Korean Journal of English Language and Linguistics, Vol 23, October 2023, pp. 895-912
DOI: 10.15738/kjell.23..202310.895

KOREAN JOURNAL OF ENGLISH LANGUAGE AND LINGUISTICS

ISSN: 1598-1398 / e-ISSN 2586-7474

http://journal.kasell.or.kr

L2 Writers' Use of Signaling Nouns: A Focus on Modification and L2 Proficiency

Minjin Kim (The Pennsylvania State University) **Sun-Young Oh** (Seoul National University)

This is an open-access article distributed under the terms of the Creative Commons License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received August 31, 2023
Revised October 7, 2023
Accepted October 15, 2023

Minjin Kim
PhD candidate, Dept. of Applied Linguistics, The Pennsylvania State University
E-mail: mmk6337@psu.edu

Sun-Young Oh
Professor, Dept. of English Language Education,
Seoul National University
E-mail: sunoh@snu.ac.kr

ABSTRACT

Kim, Minjin and Sun-Young Oh. 2023. L2 writers' use of signaling nouns: A focus on modification and L2 proficiency. *Korean Journal of English Language and Linguistics* 23, 895-912.

This study investigates the relationship between Korean students' English proficiency and their utilization of signaling nouns (SNs) and SN modifications in argumentative essays. Data were collected from four proficiency levels within the Yonsei English Learner Corpus, while the Louvain Corpus of Native English Essays served as a benchmark reference. A set of 35 target SNs was identified, with non-SN usages rigorously filtered out. The analysis focuses on SN frequency, various complexity levels of modifications, and contextual usage across the different corpora. Findings suggest that second language (L2) learners heavily rely on a restricted set of SNs, with increased proficiency correlating to a higher frequency of the remaining SNs. The modification of SNs shows a developmental progression, particularly through the use of prepositional phrases, which enhance both clarity and conciseness in writing. Furthermore, the use of attributive adjectives, the most basic level of modifiers, increases with proficiency but leads to excessive modifier usage in learner data. A close look at the contexts of SN usage reveals patterns instrumental for academic writing, underscoring the importance of integrating these insights into English for Academic Purposes (EAP) pedagogy.

KEYWORDS

Signaling nouns, modification, proficiency, academic writing, argumentative essays, EAP

© 2023 KASELL All rights reserved

1. Introduction

One of the most salient linguistic features of academic writing is its dependence on nominalized structures (Biber and Gray 2010, Halliday 2004). This reliance on nominalization not only promotes economy by condensing complex information but also enhances cohesion through the interlinking of clauses in discourse. Furthermore, it establishes credibility by maintaining an impersonal tone, thus augmenting persuasiveness (Biber et al. 1998, Liardet 2013, Ryshina-Pankova 2010). Over the past decades, scholars have extensively studied a category of nouns central to the nominalization process. These nouns have been variously identified as general nouns (Halliday and Hasan 1976), type 3 vocabulary (Winter 1977), carrier nouns (Ivanič 1991), advance and retrospective labels (Francis 1994), shell nouns (Schmid 2000), enumerative nouns (Hinkel 2001), signaling nouns (Flowerdew 2015), and stance nouns (Jiang and Hyland 2015). In this paper, we focus on this class of abstract nouns such as *fact, issue, problem,* and *reason.* Their meanings are context-dependent, and we refer to them as signaling nouns (SNs), following Flowerdew (2006, 2015). The usage of SNs is illustrated in examples (1) and (2), extracted from the corpora used in the present study, where the nouns *reason* and *problem* function as SNs. The underlined portions denote their referents.

(1) The first **reason** is <u>that not using our real name is more useful in knowing many people's opinion.</u> (B2_2803)

(2) <u>Water pollution</u> is a serious **problem** that society faces today. (LOCNESS)

Due to the often semantically vague, flexible, and sometimes empty nature of SNs (Halliday and Hasan 1976, Ivanič 1991, Schmid 2000), they frequently necessitate modifiers to enrich their meanings. In example (1), the SN *reason* refers forward, with its meaning elaborated by both a pre-modifier (the attributive adjective *first*) and a post-modifier (the *that* complement). The SN *problem* in example (2) refers anaphorically and is also supplemented by a pre-modifier (the attributive adjective *serious*) and further clarified by post-modification (the *that* clause). A well-calibrated selection of nouns and their modifiers is known to reinforce the argument in discourse (Jiang and Hyland 2015).

The prominence of SNs in written discourse has prompted scholars to delve into the attributes of this noun category (Halliday and Hasan, 1976, Winter 1977), their varying reference relations (anaphoric and cataphoric) (Francis 1994, Ivanič 1991), and their utilization across disciplines (Benitez-Castro 2021, Flowerdew and Forest, 2015, Jalilifar et al. 2017, Liu and Deng 2017, Mousavi and Moini 2014). Researchers have also examined the lexico-grammatical patterns that characterize their occurrence (Ebrahimi and Mohsenzadeh 2019, Schmid 2000), as well as the functional or semantic classifications of the head nouns (Flowerdew and Forest 2015, Jiang and Hyland 2015, Schmid 2000). A select few studies have explored the modifiers accompanying SNs (Jalilifar et al. 2017, Jiang and Hyland 2015).

The distinctive and significant characteristics of this noun group, evidenced in native language texts, have also inspired investigations into their use by second language (L2) learners. Previous studies have evaluated their frequency, lexico-grammatical patterns, realization patterns, semantic categories, and errors related to SNs (Aktas and Cortes 2008, Flowerdew 2006, Jiang 2015, Oh 2014). It has been observed that non-native writers tend to employ SNs less effectively than native writers, hinting at a potential correlation between writing proficiency and the utilization and modification of SNs. This has emerged as a crucial area of inquiry for researchers considering writing proficiency (Jang and Rhee 2014, Tåqvist 2016) and specific modification structures for SNs (Jiang 2015, Schanding and Pae, 2018, Tåqvist 2018). Despite the valuable contributions of these studies to our understanding

© 2023 KASELL All rights reserved

of SNs in non-native speaker (NNS) texts, there are still gaps in our comprehension of how SNs are used and modified. Some research has either exclusively centered on high-proficiency learners (Aktas and Cortes 2008, Oh 2014) or overlooked proficiency considerations entirely (Jiang 2015). Moreover, previous examinations of SN modifications have often been confined to a specific set of modifying structures, such as noun complements (Jiang 2015), pre-modifications (Tåqvist 2016), or determiner-noun constructs and nouns modified by *that*, *of*, and *to* (Schanding and Pae 2018). The intricate relationship between proficiency levels and the application of SNs in various modification structures remains underexplored. This research intends to bridge this gap, probing the influence of proficiency on the use of SNs while considering a wide array of modifying patterns that exhibit varied complexity.

The present study aims to build upon the existing literature on nominal use in L2 writing by examining how Korean learners of English employ and modify SNs in their argumentative essays, spanning various proficiency levels as outlined by the Common European Framework of Reference for Languages (CEFR). We plan to analyze the frequency with which SNs appear and the varying complexity of their modifying structures. Furthermore, we will delve into the functions of the most prevalent SNs and the modifying structures within their contextual discourse. Through this exploration, our goal is to enrich our understanding of how L2 learners employ and modify SNs contingent on proficiency levels and to offer pedagogical recommendations for enhancing the academic writing skills of L2 learners.

2. Literature Review

2.1. Signaling Nouns

Halliday and Hasan (1976) and Winter (1977) were pioneers in highlighting the existence of a distinct category of nouns, which they termed "general nouns" and "type 3 vocabulary," respectively. These nouns, termed signaling nouns (SNs) here, serve as cohesive devices in discourse and have been the subject of extensive research since their introduction. Their unique nature, pinpointed by Winter (1977) and Ivanič (1991), resides in their intermediary position: they lie between standard nouns with definitive meanings and pronouns, which derive their meanings solely from context.

Francis (1994) delved into the various contexts in which SNs appear, focusing on anaphoric and cataphoric relations. Schmid (2000) later introduced functional classifications for SNs, including factual, linguistic, mental, modal, eventive, and circumstantial categories. Flowerdew and Forest (2015) validated these classifications, finding them closely aligned with their own identified semantic categories – act, locution, idea, fact, modal fact, and circumstantial fact. Jiang and Hyland (2015) underscored the significance of recognizing the varied types of SNs and their roles, especially considering their profound influence on argument formation. Previous studies have concluded that SNs provide a more informative guide than pronouns, and the strategic selection of these nouns can greatly enhance argument construction and discourse organization.

Recognizing the essential roles of SNs has led to a growing interest in their use among L2 learners and English for Academic Purpose (EAP) students. Various studies have highlighted the inefficiencies of learners' SN usage and the challenges they face (Aktas and Cortes 2008, Flowerdew 2006, 2010, Hinkel 2001, Jiang 2015, Oh 2014, Schanding and Pae 2018, Tåqvist 2016, Yoon 2018). Hinkel (2001) spotlighted NNSs' use of SNs by comparing NS and various NNS groups' cohesion strategies. In her analysis of 35 SNs (termed "enumerative nouns"), she identified a greater reliance on SNs, especially among Korean participants. Borrowing from her list of SNs, Aktas

© 2023 KASELL All rights reserved

and Cortes (2008) compared the written work of published scientists and international graduate students. This study indicated an overrepresentation of specific nouns (e.g., *method, factor*) in student texts and distinct SN (referred to as "shell nouns") usage between students and published authors.

However, neither of these studies considered whether the chosen nouns truly functioned as signaling or shell nouns in their context of use. Such nouns can possess both a fixed meaning (i.e., dictionary definition) and a context-dependent interpretation (Ivanič 1991). For instance, the noun *difficulty* in the sentence *She has difficulty understanding the theory* carries only its dictionary meaning, without a variable meaning found in this context. Therefore, it is imperative that analyses only consider instances where potential SNs truly act as SNs. Recognizing this necessity, Oh (2014) proposed explicit criteria for identifying true SNs in her study of SNs in research papers written by published authors and Korean graduate students. She found that only 15% of potential SNs actually functioned as such. This revelation stresses the importance of distinguishing real SNs, particularly in comparative studies, as emphasized by Flowerdew and Forest (2015).

In a similar vein, Tåqvist (2016) discerned between SNs and non-SNs and analyzed their use across L2 learners, L1 students, and experts. The results indicated significant variances in SN usage between L2 learners and experts in frequency, with L2 students leaning towards more ambiguous choices compared with L1 students. Schanding and Pae (2018) further identified potential reasons for L2 learners' SN patterns that differ from L1 writers. Such reasons included unusual lexico-grammatical choices, speech-like writing, and native language influences. Despite these insights, less is known about the usage of SNs by lower-level L2 learners or how this might vary with proficiency.

There also remains ambiguity around the relationship between SN frequency and proficiency. While Flowerdew (2010) suggests a rise in SN use with increased proficiency, contrasting findings emerge from Oh (2014) and Tåqvist (2016). Moreover, Jang and Rhee (2014) suggest that SN frequency aligns more with native speakers as proficiency grows. However, their study did not sift out nouns not functioning as SNs. This inconsistency in studying SN usage by varying L2 proficiency levels indicates a need for further research.

2.2. Modification of Signaling Nouns

As Francis (1994) observed, the cohesiveness of SNs is a function of the entire nominal group, not merely the head noun. This underscores the necessity to examine how modifiers contribute to the roles of SNs in discourse. As previously discussed, SNs are inherently non-specific outside their contexts, compelling writers to employ various modifications (both pre-modifiers and post-modifiers) to elaborate and clarify the meanings of the nouns.

Jiang (2015) revealed that native speakers (NS) often use post-modifiers (e.g., *that* clause, preposition plus *wh*-clause) to strengthen stance expression and argument, while non-native speakers (NNS) tend to overuse attitudinal adjectives as pre-modifiers of SNs, which can undermine the objectivity and credibility of their arguments. Tåqvist (2018) compared the frequency of different types of pre-modifiers (organizational, propositional, and attitudinal) for SNs in the writing of L2 (Swedish advanced learners of English), L1, and expert writers. He found that L2 writing exhibited a preference for attitudinal adjectives (e.g., *important, good, difficult*), while expert writing favored propositional ones (e.g., *experimental, ideological, statistical*). This resulted in L2 writing appearing more subjective, while expert writing was more objective. No significant difference was found between L1 and L2 student essays.

Yoon (2018) suggested that the effectiveness of SN use may partially depend on how modifiers are utilized. His analysis of SN modification in Korean college students' English argumentative essays considered all possible modifications, including pre-modifiers (possessive, adjective, noun, demonstrative) and post-modifiers (relative

© 2023 KASELL All rights reserved

clause, prepositional phrase, *to* infinitive, *that* complement clause). When compared to NS, Korean students exhibited fewer frequencies of post-modifiers and showed a tendency to use nominalization as labels for general yet vague concepts, which could weaken their argumentation.

Other studies of noun phrase (NP) modification, also known as NP complexity, have employed the developmental stages suggested by Biber et al. (2011). These stages, based on an investigation of 23 grammatical features in research articles, have been utilized to measure noun phrase complexity. However, this measure has yet to be tested in SN research.

The above-reviewed studies have shed light on SN use in writings produced by different groups, including L1 students, L2 students, and expert writers. Yet, it remains uncertain whether SN use correlates with learners' proficiency levels, and if so, how. There is a need to examine each noun and its modifications beyond just overall frequency or patterns. This study aims to further this research by investigating the use and modification of SNs in argumentative essays composed by Korean undergraduate English learners at various proficiency levels and native English students. The study aims to answer the following questions:

1) What SNs and modifiers are chosen by writers at different proficiency levels in argumentative essays? How does the frequency of SNs and modifiers of varying complexities change across proficiency levels?

2) What differences exist in the functions of the most frequently used SNs and modifications across proficiency levels?

3.Methodology

3.1. Corpora

The data for this study comprises two corpora sets: the Yonsei English Learner Corpus (YELC) and the Louvain Corpus of Native English Essays (LOCNESS). The YELC is a Korean EFL learner corpus culled from a computer-based timed-writing exam administered to freshmen at Yonsei University in South Korea (Rhee and Jung 2014).[1] We chose YELC to analyze writings from learners about to engage more deeply in academic English production. Examining their use of SNs can provide insights into enhancing academic writing instruction in EFL contexts. Students, prohibited from using any reference sources or tools, were given two writing tasks: free writing on everyday topics and argumentative essays on contentious subjects requiring persuasive argumentation. For this study, the latter was chosen due to the documented prevalence of SNs in written discourse that necessitates effective argumentation (Flowerdew and Forest 2015). The topics covered include corporal punishment, animal testing, smoking, cellphone usage while driving, mandatory military service, and the requirement of real names on the internet (Choe and Song 2013). Trained native speakers graded the essays, assigning them to one of the nine CEFR levels (A1, A1+, A2, B1, B1+, B2, B2+, C1, C2). Most of the examinees were first evaluated by one rater, with 60 cases subsequently and independently assessed by a second rater. This process yielded a high inter-rater reliability ($r = 0.78$). Except for the A1 level,[2] the remaining seven levels of essays were regrouped into four levels (A2-elementary; B1-intermediate; B2-upper intermediate; and C-advanced) for this study. The sub-groupings for

[1] The Yonsei English Learner Corpus comprises 6,572 essays written by 3,286 students. We utilized the most recent version of the corpus, assembled in 2011. For more information on the corpus compilation, refer to Rhee and Jung (2014).
[2] The A1 level texts were excluded because their extremely short essays, averaging 37 words per essay, significantly skewed the frequency results when normalized for comparison with other corpora.

© 2023 KASELL All rights reserved

course placement (e.g., B1+ and B1) were consolidated under one heading (B1) for a better match with CEFR levels, while C1 and C2 were combined into a single level, C, due to the small corpus size of the C2 level (n = 2).

For a comparison, the LOCNESS corpus was chosen. This corpus was compiled as a part of the ICLE (International Corpus of Learner English) project and includes argumentative (and some literary) essays written by British and American university students. This study used argumentative essays written by American students on topics similar to those in the YELC (e.g., capital punishment, euthanasia, animal testing). Table 1 provides an overview of the two corpora:

Table 1. Description of Corpora

Corpora	YELC_A2	YELC_B1	YELC_B2	YELC_C	LOCNESS
Number of Essays	684	1,878	459	39	176
Number of Words	133,675	467,090	132,563	12,040	149,574

3.2. Analytical Procedure

This study employs a list of 35 enumerative nouns identified by Hinkel (2004) as the target signaling nouns (SNs), in line with Aktas and Cortes (2008) and Oh (2014) (refer to Table 2 for the complete list). This list comprises highly prevalent terms that learners often encounter and are therefore likely to use in their writing. Despite the existence of more comprehensive lists (Flowerdew 2015, Tåqvist 2018), this list was chosen for its compatibility with prior studies that utilized the same list, and the frequent use of these SNs even in the writing of lower-level learners. Additionally, this concise list facilitates a thorough investigation, permitting a more detailed analysis of the use and modification of SNs.

Table 2. Target Signaling Nouns (Hinkel 2004)

approach	*class*	*factor*	*phase*	*subject*
aspect	*difficulty*	*feature*	*problem*	*system*
category	*effect*	*form*	*process*	*task*
challenge	*event*	*issue*	*purpose*	*tendency*
change	*experience*	*item*	*reason*	*topic*
characteristic	*facet*	*manner*	*result*	*trend*
circumstance	*fact*	*method*	*stage*	*type*

For data analysis, all instances of the 35 target nouns (including their plural forms) were extracted from each corpus using a concordancing program, WordSmith (version 7.0). Each noun instance underwent manual inspection to exclude non-nominal uses of some nouns (e.g., *approach*, *result*, *process*), and non-SN uses based on criteria adapted from earlier studies (Flowerdew and Forest 2015, Oh 2014). For instance, in excerpt (3) below, the possible SN *difficulties* was considered to possess a non-SN, or "constant meaning" (Oh 2014), with no contextual referent, and thus, it was excluded from the data.

(3) *Also if smoking in all public buildings is banned there will be* ***difficulties*** *for smokers.* (B1_12)

Subsequently, SN modification structures were manually identified and coded based on Biber et al.'s (2011) developmental stages of noun modifiers, which feature in their proposed developmental stages of grammatical complexity in L2 production. Of their 23 developmental indices, encompassing five finite complements, three non-finite complements, two phrasal embedding structures, and 13 NP-related structures, the NP structural complexity

© 2023 KASELL All rights reserved

indices beginning from Stage 2 were used following Lan and Sun (2019). These authors adopted the same indices in their study after simplifying a few preposition-related indices (See Table 3).

Table 3. Developmental Stages of Noun Modifiers (Lan and Sun 2019)

Stage	Noun Modifiers	Position	Type	Example
2	Attributive adjective	Pre	Phrasal	An **effective** action
3	Relative clause	Post	Clausal	The book **that he gave me**
	Noun as modifier	Pre	Phrasal	A **learner** corpus
4	Prepositional phrase (*of*)	Post	Phrasal	The income **of a family**
	Prepositional phrase (other)	Post	Phrasal	The laptop **on the table**
	-ing clause	Post	Clausal	The man **driving the car**
	-ed clause	Post	Clausal	The notes **taken by students**
5	Infinitive clause	Post	Clausal	The way **to go to school**
	Preposition +*ing* clause	Post	Phrasal	The ability **of teaching the course**
	Noun complement clause	Post	Clausal	The fact **that the price was increased**
	Appositive noun phrases	Post	Phrasal	Environmental pollution**, a big issue**

The coding process was followed by several stages of quantitative analysis. The frequencies of the SNs in each corpus were calculated and normalized to 100,000 words. The relative percentages were also calculated based on the total frequency of the given noun. The occurrence count of modifiers at each developmental stage was then tallied. The results were compared across the sub-corpora to reveal similarities or differences among different levels of learner writing and native speakers' writing. At the final stage of the quantitative analysis, a chi-square test was conducted to assess the statistical significance of frequency differences, and standardized residuals were calculated to identify cells contributing to the value of the chi-square. Standardized residuals in chi-square tests indicate the deviation of data from expected values and help identify where significant differences between observed and expected frequencies are present. A positive standardized residual suggests that the observed frequency exceeds the expected, while a negative one indicates the observed frequency is less than expected. Lastly, to supplement the quantitative analysis findings, a qualitative analysis was performed examining the uses of the ten most frequent SNs in their full context, and the functions they and their modifiers serve in the context.

4. Results and Discussion

4.1. Quantitative Analysis

4.1.1. Signaling Nouns

This subsection presents the quantitative analysis results for SNs. Table 4 displays the absolute and normalized frequencies, along with the number of types of SNs in each corpus. The overall frequency of SNs does not seem to correlate with learner proficiency as the frequencies neither show an increasing nor a decreasing pattern (i.e., 535, 608, 498, and 722).

© 2023 KASELL All rights reserved

Table 4. Distribution of SNs Across Corpora

	YELC_A2	YELC_B1	YELC_B2	YELC_C	LOCNESS
Absolute freq. (tokens)	718	2841	661	87	823
Freq. per 100,000 words	535	608	498	722	550
No. of different SNs (types)	26	31	32	22	33

Previous studies on this issue have produced inconsistent results (Flowerdew 2010, Liardét 2013, Oh 2014, Tåqvist 2018). Flowerdew (2010) found a less frequent use of SNs in an L2 writer corpus of argumentative texts compared with L1 texts. Contrarily, Oh (2014) reported that Korean EAP learners use SNs more than articles published in the same field. Tåqvist (2018) found L2 students to use SNs most frequently, followed by expert writers, then L1 writers. This was unexpected since L2 student writing exhibited characteristics of an informal spoken register where SNs are argued to be less frequent than in formal academic genres (Flowerdew and Forest, 2015). Given this inconsistency, Oh (2014) proposed that the simple differences in total SN frequencies may be less significant than disparities in their actual uses.

The number of SN types tends to increase, albeit slightly, with proficiency levels, except for level C. The deviation at level C seems attributable to its smaller corpus size (12,040 words) compared to other levels (on average 220,725 words). To fully understand the differences in SN frequencies across corpora, it may be helpful to consider the distribution of individual SNs. L2 writers tend to heavily rely on two specific SNs *reason* and *problem*, which occur extremely frequently (between 100 and 300 frequencies) in the learner corpora. However, the NS corpus shows a more balanced distribution of SNs, with no single SN occurring more than 100 times. The frequency of the two specific SNs, *reason* and *problem*, in the corpora shows a statistically significant difference among the groups (x^2 (4) = 322.92, $p < .001$; x^2 (4) = 31.46, $p < .001$), with a large effect size (Cramer's V = 0.252, 95% CI [0.223, 0.278]) and a small effect size (Cramer's V = 0.079, 95% CI [0.046, 0.103]), respectively. Based on the calculated standardized residuals, the native corpus contributes most significantly to the difference for *reason* ($R = -15.01$). As for the noun *problem*, the C and native corpora contribute significantly less than the other groups (R = -4.32 and -2.15, respectively). This suggests that the overrepresentation of these two SNs may be a characteristic of L2 learners or less proficient learners. Other studies (Jiang, 2015, Tåqvist, 2018) have reported similar findings, showing that L2 writers tend to rely on a limited set of SNs, particularly those related to argumentation (e.g., *opinion*, *conclusion*).

Excluding *reason* and *problem*, the total normalized frequency of the remaining SNs actually increases after the B1 level (222, 211, 253, 349, and 400 for each learner level and native corpora, respectively). This frequency is significantly different among the groups (x^2 (4) = 379.7, $p < .001$) with a large effect size (Cramer's V = 0.273, 95% CI [0.244, 0.299]). As presented in Table 5, the largest standardized residual comes from native writers' cell (R = 17.921). Other notable contributors to the difference include the B1 level with less use (R = -14.71) and the B2 level with more use (R = 3.50). These results suggest that although the overall frequency of SNs does not appear to correlate with proficiency at first sight, a general increase in the frequency of SNs can be observed upon excluding the two most frequently used SNs in non-native speaker corpora.

© 2023 KASELL All rights reserved

Table 5. Standardized Residuals in a Chi-square Contingency Table for SNs except *Reason* & *Problem*

x^2 (4) = 183.47, p < .001, Cramer's V = .25	YELC_A2	YELC_B1	YELC_B2	YELC_C	LOCNESS
Observed Count	299	986	335	42	599
Expected Count	264.37	296.61	246.10	356.64	271.57
R	-1.59	-14.71	3.50	0.74	17.92

The quantitative analysis of SNs indicates that L2 learners' excessive reliance on a select few SNs may obscure a general increasing trend in SN usage. Tåqvist (2016) similarly observed that while two SNs showed more than 200 normalized occurrences in L2 writing, no SNs fell within that frequency range in either L1 or expert writing. This led him to conclude that SN frequency might not be a reliable indicator of proficiency. Aktas and Cortes (2008) also underscored the tendency among L2 learners to repetitively use a handful of shell nouns. The results of this current study suggest that the overuse of a limited set of SNs by L2 learners should be taken into account when assessing the relationship between proficiency and the overall frequency of SN usage.

4.1.2. SN Modification

A key objective of this study was to explore the progression of SN modification patterns as the proficiency levels of learners increase. Table 6 illustrates the degree to which writers at various proficiency levels utilize different types of SN modifiers. The first column presents the developmental stages for NP complexity features as hypothesized by Biber et al. (2011). Figure 1 provides a visualization of the proportion and normalized frequencies of modifiers within each corpus.

Table 6. Normalized Frequencies (per 100,000) and Ratio of SN Modifiers

St.	SN Modifier	YELC_A2	YELC_B1	YELC_B2	YELC_C	LOCNESS
2	Attributive adjectives	240 (59.3%)	262 (53.9%)	372 (62.6%)	390 (58.4%)	161 (34%)
3	Relative clauses	31 (1.9%)	47 (9.7%)	27 (4.5%)	16 (2.4%)	31 (6.6%)
	Noun as pre-modifiers[3]	2 (0.5%)	2 (0.4%)	2 (0.3%)	0 (0%)	9 (1.9%)
	Subtotal	33 (8.2%)	49 (10.1%)	29 (4.9%)	16 (2.4%)	40 (8.5%)
4	*Of* phrases as post-modifiers	30 (7.4%)	37 (7.6%)	52 (8.8%)	91 (13.6%)	103 (21.8%)
	PPs with prep. other than *of*	37 (9.1%)	56 (11.5%)	55 (9.3%)	41 (6.1%)	58 (12.3%)
	-ed as post-modifiers	1 (0.3%)	1 (0.2%)	3 (0.5%)	8 (1.2%)	3 (0.6%)
	-ing as post-modifiers	2 (0.5%)	1 (0.2%)	4 (0.7%)	16 (2.4%)	4 (0.8%)
	Subtotal	70 (17.3%)	95 (19.5%)	114 (19.2%)	156 (23.4%)	168 (35.5%)
5	*Of* + *-ing* noun complement clauses	16 (4.0%)	13 (2.7%)	10 (1.7%)	66 (9.9%)	29 (6.1%)
	That- noun complement clauses	38 (9.4%)	31 (6.4%)	43 (7.2%)	24 (3.6%)	58 (12.3%)
	Appositive NPs as post-modifiers	0 (0%)	1 (0.2%)	0 (0%)	0 (0%)	2 (0.4%)
	To-clauses as post-modifiers	8 (2.0%)	35 (7.2%)	26 (4.4%)	16 (2.4%)	15 (3.1%)
	Subtotal	62 (15.3%)	80 (16.5%)	79 (13.3%)	106 (15.9%)	104 (22%)
	Total	405 (100%)	486 (100%)	594 (100%)	668 (100%)	473 (100%)

[3] Nouns acting as pre-modifiers, included under stage 3, are scarcely found in either NNS corpora or the NS corpus, albeit with a marginally higher occurrence in the latter. This could be attributed to the inherent nature of SNs, the meanings of which are expected to fluctuate based on context. Some potential SNs were classified as non-SNs and subsequently excluded when their referent was identified in the pre-modification (in the form of a noun), and therefore not considered context-specific (Oh 2014).

© 2023 KASELL All rights reserved

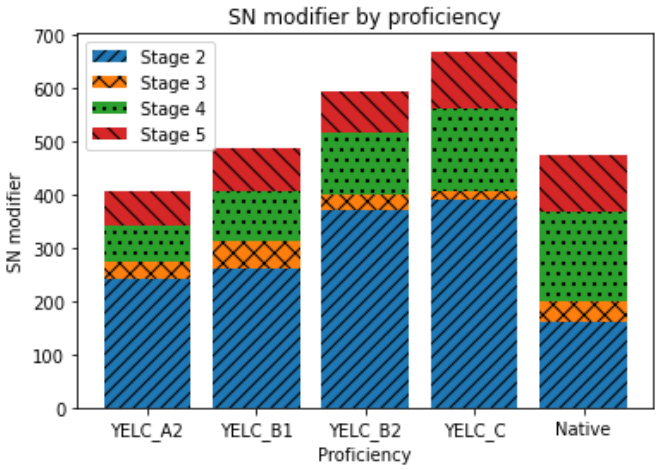

Figure 1. SN Modifiers of Each Stage over Proficiency

As shown in the table, the total frequency of SN modification increases in tandem with learner proficiency (405, 486, 594, 668), yet remains relatively low (473) in the NS corpus. This trend seems to stem largely from L2 learners' increasing use of attributive adjectives (i.e., Stage 2). If we exclude this type of modifier, the total frequency roughly increases with proficiency (165, 224, 222, 278, and 312). Thus, it appears that NNS groups favor SNs with attributive adjectives as pre-modifiers, whereas native data shows a more balanced usage of all modifier types.

Biber et al. (2011) proposed that adjectives are acquired earlier than nouns acting as pre-modifiers or prepositional phrases serving as post-modifiers. In line with this proposal, Parkinson and Musgrave (2014) predicted that less proficient learners would rely more heavily on early-stage modifiers such as attributive adjectives compared to their more proficient counterparts. Their data seemed to validate this prediction by demonstrating a heavier reliance on attributive adjectives by lower-level L2 learners (57.1%) compared to the higher proficiency group (35.1%). However, these lower-level participants were EAP program students ranked in the top three levels, even though their proficiency was distinctly different from that of the MA students in TESOL (the higher group). In contrast, other studies showed that their more proficient L2 learner groups used a greater number of attributive adjectives (Lan and Sun 2019, Lan et al. 2019), a finding that aligns with the results of this study. This suggests that modifiers at the higher level are developed with proficiency, but earlier-acquired modifiers (i.e., attributive adjectives) are not replaced by those acquired later. This hypothesis could explain why the use of attributive adjectives increases with proficiency in L2 corpora, while they are used less frequently by native or expert writers.

Another notable trend is the rising pattern observed in stage 4, which may be ascribed to the growing use of prepositional phrases, particularly *of*-phrases (see Table 6). The results of the chi-square test for stage 4 indicate significant differences among the groups ($x^2(4) = 93.011, p < .001$), although the overall effect is relatively small (Cramer's $V = 0.14$, 95% CI [0.116, 0.181]). As shown in Table 7, all the groups, excluding level C, contribute to the statistically significant result, each displaying absolute standardized residual values greater than 1.96 (A2 with -2.56, B1 with -3.77, B2 with -1.98, and native corpus with 9.59). Biber et al. (2011) proposed that more proficient L2 learners tend to use more prepositional phrases for noun modification, indicating their later acquisition. The outcome of the current study aligns with previous research on NP complexity, which showed that more advanced learners and native writers tend to use phrasal structures for modifying SNs (Ansarifar et al. 2014, Lan and Sun 2019, Lan et al. 2019, Parkinson and Musgrave 2014).

© 2023 KASELL All rights reserved

Table 7. Standardized Residuals in a Chi-Square Contingency Table for Modifiers at Stage 4

$x^2(4) = 93.001$, p < .001, Cramer's $V = .14$	YELC_A2	YELC_B1	YELC_B2	YELC_C	LOCNESS
Observed Count	97	451	153	19	254
Expected Count	120.21	503.01	173.96	19.96	156.85
R	-2.56	-3.77	-1.98	-0.25	9.59

The increasing trend in the use of stage 4 modifiers across proficiency levels supports the developmental patterns for noun modifiers proposed by Biber et al. (2011). The developmental patterns for L2 learners in their study were based on observed stages in native learners, suggesting a need for empirical studies to confirm similar patterns in L2 data. When applied to the use of SN modification in L2 learners, their hypothesis is partially supported. The results revealed an increase in the use of stage 4 and stage 2 modifiers with proficiency, even though the frequency at the lowest level had already surpassed that of the native speaker corpus. This indicates that acquiring later-stage modifications did not result in a decrease in the use of earlier-stage modifications in L2 learners' writing. Consequently, the total number of SN modifications increased with proficiency.

4.2. Qualitative Analysis

The most common SNs and their modifiers were examined within their contexts to reveal patterns unique to each corpus. The first section (4.2.1) will discuss the function of SNs and modifiers in essays, followed by an analysis of the writers' different preferences for attributive adjectives as pre-modifiers (4.2.2) and post-modification using *of*-phrases (4.2.3).

4.2.1. *Reason* as a frame marker versus a topic reminder

Detailed analysis of SNs and the roles they play in the text produced some interesting findings. Due to space constraints, this discussion will focus on *reason*, which is the most frequent SN in the learner corpora and ranks fourth in the native speaker (NS) corpus. This SN primarily functions to organize essays as "frame markers" (Hyland 2005) in L2 corpora, whereas it acts as a topic reminder in the NS corpus and in some higher-level L2 writing.

In Hyland's (2005) model of metadiscourse, frame markers reference sequences, stages, or discourse acts, and are categorized as "interactive metadiscourse devices" that guide readers through the argument. In L2 student essays across all proficiency levels, more than seventy percent of the instances of the noun *reason* serve as sequence introducers (e.g., *There are many reasons I agree with…*) or sequence indicators (e.g., *First reason is…*), while only about eleven percent of the instances fulfill the same function in the native corpus. The following excerpts (3) and (4) are from the learner corpora.

(3) *There are two reasons why I disagree with it. The first* ***reason*** *is that* <u>*mordern army has lots of good weapons*</u>*. … Second* ***reason*** *is that* <u>*many young people lost their time in military*</u>*.* (YELC_B1_2432)

(4) *however, i think that using celluar phones while driving must not be allowed in my country. here is some* ***reasons*** *for that. First, when drivers use celluar phones while driving, drivers usually can't concentrate driving… For these* ***reasons****, i indicate that celluar phones must not be allowed while driving*.

© 2023 KASELL All rights reserved

(YELC_A2_1806)

Learners' consistent and repetitive use of sequential frame markers to structure their arguments has also been recognized in previous studies on L2 learner writing (Choung and Oh 2017, Park and Oh 2018, Takač and Ivezić 2019). This tendency seems to stem from learners' rhetorical preference for presenting their thesis statement first and then justifying it with an enumerated list using ordinal adjectives (i.e., *first*, *second*, etc.). This deductive pattern might be due to learners' understanding that English essays require explicit structuring (Kang and Oh 2011), while a more implicit method of argumentation is typical in native data (Tahara 2017). The current study shows that learners often use the SN *reason* to realize this specific rhetorical choice.

On the other hand, the SN *reason* often serves a somewhat different function in NS corpus and the highest-level learner corpus. Typically appearing in the middle of the essay, *reason* often accompanies post-modifiers such as *that* complements, *why* adverbial clauses, or *of* phrases, which embed the essay topic, as illustrated in excerpts (5) and (6). In these excerpts, drawn from essays of 623 and 483 words respectively, *reason* appears only once, after 481 and 164 words have been written. *Reason*, modified by a *that* clause in (5) and a *why* clause in (6), presents the underlined proposition as an explanation for the writer's claim. At the same time, it acts as a topic reminder, namely, whether women should attend a certain event in (5) and whether physical punishment should be allowed in school in (6). In excerpt (6), the whole SN structure also serves to repeat and reinforce the author's point.

(5) *One **reason** that people don't want women to attend is they say it will distract the men. I think this is not true, because many of the country's higher education institutions are coed. There is not a problem with it there. Men and women attend classes together and socialize together, but the two don't interfere.* (LOCNESS)

(6) *But if physical punishment is gone and only academic punishment is left then those who don't like to study would fall behind because they don't care whether their grades are taken off. That's one **reason** why physical punishment should be allowed in schools*. (YELC_C_1746)

Noun complement structures are frequently found in research articles to refocus attention on the statements or ideas of prominent figures for further analysis or discussion (Jiang and Hyland 2015). This same structure is employed by native English speakers and some higher proficiency level L2 writers to highlight and remind readers of the topic. Besides *reason*, several other SNs (e.g., *topic*, *issue*) have been found to serve as topic reminders in these corpora as well.

4.2.2. Attributive adjectives as SN pre-modifiers

As reported in Section 4.1.2, L2 learners, regardless of proficiency level, tend to heavily rely on attributive adjectives (i.e., stage 2) as SN modifiers. While a numerical difference between learners and native speakers in the use of these adjectives was clear, there were also noticeable qualitative variations. When the types or functions of adjectives were considered (Francis 1994, Tåqvist 2018), learners – unlike native speakers – were found to predominantly use organizational adjectives. This seems largely due to learners' frequent use of the SN *reason* coupled with their tendency to explicitly organize essays using enumerative devices (e.g, *first, second, third*). Although adjectives expressing writers' feelings or attitudes were commonly used by both groups, subtle differences were observed regarding the SNs modified by such attitudinal adjectives. For instance, *topic* and *issue* were the representative nouns in L2 learner corpora, but *aspect* and *characteristics* were more common in the NS

© 2023 KASELL All rights reserved

corpus.

Even when the same SN was modified by attitudinal adjectives, the level of detail provided often varied between the corpora. Typically, native speakers and some high-level L2 learners using attitudinal adjectives (e.g., *controversial*) followed with the rationale for the evaluation and an in-depth discussion of the topic, as shown in excerpts (7) and (8). In contrast, as in excerpt (9), an L2 writer at the B1 level leaves readers to infer the rationale for their evaluation.

(7) *Abortion is a controversial* ***topic*** *in today's society. Almost everyone has an opinion on the subject. Many people believe it should be illegal. Many others believe the government should not interfere; it should remain the choice of the individual*. (LOCNESS)

(8) *Physical punishment in schools is a very controversial* ***issue*** *in society. Some argue that physical punishment should be completely banned. Others argue that such punishment is necessary in making students follow rules. In my opinion, such punishment is not necessary in schools, so they should not be allowed.* (YELC_C_1703)

(9) *It is a controversial* ***topic*** *because there are too many smokers around us. I think we should find a medival point between smokers and non-smokers.* (YELC_B1_420).

SNs modified by attitudinal adjectives also serve a strategic function in the native-speaker corpus, leveraging a principle of information structuring. As per this principle, new information is typically introduced in the "rheme" of a clause, which then becomes given information in the "theme" of the subsequent clause (Halliday and Matthiessen 2014). In English, the roles of theme and rheme are usually assigned by word order, with the subject and predicate serving as theme and rheme, respectively. In excerpts (10) and (11), the SN *aspect* occupies the theme position (the place for given information) along with attitudinal adjectives (*important* and *alarming*) as pre-modifiers. However, the information provided by the adjectives (i.e., the writers' stance towards the topic) is actually new to the readers. This strategic embedding of evaluation within a given context through SN modification can subtly guide the reader to accept it, aiding effective argumentation. This tactical use of SNs and modification was not found in the non-native speaker corpora, even at higher proficiency levels, where *aspect* typically pairs with organizational adjectives (e.g., *one*, *another*) as seen in excerpt (12).

(10) ***the most important aspect of this creation*** *is* *its ability to bring the worlds together*. (LOCNESS)

(11) *However,* ***the most alarming aspect of this situation*** *is not how each sex sees the other,* *but how each sex sees itself*. (LOCNESS)

(12) *One* ***aspect*** *is* *the well known people are attacked by vicious comments*, *and they have a mental damage and coma, then they suiside or have serious mental illness*. (YELC_A2_1240)

4.2.3. *Of*-phrases as SN post-modifiers

Another notable difference observed across the corpora in SN usage is the incorporation of *of*-phrases as post-modifiers. Their frequency distinctly mirrors proficiency development (refer to Section 4.1.2). L1 writers

© 2023 KASELL All rights reserved

frequently employ SNs alongside *of*-phrases as post-modifiers, leveraging them as a grammatical metaphor for succinctness in academic contexts. The term "grammatical metaphor" denotes a shift to an alternate grammatical structure while preserving the original meaning (Halliday 1985). It entails structural condensation, often using phrasal structures like the *of*-phrases, to convey a substantial amount of information in fewer words (Biber et al. 2011). Biber et al. (2011) argue that more advanced learners demonstrate a superior understanding of the condensed, phrasal nature of written discourse. For persuasive and argumentative academic writing, the two primary concerns are conciseness through compression and clarity (Bennett 2009). A challenge for L2 and even novice L1 writers lies in balancing these objectives, ensuring that discourse is both concise and clear.

These goals can be achieved by the effective use of SNs that are modified by *of*-phrases. In excerpt (13), the native writer incorporates the SN *result* with an *of*-phrase post-modifier, to refer forward to the subsequent proposition. Rather than reiterating the previous sentences in a clause format (beginning with *because* or *if*, for example), the writer uses the SN *result* and summarizes the prior information within the subsequent NP (i.e., *the greatly reduced travel times*). This method retains clarity and, through nominalization, achieves brevity.

(13) *Travel times have been significantly shortened; for example, to drive from Michigan to California takes about 30-35 hours, but to fly the same distance takes about 3 hours. This allows people a greater variety of places to travel, and they can spend their vacation time at their chosen destination, not trying to get there. The business world has definitely flourished due to the airplane. As a* ***result*** *of the greatly decreased travel times, countries can work together much easier than previously possibly.* (LOCNESS)

(14) *I think that physical punishment should be allowed in all schools. because if the punishment not be allowed in all schools, many rude students will cause very many problems*. (YELC_B1_873)

In contrast, learners often rephrase previous propositions in a clausal form (e.g., *if the punishment not be allowed in all schools*), as illustrated in excerpt (14), where a prepositional phrase (e.g., *without such punishment*) or a nominalization (e.g., *the absence of such disciplinary measures*) could be more suitable. This effective strategy of using SNs along with modifiers is often overlooked even by native speakers, and is generally absent in non-native speaker texts.

Furthermore, the role of SNs, such as *topic* or *issue*, often works in tandem with *of*-phrases to aid readers in navigating an argument efficiently. In excerpt (15), the noun *topic* is introduced as a reminder with a summarizing *of*-phrase after 904 words in a 1,543-word essay. The phrasal structure and nominalization bring the topic (i.e., *a stay home wife working in the home*) back to the reader's attention, promoting both clarity and conciseness.

(15) *When addressing the* ***topic*** *of a stay home wife working in the home because she chooses to, it's important to address the fact that in many of the cases the wife is able to stay home because the couple is financially successful with just one income* (LOCNESS).

Chinese English writers, according to Lan and Sun (2019), also seldom use *of*-phrases as modifiers compared to research articles. The present study's data corroborates this, highlighting the more advanced writers' deeper understanding of the importance of compressed noun modifications in written discourse.

© 2023 KASELL All rights reserved

5. Conclusion

This study enhances our current understanding of SNs by addressing their relationship with proficiency and exploring usage patterns. The findings verify the heavy reliance of L2 learners on a limited range of SNs, and illustrate that the frequency of SN usage tends to increase with proficiency when excluding the top few most frequently used nouns. This necessitates reconsideration of the connection between SN frequency and proficiency, an issue left unresolved due to conflicting findings in previous studies (Flowerdew 2010, Oh 2014, Tåqvist 2016, 2018). Specifically, the overuse of a few select SNs by learners needs to be taken into account. SN modification, a crucial part of the meanings of SNs, shows a clear developmental pattern in stage 4, where the use of prepositional phrases grows with proficiency. However, the rise in prepositional phrase usage in L2 learners' data does not replace modifiers at the lowest stage, namely attributive adjectives. Rather, the use of both prepositional phrases and attributive adjectives increases concurrently, contributing to the overall growth in the number of modifiers in line with L2 proficiency development.

Beyond the quantifiable progression in L2 learners' use of SNs and modification, the study also reveals some functional changes accompanying it. For instance, certain SNs such as *reason*, *topic*, and *issue* are typically used as frame markers in lower-level L2 learners' essays, while they function as topic reminders in native speaker and higher-level L2 learner texts. When attitudinal adjectives are employed to modify SNs, progression lies in the level of elaboration or validation provided for the presented attitude or stance. Sophisticated use of SNs and modification is also observed at the level of discourse organization. In native speaker essays, attributive adjectives that denote the writers' evaluation are often embedded as premodifiers of SNs in the theme position, thereby strategically persuading readers to accept their stance as a given. These advanced writers frequently use more complex forms of SN modification, particularly *of*-phrases, to achieve both conciseness and clarity. This reflects their enhanced understanding of the condensed and phrasal nature of written discourse, an understanding that appears lacking in lower-level texts.

This study contributes to the existing literature that has separately explored signaling nouns, their modifications, and proficiency. It does so by examining the correlation between proficiency and the usage patterns of signaling nouns and their modifications in L2 learners' essays, while also conducting a qualitative analysis of the functional changes associated with these nouns and modifications. The insights provided by this study on the developmental patterns of SN use and modification will be pedagogically beneficial. EAP instructors, aware of learner profiles in this area across various proficiency levels, will be better prepared to provide level-specific instructions and guidelines for more effective argumentation in L2 learners' writing through the appropriate use and modification of SNs. Despite its theoretical and pedagogical contributions, the present study does have limitations. The uneven sample distribution across the four levels, particularly the small corpus size at level C, might have influenced the results. Additionally, the necessary exclusion of the A1 level slightly constrains the generalizability of our findings. To mitigate these limitations and achieve a more comprehensive understanding of L2 learners' use of SNs, future studies should consider analyzing a larger, more balanced learner corpus and examining a wider range of SNs.

References

Aktas, R. N. and V. Cortes. 2008. Shell nouns as cohesive devices in published and ESL student writing. *Journal of English for Academic Purposes* 7(1), 3-14.

Ansarifar, A., H. Shahriari and R. Pishghadam. 2018. Phrasal complexity in academic writing: A comparison of

© 2023 KASELL All rights reserved

abstracts written by graduate students and expert writers in applied linguistics. *Journal of English for Academic Purposes* 31, 58-71.

Bennett, K. 2009. English academic style manuals: A survey. *Journal of English for Academic Purposes* 8(1), 43-54.

Benitez-Castro, M. A. 2021. Shell-noun use in disciplinary student writing: A multifaceted analysis of problem and way in third-year undergraduate writing across three disciplines. *English for Specific Purposes* 61, 132-149.

Biber, D., B. Douglas, S. Conrad and R. Reppen. 1998. *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge University Press.

Biber, D. and B. Gray. 2010. Challenging stereotypes about academic writing: Complexity, elaboration, explicitness. *Journal of English for Academic Purposes* 9(1), 2-20.

Biber, D., B. Gray and K. Poonpon. 2011. Should we use characteristics of conversation to measure grammatical complexity in L2 writing development? *TESOL Quarterly* 45(1), 5-35.

Choe, J. W. and J. Y. Song. 2013. The topical classification of essays by college student English learners using hierarchical clustering. *Language Information* 17(5), 93-115.

Choung, Y. and S.Y. Oh. 2017. A systemic functional study of thematic organization in the English writing of Korean college students. *English Teaching* 72(3), 119-144.

Ebrahimi, S. F. and A. Mohsenzadeh. 2019. Realizations and functional patterns of shell nouns in applied linguistics research articles. *The Journal of Applied Linguistics and Applied Literature: Dynamics and Advances* 7(2), 201-211.

Flowerdew, J. 2006. Use of signalling nouns in a learner corpus. *International Journal of Corpus Linguistics* 11(3), 345-362.

Flowerdew, J. 2010. Use of signalling nouns across L1 and L2 writer corpora. *International Journal of Corpus Linguistics* 15(1), 36-55.

Flowerdew, J. 2015. Revisiting metadiscourse: Conceptual and methodological issues concerning signalling nouns. *Ibérica* 29, 15-34.

Flowerdew, J. and R. W. Forest. 2015. *Signalling nouns in academic English.* Cambridge: Cambridge University Press.

Francis, G. 1994. Labelling discourse: An aspect of nominal-group lexical cohesion. In M. Coulthard, ed., *Advances in Written Text Analysis,* 83-101. London: Routledge.

Gilquin, G., S. Granger and M. Paquot. 2007. Learner corpora: The missing link in EAP pedagogy. *Journal of English for Academic Purposes* 6(4), 319-335.

Halliday, M. A. K. and R. Hasan. 1976. *Cohesion in English*. London: Longman.

Halliday, M. A. K. 1985. *An introduction to functional grammar*, 1st ed. London: Edward Arnold.

Halliday, M. A. K. 2004. *Language of science*. London: Continuum.

Halliday, M.A.K. and C. M. I. M. Matthiessen. 2014. *Halliday's introduction to functional grammar,* 4th ed. London: Routledge.

Hinkel, E. 2001. Matters of cohesion in L2 academic texts. *Applied Language Learning* 12(2), 111-132.

Hinkel, E. 2004. *Teaching Academic ESL Writing: Practical Techniques in Vocabulary and Grammar*. Mahwah, NJ: Lawrence Erlbaum Associates.

Hyland, K. 2005. Stance and engagement: A model of interaction in academic discourse. *Discourse Studies* 7(2), 173–192.

Ivanič, R. 1991. Nouns in search of a context: A study of nouns with both open-and closed-system characteristics.

© 2023 KASELL All rights reserved

International Review of Applied Linguistics in Language Teaching 29(2), 93-114.

Jalilifar, A., P. White and N. Malekizadeh. 2017. Exploring nominalization in scientific textbooks: A cross-disciplinary study of hard and soft sciences. *International Journal of English Studies* 17(2), 1-20.

Jang, J. and S. C. Rhee.2014. A corpus-based study of the use of shell nouns as cohesive devices in Korean EFL Writing. *English Language and Literature Teaching* 20, 71-93.

Jiang, F. K. 2015. Nominal stance construction in L1 and L2 students' writing. *Journal of English for Academic Purposes* 20, 90-102.

Jiang, F. and K. Hyland, K. 2015. 'The fact that': Stance nouns in disciplinary writing. *Discourse Studies* 17(5), 529-550.

Kang, S. J. and S. Y. Oh. 2011. Rhetorical patterns in L1 and L2 argumentative essays of Korean EFL students. *Korean Journal of Applied Linguistics* 27(2), 161-201.

Lan, G. and Y. Sun. 2019. A corpus-based investigation of noun phrase complexity in the L2 writings of a first-year composition course. *Journal of English for Academic Purposes* 38, 14-24.

Lan, G., K. Lucas and Y. Sun. 2019. Does L2 writing proficiency influence noun phrase complexity? A case analysis of argumentative essays written by Chinese students in a first-year composition course. *System* 85, 1-13.

Liardét, C. L. 2013. An exploration of Chinese EFL learner's deployment of grammatical metaphor: Learning to make academically valued meanings. *Journal of Second Language Writing* 22(2), 161-178.

Liu, Q. and L. Deng. 2017. A genre-based study of shell-noun use in the N-be-that construction in popular and professional science articles. *English for Specific Purposes* 48, 32-43.

Mousavi, A. and M. R. Moini. 2014. A corpus study of shell nouns in published research articles of education. *Procedia-Social and Behavioral Sciences* 98, 1282-1289.

Oh, S. Y. 2014. Use of signaling nouns in published and Korean student academic writing in Applied Linguistics. *English Teaching* 69(1), 147-172.

Parkinson, J. and J. Musgrave. 2014. Development of noun phrase complexity in the writing of English for Academic Purposes students. *Journal of English for Academic Purposes* 14, 48-59.

Park, S. and S. Y. Oh. 2018. Korean EFL learners metadiscourse use as an index of L2 writing proficiency. *The SNU Journal of Education Research* 27, 65-89.

Rhee, S. C. and C. K. Jung. 2014. Compilation of the Yonsei English Learner Corpus (YELC) 2011 and its use for understanding current usage of English by Korean pre-university students. *The Journal of the Korea Contents Association* 14(11), 1019-1029.

Ryshina–pankova, M. 2010. Toward mastering the discourses of reasoning: Use of grammatical metaphor at advanced levels of foreign language acquisition. *The Modern Language Journal* 94(2), 181-197.

Schanding, B. and H. K. Pae. 2018. Shell noun use in English argumentative essays by native speakers of Japanese, Turkish, and English: Frequency and rate of noun-pattern attraction. *International Journal of Learner Corpus Research* 4(1), 54-81.

Schmid, H. J. 2000. *English Abstract Nouns as Conceptual Shells: From Corpus to Cognition*. New York: Walter de Gruyter.

Tahara, N. 2017. *The Use of Shell Nouns in Japanese and American Student Writing.* Doctoral dissertation, University of Birmingham, Birmingham, UK.

Takač, V. P. and S. V. Ivezić. 2019. Frame Markers and Coherence in L2 Argumentative Essays. *Discourse and Interaction* 12(2), 46-71.

Tåqvist, M. K. 2016. Facts and things: Advanced ESL learners' use of discourse-organising nouns. *Nordic Journal*

© 2023 KASELL All rights reserved

of English Studies 15(4), 107-134.

Tåqvist, M. K. 2018. "A wise decision": Pre-modification of discourse-organising nouns in L2 writing. *Journal of Second Language Writing* 41, 14-26.

Winter, E. O. 1977. A clause-relational approach to English texts: A study of some predictive lexical items in written discourse. *Instructional Science* 6(1), 1-92.

Yoon, C. 2018. Nominalization in Korean EFL learners' argumentative writing: A comparative study of distribution and use. *The New Studies of English Language and Literature* 69, 249-274.

Examples in: English
Applicable Languages: English
Applicable Level: Tertiary

© 2023 KASELL All rights reserved