

Title Features in Research Articles: A Disciplinary Study of Law

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Abstract: This study brings to the fore trends in title research by investigating title features in law papers extracted by law readers from law-related journals. To this end, 447 articles published in 266 journals from 1946 to 2023 were coded and analyzed statistically. Title length, syntactic structure, and content features were considered. The quantitative results reveal that titles in law articles demonstrated 1) an increase in length 2) a favor of single declarative titles and compound titles with colon 3) an obvious trend of using descriptive titles concerning title content. The current study therefore reflects the full complexity and a comprehensive picture of law articles, demonstrates title features and trends in law paper writing, and thus in light of significant findings, introduces novice writers, especially law students, to disciplinary language use in convention.

Keywords: Law Articles; Research Titles; Disciplinary Feature; Length Feature; Syntactic Structure; Content Type.

1. Introduction

As the first step in communication with readers, the title of a research paper is important to inform the article's main idea and attract readers, especially when most articles are available online by title-searching (Hsin et al., 2016). Titles are guidance for readers, peer reviewers, and getting to the point of publication (Moore, 2010), so it is clear that titles bear the task of attracting potential readers and then providing them with basic information about the paper. Therefore, book sections in academic writing have devoted a lot to guiding title writing, proposing that a title should "identify the specific subject, attract attention, and reflect the objectives of the proposal (Davis, et al., 2012: 51), "describe the content as accurately as possible...include keywords that make the paper retrievable easily and reach the appropriate audience" (Glasman-Deal, 2009: 225), and be concise and avoid ambiguity in noun phrases (Cargill & O'Connor, 2009: 61-63). Meanwhile, empirical studies have been going through a dramatic rise in title studies. Over the past years, articles generally analyzed and discussed both common title features like the proper length (Hudson, 2016; Lewison & Hartley, 2005), the use of questions (Hartley, 2005; Hyland, 2002), and structure like the use of colons (Milojevic, 2017), and so on. And tips were suggested like avoiding using implicit words (Merrill & Knipps, 2014) and the use of scientific names (Krausman & Cox, 2020).

Specifically, both mono- and cross-disciplinary contexts were the protruding perspectives of title analysis. Comparative studies are commonly employed in title research across disciplines. Firstly, similarities can be found. The length and prevalent usage of nominal phrase similarities exist between library science and scientometrics (Diao, 2021), and nominal and compound structures are also frequently adopted in linguistics and literature, as well as lexical diversity (Xiang & Li, 2020). Secondly, being with these general features mentioned above, researchers also found that titles differ significantly in academic fields in some

interdisciplinary aspects. For example, in terms of title structure, gerund phrases are dominant in applied linguistics (Moslehi & Kapoor, 2022) and full sentences in scientometrics (Diao, 2021) and medicine (Moslehi & Kapoor, 2022). The use of punctuation is more favored in library science or using words as indicators of research methods in scientometrics (Diao, 2021). Thirdly, as to the content of titles, linguistic and applied linguistic article titles tend to be more diversified, with results, datasets, and methods (ParaGard & Meihami, 2016; Xiang & Li, 2020). The title difference among science, literature, and linguistics may reveal that researchers in various disciplines impose different features with importance in their field (Haggan, 2004). Unfortunately, few researchers have paid attention to law as a discipline to compare, which makes it a question of whether law, as a typical discipline of soft sciences, depicts special trends in research articles in terms of titles.

As the features are not always common among disciplines, some specific features in a given field are the concern of researchers. For example, revealed from the 50 highest-listed linguistic journals, to create an information gap, 90.9% of quoted/direct speech was contained in the first segment of a compound title (Pearson, 2021). In astrophysics research articles, titles are apt to be with high lexical density, nominal and simple, and with fewer question constructions (Mendez et al., 2014). In medical journals, titles are less complied with title writing instructions to mention a result (Kerans et al., 2020). Besides, features in other languages and cross languages were also the interest of researchers (Shiloh & Ragonis, 2023; Soler, 2011; Tanguy & Rebeyrolle, 2020). Long titles in psychology papers are more favored by their potential readers (Hallock & Bennett, 2021), titles with "method" or "design" were more used in applied linguistics (Sahragard & Meihami, 2016), richer in humor in ecology titles (Fox & Burns, 2015). These articles of title research add more vigor in providing instructions for paper writing as evidence to academic writing monographs. However, Features in one discipline may not fit into another one as well,

so, following the trend of discipline-featured analysis. Little research has been found to examine the features of journal titles in law, which leaves it unclear for law students to familiarize themselves with the potential disciplinary characteristics.

The current study aims to fill the gap that studies seldom investigated the prevalent presentation of research article titles in law, nor can we have found information from cross-disciplinary studies. Therefore, the study tries to exact salient features and provide implications in law paper writing instruction for novice writers and guidance for students, help to identify the trends, and assist scholars in designing future research.

2. Literature Review

The identification of the types of paper titles varies from time and researcher. Many elements were accepted as key components in the title research. Length is the first consideration by most researchers. The overall picture of title length study can be found in the research by Hyland and Zou (2022) who explored 5070 article titles from six disciplines from the sciences, social sciences, and humanities, finding that title length varied both across disciplines and traditional or newly-emerging area. Different as they are in disciplines, the research methods of title length can always reach a consensus by all title length research, i.e., the number of words in a title, which can find evidence from most studies in the previous section.

Besides title length, authors of empirical studies sought different methods of title classification so that a tremendous amount of variation could be found. Other factors may vary a lot and title structure is the most complex one. Scholars demonstrated their model with different factors. Jamali and Nikzad (2011) proposed 3 types: declarative titles, which state the main findings; descriptive titles, which simply describe the subject of the article; interrogative titles, which present the topic as a question. Nagano (2015) identified title features in eight disciplines with 3 titles types: with subtitles, the noun phrases only, and an initial 'a' or 'the'. His study decomposed titles into detailed parts, and analyzed them based on separate "title/subtitle" unites instead of "single/compound". Hyland and Zou (2022) demonstrated a tree diagram across disciplines, with the top level focused on "indicative/interrogative", the second on "single/compound", and the third "descriptive/detailed" under "compound".

Focused on law articles, journals in law seldom supply explicit requirement in title length. For example, as top journals in law, *Yale Law Journal* and *Harvard Law Review* only mention the length of manuscripts in their author guidance, and *European Journal of International Law* includes the length of manuscripts and abstracts and style sheet like grades of headings. Therefore, difficulties are there to seek guidance from journals for novice writers.

With the abundant research on mono- and cross-disciplinary study and the absence of title analysis in law articles, necessary work should be done to have an overall picture of law paper, with the disciplinary knowledge, creativity and breadth of language use that can be quantitatively expressed. Therefore, the current study will try to answer the following research Questions:

- 1). What are the length feature of law titles?
- 2). What are the typical syntactic patterns of law titles?
- 3). What are the typical contents feature of law titles?
- 4). Diachronically, how have the titles in the journal

changed in terms of length, syntactic features, and contents?

3. Methodology

3.1. Corpus

Paltridge and Starfield (2016) suggested that readers would analyze the titles they found in target journals and disciplines to get "a clear sense "of what the article is about, so readers' perception of titles are the first and foremost decision of a good or typical research title. Therefore, the current study invited 38 law students, the most potential readers, to collect titles with many appeals to them in law journals based on the interests of their study. Law students chose research article titles out of only one consideration: they may see it as worth reading within their interest and without considering citation or the author index or ranks of journals. All journals are international journals with articles written by speakers of English as a first or a second/foreign language. Titles not in English were elicited and duplicated ones were removed. Finally, 447 articles were employed as the corpus of the study, coming to approximately 4977 running words. The fundamental description of publication metrics (number of articles and journals in each period of 10 years) is shown in Table 1.

Note: The data before 1993 was not categorized by every 10 years for the total amount of publication.

Table 1. Description of data in each period

Years	before 1994	1994-2003	2004-2013	2014-2023
Number of articles	63	43	108	233
Number of journals	43	42	88	148

3.2. Data Analysis Framework

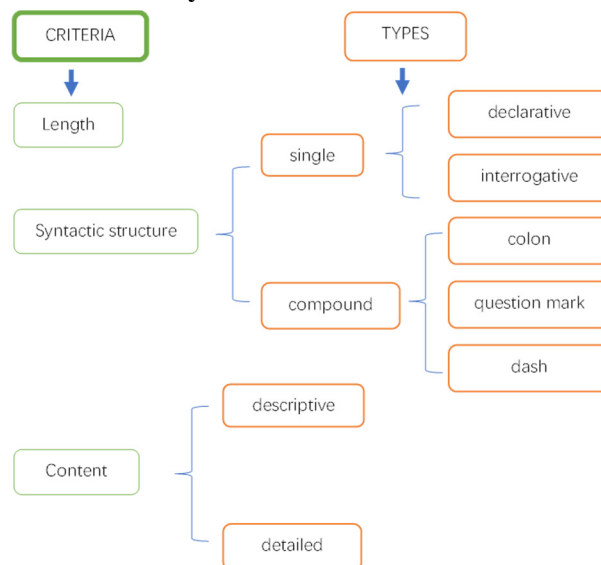


Fig 1. The diagram of analysis framework

The analytical framework in this study was adapted from Hyland (2022) together with Nagano (2015). Therefore, our framework will consist of three levels, with the first one including three main dimensions: length, syntactic structure, and contents. Included in syntactic structure, whether the title is a single or compound form was decided, and each of the single title would be further categorized by declarative/interrogative type and compound titles into units

by punctuation marks, for example: a colon (C style), a question mark (Q style), and a dash (D style). As for the contents of titles, descriptive (covering only the subject) or detailed type (including method or findings) would be included separately. The whole framework was illustrated in the diagram (Figure 1)

3.3. Data Analysis Procedures

Article titles we collected were listed in one sheet and the length were noted down and other all features in diagram 1 were coded.

For the first step, the average title length was analyzed and then a categorization and analysis were made by four typical periods. As for the length, we report the number of words in each title, excluding quotation marks, colons, and other marks between words. Words in its possessive case (e.g., China's, individual's), a compound word (e.g., information-oriented, peace-keeping), a name in its abbreviation form (e.g., U.S., U.N.) or the name or number of a case (e.g., C-198/14) and sections in law (e.g., Section 8(a)(2)) were counted as one. Phrases with both their full names and their abbreviations will be counted only by their full names (e.g., Responsibility to Protect (R2P) will be counted as three words). And for some expression of the same meaning, previous researchers adopted different forms, for example, third-party/third party. In this case, we left them as the original style, because the amount of this kind of title was too small to lay impact on the statistic results. When part of the title is in other languages such as title (1), words that are not English would be counted by linguistics in that language.

(1) WTO 'à la carte' or 'menu du jour'? Assessing the Case for More Plurilateral Agreements

For the second step, the syntactic structure and content types, we adopted manual coding. Two coders were invited to examine those titles, adopted the framework in Figure 1 in terms of the information each research title provided. One of them is a language teacher in university, who has more than 20 years of English teaching and experienced in evaluation in previous projects. Another one is also a language teacher with 7 years of teaching experience. Both of them are doctoral candidates in applied linguistics and have been working as teaching assistants in a law class for three semesters in the course of EFL learners' law paper writing. As a result, they two are both with experience in language teaching and equipped with law information background. Before coding, two coders were in a training to be introduced with the whole procedure and the coding criteria mentioned in the previous section. Coders coded the first 100 items for the syntactic structure and the content type. The inter-coder reliability reached 1 and .94 respectively, which means the two coders reach total consensus on syntactic structure and differ little in understanding content categories. This result was evidence to show the expertise of coders and the reasonable framework and criteria that the coders perceived before the codification process of the study. Then, the first coder coded the rest of items for the syntactic structure, and the second coder coded the rest of items for the content type. Some of the titles would be included in not only just one type listed in the framework. In such cases, the coders were asked to specify all the types of information instantiated. For example, when titles included two or more syntactic types, the coders counted all of them separately, for example, Title (2) were be labeled as both "with dash" and "with question mark", and Title (3) will be labeled as "with colon", "with question mark". This way of

labelling would result in an unbalance between the total number of titles and the number of different categories, where we labeled with a star mark * in our table.

(2) The WTO and the Rise of Plurilateralism-what Lessons can we Learn from the European Union's Experience with Differentiated Integration?

(3) International Jurisdiction in Cyberspace: Which States May Regulate the Internet?

In step three, features in each category were analyzed, including common feature of all, the change and trend by years. Title length was counted by Excel; the inter-coder reliability was calculated by the formula: $r = N_{\text{consistent}} / N_{\text{total}}$ and other statistics were analyzed by SPSS 26.0.

4. Results

The present study reported the following features:

- 1). the average length of all titles and the individual feature by every ten-year;
- 2). the common syntactic structure of all titles and the individual feature by every ten-year;
- 3). the content feature of all titles and the individual feature by every ten-year;

Table 2 provides description of the mean length of the whole corpus and the mean length in 4 periods. The mean length of the whole corpus was 11.13 words. And the increase of length can be seen in different decades, from 8.77 before 1994 to 11.88 in 2014-2023. It is obvious that although not in a sharp increase, titles in law research are getting longer, especially in the latest 10 years.

Table 2. Description of title length in each period

Years	Total	before 1994	1994-2003	2004-2013	2014-2023
Mean length	11.13	8.77	10.74	11.08	11.88

The common syntactic structure was shown in Table 3. It shows that in the whole corpus, the number of single titles is 199, accounting to 44.3% of the total, and a large proportion of them is declarative. More than a half is compound titles, with C style the largest proportion (N=116) which accounts to 26% of the total and 46.6% of all compound titles. It can also be noted that there are three special titles, a combination of sentences, each of which is with two or three sentences, taking Title (4) as an example.

(4) From human rights to human wrongs. How local government can negatively influence the situation of an individual. The case of Polish LGBT ideology free zones.

Table 3. Description of articles by syntactic structures

Syntactic structures	single			compound		
	declarative	interrogative	C	Q	D	sentences
Number of articles	189	10	212	46	18	3
Total		199				248

Table 4 tells the description of syntactic structure by years. Before 1993, single declarative title was more favored by scholars (N=37) which accounts for 57.8% of the total number in this period. No single interrogative title was found in our corpus, and even in the compound structure category, there was only one title with question mark.

This phenomenon came across a change from 1994 to 2003, in which the percentage (48.9%) of the single titles reversed. This trend was getting more obvious in the following two periods. From 2004 to 2013, 43 titles are single which 73 are

compound. The percentage of single titles decreased to 37%. This trend held its state in the last period (2014-2023), without too much change on the proportion.

Table 4. Description of syntactic structures in each period (Numbers of publication)

Syntactic structure	Years	before 1993	1994-2003	2004-2013	2014-2023
single	declarative	37	20	40	92
	interrogative	0	2	3	5
compound	C style	23	15	58	116
	Q style	1	3	10	32
	D style	3	5	5	5
	sentences	0	0	0	3

Table 5 reveals the title number and proportion of descriptive/detailed content, with the mean length in each category. The same statistics can be found in every period that numbers in descriptive and detailed titles differed significantly, with more than 90% occurrence of descriptive ones. And undoubtedly, the mean length of detailed titles was much longer, for they try to convey more information like results or methodology.

Table 5. Description of numbers and title length by contents

Contents (N)	before 1993	1994-2003	2004-2013	2014-2023	mean length
descriptive (424)	62 (98.4%)	42 (97.6%)	101 (95.3%)	219 (93.6%)	10.85
detailed (25)	1	1	6	15	16.26

In Table 6, the description of mean length by syntactic structures in each period was demonstrated. In single titles, the mean length of declarative titles did not vary too much from the first to the last period. All titles were around 8 words. However, the length of interrogative titles showed a sharp increase from 3 words in 1994 to 2003 to 10 words in 2014 to 2023. In compound titles, the average length of C style was 11.22 in the first period, which increased to more than 13 words in the following 3 periods, but without significant variation. The same situation could be found in Q style, which was from 6 in period 1 to approximate 11 in the following 3 period. However, an obvious increase in mean length could be seen in D style, with a sharp increase by each period. It was 10 words before 1993, 12 words from 1994 to 2003, 13.4 words from 2004 to 2013, and then heaped to 17.8 in the latest 10 years.

At the same time, titles with sentences show the biggest amount of length (21.33), and the interrogative structure was the smallest one with the mean length of 7.4. However, the compound structure with question marks is longer than colons in total.

Table 6. Description of mean length by syntactic structures in each period

Syntactic structure	Years	before 1993	1994-2003	2004-2013	2014-2023
single	declarative	7.14	8.95	8.35	8.83
	interrogative	0	3	5.33	10
compound	C style	11.22	13.43	13.06	13.56
	Q style	6	10.66	11.12	11.96
	D style	10	12	13.4	17.8
	sentences	0	0	0	21.33

5. Discussion

According to the statistical results, common features and trends over the four periods can be identified. Firstly, titles in law research are getting longer, with one more word on average by every ten-year in latest 30 years. The one-way ANOVA test identified the statistical difference in title length among different periods ($N=447$, $M=11.13$, $SD=4.945$, 95% $CI=[10.67,11.59]$, $F=6.906$, $p=0.000$). Specifically, titles of journal articles that were published before 1994 are significantly shorter than those of articles published after 2004 according to the Scheffe-test ($pA\&C=0.029$, $pB\&C<0.001$). The difference in title length before and after 30 years may suggest a shift in the preference for constructing research article titles. Figure 2 represents the box-and-whiskers plot to visualize the trend of mean length of titles in each period, where the box itself shows the limits of the first and third quartile, the line inside the box gives the median value, and the whiskers show the minimum and maximum number of words found in the corpus. On average, the article published before 1994 are found out to be with the shortest titles, which accords with the previous finding that an increase in title length of journal articles is a common trend in a lot of disciplines (Hudson, 2016), both in soft and hard science (Jiang & Jiang, 2023; Kerans et al., 2020; Li & Xu, 2019; Xiang & Li, 2020). The titles of journal articles in law goes with the trend, demonstrating itself as a typical in soft science. As the title length function to reveal how informative the title is, authors apt to display as more information as they can, trying to reveal more key words, to attract readers in various related domains.

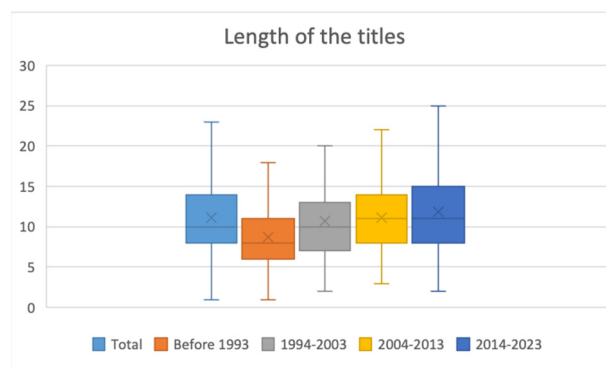


Fig 2. Length of the Titles

As to the typical formal patterns in the longitudinal analysis, certain syntactic patterns are reported to have been increasingly favored by researchers in recent years. As shown in Figure 3, syntactic structures of single titles are illustrated with different trends in the interrogative structure and the single declarative structure. On the one hand, there is a relatively steady trend in the single interrogative titles. On the other hand, although roughly close to each other in the first two periods, an abrupt increase in declarative titles were shown, especially in the latest ten years. In general, the number of interrogative titles has always been less favored.

In the whole corpus, compound titles are in a larger part than single ones (55: 45). And a trend is illustrated that compound titles are getting more favored, from a rough balance in proportion at the beginning to a dominant position by 76% of the total in the latest ten years. And among compound titles, Figure 4 shows that in law paper writing, compound titles with colon (C style in the figure with red) are

more frequently used by law authors, which occupied nearly a half of the total and 85.1% of the compound ones. Single declarative titles followed with 42.2% part of the total, while single interrogative titles are less favored, with only 2.2% of the total. However, there are 10.3% titles compounded with question marks. So, they two combine to represent a certain proportion of the total, numbering 12.5%. A conclusion can be drawn that when taking questions into a title, more authors chose to make the question more elaborated, with context (Example Title 5) or possible answers (Example Title 6).

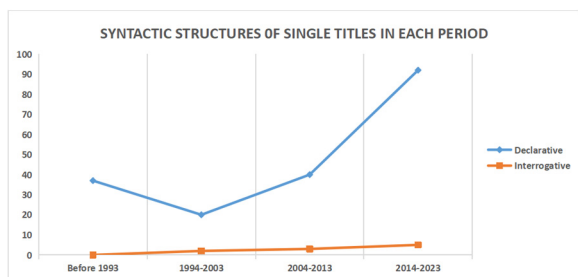


Fig 3. Syntactic structures of single titles in each period

(5) The ICJ Advisory Opinion on the Unilateral Declaration of Independence in Respect of Kosovo: Rules or principles?

(6) Controller and Processor: Is There a Risk of Confusion?

Specifically, the number of single interrogative titles did not change too much across years but C-type compound titles have been deployed with a sharp increase. This result did not agree with what researchers have found about article titles that interrogative titles were getting considerable increase (Jiang & Hyland, 2023). Therefore, we may conclude that although interrogative titles raise questions and arouse the interests from potential readers (Hyland, 2022), set as hooks of the articles, unlocking major puzzle or paradox of the articles and attract potential readers (Grant & Pollock, 2011), questions are significantly less used in law articles. Another possible reason may be that those with question marks had poorer citation rates (Paiva et al., 2012). Same as most disciplines (Jiang & Jiang, 2023), law titles use colons more frequently. The trend may be because that the content after a colon normally explains the topic or gives detailed information about the article (Hyland, 2022), which helps readers quickly allocate the issue and the theme of the research paper. These titles can function as headlines (Russell-Bennett & Baron, 2016), and perform the function of relevance optimization as a simplification mechanism to summarize content and direct attention (Andrew, 2007; Dor, 2003). It may also find reasons in that titles that contain a colon may be more likely to attract citations (Buter & van Raan, 2011).

There were also prominent features in content (descriptive/detailed) of article titles in law. The dominant number of descriptive titles (N=424) over detailed titles (N=23) may result from the disciplinary features of law as a soft discipline. In soft sciences, as mentioned by previous researcher, the first unit is often used for some 'catchy' phrase to attract attention in soft science (Hartley, 2007), while in the hard sciences it is often used to add context in terms of further information on the study population, method used, etc. (Soler, 2007). For example, besides mentioning "topic", titles are getting more diachronically informative with "method" or "design" (Li & Xu, 2019).

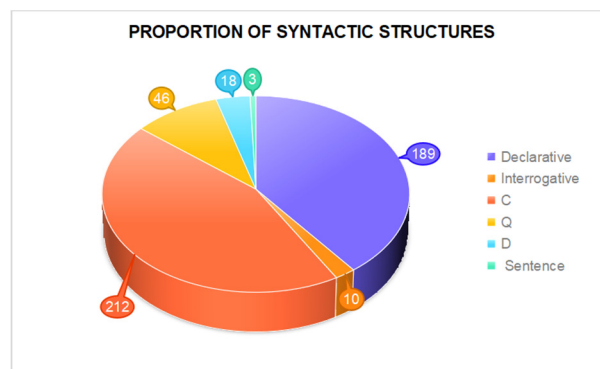


Fig 4. Proportion of syntactic structures

With the two features, length and syntactic structure taken together, some other features can be seen. The mean length by syntactic structures in each period showed slight changes in general. In the aspect of single titles, the mean length of single interrogative titles has been stably increasing since 1994, from the average of 3 words to that of 10 words. That might be the feature of a certain decade but might also because of the sample size of our corpus, in which samples in the second stage (1994-2003, N=43) were not as large as those in the third (2004-2013, N=103) and fourth stage (2014-2023, N=234). Although the situation might be, the length has doubled in the latest decades, which can also be evidence of the trend of increasing length in interrogative titles. This general trend of length change accords with Nagano's (2015) finding that title length has increased over the years.

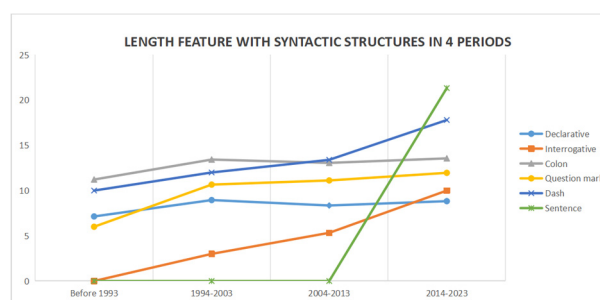


Fig 5. Length feature with syntactic structures in 4 periods

Moreover, this study enriches previous findings from a new perspective that the increasing mean length of titles may result from changes in certain types of titles. Although the declarative single titles did not fluctuate apparently, the mean length of compound titles underwent interesting changes. The mean length of those with question marks increased by about 77.7% in the period of 1994-2003 (M=10.66 words) than those in the period before 1993 (M=6 words), and then did not show any evident variation in the latter two periods. Besides, the newly-appeared compound titles with sentences turned out to be the longest ones in the period of 2014-2023 (M=21.33 words), which is about 19.8% longer than compound titles with dashes (M=17.8 words), 57.3% longer than those with colons (M=13.56 words), and 78.3% longer than those with question marks (M=11.96 words). This indicates the increased length of titles over the years might result from the emergence of a new type of syntactic pattern (compound titles with sentences) in titles. At the same time, there is a hint that full sentence structure is emerging in soft science, which used to be in the hard science and scientometrics (Diao, 2021). These convergent results differ with other genre of law-related public information, for

example, legal texts published in the media shared discursive formulas peculiar to legal discourse (Chemeteva, 2022).

6. Conclusion

To conclude, this study explored the title features of law articles by analyzing a corpus of reader-favorite titles. Our results show that 1) the mean length of reader-favorite law titles was 11.13 words, with a tiny increase by every ten years; and 2) the more favored syntactic structure is the single-declarative and the number of single declarative titles increased rapidly in the latest 20 decades. As to compound titles, those with colons were more adopted and different types of compound titles show a relatively stable trend with tiny fluctuation, 3) in law title writing, descriptive titles were significantly more used than detailed titles, which means authors in law seldom chose to mention method or main findings in title, and this phenomenon has not changed till now. All the results were typical in law title writing, making an imperative act to law documents construction (Markovic & Gostojic, 2022)

Title writing is the first thing to introduce novice writers to know about disciplinary language, but students are apt to formulate titles in article writing (Shilo & Ragonis, 2023). Although explored by Meza et al. (2022), lexical features like terminology, acronyms, abbreviations, and subjectivity markers denoted the distinction of law papers concerning academic language, more about the title features of law papers have not been covered. Despite this, serving as an identity for an academic text (Salager-Meyer & Ariza, 2013), enhancing research visibility (Hsin et al., 2016), and reflecting how an author believes the article could attract readers (Hyland & Zou, 2022), titles of law articles in this study can already help to form a clear picture of academic law language. Going with the remarkable increase in popularity, this study presented some of the results of given discipline corpus analysis and found title patterns that law students can use which may also add vigor in their future professional communication.

While title variation in usage is possible, discipline-specific features cannot be ignored. The current title study revealed the disciplinary conventions of law study and presented quantifiable features. Scholars' attention should be deserved on these linguistic features.

Acknowledgments

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