Deconstructing applied linguistics conference paper titles: A syntactic analysis

Joseph B. A. Afful, Christopher Ankomah

University of Cape Coast, Cape Coast, Ghana

APA Citation:

Abstract
Following Swales’ (1990) influential study on research article (RA) introductions, some attention has increasingly been paid to other rhetorical units of both expert and learners’ writing, including titles. A key and effective discursive means through which titles are constructed and presented is the syntactic configuration. The present study, thus, investigates the syntactic structures employed by authors of conference paper titles (CPTs) in Applied Linguistics. A qualitative content analysis was employed to study a corpus of 592 CPTs from a popular conference for researchers, scholars, and practitioners of Applied Linguistics worldwide, supported by some descriptive statistics. The analysis of the data of the study identified three main title styles: Single Unit Title, Compound Unit Title, and Complex Unit Title. The analysis showed that, out of these three title styles, Compound Unit Titles were preferred by researchers. Further, the colon was the dominantly used punctuation mark in separating the components of Compound Unit titles. The final point was that authors preferred prepositional phrases in the post modification of the noun phrase structure of CPTs. The findings of this study have implications for the scholarship on titlelogy, academic writing pedagogy as well as further research.

© 2020 JLLS and the Authors - Published by JLLS.

Keywords: applied linguistics; compound unit title; conference papers; syntactic configuration; title style

1. Introduction

Titles in both academic and non-academic discourse have undoubtedly been conceived as one of the commonest rhetorical devices that are employed, either explicitly or implicitly, to catch the attention of readers. Although titles are considered a small part relative to other part-genres of notable academic genres (e.g., research articles, monographs, edited collections, dissertations/theses, festschrifts, and conference proceedings), they have continued to attract attention, leading to the creation of a field of study, ‘titlelogy’ (Biacchi, 2003; cited in Soler, 2011). Earlier, the genre analysis doyen, Swales (1990), had observed that titles were under-researched. However, two decades later, as Soler (2011) intones,
and since the creation of ‘titleology’, the field has witnessed a flurry of research activities championed by applied linguists, information scientists, and psychologists.

Indeed, the major role of titles cannot be underestimated as they are chiefly meant to attract and persuade readers (Afful, 2017; Haggan, 2004; Jamali & Nikzad, 2011; Moattarian & Alibabaee, 2015). Afful (2017) agrees with Day (1998) in referring to a title as a “front” rhetorical device. To Haggan (2004, p. 293), “the title plays an important role as the first point of contact between the writer and potential reader”. Also, data collecting centres and journal editors admit that readers of titles outnumber by far those of other sections of the research paper (Hills, 1997); thus, triggering the rising importance of the changes in the way titles are written. Stix (1994) and Cheng, Kuo, and Kuo (2012) further see the title as a gateway to the heart of the message meant for the world to read because a title usually mirrors the content of a document as “content announcers”. So, the decision to read the content of a document greatly depends on what the title offers.

Due to the fact that the significance of titles to academia has long been recognised by several researchers and scholars (e.g., Alley, 1996; Anthony, 2001; Bird & Knight, 1975; Diener, 1984; Nahl-Jakobovits & Jakobovits, 1987; Paiva, Lima, & Paiva, 2012; Soler, 2007; Whissel, 1999; Yitzhaki, 1994), a number of studies have been conducted from different perspectives including cross cultural or comparative study, lexical density, text length, punctuation, semantic encoding, and syntactic organisation. Yet, title study requires more attention.

1.1. Literature review

In this section, selected studies from various perspectives (e.g. cross-disciplinary, cross-cultural, cross-generic, and mono-disciplinary) are reviewed in so far as they touch on syntactic configuration, starting with studies on titles of RAs.

One of the earliest studies on the subject under study, Fortanet, Coll, Palmer, & Posteguillo (1997, 1998) analysed 200 titles of RAs in Computer Science, Applied Linguistics, Business and Economics, and Chemistry, and reported that Chemistry titles were the longest, while those in Linguistics were the shortest. More importantly, they also found that the most common syntactic structure of titles was made up of a ‘premodifier + a head + a postmodifier’. Head combinations were found to be more frequent in Linguistics, Business, and Economics titles, while combinations of pre- and post-modifiers were more frequent in Chemistry and Computer Science. In Busch-Lauer’s (2000) cross-linguistic and cross-generic study of 150 German and English titles of RAs and CPs in the fields of Linguistics and Medicine papers, the average length of titles in Medicine (9.9 words) was longer than that of Linguistics (8.4 words). Anthony (2001) observed from his corpus that there was a difference in usage across the RA titles: approximately 8% Computer and Visualization and Computer Graphics had compound titles compared with 20% of Knowledge and Data Base Engineering and Software Engineering.

Haggan (2004) studied 751 RA titles in the disciplines of Literature, Linguistics, and Science. In terms of title length, the study indicated that the average title in Science (13.8 words) was longer than that of Linguistics (8.8 words), which was in line with the findings of Busch-Lauer (2000). On her part, Haggan (2004) categorised the titles into full-sentence titles, compound titles, and a remaining group of title mainly consisting of noun phrases either post-modified or not. The compound title (Hagan, 2004) – also termed ‘bistructured’ (Busch-Lauer, 2000) and ‘hanging’ (Anthony, 2001) – is a form of title where two noun phrases or non-clausal units are juxtaposed on either side of a punctuation mark. The results revealed that there were obvious differences in the three disciplines: while in the Literature corpus the widely used title style was the compound title, the Linguistics and Science corpora witnessed the dominant use of almost two-thirds of titles made of nominal structures.
Continuing the path laid by earlier researchers, Cheng et al. (2012) investigated the syntactic structures of 796 RA titles in Applied Linguistics and found five syntactic structures: compound, nominal, full-sentence, V-ing phrase, and prepositional phrase. The most dominant structure was the compound unit title, which has the tendency to present duo foci of a study. This was followed by the nominal group in terms of frequency of occurrence. Within the nominal titles, majority of the heads had compound nouns extensively post-modified by prepositional phrases. Wang and Bai (2007) observed that, in Medical RAs, the average length of the titles was 10.9 words, with 99% of them being realized as nominal groups and 75% characterized by the presence of single heads. Ninety-eight percent did not have any subtitles, and 68% were accompanied by post-modifying prepositional phrases. In Moattarian and Alibabaee’s (2015) study of RA titles from different disciplines, it was revealed that the dominant syntactic structure of the titles was the single unit title style. Apart from some studies identified (e.g., see Afful, 2017), this finding contrasted what was commonly found in the literature (e.g., see Biber & Gray, 2010; Cheng et al. 2012; Haggan, 2004; Wang & Bai, 2007). However, a detailed analysis of 420 RAs showed that multiple unit titles were more extensively used in Applied Linguistics than in the Sciences. It was also revealed that the nominal group was more heavily used in the single unit title than the other structures, as nominal structures potentially contain more embedded structures in their bid to be more informative through modifications.

As part of contributing to studies on the structural configuration of titles, the studies of Dillon (1982), Lewinson and Hartley (2005), and Hartley (2007) focused on the use of colons. These punctuation marks are used to denote two information units, indicating either the general framework of the article and the specific topic of the document, or the topic and the method. Dillon (1982) explored the titles of 1,150 RAs in Education, Psychology, and Literary Criticism published between 1880 and 1980, and noticed a steady increase in the use of colons across these three disciplines. On their part, Lewinson and Hartley (2005) reported that titles with colons were longer and more informative than those without colons. Similarly, Hartley (2007) found that disciplinary differences exist in the use of colons, with greater use in the Arts than in the Sciences. In her cross-generic and cross-disciplinary study on 480 journal review paper (JRP) and 90 RA titles in the Biological and Social Sciences, Soler (2007) identified four main structural constructions: nominal groups, compounds, full sentences, and question titles. The most common construction across disciplines and genres was the nominal group. The full-sentence construction was found to be a generic and disciplinary peculiarity of Biology RAs, whereas the question construction was infrequently used, most commonly though in review papers.

At this point, it is worth noting that, as far as we are concerned, the first study that investigated the syntactic trajectory of CPTs was Gesuato (2009). However, her work touched on three other genres such as books, RAs, and dissertations. Gesuato’s work is significant and pertinent to the present study as she, among other foci, examined ‘syntactic encoding’, ‘structural organisation’, and ‘sub-phrasal syntax’. She observed that the similarities among the titles of the four genres outweighed the differences and attributed this phenomenon to the commonality of linguistic encoding and communicative goals of titles, and to the fact that the genres she studied belonged to the same discipline. Subsequent studies on titles such as Acquah (2010), Afful and Mwinlaaru (2010), and Afful (2017) have rejected the cross-generic approach and adopted a mono-generic approach, focusing on the CPs. In particular, Afful and Mwinlaaru’s study (2010) on 78 CPTs of four scholars from Education and Applied Linguistics in a Ghanaian university revealed that some differences existed in their academic writings. Two scholars from Applied linguistics had an average title length of 12.1 words and 7.5 words respectively, while the other two from Education recorded 6.4 words and 10.1 words. However, in respect of syntactic structure, the study revealed a preference for a noun phrase structure for all the four scholars in relation to ing-clause; the frequency of the NP structure (88.7%) heavily outweighed the occurrence of ing-clause (11.2%). A recent work by Afful (2017) revealed that the lexical items of CPTs comprised a rich array
of four main categories of lexicon (domain-specific words, research-related words, verbal expressions, and country/local references).

To sum up, the above review of the literature shows that titles vary and, at the same time, display similarities across a number of factors and in several dimensions, such as syntactic encoding, length, and use of punctuation marks. With respect to title length, there are varying degrees of average titles across cross-cultural (e.g. Busch-Lauer, 2000), cross-generic (e.g. Gesuato, 2009) or cross-disciplinary (e.g. Soler, 2007) studies. There seems to be competition between the preference for compound unit title (e.g. Biber & Gray, 2010; Cheng et al. 2012; Haggan, 2004; Wang & Bai, 2007) and the single unit title (Afful, 2017; Moattarian & Alibabae, 2015). Also, worth noting is that by far RAs have been over-researched in many other linguistic and rhetorical studies. By contrast, CPTs have not received much attention. The current study, therefore, examines the syntactic configuration of conference paper titles (CPTs) in order to widen the horizon of scholarship.

1.2. Aim of the study

Generally, the structure of titles as a rhetorical tool is inscribed in their semantic, lexical and syntactic compositions. For example, the syntax of a title, in particular, can reveal its distinctiveness. A writer’s intention to invest a title with a particular meaning calls for a specific syntactic configuration. So, while there are emerging and perceptible studies into the syntactic configuration of titles, this subject matter and other perspectives have been limited largely to RA titles (e.g. Diener, 1984; Jalilifar, 2010; Peritz, 1994; Rodriguez, 1996; Yitzhaki, 1994). Admittedly, the RA continues to be the chief mode of communication in academia (Canagarajah, 2002; Lillis & Curry, 2010; Swales, 1990, 2004). Consequently, there is the need for a thorough consideration and investigation of the syntax (Moattarian & Alibabae, 2015) in the titles of less investigated academic publications such as conference papers as it is known that CP constitutes one of the earliest research genres in the process towards knowledge construction and dissemination among both expert and novice members in the academic discourse community (Cianflone, 2012). The study, thus, aims to explore the syntactic configurations of conference paper titles (CPTs). Such a detailed study into the syntactic structures of CPTs can assist in their effective construction, presentation, and comprehension.

2. Method

2.1. Data and source

The source of data for this study was titles of the 2016 conference papers of AILA (Association Internationale de Linguistique Appliquée or International Association of Applied Linguistics. AILA (founded in 1964 in France) is an international federation of national and regional associations of Applied Linguistics with large membership. This paper studied 592 titles taken from the conference paper (CP) presentations. The titles were collected online as it had been a common practice of those interested in title research (e.g., Fumani, Goltaji & Parto, 2015; Moattarian & Alibabae, 2015); thus, not posing any ethical challenges.

2.2. Data analysis

This study mainly employed the qualitative content analysis approach, although descriptive statistics were used to identify patterns, relationships, and interpretation of results. Primarily, the analysis was manually examined to identify common patterns in the titles. Individual words were key in this research and counting of the words in the titles. For instance, there are nine words in the title The Pragmatic Use
of Epistemic Adverbs in Argentine Spanish. However, hyphenated words were measured as a one-word count. For instance, the study considered the title Internet-based Videoconferencing in a Cross-cultural Project as a six-letter word title. On the contrary, a capitalised abbreviation which did not represent any expressions in the same title was counted independently. For example, the title Impact of Implicit and Explicit CF and Learner Roles on the Acquisition of Japanese Particles was considered a fifteen-word title. In another instance, a capitalised abbreviation which represented a phrase or group of words within the same title was not counted differently as can be seen in Student Teachers as Beginning-Level Language Learners and Evaluators in Massive Open Online Courses (MOOCs): An Exploratory Study (16 words).

The length of the titles was measured manually and confirmed by three different researchers for verification and accuracy. In general, in line with the aim of the study, we read the titles several times to identify the variables (that is, text length, title style, and punctuation marks) we were interested in. We also had to leave the analysis for a month a few times to ensure consistency in the identification of the various variables. We met regularly to compare notes on the identification of these variables.

3. Results and Discussion

This section presents and discusses the findings obtained from the analysis of the data. It focuses on title length, title style and use of punctuation, as they combined to contribute to syntactic configurations of the CPTs, as found in the literature (e.g. Afful, 2017; Gesuato, 2009; Haggan, 2004).

3.1. Title length

Title length refers to the number of words contained in a title. In line with Moattarian & Alibabaee (2015), the study considered a word as letter strings which have a space before them or after. Table 1 illustrates the word count of the CPTs, showing the total words, shortest, longest, and average number of words.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titles</td>
<td>592</td>
</tr>
<tr>
<td>Total words</td>
<td>7,990</td>
</tr>
<tr>
<td>Average per title</td>
<td>13.47</td>
</tr>
<tr>
<td>Shortest title</td>
<td>3</td>
</tr>
<tr>
<td>Longest title</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 1 shows that the shortest title contained three (3) words: “Imperfect” Language Socialization and the longest title contained 29 words as can be seen in Task Effects on Speech and Gesture: Implications for Second Language Acquisition Creating Teacher and Student Awareness of Written Academic Discourse: A Synergistic Approach to Standards, Rubrics, Assessment and Instruction (29 words), giving the comparative ratio of almost 1:3 per words in terms of title length (short and long) respectively. On the whole, the average title length was recorded as 13.47 words per title, which falls within the text length of 10.4 words and 13.76 words commonly found in the literature (e.g., Afful, 2017; Appiah et al., 2019; Moattarian & Alibabaee, 2015). However, the result of this present study is higher than other similar studies that investigated the text length of titles. The studies of Fortanet et al. (1997) and Milojević (2017) recorded average text lengths of 7.8 and 8.0 words respectively. Appiah et
al. (2019) opine that titles of, at most three or four words, are not likely to reveal details of the content of a manuscript and hence lose their intended purpose of attracting potential readers.

It is expected that a good title will be informative and concise, exhibiting research design details to assist readers to make quick and easy choices (Grant, 2013). Hudson (2016) argues that two basic factors usually influence the choice of title construction: information content and its attractiveness. Consequently, authors tend to select titles that can facilitate the readability of the papers. Longer titles are mostly preferable, owing to the fact that they increase their rate of citation (Habibzadeh & Yadollahie, 2010). However, longer titles tend to increase the content of information they carry though they can preclude academics from reading them (Hudson, 2016). So, we can conclude that longer titles are unlikely to attract high readability from academics because they may appear stressful to read among many choices available to them.

3.2. Style of title

‘Title style’ in this study refers to the kind and number of demarcations used in the construction and presentation of the titles in the corpus. What this suggests is that the kind of punctuation mark employed in constructing the titles becomes the hallmark of consideration in the analysis. Specifically, the number of punctuation marks used in a particular title helps in the classification of the title styles. Pervasively, two categories of title styles are usually identified in the literature (e.g., see Afful, 2017; Appiah et al., 2019; Moattarian & Alibabaee, 2015). The most widespread terms used include Single Unit Title versus Multiple/Compound Unit Title or 1-Unit versus 2-Unit Titles. In this current study, three terms are used: Single Unit Title, Compound Unit Title, and Complex Unit Title. For instance, a Single Unit Title is presented in only one section containing either one or no punctuation mark; but a Compound Unit Title is presented in two sections, often containing one or two punctuation marks; whereas the Complex Unit Title is presented in three components with two or three punctuation marks. Two examples of each type of titles are provided below to illustrate the title styles employed in the data:

1. Listening for Imagery by Native Speakers and L2 Learners. (Single Unit Title)
2. The Pragmatic Use of Epistemic Adverbs in Argentine Spanish (Single Unit Title)
3. Metonymies of Migration: Perspectives of Migrants (Compound Unit Title)
4. Spanish Dialectal Feature Use During Study Abroad: Cases of Two Sojourns (Compound Unit Title)
5. Language Ideologies and Issues of Identity: Investigating the Process of Amazigh/Berber Standardization in Morocco: Language Learning Strategy Use by Learners of Arabic, Chinese, and Russian During Study Abroad (Complex Unit Title)
6. The Impact of Spellchecker Use During an English Writing Assessment: A Case Study of Students’ Responses to Feedback on Writing: Investigating the Role of Goal Orientations, Self-Efficacy, and Anxiety (Complex Unit Title).

In Examples (1) and (2), we find two Single Unit Titles which are presented in a single component each. In the case of the Compound Unit Titles (see 3 & 4), the two sections of the titles were separated by colon, as indicated earlier. In the title Spanish Dialectal Feature Use During Study Abroad: Cases of Two Sojourns (4), for example, the first section Spanish Dialectal Feature Use During Study Abroad is separated from the second component Cases of Two Sojourns by a colon. In terms of the Complex Unit Titles (see 5 & 6), the three sections were separated by two punctuation marks (colon). Example (6) of the Complex Unit Title has three components separated by two colons; in such a situation, it tends to be longer than the other title styles in the corpus. Table 2 summarises the distribution of the three title styles identified in the data.
Table 2. Distribution of title styles used in the conference paper titles

<table>
<thead>
<tr>
<th>Unit Style</th>
<th>Frequency (n=592)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Unit Title</td>
<td>233</td>
<td>39.36</td>
</tr>
<tr>
<td>Compound Unit Title</td>
<td>350</td>
<td>59.12</td>
</tr>
<tr>
<td>Complex Unit Title</td>
<td>9</td>
<td>1.52</td>
</tr>
</tbody>
</table>

Table 2 illustrates the three different types of title units identified in the CPTs: Single Unit Title, Compound Unit Title, and Complex Unit Title. It is obvious from Table 2 that the Compound Unit Title constitutes the highest number of title styles employed in the CPTs, representing 59.12% (350 out of total of 592 titles). This indicates that the Compound Unit Title alone occurred more than half of the total number of 592 titles used for this study, a finding which is largely consistent with a number of studies (e.g., Appiah et al., 2019; Biber & Gray, 2010; Cheng et al., 2012; Haggan, 2004; Hartley, 2007; Wang & Bai, 2007). This outcome is closely related to Moattarian & Alibabae’s (2015) finding in respect of the occurrence of the Compound Unit Titles (59.12% and 58.57% respectively) applied linguists prefer. The high occurrence of Compound Unit Title in Applied Linguistics is probably as a result of its ability to provide writers the chance to express the content and scope of their research in two sections. However, the general outcome of their finding pointed to the preference for a Single Unit Title, which contradicts this current study, because of their comparative dimension. In the case of Appiah et al. (2019), the Single Unit Titles dominated two disciplines (Gynaecology and Law) while the Compound Unit Titles largely dominated in one discipline (Business). In the current study, the next to the highest occurrence of the title distribution is the Single Unit Title, which constituted 233 (39.36%) titles. Clearly, Table 2 shows that the Complex Unit Title recorded the least title style, occurring only 9 (1.52%) times.

Although some studies recognise more than two title types (e.g., Gesuato, 2009), many scholars have concentrated on a two-unit title classification, possibly because they have not been common. In other words, only two types of title style seem to dominate the construction and identification of Titlelogy research. The nature of the Complex Unit Title style appears to contain detailed information touching on its topic, scope, and descriptions. In simple terms, it is verbose in its informativeness in terms of title length, as already indicated above. However, most single unit titles are able to convey the informativeness of a title. We can say that the writers of Complex Unit Title struggle in persuading and appealing to their readers to get to know in detail what is to be expected in the main work. This seems to defy the “naturalness” of general titles in terms of conciseness, precision, and brevity (e.g., Day, 1998; Imbelloni, 2012; Liumbruno et al., 2013).

In short, the present study has revealed findings which fully support some earlier studies (for example, Hagan, 2004). It can be concluded that this study corroborates Moattarian and Alibabae’s (2015) outcome of title style only on the finding for the applied linguistics but not on their general conclusion.

3.3. Syntactic structures of the Single Unit Titles

In referring to the syntactic structure of Single Unit Titles, we mean the kind of grammatical composition of the titles in the corpus that alludes to one proposition. Drawing on the perspectives of Leech et al. (1982) and Quirk and Greenbaum (1976), we identified the title structures in terms of nominal structures (NP), finite clause (FC) and non-finite clause (NFC), sentence and prepositional phrases. The following examples illustrate the kind of title structures identified in the corpus. For the purpose of clarity, two examples each of the structural groups were given:
7. Professional Communities and Teachers’ Efforts to Construct Meaning in Policy Implementation (Nominal-NP)
8. Internet-based Videoconferencing in a Cross-cultural Project (Nominal-NP)
9. Writing self-efficacy in a self-volunteered writing group sponsored by a college writing center (Non-finite clause)
10. Surveying Labels for Variation in Oklahoman English (Non-finite clause)
11. How Emergent Bilinguals Create Learning Opportunities During Classroom Interactions (Finite-clause)
12. How “lived emotional experience” (Perezhivanie) affected SLD and identity development for five Russian international graduate students in the U. S. (Finite-clause)
13. Can Corrective Feedback on L2 Speech Perception Errors Affect Production Accuracy? (Sentence):
14. Language Aptitude Complexes Generate Fitting Pedagogical Recommendations (Sentence)
15. Towards a Symbiosis between Corpus Design and Corpus Analysis in the Field of Translation Studies (Prepositional Phrase)
16. Toward a Systematic Transcription of Gesture in Conversation Analysis Research (Prepositional Phrase)

From the illustrative above (7-16), we can see that Examples 7 and 8 are made up of noun phrases. Examples 9 and 10 were identified as non-finite clauses due to their head words writing and surveying respectively. The finite verbs (create and affected) in Examples 11 and 12 describe the two titles as Finite Clause titles. Examples 13 (Question) and 14 (Declarative) demonstrate full sentence type of titles in the data. The syntactic structures of the Single Unit Titles and their distributions, including percentages, are demonstrated in Table 3.

<table>
<thead>
<tr>
<th>Structure</th>
<th>Frequency (n=232)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal (NP)</td>
<td>171</td>
<td>73.71</td>
</tr>
<tr>
<td>Finite clause (FC)</td>
<td>3</td>
<td>1.29</td>
</tr>
<tr>
<td>Non-finite clause</td>
<td>50</td>
<td>21.55</td>
</tr>
<tr>
<td>Sentence</td>
<td>6</td>
<td>2.59</td>
</tr>
<tr>
<td>Prepositional phrase</td>
<td>2</td>
<td>0.86</td>
</tr>
</tbody>
</table>

As illustrated in Table 3, the nominal group recorded 73.71% of the corpus out of the five structures identified. The results of the data show that the generic peculiarity of titles is typified by the use of nominal structures than the other types of syntactic structures. This completely affirms the general observation made in similar works on structural elements of titles where the commonest title structure used by authors is the NP title (e.g., Appiah et al., 2019; Biber & Gray, 2010; Moattarian & Alibabaee, 2015; Wang & Bai, 2007). The evidence indicating the occurrence of the syntactic structures identified in the corpus in Table 3 suggests that little space is created for finite clause titles, sentence titles, and prepositional phrase titles in the construction of titles of the CPs studied. This finding is also common in other studies (e.g., Appiah et al., 2019; Moattarian & Alibabaee, 2015; Wang & Bai, 2007).

In accounting for the reasons why writers prefer noun phrases (in this case, complex NPs) to other clausal expressions in academic writing, Biber, et al. (2016, p.15) argue that compressed phrasal expressions “are economical; they allow for faster, more efficient reading; and they are equally comprehensible to the expert reader.” To Halliday (1998, p.196), using nominal groups to convey meaning is very efficient and easy because they contain “powerful resource for making meaning.” It means that writers of titles are able to express what they want their potential readers to read through the
lens of NPs, due to the fact that noun phrases can contain pre-modifiers and compressed post-modifiers such as prepositional phrases, finite or non-finite structures which could contain a lot of information within a small space. Ideally, widely constructed titles are short, informative, and appealing to the readers (Jamali & Nikzad, 2011); these rhetorical elements are easily and efficiently carried by the nominal structures.

We can see from Table 3 that all the other syntactic structures which were used by the writers constituted less than 30%. However, titles made of non-finite clauses recorded the second highest of occurrence in the data. These structures were the ones that began with non-finite elements of the title. Such titles amounted to 21.55% of the data. The low level of frequency of finite clause, sentence, and prepositional phrase as choices in title construction is an indication that researchers in Applied Linguistics mostly want to express the ideas of their work in grammatical resources that have the ability to compress other structures in a composite manner, especially the nominal groups. In other words, when nominal phrases are elaborated, they can lead to many other structures independent of the nominal groups (Biber et al., 2016); this is due to the fact that academic writing exhibits structural complexity (Greenbaum, 1996).

3.3.1. The modification of the NP Structure in the Single Unit Title

Another aspect which the study considered was the modifications employed by the writers of the titles. This interest stems from the fact that the analysis of structural elaboration helps to know the extent to which other dependent units or structures are used (Biber et al., 2016). The preference for the NPs in the titles in the data also draws attention to the detailed analysis of such structures. In view of this, we paid attention to the occurrence of pre-modifiers and post-modifiers of the NPs.

We provide the following expressions to exemplify the modifiers of the titles in the corpus. The modifiers are highlighted in bold in each instance in relation to their nominal heads in each given example below:

17. “Imperfect” Language Socialization (Pre-modification only)
18. Interlanguage of nominal agreement of Dutch L2 learners of Spanish (Post-modification only)
19. Impact of Implicit and Explicit CF and Learner Roles on the Acquisition of Japanese Particles (Post-modification only)
20. An eye-tracking investigation of incidental collocation learning during reading (Both Pre-modification and Post-modification)
21. Functional Profiles of Online Explanatory Art Museum Texts Using Cluster Analysis (Both Pre-modification and Post-modification)

Example (17) exemplifies the case of a pre-modified structure only. This example contains only three words with the preceding two (in bold) constituting the pre-modifiers of the nominal structures. We can also see that, from Examples 18 to 19, the nominal heads are made up of single words and are not boldened in each case. This indicates that the heads contain only post-modification (in bold) without any pre-modifications. Nominal heads which were both pre-modified and post-modified are demonstrated in Examples 20 and 21. The noun heads are not in bold in each case but preceded by boldened structures (pre-modifiers) and equally postmodified by of-phrases. Table 4 summarises the frequency distribution of the modifiers identified in the CPTs.

<table>
<thead>
<tr>
<th>NP Modification</th>
<th>Frequency (n=171)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmodified</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Pre-modified only</td>
<td>1</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Table 4. The frequency of NP modifications in the Single Title Unit
According to Biber et al. (2016), a simple NP contains the head and a determiner; any additions lead to structural elaboration and complexity. The high rate of frequency of NPs with both Pre-modification and Post-modification in titles suggests that writers prefer complex NPs in order to convey the informativeness of their titles, bearing in mind the aesthetic value and precision to attract their potential readers (Jamali & Nikzad, 2011). As shown from Table 4, noun heads which were both pre-modified and post-modified recorded the highest number of occurrences in the data, representing more than half of the data (77.78%). This observation is already confirmed in the literature (Appiah et al., 2019) but contrasted in the study of Moattarian and Alibabae (2015), who found the post-modified only structures as the most dominant. Next to this is the Post-Modified Only structures of the title which accounted for 21.64% of the total titles used for the analysis. This means that structures which are used as post-modifiers of nouns are expressions which can expand to other higher units (Halliday, 1994). These embedded structures are different from the noun groups because they are structures which have higher or equivalent rank to the NPs, especially clauses and other phrases like preposition phrases (PPs).

As can be further seen from Table 4, no noun head existed in the data without any modification. Even the only one that did not contain any post-modifiers was, at least, pre-modified. It is not surprising that there was no nominal head which was unmodified because writers would go to the extent of compressing all that they have for the readers in a very little space so as to motivate the readers. Halliday (1994) contends that the noun head will provide the semantic core of the NP, but it will be up to the writers to add any relevant information required to arouse the interest of their potential readers.

### 3.3.2. The Type of Post-modifiers of the NP in the Single Unit Title

This section of the study concentrated on the occurrence of specific structures that post-modified the NPs in the data. Greenbaum (1996) claims that one of the most noticeable features of a complex NP is its heavy post-modification. Given our specific interest in the kind of post-modification of the NP of the CPTs, these structures were analysed. We provide here examples and demonstrate the kind of post-modifiers in the titles analysed. These post-modifiers normally occurred right after their noun heads and they are highlighted in bold for easy comprehension. These include PPs, finite clauses, and non-finite clauses.

22. **Automated Assessment of Authorial Voice in Written Discourse** (PP)

23. **The Ontogenesis of Writing Syllabuses** (PP)

24. **Input Text Characteristics that Interfere with the Comprehension of L2 Listening Materials** (Finite Clause-Relative clause)

25. **Mimetic Words and Translation Prisms evidenced in Kenji Miyazawa’s “Ginga Tetsudo no Yoru” (Night of Milky Way Railway)** (Non-Finite Clause)

From Examples 22 and 23, the boldened structures are PPs beginning with the *of*-phrase as the head in each case, which post-modify the heads of the nominal structures. In Example 24, the boldened structure forming the postmodifier is made up of a finite relative clause with *that* as the head postmodifying the head *characteristics*. The structure in bold in Example 25 demonstrates the use of non-finite clause structure (beginning with *evidenced*) to postmodify the nominal head *prisms*. The results for the occurrence in the data have been presented in Table 5.
### Table 5. Frequency and percentage of Post-modifiers of the NP in the Single Unit Title

<table>
<thead>
<tr>
<th>NP Post-Modifier</th>
<th>Frequency (n=171)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepositional Phrase (PP)</td>
<td>167</td>
<td>97.66</td>
</tr>
<tr>
<td>Finite Clause</td>
<td>1</td>
<td>0.58</td>
</tr>
<tr>
<td>Non-Finite Clause</td>
<td>3</td>
<td>1.75</td>
</tr>
</tbody>
</table>

The results in Table 5 indicate that there is overwhelming preference for PPs as post-modifiers of NPs in the CPTs. Out of the three structures identified as post-modifiers of the NP, PP alone recorded almost 98%. This finding completely affirms the general observation that noun phrases are commonly post-modified by PPs (e.g., Afful & Mwinlaaru, 2010; Appiah et al., 2019; Cheng et al., 2012; Greenbaum, 1996), regardless of the discipline. This might be due to the fact that PPs can compress more information and maintain brevity rather than the finite and non-finite clauses which may make titles longer.

Based on the frequency of the other structures used as postmodifiers, we argue that writers of the CPTs try as much as possible to avoid other structures as post-modifiers of NPs, apart from PPs. Justifiably, only four (out of the 171 titles) occurrences of the other structures were recorded as postmodifier in the titles, representing about 2%. The finite clause (that relative clause) occurred once while the non-finite clause occurred three times. This infrequency of other structures postmodifying the noun phrase has been demonstrated already (Appiah et al., 2019; Afful & Mwinlaaru, 2010; Moattarian & Alibabaee, 2015).

#### 3.4. Structural Patterns of the Compound/Complex Unit Titles

Another aspect of structural configurations that we investigated was the multiple unit titles comprising the Compound Unit Titles and the Complex Unit Titles. Specifically, the kinds of punctuation marks used and the structural organisations of the multiple unit titles were explored.

##### 3.4.1. Punctuation marks in the Compound/Complex Unit Titles

Within a given written academic genre, punctuation can be used to express stylistic details. Punctuation evokes a system of marks or symbols (e.g., comma, dot, colon, semi-colon, dash, hyphen, bracket, question marks, etc.) that are used not only to indicate pauses in a written work but to convey meanings, as would have been done through prosody. This study, therefore, focused on the kind of punctuation marks used in demarcating the structures of the titles into different components. Specifically, punctuations that marked the ending of the syntactic structures of the titles into sections were studied.

Some examples of the titles containing the punctuation marks are given in Examples (26) to (33), with the symbols highlighted in bold.

26. *Metonymies of Migration: Perspectives of Migrants* (Colon)
27. *Undergraduate Writing: A Multidimensional Analysis of Paper Types* (Colon)
28. *Are support verb collocations more difficult to learn? Incidence of the type of collocation in collocation learning* (Question mark)
29. *Is it because of my language background? A study of language background influence on comprehensibility judgments* (Question mark)
31. *Extramural Exposure – A New Player in the Field of Second Language Acquisition* (Dash)
32. *Don’t Tell Me What to Do: Language Learning Motivation and Attitudes about Pronunciation in the North American Context* (Exclamation mark)

33. *Age, FL Proficiency, and Familiarity with Reading L1 and FL Subtitles. An Eye-Tracking Study* (Full stop)

We can see from Examples 26 and 27 that the titles are separated by a colon in each title. The titles in Examples 28 and 29 are also separated with question marks. The titles in Examples 30 and 31 are in two segments, each using dash as the demarcating mark. An exclamation mark has been used to separate the two components of the title in Example 32 from each part. In Example 33, a full stop serves as the demarcating mark separating the two sides of the title. The frequency of occurrence of the punctuation marks in the data is shown in Table 6.

**Table 6.** Distribution of Punctuation marks in the multiple unit titles

<table>
<thead>
<tr>
<th>Punctuation Mark</th>
<th>Frequency (n=364)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon</td>
<td>344</td>
<td>94.51</td>
</tr>
<tr>
<td>Question mark</td>
<td>12</td>
<td>3.30</td>
</tr>
<tr>
<td>Dash</td>
<td>4</td>
<td>1.10</td>
</tr>
<tr>
<td>Exclamation mark</td>
<td>3</td>
<td>0.82</td>
</tr>
<tr>
<td>Full stop</td>
<td>1</td>
<td>0.24</td>
</tr>
</tbody>
</table>

The results of the study showed five types of punctuation marks used in the titles. The commonest punctuation mark that appeared to conjoin and typify multiple titles (both compound and complex titles) is the colon. This is evidenced in the high rate of occurrence as against the others (Table 6). Out of the 364 multiple titles identified in the data for this study, colon alone accounted for 344 (94.51%). This finding largely corroborates many studies that have explored the syntactic structures of titles (e.g., Appiah et al., 2019; Fortanet et al., 1997; Fumani et al., 2015; Hartley, 2007; Hudson, 2016). For effective organisation of titles, Hartley believes that the colon has crucial covert role within academic discourse and this is peculiar to the arts and humanities. When colons are used in the writing of titles, they often lengthen the titles by means of elaboration (Fumani et al., 2015; Jamali & Nikzad, 2011), but Jamali and Nikzad suggest that title writers should not forget to motivate readers because of their marketing role. According to Grant (2013), colons can help the organisation of titles to be informative while remaining concise.

In relation to other punctuation marks, it can be seen from Table 6 that question mark, dash, exclamation mark, and full stop are not the preferred choices of the authors in the context of title planning and writing. Although question mark recorded the second highest of occurrence, its frequency is less than 4% in the data relative to colon use. One thing that is certain about the use of question mark is that it adds to the interpersonal dimension of titles, opening a dialogic space for the writer and reader to interact. Within the context of titles, readers’ curiosity is aroused by inviting them to find an answer to the question asked (Goodman, 2011; Soler, 2011). Unlike Soler (2011) and Jalilifar, Hayati, and Mayahi (2010), the present study did not find the use of comma in multiple unit titles.

3.4.2. Structural combinations of the Compound Unit Titles

Compound Unit Titles constitute another area that is worth considering in the investigation of the structural pattern of titles. Here, we examine the kind of syntactic structures that authors used in the construction of the Compound Unit Titles and their organisations. Each section of the two components were structurally investigated to find out the preferred pattern in title construction. It should be noted that NP refers to Noun Phrase, and NFC represents Non-Finite Clause in the examples (34-44) provided below:
34. Effects of Changing TOEFL Cut-off Scores: The Impact of Raising the Bar (NP: NP)
35. Multilingualism, Diaspora, and Globalization: Language Repertoires in Social Media (NP: NP)
37. Implicit theories intelligence: How do they affect learners’ motivation for written corrective feedback? (NP: Sentence)
38. Focused Written Corrective Feedback: What a Replication Study Reveals about Linguistic Target Mastery (NP: Sentence)
39. Does comprehension written corrective feedback (CWCF) really work? Findings from a mixed method study (Sentence: NP)
40. We Made a Community: Tow Language Learning Groups’ Journey Through an Online Language Exchange Program (Sentence: NP)
41. Being a bhadramahila: an ethnography of everyday lives of Bengali cultured women (NFC: NP)
42. Language policy in the New Latino Diaspora: educating Spanish speakers in Iowa (NP: NFC)
43. Privilege on Display at “World Language Day”: Confronting Language Ideologies (NP: NFC)
44. Does distance matter? Are non-adjacent collocations (receive any form of treatment) processed the same as adjacent collocations (receive treatment)? (Sentence—two interrogatives)

It can be realised that the kinds of grammatical unit used in the formation of the Compound Unit Titles in the examples above have been shortened (in parenthesis) at the end of each example. The individual sections of the Compound Unit Titles were identified as noun phrase (NP), prepositional phrase (PP), finite clause (FC), non-finite clause (NFC), and sentence (S). Besides Examples 39 and 44, the rest of the examples are separated by colons. From the examples, the first two (34 & 35) illustrate the case of NP versus NP separated by colons. Example 36 shows the occurrence of the first part being a NFC (beginning with the non-finite verb playing) co-occurring with an NP. Extract 37 exemplifies the combination of NP and a sentence (question). In Example 38, the two parts are made up of NP and an interrogative sentence. Structural reversal of 38 can be seen in Example 39, with an interrogative sentence beginning the first component before the NP. Example 40 demonstrates a declarative sentence with a noun phrase as the two components of the title. The first segment of Example 41 is a NFC (beginning with being) but the second part is made up of NP. Examples 42 and 43 show the occurrence of NP versus NFC structures each. The case of Example 44 illustrates the combination of two interrogative sentences. Table 7 shows the frequency distribution of the structural combinations of the Compound Unit Titles.

Table 7. Frequency of Structural combinations of Compound Unit titles

<table>
<thead>
<tr>
<th>Structural combination</th>
<th>Frequency (n =361)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun Phrase: Noun Phrase</td>
<td>170</td>
<td>47.09</td>
</tr>
<tr>
<td>Noun Phrase: Sentence</td>
<td>20</td>
<td>5.54</td>
</tr>
<tr>
<td>Noun Phrase: Non-finite Clause</td>
<td>29</td>
<td>8.03</td>
</tr>
<tr>
<td>Noun Phrase: Prepositional Phrase</td>
<td>2</td>
<td>0.55</td>
</tr>
<tr>
<td>Noun Phrase: Finite Clause</td>
<td>1</td>
<td>0.28</td>
</tr>
<tr>
<td>Non-finite Clause: Noun Phrase</td>
<td>59</td>
<td>16.34</td>
</tr>
<tr>
<td>Non-finite Clause: Non-finite Clause</td>
<td>14</td>
<td>3.88</td>
</tr>
<tr>
<td>Non-finite Clause: Prepositional Phrase</td>
<td>5</td>
<td>1.39</td>
</tr>
<tr>
<td>Non-finite Clause: Sentence</td>
<td>4</td>
<td>1.11</td>
</tr>
</tbody>
</table>
According to Table 7, sixteen different structural patterns were identified in the writing of the Compound Unit Titles. Out of the 16, the dominant combination is the noun phrase versus noun phrase structure (NP:NP), followed by the non-finite clause versus noun phrase (NFC:NP). We can see from Table 7 that the frequency of the former is almost two-thirds of that of the latter. This suggests that the most noticeable characteristic of the structural combination of the linguistic CPTs is the NP:NP pattern. From the preceding arguments, we can make a valid argument that the commonest grammatical structure that typifies the Compound Unit Titles of the CP is the NP:NP combination style. This confirms the general claim that the NP carries efficient and comprehensible tools in a compressed manner to make meaning easy (Biber et al., 2016; Halliday, 1998). In the NP, the semantic core is the nominal groups which are either pre-modified or post-modified or both. The PP has a head as a preposition with NP as its complement or object. The rest of the structural combinations constitutes less than 37%. The NFC usually consists of a non-finite (head) verb, in the form of a present or past participle, plus complements; whereas the FC consists of a finite verb in its structure which is a part of a sentence (Leech et al., 1982).

### 4. Conclusion

The focus of this paper was to investigate possible preferred structural patterns of construction and presentation of CPTs among Applied Linguistics researchers and scholars. The findings are thus presented and the implications thereof highlighted.

The study identified three types of title styles: Single Unit Title, Compound Unit Title, and Complex Unit Title. This study has so far demonstrated that Applied Linguistics CPTs were ideally constructed, using the Compound Unit Titles, which is confirmed in the literature (e.g., Biber & Gray, 2010; Cheng et al., 2012; Haggan, 2004; Wang & Bai, 2007). In relation to the average title length, it was found to be 13.47 words per title. With regard to the syntactic structures of the Single Unit Titles which were used, the results indicated that the authors preferred noun phrase (73.71%), non-finite clause (21.55%), sentence (2.59%), finite clause (1.29%) and prepositional phrase (0.86%). The results indicated that most noun heads of the CPTs were both pre-modified and post-modified. However, the commonest unit that was extensively used to modify the noun phrase structure was the prepositional phrase (97.66%), relative to other structures like non-finite clause (1.75%) and finite clause (0.58%). The high occurrence of the prepositional phrase was a phenomenon already observed by other scholars (e.g., Cheng et al., 2012; Greenbaum, 1996). It was attributed to the tendency of prepositional phrases to compress detailed information. In relation to the structural combinations of both the Compound Unit Title and the Complex Unit Title, five different punctuation marks, including colon, question mark, dash, exclamation mark and full stop, were identified to conjoin the components of the titles. Colon recorded 94.51%, suggesting authors’ preference for colon in compound title construction. This result confirms the commonly held idea found in the literature (e.g., Fumani et al., 2015; Hartley, 2007; Hudson, 2016). A further interesting area which was explored was the syntactic structures of the components of the Compound Unit Titles. Out of 16 different structural combinations, it was revealed that the NP:NP structure was the dominant structure the authors used in constructing the two sections of the Compound Unit Titles.
The findings of this study contribute significantly to the field of Applied Linguistics, especially ‘titleology’ research. The discussion of this study has revealed that in-depth knowledge about syntactic structures of CPTs in mono-disciplinary investigation is rare. It, therefore, suggests that different researchers in Applied Linguistics and, even other fields, will find it useful to rely on the information provided in shaping title writing. Regarding syntactic configuration of CPTs, most aspects of the finding of this study have also confirmed the earlier stance espoused in the literature on the possibility of discipline specificity (e.g., Busch-Lauer, 2000; Anthony, 2001; Afful, 2005; Soler, 2007; Moattarian & Alibabaee, 2015). Applicants of Applied Linguistics conferences can utilise the textual and schematic patterns to construct the acceptable title structures to improve the visibility and readability of abstracts or papers. Pedagogically, the findings of the current study can be used to guide the formulation of rhetorical practices and competencies which are acceptable to specific academic discourse communities. The findings may also be used to guide thesis writing, research methods, supervision and academic writing in Applied Linguistics.

Given our choice of Applied Linguistics as the discipline in the study of the syntactic configuration of CPTs, we are less confident in making broad generalisations on title formation in other disciplines and genres. Other disciplines that have not attracted such studies but which in recent times are gaining attention and followers can be considered in the study of titles, given the acknowledged influence of disciplinarity in several Applied Linguistics, English for Academic Purposes, and English for Specific Purposes research.

5. Ethics Committee Approval

The author(s) confirm(s) that the study does not need ethics committee approval according to the research integrity rules in their country (Date of Confirmation: August 25, 2020).

References


Üyelik dili bilim konferans makale başlıklarını yeniden yapılandırmak:
Sözcüksel analiz

Öz


Anahtar Sözcükler: uygulamalı dilbilim; bileşik birim başlığı; konferans kağıtları; sözcüksel konfigürasyon; başlık stilı

AUTHORS BIO DATA

Joseph B. A. Afful is Associate Professor and a senior member of Department of English of Faculty of Arts at the University of Cape Coast (Ghana). He has a PhD in English Applied Linguistics from National University of Singapore. He has refereed publications in English for Academic Purposes and Publishing, Genre Analysis, (Critical) Discourse Studies, and Address Practices in Social Interaction.

Christopher Ankomah holds MPhil in English Language and currently a PhD Candidate at the Department of English, University of Cape Coast, Ghana. His research interest includes Academic Writing, Acoustic Phonetics and Phonology, Genre Analysis and Sociolinguistics.