



**Universidad de Concepción
Dirección de Postgrado
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Programa de Magíster en Lingüística Aplicada**

PHRASAL VERBS IN HIGH SCHOOL STUDENTS' L2

ENGLISH WRITING:

A LANGUAGE LEARNER CORPUS STUDY

Tesis para optar al grado de Magíster en Lingüística Aplicada

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CONCEPCIÓN-CHILE
2024

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AGRADECIMIENTOS

Para comenzar, quisiera agradecer a mi familia, en especial a mis padres, Leopoldo y Ángela quienes siempre creyeron en mis capacidades y me instaron a seguir; también a mis hermanos, ya que gracias a sus experiencias previas me aconsejaban para saber qué decisiones tomar.

A mi marido, Francisco y a sus padres quienes me apoyaron y dieron fuerzas para seguir adelante.

Quisiera agradecer a mi tutor, el profesor Cristián Sanhueza, que se mantuvo firme con su apoyo y constancia y que a veces fue consejero y mostró interés en todo este proceso. Además, quisiera agradecer al experto en estadística el señor Gabriel Cavada quien siempre mostró buena voluntad para ayudarme a obtener los datos.

Finalmente, agradezco a la vida por darme la posibilidad de haber podido formar parte de esta prestigiosa Universidad y de haber tenido la oportunidad de realizar este trabajo de investigación en el área de la lingüística aplicada.

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ABSTRACT

The use of phrasal verbs (PVs) reflects an advanced level of mastery of the language. Due to their multiple meanings and functions, their use is essential to achieve fluency and accuracy in English. The present study has a lexical approach, which focuses on the importance of the lexicon and lexical units in language learning. The analysis of phrasal verbs can be integrated into this approach, considering how these lexical units contribute to the communicative competence of learners. Based on the list of the most frequent phrasal verbs known as PHaVE List, we analysed the use of these verbs in the written compositions of 148 students, male and female, of ninth and tenth grades at an immersion school of Concepción, Chile. The objective was to determine the extent to which phrasal verbs are used in bilingual high school students' written compositions, according to age, sex and school level, as part of what it is to use the language as naturally as possible when communicating in a second language. In this study, a corpus analysis was carried out, which means that the aforementioned compositions were analysed by two pieces of software, Sketch Engine and ADELEX, and additional manual analysis, to examine the variables previously mentioned. In light of the results, it was observed that, within this language learner corpus, female students used a greater number of phrasal verbs ($p=0.026$). Considering the topic limited to the advantages and disadvantages of studying from home in the pandemic.

Keywords: phrasal verbs, corpus analysis, PHaVE List, L2 writing

RESUMEN

El uso de los verbos fraseológicos (VFs) refleja un nivel avanzado de dominio del idioma. Debido a sus múltiples significados y funciones, el uso de éstos es esencial para lograr precisión en inglés. Su carácter polisémico y su manera de aparecer en ciertas composiciones o discursos contribuyen a una mayor naturalidad y fluidez en el habla. El presente estudio posee un enfoque léxico, que se centra en la importancia del vocabulario en el aprendizaje de idiomas. El análisis de VFs puede integrarse en este enfoque, considerando cómo las unidades léxicas contribuyen a la competencia comunicativa de los aprendientes. Basándonos en la lista de los VFs más frecuentes conocida como PHaVE List, analizamos el uso de éstos en las composiciones escritas de 148 estudiantes, hombres y mujeres, de primero y segundo año de enseñanza media de un colegio de inmersión ubicado en Concepción, Chile. El objetivo fue determinar en qué medida se utilizan los verbos fraseológicos en las composiciones escritas de estudiantes bilingües de enseñanza media, según su edad, sexo y nivel escolar, como parte de lo que implica usar el lenguaje de la forma más natural posible al comunicarse en un segundo idioma. Se realizó un análisis de corpus a través de dos programas, Sketch Engine y ADELEX Analyser, y un análisis manual adicional, para examinar las variables mencionadas anteriormente. A la luz de los resultados, se observó que, dentro de este corpus de aprendiente, las estudiantes mujeres utilizaron un mayor número de verbos fraseológicos ($p=0.026$).

Considerando el tema limitado a las ventajas y desventajas de estudiar desde la casa en pandemia.

Palabras clave: *verbos fraseológicos, análisis de corpus, PHaVE List, escritura en L2*

I. INTRODUCTION

Over the past few decades, there has been a significant emphasis placed on the use of phrasal verbs (PVs). According to Britannica Dictionary (2023), phrasal verbs are defined as groups of words that function as a verb, consisting of a verb combined with a preposition, an adverb, or both. They hold great importance in terms of being taught and learned in the English as a Second Language (ESL) and/or English as a Foreign Language (/EFL) contexts. However, phrasal verbs present challenges for language learners and tend to be avoided by English users. Interestingly, even languages that include phrasal verbs, such as Dutch, often refrain from using them in an English context. Mastering multi-word units, especially phrasal verbs, proves to be one of the most difficult aspects of English language acquisition. Proficiency in their usage is crucial for achieving fluency at a higher level (Garnier & Schmitt, 2015).

This study adopted a corpus-based approach, entailing the examination of corpora, which are collections of texts assembled based on specific criteria and typically analysed automatically (Nordquist, 2020). The corpus analysis of the present study will be conducted using two software tools: ADELEX Analyser (Moreno & Pérez Basanta, 2010), and Sketch Engine (Kilgarriff et al., 2014). ADELEX Analyser (ADA) establishes the lexical profile of written English texts by employing a 7,000-word frequency list derived from the British National Corpus, the Bank of English, and the Longman Corpus Network databases (Aston & Burnard, 2020). On the other hand, Sketch Engine explores the functioning of

language, focusing specifically on phrasal verbs. Its algorithms analyse text corpora, particularly language learner corpora, to promptly identify typical language patterns as well as rare, unusual, or emerging usage, including the detection of multiword expressions (Meunier, 2019). Both tools were utilised to quantify the presence, frequency and sense use of phrasal verbs in written compositions regarding participants' experiences of studying from home during the pandemic. All participants are students attending an English immersion program school, International Baccalaureate (IB), located in Concepción.

The primary objective of this study is to analyse and ascertain the use of phrasal verbs in the written compositions of 9th and 10th-grade students. The analysis of these compositions involved examining the phrasal verbs employed by the students using the aforementioned software. Specifically, the study explored the frequency and contextual meaning of the phrasal verbs. To facilitate this analysis, it was necessary to manually input the desired words or phrases into the software. A list of 150 commonly used phrasal verbs from the PHaVe List (Garnier & Schmitt, 2015), which represents the most frequently used phrasal verbs in the English language, served as the matching taxonomy.

Once the total number of phrasal verbs used had been identified, various statistical variables were examined. The ratio between the number of phrasal verbs used and the total word count provided their incidence, indicating the proportion of phrasal verbs per words used. Furthermore, the relationship between the use of phrasal verbs and other demographic variables such as age,

sex, and school level, which reflects the duration of the students' intensive exposure to English instruction, were investigated. The association between phrasal verbs use and the different variables under study also allowed for an inferential approach to assess the students' proficiency in the English language.

1.1 Problem Statement

The acquisition of an additional language has been shown to have significant benefits, including cognitive development and improved linguistic abilities (Jasim, 2021). In the present day, English has emerged as the most widely spoken second language worldwide. It has not only become the language of scientific discourse but also plays a crucial role in technology, commerce, academia, education, and global interactions. Given the ever-increasing globalization, English has attained the status of a universal language. Consequently, the Chilean government recognizes the importance of fostering bilingualism to enhance their integration into the global society.

The current level of English proficiency in our country falls short of meeting the demands of this globalized world. Education First's 2022 English Proficiency Index (EPI) rankings revealed that Chile has a low-to-moderate level of English knowledge. Specifically, in English proficiency tests administered to 11th-grade high school students, Chile ranks 45th out of 111 countries. These tests, known as SIMCE (Sistema de Medición de Calidad de la Educación), assess various subject areas, including English as a foreign language.

Since 2010, SIMCE has found that students from higher socioeconomic backgrounds achieve the proficiency standard in receptive skills (reading and listening) at a rate of 83.3%, in contrast, only 0.8% of students from lower socioeconomic backgrounds reach that standard (Barahona, 2016). It is important to note that no assessment of productive skills, such as speaking and writing, has been conducted at any level within the school system. Furthermore, it has been revealed that 17% of secondary school English teachers lack proper teacher training, and within this group, 96% lack proficiency in the English language (Ministerio de Educación, 2017), which in turn, may be one of the causes of this bleak scenario. These statistics highlight the challenges faced in the English education sector.

Communication in EFL has garnered significant attention in education over recent decades (Jeong, 2018). When educational programs prioritise the development of students' communicative abilities, it becomes essential to consider authentic English language usage. Among the productive structures in English, phrasal verbs hold particular importance (Thyab, 2019). If our aim is to cultivate students' communicative competence, phrasal verbs should not be overlooked. On the contrary, their instruction and practice should be integrated throughout English language teaching programs. Consequently, English educators need to recognise the linguistic complexities associated with phrasal verbs, especially for Spanish speakers. Additionally, to address the limitations of

many textbooks, teachers must incorporate phrasal verb practice into the curriculum (Calderón, 2006).

The use of phrasal verbs indicates an advanced level of proficiency and mastery in the English language. Non-native speakers with limited knowledge often resort to simple phrases or expressions as substitutes, which may not capture the precise meaning conveyed by phrasal verbs. Fluency in phrasal verbs is characteristic of high-proficiency English speakers, highlighting the significance of their usage in effective communication (Sari & Pandiangan, 2021; Vildósola et al., 2021).

II. LITERATURE REVIEW

2.1 The Lexical Approach

The Lexical approach (Nordquist, 2023) is an approach to language teaching that focuses attention on multi-word chunks or groups of words that frequently appear together. It places vocabulary before grammar, because it views words as carrying the most creative potential (Sewbihon-Getie, 2021). Meaning is created by word derivations such as affixes. Outside the words, meaning is given by the context that surrounds them. This approach also emphasises that students should be exposed to words in real contexts and should become aware on how context affects meaning (Abdulqader et al., 2017).

Ramírez (2015) proposes that much of the language we use exists in our minds as prefabricated or memorized chunks. These chunks may have a variety of names such as lexical phrases, formulaic sentences, and ready-made utterances. There is a belief that these chunks are stored together in our brains in order to increase their processing efficiency, in other words, they are learnt lexically.

The teaching of these lexical phrases is a primary component of this approach. The main reasons for teaching them are that, on the one hand, students sound more proficient, by increasing their fluency in real life situations, and on the other, students grow in confidence on their language use.

As Sewbihon-Getie (2021) suggests, the students that were taught through the lexical approach, by chunks, were able to improve their performance in writing and speaking and they improved their vocabulary usage. This means that the lexical approach helps students to manage not only vocabulary but also the other aspects of language, such as motivation, linguistic creativity at word level, and potential value of technology mediation.

To teach lexical units there is a need to understand what lexical items are. According to Mel'čuk and Milićević (2020) a lexical item is a minimal unit of text whose meaning is not totally predictable from form. These can be words, or they can be multiword units. Among these chunks, there are multiword units such as polywords, which are two or three words that occur together. One example of polywords are phrasal verbs, which are made up of a verb plus a preposition or an adverb having a special meaning.

2.2 Phrasal verbs

Phrasal verbs (PVs) pose a challenge for language learners due to their polysemous nature. These constructions consist of a main verb and a particle (preposition or adverb) that contribute meaning, which may differ or have little in common with the main verb (Alangari et al., 2020). According to García Cristobal (2014) these are divided into three types:

1. Prepositional verbs which are also called non-separable verbs. They are formed by a verb + preposition. (e.g. to believe in, to talk about).

2. Phrasal verbs which are also called separable verbs, and which include a verb + a particle adverb (e.g. put off, turn down). In this group two subtypes can be distinguished:

2.1. Separable transitive phrasal verbs that take a direct object: with most transitive phrasal verbs, the particle can either precede or follow the direct object (e.g. turn on the light, turn the light on), although this word-order difference depends on the nature of the direct object (i.e. a full DP or a pronoun) and on the length of the DP direct object (i.e. short or long).

2.2. Separable intransitive phrasal verbs that do not take a direct object: most of the particles are place adjuncts or can function as such. Normally the particle cannot be separated from its verb (e.g. drink up quickly, *drink quickly up).

3. Prepositional phrasal verbs which are also called phrasal prepositional verbs, or three-word verbs. They are formed by a verb + a preposition+ an adverb (e.g. get on with, look forward to).

The traditional classification given above focuses its attention on the nature of the particle (whether the particle is a preposition, an adverb, or both). However, there are other types of classifications and the one that has been followed in this study focuses rather on the semantic relationship between the verb and the particle which make up the phrasal verb.

It is clear that the meaning of the particle is related to the degree of idiomaticity of phrasal verbs and, if we focus our attention in this aspect, phrasal verbs can be classified into three different types:

1. Literal or transparent phrasal verbs whose meaning equals the meaning of their individual components (e.g. go up = go + up).

2. Completive phrasal verbs in which the particle describes the final result of the action and thus indicates that the action has been done completely. They can be considered as a sub-type of transparent phrasal verbs since, as the particle adds a completion meaning, the meaning of the phrasal verb will coincide with the actual meaning of the verbal head (e.g. cut off= cut something completely).

3. Figurative phrasal verbs whose meaning cannot be deduced even if you know the meaning of its components. The new meaning is the result of a metaphorical shift of the individual components (e.g. carry off = win a prize).

Garnier and Schmitt (2015) emphasize the importance of teaching phrasal verbs, acknowledging their difficulty. Drawing on the British National Corpus (BNC, 2009), a comprehensive collection of written and spoken English samples, they highlight the high frequency of phrasal verbs in language use. Due to their multiple meanings and functions, the use of phrasal verbs is essential for achieving fluency and accuracy in English. However, learners may lack awareness and understanding of these structures in informal spoken discourse, resulting in unnatural and non-idiomatic language production. Additionally, for learners whose first language lacks similar structures, phrasal verbs can appear atypical and may often be avoided (Barekat & Baniasady, 2014). As suggested by Garnier and Schmitt (2016), their syntactic and semantic complexity

contributes to the difficulty of learning and may lead to misinterpretation when learners attempt to decipher their meanings based on the individual components.

Research on multiword units, including formulaic language, demonstrates the challenging nature of these elements in English, even for highly proficient learners. Gumangan and Dita (2022), and Siyanova and Schmitt (2007) highlight the struggle that advanced learners face in using multiword verbs in a manner consistent with native speakers. This difficulty is further underscored by findings indicating that even prolonged exposure to a native English-speaking environment does not necessarily increase the likelihood of using multiword verbs effectively.

Several studies suggest that the amount of exposure to the second language (L2) plays a role in learners' transition from avoidance to non-avoidance of phrasal verbs (Abu-Joudeh & Muhaidat, 2022; Aldukhayel, 2014; Liao & Fukuya, 2004; Wang, 2019). However, Zarifi and Mukundan (2013) note inconsistencies in the definition and classification of phrasal verbs among these studies. Certain structures that are considered phrasal verbs in one study may be excluded in another based on their compositional level. Furthermore, there is a lack of consistency in how these combinations are classified according to their meanings.

Overall, the intricate nature of phrasal verbs, their frequent usage, and the challenges they present to language learners underscore the importance of developing effective productive habits, and in particular, writing habits along with

classification systems to enhance learners' understanding and proficiency in using these structures.

2.2.1 Polysemy

When learners consult a phrasal verb dictionary, they often feel overwhelmed by the extensive information provided in each entry, making it challenging to locate the specific information they require (Garnier & Schmitt, 2015). Consequently, dictionaries have limitations when it comes to pedagogical purposes. To address this issue, teachers and learners would benefit from a more pedagogically oriented reference source that offers concise and accurate information by focusing on the most frequently used sense of the phrasal verb (Garnier & Schmitt, 2015). Corpus-based frequency studies of phrasal verbs have demonstrated that a small number of phrasal verbs account for a significant proportion of their overall usage in English. This finding suggests that concentrating on teaching and learning the most common phrasal verbs is more feasible and highly advantageous compared to attempting to cover all phrasal verbs.

Furthermore, research in vocabulary acquisition has identified various factors that influence the learning of both individual words and formulaic expressions, including word frequency, semantic complexity, the amount of instruction in the second language (L2), and the level of engagement and exposure to the language. English phrasal verbs hold great importance for

learners due to their widespread use in everyday language. They play a crucial role in informal spoken discourse and using them incorrectly in such contexts can result in communication breakdowns (Garnier & Schmitt, 2015).

In Demetriou (2020) three studies were analysed. In the first study the distribution of phrasal verbs was explored as well as their frequently used meanings, based on the indications of the native speaker corpus in the textbooks. The result of this study highlights the necessity of the book's writers to adopt a process of selection with a scientific basis. Having in mind the polysemous nature of the phrasal verbs giving more opportunities to their repetition, an essential component in vocabulary acquisition. The second study explored the productive and receptive knowledge of 100 students of English as a foreign language in a sample of high frequency meaning senses of phrasal verbs. The recognition and recall of the phrasal verbs based on its frequency was measured. This study showed that the students still have a weak knowledge of phrasal verbs and that their learning process had to do with their commitment and the frequency in participation in leisure activities and how to read and watch movies in English.

The third study did some research on the SLA teachers' beliefs about the teaching and learning of these phrasal verbs. Native teachers believe the teaching of phrasal verbs is meaningful and important, both native and non-native teachers see this as a feature which is difficult to teach when teaching vocabulary. All of these studies emphasise the lack of knowledge of phrasal verbs by L2 students. It is also expected that polysemous phrasal verbs could get more attention in the

Applied Linguistics field and future efforts could improve the quality of textbooks and could supply teachers the support needed to their teaching.

According to Garnier and Schmitt (2016), L2 learners do not acquire the knowledge of phrasal verbs through the immersion system, but to the time dedicated to reading and social networking. The results have shown that, on average, only 40% of the meanings of the phrasal verbs are known and the probabilities of knowing the different meanings of each verb are quite low, around 20%.

In order to efficiently improve vocabulary knowledge, it is possible to combine the implicit learning with the explicit one, paying more attention to phrasal verbs in instructed contexts. It is still unclear if phrasal verbs are not being understood due to their semantic opacity or to their frequency.

2.2.2 The PHaVE List

The polysemous nature of phrasal verbs is a well-known characteristic, however, it is worth noting that there is often a lack of distinction between word frequency and meaning frequency in the study of phrasal verbs. Considering the frequency of specific senses of phrasal verbs can provide valuable insights into their processing and comprehension by both native and non-native speakers (Garnier & Schmitt 2015). Recent research by Liu and Myers (2020) has highlighted the significant role of register in the usage of phrasal verbs. Building upon these findings, a pedagogical Phrasal Verb list has been compiled with the

aim of providing a valuable resource for ESL/EFL learners, teachers, and material writers. This list is designed to assist in the effective teaching and learning of phrasal verbs, taking into account the frequency of different meanings and the impact of register on their usage. It is anticipated that this resource will contribute to a better understanding and mastery of phrasal verbs in English language education.

As awareness grows among researchers and practitioners regarding the significance of multiword items in English, there is a clear consensus that phrasal verbs warrant attention in the classroom (Garnier & Schmitt, 2015). However, the sheer number of phrasal verbs in English poses a challenge for practitioners in determining which ones to prioritise. Existing phrasal verb dictionaries strive for comprehensiveness, resulting in an overwhelming list that fails to assist educators and researchers in selecting the most crucial verbs for teaching or assessment. Although phrasal verb lists are available, such as those by Gardner and Davies (2007) and Liu (2011), they have a significant drawback in that they do not account for polysemy.

Research reveals that phrasal verbs exhibit high levels of polysemy, with an average of 5.6 meaning senses, although many of these are infrequent or peripheral. Hence, professionals require guidance on which meaning senses are most valuable to address in instruction, research or assessments, to address this need, the PHrasal VERb Pedagogical List (PHaVE List) was developed (Garnier & Schmitt, 2015). This list comprises the 150 most frequently used phrasal verbs

and provides information on their key meaning senses, which account for over 75% of occurrences in the Corpus of Contemporary American English (COCA). The PHaVE List includes the occurrence percentage for each key meaning sense, along with definitions and example sentences that are accessible to second language learners, adopting the style of the General Service List (West, 1953). Furthermore, a user's manual accompanies the PHaVE List, offering guidance on its appropriate utilization, which will be the primary matching taxonomy for the present study.

According to Aldohon (2018) focusing on the PHaVE List is likely to be more cost-effective in terms of time spent learning. This list includes the top 150 high-frequency phrasal verbs that students and teachers can focus on, instead of being overloaded with a large number of Academic Word List (AWL) words that can be overwhelming and difficult for students to manage. Furthermore, it has been indicated that language learners avoid the use of phrasal verbs especially due to their semantic complexity (Garnier & Schmitt, 2015). To address this issue and promote student understanding, the PHaVE List contains 75% of the most useful and frequent meanings of the 150 phrasal verbs it includes, along with definitions and example sentences. Therefore, it can be argued that knowledge of the PHaVE List may provide greater benefits to students with respect to understanding academic discourse.

2.3 Corpus studies

A corpus can be defined as a collection of two or more texts that share specific defining characteristics, limited only by their inherent nature. Corpus Linguistics (McEnery et al., 2019) aims to analyse and describe language as it is used in texts. It is important to note that a single text cannot be equated with a corpus. A corpus is a large set of digital texts with a specific nature and organized into identifiable categories for the analysis and description of various languages (Bolaños Cuéllar, 2015)

In Corpus Linguistics, the classification of multiword units, such as phrasal verbs, has gained increasing strength, as noted by Gardner and Davies (2007). Various attempts have been made to identify and classify English phrasal verbs based on corpus findings, including works like the Longman Dictionary of Phrasal Verbs (1983), the Collins Co-build Dictionary of Phrasal Verbs (1989), and the Cambridge International Dictionary of Phrasal Verbs (1997). These resources aim to identify numerous phrasal verbs in English, providing definitions and contextualized examples for each form. While these methodologies imply that compilers have tried to identify and define important phrasal verbs based on corpus data, there is limited information available on the frequency of phrasal verbs in actual language use. Such frequency information would be valuable for material developers and test designers who wish to prioritize the treatment of phrasal verbs based on their overall impact on language.

As highlighted by Liu (2011), searching for phrasal verbs in a corpus can be a challenging task. The initial step involves entering the lexical verb in square brackets in the COCA interface to search for tokens of different verb forms (e.g., makes, making, made, for the lemma "make"). For example, when considering the phrasal verb "go in," simply entering the lemma of the lexical verb (e.g., [go in]) may yield tokens that are not typically phrasal verbs, such as "we went there in March," where "go" and "in" function as separate elements within the adverbial phrase "in March", rather than as a phrasal verb. To avoid such tokens, it is necessary to insert the verb lemma in the form of [verb] in the word boxes.

Additionally, the number of words between the lexical verb and the adverbial particle should be considered. In this case, only cases with two intervening words are taken into account, as phrasal verbs separated by three or more words are rare and searching for them could lead to false phrasal verbs.

There are several studies that considered using corpus on phrasal verbs research. For example, Liu and Myers (2020) research has shown that register plays an important role in the use of a PVs. Based on these results a pedagogical Phrasal Verbs List has been compiled. It is thought to be a useful source for ESL/EFL learners, teachers, and material writers.

The study has identified the main meanings of the 150 most common phrasal verbs together with their frequency, percentage, and order. The results have shown that the distributions of semantic uses of many PVs vary substantially across registers, demonstrating the important role that the register plays in the

use of a PV. However, there are some limitations. To address them, further research should be carried out which should include conversational English to compare the meaning of PVs in conversations with the meaning in public discourse or academic spoken English. Studies can also be conducted in other registers, including fiction, mass media, legal, and medical English. Research findings at this point can help teachers make more informed, instructional decisions.

According to Zarifi and Mukundan (2013) some of these studies seem not to be consistent in their intention to define and classify phrasal verbs. A large number of structures that are included as phrasal verbs in a study are simply excluded, because of their compositional level. It even happens that the same research fails to be consistent in its approach towards the classification of these combinations in terms of which forms constitute a phrasal verb and how they are classified according to their meanings.

Those who are concerned with the semantic aspects of the combinations have made use of the Word Net software, which turned out to have neither, in terms of the number of PVs it represents and the number of definitions it offers for each combination. Some of the studies are questionable in relation to the size of the corpus that was investigated, and others lack the scope of the forms studied. While frequency appears to be the major focus in all these studies, most of them ignore the issue of range in the treatment of combinations. Finally, some of the studies in the learner corpus must deal with the issue that is related to the use of

the verbal element in general rather than those purely motivated by the challenging features of these notoriously mysterious structures.

One of the challenges in teaching phrasal verbs is that even though they are ubiquitous in the English language, speakers of English as a foreign language, especially those with a low and intermediate level, continually avoid using them. The reasons for this avoidance are several, including interlinguistic differences and the complexity of syntactic and semantic structures of PVs. The large number of PVs in English also contributes to the problem because it makes learners feel overwhelmed by not knowing which one to learn. However, identifying the most useful PVs is essential for the purposes of learning a language. The frequency is usually a good criterion to determine the usefulness, for which, in general, the verbs that are more frequent are the most used than those that have less frequency.

Corpus-based research must continue to explore ways to identify, label, and preserve the meaning senses of multiword items, as well as single word items. Only then will we be able to more accurately describe the natural language of the relationships between linguistic forms and their context-sensitive meanings.

2.3.1 Language learner corpus

According to Römer (2011) since 1980s, corpus research has revolutionized linguistic research, and also had an impact on second language learning and teaching. It covers indirect and direct applications, such as syllabus

and materials design as well as second language classroom. In this study, we could realise that corpus samples led to more successful results than traditional pedagogical resources, such as bilingual dictionaries or usage manuals. These descriptive empirical studies demonstrate that corpora complement existing reference works, and that they may provide information that a dictionary or grammar book may not provide.

Corpus resources and methods have great potential to improve pedagogical practice and that corpora can be used in a number of ways, indirectly, to inform teaching materials and reference works, and directly, as language learning tools and repositories for the design of teaching activities. The purpose of this approach is to describe the potential of pedagogical corpus applications and to provide ideas on what can be done to foster direct and indirect corpus use in L2 teaching and to bring corpora and corpus tools to a larger group of learners and teachers.

According to Dutra et al. (2022) the advantages of building this type of corpus have to do with the understanding of learners' needs as well as for pedagogical decision-making. This serves to reinforce the claim that compiling and observing a learner corpus can be an invaluable resource for language teachers keen to enhance their understanding of learners' output, enabling them to make more accurate pedagogical decisions for their classes. The process of building an academic learner corpus is very important because it allows us to

evaluate the learners' productive skills and at the same time decide how to improve their performance by taking tailored decisions.

2.4 Second language writing

One of the essential competencies for second language learners to achieve proficiency in writing is the ability to produce longer texts. This ability would allow to exhibit appropriate meta-discourse features, varied use of sophisticated vocabulary and syntactic structures, and effective organization of ideas and incorporation of external sources (Johnson, 2017).

According to Godwin-Jones (2022), second language writing may be defined as “the act of expressing oneself in written form in a language other than one’s native tongue (L1)” (p. 1). This author also suggests that learning to write in a new language is “generally considered to be one of the most challenging aspects of second language acquisition (SLA) (Ibid). This might mean that acquiring proficiency in a new writing system will undoubtedly require gaining some understanding of the grammar and acquiring a foundational vocabulary in the unfamiliar language.

In agreement with Graham et al. (2012), effective writing instruction entails guiding students to be aware of their readers and employ interactional strategies, as well as understanding the background and rhetorical conventions expected by these readers. Teachers should encourage students to think from the perspective of readers, raise their awareness of second language conventions, and help them

navigate the use of others' ideas and texts in their own writing, considering cultural differences in these conventions (Hashemian & Heidari, 2013). Research has shown that focusing learners' attention on areas such as vocabulary, grammar, and discourse positively impacts their second language writing to better reflect these conventions.

The effectiveness of teacher correction and feedback depends on individual learner characteristics, such as current proficiency, cognitive style, learning experiences, and attitudes toward the teacher and the class. Van Waes and Leijten (2015) found that writing fluency improves as the writer's language experience increases, suggesting that along with guiding students in effective writing strategies, ample opportunities for second language writing practice should be provided to enhance processes such as lexical retrieval.

As noted by Barekat and Baniasady (2014), writing practice contributes to vocabulary development. The use of vocabulary in writing, particularly multiword units like phrasal verbs, enhances the quality of written texts, thereby maximizing vocabulary learning opportunities and aiding learners in the acquisition of new words. This highlights the positive impact of writing on vocabulary development, underscoring the importance of developing a robust vocabulary repertoire, including phrasal verbs, for achieving writing proficiency.

2.4.1 Sex differences in language use

Sex¹ differences in language performance are debated in both behavioural and neuroscience studies, which often provide results indicating female superiority; however, it is a controversial topic. Most previous studies regarding sex differences have found such differences but cannot provide a comprehensive understanding of the details of and mechanisms underlying the pertinent brain functions. On their research, Sugiura et al. (2018) realized that female participants used a myriad of cognitive functions when analysing the correct use of sentences. This is mainly due to females' working memory (WM) use was higher than that of males'. This allowed females to outperform males in certain language tasks such as identifying the wrong sentences. During L2 sentence listening, males generally relied on the prefrontal region implicated in rule-based syntactic processing, suggesting that they tend to focus on processing grammaticality, or phrase structure, while females generally depended on a broad posterior language-related region involved in phonology, semantics, and sentence processing, suggesting that females process sentences by consolidating these multiple

¹ Viewing sex as a fixed, bio polar category, which could be correlated with language and language learning. By contrast, other studies have investigated the relationship between gender and speech patterns, defining gender as a dynamic characteristic grounded in social activities and contexts (Główka, 2014).

aspects, which lead to believe that there are indeed differences between male and female students in language processing.

In another study, Ishikawa (2015) has shown that female students tend to focus on the psychological processes rather than scientific facts, as males do, by using the verb think. Females tend to use language to develop a rapport with other people. Male students use more nouns related to certain social and economic activities and scientific phenomena associated with a topic. These aspects shed light on the fact that men and women are different not only because of their biological features but also because of the way they use and understand language.

According to Główna (2014) female students achieved significantly better results than male ones. These results support the sociolinguistic finding that female students are more open to new linguistic forms than males. These findings were not reflected in students and teachers' opinions who did not deny these sex differences. This author proposes to employ different teaching strategies in order to diminish the sex gap which would improve the academic performance of males.

In their neuroscientific research, Wucherer and Reiterer (2016) found that, by investigating the sex gap in phonetic imitation ability and grammar learning, male and female possess specific language talents or aptitudes in different areas. Regardless of their other co-variables (mother tongue, age, IQ, educational vitae and linguistic background) they still had differences on the phonological use

(males) and grammar performance (females). They also showed that in various languages tasks male used their left-brain hemisphere, conversely females seem to use distinct areas for distinct abilities, spread widely across hemispheres, thus relying on a bilateral activation.

2.5 The International Baccalaureate Programme

Vocabulary knowledge and use, and particularly multiword units like phrasal verbs, play an important role in learning environments where English as a second or foreign language is used as the main communication vehicle. This is the case of International Baccalaureate (IB) institutions, where English is used every day to communicate, explore literature and achieve learning goals other than the language itself (International Baccalaureate, 2017). These schools have a special emphasis on personal and intellectual development, discipline, skills, and challenging standards, but also on creativity and flexibility (Carder, 2006).

The IB is concerned that students develop a personal value system that will “guide their own lives, creating thoughtful members of local communities and the larger world” (Carder, 2006, p. 115). According to their philosophy, a second language is essential for students to be able to participate fully in the social and cultural aspects of school life and reach their potential in the academic use of language in the school curriculum (International Baccalaureate, 2017). Having

these priorities in mind, the IB programme relies on the acquisition of vocabulary as a consequence of the learners' exposure to the target language. Learners are expected to absorb the language over the years through communicative tasks and contact with authentic material, rather than through deliberate teaching of grammar and vocabulary.

2.5.1 Incidental Vocabulary Learning

This understanding of the role of the second language in IB schools is aligned with how English is learned inside the classroom. In this regard, Hirsh (2015) points out that learning new words can occur directly or incidentally. Although Nation (2021) indicates that both types of learning are important, he states that the three conditions that increase the quality of vocabulary learning are noticing, spaced retrieval, and generative use. Noticing is paying attention to a particular word; spaced retrieval emphasizes the value of remembering the meaning of the new word at a later time, and generative use refers to using a newly learned word productively in writing or speaking. Considering this, what happens in the L2 classroom can be an opportunity for these three conditions to occur and quality learning to take place, even in environments where literature and extensive reading and listening are the excuse for learning and achieving higher-order goals.

In order to achieve such aims, using longer texts as reading material for promoting incidental vocabulary acquisition meets the requirement of ensuring a

large quantity of comprehensible input for vocabulary growth (Ding & Lee, 2022; Reynolds, 2015). Previous research provides evidence that reading authentic novels can benefit L1 English (L1E) readers' incidental acquisition of vocabulary and supports the premise that L2 English (L2E) readers can acquire words incidentally through reading lengthy texts (Hatami, 2017; Reynolds, 2016). Lee and Ding (2022) aimed to investigate the effect of word-related factors on both L1E and L2E readers' incidental vocabulary acquisition through the reading of authentic novels. Results showed that frequency-related factors significantly and positively related to the word meaning recall test scores of the L1E and L2E readers. Among the factors, dispersion was the only significant predictor of the acquisition of the productive word knowledge of unknown words for both groups, with the more evenly distributed words having higher meaning recall scores. This finding supports the value of the role played by the distribution of occurrence in word learning extending it to both L1E and L2E incidental vocabulary acquisition through reading.

It is noteworthy that most of the studies referenced in this section have primarily involved university or adult learners, and the data collection contexts differ from the IB program setting. Consequently, the findings of the present study hold the potential to bridge a critical gap in this area, as it does not only try to reveal how much of the receptive knowledge is transferred to the written

production, but also shed light to the writing process in the field of vocabulary and multiword units by IB school students.

Thus, following the previous body of evidence, we were interested in knowing how 9th and 10th grade students at an immersion school used phrasal verbs in their written compositions. We were also interested in knowing how these students used phrasal verbs in their written compositions according to variables such as age, sex, school level, and language proficiency. The next section will present the methodological aspects of this research.

III. METHODOLOGY

3.1. Research questions

RQ1: To what extent do high school students use phrasal verbs in their written compositions?

RQ2: What is the frequency of phrasal verbs used in high school students' written compositions, according to age, sex, school level, and language proficiency?

3.2. Hypothesis

H1: The participating students use a limited number of phrasal verbs in their written compositions, regardless of their frequency.

H2: The participating students use a limited range of phrasal verbs in their written compositions, often limited to high frequency ones, regardless of age, sex, school level, and language proficiency.

3.3. Objectives

Main objective

To determine the extent to which phrasal verbs are used in IB high school students' written compositions, according to age, sex school level, and language proficiency.

Specific objectives

- a) To identify all occurrences of phrasal verbs in the students' written compositions in relation to the PHaVE List.
- b) To determine the frequency of phrasal verbs in the students' written compositions in relation to the PHaVE List.
- c) To characterise the use of phrasal verbs and variables such as age, sex, school level, and language proficiency.

3.4 Study design

The current study is considered as a cross-sectional study (Ato et al., 2013) as it looks at data at a single point in time. This type of study is observational, and it is considered as descriptive research because it cannot determine the cause of something, and it does not manipulate variables. It contributes to having a picture of a population at a certain time.

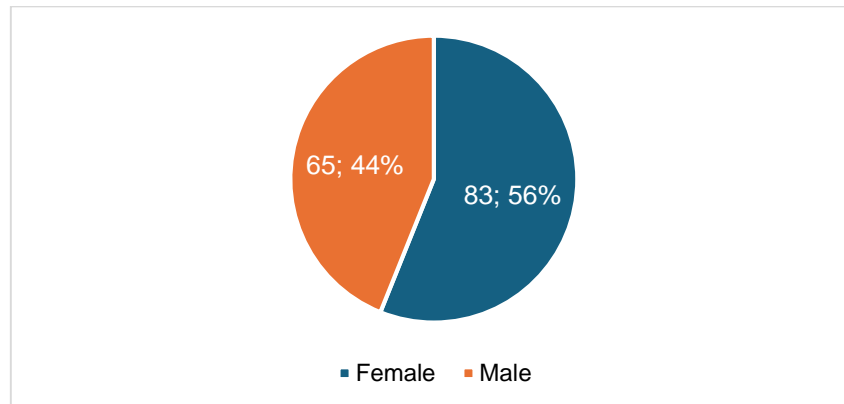
3.5 Corpus of the study

The language learner corpus used in this research study comprises a collection of 148 texts, written by ninth and tenth grade B2 students attending an English language immersion school in Concepción. These texts were made available to the researcher as part of a previous research project. This sample consists of 65 male and 83 fe

students (Figure 1), aged between 14 and 16.

Figure 1

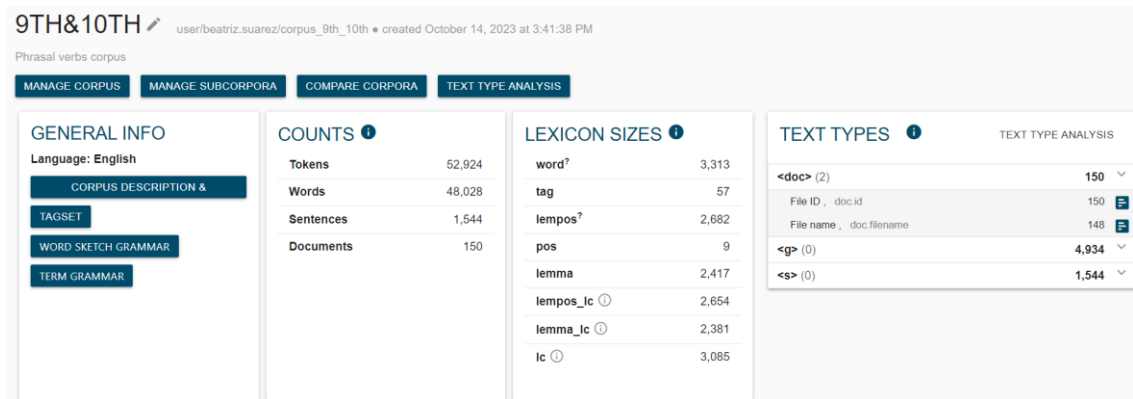
Distribution of participants by Sex



Given that the use of phrasal verbs is often avoided by English as a Foreign Language (EFL) learners, the aim of this study was to investigate whether these students spontaneously incorporated phrasal verbs into their writing when asked to freely express their personal perspectives on the advantages and disadvantages of studying from home during the pandemic. The students were not provided with specific instructions regarding vocabulary or idiomatic forms to use in their compositions, as the intention was to avoid influencing their writing style. In analysing these compositions, particular attention was given to the phrasal verbs employed by the students. The Sketch Engine and ADELEX software were utilized to analyse their use.

Figure 2

View of the Corpus description Dashboard of Sketch Engine



3.6. Choosing the items

The decision was made to focus the search according to the PHaVE List (Garnier & Schmitt 2015), consisting of the 150 most frequently used phrasal verbs in the English language. This decision was based on two main factors. Firstly, these 150 phrasal verbs already account for 62.95% of the total 512,305 occurrences of phrasal verbs in the British National Corpus (BNC). This indicates that learning this limited number of verbs can yield significant benefits in terms of efficiency and effectiveness. Secondly, the aim of the list is to provide a practical and user-friendly taxonomy of phrasal verbs, making it a valuable resource for learners and educators alike.

3.7. Data Processing

Three different procedures were carried out in order to collect the data that was statistically analysed, and later presented in the results chapter.

- a) Manual processing and analysis. A total number of 148 written compositions were individually analysed by the researcher to find the phrasal verbs matched against the PHaVE list, as well as others that were placed off list. Each phrasal verb was highlighted, to be tagged (Figure 2), and then placed on a spreadsheet in excel. Each identified phrasal verb was tabulated under a participant code. There was a maximum of four occurrences per student. Each composition was made up of approximately 300 words, then more than 40 thousand words were read to allow the manual elicitation of the target vocabulary items.

Figure 3

Manual corpus analysis

320 words

PVs: It all **comes down to** → reduce itself to one particular thing that is the most important or essential matter

(20.5%)

Hang out with your friends

Stresses us out

It is **really easy** to assume that school is in fact easier online, and for some people it really is. Many of my friends have actually told me that for them it is nice to have their phone in recess, or being able to be on their bed while they're in class, but if we really think about it, it all **comes down to** what each one of us likes the most. From my perspective, I would say studying online has its perks, like being capable of re-watching the class afterwards (many schools record their classes), or even being able to google questions or answers, but it also has its disadvantages like not being able to establish relationships with new teachers, or de lack of communication in class. I would also say that your mental health affects the way you learn because if you are not motivated to go to class or to participate, you **can't** expect the same learning experience from all the students.

This pandemic has affected us all in different ways, and many people have realized this by not being able to get together as a family, not being capable **to hang out with** your friends, or even not having the chance to take your dog for a walk. And as a student what most affects us is not going to school and that **stresses us out** because if we go back we could bring the virus home or spread the virus to our families, that's why it is very important to take care and be conscious. We are in a difficult situation because if we go back we learn, which **is a benefit** for us, but at the same time, we risk our families health -if they are not vaccinated, so it's an impossible choice, and I don't think we are capable of deciding so that's why our parents take the lead and decide for us.

b) ADELEX Analyser Software processing and analysis. This software was the least accurate in terms of counting the number and frequency use of the phrasal verbs, but the most precise to determine the frequency band each PV belonged to. Each text of the corpus was copied and entered into a text box to be analysed by the profiler. After the analysis was done, the results showed a limited number of multiword units on the software's formulaic profile (Figure 4).

Figure 4

ADELEX analyser software multiword analysis

MULTI-WORD UNITS by base list								
BASE LIST 1			BASE LIST 2			BASE LIST 3		
BASE WORD	TYPE	FREQUENCY	BASE WORD	TYPE	FREQUENCY	BASE WORD	TYPE	FREQUENCY
	is_not_going_to	1		think_about	1		at_the_same_time	1
going to	-----	1				at the same time	-----	1
	in_fact	1	think about	-----	1	go back	go_back	2
in fact	-----	1					-----	2
	so_that	1						
so that	-----	1						

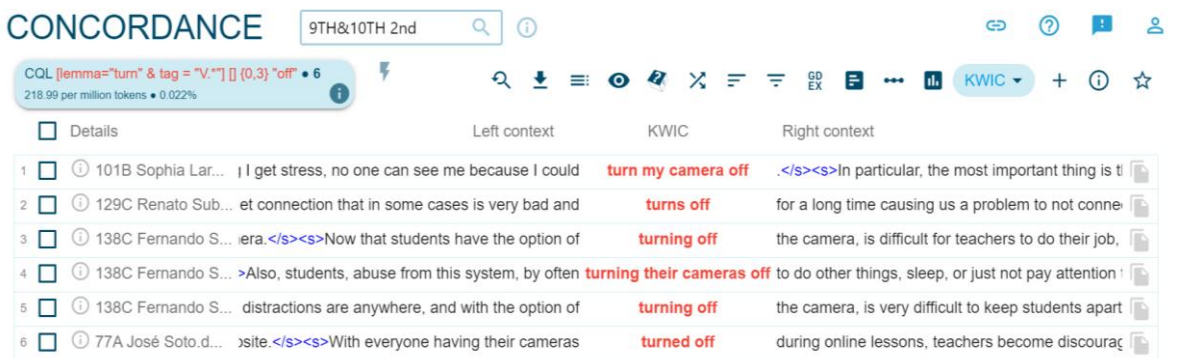
c) Sketch Engine Software. In this software, which was the most accurate, an algorithm had to be used in order to obtain the correct number of phrasal verbs existing in the total corpus (148 written compositions of an average of 300 words each). This algorithm works by means of a special code or query language used to search for complex grammatical or lexical patterns.

This can be translated into the following: to find a main verb for example, with the lemma “turn”, having 0 to 3 words between that main verb and the particle or the preposition “out” from phrasal verbs that are known as separable (others are not). This is known as CQL (corpus query language) and was set as:

```
[lemma="turn" & tag= "V.*"] [] {0,3} "out"
```

Figure 5

Search result of PVs in the Sketch Engine software



3.8. Data Analysis

The data analysis process involved calculating the ratio of phrasal verbs used to the total number of words. This ratio, known as the incidence, represents the frequency of phrasal verbs in relation to the words used. Additionally, the relationship between the use of phrasal verbs and variables such as age, sex, and school level (including language proficiency) were examined to determine the association between phrasal verb usage and these factors. The data analysis consisted of two main stages. Firstly, the 150 phrasal verbs from the Garnier and

Schmitt (2015) Phrasal Verb Pedagogical List, known as the PHaVe List, was utilized. This list provides information on the occurrence proportion of each phrasal verb, along with definitions and example sentences. Secondly, the 150 phrasal verbs were incorporated into the Sketch Engine software, developed by Lexical Computing Limited CZ (2003), and ADELEX (Moreno & Perez, 2010). This online textual analysis tool allowed for the analysis of any language corpus provided as input. Subsequently, the collected data underwent descriptive and inferential analyses using appropriate statistical tests.

The data, which after having been analysed manually and semi-automatically, was automatically analysed through Sketch Engine software, which was the most accurate tool for phrasal verbs counting in the students' written compositions. Then, the incidence of use by 10,000 written words (incidence standardization) was associated to age, sex, and school level (including proficiency level) through the Poisson Regression as an association measure incidence ratio (IRR). All the confidence intervals had a 95% level and a statistical significance of a 0.05% was used. The data was processed through the program STATA 18.0 version.

IV. RESULTS

In this chapter, the results will be presented and discussed in order to examine our variables, which are, firstly the phrasal verbs use in general, and secondly, the phrasal verbs use according to age, sex and school level (including proficiency level). By doing a more in-depth analysis of the variables, we can realise that both research questions can be answered as there is evidence to ascertain that 54.73% of PVs of the total of 150 verbs of the PHaVE list are used in the language learner corpus under study. Other studies, on the other hand, such as Garnier and Schmitt (2016), show that only 40% of these verbs are used in a task that was not freely productive, but controlled productive, since “clues” were given in a certain way so that students could identify what PVs should be used in the gap-filling exercises. In the present study, on the contrary, no hint or guide was given for the students to complete the task or use the PVs so, for this B2 participants, i.e. upper intermediate level, this is an encouraging outcome, which only shows that deliberate teaching of PVs should be fostered.

On the other hand, statistically significant differences were found between sex, but not in age, school level nor English proficiency, as all participants had the same English level (B2) and belonged to very similar school grades (9th and 10th). On the whole, female participants showed a greater amount of use of PVs than that of their male counterparts.

4.1 Phrasal verb use

After analyzing the use of phrasal verbs in both 9th and 10th grades, we applied the Fisher exact test and found no statistically significant difference between the grades or sexes. Phrasal verbs were used 34.46% of the compositions, while in 65.54% of the texts, these were not used (Figures 6). When comparing the two grades, it is evident that 10th-grade females used phrasal verbs more frequently than their male counterparts (44.19% vs. 30.3%), showing a tendency that favours the females, although not statistically significant (Figures 7).

Figure 6

Phrasal verbs use in all students

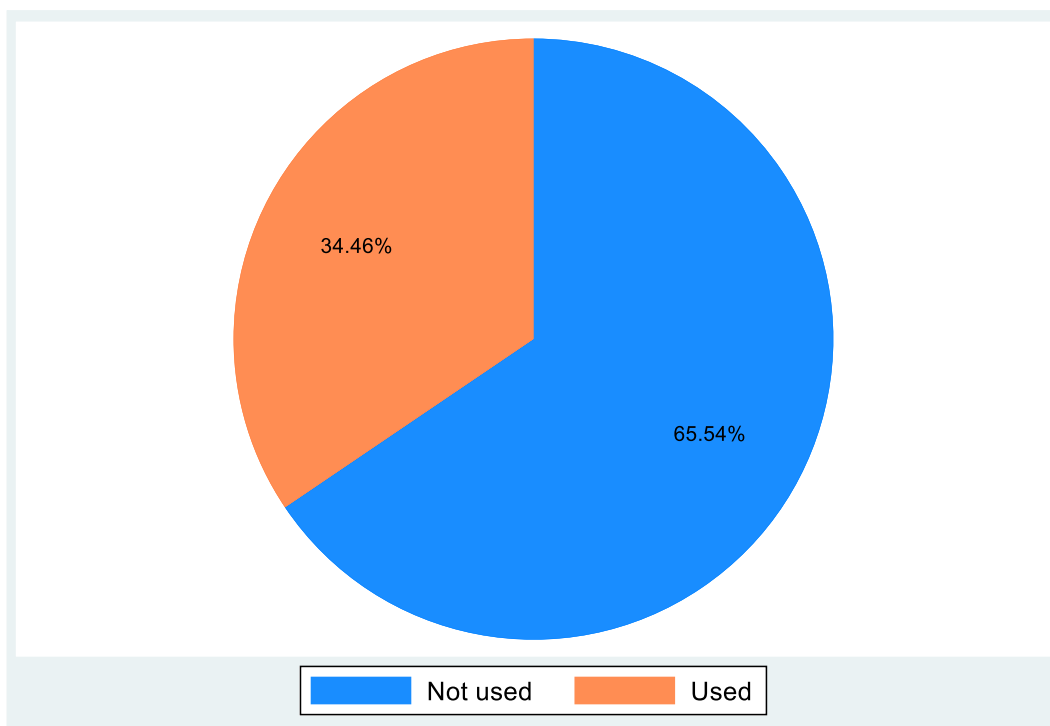
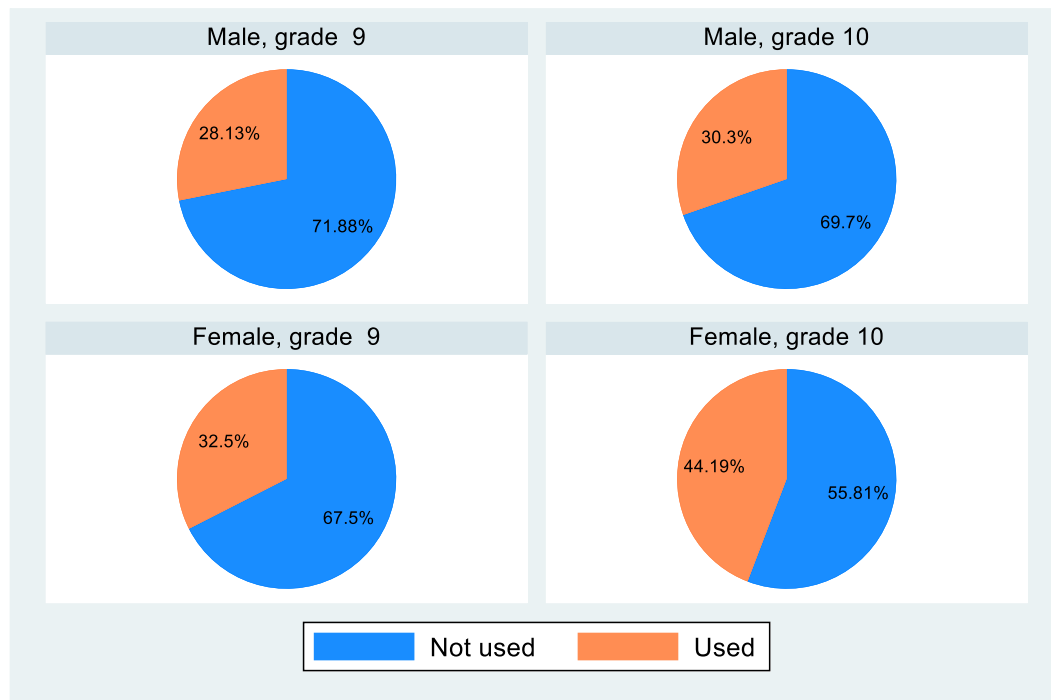


Figure 7

Phrasal verbs use according to sex and grade



4.2 Most used phrasal verbs in relation to the PHaVE List

To gain a comprehensive understanding of the phrasal verbs used and examined in the present study, it is important to contextualize that the nature of the composition of the language learner corpus centred around advantages and disadvantages of remote study during the pandemic. Within this thematic framework, the top five most frequently utilized phrasal verbs are presented as follows. The first most used PV was "wake up," showing a total of 32 occurrences. Notably, in a single composition, this verb recurred four times. Similarly, three

occurrences were observed in another composition, while six compositions featured the verb twice. In 13 compositions this PV was utilized once, totalling the aforementioned tally.

Following "wake up," the second most utilized phrasal verb was "go out," which featured twice in two compositions and once in nine compositions, amounting to 13 instances overall. Subsequently, "go back" emerged as the third most used phrasal verb, with two occurrences in two compositions and a single appearance in four compositions, yielding eight instances. The fourth position was occupied by "go through," occurring once in seven compositions, resulting in a cumulative total of seven occurrences. Finally, "go on" secured the fifth place, with two occurrences in one composition and a single occurrence in four texts, giving a total of six occurrences, as shown in Table 1.

Evidently, the thematic focus of the compositions greatly influenced the use of these phrasal verbs. Contextualized within the confines of home and the restrictions imposed by the pandemic, the prevalence of verbs such as "wake up" (potentially at unconventional times), "go out" (indicative of being outdoors), "go back" (pertaining to a return to physical schooling), "go through" (referring to navigating the pandemic-induced circumstances), and "go on" (expressing a desire to mitigate the effects of the pandemic) is readily apparent within the corpus.

Table 1*First five most used phrasal verbs per student in each composition*

Phrasal verb	Occurrence	Texts	Total occurrence
1. Wake up	4	1	4
	3	1	3
	2	6	12
	1	13	13
		127	0
Total		148	32
2. Go out	2	2	4
	1	9	9
	0	137	0
Total		148	13
3. Go back	2	2	4
	1	4	4
	0	142	0
Total		148	8
4. Go through	1	7	7
	0	141	0
Total		148	7
5. Go on	2	1	2
	1	4	4
	0	143	0
Total		148	6

Among the lowest five entries on the list of the ten most utilized phrasal verbs per student in each composition were the following: the phrasal verb "come back," which appeared twice in one composition and once in three others, amounting to a total of five occurrences. Similarly, the verb "put on" occurred once in five compositions, yielding a total of five occurrences. Additionally, the verb "turn off" was observed three times in one composition and once in two others, also totalling five occurrences. Conversely, the verb "end up" was present once in four compositions, paralleling the frequency observed with the phrasal verb "get up," as indicated in Table 2. Again, the sense in which these PVs are used mirrors

the circumstances the participants are living in, reflecting actions that they perform on a regular basis with verbs like come back (evoking a return to previous times), put on (signifying dressing or donning more comfortable attire), turn off (denoting the act of powering down their devices), end up (reflecting the outcomes of their situation,), and get up (every morning at different times). These phrasal verbs adequately reflect the essence of their experiences as they navigate prolonged periods of lockdown.

Table 2

Second five most used phrasal verbs per student in each composition

Phrasal verb	Occurrence	Texts	Total occurrences
6. Come back	2	1	2
	1	3	3
	0	144	0
Total	0	148	5
7. Put on	1	5	5
	0	143	0
Total		148	5
8. Turn off	3	1	3
	1	2	2
	0	145	0
Total		148	5
9. End up	1	4	4
	0	144	0
Total		148	4
10. Get up	1	4	4
	0	144	0
Total		148	4

4.3 Types and tokens by sex

When examining the use of words in the writing of the compositions, it is possible to observe that there are notable differences in the way both sex groups

use them, Table 3 shows the number of phrasal verbs by type, which is the number of unique word forms, in relation to the total token. The total word count of the analysed language learner corpus was 47,660 tokens. When analysing according to sex, we observed that females had 79 types and 97 tokens of PVs, while males had 40 types and 48 tokens. Which shows that females, practically doubled the males' phrasal verb type, and more than double them in PVs tokens.

Table 3

Types and tokens by sex

Sex	Total token	PVs Type	PVs Token
Female	27490	79	97
Male	20170	40	48
Total	47660	119	145

4.4 Phrasal verbs occurrence and frequency in relation to the PHaVE List

Table 4 shows the frequency of phrasal verbs used in the learner corpus in relation to the PHaVE list. Here, it is shown that the verb “wake up”, with an occurrence of 22 in females and 10 in males, is in the first place in this corpus, but in the PHaVE list it has the 35th place. It is followed by “go out” with an occurrence of 9 in female students and 4 in male and has the second place in the corpus occupying the 8th place in the PHaVE list. The verb “go back” has an occurrence of 6 in females and 2 in males, and it has the 3rd place in the corpus and the 5th on the PHaVE list. Then, the verb “go through”, that has an occurrence

of 5 in females and 2 in males, corresponds to the 4th place in the corpus, but it is on the 76th place in the PHaVE list. The verb “go on” has an occurrence of 5 in females and 1 in males and it is in the 5th place of the corpus, and the 1st place of the PHaVE list. The verb “come back” has frequency of 1 in females and 4 in males and it is on the 6th place in the corpus and the 106th place in the PHaVE list. The verb “turn off” has an occurrence and has the 8th place in the corpus and the 87th place in the PHaVE list. The verb “put on” has an occurrence of 5 in females and no occurrences in males, and it is in the corpus 7th place and in the 3rd place in the PHaVE list. The verb “end up” has an occurrence of 1 in females and 4 in males and is in the 9th place of the corpus and in the 23rd place of the PHaVE list. Finally, the verb “get up” has an occurrence of 1 in females and 3 in males, and it is on the 10th place of the corpus and has the 18th place in the PHaVE list. The variance in frequency between both corpora—the present study’s language learner corpus and the one utilized for constructing the PHaVE list—stems from differences in their respective range. In the former, texts revolve around a consistent topic or subject area, while in the latter, a diverse array of topics and contexts featuring phrasal verbs are included.

Table 4

Frequency and occurrence of most used phrasal verbs by sex

Phrasal verb frequency in the learner corpus	Phrasal verb frequency in the PHaVE List	Female*	Male*
1 st Wake up	35 th	22	10

2 nd Go out	8 th	9	4
3 rd Go back	5 th	6	2
4 th Go through	76 th	5	2
5 th Go on	1 st	5	1
6 th Come back	106 th	1	4
7 th Put on	3 rd	5	0
8 th Turn off	87 th	1	4
9 th End up	23 rd	3	1
10 th Get up	18 th	1	3

* *Note.* Occurrences according to sex

4.5 Incidence of phrasal verbs use by sex

The concept of "incidence" in the use of phrasal verbs in relation to the total number of words used in a text can be elucidated through its calculation as a ratio. Specifically, the incidence reflects the frequency or occurrence of phrasal verbs within a text relative to the overall size of the text, represented by the total number of words. For instance, if we have a text containing 1000 words and within that text, there are 20 phrasal verbs used, the incidence would be calculated as follows:

$$Incidence = \frac{\text{Number of Phrasal Verbs divided by}}{\text{Total Number of Words}}$$

Using the example:

$$Incidence = \frac{20}{1000} = 0.02$$

This indicates that, on average, there are 0.02 phrasal verbs used per word in the text. This calculation helps in gauging the density or prevalence of phrasal verbs within a given body of text, providing insights into their usage patterns and linguistic characteristics within this context.

When considering the use of PVs more specifically, particularly from the sex perspective, it is possible to observe some differences. As can be seen in Table 3, the ratio between the number of phrasal verbs used and token (total number of words), in male and female students, shows that the total number of female students (83 compositions) had an incidence of 1.48 with a standard deviation of 0.26. Then, the *p* value given by the Poisson Regression was of 0.026, which means this is a statistically significant difference between both groups. This evidence supports the fact that female participants' phrasal verb use is greater than that of their male counterparts.

Table 5

Incidence of phrasal verbs use by sex

Sex	n	Incidence (SD)
Female	83	1.48 (0.26)*
Male	65	0.67 (0.12)

p = 0.026. *Note.* The *p* value, related to the Poisson Regression is significant; there is a high number of female students who use the phrasal verbs over that of male ones.

4.6 Incidence of most used phrasal verbs by sex

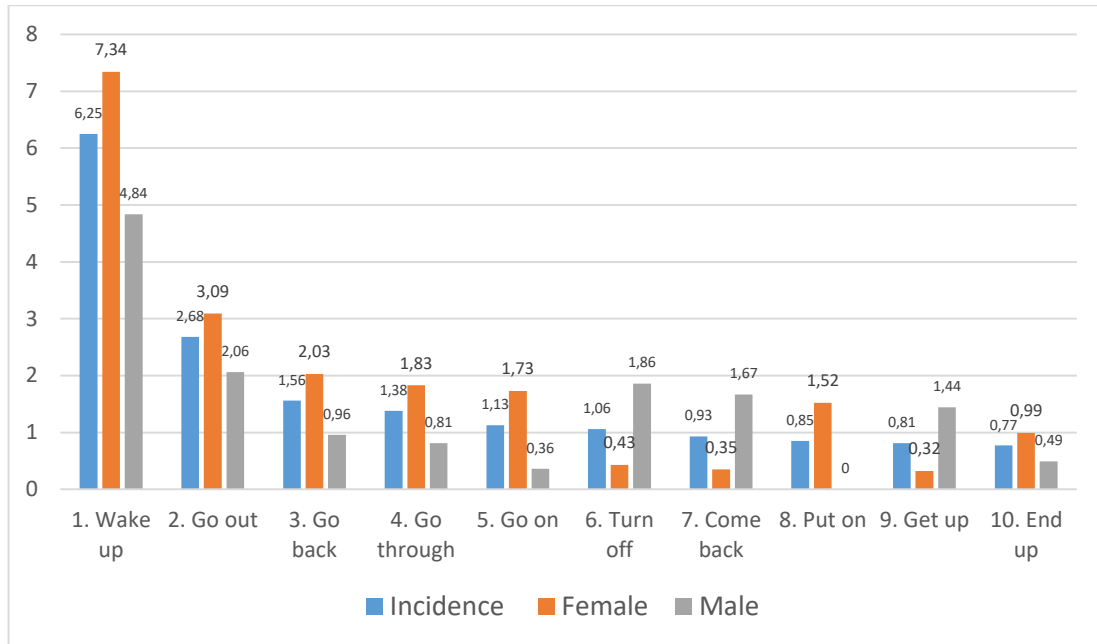
When taking into consideration the incidence of the ten most used phrasal verbs in the present study, the general incidence is observed in blue, in Figure 6.

For the verb “wake up” the incidence was of 6.25, “go out” 2.68, “go back” 1.56, “go through” 1.38, “go on” 1.13, “turn off” 1.06, “come back” 0.93, “put on” 0.85, “get up” 0.81 and “end up” 0.77.

The incidence by sex of the most used PVs in females (shown in orange) were, “wake up” (7.34), “go out” (3.09), “go back” (2.03), “go through” (1.83), “go on” (1.73) “put on” (1.52), and “end up” (0.99). Males (in grey), on the other hand, had a grater incidence in “turn off” (1.86), “come back” (1.66), and “get up” (1.44).

Figure 8

Incidence of most used phrasal verbs by sex



4.7 Presence of phrasal verbs in compositions by sex

When writing in a foreign language, numerous factors must be considered, with vocabulary usage and, particularly, the incorporation of formulaic language such as phrasal verbs posing significant challenges. Many learners tend to avoid the use of phrasal verbs due to various reasons, including unfamiliarity, incomplete knowledge, or concerns regarding grammar. In the analysis of the presence of phrasal verbs in the 148 compositions according to sex, it was found that 81 of these compositions (54.7%) featured their usage. Among these, 48 (57.8%) were written by females and 33 (50.8%) by males. Conversely, 67 compositions (45.3%) lacked the presence of phrasal verbs, with 35 (42.2%)

authored by females and 32 (49.2%) by males. These results are detailed in Table 6 and illustrated in Figure 9.

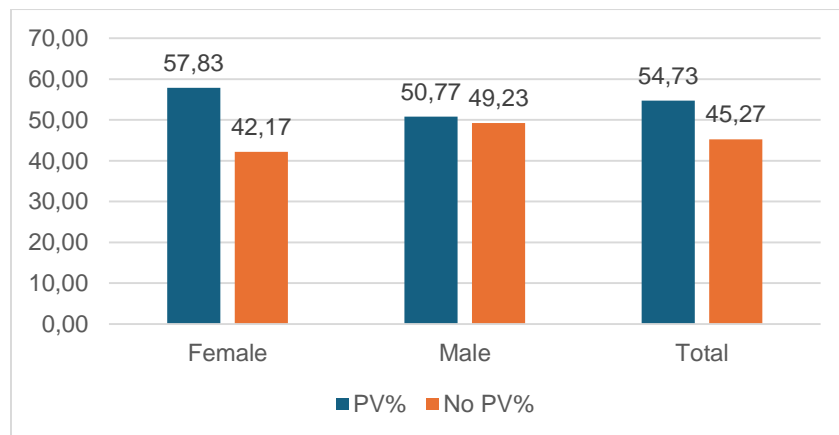
Table 6

Presence of phrasal verbs in compositions by sex

Sex	PVs in compositions (%)	No PVs in compositions (%)	Total
Female	48 57.83	35 42.17	83
Male	33 50.77	32 49.23	65
Total	81	67	148

Figure 9

Phrasal verbs use by sex (%)



4.8 Phrasal Verbs Off-list

It is important to remember that the PHaVE list includes the top 150 high-frequency phrasal verbs that students and teachers can focus on, for teaching and learning purposes; it does not then include all phrasal verbs. So, in order to know whether these compositions contained other phrasal verbs than those included in this high-frequency list analysis was done to determine their use in this particular learner corpus. This list of 42 phrasal verbs was not included in the PHaVE list, but they were identified as part of the processing of the corpus. As Table 7 shows, there is no statistically significant difference between female and male use. However, in terms of variety in the phrasal verbs' use, from the 42, there are some considered in the ADELEX analyser formulaic profile as part of band N°4. This band shows that the verb "turn on" for example, is a verb that is not part of the first most used multiword units (MWUs) but from the bands 1 to 7, it occupies the fourth place in the frequency band. It shows that this verb is not as common as "go on" that effectively belongs to the PHaVE List and shows a high frequency, being part of band 1 (Figure 8).

Figure 10

Multiword units frequency bands

MULTI-WORD UNITS by base list								
BASE LIST 1			BASE LIST 3		BASE LIST 4			
BASE WORD	TYPE	FREQUENCY	BASE WORD	TYPE	FREQUENCY	BASE WORD	TYPE	FREQUENCY
a lot	a_lot_of	4	lots of	lots_of 1	1	thanks to	thanks_to	1
	-----	4		-----	1		-----	1
have to	have_to	1				turn on	turn_it_on	1
	-----	1					-----	1
rather than	rather_than	1						
	-----	1						
	there_has_also_been	1						
	there_are	2						
	there_is	6						
there is	-----	9						

In this Off-list we can notice that the incidence is ordered from highest to lowest. This incidence corresponds to the ratio between total number of words and total number of utilized phrasal verbs. Also, as a result, it has a score of 4.2 in women and 2 in men on the verb “turn on”. We could also observe that female occurrence was 12 in the verb “turn on” and 4 in men. Being the total average token 331 in women and 310 in men, which meant a difference of 21 between the tokens of both sexes. Then we have the verb “look for” which in men is used 4 times and only twice in women, the same happens with the verb “calm down” and “lock up”, which in men has 2 occurrences but none in women. The verbs “hurry up” and “start off” have the same occurrence in men and women (1), meanwhile the verbs “force into”, “freak out”, “log onto”, and “get into” occur once in men and

none in women. Verbs such as “deal with” have an occurrence of 3 in women and 1 in men. “Sort through”, “take away”, and “dress up” has one occurrence in men and 0 in women.

Table 7

Phrasal verbs Off-list

Off-list phrasal verbs	Male		Female	
	Incidence (65 - 43.9%)	Occurrences 310 tokens 144 types	Incidence (83 - 56.1%)	Occurrences 331 tokens 157 types
1. turn on	2,055	4	4,285	12
2. look for	1,907	4	1,444	2
3. calm down	0,968	2	1,178	0
4. lock up	0,924	2	1,022	0
5. hurry up	0,606	1	0,770	1
6. start off	0,587	1	0,733	1
7. force into	0,564	1	0,722	0
8. freak out	0,496	1	0,712	0
9. log onto	0,496	1	0,597	0
10. get into	0,492	1	0,486	0
11. deal with	0,488	1	0,403	3
12. sort through	0,484	1	0,403	0
13. take away	0,484	1	0,385	0
14. dress up	0,481	1	0,385	0
15. hand in	0,469	1	0,379	4
16. start up	0,465	1	0,375	0
17. add up	0,461	1	0,374	0
18. come by	0,412	1	0,368	0
19. look at	0,361	1	0,366	0
20. miss out	0,329	1	0,366	0
21. cut out	0	0	0,350	1
22. stress out	0	0	0,349	1
23. go away	0	0	0,347	2
24. help out	0	0	0,346	2
25. hook up	0	0	0,304	1
26. look after	0	0	0,304	1
27. lock in	0	0	0,252	1
28. hold out	0	0	0,252	1
29. go by	0	0	0	1
30. try on	0	0	0	1
31. fall into	0	0	0	1

32. turn into	0	0	0	3
33. zone out	0	0	0	2
34. move around	0	0	0	1
35. get together	0	0	0	1
36. cheer up	0	0	0	1
37. get over	0	0	0	1
38. put into	0	0	0	1
39. ask for	0	0	0	2
40. ramble on	0	0	0	1
41. have on	0	0	0	1
42. search for	0	0	0	1

There are 22 verbs in this list that are not being used by men but are by women, from these verbs the ones that have more occurrences in women are “go away”, “help out”, “zone out”, “ask for” each of them with 2 occurrences and “turn into” with 3 occurrences. The analysis shows that out of the 42 phrasal verbs, males used 20 (47.6%), while females used 36 (85.7%). This indicates a higher proportion of usage among female students.

Table 8

Off-list verb use by sex

Sex	Used	Not used	Total
Male	20	22	42
Female	36	6	42

The chi-square test results reveal a significant difference in the use of phrasal verbs between genders (Chi-square value= 12.05; p-value= 0.00052; Degrees of freedom= 1). The expected frequencies were 28 for both genders in terms of using phrasal verbs and not using them. The observed frequencies differed significantly, with females using a higher number of phrasal verbs (36)

compared to males (20), and males not using a higher number of phrasal verbs (22) compared to females (6).

Table 9

Off-list types and tokens by sex

Phrasal Verbs	Male	Female
Total tokens	310	331
Total types	20	36

The token and type frequencies were total tokens: females used a total of 331 tokens, while males used 310 tokens. Total Types: females used 157 types of phrasal verbs, while males used 144 types. As for the frequency distribution, the frequency distribution of individual phrasal verbs further illustrates gender-based preferences. For example, "turn on" was significantly more frequent among females (12 occurrences) compared to males (4 occurrences). Phrasal verbs such as "deal with" were used by both genders but with varying frequencies, suggesting different patterns of usage.

V. DISCUSSION

After presenting the results in the previous chapter, the discussion of those findings is presented here, trying to answer the research questions formulated at the beginning of this research study. This discussion was accomplished considering the present study findings, findings of similar studies previously presented on the theoretical framework, and current evidence. Firstly, we will try to answer the first question of this study related to the extent to which high school students use phrasal verbs in their written compositions. Having as a main finding the fact that they do not use a vast number of phrasal verbs in their compositions, and among the ones they used, they do not use the most frequent of the PHaVE list such. We attribute this to sense, among other reasons, as the topic of the written compositions was advantages and disadvantages from studying in pandemic.

The second research question will be addressed to respond to the frequency and range of use of the phrasal verbs in these compositions. Also, the regression analysis done by sex showed statistically significant differences which indicated that female students were the ones who used phrasal verbs the most.

5.1 To what extent do high school students use phrasal verbs in their written compositions?

In general terms, the first response to this research question is that the use of phrasal verbs in the analysed corpus is limited, only 81 of the 148 texts analysed included phrasal verbs. This is in line with an extensive body of evidence suggesting the avoidance of its use. Spring (2018) examined the difficulties English language learners (ELLs) encounter with phrasal verbs, focusing on their polysemy and high frequency in English. The research concluded that traditional methods of teaching phrasal verbs as whole entities are less effective compared to approaches that emphasize understanding the particles and their meanings. Learners taught using a particle list method showed significant improvement in grasping and using phrasal verbs. Similarly, El-Dakhs et al. (2022), found a clear tendency among Saudi EFL learners to avoid phrasal verbs, preferring one-word counterparts instead. The study attributes this avoidance to the complexities and uncertainties associated with the meanings and usages of phrasal verbs, which are often seen as unpredictable and difficult to master. Also, Zhang & Mai (2023) delved into the cognitive and pedagogical challenges that ELLs face when learning polysemous phrasal verbs. Their study highlights that learners often struggle with these verbs due to their multiple meanings and the intricate relationship between the verb and particle, leading to a higher tendency to avoid using them altogether.

When looking more closely at the phrasal verbs the participants of the present study do use, we observe that from the 10 most used verbs in the written compositions “wake up” stands out as the most prevalent, followed by “go out”, “go back” and “go through”. “Go on”, on the other hand, was in fifth place despite being the most frequent of the PHaVE List (Garnier & Schmitt, 2015). We think this is a matter of sense (meaning), as the usage in this learner corpus reflects meaning from the main topic of the compositions, which was related to advantages and disadvantages of studying from home during the pandemic. Likewise, the verb “turn on”, which does not appear in the PHaVE list, was still used. This probably occurs because in that pandemic students had to turn their cameras on and off, in addition to waking up at a later hour, since they did not have to get ready to go to school.

In the study by Garnier and Schmitt (2016) 128 Chilean English students from two Chilean universities, between 1st and 4th year of undergraduate courses related to English, with an age range of 18 to 44 years, were given a test in which each component of the phrasal verb had to be completed prompting their use by the inclusion of the first letter of each component. The maximum score for each test was 100, with one point given per each correct meaning, both the verb and the particle had to be correct. The researchers realised that leisure activities were also important when acquiring vocabulary. The more hours participants spent reading and watching social networks per week, more knowledge they acquired. On the other hand, watching movies and listening to music, the variables

controlled in the study, had no effect on phrasal verbs knowledge. The participants only knew 40% of the phrasal verbs meaning.

In the present study, 148 Chilean students in the English subject at an IB immersion program school in Concepción from ninth and tenth year, aged 14 to 16, were asked to write about the advantages and disadvantages of studying from home during the pandemic. These students were not given detailed instructions regarding the use of phrasal verbs so as not to influence their performance. Therefore, in certain compositions there was no use of phrasal verbs but even so, the percentage of use of said verbs in our study was 14.73% higher than the ones in Garnier and Schmitt (54.73%).

The lack of visual input, that is, not being able to visualize the written form of the words, could seriously impede the learning, retention and use of vocabulary in the L2 (Montero Perez, 2022; Muñoz & Pujadas, 2023). This explains why it is not only important to teach phrasal verbs orally and aurally, but also in writing (Agarwal & Bain, 2019). This is probably why students learn vocabulary better by using social networks and reading (Zyngier, 2021; Green & Martin, 2020). The study by Garnier and Schmitt found that 48% of the students used phrasal verbs, and from them, 40% knew their most common meaning sense and only 20% knew all their possible meaning senses. In comparison to this study, we can notice that adolescent students with an average age of 15 years have a better use and knowledge of phrasal verbs in relation to the Garnier and Schmitt (Ibid) study.

Also, the present study focused on written compositions of students at immersion school that works according to the International Baccalaureate (IB) programme (2017; 2023). This entails relying on the acquisition of vocabulary as a consequence of the learners' exposure to the target language. Students are expected to absorb the language through communicative tasks and contact with authentic material, rather than through deliberate teaching of grammar and vocabulary. This study, compared to that of Garnier and Schmitt (2016), has shed light on the importance of teaching not only through an immersion approach, but also through deliberate vocabulary teaching such as the lexical approach. Both are important in order to reinforce students' vocabulary learning. As said in Fainman and Tokar (2019), the blended teaching of vocabulary results in a more useful and meaningful learning approach.

Coming back to the off-list PVs of the present study, there are some verbs that were important during the period in which these compositions took place. In both lists (off and PHaVE), we can realize that the use of phrasal verbs is linked to the main topic of the written compositions. This may also be due to the fact that the composition assignment was a free-productive writing activity, and so students not only used their formally-acquired knowledge, but also used the input they might have had through videogames or social media.

It has been proved that the verbs, which pertain to the PHaVE List, do not appear in the same range and frequency in the textbooks nor in the written compositions of students of English as a second language. For example, In Chang

et. al (2019) the PHaVE List and the textbooks were compared, establishing that there were words that did not appear in the analysed textbooks (80 approximately). These texts mainly came from novels and magazines. The PVs that appeared only in the textbooks, and not on the PHaVE List were more difficult to learn. Another study, by Liou and Tseng (2022), mentions TED talks, in which 148 PVs were identified, 61 of them had a dominant meaning (80% incidence). Then, a list of PVs based on frequency was collected as a pedagogical reference in order to facilitate the vocabulary learning through watching the TED talks. It was concluded that the PVs used in native speakers' talks compared to the PVs use in speakers of English as a Second Language is different in their usage and in their frequency.

On the whole, the analysis of the use of phrasal verbs in this learner corpus written by 9th and 10th graders of a bilingual school, whose first language is Spanish, offers some insights into the acquisition and usage patterns of English phrasal verbs among EFL learners. The data shows that certain phrasal verbs are more prevalent than others in the corpus. When taking into account the top 5 most used PVs, "Wake up" appears to be the most frequently used phrasal verb, followed by "Go out," "Go back," "Go through," and "Go on." This distribution of usage suggests that these phrasal verbs are likely among the first acquired and most commonly used by EFL learners at this proficiency level. There is notable variation in the frequency of usage among the phrasal verbs. While some, like "Wake up," are widely used across the texts, others, such as "Go through," have

fewer occurrences. This variation could be indicative of differences in the complexity or familiarity of these phrasal verbs to the learners. The absence of certain phrasal verbs in many texts (e.g., 127 texts with no occurrences of "Wake up") could suggest potential gaps or challenges in the learners' understanding, usage, and teaching/learning of these expressions. It might indicate areas where learners struggle with comprehension or production, which could be further explored through error analysis. The bilingual and Spanish-speaking background of the learners could also be influencing their acquisition and usage of English phrasal verbs. In English, a phrasal verb is a combination of a main verb and one or more particles (such as prepositions or adverbs) that together have a different meaning than the verb alone. In Spanish there are no phrasal verbs in the exact sense that we understand them in English, but there are similar constructions that function in a comparable way. These are phrasal phrases, compound verb phrases, and verbs with prepositions. The difference between these and phrasal verbs is that, in English, phrasal verbs can be separable or inseparable. For example, "turn off the light" (separable) versus "run into him" (inseparable). In Spanish, similar combinations generally do not allow the object to be inserted between the verb and the preposition. On the other hand, there are idiomatic meanings that cannot be deduced from the verb and the particle separately. Constructions in Spanish tend to be more literal or at least more transparent in terms of their meaning. For example, the syntactic structures and semantic nuances of phrasal verbs in English differ from those in Spanish, leading to

challenges in comprehension and production (Tyler & Evans, 2003; Rudza-Ostyn, 2003). These findings underscore the importance of targeted instruction and practice with phrasal verbs in English language learning curricula, especially for EFL learners with a Spanish-speaking background. Incorporating activities that provide exposure to diverse contexts and authentic usage of phrasal verbs can help enhance learners' proficiency and confidence in using these expressions. Overall, this analysis contributes to the understanding of phrasal verb acquisition and usage among EFL learners, highlighting areas for further research and pedagogical intervention.

5.2 What is the frequency of phrasal verbs used in high school students' written compositions, according to sex, age and school level, including language proficiency?

The second research question explored in the present study was related to the frequency in which phrasal verbs were used in the analysed compositions, according to sex, age, school level and language proficiency. According to Britannica (2019), frequency, in statistics, is data organized to show how often a possible outcome of a repeatable event is observed.

After having analysed the factors of age, school level, and school proficiency in our study, there was no statistically significant difference in neither

of the participating groups. Therefore, our analysis focused especially on sex differences between male and female students. There are several studies that support the idea of females outperforming males. In their research, Sugiura et al. (2018) realized that women used numerous cognitive functions when analysing the correct use of sentences. This was mainly due to women's working memory (WM) use was higher than that of men. According to Baddeley (2012) the working memory can be defined as a system of limited temporary storage capacity that includes functions related to information preservation, giving women an edge in language-related tasks. This may be the factor that allows women to outperform men in certain language tasks such as identifying wrong sentences. This is also consistent with the findings of Tomasi and Volkow (2011) who found sex differences in brain functional connectivity, suggesting that women may have more efficient neural networks for language processing tasks; and Miller and Halpern (2014) who confirmed that women generally perform better on tasks requiring verbal fluency and episodic memory, which are closely linked to working memory.

Similarly, during L2 sentence listening (Sugiura et al., 2018) it has been shown that boys generally used the prefrontal region implicated in rule-based syntactic processing. Suggesting that they tend to focus on processing grammaticality, or phrase structure, while girls generally depended on a broad posterior language-related region involved in phonology, semantics, and sentence processing, suggesting that girls process sentences by consolidating

these multiple aspects, which makes us realize that there are indeed differences between male and female when it comes to language processing. Ishikawa (2015) has also shown that female students tend to focus on the psychological processes rather than scientific facts, as men do; by using the verb think.

Also, women tend to use language to develop a rapport with other people. Male students use more nouns related to certain social and economic activities and scientific phenomena associated with a certain topic. These aspects help us realize that men and women are different not only because of their biological features but also because of the way they use and understand language. In their neuroscientific research, Wucherer and Reiterer (2016) found, by investigating the sex gap in phonetic imitation ability and grammar learning, that male and female possess specific language talents or aptitudes in different areas. Regardless of their other co-variables (mother tongue, age, IQ, educational vitae and linguistic background) they still had differences on the phonological use (males) and grammar performance (females). They also showed in various languages tasks male used their left-brain hemisphere conversely females seem to use distinct areas for distinct abilities, spread widely across hemispheres, thus relying on a bilateral activation.

Particularly in phrasal verbs use, recent evidence indicates that there are sex-based differences in learning phrasal verbs in the EFL/ESL context. A study by Girgin (2019) explored the perceptions of Turkish EFL student teachers towards using corpus-based materials for learning phrasal-prepositional verbs.

The study found that female learners had higher positive perceptions and greater success in using these materials compared to their male counterparts. This suggests that gender differences do influence the efficacy of learning phrasal verbs, with women showing a propensity for better outcomes in this specific area of language learning

For the present study, it is possible to say that these claims are in line with the findings. The results of the phrasal verbs use revealed that the female students outperform male showing use of 79 type occurrences over 40, i. e. the number of phrasal verbs used once, showing more sophistication in vocabulary use as they resorted to these more complex verbal structures more often than their male counterparts. As for the tokens, i. e. the number of times the types were repeated in the compositions, 97 for females over 48 of males, it shows that females relied on these words more, using them recursively and more often than that of males.

When paying attention to the 10 most used phrasal verbs, it is noticeable how females surpassed males in the number of occurrences in frequent of use by more than double in the first five of them, while in the bottom five only 3 phrasal verbs are used more frequently by males, 'come back', 'turn off', and 'get up'. In the remaining two, 'put on' and 'end up', females double their use and in one of them, there is no usage by males at all. In terms of the incidence, which is the frequency of occurrence of phrasal verbs within a text relative to the overall size of the text, represented by the total number of words, the female ratio is higher

than that of males, showing that the number of phrasal verbs used in each corpus, female and male, the former contained more of these types of words. It is also interesting to note that the individual incidence in the top ten most used phrasal verbs, in only three of them males showed a higher ratio than that of females, while in all the other seven the incidence female ratio was amply superior.

When observing the presence of phrasal verbs in the composition from the data, it is evident that a higher percentage of female students (57.83%) used phrasal verbs in their compositions compared to male students (50.77%). This aligns with findings from studies that suggest sex differences in language usage and acquisition, including the use of phrasal verbs in EFL/ESL contexts.

Lastly, the present study investigated sex differences in the use of phrasal verbs by 9th and 10th grade students in a bilingual school in Chile. Specifically, the focus here is on off-list phrasal verbs—those not among the 150 most commonly used phrasal verbs in English (Garnier & Schmitt, 2015). The analysis aimed to determine whether there were significant differences in the frequency and variety of phrasal verbs used by male and female students. The data comprises 42 distinct off-list phrasal verbs, their incidence, and occurrences among male and female students. A chi-square test for independence was employed to evaluate the significance of the differences in usage between sex. Additionally, token and type frequencies were analysed to compare the overall and unique usage of phrasal verbs. The results indicated that female students not only used a higher proportion of off-list phrasal verbs but also exhibited greater

variety and frequency in their usage compared to male students. The significant chi-square value (12.05) and p-value (0.00052) confirm that these differences are statistically significant.

These findings align with previous research suggesting that females generally outperform males in certain language tasks and may have better linguistic capabilities in specific areas (Baddeley, 2012; Girgin, 2019). The greater variety and frequency of phrasal verb usage among female students could be attributed to several factors, including different learning styles, greater attention to detail, or more extensive practice with language materials. The analysis provides compelling evidence of sex differences in the use of off-list phrasal verbs among EFL learners in a bilingual school setting. Female students demonstrate higher proportions, variety, and frequency of phrasal verb usage compared to their male counterparts. These findings highlight the importance of considering sex differences in language education and suggest that tailored instructional approaches could enhance learning outcomes for both sexes.

VI. CONCLUSION

This research study consisted of the analysis and examination of phrasal verbs in 148 written compositions of ninth- and tenth-year high school students at a bilingual school in Concepción. The objective of this study was to determine the presence and frequency of use of these verbs. The participants, in general, demonstrated a limited use of phrasal verbs as these verbal structures are more complex than any other verb type. In particular, we were able to identify a greater use of phrasal verbs in the female participants than that of their male counterparts. This is consistent with what other studies have determined previously in terms of sex differences that could favour their use on the part of females. Specifically, this may be because of females' greater working memory capacity, and being able to store and remember a greater amount of vocabulary.

We analysed the 148 written compositions based on the PHaVE list, which contains the 150 most frequently used phrasal verbs in English, confirming that the use and frequency of the identified phrasal verbs in the learner corpus differs from the said list. Based on the analysis of the compositions, there was a group of phrasal verbs that were used by the participants that were not included in the PHaVE list, (Off-list). From the off-list verbs, 42 phrasal verbs were identified. We attributed this to the fact that the assignment was a free written exercise. It was also possible to establish differences that favoured females over the male participants. The measures of incidence and frequency of these verbs were

carried out through the Stata program on its version 18.0, and the data processing was done through Sketch Engine. In addition, phrasal verbs were accounted for through the ADELEX analyser program, and manual counting, the latter proving superior to ADELEX in the identification of the target verbs. The manual counting was similar to the Sketch Engine analysis which turned out to be the most accurate of the three.

6.1 Limitations

The limitations of this study are related to the inclusion of compositions of only one main topic, which only explored the area of studying from home during the COVID-19 pandemic. By having had a wider range of topics in the texts, the use of phrasal verbs would have been broader, and so the PHaVE list may have been better represented. In addition, the size of the sample may be another limitation, together with the extension of the compositions, perhaps larger texts may account for a greater number of phrasal verbs. Furthermore, the use of the ADELEX analyser software was not as reliable in identifying instances of phrasal verbs. It did help in knowing the frequency band they belonged to, but in terms of occurrences the manual analysis was more detailed and accurate than this program.

6.2 Further Research

As for future research, it is worthwhile carrying out the same research with an equal number of women and men, and also in public schools with varying proficiency levels and ages, in order to compare variables that could help shed light on relevant linguistics and non-linguistics aspects. It is also an interesting prospect to observe what happens when using phrasal verbs in a variety of topics, perhaps more universal and not only framed within a very specific topic such as the one related to the pandemic analysed here, since it greatly limits a broader use of these verbs. As the complexity of teaching and learning phrasal verbs is so prevalent, the prospect of evaluating the implementation of approaches more prone to develop vocabulary knowledge and active use, like the lexical approach, would make it possible to observe greater gains that could contribute to higher lexical proficiency and, in turn, to higher levels of language use. Further research on this front would improve the English teaching and learning in Chilean students, and we would be able to achieve the goal of becoming a bilingual country.

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APPENDIXES

Appendix 1: Female and male compositions

PF28 (9th grade)

This pandemic has changed a lot the way we learn and also the way we communicate. There are many advantages and disadvantages of being at home in this pandemic. The advantages of studying at home is that we can be more relaxed in the way we don't move from for example one classroom to another, it can also be good studying at home because for some people it is easier work alone and with not so much noise. I can also say that an advantage of studying at home is that we don't have to use masks because if we think of reality and go to school there we'll be many different protocols and we will be prohibited to do many things. The disadvantages of working at home is that we can get very distracted with all the objects we have in our house/room and for example, I do get very distracted with everything. Another disadvantage is that as everything is online so if my internet is not working as it should or the power **went off** in my house I will not have the opportunity to go to the different classes and I will lose the content they talk in that class. I also think a big disadvantage is that we stay a lot of time looking at the screen and it can cause problems like headaches or visual problems just by looking so much time at the screen. In my opinion I prefer face to face classes because I get very distracted and sometimes I cannot ask some questions I have , I also think that I don't prefer online classes because I cannot see my friends and it is very boring to stay all day in my house doing nothing. Another reason is that for example when I **turn on** my camera I get very distracted just looking at the screen and myself and sometimes that is the reason I get lost in class.

PM106 (10th grade)

When the pandemic was announced, the government said that we will take online classes, and all the thing relate with the study needs to be in home, because schools and universities were closed because of the covid. Studying from home has positive things, for example this make you to organize yourself the moments to study, also, the time of classes are lower, instead of having 8 hours a day, now we have 5 or 6 hours, making us to have more part of the day to have fun, and to rest, but also all the thing has positive and negative aspects, for example, for me online classes has been more negative than positive, because, having classes from houses makes that we are alone our room, and when the teacher is giving the classes we are going to want to see our phones because we will be tired, and that makes us not to pay attention to the teacher, and we will be lost for next classes, also having online classes, makes that we are not going to see our friends, that is make that the only way to see or to talk to our friends is with phones, and seeing phones or computer is very bad for us, it will make us have headaches and some other problems, also we are not going to move our body, because we will be all day on a chair and our bones will suffer a lot of damage, because we are not doing sports, or we cannot **go out** to walk because of quarantine. In conclusion, online classes has positive and negative aspects, we are just starting to get used to do all in our houses, and we are learning fast. But the only thing I want is to **go back** to our normal life.

Appendix 2: PHaVE List sample of the 1st 50 verbs (Garnier and Schmitt, 2015)

1. GO ON

1. Happen, take place (64.5%)

There is a debate **going on** right now between the two parties.

2. (+ To) Proceed to do or tackle STH after doing STH else (13%)

Does anyone have any questions before I **go on** to the next chapter?

2. PICK UP

1. Get or take SB/STH from a place (70.5%)

Can you **pick up** some food on the way home from work please?

3. COME BACK

1. Return to a place or a conversation topic (96.5%)

She **came back** to the kitchen with a bottle of fancy wine.

4. COME UP

1. (+ with) Bring forth or produce (34%)

She instantly **came up** with a solution to the problem.

2. (Be coming up) Be happening soon (esp. be broadcast soon) (27.5%)

Coming up after the news, our cooking program will feature cheese.

5. GO BACK

1. Return to a place, time, situation, activity, conversation topic (90%)

He washed the dishes and **went back** to his room.

Appendix 3: PhaVE List sample of the 2nd 50 verbs (Garnier and Schmitt, 2015)

74. GO OVER

1. Move towards a place or person, esp. by crossing an area (room, city, country) (63%)

She **went over** to the window so she could watch the scene.

2. Examine or discuss each part of STH in detail in order to understand or remember it better, or make sure it is correct (20%)

We need to **go over** the list once again.

75. HANG UP

1. Finish a conversation on the telephone by putting the receiver down or switching the phone off (76.5%)

He **hung up** the phone without letting her answer his question.

76. GO THROUGH

1. Experience STH difficult or unpleasant (61%)

You have to understand the tough situation she **went through** before judging her.

2. Be officially accepted or approved (10%)

I hope the tax cut **goes through** next year.

77. HOLD ON

1. Refuse to let go of STH (57%)

He **held on** to his job until the very last day.

2. Wait for a short time (35.5%)

I'll be quick, please **hold on** for one minute.

78. PAY OFF

1. Pay the complete amount of STH (49%)

It will take a dozen years for him to **pay off** his debts.

2. Pay back the effort spent in doing STH by becoming profitable or effective (48.5%)

All the hard work will **pay off** in the end.

Appendix 4: PhaVE List sample of the 3rd 50 verbs (Garnier and Schmitt, 2015)

146. PUT OFF

1. Delay until a later time or date (68%)

Now that I had more free time, there was no excuse to **put off** exercising any longer.

2. Cause to feel intense dislike (27.5%)

The bad smell **put** everyone **off**.

147. COME ABOUT

1. Take place or happen/occur, esp. unexpectedly (81.5%)

I did not expect this to **come about**.

148. CLOSE DOWN

1. Stop operating or functioning (87%)

Non-profitable companies were **closed down**.

149. PUT IN

1. Put one thing inside another; include or insert (50%)

You need to **put in** your contact details in case there is a problem.

2. Invest or devote so as to achieve STH (time, effort, work) (26.5%)

I **put in** ten hours a day at the office.

150. SET ABOUT

1. Begin a course of action, usually with a specific purpose/objective in mind (97%)

We **set about** laying the table before our guests arrived.

Appendix 5: Phrasal verbs database analysis in Sketch Engine according to the PHaVE List.

level	Sex	token	types	go on	pick up	come b	go back	find out	come o	go out	point o	grow up	set up	turn out	get out	come in	take on	give up	make up
9A	F	203	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	309	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	318	147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	327	155	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	293	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	331	184	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9A	M	91	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	355	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	350	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	321	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	315	153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	361	171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	319	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	321	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	360	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	27	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	F	359	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	310	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	314	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9A	M	306	170	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9B	M	467	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9B	F	332	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix 6: Phrasal verbs off-list (verbs that did not appear in the PHaVE List but did in the written compositions).

N°	level	Sexo	token types	cut out	stress out	look for	turn on	go away	lock up	freak out	miss out	help out	hook up	look after	lock in	hold out
1	9A	F	203 103	0	0	0	0	0	0	0	0	0	0	0	0	0
2	9A	F	309 155	0	0	0	0	0	0	0	0	0	0	0	0	0
3	9A	F	318 147	1	0	0	0	0	0	0	0	0	0	0	0	0
4	9A	F	327 155	0	1	0	0	0	0	0	0	0	0	0	0	0
5	9A	M	293 125	0	0	0	0	0	0	0	0	0	0	0	0	0
6	9A	F	331 184	0	0	0	0	0	0	0	0	0	0	0	0	0
7	9A	M	91 66	0	0	0	0	0	0	0	0	0	0	0	0	0
8	9A	F	355 144	0	0	0	0	0	0	0	0	0	0	0	0	0
9	9A	M	350 154	0	0	1	0	0	0	0	0	0	0	0	0	0
10	9A	M	321 115	0	0	0	0	0	0	0	0	0	0	0	0	0
11	9A	F	315 153	0	0	0	1	0	0	0	0	0	0	0	0	0
12	9A	F	361 171	0	0	0	0	0	0	0	0	0	0	0	0	0
13	9A	F	319 162	0	0	0	0	0	0	0	0	0	0	0	0	0
14	9A	F	321 158	0	0	0	0	1	0	0	0	0	0	0	0	0
15	9A	M	360 168	0	0	0	1	0	1	0	0	0	0	0	0	0
16	9A	M	27 21	0	0	0	0	0	0	0	0	0	0	0	0	0
17	9A	F	359 166	0	0	0	0	0	0	0	0	0	0	0	0	0
18	9A	M	310 110	0	0	0	0	0	1	1	0	0	0	0	0	0
19	9A	M	314 179	0	0	0	0	0	0	0	0	0	0	0	0	0
20	9A	M	306 170	0	0	0	0	0	0	0	0	0	0	0	0	0
21	9B	M	467 208	0	0	0	0	0	0	0	1	0	0	0	0	0
22	9B	F	332 175	0	0	0	0	0	0	0	0	1	0	0	0	0
23	9B	M	328 185	0	0	0	0	0	0	0	0	0	0	0	0	0
24	9B	F	299 147	0	0	0	0	0	0	0	0	0	1	0	0	0
25	9B	F	313 144	0	0	0	0	0	0	0	0	0	0	1	0	0
26	9B	M	376 178	0	0	1	0	0	0	0	0	0	0	0	0	0
27	9B	M	284 127	0	0	1	0	0	0	0	0	0	0	0	0	0
28	9B	F	334 127	0	0	0	1	0	0	0	0	0	0	0	0	0