

## “Sorry, One More Time”: The Role of Resolution Strategies in a Virtual Exchange Partnership

## “Por favor, una vez más”: El papel de las estrategias de resolución en un intercambio virtual

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**Abstract:** With new technologies rapidly developing and the growing relevance of communicative competence in language education, Virtual Exchanges (VEs) are receiving increased attention in research within the framework of the Interaction Hypothesis. One of the intrinsic elements of interaction is Negotiation of Meaning (NoM), a process in which students attempt to solve communicative issues. Nevertheless, few studies have scrutinised how students solve these breakdowns in VE interaction. The purpose of this paper is to identify the most employed resolution strategies in three online audio-visual interactions. The participants are university students from Japan and Spain who carried out one-hour Zoom interactions. Methodology-wise, Clavel-Arroitia’s categorisation was adapted to the purposes of this study in order to identify the strategies in the corpus. The results illustrate how certain factors (language proficiency, cultural background, and communicative dynamics, among others) condition the strategies employed, emphasising the complexity of foreign language learners’ interaction.

**Keywords:** Interaction; Resolution Strategies; Negotiation of Meaning; English as a Foreign Language; Virtual Exchange.

**Summary:** Introduction. Theoretical Framework. Methodology. Results and Discussion. Conclusions.

**Resumen:** Con la rápida evolución de las nuevas tecnologías y la creciente importancia de la competencia comunicativa en la enseñanza de idiomas, los Intercambios Virtuales y el estudio de su interacción están recibiendo una atención cada vez mayor. Uno de los elementos fundamentales de este campo es la Negociación de Significado, un proceso en el que los

estudiantes tratan de resolver problemas comunicativos. Sin embargo, solo unos pocos estudios han analizado cómo se resuelven estos problemas en interacciones virtuales entre alumnos. El objetivo de este artículo es identificar las estrategias de resolución más utilizadas en tres interacciones en línea. Los participantes son estudiantes universitarios japoneses y españoles que realizaron interacciones por Zoom de una hora. En cuanto a la metodología, la categorización de Clavel-Arroitia se adaptó a este estudio para identificar las estrategias en el corpus. Los resultados muestran que ciertos factores (competencia lingüística, entorno cultural, y dinámicas comunicativas, entre otros) condicionan las estrategias empleadas, remarcando la complejidad de las interacciones entre estudiantes de lenguas extranjeras.

**Palabras clave:** Interacción; estrategias de resolución; negociación de significado; inglés como lengua extranjera; intercambios virtuales.

**Sumario:** Introducción. Marco Teórico. Metodología. Resultados y Discusión. Conclusiones.

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## INTRODUCTION

As extensive research within the fields of Second Language Acquisition (SLA) and Teaching English as a Foreign Language (TEFL) illustrates, the promotion of communicative competence is one of the prevailing learning outcomes in current language classrooms. Certainly, communication skills are not only a determining factor for the proficient use of a second language (L2), but, fundamentally, the foremost goal for students during their language learning process (Kohn and Hoffstaedter 1).

Some of the configurations that practitioners, teachers, and researchers have employed to foster communicative competence among foreign language students are Virtual Exchanges (VEs) due to their pronounced focus on interaction. In particular, the potential of VEs and other configurations of this typology transcend the sole prompting of interactive scenarios, as they may even motivate the production of “unlimited input and repetition,” “modifying input,” and “interaction and negotiation of meaning” episodes (Chun 101).

Due to these affordances, along with many others, the body of research concerning this topic has gained growing interest. Among the features mentioned by Chun, this article will focus solely on Negotiation of Meaning (NoM), which is the process carried out by interactants when attempting to solve a communicative issue. Due precisely to their presence and relevance in students’ interaction, these episodes have emerged as a focus of empirical interest among multiple scholars (Bower and Kawaguchi; Clavel-Arroitia and Pennock-Speck; Cook; Lee, “Online Interaction,” “A Study of Native”; Li and Lewis; Smith, “Computer-Mediated,” “The Relationship between Negotiated”). These NoM episodes

unfold in interaction when “breakdowns in communication” (Bower and Kawaguchi 44) occur. Hence, students involved in these episodes make use of different strategies to solve the communicative issue and, eventually, continue with the conversation.

Although NoM episodes have been widely scrutinised in research, there is one aspect that requires further investigation. Some studies have attempted to identify how students solve these communicative breakdowns, although very few have implemented an exhaustive categorisation of the resolution strategies employed.

Thus, this paper aims to identify the most utilised resolution strategies in three online audio-visual *lingua franca* exchanges between learners of English from Kwansei Gakuin University (Japan) and Universitat de València (Spain). To this effect, the resolution strategies will be identified and analysed according to Clavel-Arroitia’s (“Analysis of Telecollaborative”) adaptation of Long’s categorisation (“Native Speaker/Non-Native”). Firstly, a brief outline of the main ideas posed in the Interaction Hypothesis will be provided, together with further information concerning NoM episodes, VEs and resolution strategies. Subsequently, after pointing out some methodological considerations, the main results will be presented and discussed. Lastly, the main conclusions inferred from the data analysis will be stated, as well as some implications for future research.

## 1. THEORETICAL FRAMEWORK

### 1.1 L2 Learning, Interaction Hypothesis, and Negotiation of Meaning

Several studies concerned with conversation and its role in the L2 learning process have been conducted from the standpoint of the Interaction Hypothesis. Inspired by Krashen’s comprehensible input theory (*Fundamentals, The Input Hypothesis*), Long underlined the significance of interaction and its different components in the language learning process (“Linguistic and Conversational”; “The Role”; “Native Speaker/Non-Native”). Research has evidenced that interactive processes allow students to attain increased levels of comprehensible input, peer feedback, and utterance modifications (Gass et al.; Loewen and Erlam; Pica).

Along the same lines, Ellis argues that “learning arises not through interaction but in interaction” (“Task-Based Research” 209), thus

emphasising the relevance of interaction as a suitable environment for the acquisition of an L2. Accordingly, and as expounded in section 1.2 below, the Interaction Hypothesis has also been studied within the field of Computer-Assisted Language Learning (CALL), with Chapelle as one of the first researchers to explore learners' interaction in Computer-Mediated Communication (CMC) environments.

Among the central elements analysed in the Interaction Hypothesis, there is one that requires further exploration for the aim of this study, which is Negotiation of Meaning (NoM). Varonis and Gass define NoM episodes as "those exchanges in which there is some overt indication that understanding between participants has not been complete" (73). More specifically, Pica, who refers to this phenomenon solely as "negotiation," describes such episodes as those instances in which students "anticipate, perceive, or experience difficulties in message comprehensibility" (494). Thus, NoM episodes can be considered as the process of interaction in which participants seek to attend certain communicative issues using specific resolution strategies.

The representation of these episodes in SLA and TEFL research is influenced not only by the presence of such episodes in classroom interaction, but also by the multiple affordances implied in students' exposure to them (Clavel-Arroitia, "Analysis of Telecollaborative"; Gass, *Input, Interaction*; Long, "Linguistic and Conversational," "The Role"; Smith "Computer-Mediated"; Varonis and Gass). NoM processes may be considered "an initial step in learning" (Gass, "Input and Interaction" 235), since these episodes establish a suitable space for students to carry out their learning process. Long also suggests that the cognitive process of students during "negotiation work" may promote the acquisition of "vocabulary, morphology, and language-specific syntax" ("The Role" 414). Moreover, Smith states that increased attention to possible problems that may arise in interaction between peers is fostered thanks to students' output modifications ("Computer-Mediated" 39), making them more conscious of the "gaps in their own competence" (Wilkinson 531).

Furthermore, since NoM episodes are one more element of interaction, it is inferred that they will present similar outcomes, including comprehensible input (Long, "Linguistic and Conversational"; Krashen, *The Input Hypothesis*). Due to the presence of this type of input, interactants are encouraged to produce "pushed output" (Swain), since students may need a wider vocabulary range to solve certain issues. Thus,

the acquisition of new terms in an unpremeditated manner may take place during these NoM episodes (Ellis, *Learning a Second 4*).

## 1.2 Virtual Exchanges and Negotiation of Meaning

As mentioned earlier, these NoM episodes are considered crucial in language learning processes (Pica; Pica et al.) and are present in activities that promote interaction between students (Ellis et al.; Long, "Linguistic and Conversational"; Yanguas). Consequently, the significance of these episodes has been studied not only in face-to-face conversation, but also in interaction within digital environments (Bohinski and Mulé; Bower and Kawaguchi; Clavel-Arroitia and Pennock-Speck; Kern et al.; Lee "Online Interaction," "A Study of Native"; Smith, "Computer-Mediated," "The Relationship between Negotiated"; Sotillo).

NoM episodes are becoming increasingly popular in CALL and blended learning research due to the autonomous learning space constructed in these activities. Indeed, this autonomy allows students to seek higher levels of understanding between themselves and their peers using various linguistic and intercultural strategies (Akiyama 191). Moreover, NoM episodes in CALL contexts are considered "the most effective way for learners to acquire new words" (Smith, "The Relationship between Negotiated" 54).

More specifically for this paper, the presence of NoM episodes has previously been studied in VEs (Clavel-Arroitia, "Analysis of Telecollaborative"; Helm; Lee, "Online Interaction," "Synchronous Online Exchanges"). VEs have been defined as configurations that involve "engaging learners in sustained online intercultural collaboration and communication with online peers under the guidance of trained facilitators or educators" (European Commission et al. 17). Hence, students participating in VEs are to work with peers from a country different from their own to improve their interactive skills (Bassani and Buchem; Bohinski and Mulé).

The growing attention that VEs are receiving in current research is explained through their multiple beneficial outcomes. First and foremost, since participants in these exchanges perform the role of "L2 users" (Helm), it is expected from them to present increased levels of autonomous learning (Pérez Cañado; Vinagre). Furthermore, this is an initiative with a strong focus on culture (Kern et al.), and it promotes the acquisition of Intercultural Communicative Competence (ICC) (O'Dowd,

“Understanding”; “Evaluating the Outcomes”). Additionally, research has coined VEs as highly motivational activities (Canto et al.; Helm; Pennock-Speck and Clavel-Arroitia; Pérez Cañado; Schenker).

Research on VEs has advanced from studying solely asynchronous computer-mediated communication (ACMC), namely email or forums, to focusing on more complex forms of interaction present in synchronous computer-mediated communication (SCMC) (Akiyama and Cunningham 50). In terms of synchronous VE partnerships, Sauro shows in a review of 97 pieces of research concerning SCMC that communication in these platforms can potentially improve grammatical, sociolinguistic, discourse and strategic competences (382). Most importantly for this study, extended research has proved the presence of NoM episodes also in SCMC partnerships (De la Fuente; Fernández-García and Martínez-Arbelaiz; Lee, “Synchronous Online Exchanges”; Smith, “Computer-Mediated,” “The Relationship between Scrolling”).

Among the increasing variety of VE models reviewed in research, *lingua franca* exchanges can be considered one of the most popular kinds of partnership. In these monolingual configurations, students from different countries interact in the language that they want to learn or where they want to improve their skills (Clavel-Arroitia and Pennock Speck). NoM episodes may be initiated in *lingua franca* VEs to avoid misunderstandings, ensure their message clearly reaches their listeners, or even verify if they understood their peers correctly, among other motivations. Hence, depending on the communicative issue and the objectives of the main task, students may attend some triggers or decide to ignore them (Clavel-Arroitia, “Analysis of Telecollaborative”; Guill-Garcia). Research on English as a Lingua Franca (ELF) has expounded why students decide not to attend certain triggers following the “let-it-pass” principle, which takes place when an interactant “lets the unknown or unclear action, word or utterance ‘pass’ on the (common-sense) assumption that it will either become clear or redundant as talk progresses” (Firth 243). This phenomenon, however, may be more evident in conversations between higher-level students of the second language or in those exchanges in which correctness is not considered as relevant as language functionality (Yazan et al. 153).

### 1.3 Resolution Strategies: Decoding Students' NoM Episodes

As previously pointed out, in NoM episodes students face a communicative breakdown mostly because they do not have the set of skills necessary to express themselves as they would in their L1 (Bohinski and Mulé; Bower and Kawaguchi; Smith, "The Relationship between Negotiated"; Yanguas). In this context of problem-solving moves made by students, resolution strategies play a crucial role. Some instances of these strategies may be "utterances to gather one's thoughts, questions for clarification" or "statements of affirmation" such as confirmations of understanding, among others (Bohinski and Mulé 11), which are employed to solve the communication issues and resume the normal course of the conversation, since this was previously interrupted by these NoM episodes.

There have been studies that addressed these strategies. For instance, Lee ("Focus-on-Form") introduces multiple resolution strategies found in online student interaction, among which comprehension checks (when students ascertain if their peers understood them), clarification requests (instances in which students ask their peers to define or further elaborate on a triggering element), vocabulary exchange and assistance (utterance co-construction) are found. Smith, however, highlights the relevance of confirmations in CMC and even considers them a crucial step in the closing of NoM episodes ("Computer-Mediated"; "The Relationship between Negotiated"). Since online interaction, especially that found in the written media, can be considered "communication in slow motion," students may take longer than in face-to-face contexts to solve a breakdown, making explicit confirmations necessary (Loewen and Sato 312).

Diverse studies concerned with ELF have identified various strategies used in interaction of non-native speakers of English. For instance, Björkman divides strategies into "self-initiated" and "other-initiated." In the first category, moves that students may resort to after perceiving a potential misunderstanding can be found. "Other-initiated" strategies, on the other hand, are those utilised once a peer has expressed misunderstanding or pointed out a trigger (129).

An alternative bipartite model related to resolution strategies was described by Cogo and Dewey, who, based on Varonis and Gass' model of NoM episodes, differentiate between strategies used when indicating a trigger and those employed when resolving the communicative issue.

Another categorisation, although more exhaustive, was carried out by Clavel-Arroitia (*Analysis of the Teacher-Student*), who adapted Long's classification of strategies used between native and non-native speakers of English ("Linguistic and Conversational"). Recently, this categorisation was updated and applied to VEs between Spanish and British secondary education students (Clavel-Arroitia, "Analysis of Telecollaborative"). The 16 strategies listed by her will be further explained in section 2.

## 2. METHODOLOGY

As outlined above, the goal of this paper is to identify the resolution strategies used in three *lingua franca* exchanges carried out between Japanese and Spanish university students.

This article constitutes an expansion of the results found in a previous paper (Guill-Garcia), which implies that all the data obtained in the preceding study of this corpus would provide further detail on the topic of NoM. In the previous article, the NoM episodes were identified and classified so as to determine the relevance of such episodes, while in this paper the main focus lies on the use of resolution strategies. Hence, it is suggested to refer to the previous publication to gather more information about the general participation and moves of students and the relevance of NoM in these exchanges.

Moreover, only three out of eleven interactions were studied, since this is a study intending to test the methodology and categorisation of strategies. This field of study presents a lack of consensus on the specific strategies that are used by students in virtual interactive processes, which explains the preliminary nature of this paper. The totality of the corpus is currently being studied by a fellow researcher under the same conditions, i.e. employing Clavel-Arroitia's categorisation, to compare the results obtained. This comparison may ascertain not only the main conclusions of both papers, but also provide deeper insights on this classification of resolution strategies.

In order to disclose the presence of specific resolution strategies in these three interactions, it is necessary to address the research questions listed as follows:

(RQ1). Which resolution strategies were used the most?

(RQ2). Are there any differences in the use of resolution strategies between work groups?

(*RQ3*). Are there any differences in the use of resolution strategies between cultural groups?

These questions will be addressed by providing both quantitative and qualitative data. Hence, RQ1 will be answered by identifying and classifying the resolution strategies in the corpus according to Clavel-Arroitia’s categorisation (“Analysis of Telecollaborative” 103), in which we can find the categories presented in Table 1 below.

Table 1. Adapted version of Clavel-Arroitia’s (“Analysis of Telecollaborative”) categorisation of resolution strategies

Resolution strategy	Definition
Comprehension check	Expressions used in order to prevent a breakdown or to confirm that their peers have understood them and vice versa.
Clarification request	Utterances used to elicit further details or explicit explanation.
Repetition request	Explicit demand of repetition of an utterance.
Repetition	When a participant repeats what was mentioned earlier on in a literal manner.
Reformulation	When a participant repeats what was mentioned earlier on by altering the previous utterance.
Acceptance	Explicit indication that a student has accepted one of their peer’s feedback.
Confirmation	Indication that the problematic element was finally understood or clear statement of the closure of a NoM episode.
Asking a peer	Direct question from one peer to another.
Asking a teacher	Direct question from one student to a teacher.
Topic shift	When a change of topic takes place, usually in order to avoid further communicative issues.

Peer correction	When a student provides their peer with explicit feedback concerning a mistake made or a mispronunciation.
Self-correction	When a student reformulates their own utterance so as to correct their own mistake or mispronunciation.
Code switching	Change of language, normally from their L2 to their L1.
Explanation	Detailed answer to a student's inquiry.
Change of mode	Change of communicative media, normally making use of a chat or their smartphones.
Tolerance of ambiguity	When students deliberately decide not to attend a communicative issue.
Use of gesture	Non-verbal cues utilised in problem resolution, mostly to represent complex terms that the student is unable to explain.

Source: Prepared by the author.

As observed from Table 1, a slight adaptation of this categorisation was made to ensure better adequacy to the corpus under study. Since non-verbal cues represented a significant component of the interactions analysed, and of audio-visual virtual exchanges in general, the category "use of gesture" was added to the study.

In order to determine the number and type of resolution strategies present in the corpus, the interactions were recorded and then transcribed. Subsequently, the NoM episodes were identified according to Varonis and Gass and categorised, first, into attended and unattended, and then into resolved and unresolved. As indicated above, the results of this categorisation have been reported in Guill-Garcia. For this specific study, the identified NoM episodes were studied once again to look for the resolution strategies employed by students. These strategies were then classified according to Clavel Arroitia's categorisation ("Analysis of Telecollaborative"). In this step, the corpus was scrutinised with the simultaneous reading of the transcriptions and re-watching of the recordings. A second researcher then revised the classification of the

strategies found. In case of disagreement, both researchers discussed and shared their views until a consensus was reached.

For RQ2 and RQ3, the strategies found in the corpus were classified according to two criteria. Firstly, the strategies were analysed according to the work group that employed them, since each group's interaction may present unique features. Subsequently, those utilised by either the Japanese or Spanish students were studied separately, since cultural differences may influence the usage and frequency of certain strategies.

All the quantitative results obtained in these three sections were later analysed and further explored through a qualitative study, which primarily consist of the observations made by the researcher, who also participated in the partnership. Thus, certain discussions presented in the results section were perceived through a "participant observer" viewpoint (Freeman and Hall). Moreover, as indicated above, the data were obtained through the recordings of the interactions, which implies that a total of 2 hours and 55 minutes of recordings were viewed and transcribed. References to both the transcriptions and the recordings may provide the study with a wider perspective when it comes to identification and, most importantly, classification of resolution strategies. Even though the transcriptions include non-verbal cues, some of the episodes analysed may be better perceived through the actual recordings, which is why both elements are considered for the analysis of the corpus.

## 2.1 The Corpus

The interactions analysed were obtained from a partnership organised in the framework of the VELCOME project (Virtual Exchange for Learning and Competence Development in EMI Classrooms, 2019-2021. RTI2018-094601-B-100. Project "Retos," Ministerio de Ciencia, Innovación y Universidades) with the purpose of finding out the impact that VEs of diverse characteristics may have on certain competences. In this partnership between two universities (Kwansei Gakuin University and Universitat de València), 23 Japanese and 22 Spanish students formed 11 groups of four or five to carry out their main task, in which they had to talk about a specific topic for approximately an hour.

The exchange consisted of a pre-task, a main task, and a post-task. In the case of this article, since the focus lies on resolution strategies, only the main task will be addressed due to space constraints. During their Zoom interactions, which was the main task of the partnership, the

assigned groups discussed the topic of “Beliefs and Superstitions.” Students were given a PDF in the pre-task which included some superstitions that they could mention in their verbal intercourse as a starting point, but they were given freedom to speak about any other topics they liked and had no time limitations, although they were expected to talk for approximately an hour.

## 2.2 Participants

As previously mentioned, 11 groups of students were formed, including two Japanese and two Spanish students in each except for one of the groups. This specific group was formed by three Japanese and two Spanish students. For this study, in which three out of the 11 Zoom conversations were analysed, the participants were 7 Japanese and 6 Spanish students. To maintain the anonymity of the students, their moves were labelled by the tags <JAPX>, and <SPAX>.

The participants in this study did not have the same proficiency levels in English. While Spanish students were enrolled in a C2 English module at the time of the exchange, Japanese students were, according to their teacher, lower-intermediate English speakers.

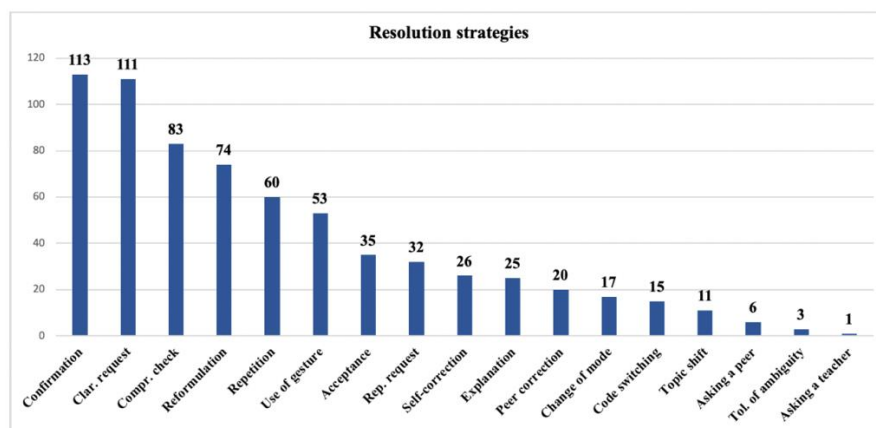
Since the participants in this study were university students, the outcomes of the VE will not be the same as previous ones obtained for other education levels. More particularly, VEs in this tertiary education level may aim for further exposure of the students to authentic language and communicative settings, extended understanding of their peers’ culture, and learner autonomy (Vinagre 241–42). Additionally, O’Dowd highlights the importance of students’ reflection not only in terms of intercultural communication, but also concerning technology (“Supporting In-Service” 68). As Kitade points out, the presence of reflection related to such diverse elements and aspects in tertiary education VEs is considered to “encourag(e) intercultural learning to move from knowledge exchanges to perspective changes” (65). Hence, higher levels of content complexity and critical thinking are expected in VEs within tertiary education groups.

## 3. RESULTS AND DISCUSSION

Having underlined the most important methodological aspects of this research, it is time to identify the resolution strategies in the corpus and

find out which were the most frequently used. On the whole, a total of 685 resolution strategies were found in the entire corpus:

Fig. 1. Results for the number of resolution strategies found in the corpus



Source: Prepared by the author.

As portrayed in Fig. 1, confirmation was the strategy which students mostly resorted to. Indeed, it can be inferred that “explicit acknowledgements of . . . understanding/ nonunderstanding” (Smith, “Computer-Mediated” 52) are an important element in VEs of this nature. Audio-visual SCMC, as previously mentioned by Smith, presents a slower manner of communication compared to face-to-face interaction (“Computer-Mediated”; “The Relationship between Negotiated”). Hence, the need for confirmation at the end of a NoM episode is significant in the results of this study.

- (1) <SPA4> *In Spain is also... I think it's only in* <pointing to the ceiling>... *In the UK.* <Use of gesture> (Content. Attended. Resolved)  
 <JAP5> *UK?* <Clarification request>  
 <SPA4> *In Spain we don't have it.* <Reformulation>  
 <JAP4> *Ah, ok.* <looks left> <Confirmation>

- (2) <SPA6> *Yeah, so, in Spain also many people believe that if you open an umbrella <as if she was doing so>, that would bring you bad luck as well. <Use of gesture> (Content. Attended. Resolved)*  
 <SPA5> *But inside the house or in... [Somewhere.]*  
 <SPA6> *[Inside the house yeah]*  
 <JAP7> *Umbrella? <Clarification request>*  
 <SPA6> *Umbrella? <like holding an umbrella>. To protect yourself from the rain. <Use of gesture>*  
 <JAP7> **Yeah yeah. <Confirmation>**  
 <JAP6> **Hmm... <nods> <Confirmation>**

These same arguments could also be applied to the third most employed strategy in these interactions-comprehension checks. Due to technical issues and other constraints of communication in VEs, comprehension checks may be used with more frequency than in face-to-face communication contexts. Following Lee, comprehension checks are among the most recurrent strategies (“Online Interaction” 238). However, clarification requests were used in a higher number of instances in Lee’s study. The reason for the lower number of comprehension checks in her study may be the fact that Lee considered comprehension checks and confirmation checks as two different strategies. Nevertheless, in this corpus it was observed that comprehension checks carried out both functions: confirmation of understanding (as in Example 3) and indication of understanding achievement (see Example 4):

- (3) <JAP1> *And people with <points to her ear> large earlobes become rich. (Content. Attended. Resolved)*  
 <SPA2> *People who have yellow? <Clarification request>*  
 <JAP1> *Big <touches her ear> earlobes. <Reformulation>*  
 <SPA2> *Ah, big earlobes. <Acceptance>*  
 <SPA1> **[Big <points to his ear> earlobes?] <Comprehension check>**  
 <JAP1> *[Become rich]. Yeah. Become rich. <Repetition>*
- (4) <SPA3> *And we think that it is because, uhm, the mirror kind of represents the soul <hands on chest>, like, your bad soul. (Content. Attended. Resolved)*  
 <JAP5> *Sorry? <closer to the screen and separating his headphone from his ear> <Repetition request>*

<SPA3> *Your bad soul, like you bad side* <laughs> <Repetition and explanation> <JAP5> <laughs>  
 <SPA3> *You know? Like, you look at the mirror* <as of holding a mirror> *it's like you see your soul.* <Explanation>  
 <JAP5> *Ok.* <Confirmation>  
 <JAP4> *Ok.* <Confirmation>  
 <SPA3> **Ok?** [So] *breaking a mirror, it's like breaking your soul. Does that make sense?* <Comprehension check and explanation>  
 <JAP4> [Ok.]

Additionally, the results show clarification requests as one of the most used strategies. It is the most resorted to when it comes to the explicit indication of a trigger in the conversation, i.e. on those occasions in which a participant verbalised that they need assistance from their peers. Examples of clarification requests are more frequent in the corpus than those of repetition requests (when students ask their peers to repeat an utterance), even though these strategies present various similarities. This could be explained by the fact that clarification requests (in Example 5) require less linguistic elaboration in comparison to repetition requests (in Example 6), hence, allowing students to economise in linguistic terms:

- (5) <JAP6> <chuckles> *Thank you.* <silence>. *Spanish is very difficult, ahh, I learn Spanish a little in college, but very difficult.* <smiles> (Content. Attended. Resolved) <SPA6> **The language?** <Clarification request>  
 <JAP6> *Ah, yes, Spanish language.* <Acceptance>  
 <SPA6> *Ok, yeah.* <nods and smiles> <Confirmation>
- (6) <SPA3> *Uhm... and we haven't really talked about us.* <pointing to the screen and then to herself> *Like... Where about in Japan do you live?* (Content. Attended. Resolved)  
 <JAP5> *Sorry* <unintelligible> **Sorry** <chuckles>, **say it again please.** <Repetition request>  
 <SPA3> *Where about in Japan do you live?* <Repetition>  
 <JAP5> *Ah, where? Where our live?* <Comprehension check>  
 <SPA3> *Yeah like, East, North, South, yeah* <pointing>  
 <JAP5> *Uhhh I live in... middle?* <hands> *Middle of Japan. Middle.*

Reformulations and repetitions in the corpus were the most used to refer to the trigger in a direct manner. While reformulations require the speaker to resort to synonyms or paraphrasing, students only need to reproduce the same utterance once again when using repetition. Despite this, in this case, both strategies present very similar instances in the corpus:

- (7) <SPA2> *Is it common there to believe in ghosts? <Topic shift> (Indicator and trigger. Content. Attended. Resolved)*  
 <JAP1> *Uh? <Clarification request>*  
 <SPA2> *Is it common there? <Repetition>*  
 <SPA1> **Do people believe in... in ghosts there? Generally.**  
 <Reformulation> <JAP1> *Genera—... Uh... <looks left>*  
 <SPA2> *No?*  
 <JAP1> *No.*
- (8) <SPA3> *And what other things bring bad luck or good luck in Japan? (Content. Attended. Resolved)*  
 <JAP5> *<close to the screen> What? Please... <Repetition request>*  
 <SPA3> *<louder> What other things bring bad luck or [good] luck in Japan? <chuckles> <Repetition>*  
 <JAP5> *[Ok.] Ok. Ok, I got it. Ah...*

Respecting gestures, they were used by students to illustrate an idea that they could not express through verbal cues or linguistic resources. Hence, the results suggest that these are an intrinsic element of online audiovisual interaction, in contrast to previous research aimed at online written interaction (Lee, “Online Interaction”; Smith, “Computer-Mediated”; “The Relationship between Negotiated”).

- (9) <SPA1> *<nods> Ok. <Confirmation> And... What about the <points to the screen> horseshoe? The next picture. (Content. Attended. Resolved)*  
 ...  
 <JAP1> *Ah, I don't <nods> know.*  
 <SPA1> *No? It's the... What a... a horse - shoe, actually is self-explanatory, it's, eh, it's when, you know <hand imitating the hoof of a horse> when the, the... <Use of gesture>*

<JAP1> *Yeah, ok. &ltsmiles> &ltConfirmation>*  
 <SPA1> *[The horse leg is like... you put it] under, under... &ltas if placing a shoe on a horse's hoof> feet? &ltUse of gesture>*  
 <JAP1> *[&ltas if placing a shoe on a horse's hoof>] Ok, ok. &ltUse of gesture and confirmation>*

As for self-correction and peer correction, some instances were found in the corpus, and they took place in a similar number of instances. It is crucial to point out that self-correction implies a more complex process of self-awareness than peer correction. In the words of Kormos, self-corrections are considered "overt manifestations of the monitoring process" (123). Either way, both strategies are types of explicit correction, which are triggered by more complex cognitive processes than other strategies listed in this study. This may be the reason why most instances of corrections were found in participants with higher proficiency levels, as will be presented in further detail when discussing RQ2 and RQ3. Moreover, according to ELF literature, students may not resort to peer correction in order to avoid face-threatening situations (Firth; Beuter), which may suggest that students in the corpus used other strategies to save their listener's face. However, in line with Bower and Kawaguchi (61) and Clavel-Arroitia ("Analysis of Telecollaborative" 105), examples of both self-correction and peer correction are scarce in these interactions.

- (10) <JAP5> *Sorry... Ah! **Thirteen on Friday** (Linguistic. Attended. Resolved) &lttilts head>*  
 <SPA4> *On Friday... ah! Yes, yes, yes thirteen &ltlooks up>*  
 <SPA3> *Yeah, yeah*  
 <SPA3> **Friday thirteenth** &ltnods> &ltPeer correction>  
 <SPA4> *Yes, yes*

- (11) <SPA1> &ltchuckles> *Well some of them, ah, **doesn't exist** there right? (Linguistic. Attended. Resolved) **Don't exist. &ltSelf-correction>***

The results hereby presented, hence, provide an answer to RQ1 (*Which resolution strategies were used the most?*). Indeed, confirmation was the most used strategy. Other recurrent strategies in the corpus are clarification requests, comprehension checks, reformulation, repetition, and use of gestures.

Nevertheless, these portray no clear diversity between each interaction in the study. For this reason, and to answer RQ2 (*Are there any differences in the use of resolution strategies between work groups?*), the strategies found in each interaction are presented in Table 2 hereunder:

Table 2. Results for the number of resolution strategies on each interaction

	Group 5	Group 8	Group 9
Comprehension check	23	33	27
Clarification request	45	19	47
Repetition request	4	6	22
Repetition	23	23	14
Reformulation	31	13	30
Acceptance	13	6	16
Confirmation	35	42	36
Asking a peer	1	2	3
Asking a teacher	1	0	0
Topic shift	9	2	0
Peer correction	9	7	4
Self-correction	14	2	10
Code switching	1	11	3
Explanation	4	12	9
Change of mode	7	5	5
Tolerance of ambiguity	2	0	1
Use of gesture	11	15	27
<b>Total strategies</b>	<b>233</b>	<b>198</b>	<b>254</b>

Source: Prepared by the author.

It can be inferred, thus, that each group of peers made use of resolution strategies in a similar manner, although some differences were not perceivable in the previous general results. Consequently, the use of strategies may be subject to different variants that will be commented on throughout this section.

One of the main differences noticed in these results is related to the use of clarification requests. While groups 5 and 9 made use of this strategy in a similar number of cases, group 8 presents fewer examples of it. The

reason for this could be explained by looking at the instances of code switching in this group. Even though, agreeing with Clavel-Arroitia's results ("Analysis of Telecollaborative" 110), there is generally a low frequency of code switching in comparison to other strategies, the instances in this group were a lot higher than in the rest. In this interaction, the Japanese participants made use of their L1 in order to solve certain communicative issues, which led to fewer chances for negotiation with the Spanish students.

Another significant difference is concerned with the use of self-corrections, since group 8 presented fewer examples of this strategy than the other groups. One reason for this could be the proficiency level of the participants, as presented in previous sections. The same explanation could be applied to reformulations, since students in Group 8 produced more instances of repetitions instead. Moreover, the instances of repetition requests are higher in Group 9, which presented higher proficiency levels and higher linguistic production. As stated above, repetition requests require higher linguistic production processes and longer utterances, so it is expected to be used in groups where students' language competence is higher.

Lastly, it is crucial to point out the presence of the strategies proper from communicative episodes in online audio-visual environments. Firstly, it can be concluded that confirmations were present very frequently in all three interactions, making it clear once again that this strategy is crucial in VEs of this nature. Another aspect worth mentioning at this point has to do with the use of gestures. The interaction which presents a higher number of gestures is that of Group 9, which is also the longest (one hour and 47 minutes). Moreover, the utterance production in this interaction was more elaborate and complex due precisely to their higher proficiency level. Nevertheless, students in Group 5 did not make use of gestures as much as their other peers. The reason for this may be the fact that students attempted to resort to their linguistic knowledge to solve the problems that arose. Thus, students avoided gestures unless it was strictly necessary by making use of self-corrections, repetition, and reformulations instead.

Having looked at the results corresponding to each interaction, it can be stated that the use of resolution strategies can be different depending on certain variables, including proficiency levels, students' participation, the participants' group dynamics, and even the students' predisposition towards the activity.

There is one more aspect that needs further study, and that is related to the cultural background of the participants (RQ3: *Are there any differences in the use of resolution strategies between cultural groups?*). Hence, Table 3 presents the strategies used by both Japanese and Spanish students from each group:

Table 3: Results for the number of resolution strategies on each cultural group

Strategies	JAP Group 5	JAP Group 8	JAP Group 9	All JAP	SPA Group 5	SPA Group 8	SPA Group 9	All SPA
Comprehension check	4	12	12	28	19	21	15	55
Clarification request	16	13	35	64	29	6	12	47
Repetition request	0	5	6	11	4	1	16	21
Repetition	14	17	10	41	9	6	4	19
Reformulation	9	3	8	20	22	10	22	54
Acceptance	10	4	11	25	3	2	5	10
Confirmation	12	28	14	54	23	14	22	59
Asking a peer	0	0	2	2	1	2	1	4
Asking a teacher	0	0	0	0	1	0	0	1
Topic shift	3	1	0	4	6	1	0	7
Peer correction	2	2	0	4	7	5	4	16
Self-correction	12	1	8	21	2	1	2	5
Code switching	1	11	2	14	0	0	1	1
Explanation	0	3	2	5	4	9	7	20
Change of mode	5	2	1	8	0*	3	4	7
Tolerance of ambiguity	0	0	0	0	2	0	1	3
Use of gesture	6	6	10	22	5	9	17	31

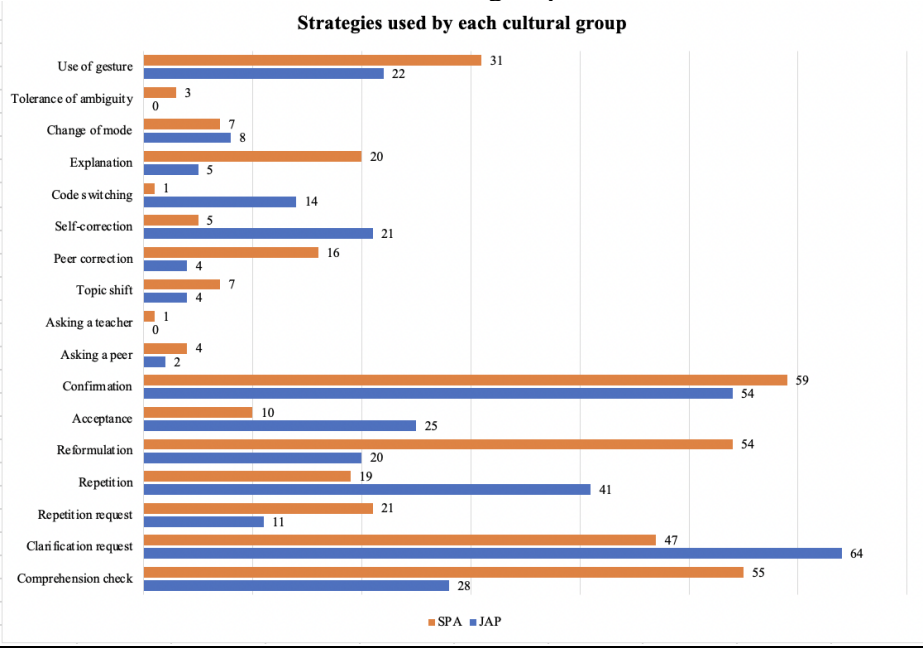
Source: Prepared by the author.

\*The other two changes of mode found in the exchange were carried out by a teacher

Even though there are certain differences between same-culture peers in all three groups, this section will only point out some of the most relevant results from a general perspective due to space constraints. Therefore, Fig. 2 below presents a general overview of the most and least

used resolution strategies by both Japanese and Spanish students in all three interactions:

Fig. 2: Summarised results for the number of resolution strategies in each cultural group



Source: Prepared by the author.

Despite the slight difference in numbers, the most used strategy is not the same for both cultural groups. In the case of Japanese students, clarification requests present the highest number of instances. Spanish students used more confirmations instead. This may be related to the role of students in the interactions. Probably due to their higher proficiency level or even cultural behaviours, Spanish students seemed to direct the interactions in all three cases. Since the function of confirmations is to close the NoM episodes, it may be possible that Spanish students took the lead of the conversation in most cases and decided when a NoM episode was supposed to be finished, as reflected in Example 12:

(12) <SPA1> Oh, really?  
<JAP1 chuckles>

<SPA1> *All of them? [Always?]*  
 <JAP1> *[Uhm...] <nods> Always, yeah.*  
 <SPA1 chuckles>  
 <SPA2> *Ok.*  
 <SPA1> *That's interest—. Pretty interesting actually. Uhm... So, can you go to the next page?*  
 <JAP1> *Ok.*  
 <SPA1> *So, uhm, actually, can you read it? Any of you.*

In terms of trigger indication, as pointed out above, higher proficiency students are expected to use more repetition requests than their peers, and that is the case for Spanish students. Nonetheless, it must be pointed out that both cultural groups made use of clarification requests on more occasions, even though Japanese students presented more examples. Precisely due to the linguistic economisation that clarification requests provide, students may feel the NoM episodes are closed in a more straight-to-the-point manner than by using repetition requests.

Another noticeable difference that may be dependent on language proficiency is concerned with the use of repetition and reformulation as a resolution strategy in the corpus. As reflected by the results, Japanese students made use of repetitions more often, while Spanish students resorted to reformulation on most occasions. Since reformulations require higher levels of linguistic variation and richness, it can be inferred that Spanish students, who were advanced English learners, produced these utterance modifications more often. This same argument may apply to the use of explanations, which are also higher in the case of Spanish participants. Additionally, another reason may be the fact that more advanced learners (the Spanish students in this case) could be more prone to accommodate their peers and adapt their utterances, especially if a communicative breakdown occurs.

Even though L2 proficiency was expected to influence the use of peer correction and self-correction too, the results reflect a very different situation. Peer correction is used by Spanish students in a higher number of situations, while self-correction is mostly used by Japanese students. There may be certain reasons for this phenomenon. The first one is the fact that Spanish students made fewer mistakes than Japanese students, therefore having less chances to correct themselves. Another feasible explanation could be that Japanese students may be less prompt to correct their peers to avoid face-threatening situations or save their peer's face

(Brown and Levinson). Another reason may be related to the Japanese students' predisposition to solve the triggers through their linguistic resources. This affirmation, however, does not mean that students were always successful at correcting their own mistakes. Since this study is not focused on effectivity, but rather on frequency, it may be the case that some of the most used strategies are not necessarily the most effective ones in terms of trigger resolution. As reflected in Example 13 below, JAP6 attempts to self-correct, although unsuccessfully:

- (13) <SPA5> *Do you know why does it bring bad luck in Japan a black cat? <Reformulation> (Response and trigger. Linguistic. Unattended)*  
 <JAP6> *Ah... <Confirmation> Maybe in Japan **black is death mean**... (Linguistic. Attended. Unresolved) Black has mean... uhmmm... black has mean... **bad means**. <Self-correction> For example, uhmm... <unintelligible> uhmm... <chuckles>... I don't know well, but has bad mean <Linguistic. Unattended> in Japan.*

Lastly, there is one more finding worth mentioning—the presence of tolerance of ambiguity and topic shifts in Spanish students' moves. The former takes place when students, after discussing a problematic utterance, decide to cease their attempt of solving the communicative issue. Topic shifts, on the contrary, require students to change the topic of conversation in order, for instance, to avoid further misunderstandings. Even though these strategies were not used very often, there is a clear tendency which indicates that Spanish students used them on more occasions, although in all of them they led to the irresolution of the breakdowns. The vast majority of the examples found in the corpus present a characteristic very much related to cultural differences in communication dynamics. According to Akiyama, Japanese students are expected to recur to silence more often than students from other cultures, since "the Japanese read meaning into silences and make decisions based on them" (192). Hence, Spanish students, which may not understand this cultural difference, may be urged to fill the silence with further questions or, in other cases, to just direct the focus of the conversation to another topic.

- (14) <SPA2> *Do you have those kinds of fortune tellers? (Content. Attended. Unresolved)*

<SPA2> *Ok.*

((pause))

<SPA1> **Ok, what about hypnosis? <Topic shift>**

<JAP3> *Hypnosis...*

## CONCLUSIONS

The purpose of this article was to trace the most used resolution strategies in three audio-visual VEs between Spanish and Japanese university students. Hence, the results and subsequent discussion have pointed out the relevance of confirmations in the corpus, in concordance with Smith (“Computer-Mediated”; “The Relationship between Negotiated”). Moreover, despite the similar number of instances of repetitions and reformulations found in the general results, further data has revealed that certain work groups, and especially Spanish students, made use of reformulations on more occasions. This fact, together with other strategies such as peer correction, imply the relevance of one variable that needs to be considered when studying interaction in language learners: L2 proficiency. This aspect may not only affect the language production or lexical richness of students, but also the role assumed by them in the interactive process. It must also be pointed out that gestures and changes of mode were present in the corpus, while these strategies cannot be found in written SCMC for instance. It has also been suggested in the results that the cultures participating in the exchanges may play a crucial role when it comes to the use of certain strategies.

Even though the study has meant to amplify the results extracted from a previous analysis, there are some limitations which could be addressed in future research. One of the limitations of this study is related to the size of the corpus analysed, consisting of three interactions. Delving into all the interactions carried out in this partnership could provide deeper insights into the corpus and even reconfirm the results presented in this paper. Moreover, there are some individual differences between the participants’ use of certain strategies that could not be dealt with in this article. More detailed discussions on interactive processes and both individual and cultural differences may help scholars to further understand the complex process of interaction.

As the results and conclusions obtained from this study suggest, further research concerning intercultural learners’ interaction and NoM processes is needed, especially in terms of methodological aspects. Future

projects may shed light on the multiple variables and factors that play a role in trigger resolution on VEs and students' interaction.

Apart from the necessity to further explore variables in intercultural learners' interaction, an interesting aspect which could be studied is the effectiveness of these resolution strategies in VEs, since this could allow teachers and practitioners to have adequate tools to promote NoM episode resolution in the classroom. Moreover, NoM episodes need to be further analysed precisely because of the multiple benefits and opportunities that they offer in the L2 learning process.

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