting three typologies: hegemonic, emancipated and polemic representations of climate change (Amigón, 2017; Calixto-Flores, 2018).

Quantitative techniques have also been used for social representations inquiry, using surveys with open and structured questions with tertiary education students. The findings suggest that there are careers that produce a more scientifically sound contribution to the representation of climate change (STEM careers). In other careers, on the contrary, pessimistic views predominate in which a greater influence of mass media is declared (Meira-Carrea & Arto-Blanco, 2014).

Covid-19 impact in childhood education

This study falls within the field of knowledge characterized by research on the lived experience and impacts of Covid-19 on education, students, teachers and institutions. Covid-19 is the name of a multi-systemic and highly contagious disease that mainly affects the respiratory system (Demirović Bajrami et al., 2021). The incidence of this disease lies in the

many strategies put in place by the governments of the world to reduce infections, at the cost of reducing social contacts, "lockdown", the promotion of mass vaccination, and the digitalization of many aspects of human life such as work and school.

Social representation theory, as it is, mainly, a theory and methodology directed to understand the constitution process of common sense, has great potential to provide answers on how Covid-19 integrates as a new element in the everyday life. To some extent, there is a growing body of literature that uses the theory of social representations to understand how transformations occur in the behavioral and attitudinal tendencies of social groups during the pandemic outbreak. In general, from this theory it has been found that the pandemic transforms the positions taken by general population, attitudes, beliefs, intergroup relationships, directed to different elements of the social world that can easily be taken as objects of representation: education, hygiene, politics, Covid-19 itself and the roles that are played in the face of the disease (Martikainen & Sakki, 2021). This creates a general framework for the experience of people within the educational system which, in turn, is an element within the social system. Seen from this point of view, the cultural change that occurs within institutions through the mutation of social representations could be understood as a reflection of another, more global transformation.

According to social representations theory, it can be stated that learning and teaching in the pandemics can be consolidated as an object of social knowledge, since it is an aspect of social reality that massively affected students. It's a piece of globally shared experience that affected in specific ways those who are part of social categories and fulfill social roles, such as teenagers and students. Likewise, the outbreak of the pandemic produced a set of experiences that constituted themselves as social objects for the groups for which they are

relevant. This can be considered a sociohistorical specificity that generates new social objects of representation and affects students' experiences on educational environments.

Research of social representations were found about social knowledge objects like “social distancing” (Nerlich & Jaspal, 2021), that was understood as a response to a massified threat to human life, accompanied by lockdown measures. Social representation predominantly consisted in an idea of “house arrest”, gradually evolving to incorporate a visual and visceral metaphor of “exit strategy”, while parallel to other representational elements like prevarication, confusion and increasing calls for action from government and experts.

Social distancing as a new norm for social conduct gradually embedded itself in social life despite mixed and confusing messages by the government. Indeed, the PM avoided the phrase in his press conferences (Nerlich & Jaspal, 2021, p. 13).

Initially, social distancing was reported as a threat to social life. This social representation intensified when non-compliance with social distancing rules was seen as a threat to social order and linked to social deviance, on the one hand, and to the police going beyond their remit, on the other hand. In later reporting, social distancing was increasingly represented as a burden rather than a threat (Nerlich & Jaspal, 2021, p. 14).

This fragment suggests that Covid-19 social representation evolved dynamically. It did not remain in a static form but was transformed as there was habituation to the threat situation. Likewise, the evolution of representation also integrated relatively quickly meanings associated with social support and solidarity. This, in a sense, created at least two competing 'cores' of representation in the public space, with some participants being more congruent with one than the other.

Studies of social representations developed with children surrounding the pandemic outbreak experience have shown that this age group has been especially affected by the confinement measures. An investigation carried out in Chile allowed to identify some categorizations of representational elements around three axis, with an analysis of semantic networks: social distancing and quarantine were terms associated with emotions and valuations (such as anxiety, responsibility, care, stagnation, rest, isolation, between others) (Salas-Durán et al., 2021). This study was carried out with higher education students.

This also showed concurrence with with the findings of a similar study directed to the explanations that university students can make about the Covid-19 pandemic. Explanations are elements commonly found in the structural approach of social representation studies, because representational contents in some cases concentrate reasonings and ideations with which the participants try to determine the nature of the represented objects. The research, which used a hierarchical evocation methodology, also found that the terms associated with the pandemic as a representational object were also intensely emotional, including anxiety, death, fear, isolation, loneliness, sadness among the associated elements (Fasanelli et al., 2020).

A study using free association exercises with children from 3 to 12 years old shows that children represent Covid-19 as "an enemy that is being fought by doctors" (Idoiaga et al., 2020). This research, developed with specific methods of social representations, such as the Reiner method and the Iramuteq app for lexical analysis, has shown that children face the fear of contracting the virus and infecting their relatives (such as grandparents). However, the main finding is that conflictive emotional experiences shape the way social representations on pandemics are built. Social representations show contradictory central cores. In one hand, children experience fear, nervousness, loneliness, sadness, boredom, and

anger, all driven by the event of the pandemic, but they also feel safe, calm, and happy associated with spending more time with their families (Idoiaga et al., 2020).

Recently, the two years prior to this study, some publications directly related to didactics and the experience of students in virtual education have appeared, although approaches from the SRT are not frequent.

Finally, a trend has been identified as an overall change specific to English teaching: the growing interest and implementation of gamification strategies. Physical contact limitations produced by Covid-19 have impacted concretely second language teaching, while this group of education professionals, according to the reported research, has made intensive use of virtual strategies for teaching, evaluation and feedback while teaching (Pinto et al., 2021). According to recent research, the intensive implementation of gamified and digital tools (educational games through mobile phones and iPad), has had a positive impact on preschool children for the teaching of phonological awareness, numbers, animal names, fruits, colors, among others (Al-Jarf, 2021).

Chapter 3: Materials and Methods

Research Type

The present research aims to define a hypothesis for central core of a social representation about English teaching in pandemics in 8th grade students. According to Crabtree and Miller, this kind of research question is in the group of quantitative description research (Crabtree & Miller, 1999). It is oriented to develop descriptions of one aspect of reality when there are already defined variables within a preexisting theory, to define how known variables behave under unknown circumstances.

Research Approach

In this case, the research approach will be quantitative. Quantitative research is prone to use deductive reasoning, classifying observations and measures framed in a developing or established theory looking to develop nomothetic knowledge, usable to describe almost universal functioning of a kind of observable phenomena (Lamiell, 1998). Procedurally, quantitative research uses scales, inventories, and measures, as well as statistical techniques, in order to use theory as starting point and define variables to classify observable phenomena, describe its behavior, formulate hypothesis and find associations.

Participants and sampling

This research was developed with the participation of 8th grade active students in Institución Educativa Distrital Salvador Suárez Suárez based in Barranquilla, Colombia. This is a special educational needs school that integrates children and teenagers with disabilities (like hearing and vision impairment, autism spectrum disorders, mobility or cognitive impairment) with those without them. This research was developed only with students without disabilities. Table 1 shows the sample composition in sex and age (n=68), with average age 14.91, divided in three courses: 8th A (n=26), 8th B (n=20) and 8th C (n=22).

These students lived the pandemics during 2020 and 2021 with remote and digital teaching strategies, so Covid-19 circumstances are perceived in general as a moment of change on life school quotidian life, learning and teaching paradigms and activities, and a sense of new normality where digital learning tools were explored.

Table 1
Expected Sample properties (Age and Sex)

Age	Femenine	Masculine	Overall Quantity
12	1	1	2
13	3	3	6
14	5	13	18
15	8	13	21
16	4	10	14
17	0	6	6
19	0	1	1
Overall Quantity	21	47	68

Research Design: Structural Approach Research

Most methodological orientations in social sciences are, in principle, a set of assumptions about human cognition, behavior and the nature of social and intersubjective reality. Apart from that, they are also presuppositions about what is the valid way to construct knowledge on these realities (Packer, 2016). Researchers may need to use a combination of different methods in order to gain a comprehensive understanding of the social representations under study. Social representations theory is not only a theorization proposal on human cognition, but it also comes with a set of methods and techniques. According to this, the multimethod design proposed by Abric (2001, 2003), states that there are three phases while researching social representations:

- a) Identify the content of the representation, all possible ideas associated to that social object.

- b) Describe the hierarchy, so a hypothesis can be made about ideas centrality, which of them are more important and central and which of them are more peripheral.
- c) Confirm or Refuse hypothesis on the ideas on the central core.

The central core theory is also an analytical matrix that will guide the collection and data analysis. The structural approach develops under the assumption that more frequent words represent ideas that are closer to the “Central Core”, as they are less variable and more related to other parts of the social representation. However, there will be words and ideas that subjects will declare as more important than others when doing the hierarchization tasks. So, hierarchization will be organized with a centrality index composed as a function on frequency and importance of every word identified (Rodrigues et al., 2015; Wachelke, 2009).

Techniques and instruments for data collection

The structural approach, according to Abric (1994a) can make use of a multiple methodologies (multimethod) depending on the stage of theory building of the central core. The theory of social representations is characterized by the generation and use of highly specific techniques aimed to stimulate the production of verbal and textual content. The techniques chosen and how they relate to the theoretical and methodological assumptions of the theory of social representations are described below.

Contents of social representation: Free Association Tasks

Free association tasks are techniques used to stimulate verbal production to reduce the difficulties and limits of discursive expression. These tasks are based in one or more *inductor terms*, so the individual can produce continuously information in substantives, expressions or adjectives, all information that crosses his or her mind. These techniques are centered in evocation and association. It is a low controlled activity with a projective

dimension, so it can constitute a quick resource to access the elements composing the semantic universe of the inductor term or the socially represented object (Abric, 1994a).

The two techniques used in this study are derived from the associative chart (Abric, 1994a; Lo Monaco et al., 2017). The first is an evocation task that presents an inducer term for student participants to produce the first four words that come to mind from it. "English classes during the Pandemic" was proposed to the students as the inducer term to stimulate word production. On second hand, the mechanism of micro-narratives was used. Micronarratives are short pieces of text (less than 300 words) that are produced in response to a stimulus, and which allow a little more freedom to express themselves than evocative association tasks. Although the micro-narratives are derived from the interview, they are intentionally limited in order to perform corpus analysis through quantitative techniques, such as word counting or pattern recognition with artificial intelligence (Lynam, 2016).

Importance of terms: Hierarchization Tasks

Hierarchy tasks are structured techniques of the structural approach that seek to have subjects identify which elements are most important in the body of explanations, practices, opinions, attitudes, etc. about the object represented. Some ranking tasks can be presented assuming the content, directly through surveys or questionnaires. In this case, however, the information produced by the associative technique is presented back to the participants so that they can organize it according to its importance. According to Rateau and Lo Monaco (2013), there are research trends in social representations in which the constitutive elements are assumed, so hierarchical tasks, surveys and scales are directly used to determine the importance and centrality of the terms that make up a representation. Other trends, on the contrary, present an associative task and try to predict the organization of the representation from this single technique.

For this research, taking the case of multimethod work presented in Solano-León (2016) and the suggestions made by Abric (1994a) and Lo Monaco et al (2017), a successive block hierarchy form was constructed based on the 16 most frequent terms of the association task. According to Abric's model, the successive block choice is a task through which subjects are presented with the 20 most frequent terms they generated in the previous stages. Participants are asked to assign a value of +2, +1, 0, -1 and -2 to each of the terms according to their perceived importance in explaining or describing the object of representation. Once these values are available, they are computed by multiplying the frequency with which each was chosen by the value that was chosen. In this way, mathematically, each of the terms obtains an accentuated importance index.

Centrality confirmation with Likert Scales

According to the model presented by the structural approach, activities should be used to develop or confirm a hypothesis about which are the most central verbal elements in social representation (Abric, 1994a). Although there is a variety of qualitative methods to do this, we opted for the use of quantitative techniques.

Likert-type scales are a widely used technique in the social sciences. Likert scales are based on the psychological construct of attitudes. According to item response theory, it is based on the assumption that unobservable psychological variables can be measured through observable behavior, so that scores are systematically assigned on written questionnaires representing a range of observed behavior dependent on the unobserved variable (Attorresi et al., 2009). Likert-type scales are polar instruments, i.e., in which the participant chooses a gradient between response options that represent hypothetical extreme and symbolic values of the psychological variable being measured. This generates an ordinal categorical statistical variable that is usually processed as a discrete numerical variable or interval to find, for

example, validity by factor analysis or reliability indices. (Bishop & Herron, 2015). This instrument has been used to measure attitudes because its polar and evaluative nature is consistent with the concept of attitudes as positive or negative predispositions of greater or lesser intensity (Zanna & Rempel, 2008).

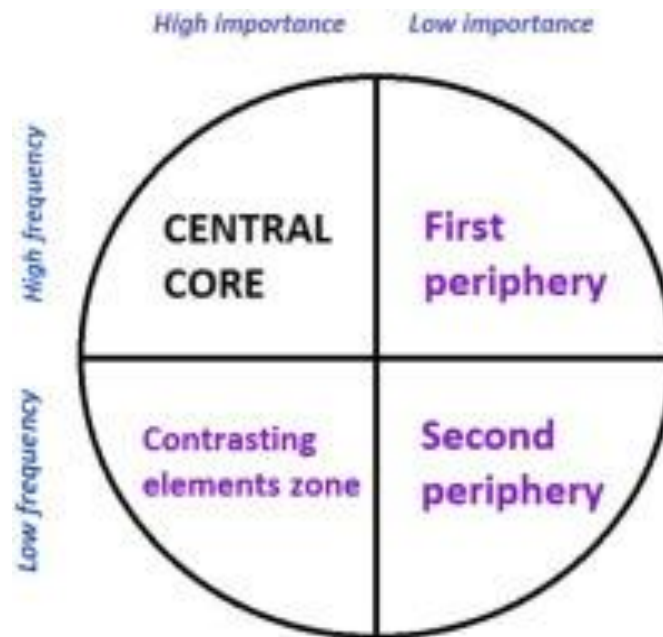
A Likert scale of attitudes was used in this study because approval and disapproval about pandemic English classes ended up being a significant aspect of the findings. Therefore, a Likert scale with 16 items was created using phrases found in the micro-narratives and using the 16 most frequent terms to confirm how such terms are represented in ideas that may have a positive or negative valence for the participants.

Central Core Hypothesis Production in Structural Approach

In the structural approach to social representations, there are two fundamental variables on which most mathematical calculations are performed to determine the centrality of the ideas described: frequency and importance (Lo Monaco et al., 2017). Free association tasks usually allow us to generate textual material that can be analyzed by frequency of occurrence of words. This is done under the assumption that words from everyday conversation are part of the peripheral ideas of the representation (Lo Monaco et al., 2012). Usually, in free association and evocation tasks, it is commonly believed that the first verbalized terms are closer to the inductor stimuli, so they should be more important. However, there's no solid evidence to support this assumption so it is mandatory to use tasks to understand the importance of these elements. On the other hand, hierarchization tasks offer information about the importance given to each element, as the participants are put to review their own production and determine what elements they consider to weigh more than the others while describing or explaining the social representation object (Lo Monaco et al., 2017).

Figure 2

Central Core Theory disposition for word/idea frequency analysis



The contrasting elements zone is the part of a person's mental representation of a concept or idea that contains elements that are opposite or contradictory to the dominant ideas associated with the concept. These contrasting elements may be less common or accepted within a particular social group, but they can still play a role in shaping a person's understanding of the concept. The contrasting elements zone is important because it allows for flexibility and adaptability in our mental representations, and it can help us to think critically and consider alternative perspectives.

In this point of the research, the main reference taken is Cristea et al (2020). The following figure (Figure 3) shows the expected results, using as example a social representations research about European integration as a social represented object. The analysis shows a hypothesis where central core includes terms like “Mobility”, “Unity”,

“Opportunity”, “European Funds” and “Civilization” in the upper left square. The mean was taken from a Likert scale where every participant declared how important between 1 and 5 is each term previously evocated. The less the score, the more important the term is considered.

Figure 3.

Example of social representations central core hypothesis organization based in frequency and sorting spot mean.

Word/Expression	<i>f</i>	<i>M</i>	Word/Expression	<i>f</i>	<i>M</i>
Importance ≤ 2.80			Importance > 2.80		
Frequency ≥ 10			Frequency ≥ 10		
Mobility	22	2.59	Cooperation	17	3.41
Unity	22	2.36	Economic growth	13	3.38
Opportunity	14	2.78	Evolution	11	3.72
European funds	13	2.30	Intercultural relations	11	3.09
Civilization	10	2.60	Development	10	2.80
Frequency < 10			Frequency < 10		
Change	8	2.62	Freedom	9	2.88
Globalisation	8	2.25	Equality	7	3.71
Norms	8	2.25	Alliance	7	3.00
Prosperity	7	2.00	Economy	6	3.83
Euro	5	2.20	Power	6	3.66
Modernization	4	2.75	Uniformity	6	3.66
			Solidarity	6	2.83
			Security	5	3.60
			Acceptance	4	4.00

Note. *f* = frequency of the associated word; *M* = mean of importance.

In the meanwhile, other squares are directed to classify contrasting elements (bottom left), and first and second peripheral ideas related terms (upper right and bottom right).

Data Collection and Analysis

Data collection was performed across three stages: The first stage was dedicated to identify all possible contents on the social representation using free association techniques, directed to produce evocations on inductor terms. The task 1 consisted in the exposition to an inductor term and asked the student to write the first 5 words immediately associated to it. The inductor term was “English Classes in Pandemics” (Clases de Inglés en la Pandemia).

Task 2 consisted in a micronarrative, a short piece of text information where the student would try to explain how the pandemic remote English classes were to somebody that had not lived the Covid-19 pandemics.

The second stage aimed at determining which of these contents were more frequent and important, to establish a hypothesis on central core and peripheral ideas. The third one was an exercise to refuse or confirm the hypothesis using an attitudinal scale (Boone & Boone, 2012) that would be used to find tendencies regarding the central core of the social representation.

Table 2.
Social Representations multimethod design proposal

Phase	Task	Tool
Phase 1: Free Association	<p>Task 1: Free Association Task. Participants would write first 5 words coming to their minds while exposed to an inductor term.</p> <p>Task 2: Micronarrative: Participants would write a short text where they explained the object of the social representation.</p> <p>Analysis: Most frequent words in both exercises will be quantified.</p>	Microsoft Forms Digital Platform Excel summing formulas
Phase 2: Hierarchization	<p>Task 3: Block Hierarchization: 20 most frequent words would be selected. Students arranged them from most to less important to describe what they believed about remote teaching and their experience.</p> <p>Analysis: 5 blocks were created, all 5 blocks had 4 words, organized by the most and less important arrangement made by the students.</p>	Question Pro Digital Platform Excel adaptation of Wachelke's
Phase 3: Central Core Hypothesis	Task 4: A Likert scale was designed, and a short list of affirmations that probably compose the central core of the social representation. Students mark 1 the less they agree and 5 the more they do.	Microsoft Forms Likert Scale (1 to 5)

Phase	Task	Tool
	Analysis: Answers were analyzed with Cronbach's alpha, central tendency measures and exploratory factor analysis to find latent ideas associations.	JASP, Rstudio or JAMOVI

Also, analytic procedures were used differentially in all three stages, as suggested by social representations structural approach tradition (Abric, 1994b).

In the first phase, after task 1 and 2, an absolute and relative frequency analysis was developed, to make a descriptive inventory of all words and contents, organized by the most frequent. In the second phase, after task 3, the 16 hierarchized words in importance order were divided in 4 boxes of 4 terms. All items were organized in two figures similar to Cristea et al (2020) analytics to declare a central core hypothesis.

In the third phase, after task 4, data was analyzed to convert Likert ordinal data in quantitative variables, to perform a central tendency analysis of these scores, and EFA (Exploratory Factor Analysis) (Ferrando & Lorenzo-Seva, 2014), that have proven to be useful to find associations between several semantic units in the body of the social representation (Lo Monaco et al., 2012). The strategy was digitally mediated, so all data collection techniques and analytic procedures were performed using software and digital platforms like Microsoft Forms (for data collection) and statistical software like Excel and Jamovi package.

Ethical Considerations

Ethical considerations are an important aspect of any research involving human subjects, especially when those subjects are teenagers. When conducting research with teenagers, it is important to take into account their unique vulnerabilities and needs as participants.

One key ethical consideration when conducting research with teenagers was obtaining informed consent. This means that the teenagers were fully informed about the nature of the research and what it would involve, and they were given the opportunity to ask questions and voice any concerns they may have. In order to obtain informed consent from teenagers, it was important to present the information in a way that was clear, concise, and easy to understand. This involved using age-appropriate language and avoiding technical or complex terms.

Another important ethical consideration was protecting their privacy and confidentiality. This means that I took steps to ensure that their personal information was kept secure and not shared with anyone outside of the research team. This implied using anonymous or pseudonymous identifiers in place of the teenagers' real names, and ensuring that any personal information was stored in a secure location.

In addition to protecting the privacy and confidentiality of the teenagers, it was also important to consider their psychological well-being. Research with teenagers could be emotionally demanding, and it was important to ensure that the teenagers were not put at risk of psychological harm. This involved providing support and resources to the teenagers during the research process, and ensuring that they had access to mental health professionals if needed.

Overall, conducting this research with teenagers required careful attention to ethical considerations. By obtaining informed consent, protecting their privacy and confidentiality, and considering their psychological well-being, as researchers we ensure that the teenagers were treated with respect and dignity throughout the research process.

Chapter 4: Findings and discussion

Social Representations Contents

The first relevant result, as a product of the analysis of phase one, corresponded to the identification of the content of the representation. In total, about 196 entries were obtained, which were first organized according to the order in which they appear after the inducer term (column 1, 2, 3 and 4) (Table 3). For this phase, achieved sample consisted of 50 students.

Table 3.

Most frequent words organized by column (order after the inductor term)

Column 1	Freq	Column 2	Freq	Column 3	Freq	Column 4	Freq
Aburrido/a	12	Aburrido/a	5	Aburrido/a	5	(blank)	5
Divertido/a	4	Divertido/a	4	Entretenido/a	2	Divertido/a	3
Difícil	2	Aprendizaje	3	Sencillo/a	2	Estudiosos	3
Normal/es	2	Difícil	3			Complicado/as	3
		Estresante	3			Aburrido/a	2
		Entretenido/a	2			Estresante	2

Table 4.

Inventory of every term used and statistic count.

Term	Absolute Frequency	Relative Frequency (percentage)
Aburrido/a	24	12,24%
Divertido/a	12	6,12%
(blank)	7	3,57%
Entretenido/a	6	3,06%
Difícil	5	2,55%
Aprendizaje	4	2,04%
Complicado/as	4	2,04%
Estresante	4	2,04%
Estudiosos	3	1,53%
Bien	2	1,02%
Complejo	2	1,02%
Enredado/a	2	1,02%
Estresante	2	1,02%
Fácil	2	1,02%
Normal/es	2	1,02%

Term	Absolute Frequency	Relative Frequency (percentage)
Sencillo/a	2	1,02%
Traductor	2	1,02%
Abrumadora	1	0,51%
Actividad	1	0,51%
Adolescencia	1	0,51%
Agradable	1	0,51%
Alegre	1	0,51%
Algo Triste	1	0,51%
Amistad	1	0,51%
Amor	1	0,51%
Ansioso/a	1	0,51%
Apreciativo	1	0,51%
Aprendiendo	1	0,51%
Atención	1	0,51%
Atención	1	0,51%
Atento	1	0,51%
Bacano	1	0,51%
Balón	1	0,51%
Básica	1	0,51%
Breve	1	0,51%
Bueno	1	0,51%
Cancha	1	0,51%
Cansado	1	0,51%
Casa	1	0,51%
Casa	1	0,51%
Chévere	1	0,51%
Clases Incómodas	1	0,51%
Clases incompletas	1	0,51%
Compleja	1	0,51%
Complejas	1	0,51%
Complejidad	1	0,51%
Compromisos	1	0,51%
Con oportunidad de aprender	1	0,51%
Con pocos alumnos	1	0,51%
Concentracion	1	0,51%
Concentración	1	0,51%
Concentrados	1	0,51%
Conectividad buena	1	0,51%
Confusas	1	0,51%

Term	Absolute Frequency	Relative Frequency (percentage)
Confuso	1	0,51%
Demorada	1	0,51%
Desanimado	1	0,51%
Desesperante	1	0,51%
Didácticas	1	0,51%
Diferente	1	0,51%
Difícil	1	0,51%
Dificultad	1	0,51%
Distractoras	1	0,51%
Distraída	1	0,51%
Diversión	1	0,51%
Embolate	1	0,51%
Encerrados	1	0,51%
Enfocada	1	0,51%
English	1	0,51%
Enseñanza	1	0,51%
Entendible	1	0,51%
Entretenimiento	1	0,51%
Estudiar	1	0,51%
Excelente	1	0,51%
Fácil distracción	1	0,51%
Familia	1	0,51%
Fastidio	1	0,51%
Fea	1	0,51%
Felicidad	1	0,51%
Fútbol	1	0,51%
Gramática	1	0,51%
Idiomas	1	0,51%
Informativa	1	0,51%
Inglés	1	0,51%
Insuficiente	1	0,51%
Interesante	1	0,51%
Interesante	1	0,51%
Intuitivo	1	0,51%
Lápiz	1	0,51%
Libres	1	0,51%
Libros	1	0,51%
Mal Aprendizaje	1	0,51%
Malas	1	0,51%
Más o menos	1	0,51%

Term	Absolute Frequency	Relative Frequency (percentage)
Mascarilla	1	0,51%
Menos aprendizaje	1	0,51%
Mirar	1	0,51%
Molestas	1	0,51%
Molestosas	1	0,51%
Mucho Compromiso	1	0,51%
No aprendí	1	0,51%
No entendía mucho	1	0,51%
No entendible	1	0,51%
No había tanto Internet	1	0,51%
No hacía Nada	1	0,51%
No tan comprensible	1	0,51%
No tanto aprendizaje	1	0,51%
Normal	1	0,51%
Palabras en inglés	1	0,51%
Participar	1	0,51%
Poca concentración	1	0,51%
Poca socializando	1	0,51%
Ponerle Mente	1	0,51%
Práctica	1	0,51%
Problemas	1	0,51%
Provechosa	1	0,51%
Relajado	1	0,51%
Ropa	1	0,51%
Se aprende más	1	0,51%
Sentimiento	1	0,51%
Sueño	1	0,51%
Triste	1	0,51%
Un poco compleja	1	0,51%
Una Enfermedad	1	0,51%
Unidad	1	0,51%
Útil	1	0,51%
Virtual	1	0,51%
Virus	1	0,51%
Total general	196	1

Figure 5.

Word Cloud using wordcrusher module in Atlas Ti 8.

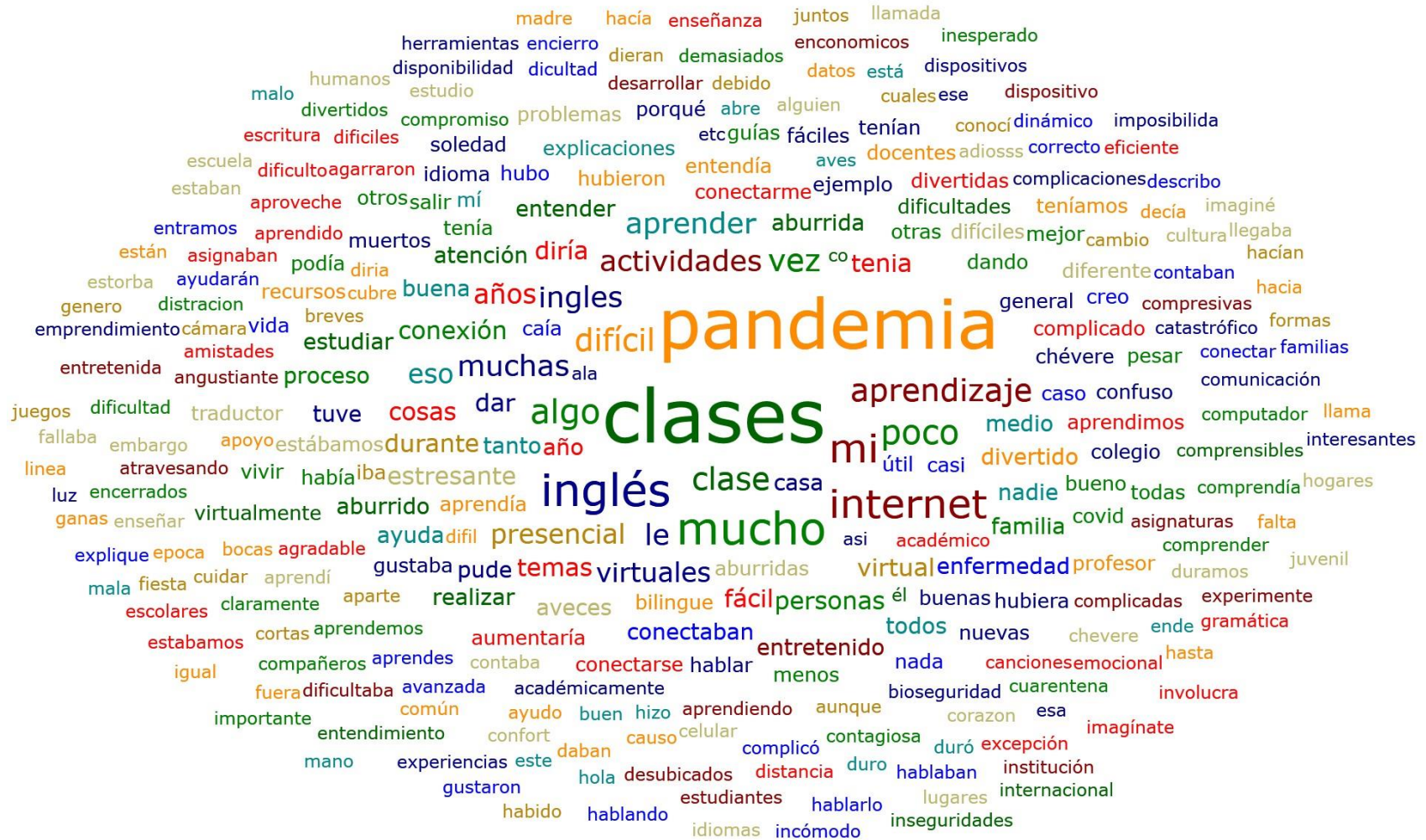


Figure 4 shows a diagram to plot the frequency of the terms, the most frequent being those presented on the left of the image. Confirming the information provided by the previous table, most used words are “Aburrido/a” (24 times) and “Divertido” (12 times), that respectively refer to “boring” and “fun”. Also, a word cloud algorithm in figure 5 was used to determine which were the most used words in the micronarrative’s verbosity production. The micronarratives analytic through word cloud has shown that terms like “Internet”, “Clase”, “Casa”, “Difícil”, “Útil”, “Divertido”, “Aprendizaje”.

Social Representations Hierarchy

The research continued with stage 2 through a ranking task. Because the most frequent terms in the micro-narratives were part of more complex ideas, it was decided that the ranking task would only take into account what could be accounted for in the free association task. With this in mind, a digital form was created through the Question Pro platform with the 16 terms that appeared more than once in the first task. The terms taken were: Aburrido/a, Divertido/a, Entretenido/a, Difícil, Aprendizaje, Complicado/as, Estresante, Estudiantes, Bien, Complejo, Enredado/a, Estresante, Fácil, Normal/es, Sencillo/a, and Traductor.

The Question Pro form allowed students to sort these 16 terms in a ranking with cells between 1 and 16, where they were asked to put in the top the most important terms used to explain or describe virtual English classes on pandemics. In this phase, only 48 students survived from the previous phase and 2 of them didn’t answer the complete activity. Valid cases for this analysis were 46 answers.

According to the methodology for successive block ranking analysis, participants assigned a rank from 1 to 16 for each term. Adjacent table (Table 5) shows central tendency

analytics of the place in the ranking obtained by each term. “Aprendizaje”, for example, was rated in average within 3,43 place (median = 2, S.D = 3.03), while “Estresantes” was rated most commonly in last place (M = 11,43, median = 12, S.D. = 4.02).

Table 5.
Central tendency analytics on sorting spot in hierarchization task.

Term	Mean	Median	Std dev
Aprendizaje	3,43	2	3,03
Estudiosos	4,51	4	3,51
Divertido/a	5,89	5	4,18
Entretenido/a	6,20	5	3,75
Bien	6,46	5	3,58
Fácil	7,51	8	3,53
Complejo	8,57	8	4,27
Traductor	9,14	10	3,69
Normales	9,54	10	4,02
Difícil	9,63	11	4,83
Sencillo/a	10,31	11	3,43
Complicado/a	10,54	12	4,05
Enredado/a	10,86	12	3,96
Aburrido/a	10,97	12	4,74
Estresante	11,00	12	4,41
Estresantes	11,43	12	4,02

Following Abric’s procedure for calculating hierarchy salience with frequency analysis, four blocks scoring 2, 1, -1, and 2 were constructed, and each of the ranking places (1 to 4, 5 to 8, 9 to 12, and 13 to 16) were coded in each score. The result of this count and the resulting sum are presented below (Table 6).

Table 6.
Block Hierarchization conversion frequencies

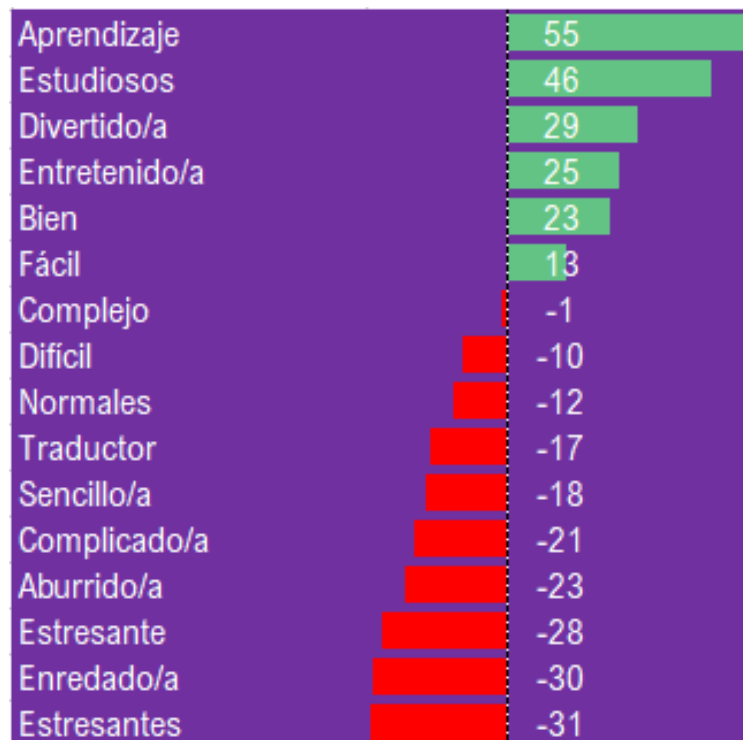
Term	2	1	-1	-2
Aprendizaje	25	8	1	1
Estudiosos	23	7	3	2
Divertido/a	17	8	7	3
Entretenido/a	12	14	5	4
Bien	13	11	8	3
Fácil	9	12	11	3

Term	2	1	-1	-2
Complejo	6	12	9	8
Difícil	7	8	8	12
Normales	4	10	12	9
Traductor	5	5	18	7
Sencillo/a	0	14	10	11
Complicado/a	3	9	10	13
Aburrido/a	5	6	9	15
Estresante	4	6	8	17
Enredado/a	4	5	9	17
Estresantes	3	5	12	15

The adjacent figure (Figure 6) shows much more clearly the organization of hierarchy, showing that terms such as "Aprendizaje", "Estudiosos" and "Divertido/a" were rated as more important to understand the experience of English classes in the pandemic, while "Estresantes", "Enredado/a", "Estresante" and "Aburrido/a" were profiled as the least important.

Figure 6.

Hierarchization graphic representation after summing up coded frequencies.



Central core hypothesis

In line with the previous analyses, having obtained a measure of frequency and importance of the terms that make up the social representation, the two following hypotheses of centrality can be established.

The first hypothesis was based on computing the place assigned to each of the terms in order of importance, which represents a raw score. A threshold of 7.5 was established to separate the least important items from the most important ones, being the midpoint between 1 and 16 (Figure 7). In this, the results that appear as the most central in the representation are “Divertido/a” and “Entretenido/a”.

The second hypothesis was based on computing the frequency together with the sum of the ranking task (the values from -2 to 2 multiplied by the frequency at which they were chosen). This hypothesis is only altered from the previous one in that the term "Fácil" is now in the quadrant of the secondary representations (Figure 8).

According to the interpretation from the theory of social representations, this suggests that the social representation about English classes in the pandemic is strongly polarized. While terms suggesting a favorable attitude toward the classes are found in the central core, there are also contrasting ideas that appear very frequently. The central core of the representation about the virtual methodologies for teaching English in the Pandemics is defined by a fun and entertaining experience, but the first peripheral ideas are precisely contradictory, since lexically the idea that they were boring had greater weight.

Figure 7.
Social Representation Central Core Hypothesis based on sorting spot and frequency.

		Sorting Spot (Importance from 1 to 16)									
		Sorting spot MEAN ≤ 7,5					Sorting spot MEAN > 7,5)				
	High Frequency (≥ 6)	Divertido/a	Freq	12	M	5,89	Aburrido/a	Freq	24	M	11
		Entretenido/a	Freq	6	M	6,20					
Frequency	Low Frequency (<6)	Aprendizaje	Freq	4	M	3,43	Complejo	Freq	2	M	8,57
		Estudiosos	Freq	3	M	4,51	Difícil	Freq	5	M	9,63
		Bien	Freq	2	M	6,46	Normales	Freq	2	M	9,54
							Fácil	Freq	2	M	7,51
							Traductor	Freq	2	M	9,14
							Sencillo/a	Freq	2	M	10,3
							Complicado/a	Freq	4	M	10,5
							Estresante	Freq	4	M	11
							Enredado/a	Freq	2	M	10,9
							Estresantes	Freq	2	M	11,4

Figure 8.
Social Representation Central Core Hypothesis based on hierarchization coding

		Hierarchy (Importance)									
		High Importance (≥ 0)				Low Importance (< 0)					
Frequency	High Frequency (≥ 6)	Divertido/a	Freq	12	Hier	29	Aburrido/a	Freq	24	Hier	-23
		Entretenido/a	Freq	6	Hier	25					
	Low Frequency (< 6)	Aprendizaje	Freq	4	Hier	55	Complejo	Freq	2	Hier	-1
		Estudiosos	Freq	3	Hier	46	Difícil	Freq	5	Hier	-10
		Bien	Freq	2	Hier	23	Normales	Freq	2	Hier	-12
		Fácil	Freq	2	Hier	13	Traductor	Freq	2	Hier	-17
							Sencillo/a	Freq	2	Hier	-18
							Complicado/a	Freq	4	Hier	-21
							Estresante	Freq	4	Hier	-28
							Enredado/a	Freq	2	Hier	-30
					Estresantes	Freq	2	Hier	-31		

Attitudes related to central core elements

Due to the ambiguity found in the central core hypothesis, it was considered useful to establish an attitude measurement instrument based on the 16 most important terms together with ideas associated with them in the micro-narratives. In this phase, only 37 students continued from the previous phase, so 37 valid cases were considered. The 16 terms from the previous task were used to create a 1-to-5-point Likert measure that aimed to represent most salient ideas in the overall data corpus. They were organized through phrases and ideas found in the analysis of micro-narratives to try to confirm how frequent and intense such ideas were. The following table show the central tendency analytics for the raw Likert score for each one of the 16 items (Table 7).

Table 7.
Central tendency analytics for each item

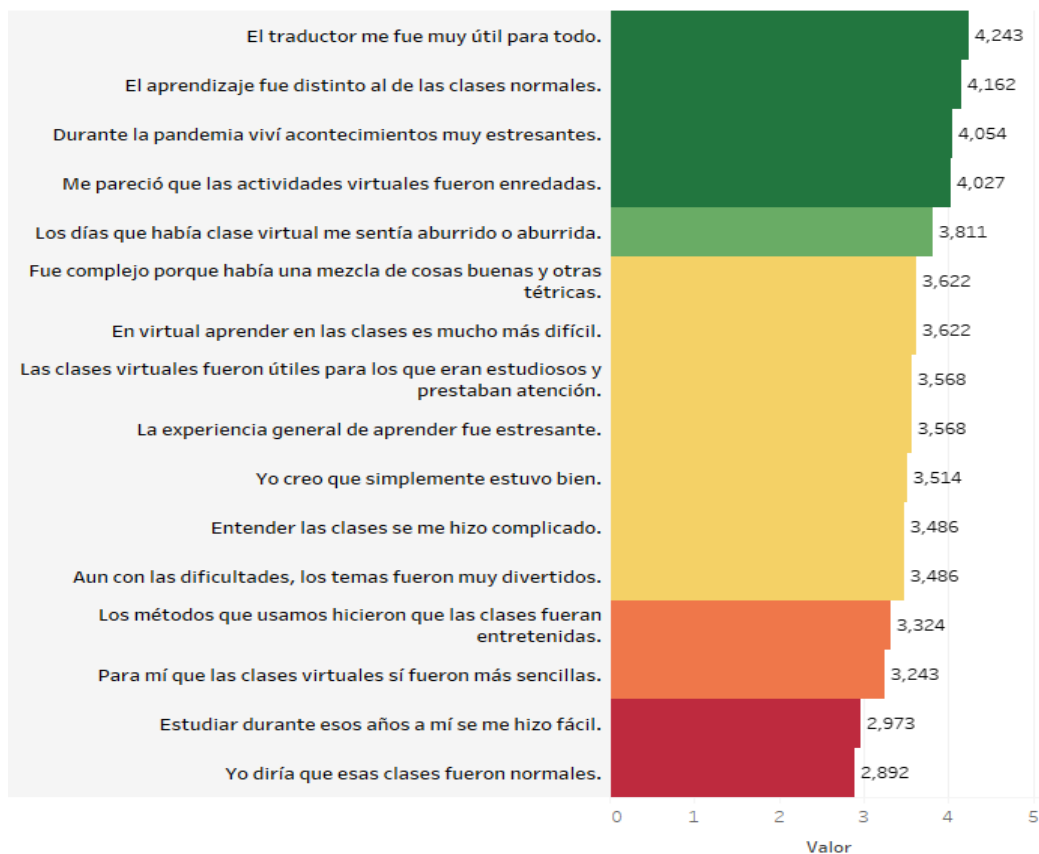
	Mode	Median	Mean	Std. Deviation
El aprendizaje fue distinto al de las clases normales.	5	5	4.162	1.214
Las clases virtuales fueron útiles para los que eran estudiosos y prestaban atención.	5	4	3.568	1.237
Aun con las dificultades, los temas fueron muy divertidos .	5	4	3.486	1.304
Los métodos que usamos hicieron que las clases fueran entretenidas .	4	4	3.324	1.313
Yo creo que simplemente estuvo bien .	4	4	3.514	1.096
Estudiar durante esos años a mí se me hizo fácil .	1	3	2.973	1.536
Fue complejo porque había una mezcla de cosas buenas y otras téticas.	4	4	3.622	1.277
En virtual aprender en las clases es mucho más difícil .	5	4	3.622	1.381
Yo diría que esas clases fueron normales .	2	3	2.892	1.449
El traductor me fue muy útil para todo.	5	5	4.243	1.065
Para mí que las clases virtuales sí fueron más sencillas .	2	3	3.243	1.300
Entender las clases se me hizo complicado .	5	4	3.486	1.407

	Mode	Median	Mean	Std. Deviation
Los días que había clase virtual me sentía aburrido o aburrida.	5	4	3.811	1.309
La experiencia general de aprender fue estresante.	4	4	3.568	1.237
Me pareció que las actividades virtuales fueron enredadas.	5	4	4.027	1.118
Durante la pandemia viví acontecimientos muy estresantes.	5	5	4.054	1.224

These results are summarized in figure 9, sorted by mean, and classified by colors where greener spectrum determines more favorable attitudes (or more consensus or agreement to the elaborated phrase), and red the less favorable ones.

Figure 9.

Attitudinal Likert score mean for each of 16 top hierarchized representation elements



After doing the Likert central tendencies analysis, a more advanced statistical procedure was carried out to identify the possible groupings of the scores of these items, so that a hypothesis of association between ideas present in the body of data could be established. A correlation analysis using Spearman's rho was performed, so associations could be found between pairs of scores for all variables and determine what conditions could be associated with such polarized experiences on English virtual classes. Table 8 only reports statistically significant values with a p value lesser than 0.01.

Table 8.

Correlation matrix with Spearman's rho of pairs of items which scores tend to vary together.

		Spearman's rho	p
Aun con las dificultades, los temas fueron muy divertidos .	- Los métodos que usamos hicieron que las clases fueran entretenidas .	0.640***	< .001
Aun con las dificultades, los temas fueron muy divertidos .	- Yo creo que simplemente estuvo bien .	0.431**	0.008
Aun con las dificultades, los temas fueron muy divertidos .	- Estudiar durante esos años a mí se me hizo fácil .	0.427**	0.008
Yo creo que simplemente estuvo bien .	- La experiencia general de aprender fue estresante .	-0.481**	0.003
Estudiar durante esos años a mí se me hizo fácil .	- Yo diría que esas clases fueron normales .	0.419**	0.010
En virtual aprender en las clases es mucho más difícil .	- Los días que había clase virtual me sentía aburrido o aburrida .	0.574***	< .001
En virtual aprender en las clases es mucho más difícil .	- La experiencia general de aprender fue estresante .	0.443**	0.006
Entender las clases se me hizo complicado .	- Me pareció que las actividades virtuales fueron enredadas .	0.521***	< .001
Los días que había clase virtual me sentía aburrido o aburrida .	- La experiencia general de aprender fue estresante .	0.532***	< .001
Los días que había clase virtual me sentía aburrido o aburrida .	- Me pareció que las actividades virtuales fueron enredadas .	0.472**	0.003
Me pareció que las actividades virtuales fueron enredadas .	- Durante la pandemia viví acontecimientos muy estresantes .	0.490**	0.002

** p < .01, *** p < .001

The results suggest an association between cases in which there is a higher degree of agreement with sentences using each of the 16 terms. The prior table (Table 8) shows that those individuals who tended to have more favorable attitudes toward virtual English classes in the pandemic cluster scored the following pairs of terms:

- a. Divertidos and Entretenidas
- b. Divertidos and Bien
- c. Divertidos and Fácil
- d. Bien and Estresante
- e. Fácil and Normales

This indicates that those individuals who had positive experiences were more likely to use more terms related to fun, ease and entertainment. That is, the terms "Fácil," "Entretenido" and "Diversión" (easy, entertaining and fun) defined one pole of social representation.

Meanwhile, unfavorable attitudes also clustered together. The associations that proved statistically significant were:

- a. Dificil and Aburrido/a
- b. Dificil and Estresante
- c. Complicado and Enredadas
- d. Aburrido/a and Estresante
- e. Aburrido/a and Enredadas
- f. Enredadas and Estresantes

Finally, to further understand the relationship between these items, exploratory factor analysis was developed using the JASP statistical package. Cronbach's alpha reliability was

tested ($\alpha = 0.585$), showing that the overall instrument had an intermediate level of reliability. Bartlett sphericity test was performed, determining that items behavior, showing statistically significant aggrupation in two factors (See table 9).

Table 9.
Bartlett Sphericity Test for the 16 items factor analysis.

X²	df	p
197.853	120.000	< .001

Table 10 displays the attitudinal analysis and shows that two groupings of term uses can be made, according to the joint covariation of item scores on Likert-type scales. The EFA technique allowed us to identify that apparently peripheral aspects such as the use of the translator and the perception that the remote classes were only taken advantage of by students, were actually related to a negative experience of the English classes in the pandemic.

Similarly, seemingly neutral terms (such as "Bien"), were more associated with a favorable attitude that indicates having had a positive experience of the English classes in the pandemic.

Table 10.
Structure matrix, factor loadings for all items. Exploratory Factor Analysis based in correlation.

	Factor 1	Factor 2	Uniqueness
Aun con las dificultades, los temas fueron muy divertidos .	0.803		0.331
Yo creo que simplemente estuvo bien .	0.594		0.647
La experiencia general de aprender fue estresante .	-0.552		0.621
Estudiar durante esos años a mí se me hizo fácil .	0.519		0.726

	Factor 1	Factor 2	Uniqueness
Los métodos que usamos hicieron que las clases fueran entretenidas .	0.517		0.732
Para mí que las clases virtuales sí fueron más sencillas .	0.402		0.813
Me pareció que las actividades virtuales fueron enredadas .		0.697	0.421
Durante la pandemia viví acontecimientos muy estresantes .		0.661	0.556
El traductor me fue muy útil para todo.		0.523	0.704
Los días que había clase virtual me sentía aburrido o aburrida .		0.517	0.595
En virtual aprender en las clases es mucho más difícil .		0.497	0.681
El aprendizaje fue distinto al de las clases normales.		0.481	0.768
Las clases virtuales fueron útiles para los que eran estudiosos y prestaban atención.		0.427	0.724
Fue complejo porque había una mezcla de cosas buenas y otras tétricas.			0.931
Yo diría que esas clases fueron normales .			0.848
Entender las clases se me hizo complicado .			0.883

Note. Applied rotation method is varimax.

The following table (table 11) displays the grouping of terms that shows the extremes of the structure of social representation around which can be grouped the terms found in the body of data collected.

Table 11.
Polarized attitudes related terms

Favorable Attitude Terms	Unfavorable Attitude Terms	Unspecified Terms
Divertido/a	Enredado/a	Complejo
Bien	Estresantes (<i>plural</i>)	Normales
Estresante (<i>negative correlation</i>)	Traductor	Complicado
Fácil	Aburrido/a	
Entretenido/a	Difícil	
Sencillo/a	Aprendizaje	
	Estudiosos	

Discussion

The results of this study show that students' experiences are very different. In fact, they are polarized. According to social representations theory, there are two findings that need to be emphasized. On the one hand, the density of words used in the free association task and subsequent activities showed that the most salient element in the social representation of virtual English classes in the pandemic are attitudes. This is not new as attitudes are related by recent evidence as predispositions that can be contradictory. According to O'Dwyer et al (2022), this is "polyphasia", that defines the coexistence of hardly compatible representations, and is commonly found in political phenomena, like the ambivalent representation of aid during Covid-19 pandemics. This may demarcate, in accordance with classical approaches to social representations (Lo Monaco et al., 2017; Moscovici, 2008), that the experience of the pandemic period and the remote classes was defined by a highly affective perception of the school situation.

Attitudes about English classes in the pandemic fluctuate between favorability and unfavourability. This seems to depend on the individual conditions in which students experienced the pandemic. This includes their access to the Internet, their access and affinity to digital media, family and personal conditions that were accentuated during study time. This originates polarized perspectives between conceiving English classes in the pandemic as enjoyable and rewarding activities, and understanding them as boring, stressful and where nothing was learned. Exploratory Factor Analysis helped to determine that the positive pole of attitudes is determined by words like "Divertido/a", "Bien", "Estresante", "Fácil", "Entretenido/a" and "Sencillo/a", while the negative pole of the representation is defined by terms like "Enredado/a", "Estresantes (plural)", "Traductor", "Aburrido/a", "Difícil", "Aprendizaje" and "Estudiosos".

To some extent, the most unfavorable attitudes coexisted with a use of the translator, which indicates that social representation underlies pragmatic practices and ways of solving the problems that the social object poses for individuals. Similarly, unfavorable attitudes toward the social object also correlate with the belief that remote classes were more beneficial for the most advantaged students (“Estudiosos”). This also suggests that the polarization found has an intergroup basis. That is, those who have a positive experience are seen as a distinct group.

Since there is no background on social representations studies directed to didactic aspects, the present findings can be compared with two types of studies: those that use the SRT theory to identify experiences of children and students in the face of the pandemic, and those that test the digital didactic reconfigurations due to the Covid-19 measures.

Previous research on social representations of the pandemic outbreak shows that Covid-19 adheres to the representational world of everyday life through effects on students, reflected when they introduce emotional terms (anxiety, loneliness, sadness, boredom) into the evocation and hierarchization tasks (Fasanelli et al., 2020; Salas-Durán et al., 2021). This is similar to the results obtained in our research because the terms with the highest factor loads are affective, that is, they show an association of the virtual class experience with emotional states such as fun or boredom. The emotional intensity with which the pandemic is associated can be understood as a general framework of daily experience, in which social representation of virtual English classes are one aspect among others in which these emotions can manifest. In other words, the experience of the pandemic outbreak generates emotional states in students that can shape their experience of other aspects of their lives, such as schoolwork and didactic activities.

This suggests that the terms chosen by the students may indicate not only their own response to virtual classes, but a general reflection of what they experienced in the Pandemic. But in turn this reflection requires considering other facts: Research on social representations of children about the pandemic and its related aspects have shown that contradiction and polarization directed to the same representational object is a consistent finding, since the pandemic outbreak affects a multitude of aspects of daily life.

Idoiaga et al (2020) have explored that children from 3 to 12 years old have two attitudinal nuclei regarding the pandemic, and these, instead of being classified by age or social groups, actually overlap. On the one hand, the lexical analysis with the children in Idoiaga et al (2020)'s study showed a presence of meanings associated with emotions such as fear, nerves, loneliness, boredom and loneliness, associated with the fact of the lockdown. Likewise, a representation of the Covid-19 predominates as a constant threat but that is not fully understood, and in some cases is associated to representations of fear and fright. On the other hand, the children also felt safe, calm, cheerfulness and happiness by spending more time with their families, but boredom and tiredness reactions are associated with doing schoolwork at home (Idoiaga et al., 2020).

This evidence is important because it suggests: a) that the Covid-19 pandemic representations can't be understood with only one central core, or that the dispositional elements of the social representation (such as peripheral ideas) can be made of strongly contradicting ideas or elements; and b) that the two representational cores found may not depend on a social divides between students with higher performance than others, but rather that both types of experiences and meanings (fun virtual classes, and boring virtual classes) are simultaneous, or are directed to different elements of the didactic experience. Now, this implies a limitation of the study: developing this hypothesis would require knowing more

about the family and non-school context of the students, or adding to the research a description of the virtual strategies in which the students participated. However, nor of these two information was shared by the institution.

But also, this study shows that the experience of family life in a pandemic can considerably shape how students may react to schoolwork. The understanding of the experience of students in the Pandemic has to be contextualized in their family conditions and their access to technology, since there are important disparities there. Some research trends in public health show that family conflict and violence against children was also increasing in several countries (Pereda & Díaz-Faes, 2020; Usher et al., 2021; Xue et al., 2020). The escalation of intrafamily violence has also been associated with conditions such as low digital literacy of parents or teachers, or low access to connectivity and technology (for example, in rural areas or families with a very low income), and this constellation generates an unsuitable situation for the student to be engaged with the designed virtual didactic experiences (Archundia, 2020; Hodges et al., 2020).

On the other hand, research on the didactical and technical changes in remote classes during the pandemic can also relate with the findings of this study. One of the most important controversies regarding technology adoption in education is the contradiction of access. In other words, while the digitalization of learning experiences progresses, these advances do not keep pace with respective increase in access to connectivity and technological devices. This means that, while access to education can expand and multiply for students with better connectivity, availability of devices and digital literacy it is also significantly reduced for communities that do not have these conditions (Tawfik et al., 2016).

Discussing technological access gaps updates the discussion about academic success in terms of cultural capital. Cultural capital is a concept that the sociologist Pierre Bourdieu

(Bourdieu & Passeron, 2019) used to understand how the socioeconomic conditions of the students' families determine that they can have access to cultural values and tools that coincide with those of the educational system agents, leading them to much greater success in school than to those students who do not have it. In the case of the pandemic outbreak and digital educational environments, inequities rely on the technological basis of access.

This is demonstrated by several sources, synthesized in a systematic literature review of production in Latin America, that shows that virtual education finds a lot of barriers. Studies in general show that there are great differences in the conditions for students related to the virtualization of classes.

Within urban environments, the main differences are between private and public schools, because the former tend to have more resources to invest in improving educational platforms to virtualize education, just as students have more ease of obtaining devices and internet connectivity. This happens especially in higher education institutions. Meanwhile, this contrasts with the lack of data that exists at other levels of education (López & Alban, 2021). The same occurs in settings such as Russia, an extensively rural country, where research on access to educational technology in Covid-19 showed that the transition to remote education had difficulties for families of low income; income was correlated with differences in difficulty accessing equipment, and technical knowledge such as the use of applications and other tools (Bekova et al., 2021). Rural contexts, in a way, are characterized in Latin American countries by teachers with less training and digital literacy, greater irregularity in academic normality, as well as in the oversaturation of administrative responsibilities for school teachers, which leads to a frequency of class loss that increases the probability of interruption of institutional educational projects (Ortega Bravo & Solano León, 2023).

Knowing about the influence of such contexts is also an incentive to identify if the social representations found about English classes are related to this social, economic and cultural context. In particular, by comparing the present findings with the recent literature on education, virtuality, and Covid-19, it could be hypothesized that the existing polarization of opposing social representations may in turn be due to differences in cultural capital, digital literacy and technological access that students have. Or at least, the access they had during the years of the Pandemic.

Limitations and future inquiries

In accordance with findings and the limitations of this study, we can establish a starting point for the study of social representations. According to Abric (2003) and Lo Monaco (2012), there are at least four advantages of using social representation theory. These advantages are given by the scope of this approach: determine the structures and patterns, the relationship between representations and social group dynamics, explore the change of social representations overtime, and provide a framework for replication of studies on the elements of representations under controlled conditions. Of these four possible scopes, the present study focuses on the first one, but allows establishing some hypotheses about the second (the social phenomena underlying the organization of social representations). But at the same time, it provides some bases for future studies to address them.

This one is an observational and descriptive study, so that the necessary elements were not available to establish relationships with other social interest variables that may be determining the dual nature of these representations. It is suggested that future studies seek to identify what differences exist regarding the contents and organization of social representations, between groups determined by social categorizations based in other external

variables such as academic performance, socioeconomic status, bilingualism in the family, metacognitive skills, digital literacy, and others.

Also, further qualitative research is suggested to better describe how students construct an experience marked by ambivalence and heterogeneity. It is important to use qualitative research for attitudes description because qualitative methods allow researchers to capture the richness and complexity of attitudes in a way that is not possible with more quantitative methods. Using qualitative research methods for attitudes description allows researchers to gain a more in-depth and nuanced understanding of the attitudes of the participants. This can provide valuable insight into the psychological, social, and cultural factors that shape attitudes, and can inform the development of interventions and policies aimed at changing attitudes.

Attitude variability can be a problem for consistency because it can make it difficult to replicate the results of a study. If people's attitudes about a particular topic are highly variable, it may be difficult for other researchers to obtain similar results using the same methods and measures. This can make it difficult to confirm or extend the findings of a study.

Researching attitudes can be challenging because of the instability, and complexity of these psychological construct, however, researchers must take these challenges into account when designing and conducting research on attitudes to overcome these limitations and produce valid and reliable results. Attitudes are often interrelated with other psychological constructs, such as beliefs or values, which can make it difficult to disentangle their effects on behavior (Bassili & Brown, 2005). These connections can make it difficult to determine the unique effects of attitudes on behavior.

By last, apart from studies on attitudes, an important topic of potential analysis, and viable to be studied by qualitative methods corresponds to the anchoring and objectification

processes (Jodelet, 2008). These concepts, respectively, account for how isolated events, repetitive contacts with the object of representation, and communications become central elements of representation (Banchs, 2000). In some cases, they explain why some facts, persons or phenomena become objects of representation (anchoring). And in turn, it allows us to understand how thoughts, judgments, social practices, and attitudes are derived from the central core of representation.

The previous realization is important as the Covid-19 pandemic led to a series of provisions in education systems that allowed virtual learning environments to become a new element of everyday life for many students. This, in terms of social representations necessarily implies new experiences, redefinitions of the represented object, new communicative exchanges about virtual education, new elaboration of meanings, attitudinal change, which may be determined by the previous conditions of the students (social, academic, economic, etc.).

Conclusions

The present research allowed us to determine that the experience of students in the Pandemic with respect to the digital English teaching environment is polarized into two groups. Those who had an experience associated with terms such as fun, entertainment and ease. And those who, on the other hand, have a perception of classes as being convoluted, boring and difficult. So far, a single generalization can be made: students' experiences with remote English classes tended to be radically different, so it is necessary to identify the causes of this disparity.

As we stated before, the social representations approach can be very useful in educational research, because it can help school and educational managers to identify areas where students can be struggling and develop specifically targeted interventions to provide support. The implications this has in the specific context allow us to ask new questions about whether the national trend in Colombia regarding inequality of access to information and connectivity technologies may be a factor that determines these differences. Likewise, it is necessary to identify which students require support in participating in virtual environments, or which strategies may be better suited to a wider variety of learning styles and personal learning histories. This, in the immediate context, also implies motivating the educational administration of the institution to make the necessary changes to compensate for possible decreases in academic achievement in English language learning.

In this case, the institution has the particularity that a large part of its population has some type of disability. This implies that the school environment is marked by psychosocial aspects that affect the quality of learning and school climate based on the ways in which both groups relate to each other, i.e., students with and without disabilities. There is one

stereotypic label found in the text corpus suggest that students with lower learning quality in English are seen as a distinct group from those with higher achievement.

The study was conducted only with those students who do not have physical, sensory, psychosocial or cognitive disabilities, so the next research step could be to develop further research with the participation of this other group of students.

At a general level, this study shows that research on social representations is an effective way to identify differential trends in the experience and use of remote teaching in the English classrooms. This means that the same tools can be applied to a larger sample to gain more insight into the relationship between the technology gap and the effectiveness of English language teaching. It is important to research more about students' experiences of the COVID-19 pandemic for several reasons.

First, the pandemic has had a major impact on students' lives, and understanding their experiences can provide insights into the ways that the pandemic has affected their education, mental health, and overall well-being. This can inform efforts to support and protect students during the pandemic and its aftermath.

Second, researching students' experiences of the pandemic can help to identify the challenges and barriers that students were facing, and to develop strategies for addressing these challenges. For example, research on students' experiences of remote learning or social isolation during the pandemic can provide insights into the factors that contribute to academic success or mental health problems and can inform the development of interventions and support services to address these issues.

Third, researching students' experiences of the pandemic can also provide valuable data for policymakers and educators. By understanding the impact of the pandemic on

students' lives, policymakers and educators can make more informed decisions about how to respond to the crisis and how to support students during similar challenging times.

References

- Abric, J.-C. (1994a). Metodología de recolección de las representaciones sociales. En *Prácticas sociales y representaciones* (pp. 53-64). Coyoacán.
- Abric, J.-C. (1994b). *Prácticas sociales y representaciones*. Coyoacán.
- Abric, J.-C. (2001). A structural approach to social representations. En *Representations of the social: Bridging theoretical traditions* (pp. 42-47). Blackwell Publishing.
- Abric, J.-C. (2003). La recherche du noyau central et de la zone muette des représentations sociales. *Méthodes d'étude des représentations sociales*, 296.
- Aguilar-Nery, J. (2020). Continuidad pedagógica en el nivel medio superior: Acciones y reacciones ante la emergencia sanitaria. En H. Casanova-Cardiel (Ed.), *Educación y pandemia: Una visión académica* (pp. 47-54). Universidad Nacional Autónoma de México.
- Al-Jarf, R. (2021). Differential Effects of the iPad on First and Second Language Acquisition by Saudi Children during the COVID-19 Pandemic. *Online Submission*.
- Amigón, E. T. (2017). Educación Ambiental y Cambio Climático. Representaciones Sociales de los Universitarios. En R. Calixto-Flores (Ed.), *Investigaciones Educativas en torno al cambio climático* (pp. 77-96). Universidad Pedagógica Nacional. <http://200.23.113.59:8080/jspui/bitstream/123456789/1318/1/Cambio%20climatico.pdf>
- Archundia, E. P. (2020). Desigualdad y rezago. El sistema educativo mexicano al desnudo frente a la pandemia del COVID-19. *Entramados: educación y sociedad*, 7(7), 36-41.

- Attorresi, H. F., Lozzia, G. S., Abal, F. J. P., Galibert, M. S., & Aguerri, M. E. (2009). Teoría de Respuesta al Ítem. Conceptos básicos y aplicaciones para la medición de constructos psicológicos. *Revista Argentina de Clínica Psicológica*, 18(2), 179-188.
- Banchs, M. A. (2000). Aproximaciones procesuales y estructurales al estudio de las representaciones sociales. *Papers on social representations*, 9, 3-1.
- Banco Mundial. (2020). *Covid-19: Impactos en la educación y respuestas de política pública*. Grupo Banco Mundial. <http://documents1.worldbank.org/curated/en/804001590734163932/pdf/The-COVID-19-Pandemic-Shocks-to-Education-and-Policy-Responses.pdf>
- Baquiano, M. J., & Mendez, A. J. P. (2015). Structural Configurations of Social Representations about Climate Change. *Athens Journal of Social Sciences*, 3(1), 19-26.
- Bassili, J. N., & Brown, R. D. (2005). Implicit and Explicit Attitudes: Research, Challenges, and Theory. En *The handbook of attitudes* (pp. 543-574). Lawrence Erlbaum Associates Publishers.
- Beck, A. T. (1979). *Cognitive therapy and the emotional disorders*. Penguin.
- Bekova, S. K., Terentev, E. A., & Maloshonok, N. G. (2021). Educational Inequality and COVID-19 Pandemic: Relationship between the Family Socio-Economic Status and Student Experience of Remote Learning. *Вопросы образования*, 1 (eng), Art. 1 (eng).
- Bishop, P. A., & Herron, R. L. (2015). Use and misuse of the likert item responses and other ordinal measures. *International journal of exercise science*, 8(3), 297.
- Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of extension*, 50(2), 1-5.

- Bourdieu, P., & Passeron, J.-C. (2019). *La reproducción: Elementos para una teoría del sistema educativo*. Siglo XXI Editores.
- Calixto-Flores, R. (2018). El cambio climático en las representaciones sociales de los estudiantes universitarios. *Revista electrónica de investigación educativa*, 20(1), 122-132.
- Calixto-Flores, R., & Amigón, E. T. (2018). Las emociones en las representaciones sociales del cambio climático. *Educación en Revista*, 34(68), 217-233.
- Crabtree, B. F., & Miller, W. L. (1999). Clinical research-a multimethod typology and qualitative roadmap. En B. F. Crabtree & W. L. Miller (Eds.), *Doing Qualitative Research*. Sage.
- Cristea, M., Valencia, J. F., & Curelaru, M. (2020). Quantitative and Qualitative Centrality of a Social Representation's Core Elements: The Use of the Basic Cognitive Schemes Model. *Journal of Social and Political Psychology*, 8(1), 351-367.
- DAAD. (2020). *COVID-19 Impact on International Higher Education: Studies & Forecasts*. <https://www.daad.de/en/information-services-for-higher-education-institutions/centre-of-competence/covid-19-impact-on-international-higher-education-studies-and-forecasts/>
- Demirović Bajrami, D., Terzić, A., Petrović, M. D., Radovanović, M., Tretiakova, T. N., & Hadoud, A. (2021). Will we have the same employees in hospitality after all? The impact of COVID-19 on employees' work attitudes and turnover intentions. *International Journal of Hospitality Management*, 94, 102754. <https://doi.org/10.1016/j.ijhm.2020.102754>
- Departamento Nacional de Planeación. (2014). *Plan Nacional de Desarrollo 2014—2018: Todos por un nuevo país*.

- Farnell, T., Skledar Matijevic, A., & Ščukanec Schmidt, N. (2021). The Impact of COVID-19 on Higher Education: A Review of Emerging Evidence. Analytical Report. En *European Commission*. European Commission. <https://doi.org/10.2766/069216>
- Fasanelli, R., Piscitelli, A., & Galli, I. (2020). Social Representations of Covid-19 in the Framework of Risk Psychology. *Papers on Social Representations*, 29(2). <https://www.psr.iscte-iul.pt/index.php/PSR/article/view/553>
- Ferrando, P. J., & Lorenzo-Seva, U. (2014). Exploratory item factor analysis: Additional considerations. *Anales de Psicología*, 30(3), 1170-1175.
- Flament, C. (1994). Consensus, salience and necessity in social representations-Technical note. *Papers on social representations*, 3, 97-105.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, 27.
- Idoiaga, N., Berasategi, N., Eiguren, A., & Picaza, M. (2020). Exploring Children's Social and Emotional Representations of the COVID-19 Pandemic. *Frontiers in Psychology*, 11. <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.01952>
- Jodelet, D. (2008). El movimiento de retorno al sujeto y el enfoque de las representaciones sociales. *Cultura y representaciones sociales*, 3(5), 32-63.
- Lamiell, J. T. (1998). Nomothetic and Idiographic: Contrasting Windelband's Understanding with Contemporary Usage. *Theory & Psychology*, 8(1), 23-38.
- Lo Monaco, G., Piermattéo, A., Guimelli, C., & Abric, J.-C. (2012). Social Representations, Correspondence Factor Analysis and Characterization Questionnaire: A Methodological Contribution. *The Spanish Journal of Psychology*, 15(3), 1233-1243. https://doi.org/10.5209/rev_SJOP.2012.v15.n3.39410

- Lo Monaco, G., Piermattéo, A., Rateau, P., & Tavani, J. L. (2017). Methods for Studying the Structure of Social Representations: A Critical Review and Agenda for Future Research. *Journal for the Theory of Social Behaviour*, 47(3), 306-331. <https://doi.org/10.1111/jtsb.12124>
- López, C. M., & Alban, J. R. A. (2021). Educación virtual y factores sociales, económicos y culturales en estudiantes de educación superior en tiempos de Covid-19. *Etic@net. Revista científica electrónica de Educación y Comunicación en la Sociedad del Conocimiento*, 21(2), Art. 2. <https://doi.org/10.30827/eticanet.v21i2.21066>
- Lynam, T. (2016). Exploring social representations of adapting to climate change using topic modeling and Bayesian networks. *Ecology and Society*, 21(4).
- Martikainen, J., & Sakki, I. (2021). How newspaper images position different groups of people in relation to the COVID-19 pandemic: A social representations approach. *Journal of Community & Applied Social Psychology*, 31(4), 465-494. <https://doi.org/10.1002/casp.2515>
- Meira-Carrea, P. Á., & Arto-Blanco, M. (2014). Representaciones del cambio climático en estudiantes universitarios en España: Aportes para la educación y la comunicación. *Educar em Revista, spe3*, 15-33. <https://doi.org/10.1590/0104-4060.38041>
- Ministerio de Educación Nacional. (2017). *Plan Decenal de Educación 2016—2026*. https://www.mineduacion.gov.co/1780/articles-392871_recurso_1.pdf
- Moliner, P., & Tafani, E. (1997). Attitudes and social representations: A theoretical and experimental approach. *European journal of social psychology*, 27(6), 687-702.
- Moloney, G., Leviston, Z., Lynam, T., Price, J., Stone-Jovicich, S., & Blair, D. (2014). Using social representations theory to make sense of climate change: What scientists and

- nonscientists in Australia think. *Ecology and Society*, 19(3), art19.
<https://doi.org/10.5751/ES-06592-190319>
- Moscardo, G. (2012). Social representations of climate change: Exploring the perceived links between climate change, the driver for sustainability and tourism. En M. V. Reddy & K. Wilkes (Eds.), *Tourism, climate change and sustainability* (pp. 24-40). Routledge.
- Moscovici, S. (2008). *Psychoanalysis: Its image and its public*. Polity.
- Munoz Sanchez, J. M., del Rosario Carreras de Alba, M., & Braza Lloret, P. (2004). An approach to the study of attitudes and strategies of social thought and their connection with disruptive behavior in the secondary school classroom. *Anales de Psicología*, 20(1), 81-91.
- Nerlich, B., & Jaspal, R. (2021). Social representations of ‘social distancing’ in response to COVID-19 in the UK media. *Current Sociology*, 69(4), 566-583.
<https://doi.org/10.1177/0011392121990030>
- O’Dwyer, E., Souza, L. G. S., & Beascoechea-Seguí, N. (2022). Rehearsing post-Covid-19 citizenship: Social representations of UK Covid-19 mutual aid. *British Journal of Social Psychology*, 61(4), 1245-1262. <https://doi.org/10.1111/bjso.12535>
- Ortega Bravo, E. E., & Solano León, E. de J. (2023). Inequidad en la educación rural en Colombia: Revisión de literatura. *Ciencia Latina Revista Científica Multidisciplinar*, 7(1), 7257-7274.
- Packer, M. (2016). *La ciencia de la investigación cualitativa* (M. de la Cera Alonso y Parada, Trad.). Uniandes.
- Pereda, N., & Díaz-Faes, D. A. (2020). Family violence against children in the wake of COVID-19 pandemic: A review of current perspectives and risk factors. *Child and adolescent psychiatry and mental health*, 14(1), 40.

- Pinto, R. D., Monteiro, P., Melo, M., Cabral, L., & Bessa, M. (2021). Does gamification in virtual reality improve second language learning? *2021 International Conference on Graphics and Interaction (ICGI)*, 1-8.
<https://doi.org/10.1109/ICGI54032.2021.9655286>
- Rafalow, M. H., & Puckett, C. (2022). Sorting machines: Digital technology and categorical inequality in education. *Educational Researcher*, *51*(4), 274-278.
- Rateau, P., & Lo Monaco, G. (2013). La teoría de las representaciones sociales: Orientaciones conceptuales, campos de aplicaciones y métodos. *Revista CES psicología*, 22-42.
- Rochira, A., Salvatore, S., Veltri, G. A., Redd, R. R., & Lancia, F. (2020). Theory and Method for the Analysis of Social Representations. En T. Mannarini, G. A. Veltri, & S. Salvatore (Eds.), *Media and Social Representations of Otherness: Psycho-Social-Cultural Implications* (pp. 17-38). Springer International Publishing.
https://doi.org/10.1007/978-3-030-36099-3_2
- Rodrigues, H., Ballester, J., Saenz-Navajas, M. P., & Valentin, D. (2015). Structural approach of social representation: Application to the concept of wine minerality in experts and consumers. *Food Quality and Preference*, *46*, 166-172.
<https://doi.org/10.1016/j.foodqual.2015.07.019>
- Rouquette, M.-L. (2010). La teoría de las representaciones sociales hoy: Esperanzas e impasses en el último cuarto de siglo (1985—2009). *Polis: Investigación y Análisis Sociopolítico y Psicosocial*, *6*(1).
- Rouquette, M.-L. (2011). ¿Qué hay de social en las representaciones sociales? *Revista de Psicología Universidad de Antioquia*, *3*(1), 97-101.
- Salas-Durán, K., Vergara-Morales, J., Ogueda, J. P., Salas-Durán, K., Vergara-Morales, J., & Ogueda, J. P. (2021). Social representations about the COVID-19 pandemic of

Chilean higher education students. *Ciencias Psicológicas*, 15(2).
<https://doi.org/10.22235/cp.v15i2.2280>

Solano León, E. (2016). *Violencia juvenil: Una lectura desde las representaciones sociales en actores sociales integrantes de la mesa de resiliencia de la ciudad de Medellín* [Medellín, Colombia]. <https://bibliotecadigital.udea.edu.co/handle/10495/14818>

Tawfik, A. A., Reeves, T. D., & Stich, A. (2016). Intended and Unintended Consequences of Educational Technology on Social Inequality. *TechTrends*, 60(6), 598-605.
<https://doi.org/10.1007/s11528-016-0109-5>

Usher, K., Bradbury Jones, C., Bhullar, N., Durkin, D. J., Gyamfi, N., Fatema, S. R., & Jackson, D. (2021). COVID-19 and family violence: Is this a perfect storm? *International Journal of Mental Health Nursing*, 30(4), 1022-1032.
<https://doi.org/10.1111/inm.12876>

Wachelke, J. F. R. (2009). Social Representations Centrality Index from Evocations (INCEV): An example of application on the study of the social representation on aging. *Psicologia, Reflexão e Crítica*, 22(1), 102.

Xue, J., Chen, J., Chen, C., Hu, R., & Zhu, T. (2020). The Hidden Pandemic of Family Violence During COVID-19: Unsupervised Learning of Tweets. *Journal of Medical Internet Research*, 22(11), e24361. <https://doi.org/10.2196/24361>

Zanna, M. P., & Rempel, J. K. (2008). Attitudes: A new look at an old concept. En *Attitudes: Their structure, function, and consequences* (pp. 7-15). Psychology Press.

Appendix A: Tasks

Free Association Tasks (1 and 2)

TAREA DE PRUEBA

A continuación, te proponemos un juego. Te presentaremos tres palabras. Al ver cada una de ellas, escribe inmediatamente la primera palabra que te venga a la mente.

a. Estudio

Palabra: _____

b. Adolescencia

Palabra: _____

c. Pandemia:

Palabra: _____

TAREA DE ASOCIACIÓN LIBRE

A continuación, te invitamos a que escribas las CUATRO primeras palabras que te vengan a la mente cuando te pedimos que imagines CÓMO ES UNA CLASE DE INGLÉS EN PANDEMIA.

Palabra 1: _____

Palabra 2: _____

Palabra 3: _____

Palabra 4: _____

MICRONARRATIVA

Imagina que tienes que explicarle a una persona que jamás vivió la pandemia lo que era ver clases de inglés en ese entonces. Tendrás sólo 250 palabras, así que no lo pienses mucho. Escribe en el siguiente recuadro cómo le contarías la experiencia:

DATOS PERSONALES

Por último, recogeremos información para poder caracterizar y conocerte mejor. Serán preguntas muy breves.

¿Con qué género te identificas? (Hombre) (Mujer) (Otro, cuál)

¿Cuál es tu edad (años cumplidos)? _____

¿En qué grado estás actualmente? _____

¿Cuál es tu mejor correo electrónico? _____

¡Muchas Gracias! Te estaremos informando de cuándo será la próxima actividad.

(MUESTRA DEL INSTRUMENTO EN LA PLATAFORMA QUESTION PRO)

Ordena los siguientes términos

Drag your choices here to rank them

Término 1
Término 3
Término 2
Término 4

Tarea de Jerarquización

Ordena los siguientes términos

Drag your choices here to rank them

Término 2	1
Término 4	2
Término 3	3
☰ Término 1	4

[Done](#)

Hierarchisation Task Instrument (task 3)



Tarea de Jerarquización

Add Question

Logic Settings

¡Hola!

Gracias por seguir en este estudio.

A continuación hemos analizado algunas de las respuestas que nos compartiste, y pudimos saber cuáles eran las que más se repetían.

Ayúdanos ahora a conocer qué términos te parecen **más importantes** para describir cómo fueron las clases de inglés durante la pandemia.

Encontrarás 16 palabras.

Arrástralas hacia el recuadro de la derecha, poniendo **más arriba** aquellas que te parezcan **más importantes**, y **más abajo** las **menos importantes**.

Aburrido/a 1



Más importante

Divertido/a 2

Menos importante

Entretenido/a 3

Difícil 4

Aprendizaje 5

Complicado/a 6

Estresante 7

Estudiosos 8

Bien 9

Complejo 10

Enredado/a 11

Estresantes 12

Fácil 13

Normales 14

Sencillo/a 15

Traductor 16

[Add Option](#) | [Add Other](#)

[Bulk Edit](#)

Central Core Constrastation model

Te invitamos a la última de las actividades de la investigación. A continuación, te encontrarás con una serie de frases que podrían o no representar tu experiencia de ver clases de inglés en la pandemia.

Podrás seleccionar, para cada uno, una opción de respuesta entre 1 y 5.

- 1 significa Totalmente en desacuerdo,
- 2 significa Ligeramente en desacuerdo
- 3 significa Ni de acuerdo ni en desacuerdo
- 4 significa Ligeramente de acuerdo, y
- 5 significa Totalmente de acuerdo.

Afirmación	1	2	3	4	5
Frase con 1er término con la mayor centralidad					
Frase con 1er término con la mayor centralidad					
Frase con 1er término con la mayor centralidad					
Frase con 2do término con la mayor centralidad					
Frase con 2do término con la mayor centralidad					
Frase con 2do término con la mayor centralidad					
...					
...					
...					
Frase con n término con la mayor centralidad					

Central Core Constrastation Instrument (task 4)

Afirmación	1	2	3	4	5
El aprendizaje fue distinto al de las clases normales.					
Las clases virtuales fueron útiles para los que eran estudiosos y prestaban atención.					
Aun con las dificultades, los temas fueron muy divertidos.					
Los métodos que usamos hicieron que las clases fueran entretenidas.					
Yo creo que simplemente estuvo bien.					
Estudiar durante esos años a mí se me hizo fácil.					
Fue complejo porque había una mezcla de cosas buenas y otras téticas.					
En virtual aprender en las clases es mucho más difícil.					
Yo diría que esas clases fueron normales.					
El traductor me fue muy útil para todo.					
Para mí que las clases virtuales sí fueron más sencillas.					
Entender las clases se me hizo complicado.					
Los días que había clase virtual me sentía aburrido o aburrida.					
La experiencia general de aprender fue estresante.					
Me pareció que las actividades virtuales fueron enredadas.					
Durante la pandemia viví acontecimientos muy estresantes.					
¿Hay algo que aún no nos hayas comentado sobre tu experiencia de clases de inglés de la pandemia y que te parezca importante?					

Appendix B: Informed Consent and Assent

[Ciudad], [fecha]

INFORMACIÓN PARA EL PARTICIPANTE

Te invitamos a participar en el proyecto **“Representaciones sociales de la enseñanza de inglés durante la pandemia de Covid-19 en estudiantes de una institución educativa de la ciudad de Barranquilla”**. Deseamos conocer de qué maneras viviste el cambio de actividades educativas que tuvo lugar en 2020 y 2021, más precisamente en el área de inglés.

De conformidad con las actuales leyes sobre investigación con seres humanos, elaboramos este documento para informarte de tus derechos al participar en esta investigación.

a. Métodos y uso de los datos

En este proyecto participarás de 3 sesiones virtuales no sincrónicas. Es decir, se te invitará a participar en tres actividades interactivas de recolección de datos, las cuales serán muy cortas (menos de 30 minutos).

La información que nos compartas sólo podrá ser utilizada para elaborar reportes e informes consolidados donde en ningún caso se verán tus respuestas separadas. Si lo deseas podrás tener acceso a los sub-productos que publiquemos, como una tesis de grado o artículos científicos, o incluso actividades de apropiación social del conocimiento.

b. Información y Voluntariedad

Como participante de la investigación tienes derecho a conocer los objetivos, beneficios y posibles riesgos en cualquier momento. En este caso, la investigación es libre de riesgo, al hallarse dentro de las ciencias de la educación. Igualmente, la investigación no te supone ningún costo, pero la participación tampoco es remunerada. Estarás invitado/a, si lo deseas, a la exposición de resultados en la sustentación de maestría, para saber más de cómo procesamos la información que nos compartirás. Igualmente, participas por voluntad propia y en pleno uso de tus facultades mentales, y podrás retirarte en el momento en que lo desees, aunque sería preferible que participes en las tres sesiones que tenemos propuestas.

c. Política de uso de datos y Confidencialidad

Al principio de algunas sesiones se te preguntarán datos personales. Estos serán almacenados de manera confidencial en los servidores de las plataformas utilizadas. No serán revelados por ninguna razón, ya que las respuestas sólo se analizarán en su conjunto, dado que estamos interesados más en las tendencias grupales que en las respuestas personales. Tienes derecho a disfrutar de la confidencialidad de tus datos.

Datos del Participante

Doy mi Consentimiento en pleno uso de
mis facultades mentales,

Nombre:

(T.I.):

Datos del investigador de Maestría

Nombre:

CC:

Celular:

E-mail:

Informed Assent (Asentimiento Informado)

[Ciudad], [fecha]

Señor

PADRE DE FAMILIA

Cordial saludo.

Por medio de la presente nos permitimos solicitar su autorización y consentimiento para la participación de su hijo en el proyecto de investigación **“Representaciones sociales de la enseñanza de inglés durante la pandemia de Covid-19 en estudiantes de una institución educativa de la ciudad de Barranquilla”**, a cargo de la Maestría en Enseñanza del Inglés de la Universidad del Norte avalada institucionalmente y reconocida por el Ministerio de Educación y Colciencias.

El proyecto buscará conocer algunas de las opiniones y vivencias del estudiante con respecto a las actividades educativas durante la Pandemia y no supone ningún tipo de riesgo a información personal, desarrollándose de manera anónima y libre a través de tres sesiones de trabajo, con posibilidad de retirarse cuando lo desee.

Para más información sobre el proyecto puede comunicarse con el investigador.

Responsable: Juan Marcelo Pereira estudiante de Maestría de la Universidad del Norte

Datos del Padre de Familia

Autorizo:

Nombre:

CC:

Datos del investigador de Maestría

Nombre:

CC: