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The Use of Phrasal Verbs in Business White Papers

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I. Introduction

A phrasal verb (PV) is a grammatical construction that consists of a verb and a particle or particles (e.g., show up, put up with, carry out, etc.). The verb and the particle(s) should function semantically together as a single unit, and the combination should have one or more one-word equivalents. Seung-Ah Lee (2023) points out that phrasal verbs are different from prepositional verbs, which are “verb + transitive preposition” sequences such as “rely on” or “hide in,” in that the particles of phrasal verbs are intransitive prepositions (Lee, 2023, p. 1). For example, the particle “up” in “show up” does not need an object, so it is a phrasal verb, whereas the particle “on” in “rely on” needs an object, so it is a prepositional verb.

According to Stefan Thim (2012), phrasal verbs can be categorized semantically into directional, aspectual, and idiomatic. Directional phrasal verbs are PVs that have particles that indicate directions, such as “in,” “down,” and “out” (p. 14). “Come in” is an example of directional PV, and its meaning is equivalent to the word “enter.” Thim (2012) says aspectual phrasal verbs are PVs that have particles with telic lexical aspects, usually associated with the progress of a situation. Unlike the particles in directional PVs that are interpreted as their original meaning, the particles in aspectual PV lose their original meaning and indicate whether the situation is completed or ongoing. For example, the term “clear up” has a particle “up,” but it does not present directions but refers to the completed state and has the same meaning as “solve” (pp. 16-17). Thim (2012)’s third category, idiomatic phrasal

verbs, are PVs that are used idiomatically (p. 19). For instance, “give up” is an idiomatic PV that has the meaning of “surrender,” but the meaning cannot be guessed by the form. Directional PVs and aspectual PVs can also be, according to Thim (2012), classified as compositional phrasal verbs, in which the meanings are transparent, whereas idiomatic PVs are non-compositional, and their meanings are not transparent (Thim, 2012, pp. 13-20).

Phrasal verbs are widely used in the English language, but researchers disagree on where they most often appear. Linguists such as Douglas Biber *et al.* (1999) and Dilin Liu (2011) claimed that PVs are rarely seen in formal writings such as newspapers and academic texts (p. 408; p. 675). However, Manal Alangari *et al.* (2020) discovered that phrasal verbs took up a significant proportion of verbs used in expert linguistics writing (p. 10). Also, Anna Trebits (2009) argued that phrasal verbs appear commonly in booklets and reports from the EU (p. 476).

This disagreement over basic facts about usage intrigued me to research the use of phrasal verbs in other genres of formal writing and find out whether PVs are frequently used or not, and if used, which category of PVs is used the most. I specifically looked into five different business white papers (documents issued by a company or organization to provide analysis of problems, solutions, or recommendations to the public) and analyzed the use of phrasal verbs with Artificial Intelligence (AI), Chat GPT. I discovered that, first, phrasal verbs are not commonly found in business white papers. Second, among the identified PVs, “go up,” “go down,” “deal with,” and “back up” showed high frequency. Lastly, directional PVs

are the most frequently used category of PVs. These findings can give insights into both English linguistics and business communication that may be helpful if applied to areas such as language teaching, writing instruction, or programming of AI language models.

II. Review of the Literature

Several researchers have found that phrasal verbs are not commonly found in formal writing. Biber *et al.* (1999) asserted that phrasal verbs are not commonly used in formal registers, as PVs are frequently found in conversation and fiction but less in newspapers and academic writing. According to Biber *et al.* (1999), phrasal verbs occurred almost 2,000 times per million words in fiction but 800 times per million words in academic prose (pp. 408-409). Liu (2011) also claimed that PVs are common in spoken English, and only a small number of PVs were found in formal writings after analyzing PVs in different registers. The phrasal verb frequency for fiction was five times higher than that of academic writing (Liu, 2011, p. 674).

Three main reasons why phrasal verbs may not be commonly used in formal registers have been proposed. One is that PVs were considered unsophisticated in the past. According to George J. M. Lamont (2005), phrasal verbs emerged and grew in the Middle English period (1150-1500), but were mostly used by lower classes in England. During this time, the upper classes and wealthy people in England used abundant French-influenced vocabulary, which was Latin-based and was imported

due to the Norman conquest. This vocabulary was almost entirely composed of single-word verbs and was considered formal and sophisticated, while the native English vocabulary, which included phrasal verbs, was considered informal and lower class. This distinction continued to the Early Modern English period (1500-1650), and PVs were rarely found in formal writing (Lamont, 2005).

A second reason that has been offered for why PVs may not be common in formal writing is that some believe PVs lack clarity and simplicity. Enago Academy (2021), argues that formal writings, especially academic papers, should avoid ambiguity. Instead, they recommend replacing phrasal verbs with one-word equivalents since phrasal verbs often have multiple meanings and, thus, are not simple, concise, and clear (Enago Academy, 2021). Also, University College Dublin Writing Centre (n.d.) instructs students to use single-word expressions because they are more direct and clearer (University College Dublin Writing Centre, n.d.).

Lastly, PVs may not commonly appear in formal writing because they are associated with informality. Gordana Dimković-Telebaković (2013) mentioned that many linguists, such as Dwight Bolinger and Esther Lewin & Albert E. Lewin, have pointed out that PVs are regarded as slangy, while their one-word equivalents are considered formal and suitable for written language (cited in Dimković-Telebaković, 2013, p. 92). Their findings indicate that PVs have informal connotations because they are often associated with slang.

However, scholars such as Bryan Fletcher (2005) argued that replacing phrasal verbs with one-word equivalents can make the writing rather unnatural by

oversimplifying and over-formalizing. Fletcher (2005) claims that sometimes certain ideas in formal texts can be expressed more effectively and precisely when phrasal verbs are used (Fletcher, 2005). Also, Mélodie Garnier (2020) argues that most phrasal verbs are neutral, so they can be freely used in academic papers (Garnier, 2020).

While there is an ongoing debate on whether it is appropriate to use phrasal verbs in formal writing, some cases show that PVs commonly appear in formal writing in different fields. According to Erik Smitterberg (2008), the use of phrasal verbs in formal registers has increased since the beginning of the 19th century. Smitterberg (2008) wrote that as the democratization discourse prevailed in Western society in the 19th and 20th centuries, the written language became colloquialized, and the frequency of phrasal verbs has increased over time in some genres of formal writings such as news articles (Smitterberg, 2008, pp. 269-270). Also, Alangari *et al.* (2020) analyzed the frequency of PVs in academic journals in the discipline of linguistics and discovered that they took up about 27% of the 100 most frequent verbs, and PVs were observed 1.66 times per 100 words (pp. 6, 10). Matouš Straka (2016) found that specific PVs such as “carry out,” “deal with,” or “point out” were frequently found in academic texts of undergraduates in different fields of study (e.g., Art and Humanities, Life Sciences, Social Sciences, etc.) (Straka, 2016, pp. 16-28). PVs were common in European Union (EU) documents as well. Trebits (2009) analyzed booklets and reports from the EU, and the result indicated that one PV is found in every 200 words (p. 476). Their research counters the previous findings that PVs are not commonly used in formal writing.

The frequency of phrasal verb appearance in the field of business is also quite significant. This might be because business communication should be professional but also accessible to everyone. Štěpánka Boháčová (2011) found about 80 different PVs in 30 different business newspaper articles (pp. 12-16). Lavinia Nădrag (2023) discovered that 10 PVs such as “bring up,” “call back,” or “figure out” were used substantially in business communications (pp. 446-447). Also, Stephanie Burdine & Michael Barlow (2008) listed 52 frequently used PVs in the business area and explained their meanings, including “deal with,” “figure out,” and “set up” (pp. 7-95), and Isabella Claire (2024) listed 37 common business phrasal verbs (Claire, 2024).

Researchers like Biber *et al.* (1999) and Liu (2011) have argued that phrasal verbs are uncommon in formal writing. However, other researchers, including Alangari *et al.* (2020) and Trebits (2009), assert that phrasal verbs appear significantly in formal writings. Since there is an ongoing controversy, I decided to perform a further experiment to find out whether PVs are used in formal writing, specifically looking into business white papers. Additionally, previous findings do not categorize the semantic types of PVs found, so I included the analysis of the category of PVs in business writing. I believe analyzing the categories of PVs can give insights into why certain PVs are dominantly used in formal writing.

I examined the use of phrasal verbs in business white papers, addressing three research questions:

RQ1. What is the frequency of PV in business white papers?

RQ2. Which PVs are commonly used in business white papers?

RQ3. Which category of PV is the most frequent in business white papers?

III. Methods

In order to find out the answer to the research questions, I conducted an experiment analyzing the use of phrasal verbs in business white papers. I selected five business white papers with different types and business subjects as sources. They were all open to the public. The size of my corpus (the total number of words) was 18,669, which is approximately 9/100 of the size of the text of Trebits (2009), 2/100 of Alangari *et al.* (2020), and 2/10000 of Liu (2011). Table 1 shows further information about the papers that formed my corpus.

Table 1. Sources

Publisher	Title	Subject	Type	Years of publication	Total number of words
Deutsche Post	Dialogue marketing: How to enter and succeed in the German market	Marketing	Problem-solution	2016	3,247
HSBC	Are equities overvalued? Taking an active approach to asset allocation	Finance accounting	Thought leadership	2016	5,362
Samsung	Private networks vol. 1 Transforming private networks with Samsung 5G	Information management	Technical	2021	4,963
Health Action Council (HAC)	Finding the uncommon: Revealing disparities in care and prescribing for common conditions	Human resource management	Market research	2021	2,604
ADP	5 steps to rid your small business of payroll stress	Human resource management	Problem-solution	2017	2,493
Total					18,669

(2016)
(2016)
(2021)
 The five different papers are from Deutsche Post, HSBC, Samsung, Health
(2021)
(2017)
 Action Council (HAC), and ADP. I selected papers with various subjects and types to
 see if there is any difference in the result by the subject and the type of each paper.
 All the papers were published in recent years (from 2016 to 2021), to reflect the
 current trend in business white paper writing.

Previous researchers such as Liu (2011) and Alangari *et al.* (2020) have used Microsoft SQL server and Sketch Engine for the corpus analysis tools. However, in my experiment, I used two ChatGPT models, ~~ChatGPT 4o~~ and ~~ChatGPT o1-preview~~. I found ChatGPT suitable for the analysis because it can process and analyze large amount of data in a short time. According to Open AI (2024), the ChatGPT 4o model can effectively understand and interpret a huge amount of natural language and is capable of processing a variety of inputs, such as text, audio, and visual data. Meanwhile, the ChatGPT o1-preview model is suitable for conducting reasoning tasks, as it can imitate human thinking processes. It corrects its mistakes by refining its thinking process and trying different approaches (Open AI, 2024).

My experiment consisted of two steps. The first step was to analyze the frequency of each PV used, addressing the RQ1 and RQ2. The second step is to analyze the category of each PV. I used the 4o model for the first step because it was suitable for analyzing the huge corpus in text file format. I used the o1-preview model for the second step since it provided a more accurate result in categorizing the identified phrasal verbs.

In the first step, I used the same measurements as Liu (2011), Trebits (2009), and Alangari *et al.* (2020) to make the comparison. They all measured the relative frequency by calculating the percentage of total phrasal verb constructions out of total words (p. 674; p. 476; p. 6). Additionally, I measured the total percentage of all lexical verb constructions that were phrasal verb constructions. The term “verb

construction” here indicates verbs themselves plus every grammatical construction that is based on a verb even those that are not categorized as verbs (i.e., gerunds, participles, etc.). Auxiliary verbs were excluded since they are not lexical verbs. I calculated two ratios to answer the RQ1: (1) the percentage of the total number of phrasal verb constructions out of the total number of words, and (2) the percentage of the total number of phrasal verb constructions out of the total number of verb constructions (See Appendix 2). For RQ2, I requested the 4o model to list all the phrasal verbs identified, providing the frequency of each phrasal verb and the exact location in the paper where it occurred (See Appendix 2). For RQ3, I used the o1-preview model to categorize all the PVs into three semantic categories: directional, aspectual, and idiomatic. I requested that the o1-preview model analyze the frequency of each category as well. Background information and examples of three types were given in the prompt (See Appendix 3).

To prevent any hallucinations by AI and to achieve the highest accuracy of the results, I conducted a trial experiment with one of the chosen business white papers, which I analyzed beforehand without using the AI. First, I selected a paragraph from the paper containing a PV and made ChatGPT to count the total number of verb constructions and the total number of phrasal verb constructions for each sentence, revealing the process of analysis. (See Appendix 1.) This was to make sure ChatGPT identifies phrasal verb constructions and verb constructions accurately. Then, I conducted step 1 and 2, the procedure of the main experiment. (See Appendix 2 and 3). I requested ChatGPT to verify the result itself until the result

of the trial experiment matched the result of my handwork. It took about three times of verification to match my result. Essentially, in this step, I believe I was able to train ChatGPT to consistently apply the same criteria I myself used to calculate the frequency of phrasal verb use and categorize phrasal verb types.

IV. Results

Phrasal verbs appeared 44 times in my corpus of 18,669 words. The total relative frequency of PV for five business white papers based on a total number of words is approximately 0.0024, which is about 1/7 of the result of Alangari *et al.* (2020), which was 0.0166 (p. 6), and about half lower than Trebits' (2009) result of 0.005 (p. 476). However, my frequency result was two times higher than that of Liu (2011), which was 0.0012 (p. 674), and slightly higher than Biber *et al.* (1999)'s result of 0.002 (p. 408). The PV frequency of business white papers is closer to the result of Liu (2011) and Biber *et al.* (1999), this to the result of 0.0012 and 0.002, which indicates that phrasal verbs do not frequently appear in business white papers. The total relative frequency based on the total number of verb constructions is 0.01, in other words, one PV construction can be found in every 100 verb constructions. The result is shown in Table 2, indicating the relative frequency of PV for each paper and the total relative frequency.

Table 2. Relative frequency of PV constructions

Publisher	Total number of PV constructions	Total number of words	Total number of verb constructions	Total number of phrasal verb constructions to total number of words (Rounded from 4 decimal places)	Total number of phrasal verb constructions to total number of verb constructions (Rounded from 4 decimal places)
Deutsche Post	13	3,247	767	0.004	0.017
HSBC	12	5,362	1,193	0.0022	0.0101
Samsung	5	4,963	1,309	0.001	0.0038
HAC	2	2,604	647	0.0008	0.0031
ADP	12	2,493	485	0.0048	0.0247
Total	44	18,669	4,401	0.0024	0.01

However, as Table 2 shows, there was considerable variation from document to document with my corpus. White papers with relatively high relative frequency were written by ADP and Deutsche Post, both having a total phrasal verb construction to total word ratio of more than 0.004 and a total phrasal verb construction to total verb construction ratio of about 0.02. The papers with relatively low relative frequency are the papers from HAC and Samsung, with both ratios far lower than the average. The ratios of the paper from HSBC were around average for my corpus.

Table 3 shows the identified PVs and their frequency, listed from the most frequently appeared to the least.

Table 3. Identified PVs and frequency

Rank	Identified PVs	Frequency
1	go up	4
2	go down	3
3	deal with	3
4	back up	3
5	look beyond	2
6	get into	2
7	find out	2
8	zoom out	1
9	win over	1
10	tap into	1
11	take out	1
12	set up	1
13	scale down	1
14	run into	1
15	reach out	1
16	put in	1
17	point to	1
18	nail down	1
19	move out	1
20	make up	1
21	keep up with	1
22	get across	1
23	free up	1
24	fit in	1
25	fall back	1
26	eat up	1
27	draw on	1
28	dive in	1
29	come down	1
30	bring up	1
31	bring together	1
32	add up	1

A total of 32 PVs were identified. The most frequently appeared PV is “go up,” with a frequency of 4, followed by “go down,” “deal with,” and “back up” with a frequency of 3. The majority of PVs appeared only once.

The category distribution of PVs is shown in Table 4.

Table 4. Category distribution of PVs

Category	Identified PVs	Frequency	Relative frequency
Directional	go up (4), go down (3), look beyond (2), get into (2), zoom out (1), take out (1), scale down (1), put in (1), move out (1), get across (1), fall back (1), come down (1), bring together (1)	20	0.45
Aspectual	find out (2), set up (1), make up (1), keep up with (1), free up (1), eat up (1)	7	0.16
Idiomatic	deal with (3), back up (3), win over (1), tap into (1), run into (1), reach out (1), point to (1), nail down (1), fit in (1), draw on (1), dive in (1), bring up (1), add up (1)	17	0.39
Total		44	1

The most frequently appeared semantic category of PVs in my corpus is directional PVs, with a frequency of 20 occurrences. Idiomatic PVs were the next frequently appeared category, having a frequency slightly lower than directional PVs, of 17 occurrences. Aspectual PVs were the category that appeared the least frequently, with a frequency of 7.

V. Discussion

My results show that PVs are rarely found in business white papers. The average relative frequency of PVs is far lower than that of Alangari *et al.* (2020)'s. It seems that formal writings in the field of business also refrain from using PVs. The reason may be because business writers consider PVs to be too ambiguous and informal, following researchers such as Enago Academy (2021) and Bolinger. The King's English Society (n.d.) wrote that according to Sidney Callis, the important principles of business writing are clarity, simplicity, and brevity (cited in King's English Society, n.d.). The frequent mention of this sort of recommendation, specifically in the context of business writing, gives rise to the possibility that business white paper writers have avoided using PVs in their writings in an effort to achieve clarity.

However, the variation within my sample in the frequency of PV use is significant. It seems that PV use may have a strong relationship with the specific type of paper written and that it is, rather, counterproductive to generalize rules of writing to a broad category of "business writing." ADP and Deutsche Post's papers' relative frequencies were as high as Trebits (2009)' result, while HAC and Samsung's papers had relatively low relative frequencies, as low as Liu (2011)'s. Both ADP and Deutsche Post's papers are problem-solution white papers where much and easy explanation is needed for stakeholders to better understand how to solve business issues. So, the papers might have used a relatively higher number of informal words,

and phrasal verbs were one kind of them. Also, HAC's paper has the lowest frequency result because its content is marketing research, where a sentence structure repeats over and over with only numbers and figures changing. Similarly, Samsung's paper is a technical paper that addresses the mechanism of how a technology works, so it mostly used numbers and figures, along with technical jargon.

In regard to my second research question, about the specific PVs most commonly used, "go up," "go down," "deal with," and "back up" recorded high frequency of use. The reason why "go up" and "go down" had high frequency might be because of the subject of the paper where their appearance was focused. Both were used in HSBC's paper, which is a financial white paper. Finance accounting usually talks about how elements of financial statements, such as assets, liabilities, and equities, increase or decrease. HSBC's paper covers the issue of overvalued equity's impact on future returns of investors and corporate profits, so PVs that indicate the rise and fall showed up repetitively throughout the paper. "Deal with" appeared in two papers, one time in HSBC's paper and two times in Samsung's paper. This might be because "deal with" is an idiom that is actively used in the business area, as mentioned by Burdine & Barlow (2008) (p. 7-8).

"Back up" appeared one time in Deutsche Post's paper and two times in ADP's paper. It might be because problem-solution white papers use "back up" significantly as an idiom, but further research is needed to prove this assumption. The fact that "go up" and "go down" were used only in a certain paper while "deal

with” and “back up” were used across different papers raises the possibility that the frequency of specific PVs used could be different if a larger corpus was used.

However, consistent with the variation in the overall frequency of PV use, the variation within the corpus of my experiment also suggests that looking at broad usage patterns across as broad a genre as business writing may be counterproductive.

The fact that directional PVs took up about half of the total frequency of all PV use (RQ3) may, however, be significant. This use might be because directional PVs are the easiest to interpret among the three categories, thus achieving the business writing goal of clarity better than other categories. As a principle of business writing presented by Callis recommends writing concisely (cited in King’s English Society, n.d.), business white paper writers may have preferred to use directional PVs over the other two types. However, it is interesting to note that idiomatic PVs, which are the most ambiguous, also quite frequently appeared. It might be because the idiomatic PVs identified are mostly the ones that are well-known and understood by stakeholders in the business area, thus not affecting clarity in delivering the message. In fact, the majority of the idiomatic PVs I identified were included in the list of Claire (2024)’s common business phrasal verbs.

My results add support to the previous arguments in English linguistics that phrasal verbs are usually avoided in formal writing. Also, it gives insights into which PVs and which category of PV is widely accepted and used in business white papers. More significantly, my results put into question the pragmatic value of looking at

business writing as a unified genre with unified stylistic rules. These findings might be helpful to English writing education, business communication, and constructing language models for AI.

However, there are limitations to this study, which means further research is needed. One limitation is that there is always a possibility of errors made by ChatGPT. Even though I put ChatGPT through training in the pre-experiment and verification process in the post-experiment by requesting to verify the results three times, the hallucination by AI cannot be ignored. Another limitation is the size of the corpus used in my analysis. The corpus is likely not large enough to derive accurate results. Future research can extend the size by analyzing a larger amount of business white papers to get more accurate results on the use of phrasal verbs in business white papers. Also, further research should explore variations within the business writing genre, including other kinds of formal business writings besides white papers, such as business letters and business news articles. New insights into the style or specific types/subjects of business writing will be useful for better understanding the use of phrasal verbs in business writing and formal writing as a whole.

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Appendix 1

ChatGPT 4o Prompt 1. Identifying phrasal verbs

You are a linguistics expert. Your task is to identify phrasal verbs.

[Background information]

- A phrasal verb (PV) consists of a verb + particle(s).
- The particles in phrasal verbs are intransitive prepositions. It differs from verbs alongside particles or prepositional verbs, where the particle is transitive (e.g., rely on, hide in, etc.). Be careful not to include prepositional verbs. The particle "up" in "show up" does not need an object, whereas the particle "on" in "rely on" needs an object.
- A phrasal verb constitutes a single unit, which means it should be a phrase where the verb and the particle cannot be separated, as "come in" is equivalent to "enter."
- Consider the object movement of PV. (e.g., Ed **backed** the minister **up**.)

[Instruction]

I will give you a paragraph.

Count the total number of verb constructions and the total number of phrasal verb constructions for each sentence, excluding auxiliary verbs. Then identify phrasal verbs.

*verb constructions: verbs including forms based on verbs even though they are not categorized as the verb (e.g., gerunds, participles, etc.)

*phrasal verb constructions: phrasal verbs including forms based on phrasal verbs even though they are not categorized as the verb (e.g., gerunds, participles, etc.)

e.g.,

Sentence 1:

"E-commerce is thriving in Europe's largest economy, and Germans are eager to exercise their growing purchasing power."

Verb constructions:

- thriving
- eager
- exercise
- growing
- purchasing

Total number of verb constructions in sentence 1: 5

Total number of phrasal verb constructions in sentence 1: 0

Sentence 2:

"But getting across the border and meeting German consumers is difficult."

Verb constructions:

- getting across (**phrasal verb**)
- meeting

Total number of verb constructions in sentence 2: 2

Total number of phrasal verb constructions in sentence 2: 1

Total number of verb constructions in the paragraph: 7

Total number of phrasal verb constructions in the paragraph: 1

Phrasal verbs identified: get across

[input]

"That's why a big part of smart payroll management is working with a partner with experience that's deep and broad enough to cover you across the spectrum of HR needs, and knowledgeable support services if you run into trouble."

Appendix 2

ChatGPT 4o Prompt 2. Analyzing the frequency of phrasal verbs

Your task is to analyze the attached text to look at the frequency of phrasal verbs.

[Instruction]

(1) Count the total number of words, excluding numbers and special symbols.

(2) Count the total number of phrasal verb constructions.

*phrasal verb constructions: phrasal verbs including forms based on phrasal verbs even though they are not categorized as the verb (e.g., gerunds, participles, etc.)

(3) Calculate the percentage of the total number of phrasal verb constructions out of the total number of words.

(4) Count the total number of verb constructions, excluding auxiliary verbs.

*verb constructions: verbs including forms based on verbs even though they are not categorized as the verb (e.g., gerunds, participles, etc.)

(5) Calculate the percentage of the total number of phrasal verb constructions out of the total number of verb constructions.

(6) Create a table of all the phrasal verbs identified, providing the frequency of each phrasal verb. (List them from the most frequently appeared to the least.)

(7) Provide the sentence where you identified the phrasal verb.

e.g., **Take on** - 4 instances

- **Occurrences:**

- "...we feel more motivated to **take on** challenges."
- "When we are **taking on** too much, we end up feeling overwhelmed."
- "...because we cannot handle everything we've **taken on**."
- "...we will be ready to **take them on** without feeling overwhelmed."

Appendix 3

ChatGPT o1-preview Prompt. Categorizing phrasal verbs

Your task is to categorize the identified phrasal verbs into three categories.

[Background information]

- A phrasal verb (PV) consists of a verb + particle(s).
- The particles in phrasal verbs are intransitive prepositions. It differs from verbs alongside particles or prepositional verbs, where the particle is transitive (e.g., rely on, hide in, etc.). Be careful not to include prepositional verbs. The particle “up” in “show up” does not need an object, whereas the particle “on” in “rely on” needs an object.
- A phrasal verb constitutes a single unit, which means it should be a phrase where the verb and the particle cannot be separated, as “come in” is equivalent to “enter.”
- There are three semantic categories of PV: Directional phrasal verb, aspectual phrasal verb, and idiomatic phrasal verb
 - Directional phrasal verb: It is a phrasal verb that has particles that indicate directions, like “in” or “down.” The construction is transparent from the meaning of its constituents. (e.g., come in (= enter))
 - Aspectual phrasal verb: It is a phrasal verb that has particles with a telic lexical aspect, usually associated with the progress of a situation. Unlike the particles in directional PVs interpreted as their original meaning, the particles in aspectual PV lose their original meaning and indicate whether the situation is completed or ongoing. For example, the term “clear up” has a particle “up,” but it does not present directions but refers to the completed state and has the same meaning as “solve.” (e.g., clear up (=solve))
 - Idiomatic phrasal verb: It is a phrasal verb that is idiomatically used. The meaning cannot be guessed by the form. (e.g., give up (=surrender))

[Instruction]

- (1) Categorize the phrasal verbs into three categories and show the result in a table.
- (2) Show the distribution of each category and define which category of phrasal verb is used the most.