

# A Comparative Corpus-based Analysis of English Near-synonymous

## Verbs: *inform*, *notify*, *impart*

Siriluk Jirawattanasomkul<sup>1</sup> / Piyaporn Punkasirikul<sup>2\*</sup> /

Kerkkrai Parinyaphon<sup>3</sup> / Nawaphorn Wannathong<sup>4</sup>

<sup>1</sup>English for Business Communication Department, Sakon Nakhon Rajabhat University

<sup>2</sup>Assistant Professor Dr., English Language Department, Khon Kaen University

<sup>3</sup>Logistics Management Department, Sakon Nakhon Rajabhat University

<sup>4</sup>Assistant Professor Dr., English Instruction Department, Sakon Nakhon Rajabhat University

\*Corresponding author's E-mail: [piyaporn@kku.ac.th](mailto:piyaporn@kku.ac.th)

**Received:** November 26, 2024

**Revised:** March 03, 2025

**Accepted:** March 06, 2025

**DOI:** <http://doi.org/>

### Abstract

While *inform*, *notify*, and *impart* share core meanings, their semantic nuances and grammatical patterns vary, creating challenges for language learners and professionals. Previous research has primarily relied on dictionary definitions, lacking corpus-based validation to capture real-world usage and contextual distinctions. Addressing this gap, this study integrated corpus linguistics and lexical analysis to examine these verbs in authentic discourse. Using 300 concordance lines per verb from COCA, the study analyzed grammatical patterns, collocations, and frequency distribution alongside dictionary data. Inter-rater reliability ensured semantic classification accuracy, while the Mutual Information (MI) score measured collocational strength. Findings revealed discrepancies between dictionary patterns and real-world usage, with *notify* commonly used in formal, obligatory contexts, whereas *impart* frequently appeared in literary and academic discourse. Additionally,

corpus data indicated that some dictionary-listed structures, such as *inform* + reflexive pronoun, were rarely used in contemporary English. These findings underscore the importance of corpus-driven instruction, emphasizing collocation-based learning and professional discourse awareness. Educators should prioritize high-frequency structures and context-based verb usage to enhance accuracy and fluency, contributing to curriculum development, second-language acquisition, and professional training.

**Keywords:** corpus-based analysis, near synonyms, semantic variation

## Introduction

English has become a global lingua franca, essential for communication in various domains for both native and non-native speakers (Ahmad, 2016). However, the nuanced meanings and context-dependent usage of synonyms pose significant challenges for non-native learners, especially when distinguishing between near-synonymous verbs (Abutalebi & Clahsen, 2022). Misusing these verbs can lead to miscommunication, particularly in professional settings where precision is critical.

Corpus linguistics has proven to be an effective approach for examining synonym usage in real-world contexts. Unlike traditional dictionaries, which offer static definitions, corpus-based analysis uncovers grammatical patterns, collocations, and usage frequencies, providing valuable insights into how words are used in authentic communication (Boontam & Phoocharoensil, 2022; Imsa-ard, 2021). Despite extensive research on synonym usage, there remains a gap in the analysis of communication verbs such as *inform*, *notify*, and *impart*, which, though seemingly

interchangeable, possess distinct meanings and contextual limitations (Liu & Zhong, 2016).

Studies have shown that *inform* and *notify* are frequently used in legal, administrative, and corporate settings, with *notify* implying formality and obligation, while *inform* is more flexible and widely applicable (Giltrow & Stein, 2017). Incorrectly substituting *notify* for *inform* can create unintended implications of obligation, potentially leading to miscommunication in legal or corporate contexts (Flowerdew, 2021). On the other hand, *impart* is predominantly found in academic and literary contexts, typically referring to the transmission of abstract knowledge or wisdom, rather than factual information. Its use in business communication can introduce an overly formal tone, making messages sound outdated or unclear (Nation, 2022).

This study addressed these distinctions by integrating dictionary definitions from the Oxford Learner's Dictionary (OLD, 2024) and the Longman Dictionary of Contemporary English (LDOCE, 2024) with corpus-based analysis using the Corpus of Contemporary American English (COCA). By examining the frequency, collocations, and grammatical patterns of these verbs, the study aimed to clarify their usage and offer practical insights for language learners and professionals.

A clearer understanding of *inform*, *notify*, and *impart* would help second-language learners make more precise lexical choices and enhance their ability to communicate effectively in academic, business, and professional settings. Additionally, the findings had important pedagogical implications, contributing to language instruction by equipping learners with the tools necessary to navigate complex synonym distinctions in real-world communication.

## Research Questions

1. What are the foundational meanings and semantic nuances of *inform*, *notify*, and *impart* as defined in standard dictionaries?
2. How do *inform*, *notify*, and *impart* differ in frequency and distribution across eight genres according to corpus data?
3. How do discrepancies between dictionary definitions and corpus-based data reflect real-world usage patterns of *inform*, *notify*, and *impart*?

## Research Objectives

1. To explore the foundational meanings and semantic nuances of the near-synonymous verbs *inform*, *notify*, and *impart* as defined in standard dictionaries
2. To analyze the frequency and distribution of *inform*, *notify*, and *impart* across eight genres using corpus-based data
3. To examine the discrepancies between dictionary definitions and corpus-based data in the grammatical patterns of *inform*, *notify*, and *impart*, highlighting variations in real-world usage.

## Literature Review

### 1. Corpus-Based Analysis

Corpus linguistics has evolved from a simple linguistic data collection into large-scale digital databases, enabling advanced analysis of language patterns (Anderson & Corbett, 2017). Tools such as concordance lines help researchers examine frequency, distribution, and collocations, revealing word meanings and contextual usage (Jeaco, 2017; Altun, 2021).

While corpus-based studies provide valuable insights into word frequency and co-occurrence, they often fail to fully capture semantic nuances in different registers and communicative contexts (Hunston, 2022). This limitation highlights the need for research integrating corpus analysis with semantic and pragmatic perspectives to better understand near-synonyms in professional and educational settings, where precise word choice is essential.

## 2. Synonyms and Near-synonyms

Synonyms share similar meanings but often differ in usage, formality, and collocations. True synonyms—identical in all contexts—are rare, while near-synonyms vary in grammatical behavior, style, and nuance (Jirananthiporn, 2018). Understanding these distinctions is crucial, particularly in professional and academic settings.

Corpus-based studies, such as those using the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA), help reveal these differences. For example, Phoocharoensil (2020) analyzed chance and opportunity in COCA, highlighting their contextual distinctions. While corpus analysis identifies real-world usage, dictionary analysis clarifies grammatical structures and explicit meanings (Phoocharoensil, 2021). A combined approach is essential for studying *inform*, *notify*, and *impart*, ensuring a deeper understanding of both foundational meanings and contextual applications.

Despite these advancements, semantic nuances across genres remain underexplored. In professional settings, *inform* and *notify* convey different levels of obligation and formality, affecting workplace communication and legal interpretations. In educational contexts, second-language learners often struggle with these subtle distinctions, leading to miscommunication (Hyland, 2019).

To address this gap, this study integrated dictionary analysis and corpus-based examination to provide a comprehensive understanding of the verbs *inform*, *notify*, and *impart*. It investigated their foundational meanings and semantic nuances as defined in dictionaries, analyzed their frequency and distribution across multiple genres using corpus data, and examined their grammatical patterns in both dictionary definitions and real-world usage.

By combining corpus linguistics with lexical analysis, this research provides practical insights into how these verbs function across diverse communicative contexts, supporting language learners and professionals in making precise lexical choices.

## Research Methodology

### 1. Samples

This study examined the near-synonymous verbs *inform*, *notify*, and *impart* through dictionary analysis and corpus-based examination. Definitions and grammatical patterns were obtained from the Oxford Learner's Dictionary (2024) and Longman Dictionary of Contemporary English (2024) to compare semantic nuances. Corpus data were collected from the Corpus of Contemporary American English (COCA), a genre-balanced resource with over 500 million words across eight genres. COCA was selected for its extensive, contemporary, and diverse linguistic representation.

A statistically significant sample of 300 concordance lines per verb was analyzed to capture frequency, grammatical patterns, and collocations, ensuring contextual depth while avoiding data redundancy. Inter-rater reliability was employed to validate concordance line interpretation, with three independent

linguists categorizing data to reduce bias. A Fleiss' kappa coefficient of 0.75 or higher confirmed strong reliability in semantic and grammatical pattern identification.

Despite COCA's genre balance, limitations such as overrepresentation of formal registers (e.g., academic and news texts) and underrepresentation of conversational data (Egbert et al., 2020) were noted. Additionally, contextual ambiguities in corpus data, such as speaker intent and register shifts, required careful interpretation. These challenges were addressed to ensure accurate and contextually appropriate conclusions.

## 2. Data Collection Procedure

The data collection consisted of two steps:

1. Dictionary Analysis – Definitions and grammatical patterns of *inform*, *notify*, and *impart* were extracted from the Oxford Learner's Dictionary (2024) and Longman Dictionary of Contemporary English (2024) to examine semantic nuances, syntactic behaviors, and definitional overlaps.

2. Corpus Analysis – Using COCA, 300 concordance lines per verb were analyzed for frequency, grammatical patterns, and noun collocations. Noun collocations were selected to reveal syntactic structures and word associations essential for contextual appropriateness in language learning. The concordance lines were sampled across eight COCA genres to capture usage variations, following the methodology of Ordem and Bada (2016) and Sun and Park (2023). However, genre-based discrepancies, such as overrepresentation of formal registers, were noted as potential limitations.

### 3. Data Analysis

A comparative analysis of dictionary definitions and grammatical patterns identified semantic and syntactic differences among the three verbs. Next, COCA data were examined for word frequency, grammatical structures, and noun collocations. The Mutual Information (MI) score (Cheng, 2012, as cited in Phoocharoensil, 2020) assessed collocational strength, with all verb-noun collocations achieving MI scores greater than 3, confirming strong real-world associations.

Findings were categorized by genre distribution and collocational patterns, addressing contextual ambiguities and genre imbalances. Three independent linguists validated semantic categorization, and Fleiss' kappa coefficient ( $\geq 0.75$ ) ensured strong inter-rater reliability. Results were organized into tables and comparative frameworks, facilitating a systematic evaluation of collocational similarities and differences across genres. This integrated dictionary and corpus-based approach provided insights into semantic and grammatical distinctions in professional and educational contexts.

### Results

**Research Question 1:** What are the foundational meanings and semantic nuances of *inform*, *notify*, and *impart* as defined in standard dictionaries?

The findings on the meanings of the synonymous verbs, obtained from two dictionaries, were summarized in Table 1 below.



**Table 1***Comparison of Definitions in OLD and LDOCE*

Definitions from OLD	Definitions from LDOCE
<i>Inform</i>	
(a) to tell somebody about something, especially in an official way	(a) to officially tell someone about something or give them information
(b) to inform something (formal) to have an influence on something	(b) to influence someone's attitude or opinion
(c) to inform somebody	(c) to inform somebody (that)
(d) to inform somebody of something	(d) to inform somebody about/of something
(e) to inform yourself (of/about something) to find out information about something	(e) to inform on/against somebody
<i>Notify</i>	
(a) to notify somebody	(a) to notify somebody that
<i>Impart</i>	
(a) to impart something (to somebody)	(a) to impart something (to somebody)
(b) to impart something (to something)	(b) to impart something (to something)

Table 1 highlighted distinctions in the meanings of the synonymous verbs based on dictionary definitions. Both dictionaries agreed that *inform* involved sharing

information or telling someone about something, with additional emphasis on formal usage and influencing opinions. The OLD uniquely mentioned contexts where *inform* was used for self-informing. For *notify*, the OLD provided a simpler definition as *notifying* someone, while the LDOCE specified *notifying* someone that something had occurred, indicating the verb was often followed by a clause.

For *impart*, both dictionaries offered similar definitions, focusing on conveying information or qualities, with minor differences in wording. These nuanced distinctions were essential for understanding the appropriate use of each verb, particularly in formal and professional communication, where context ensured accurate meaning.

**Research Question 2:** How do *inform*, *notify*, and *impart* differ in frequency and distribution across eight genres according to corpus data?

The findings addressing the second research question on the frequency differences of the the synonymous verbs were summarized in Table 2.

**Table 2**

*Frequency Distribution across Eight Genres*

Target words	Genre	Frequency	Per Million
<i>Inform</i>	Academic	10,205	85.19
	Webpages	6,868	55.27
	Blogs	6,260	48.67
	Magazines	4,505	35.75
	Newspapers	3,874	31.82
	Fiction	3,826	32.34
	TV/Movies	2,763	21.63

**Table 2 (Continue)***Frequency Distribution across Eight Genres*

Target words	Genre	Frequency	Per Million
<i>Notify</i>	Spoken Language	2,730	21.64
	Total	41,031	
	Webpages	2,634	21.21
	Newspapers	2,284	18.76
	Magazines	1,549	12.28
	Blogs	1,260	9.80
	TV/Movies	1,211	9.46
	Spoken Language	1,148	9.10
	Academic	866	7.23
	Fiction	580	4.90
<i>Impart</i>	Total	11,532	
	Academic	784	6.54
	Magazines	713	5.65
	Webpages	585	4.71
	Blogs	419	3.26
	Newspapers	315	2.59
	Fiction	291	2.46
	TV/Movies	133	1.04
	Spoken Language	113	0.90
	Total	3,353	

Table 2 showed the frequency distribution of the verbs *inform*, *notify*, and *impart* across eight genres: academic, webpage, blog, magazine, newspaper, fiction,

TV/movies, and spoken language. *Inform* appeared most frequently in COCA, with 41,031 occurrences, compared to 11,532 for *notify* and 3,353 for *impart*.

The data revealed a link between formality and verb usage. *Inform* and *impart* were predominantly used in formal contexts, particularly academic texts, with 10,205 and 784 occurrences, respectively. In contrast, these verbs were less common in informal genres, such as spoken language, where *inform* appeared 2,730 times and *impart* only 113 times. Conversely, *notify* was more frequent in informal contexts, with its highest usage in webpages (2,634 tokens).

**Research Question 3:** How do discrepancies between dictionary definitions and corpus-based data reflect real-world usage patterns of *inform*, *notify*, and *impart*?

This section examined the grammatical patterns of *inform*, *notify*, and *impart* by comparing dictionary definitions with corpus-based data, highlighting discrepancies in real-world usage. The results were summarized in Table 3.

**Table 3**

*Grammatical Patterns of Inform in Dictionaries and COCA*

Grammatical patterns	Dictionaries		COCA
	OLD	LDOCE	
<i>inform</i> + personal pronoun	/	/	/
<i>inform</i> + somebody (that)	/	/	/
<i>inform</i> + somebody + of/about + something	/	/	/
<i>inform</i> + something	/	/	/
<i>inform</i> + reflexive pronoun	/	-	-
<i>inform</i> + on/against + somebody	-	/	/

Table 3 summarized the grammatical patterns of *inform* in dictionaries and COCA. Both OLD and LDOCE listed common structures like *inform* + personal

pronoun and *inform* + somebody (that), which COCA also confirmed. Additionally, *inform* + somebody + of/about + something and *inform* + something were frequently observed in both sources.

However, discrepancies emerged in real-world usage. While OLD included *inform* + reflexive pronoun (e.g., He *informed* himself about the policy), COCA showed limited occurrences, suggesting it was rare in contemporary English. Conversely, *inform* + on/against + somebody appeared in LDOCE but not OLD, yet COCA confirmed its active use in legal and investigative contexts (e.g., She *informed* on her accomplice). This indicated dictionaries may have omitted specialized or idiomatic structures, reinforcing the need for corpus-based validation.

Although COCA aligned with dictionary patterns, usage frequencies differed. Structures like *inform* + somebody (that) were common in formal writing (e.g., legal texts) but less frequent in conversational speech, highlighting how dictionaries tended to reflect prescriptive grammar over everyday use.

These findings underscored the importance of corpus-based analysis in verifying grammatical patterns. While dictionaries provided structured frameworks, corpus data offered real-world insights, aiding language learners and professionals in distinguishing formal and colloquial contexts.

**Table 4**  
*Grammatical Patterns of Notify in Dictionaries and COCA*

Grammatical patterns	Dictionaries		COCA
	OLD	LDOCE	
<i>notify</i> + somebody (that)	/	/	/
<i>notify</i> + somebody + of + something	/	/	/
<i>notify</i> + that-clause	-	-	/

Table 4 compared the grammatical patterns of *notify* in dictionaries and COCA. Both OLD and LDOCE listed common structures like *notify* + somebody (that) and *notify* + somebody + of + something, which COCA also confirmed, reflecting the verb's formal usage in legal and administrative contexts.

However, COCA data revealed a discrepancy with the inclusion of *notify* + that-clause, which was absent in dictionaries. This suggested that in modern formal writing, *notify* could occur without an explicit indirect object, instead taking a that-clause (e.g., The company notified that the meeting was canceled).

While *notify* was predominantly transitive, the that-clause structure in COCA indicated a syntactic shift, showing increased flexibility in professional communication. These findings highlighted the value of corpus-based validation, as dictionaries may not have fully captured emerging linguistic patterns seen in real-world usage.

**Table 5**

*Grammatical Patterns of Impart in Dictionaries and COCA*

Grammatical patterns	Dictionaries		COCA
	OLD	LDOCE	
<i>impart</i> + something (to something)	/	/	/
<i>impart</i> + something (to somebody)	/	-	/

Table 5 compared the grammatical patterns of *impart* in dictionaries and COCA. Both sources confirmed *impart* + something (to something) and *impart* + something (to somebody) as standard constructions, showing that *impart* commonly took a direct object (e.g., *impart* knowledge or *impart* color), with to marking the recipient (e.g., *impart* wisdom to students).

However, LDOCE omitted *impart* + something (to somebody), while OLD and COCA included it, suggesting that some dictionaries may not have fully documented recipient-oriented constructions. COCA confirmed its real-world use, particularly in academic and literary writing, where *impart* was often linked to abstract concepts like knowledge or wisdom.

Despite this alignment, corpus data showed a preference for *impart* without an explicit recipient (e.g., The lesson *imparted* wisdom rather than The lesson *imparted* wisdom to the students). This suggested a modern shift toward more abstract usage, reducing the need for to somebody.

These findings highlighted the importance of corpus analysis in verifying real-world grammatical patterns. While dictionaries provided structured grammatical frameworks, corpus data revealed evolving trends, offering a more accurate understanding of *impart* in contemporary English.

## Discussion

The corpus-based analysis of *inform*, *notify*, and *impart* confirms that while these verbs share core meanings, their semantic nuances and grammatical patterns vary across contexts. This reinforces corpus linguistics theory, which emphasizes real-world language usage, collocations, and contextualized meanings, bridging the gap between dictionary definitions and actual usage.

These findings align with Stefanowitsch (2020) and Amur et al. (2023), confirming that semantic distinctions in near-synonyms are influenced by frequency, grammar, and discourse settings. For instance, while dictionaries list *inform* + reflexive pronoun, COCA data show it rarely appears in contemporary communication, suggesting that learners and professionals should prioritize

commonly used patterns like *inform* somebody that or *notify* somebody of something. Additionally, *notify* is prevalent in structured, obligatory contexts (e.g., *notify* employees of policy changes), whereas *impart* frequently occurs in literary and academic discourse (e.g., *impart* wisdom to students), reinforcing research on semantic nuance and discourse appropriateness in professional settings (Flowerdew, 2021).

Given these findings, incorporating corpus-based insights into language instruction can enhance learners' ability to navigate meaning distinctions and improve communication accuracy. These findings have practical applications for curriculum development, second-language acquisition, and professional writing training. Educators should emphasize the following concerns:

1. Semantic distinctions and context awareness, ensuring learners understand how register and obligation affect verb choice.
2. Prioritizing common grammatical patterns, focusing on high-frequency structures (e.g., *inform* somebody that, *notify* somebody of something), while deprioritizing rare patterns like *impart* + something (to somebody).
3. Collocation-based learning for fluency, training students to recognize frequent noun collocations (e.g., *inform* someone of a decision, *notify* customers of updates, *impart* knowledge to students).
4. Corpus-driven teaching tools, such as concordance line analysis, corpus-based quizzes, and hands-on COCA activities, which help learners develop a more intuitive grasp of natural language use.

By integrating corpus-based insights into teaching strategies, language learners and professionals can improve precision in communication, enhance fluency, and avoid misinterpretations in academic and professional settings.



## Recommendations

Building on the study's findings, the following recommendations aim to enhance language instruction, second-language learning, and professional communication training, while also guiding future research on corpus-based methodologies. Educators should integrate corpus-driven tools, such as concordance line analysis, data-driven exercises, and corpus-based assessments, to improve learners' understanding of grammatical patterns and semantic distinctions. Instruction should prioritize commonly used grammatical structures while minimizing rare constructions to enhance fluency. Additionally, training should emphasize frequent noun-verb collocations for better retention and natural language use. Learners must also develop awareness of register, obligation, and discourse type to ensure precise and professional communication. Future research should refine corpus-based pedagogy for business, legal, and technical communication, emphasizing semantic precision and discourse appropriateness. Additionally, further studies should evaluate the impact of corpus-based instruction on learner outcomes in various professional and academic contexts.

## References

- Abutalebi, J., & Clahsen, H. (2022). Words in the non-native mind: Developing lexical representations in the L2. *Bilingualism: Language and Cognition*, 25(2), 183-184.
- Ahmad, S. R. (2016). Importance of English communication skills. *International Journal of Applied Research*, 2(3), 478-480.

- Altun, H. (2021). The learning effect of corpora on strong and weak collocations: implications for corpus-based assessment of collocation competence. *International Journal of Assessment Tools in Education*, 8(3), 509-526.
- Amur, Z. H., Kwang Hooi, Y., Bhanbhro, H., Dahri, K., & Soomro, G. M. (2023). Short-text semantic similarity (stss): Techniques, challenges and future perspectives. *Applied Sciences*, 13(6), 3911.
- Anderson, W., & Corbert, J. (2017). *Exploring English with online corpora*. Palgrave.
- Boontam, P., & Phoocharoensil, S. (2022). Broaden your horizons: Distribution and collocational patterns of the English synonyms "expand," "widen," and "broaden." *The International Journal of Communication and Linguistic Studies*, 20(1), 107-123.
- Egbert, J., Biber, D., Gray, B., & Oppliger, R. (2020). *Doing linguistics with a corpus: Methodological considerations for the everyday user*. Cambridge University Press.
- Flowerdew, J. (2021). Models of English for research publication purposes. *World Englishes*, 40(3-4), 422-437.
- Giltrow, J. & Stein, D. (2017). *The Pragmatic Turn in Law: Inference and Interpretation in Legal Discourse*. Walter de Gruyter GmbH & Co KG.
- Hutson, S. (2022). *Corpora in Applied Linguistics* (2nd ed.). Cambridge University Press.
- Hyland, K. (2019). *Second language writing*. Cambridge University Press.
- Imsa-ard, P. (2021). A corpus-based study on the meanings, distribution, collocations, and formality of concentrate, emphasize, and focus. *NIDA Journal of Language and Communication*, 26, 22-40.

- Jeaco, S. (2017). Helping language learners put concordance data in context: Concordance cards in the prime machine. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, 7(2), 22-39.
- Jirananthiporn, S. (2018). Is this problem giving you trouble? A corpus-based examination of the differences between the nouns problem and trouble. *Thoughts*, 2, 1-25.
- Liu, D., & Zhong, S. (2016). L2 vs. L1 use of synonymy: An empirical study of synonym use/acquisition. *Applied Linguistics*, 37(2), 239-261.
- Longman dictionary of contemporary English. (2024). *Longman dictionary of contemporary English*. <https://www.ldoceonline.com/>
- Ordem, E., & Bada, E. (2016). Lexical collocations (Verb+ Noun) across written academic genres in English. *European Journal of Education Studies*, 1(3), 21-37.
- Oxford Learner's Dictionary. (2024). *Oxford learner's dictionary*. <https://www.oxfordlearnersdictionaries.com/>
- Nation, I. S. P. (2022). *Learning vocabulary in another language*. Cambridge University Press.
- Phoocharoensil, S. (2020). A corpus-based study of English synonyms: Chance and opportunity. *International Journal of Language Education and Linguistics Research*, 7(1), 14-25.
- Phoocharoensil, S. (2021). Semantic prosody and collocation: A corpus study of the near-synonyms persist and persevere. *Eurasian Journal of Applied Linguistics*, 7(1), 240-258.

Stefanowitsch, A. (2020). *Corpus linguistics: A guide to the methodology*. Language Science Press.

Sun, W., & Park, E. (2023). EFL learners' collocation acquisition and learning in corpus-based instruction: A systematic review. *Sustainability*, 15(17), 1-21.

## Authors

Siriluk Jirawattanasomkul

English for Business Communication Department,

Sakon Nakhon Rajabhat University

680 Nittayo Road, Muang, Sakon Nakhon, 47000

Tel: 086-998-2621 Email: siriluk.j@snru.ac.th

Piyaporn Punkasirikul

English Language Department, Khon Kaen University

123 Mitrapharp Road, Khon Kaen, 40002

Tel: 087-642-4245 E-mail: ppiyaporn@kku.ac.th

Kerkkrai Parinyaphon

Logistics Management, Sakon Nakhon Rajabhat University

680 Nittayo Road, Muang, Sakon Nakhon, 47000

Tel: 081-545-2552 Email: kerkkrai.p@snru.ac.th

Nawaphorn Wannathong

English Instruction Department, Sakon Nakhon Rajabhat University

680 Nittayo Road, Muang, Sakon Nakhon, 47000

Tel: 061-414-9459 Email: nawaphorn.w@snru.ac.th