

An Overview of Comparative Research on Linguistic Features of English Abstracts in Chinese and International Journal Articles

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Abstract

Highlighting the focus and summarizing the gist of the article, the abstract to a great extent affects whether the article can be accepted, whether academic ideas can be successfully spread, and whether academic influence can be produced. Owing to the importance of abstract writing, this research takes a retrospective look at the studies comparing Chinese and international journal article abstracts in terms of their linguistic features. Significant differences have been found to exist in various aspects, which include micro and macro features. Specifically, English abstracts of Chinese journal articles differ considerably from their international counterparts in micro features such as the use of first person pronouns, shell nouns, stance markers, lexical bundles, tenses and voices, and also in macro features such as move and discourse function. Therefore, it is imperative that we acquire a more comprehensive genre knowledge of English abstract and promote academic writing skills to better expand our academic influence.

Keywords

Abstract; Chinese Journal; International Journal; Linguistic Feature.

1. Introduction

The abstract of an academic article is an independent text that summarizes the content of the whole article between the title and the body of the article. The United Nations Educational, Scientific and Cultural Organization stipulates that an English abstract must be attached to the front of published articles all over the world, no matter what language they are written in. The abstract highly summarizes the content described in the article, highlights the focus of the article and condenses the substantive content of the article. It should have clear meaning, concise structure and accurate expression. The writing of the abstract affects whether the manuscript is accepted or not. At present, because only abstracts are provided free of charge in e-journal database, many readers can only read abstracts and cannot read the full text, or judge whether they need to read the full text according to abstracts. Abstract writing is thus very closely related to the academic influence of the article.

In recent years, as the Chinese government has established the strategy of building an innovative country and made substantial investment in science and technology, the research level of science and technology in China has been continuously improved. China's science and technology journals have been continuously included by foreign famous retrieval institutions, and the internationalization level of journals has been continuously improved. We pay more and more attention to improving the international influence and overall academic level of Chinese English academic journals, and promoting the external dissemination and exchange of excellent scientific research achievements. In this context, there are hundreds of English academic journals in China. Most of the journals published in Chinese take the internationalization strategy with their English abstracts as the most direct window for international communication. Concise, standardized, and accurate English abstracts are an important part of the whole article, which is of great significance for English readers to carry

out academic exchanges with their Chinese counterparts and further improve the international influence of China's scientific and technological journals.

The cross-language variation of English abstracts is also the focus of researchers. Relevant studies either explore the potential causes of cross-language variation, or reveal the writing problems and difficulties of writers with different language backgrounds. The relevant literature shows that there are significant differences in the structure of English and Chinese abstracts. As EFL (English as a foreign language) learners, compared with English native scholars, Chinese scholars' written style has typical interlanguage characteristics at many micro levels. Under such a circumstance, it is very imperative that we identify how our Chinese scholars differ from English native scholars with regards to the writing styles of research article abstracts, and that we gain a deeper understanding of the significant differences in linguistics features of English abstracts in Chinese and international journal articles. Therefore, we take a retrospective look at the related comparative studies, and try to obtain some insightful findings to provide reference for abstract writing for Chinese scholars and abstract editing for Chinese academic journals.

2. Previous Comparative Studies on Micro Linguistic Features

2.1. Use of First Person Pronouns

According to Peng and Zhang (2017), in the use of first person pronouns, the first person singular nominative case "I" and its accusative case "me" are not used in geotechnical journals at home and abroad. The first person plural accusative "us" is not used in domestic geotechnical journals, and only 1~2 are retrieved in foreign journals. In domestic geotechnical journals, the first person plural nominative "we" is rarely used. Different from domestic geotechnical journals, the three geotechnical English journals in the corpus use the first person plural nominative "we" as the subject, which is used in the research purpose, research method, results, conclusions and so on. Wu, Zhao and Yuan (2013) investigated the use of first person pronouns in medical journal article abstracts both at home and abroad. Since most medical research results come from collective cooperation, the first person subject only uses the plural nominative "we" and basically does not use the singular "I", which is consistent between domestic journals and international journals. The first person "we" is widely used in international journals, and the frequency is much higher than that of domestic journals, indicating that the use of "we" in the abstracts of British and American medical journals has been generally recognized and accepted, reflecting that rigorous scientific research pays more and more attention to humanistic color, "we" can increase the affinity of articles. Using the method of quantitative analysis, Zhao (2011) conducted a comparative study on the use of first person pronouns in English abstracts of communication journals written by Chinese scholars and native English scholars. In terms of the use of first person pronouns, the abstracts written by domestic authors do not use any active sentences with first person pronouns as subjects; In the abstracts of British and American authors, the proportion of first person sentences in the total number of sentences reached 24%. Meanwhile, the use of first person pronouns is seriously insufficient in the writing of English abstracts by domestic authors.

2.2. Use of Tenses

In the writing of academic articles, the use of tenses should conform not only to grammatical meaning, but also to pragmatic meaning. The use of the past tense in the writing process shows that the reported content is not universal and has relatively little connection with the current research; The use of the present tense or the present perfect tense indicates that the reported content is generally accepted, has stronger relevance and credibility, and is universal to the current research (Weissberg & Buker, 1990). Liu and Zhang (2016) conducted a comparative

study on the use of tenses in abstracts written by Chinese scholars and English native scholars. Chinese and foreign scholars often use the general present tense, the general past tense and the present perfect tense in their abstract writing, but there is no significant difference in the use frequency of the three tenses, indicating that Chinese mainland scholars' grasp of the use of the tense of the abstract is generally in line with the writing practice of the abstract of international academic journals. According to Wu, Zhao and Yuan (2013), the tense usage of English abstracts of medical journals at home and abroad is basically the same, the most is the general past tense, the second is the general present tense, and a few are the present perfect tense, the past perfect tense and the future tense. The journal of Cell is special. Most of the sentences in its abstract use the general present tense, which is related to its specific move structure. The summary of Cell is mainly composed of three parts: research background, research results and research conclusions. There is no description of specific research methods and procedures. It mainly uses the general present tense to state the theoretical content. It can be seen that the use of tenses is closely related to the genre structure of abstracts. Then, according to Li, Han and Sun (2015), in the English abstracts of Chinese and foreign transportation scientific articles, the general present tense, the general past tense and the present perfect tense are widely used, but there are great differences in quantity. In Chinese journals, the general present tense and the general past tense occupy almost all tense forms, and their proportions are close, 47.4% and 52.5% respectively; Now the proportion of the perfect tense is very small, only 0.1%. In English journals, the proportion of the general present tense far exceeds that of the other two tenses, reaching 91.4%, and the general past tense and the present perfect tense account for 5.2% and 3.4% respectively.

2.3. Use of Voices

According to the comparative analysis of the use of voice in Chinese and foreign transportation scientific journal article abstracts (Li, Han & Sun, 2015), it is found that in English abstracts of Chinese journals, the passive voice is used more, accounting for 55.7% of all sentences; The passive voice accounts for only 34.1% of all sentences in the English abstracts of English journals. Therefore, compared with English journals, Chinese journals of transportation prefer to use the passive voice. In the comparison of English abstracts of Chinese and foreign medical science and technology journals (Wu, Zhao & Yuan, 2013), there are significant differences in the use of voice between the two kinds of abstracts. In the abstracts of Chinese journal articles, the proportions of active sentences, passive sentences and silent sentences are 29.14%, 43.31% and 27.54% respectively. In the abstracts of international journals, the proportion of these three types of sentence patterns is 45.86%, 20.17% and 33.97% respectively. According to Peng and Zhang (2017), among the abstracts of domestic geotechnical journals, passive sentences account for the highest proportion, accounting for 53.5% of the total sentences; The second is active sentences, accounting for 28.5% of the total sentences; The number of silent sentences was the least, accounting for 18.2%. In the abstracts of foreign geotechnical journals, active sentences dominate, accounting for 48.5% of the total sentences; The second is passive sentences, accounting for 36.5% of the total sentences; The number of silent sentences is the least, accounting for 15.9%. In the use of abstract sentence patterns in domestic and foreign geotechnical journals, the proportion of silent sentences is basically the same, less than 20%. The difference is that domestic geotechnical journals use a large number of passive sentences, while foreign journals prefer active sentences. According to Liu and Zhang (2016), the proportion of the active voice in the abstracts of linguistics research articles written by Chinese mainland scholars and English native scholars is 78.01% and 82.82% respectively, which are much higher than those in the passive voice. The chi square test results show that the chi square values of the frequency of active voice and passive voice are the same, and there is no significant difference.

2.4. Use of Stance Markers

Stance markers are an important metadiscourse rhetorical device to strengthen the interaction of academic discourse. They are an indispensable way for academic article writers to attract readers' attention. Based on this, Li and Cheng (2020) examine the English abstracts of Chinese and foreign core journals of environmental discipline, focus on the use of position markers in metadiscourse, and discuss the distribution characteristics and similarities and differences of stance markers in Chinese and foreign journals. It is found that there are both similarities and differences in the use of position markers in Chinese and foreign journal abstracts. The common point is that Chinese and foreign journals are aware of the importance of using position markers to express the author's position and attitude. In the use frequency of stance markers, from high to low, it roughly shows the tendency of hedges > reinforcement > self reference > attitude markers. In the use of these four sub types of stance markers, there are significant differences in the frequency of commitment restrictors, fact finding enhancers, emotional attitude markers, first and third person self-references between Chinese and foreign journals, and there are no significant differences in accuracy restrictors, necessity enhancers and evaluation attitude markers. Compared with Chinese journals, foreign journals have stronger awareness of the use of committed hedges, more self-confidence in the expression of facts, stronger awareness of persuading readers, and more diversified use of verbs to express claims and identify facts. At the same time, they use more first person when expressing their self-stance, reflecting a new trend of highlighting their self-consciousness. Finally, foreign journal authors pay more attention to emotional identity strategies to reach a consensus with readers.

2.5. Use of Shell Nouns

"Shell noun" is a kind of abstract noun used to convey and represent propositional information, which has a significant role in stance expression. The "shell" in naming highlights its characteristics of wrapping and presenting information, so it exists in a large number of academic genres. Using the corpus method, Hu and Huang (2021) take the shell nouns in the English abstracts of engineering journals as the research object, compare the differences in the use of shell nouns between Chinese authors and English native writers, and focus on the stance construction and interpersonal expression function of shell nouns in each language step. Chinese scholars use "shell nouns" far less frequently than native writers, and the stances and evaluations expressed by Chinese and native writers through shell nouns are also different in each language step. An important reason for the insufficient use of shell nouns by Chinese scholars may be that they do not have a comprehensive grasp of the structure of "shell noun + complement" and prefer to use the structure of "shell noun + that clause". From the distribution, the shell nouns of native and Chinese scholars mainly appear in the background move and the target move, but there are differences in position construction. The results show that Chinese scholars should strengthen the use of shell nouns to judge the characteristics of things in background moves and target moves. In addition, in the method move and conclusion move, Chinese authors lack the use of shell nouns, and need to enhance the awareness of position construction of shell nouns. As a result, Chinese scholars are more similar to native writers in moves, and rarely use shell nouns. Therefore, the study suggests that the position construction potential of shell nouns should be incorporated into the teaching of academic English writing, and through rich examples and functional explanations, the second language learners' awareness of position expression and persuasion should be enhanced, so as to help Chinese scholars use shell nouns properly.

2.6. Use of Lexical Bundles

Lexical bundles refer to lexical items that appear frequently in language input and are stored and extracted as a whole. They are used frequently in academic discourse. The frequent lexical bundles reflect the text composition characteristics of the abstract genre. Based on genre

analysis theory and corpus driven phrasal theory, Hu (2015) systematically investigates the similarities and differences of lexical bundle structures and textual functions used by Chinese and native language authors in each step. Each move has its typical lexical structure, and the typical lexical structure has become the symbol of a specific textual function. In the background step, the research-oriented lexical bundles of "noun phrase + of" structure appear more frequently in the two types of corpora, which reflects the empirical characteristics of natural science. Moreover, native scholars use the position lexical bundles of strong restrictive structure frequently in this step to improve the recognition of readers. In the target move, native scholars tend to use intervening lexical bundles with first person pronouns, showing more interactive writing styles; Chinese scholars use non personal subjects and passive voice structures to maintain the objectivity of the text. In terms of method moves, Chinese authors mostly use the position lexical bundles composed of hedges "can", which shows the randomness of speech and affects the accuracy and objectivity of scientific articles to a certain extent. In the move of results, both of them used text-oriented lexical bundles "results show that" to emphasize the accuracy of language judgment. In conclusion, Chinese scholars also frequently use the position lexical bundles of hedges to avoid the absoluteness of judgment and make it difficult to be denied; Native scholars, on the other hand, make more use of the position lexical bundles of strong restrictors to declare the innovation and originality of the research, so as to improve the recognition. Hu and Huang (2017) use the corpus method to compare and analyze the differences of high-frequency lexical bundles commonly used by Chinese and native language authors. The results show that the structure and function of lexical bundles are important factors affecting the frequency of lexical bundles in each move, and there is an interactive relationship between them. In the target step, Chinese authors use less noun chunks "the development of" and verb active voice structure "this article presents", which leads to the insufficient use of research-oriented chunks in this step, while the extensive use of prepositional chunks "in order to" leads to the high frequency of text-oriented chunks. In the result and conclusion steps, in view of the needs of communication purpose, Chinese scholars often use the text oriented lexical bundle "show that the", which implements the textual behavioral function, resulting in the high-frequency use of verb lexical bundles. Through the combination of quantitative and qualitative research methods, Lv (2017) discusses the use characteristics of formulaic language in medical article abstract writing by domestic and international authors. Compared with international authors, domestic authors use more high-frequency programming language, less noun structure programming language and more topic independent programming language. The incorrect use of the definite article in programming language is a common grammatical problem for domestic writers; Domestic writers often use expressions that are contrary to the international usage paradigm, which is mainly caused by the influence of their mother tongue and the use of literal translation strategies (such as be divided into, in group A); The use of Interlanguage and verb in formulaic language by domestic authors is relatively single, and the repetition rate is high, and some high-frequency verb formulaic language does not meet the preference of international authors (such as to investigate the); The sentence structure of domestic authors needs to be more concise.

3. Previous Comparative Studies on Macro Linguistic Features

3.1. Move Analysis

In the 1980s, with the rise and development of the "genre movement", abstract has gradually become a hot discourse of genre analysis. The genre analysis of abstracts by Chinese and foreign scholars generally focuses on the macro move structure characteristics. Swales (1990) found that the structure of the abstract is consistent with that of the article. He studied the abstract as an independent genre and proposed the famous IMRD four move model: Introduction-Method-

Results- Discussion. Chinese scholars Ju (2004) and Teng (2008) have made comparative analyses of the move structure differences between English and Chinese academic article abstracts in linguistics at home and abroad, and obtained more consistent research results: Chinese abstracts often use MR move structure, and often omit "Introduction" and "Discussion" moves. According to Liu and Zhang (2016), IMRD move structure only takes up 44%, while the proportion of native scholars' articles is 72%. Chi square test shows that there are significant differences in the integrity of move structure between the two types of abstracts. 12% of the abstracts written by Chinese scholars take the move structure of MRD, and there were no similar abstracts for international scholars. There was significant difference between them. It indicates that there is a problem of the deletion of the move of "Introduction" in Chinese mainland scholars' abstracts. Although the proportion of articles with the deletion of the move of "Discussion" (including IMR, IM and I) in the two kinds of abstracts is different, which are 34% and 22% respectively, there is no significant difference. Both corpora have ID move structures that omit "Methods" and "Results" moves at the same time, accounting for 10% and 6% respectively, and there is no significant difference. The move structure of abstracts of English articles in international journals is relatively regular and orderly as a whole. Although Chinese mainland scholars still lack the structural integrity of the discourse structure, China's efforts to actively draw the standard of international academic article abstract writing have achieved success.

3.2. Promotion-oriented Function

The abstract selectively highlights the most important information in the article and realizes the function of persuading and guiding readers to read the full text. It is considered to be more information promotional than the text. Using the method of corpus and genre analysis, Zhao et al. (2018) discusses the similarities and differences of English abstract promotion types of empirical articles in Chinese and foreign linguistic journals from the way of information prominence. In terms of the integrity of move information, the number of abstracts with more than three moves in foreign abstract database is 2.4 times that in Chinese abstract database, and the differences in research background and research methods are particularly obvious. In terms of highlighting information means, there are also significant differences in the move sequence and step length of the abstracts of the two journals. These differences lead to the fact that the promotion of Chinese journal abstracts is obviously inferior to that of foreign journals. It can be seen that there is a lack of domestic scholars both in the awareness of academic communication and in the knowledge of academic genre structure and function. Based on the previous research on the promotion type of abstract moves, Zhao et al. (2019) further investigates the scale function oriented characteristics of English abstracts of empirical articles in Chinese and foreign linguistic journals, focuses on the research background moves and results, and discusses the scale promotion function oriented distribution characteristics of moves, in order to explore an effective way for the international dissemination of Chinese applied linguistics academic achievements. In the field of Applied Linguistics, Chinese and foreign journal authors have different rhetorical preferences and characteristics in which information is highlighted in English abstracts, how to realize the function of information prominence, and the effective means of communication of research results. Compared with Chinese journal authors, international journal authors are better at making more use of dual function-oriented scales to highlight the importance and novelty of information, so as to improve the marketing of abstracts; In the "Results and Discussion" step, we prefer to promote the research results and effectively disseminate the academic results through the use of "dialogic" function-oriented scales such as "supporting the existing hypothesis" and "raising objections". These differences between domestic journal authors and international journal authors may reflect that we do not pay much attention to the international dissemination of academic achievements under the background of Chinese academic culture, or indirectly reflect

our lack of competitive awareness of international academic discourse. In today's international academic community, in order to make the "Chinese voice" heard, domestic scholars urgently need to improve the marketing awareness of academic communication.

3.3. Multidimensional Analysis

The multidimensional analysis method initiated by Biber (1988) is a powerful tool to investigate potential dimensions based on a large number of language features. It is widely used in the study of stylistic variation and register, including discourse structure. Cao and Xiao (2013) established a multi-dimensional model of English abstracts of academic articles, including seven dimensions, by factor analysis of 163 frequency matrices of grammatical, semantic features and class connection types. On this basis, Xiao and Cao (2014) conducted a comparative study on the English abstract move differences between native language authors and Chinese authors in biology. The English abstracts of Chinese scholars and native scholars have both similarities and differences in each move. In all moves, native scholars show more active participation and conviction than Chinese scholars in raising issues, drawing results and conclusions, and are more inclined to adopt interactive style. At the same time, in all the required moves, native scholars are better at strengthening their views by means of reinforcement words and other emphatic means, showing a more confident writing style. In addition, they often integrate the method move into the introduction or result move, showing the tendency of method conceptualization. In contrast, the stylistic feature of Chinese scholars' extensive use of passive voice in academic English can be reflected in the introduction, method and concluding move. In short, the two kinds of abstracts show more differences in the introduction move and more similarities in the background move. Cao and Xiao (2015) established a comparable corpus of Chinese and foreign English abstracts covering 12 science disciplines, and used multi-dimensional analysis to investigate the differences of textual communicative functions between Chinese and foreign English abstracts. For the first time, he incorporated the concept of "class connection" into the multi-dimensional analysis method, made a factor analysis on the frequency of 163 grammatical, semantic and class connection language features, and established a five dimensional analysis model for English abstracts to explain the deep differences in textual communicative functions. On this basis, it compares the overall and disciplinary differences between Chinese and foreign English abstracts. The results show that there are significant differences between the two types of abstracts in four dimensions. Native scholars are better at using all kinds of adverbs to strengthen the tone and clearly express their position and attitude; They prefer to use the first person and adopt an interactive writing style. In contrast, Chinese scholars use too many prepositional modifiers and passive voice, which virtually increases reading difficulties and deviates from the direct and concise writing style of today's international academic circles.

Based on Biber's multidimensional analysis method, Zhang, Sun and Li (2018) conducted a multi-dimensional comparative analysis of the language features of 200 highly cited abstracts in five language SSCI journals and five foreign language CSSCI journals from six dimensions, in order to find out the problems existing in the use of language features when Chinese scholars write English abstracts of language articles. The results show that there is no significant difference between the abstracts of highly cited articles in Chinese and foreign journals in the six dimensions of discourse function, but there are differences in the use of some specific language features in the same dimension. The overuse of language features such as non-limiting attributive clauses, present tense verbs, present participle clauses and necessary modal verbs, as well as the underuse of first person pronouns, past tense verbs, object wh-clauses, theme wh-clauses, persuasive verbs and object that clauses, all show that Chinese learners lack sufficient understanding of the communicative function of relevant language features. English

abstracts written by Chinese scholars put more emphasis on language forms and ignore the significance of dynamic verbal communication.

4. Conclusion

With the increasingly frequent international academic exchanges in recent years, academic English writing has attracted much attention. Under the strategic background of "Chinese culture going out", it is very important to improve the English academic writing ability of Chinese scholars. Under such a context, we made a systematical and comprehensive comparison of the abstracts of Chinese and foreign journal articles in micro characteristics and macro dimensions, which is of great theoretical and practical value. Through our literature review, it is not difficult to find that there is a certain gap between Chinese Journal article abstracts and international journal article abstracts in many micro language features such as first person pronouns, shell nouns, stance markers, lexical bundles, tenses, and voices, as well as macro language features such as discourse function and move structure. In other words, when Chinese scholars write English abstracts, their stylistic features have anomie problems to varying degrees. Therefore, it is crucial that Chinese scholars gain a comprehensive knowledge of the genre features of English abstracts and bridge the gap with their international counterparts, enabling them to write accurate, standardized and complete abstracts for journal articles.

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References

- [1] Biber, D. *Variation across Speech and Writing* [M]. Cambridge: CUP, 1988.
- [2] Cao, Y. & Xiao, R. A multidimensional contrastive study of English abstracts by native and non-native writers [J]. *Corpora*, 2013, 8(2): 209-234.
- [3] Cao, Y. & Xiao, Z. A Multidimensional analysis model of research articles' English abstracts [J]. *Foreign Language Education*, 2015 (6): 5-9.
- [4] Hu, X. A comparative study on lexical characteristics in different moves of English abstracts by Chinese and English writers [J]. *Modern Foreign Languages*, 2015 (6): 813-822.
- [5] Hu, X. & Huang, Y. A contrastive study on the use of common high-frequency lexical bundles in different moves of English abstracts in Chinese and English engineering journals [J]. *Foreign Language Learning Theory and Practice*, 2017 (4): 31-36.
- [6] Hu, X. & Huang, Y. A comparative study on interpersonal functions of shell nouns in different moves of English abstracts of Chinese and English scientific articles [J]. *Foreign Language Learning Theory and Practice*, 2021 (3): 56-63.
- [7] Ju, Y. A contrastive study of the abstracts of English and Chinese academic articles [J]. *Foreign Language Education*, 2004 (2): 32-36.
- [8] Li, Y., Han, Y. & Sun, S. Comparative analysis of English abstracts of Chinese and foreign transportation science and technology journals [J]. *Science-Technology & Publication*, 2015 (2): 91-95.
- [9] Li, Z. & Cheng, X. A contrastive analysis of the stance markers in Chinese and international journal abstracts [J]. *Journal of Xi'an International Studies University*, 2020 (2): 6-10.

- [10] Liu, Y. & Zhang, Y. A contrastive study of the abstracts in international journal articles by Chinese and English-speaking scholars [J]. *Foreign Language World*, 2016 (6): 20-27.
- [11] Lv, Y. Medical abstracts written by Chinese and international writers: A corpus-driven study on formulaic sequences [J]. *Technology Enhanced Foreign Language Education*, 2017 (1): 78-82.
- [12] Peng, Q. & Zhang, H. Analysis of grammatical voice and first person pronoun in English abstracts of Chinese and foreign geotechnical journals [J]. *Acta Editologica*, 2017 (6): 538-540.
- [13] Swales, J. *Genre Analysis: English in Academic and Research Settings* [M]. Cambridge: Cambridge University Press, 1990.
- [14] Teng, Y. A contrastive analysis of the distribution and usage of the modifiers in English and Chinese academic research article abstract [J]. *Foreign Languages and Their Teaching*, 2008 (11): 40-43.
- [15] Weissberg, R. & Buker, S. *Writing Up Research: Experimental Research Report Writing for Students of English* [M]. Eanglewood Cliffs, NJ: Prentice Hall, 1990.
- [16] Wu, T. Zhao, J. & Yuan, T. Comparative analysis and suggestions on English abstract writing of Chinese and foreign medical sci-tech journals [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2013, 24(3): 609-612.
- [17] Xiao, Z. & Cao, Y. A multidimensional contrastive move analysis of English abstracts by Chinese and English writers [J]. *Foreign Language Teaching and Research*, 2014 (2): 260-272.
- [18] Zhang, Y., Sun, C. & Li, Y. Multi-dimensional analysis of the English abstracts of the most-cited articles in linguistic journals [J]. *Technology Enhanced Foreign Language Education*, 2018 (4): 64-71.
- [19] Zhao, J. A comparative analysis of the use of voice and first person pronouns in abstracts of Chinese and foreign communication journals [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2011, 22(4): 634-636.
- [20] Zhao, Y., Xu, J., Deng, Y. & Xue, S. Promotion-oriented steps in research article abstracts in Chinese and international journals: A corpus-based comparative study [J]. *Journal of Foreign Languages*, 2019 (2): 45-53.
- [21] Zhao, Y., Liang, X., Gao, J. & Xiang, L. Promotional features in experimental article abstracts: A comparative study between Chinese and international journals [J]. *Foreign Languages and Their Teaching*, 2018 (1): 61-71.