

Research on the Development Trend of Canada Education and the Implications to China

Based on Philology and Statistics*

Lu Zhen

College of Foreign Languages
Civil Aviation University of China
Tianjin, China

Abstract—The research into Canada education is of great significance to both construction and promotion of the education system in China. Through the analysis based on the philology and statistics, this paper makes an empirical study on recent-ten-year research literature of Canada education by both quantitative and qualitative methodologies, focusing on the developing the tendency, the characteristics and the implication of Canada education. It is found that the research into Canada education both at home and abroad has drawn more and more attention in recent 10 years. Compared with developed countries, the research into Canada education in China is inadequate, especially in terms of levels and diversification of the research. The research of Canada education in China should be based on the real situation of China, and the findings of the paper may suggest some implications for the development of China's education system.

Keywords—Canada education; characteristic; implication; survey study

I. INTRODUCTION

Canada was still a poor and backward agricultural country before the World War II. Its economy rose in the 1950s and then it developed into a modern industrial power rapidly. The rise of Canada is the result of various factors, of which the support of education soft power plays an important role. Within 10 years starting from 2007 till now, the literatures of Canada education research are increasing constantly. Quite a lot of scholars have realized the positive effect of Canada's education mode on China's education, and the communication intensity and frequency between Chinese and Canadian schools are also increasing constantly. We can find that the focus of China's research on Canada education mainly involves Talent Cultivation (Zhang Muchu, 2015), Connection between Education and Society (Zha Qiang et al, 2015), The Implications to China (Yang Qiubo et al, 2016) and other aspects through integrating the research literatures of the recent 10 years. However, comparing with the related foreign researches, there are certain deficiencies in the current research in China, which are mainly reflected as the simplicity of research type, deficiency of empirical research, one-sidedness of basic research and other aspects. In order to conduct more

scientific analysis and more effective comparison of the development trend and research features of domestic and foreign researches on Canada education, and to provide references for education research transformation in the future, 3127 foreign literatures and 185 domestic literatures relating to the research on Canada education of 2007-2016 are collected for this research based on relevant research model of philology and statistics, to conduct the empirical research combining quantity and stereotype, and to propose relevant suggestions about the research on Canada education on the basis of this. This research is of certain guiding significance for enriching China's education theory and practice, improving China's educational mechanism.

II. RESEARCH DESIGN

A. Theoretical Framework

Literatures refer to the various kinds of carriers for information spreading, recording and saving by human and the integration of information into certain form. Based on the research of philology and the previous research commonly seen on book information, such research mode has expanded to the researches of education and economy along with the advancement of interdisciplinary researches. The main method of literature research is to collect large amount of literature information and conduct qualitative analysis (Huang Xiaobin 2007). Statistics is a science conducting data forecasting through small samples (Zhang Xuegong 2000), and the core concept is that data creates statistics, statistics promotes prediction, and prediction leads innovation (Qiu Dong 2014). The education research based on philology and statistics is to make reasonable data presentation and model prediction based on relevant educational literature, and then promote the innovative development of educational theory and education system.

B. Problems Researched

The research on Canada education is mainly carried out from three aspects, namely development trend, research characteristics and the deficiencies. The research is mainly tries to answer the following three questions:

*Fund Project: This research is supported by Tianjin Social Science Fund 2016 (TJWW116-026).

First, what is the development trend of the research on Canada education both at home and abroad in the recent 10 years?

Second, what are the characteristics of topic distribution and periodical distribution of the research on Canada education both at home and abroad in the recent 10 years?

Third, what are the features of Canadian education research paper with high influence?

C. Research Procedures

In order to answer the above three questions, the research plans to adopt the method of qualitative and quantitative combination to analyze the Canadian educational research literatures collected at home and abroad, and then make visual display and analysis on that basis through various ways such as column diagram, pie chart and node diagram. The Canadian education research literatures of foreign countries take the SSCI periodical directory as the basis, the "Canada Education" as keyword, to search and collect 3127 papers of 2007-2016. The Canadian education research of China takes the seventh edition of the Chinese core journal directory of Peking University as the basis for basic screening, and a total of 54 effective journals are selected. 185 literatures of 2007-2016 are obtained through literature research taking "Canada Education" as search keyword and based on the 54 journals. In this research, quantitative analysis is conducted on the development trend, distribution characteristics and citation characteristics of Canadian education research. Moreover, the critical study is also performed on that basis to provide suggestions for the research transformation of Canada education.

III. RESEARCH FINDING

A. Research Trend

The statistics (see "Fig. 1") of papers relating to Canadian education research within the recent 10 years show that relevant researches about Canada education at home and abroad are growing; in addition, there are cyclical fluctuations and the related researches of different years are not stable. Furthermore, the research quantity of foreign countries has a very obvious advantage, indicating that the domestic relevant research should be improved in terms of quantity. With respect to the domestic researches, there were 11 papers in 2007; the paper number rose sharply to 21 in 2009; it fell to 18 in 2010; it went up to 25 in 2012; it fell to 16 in 2014; it was 25 in both 2015 and 2016. As for the foreign research, there were 155 papers in 2007; the paper number rose to 323 in 2010; the paper number remained more than 300/year thereafter; in 2014, the paper number reached 529. We come to a conclusion thereby that although there are fluctuations in relevant researches in different years, the researches as a whole present an increasing trend, indicating that more and more scholars are attracted to participate in the research of Canada education. Currently, the educational reform in China is in a critical period. How to realize the stratification and diversification of education, how to enhance the international influence of higher education and the appropriateness of elementary education is a topic that the scholars generally care about at present. Canada

education cares about students regarding the personal development and the promotion of diversity model in their learning process (Cao Di 2015), which has realized the industry-university-research chain development truly (Yang Qiubo et al 2016). And it pays attention to the development of community college and the role of social practice in education link (Wei Hailing 2015), being able to provide certain implications and thrust for the educational reform in China.

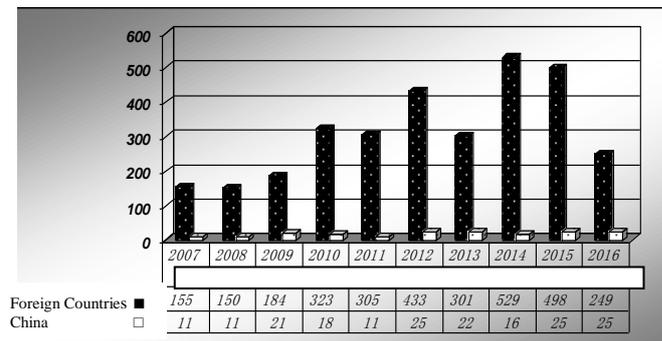


Fig. 1. Canada education research trend.

B. Periodical Distribution Characteristics

As shown in "Fig. 2", the researches on Canada education at home and abroad are mainly distributed in the following four types of journals: (1) Journals about higher education research (24%), for example, Journal of Higher Education, Higher Education Exploration, China Higher Education etc. Such journals mainly pay attention to the comparison between Canada's higher education and China's higher education, and mainly learn from and absorb experience from the higher education mode of Canada. (2) Journals of foreign language research (4%), for example, Computer-Assisted Foreign Language Education, Foreign Language Learning Theory and Practice, Foreign Language World, etc. Such journals account for a small proportion and mainly focus on bilingual education in Canada. (3) Journals about pedagogy (58%), for example, Education Review, E-education Research and Education Exploration. Such journal account for a large proportion, with the contents involving the exploration of education mode, cultivation of teaching staff, combination of industry-university-research, and a small amount of elementary education studies are also included in such journals. (4) University journals (14%), for instance, Journal of National Academy of Education Administration, Journal of Hebei Normal University, etc. Such journals mainly focus on the setting of teaching model and the reform of higher education. The results show that Canada education attaches the most attention to elementary teaching field, indicating that there are great advantages existing in the elementary education mode of Canada which are worth learning from (He Xuexin, Yang Jing 2013). The quantity advantage of higher education researches is not as obvious as that of elementary education. But Canada's higher education has its special features, which are worth learning from by schools in the industry (Jiao Shiqi, Jiang Liangjun 2014). In addition, the research on Canada education has also received attention from foreign language linguists, showing that the research of Canada education has gone

beyond the scope of pedagogy and starts to expand to foreign languages and other fields.

As shown in "Fig. 3" (the proportions of various journals are not marked clearly for the clarity of composition), the researches of Canada education in foreign countries are mainly distributed in the following four categories of journals: (1) Journals of linguistics, for instance, Linguistics and Education, Journal of Neurolinguistics, Journal of Pragmatics etc., which mainly pay attention to the latest development of linguistic theory and practice. (2) Journals of science, for example, history of science, linguistic science etc., which pay more attention to the researches in science, the research methods such as experimental verification of unknown hypothesis. (3) Women study, for instance, Asian journal of women studies, European journal of women studies etc., which mainly concern about the feminism and gender inequality in Canada education. (4) Journals about SLA research, for example, journal of language and social psychology, journal of memory and language etc., which mainly relate to the researches in terms of SLA. The distribution characteristics of Canada education research journals in foreign countries are more diverse when comparing with the distribution characteristics of that in China. From the specific category of journals, most of the domestic journals are about education, while the journals of foreign countries are mainly about linguistics, and the second is journals about science. We can see from that that more of the researches of Canada education of foreign countries are the researches up to scientific level. However, domestic journals will be limited in terms of research horizon due to the restriction of education journals. Moreover, a major feature of the researches on Canada education of foreign countries is that they pay much attention to the study of feminism. We can find that a large amount of researches of foreign countries are published in journals of women research, which phenomenon is rare in China.

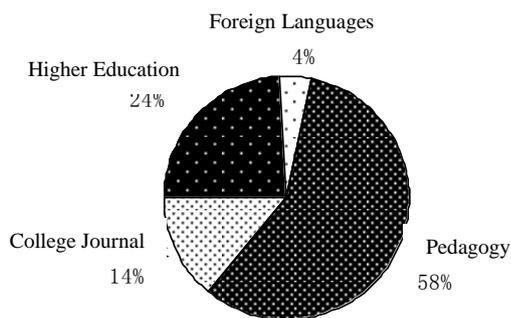


Fig. 2. Distribution of Domestic Journals.

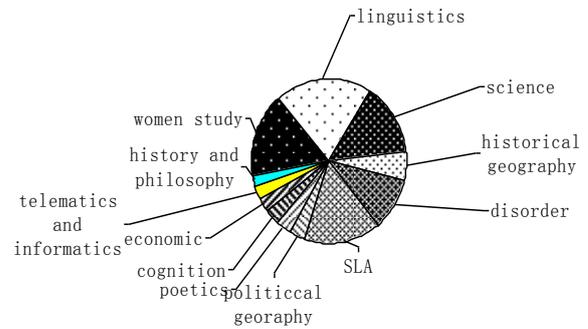


Fig. 3. Distribution of Foreign Journals.

C. Hot Topic Investigation

First of all, we conduct semantic network analysis of the high frequency words picked from the research papers of Canada education in China using ROST software, and obtain the network map of "Fig. 4" below. We obtain several cores of the research of Canada education according to the map: (1) Exploration and research on Canada education, for instance, the diversity characteristics, the languages used, problems, combination of educational theory and practice in the research of Canada education. (2) The implications of Canada education to China, for instance, the implications of Canada education to China's teaching mode and curriculum setting as well as the education cooperation between China and Canada. Moreover, we can see from the map that conducting education reform in China by learning from Canada education mode is also one of the focuses in the research. The above two are the core hot topics, and the map also displays the sub-core research topic of Canada education research. (3) The connection between Canada education and society, for instance, study on the combination of industry-university-research, study on bilingual phenomena and teaching mode, research on education and citizen quality etc. (4) Canada education and talent cultivation problems, for example, research on teacher cultivation, research on talent cultivation and the research on relationship of teaching and scientific research. (5) Research of elementary education. The research of Canadian elementary education in China, especially the research of specific education problems, is relatively less, and it is at the edge of sub-core in the map. The research of journal distribution of Canada education in the above shows that the proportion of elementary education field is the largest. However, the hot topic distribution of Canada education research shows that the research of specific problems in elementary education research has a relatively low citation frequency. However, "The Implications of Canada Education to China" in the hot topic accounts for a large proportion, which indicates that more of the researches of Canada education in China are conducted from macroscopic aspect, while there are demands for the research of specific problem, the quantity is relatively small, so more attention should be paid.

Second, we conduct radar plotting for the papers about Canada education research in foreign countries and obtain the radar map as shown in "Fig. 5". According to this radar map,

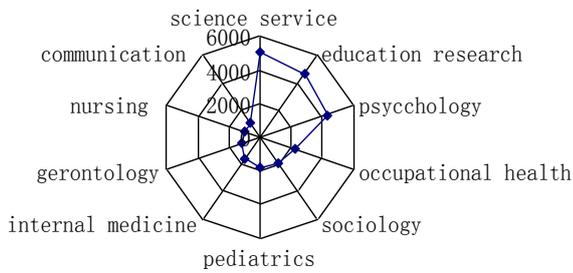


Fig. 5. Distribution of Foreign Hot Topics.

IV. RESEARCH CRITICISM AND SUGGESTIONS

We can find through the researches on Canada education both at home and abroad within the recent 10 years that: (1) the related domestic and foreign researches are growing in fluctuation. Although the quantity of research goes down occasionally, the overall trend is growing, indicating that the interest of domestic and foreign scholars in Canada education research is increasing. (2) The domestic researches are short of diversity in terms of journal distribution characteristics when comparing to the researches of Canada education of foreign countries. Domestic researches of Canada education are mainly distributed in four categories of journals, namely higher education, foreign language research, pedagogy research and university journals. Among them, the journals of pedagogy are of the largest quantity, showing that the researches in educational theory and practices care about Canada education the most. The characteristic of more language and science journal distribution in foreign countries inspires us that we should further strengthen the systematization and diversification of the researches of Canada education. (3) From the topic distribution characteristics we can know that, the researches of Canada education in foreign countries are more about scientific service, showing that foreign countries pay more attention to education's ability to transform science. Domestic research topics of Canada education involve teaching exploration, implications to China, connection between education and society as well as talent cultivation, which also indicates that domestic relevant researches mainly focus on the analysis of Canada educational system and the implications to China. In addition, domestic education should pay more attention to students' mental health and the constant improvement of educational system.

It can be seen from the analysis of Canada education researches within recent 10 years that current domestic researches have the following deficiencies: First, although domestic researches present the trend of growth, the influence of achievements is obviously insufficient. From the citation frequency we can know that, there are 36 papers with citation frequency exceeding 100 times in the researches of Canada education in foreign countries, while the literatures with citation frequency exceeding 10 times are only 6, which quantity is obviously small. Moreover, the radiating scope of these 6 literatures is relatively narrow. Most papers review the educational problems from the administrative level, and perform researches by reference from technological level, while the influence of connection between education and society, the role of community schools, talent cultivation mode,

and implementation of elementary education is obviously insufficient. This shows that although the researches of Canada education start to attract more and more domestic scholars, the direction of research tends to be administrative, and a long period of time is needed to realize three-dimensional research of Canada education.

Second, the journal distribution and hot topics of domestic researches are relatively partial. Although many literatures pay attention to Canada educational policy, educational technology, and higher education and so on, very few researches have paid attention to the elementary education of Canada. Elementary education involves the country's overall soft power, which is an important topic to conduct education quality comparative quality. However, the current domestic researches do not pay too much attention to this field. In the very few studies, researchers pay more attention to institutional problems and the management problems generated in the teaching process (Wu Huiping, He Fang 2016), and more of them observe and introduce in elementary education of Canada (Yan Jiling 2005), but they rarely conduct systematic criticism and introspective learning, which has greatly reduced the influence of elementary education research. In addition, most of the researches on Canada education published on foreign language journals are the researches focusing on bilingual teaching level, belonging to the research of elementary teaching property (Yuan Pinghua 2011). However, the middle-level researches of hypothetical study on teaching output and the high-level researches of foreign language pragmatic ability comparison should be more (Merrill 2008; Han Baocheng, Chang Haichao 2011).

Currently, both the higher education and elementary education face the transformation period. How to seek a way of education development suitable for China's national situation is the primary problem that the researchers should consider. The Canadian education mode is more in line with China's national situation compared to the American private education. It can be seen from the literature quantity increased in recent 10 years that China is increasing its attention degree to Canada education. However, certain deficiencies also exist in current research of Canada education; therefore, we should improve from the following aspects in the subsequent researches:

First of all, the research of Canada education should realize layered development mode. Most of current researches are the researches of teaching methods based on practices in the class, which research mode belongs to the basic-level research. At present, China is short of the middle-level and high-level researches. As a result, in the subsequent researches, we should be more concerned about how to conduct hypothetical research based on teaching output and the high-level research of China-Canada foreign language pragmatic abilities, to realize the combination of high, middle and low levels. Second, the research of Canada education should realize the diversity of papers with high influence. At present, the papers with high influence are mainly concentrated in the level of educational policies, so the subsequent researches should realize the breakthrough in elementary education, integration of education and social practice and other fields, so as to achieve diversified development of high-quality papers. In addition, the researches

of Canada education should strengthen the systematic and introspective learning. We should combine China's national situation while learning from Canada education mode, make critical reference according to the school's actual situation and students' characteristics. It has been a weakness in the researches in the past ten years, requiring further complement and improvement.

V. CONCLUSION

The research conducts the quantitative and stereotyped research on 3127 Canada education research papers of foreign countries and 185 domestic research papers during the period of 2007 to 2017 based on the methods of philology and statistics, mainly discussing the development trend and research characteristics of Canada education research both at home and abroad within the recent 10 years, trying to provide references for subsequent research transformation and the sublimation of domestic education mode. It can be found from the research that the Canada education research both at home and abroad has been growing in fluctuation within recent 10 years, indicating that Canada education research has attracted more and more attention. But compared to foreign related researches, domestic researches are of certain deficiencies in terms of research level, diversity of high frequency paper and other aspects. It is believed through the research that the subsequent Canada education research should be hierarchical, diversified and systematized. The research has certain referential significance for deepening Canada education research and improving China's education mode.

VI. CONCLUSION

From the above historical context of China and South Korea, Confucius Ceremony Musical Dance experienced flourishing and declining together with the national fate, it is shouldering the important task to carry Dao through "dance". Although the dance performed at the Confucius ceremonies in China and South Korea is hard to find the appearance of the ancient system of the Three Generations, through the development track of Confucius Ceremony Musical Dance in the past dynasties, it is hoped that this will lay a solid theoretical foundation for the restoration of the modern Confucius Ceremony Musical Dance.

REFERENCES

- [1] Merrill Swain. Output Hypothesis: Its History and Its Future[J]. *Foreign Language Teaching and Research*, 2008:45-50.
- [2] Cao Di. Study on Canadian Multiculturalism Language Education Policy [J]. *Education Research Monthly*, 2015: 55-60.
- [3] Han Baocheng, Chang Haichao. Comparative Study on Foreign Language Proficiency Standards of China and Foreign Countries [J]. *Foreign Languages in China*, 2011: 39-46.
- [4] He Xuexin, Yang Jing. Elementary Education Curriculum Reform in Canada and Its Implications in the New Century [J]. *Contemporary Education and Culture*, 2013: 36-45.
- [5] Hong Chengwen. Practical Exploration of Canada Education Quality Assurance [J]. *Comparative Education Review*, 2001:54-57.
- [6] Huang Xiaobin. Development of China's Library, Information and Philology Research Hotspot — Analysis of National Social Science

- Foundation Projects in Recent Years [J]. *Information and Documentation Services*, 2003: 13-16.
- [7] Jiao Shiqi, Jiang Liangjun. Characteristics of Higher Vocational Education in Ontario in Canada and The Implications [J]. *Education Exploration*, 2014: 152-153.
- [8] Li Shengli. Strengthen Education Administrative Supervision, Ensure Healthy Development of Education — Report on Education Monitoring Mechanism Investigation in America and Canada [J]. *Journal of National Academy of Education Administration*, 2005:83-86.
- [9] Liang Linmei, Xi Jianhua. Trends and Problems of Teaching Design and Technology — An Interview with Professor Robert Reiser, an internationally renowned scholar in teaching design field [J]. 2008.
- [10] Shanghai Educational Evaluation Delegation. Analysis and Reference of Operation Mechanism of Foreign Educational Evaluation Agencies — Report on Education Evaluation and Investigation of America and Canada [J]. *Research in Education Development*, 2005:39-43.
- [11] Wang Xijuan. Canada Master Degree Education and Its Features [J]. *Academic Degree & Graduate Education*, 2009: 72-77.
- [12] Wei Hailing. From Right-based Citizen to Responsibility-based Citizen: Value Evolution and Practice Pattern of Canadian Citizen Education [J]. *Higher Education Exploration*, 2015:59-64.
- [13] Wu Huiping, He Fang. New Trend of Canada Elementary Education Reform — Review of 3R Education Action Plan of Nova Scotia [J]. *Elementary & Secondary Schooling Education*, 2016: 5-9.
- [14] Yan Jiliang. Record of Canadian Elementary Education Investigation [J]. 2005:38-41.
- [15] Yang Qiubo, Wang Shibin, Zha Qiang. Certification System of Canadian Co-operative Education and Its Implications to Chinese Industry-University-Research Cooperation Education Evaluation [J]. *Research in Higher Education of Engineering*, 2016: 13-20.
- [16] Yuan Pinghua. Comparative Study of Bilingual Teaching in Chinese Universities and Canadian Bilingual Education [J]. *Higher Education Exploration*, 2006:39-43.
- [17] Zha Qiang, Zhu Jian, Wang Chuanyi, Yang Qiubo. Development of Canadian University Balance and Co-operation Education [J]. *Research in Higher Education of Engineering*, 2015:101-107.
- [18] Zhang Muchu. Innovative Paths for Doctoral Student Cultivation in Canada: Cooperation, Policy, Quality [J]. *Journal of Higher Education*, 2015:98-103.
- [19] Zhao Jianhua, Zhu Guangyan. Teaching and Learning Supported by Technology — An Interview with Professor Jim Slotta from Ontario Education Institute, University of Toronto [J]. *China Educational Technology*, 2009.