

Exploration of the Ideological and Political Elements in Korean Language Textbooks in Guangdong through Social Network Analysis

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Abstract: This study explores the ideological and political elements in Guangdong's localized Korean language textbooks using Social Network Analysis. It analyzes Korean perceptions of Guangdong through social media text mining technology and discusses integrating Guangdong culture into Korean textbooks to enhance students' ability to tell Chinese stories in Korean. This study reveals that the most frequent keywords included "person", "China", "Hong Kong" and "food" with a notable association between Guangdong and Hong Kong. Topic modeling identified four main themes which are "Guangdong Cuisine", "WayV", "Return to Blossoming Blade" and "Guangdong and Other Regions". These findings suggest integrating Guangdong's culinary culture, popular culture, and literary works into Korean language textbooks to enhance communication and students' Korean ability, while also foster a sense of national pride and belonging.

1. Introduction

The Ministry of Education of China issued the "Guiding Outline for the Construction of Ideological and Political Education in Higher Education Courses" (hereinafter referred to as the "Outline") in May, 2020. The "Outline" proposes that comprehensively promoting the construction of ideological and political education in courses is a strategic measure to implement the fundamental task of cultivating virtue and morality. The construction of ideological and political education in courses is the primary task for improving the quality of talent cultivation, and the educational process in universities should integrate curriculum with ideological and political education. To achieve this goal, various universities are actively promoting reforms in ideological and political education, elaborating on the content and key points of ideological and political education in various majors. The practical direction of ideological and political courses in Korean language majors in universities also urgently needs to be explored in depth. Promoting the construction of ideological and political education in courses has become one of the important directions for teaching reform in Korean language majors in universities. Textbooks are not only important carriers for imparting professional knowledge but also crucial channels for conducting ideological and political education. Wen Qiufang (2021) pointed out that "teaching content is the soul and core of courses, and also the starting point and focus of ideological and political education in courses." This highlights the importance of

integrating ideological and political education into textbooks.

The "Outline" highlights five key elements of ideological and political education in courses: Mr. Xi Thought on Socialism with Chinese Characteristics for a New Era, socialist core values, education on excellent traditional Chinese culture, constitutional and legal education, and professional ideals and ethics education. These five key elements focus on cultivating students' political identity, national pride, cultural literacy, constitutional and legal awareness, professional competence, and moral cultivation. Ding Yi (2022) emphasizes that the elements of ideological and political education in courses include "cultivating virtue and morality", "understanding the current national situation", "native culture", and "cultivating talents with cross-cultural communication skills". Meanwhile, Jiang Baoyou (2022) points out that Korean language education should develop towards diversification and specialization, with diversification realized through diversified talent cultivation goals and specialization implemented in specific courses. Therefore, when developing localized Korean language textbooks for Guangdong, Lingnan culture can be introduced as a distinctive element of ideological and political education in the textbooks. This study aims to investigate Koreans' perception of Guangdong through social network analysis and explore the ideological and political elements of localized Korean language textbooks with Lingnan characteristics, thereby enhancing students' ability to tell Chinese stories well in Korean[1-2].

2. Research Methodology

The concept of "social network" was first introduced by the British sociologist John A. Barnes in 1954, referring to the structure of social relations formed through the interactions of social actors. Social networks not only allow us to understand the actors that constitute society but also reveal the underlying social relations among them. Through Social Network Analysis (SNA), actors can be represented as nodes and social relations as links, facilitating the examination of social networks.

Social media has proven to be an effective tool for capturing public attention and cognition, and it has been applied in various fields. Existing research primarily relies on survey methods to investigate cognitive patterns, but these surveys are constrained by limited sample sizes and temporal restrictions. The information on social media is diverse, and by collecting, organizing, and analyzing relevant data, we can gain insights into the current cognitive status of Koreans towards Guangdong or Lingnan culture. Furthermore, through text mining and analyzing texts extracted from social media, we can understand public cognition in real-time or in a time-series manner. This study aims to utilize text mining techniques to collect relevant content from social media platform X (formerly known as Twitter) and investigate the current cognitive status of Koreans towards Guangdong on social media. The study employs the Korean keyword "*Kwang.twung*(Guangdong in Korean)" for searching and collects related posts from platform X. Data was collected from July 2023 to June 2024, using Python 3.10 to gather user posts from platform X(<https://x.com/?lang=ko>), resulting in a total of 935 posts. Among the collected data, posts unrelated to Guangdong or Chinese culture were excluded, leaving 305 posts for analysis.

This study employs social network analysis method and utilizes Netminer4 software to conduct word frequency analysis on the collected data, visualizing the results through word clouds. To gain further insights into network centrality, a degree centrality analysis is performed, and the findings are displayed using visualization tools. Additionally, topic modeling is applied to extract broader themes. In the topic modeling analysis, only words with TF-IDF values greater than 0.3 are used, excluding single-character words, and words with more than two characters is selected (α : 0.1, β : 0.01). To determine the optimal number of topics, this study incrementally increases the number of topics based on the researchers' interpretability and content applicability, ultimately settling on four topics, with five keywords extracted for each topic.

The specific research steps of this study are summarized as follows:

- ① Collect data from platform X using Python text mining techniques with the Korean keyword "*Kwang.twung*" referring to Guangdong;
- ② Use Netminer 4 software to extract core keywords from the collected data, conducting word frequency analysis, degree centrality analysis, and topic modeling analysis;
- ③ Analyze the perception of Guangdong's among Koreans on social media;
- ④ Based on the analysis results, explore the ideological and political elements that can be applied to localized Korean language textbooks in the Guangdong region.

3. Results Analysis

1) Word Frequency Analysis

Word frequency analysis is a method widely used to measure the importance of words. To investigate Koreans' perceptions of Guangdong, a word frequency analysis was first conducted on the words extracted from 305 posts. The word cloud displays the 500 most frequent words, excluding the keyword "*Kwang.twung*".

Based on the results of the word frequency analysis, the frequencies of the core words are as follows: *Kwang.twung* (Guangdong, 321 times), *sa.lam* (person, 42 times), *Cwung.kwyung* (China, 39 times), *Hong.khong* (Hong Kong, 24 times), *um.sik* (food, 22 times), *yo.li* (cuisine, 21 times), *Kwang.twung.cu* (Guangdong's, 19 times), *Cang.il.so* (Chang Yixiao, 18 times), *ci.yek* (region, 16 times), *sa.thwu.li* (dialect, 15 times), *Kwang.si* (Guangxi, 14 times), *Sen.cen* (Shenzhen, 14 times), *mas* (taste, 13 times), *Phwu.ceyn* (Fujian, 13 times), *Sya.o.cwin* (Xiao Jun, 12 times), *tim.sem* (morning tea, 10 times), *Sang.ha.i* (Shanghai, 10 times), *Han.kwuk* (Korea, 10 times), *kye.wul* (winter, 9 times), and *man.in.pang* (Wanrenfang, 9 times). From the word frequency analysis results, the core words are *Kwang.twung*, *sa.lam*, *Cwung.kwyung*, *Hong.khong*, *um.sik*, and *Cang.il.so*. It can be inferred that Koreans' perception of Guangdong mainly focuses on Guangdong cuisine, Guangdong people, Hong Kong, as well as the idol (Xiao Jun, a member of the male idol group WayV) and the character Chang Yixiao from the web novel "Return to Blossoming Blade(*Hwa.san.kwi.hwan*)". Additionally, when mentioning Guangdong on social platforms, Koreans also refer to other regions in China such as Guangxi, Shenzhen, Fujian, and Shanghai[3-4].

2) Degree Centrality Analysis

To analyze the keywords that users on platform X are most concerned about, this study conducted a degree centrality analysis. Using Netminer 4, words that appeared more than twice were filtered, and unnecessary words were removed. The results of the degree centrality analysis showed that the word "*Kwang.twung* (Guangdong)" had the highest centrality (0.440), followed by "*sa.lam* (person)" (0.052), "*Cwung.kwyung* (China)" (0.031), "*Hong.khong* (Hong Kong)" (0.031), "*du.la.ma* (TV series)" (0.026), "*tim.sem* (morning tea)" (0.026), and "*sa.thwu.li* (dialect)" (0.026). It can be inferred that when Koreans talk about Guangdong, they often mention Hong Kong. Additionally, the keywords "*du.la.ma* (TV series)" and "*Kwang.twung.wi.si* (Guangdong Satellite Television)" indicate that Koreans have discussed the crime investigation TV series "Bing Yu Huo(Being a Hero)" starring Chinese actors Chen Xiao and Wang Yibo, which aired on Guangdong Satellite Television. The high centrality of words like "*tim.sem*(morning tea)" and "*um.sik*(food)" suggests that Koreans have a significant interest in Guangdong's cuisine.

3) Topic Model Analysis

Based on the previous word frequency analysis and centrality analysis, this study utilized topic model analysis to extract four core topics, each containing five keywords. By analyzing the keywords and original content of each topic, Topic 1 was identified as "Guangdong Cuisine," Topic 2 as the male idol group "WayV", Topic 3 as the web novel "Return to Blossoming Blade", and Topic 4 as

"Guangdong and Other Regions." The specific topics and their respective keyword proportions are shown in Table 1. Through the topic model analysis of the data, it was found that topics related to the web novel "Return to Blossoming Blade" accounted for 29%, followed by WayV (27%), Guangdong and Other Regions (26%), and Guangdong Cuisine (19%).

Table 1: Results of Topic Model Analysis

Topic	Keywords	Proportion
1) Guangdong Cuisine	<i>Cwung.kwyung, Hong.khong, yo.li, Sen.cen, tim.sem</i> (China, Hong Kong, cuisine, Shenzhen, morning tea)	19% (106 items)
2) WayV	<i>Kwang.twung.cu, sa.lam, Sya.o.cwin, Han.kwuk, yo.li</i> (Guangdong's, Person, Xiao Jun, Korea, cuisine)	27% (148 items)
3) Return to Blossoming Blade	<i>Cang.il.so, sa.thwu.li, Kwang.si, um.sik, Ho.ka.myeng</i> (Chang Yixiao, Xiao Jun, Korea, cuisine)	29% (160 items)
4) Guangdong and Other Regions	<i>sa.lam, Phwu.ceyn, um.sik, mil.khu.thi, Sang.ha.i</i> (Person, Fujian, food, milk tea, Shanghai)	26% (142 items)

1) Guangdong Cuisine

The keywords for the first topic "Guangdong Cuisine" include "*Cwung.kwyung, Hong.khong, yo.li, Sen.cen, tim.sem* (China, Hong Kong, cuisine, Shenzhen, morning tea)". By examining the original Korean text, it can be seen that the discussions cover a wide range of Guangdong delicacies such as morning tea, milk tea, clay pot rice, BBQ pork noodles, rice porridge hotpot, siu mai, shrimp dumplings, oyster omelets, and herbal tea. Among these discussions, "morning tea" (10 times) was mentioned the most frequently, followed by milk tea (7 times) and clay pot rice (4 times). It is speculated that Koreans have a considerable understanding of morning tea and a high level of fondness for it. Overall, Koreans show a strong interest in Guangdong cuisine.

2) WayV

The keywords for the second topic "WayV" include "*Kwang.twung.cu, sa.lam, Sya.o.cwin, Han.kwuk, yo.li* (Guangdong's, person, Xiao Jun, Korea, cuisine)". On platform X, content related to "WayV" accounts for 27%. WayV is a six-member, multi-national male group under Label V that debuted on January 17, 2019, and is also a subunit of NCT, primarily active in the Chinese-speaking world. The members most frequently mentioned by the Korean public are Xiao Jun (12 times) and Hendery (7 times). Xiao Jun is from Dongguan, Guangdong, while Hendery is from Macau, China, and both of them speak Cantonese. Due to their influence in Korea, the Korean public has engaged in extensive discussions about Guangdong cuisine and Cantonese.

3) Return to Blossoming Blade

The keywords for the third topic "Return to Blossoming Blade" (or "*Hwa.san.kwi.hwan*") include "*Cang.il.so, sa.thwu.li, Kwang.si, um.sik, Ho.ka.myeng* (Chang Yixiao, dialect, Guangxi, food, Hu Jianming)". Although Chang Yixiao and Hu Jianming are characters in the Korean online martial arts novel "Return to Blossoming Blade", the content described in the novel is closely related to China. Chang Yixiao is one of the main villains in "Return to Blossoming Blade", while Hu Jianming is his trusted aide. In the novel, Chang Yixiao is the master of the Wanrenfang, one of the Five Overlords of the Divine Land, and the Wanrenfang is located in Guangdong.

The word frequency analysis results show that "*Cang.il.so* (Chang Yixiao)" appears 18 times in the data, indicating that the Korean public frequently mentions this character. Koreans have shown a keen interest in the Guangdong region and its weather described in the novel, as evidenced by

comments such as "A friend from Guangdong told me that the humidity there today is 99%. Chang Yixiao is a resident of Guangdong. The humidity is too high, making it difficult to start a fire." Furthermore, from the comments of the Korean public, it can be seen that although Cantonese may be difficult for Koreans to understand, they find Chang Yixiao's use of Cantonese charming.

4) Guangdong and Other Regions

The keywords for the fourth topic "Guangdong and Other Regions" include "*sa.lam, Phwu.ceyn, um.sik, mil.khu.thi, Sang.ha.i* (person, Fujian, food, milk tea, Shanghai)". When discussing Guangdong, users often mention other regions in China, such as Fujian (13 times), Shanghai (10 times), as well as Shenzhen (14 times), Guangzhou (8 times), Chongqing (8 times), Guizhou (7 times), Macau (6 times), Beijing (6 times), and Hunan (5 times). Based on the original text analysis, users mainly discuss Guangdong's economy, weather and environment, Cantonese pronunciation, tourism, beliefs, and culture[5-6].

4. Conclusion and Implications

This study collected social media data related to "Guangdong" through text mining techniques and conducted word frequency analysis, centrality analysis, and topic modeling analysis on these data using social network analysis methods. The main characteristics of Korean public's perception of Guangdong are summarized as follows:

First, apart from the keyword "Guangdong", the most frequent words are keywords such as "person", "China", "Hong Kong" and "food."

Second, in addition to the keyword "Guangdong", the keywords "person", "China" and "Hong Kong" have high centrality. Particularly, the association with "Hong Kong" is prominent, indicating that Koreans tend to link Guangdong with Hong Kong. Furthermore, the keywords "TV series", "morning tea" and "dialect" are also important.

Lastly, through topic modeling analysis, four main themes were extracted: "Guangdong Cuisine", "WayV (male idol group)", "Web novel 'Return to Blossoming Blade' " and "Guangdong and Other Regions". Each theme covers content ranging from Guangdong's food culture, idol groups, and novel characters to language, tourism, and weather, demonstrating the diverse ways in which the Korean public perceives Guangdong. Notably, the theme related to "Return to Blossoming Blade" accounts for the highest proportion, indicating that content associated with this novel has attracted significant attention.

These analysis results provide important implications for the integration of ideological and political elements in localized Korean language textbooks for the Guangdong region.

First, incorporating content related to Guangdong's culinary culture into Korean language textbooks not only helps students communicate smoothly with Koreans but also introduces Guangdong's culinary culture to the overseas.

Second, including elements related to popular culture associated with Guangdong, such as idol groups or celebrities from the Greater Bay Area, TV series, etc., can not only attract young Korean language learners but also enhance their sense of national pride.

Third, integrating literary works related to Guangdong into textbooks can guide students to deeply understand the language and cultural background of Chinese literary while learning Korean, thereby strengthening their cultural identity and confidence. At the same time, it enhances students' ability to tell Chinese stories well in Korean.

Fourth, other content such as Guangdong's economy, geographical environment, Cantonese language, tourism, traditional beliefs, and culture can also serve as ideological and political elements in textbooks. Additionally, adding content related to tourist attractions and traditional culture frequently mentioned by the Korean public not only facilitates communication with Koreans but also

cultivates students' sense of national belonging and cultural identity.

This study attempts to explore the ideological and political elements in localized Korean language textbooks through social network analysis methods. Future research needs to collect more data and conduct more comprehensive and in-depth analysis. It is hoped that this study can provide some new ideas and methods for the construction of ideological and political courses for Korean language major.

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