



Progress and Trend of Teacher Emotional Labor Research: A Visual Analysis Based on CNKI Literature

Mingjie Liu

School of Education Science, Research Center of Preschool Education Development, Yili Normal University, Yining 839300, Xinjiang, China

DOI: 10.32629/jher.v5i5.2972

Abstract: In order to review the development of teachers' emotional labor related research in China as a whole, this paper systematically analyzes the research trends, hot spots and trends of teachers' emotional labor by using the bibliometric method and visual method. Through the effective use of the visualization software CiteSpace6.3, the visualization analysis based on the collection of relevant data from CNKI database is realized. This study has certain reference value to grasp the knowledge base, theme structure and the latest research frontier of teachers' emotional labor.

Keywords: teachers' emotional labor, CiteSpace6.3, co-occurrence atlas, visual analysis

1. Introduction

Contemporary teachers should strengthen the construction of their own ethics and ethics, and present high-quality emotional labor in the process of education and teaching. The concept of emotional labor was first proposed by organizational behaviorist A. R. Hochschild in 1983. Emotional labor refers to the management and control of employees' facial expressions and body movements in order to meet the organization's standard requirements for employees' emotional expression. Based on previous studies, J. M. Diefendorff et al. put forward the three-level theory of emotional labor, that is, emotional labor is divided into three layers[1]: natural acting, deep acting and surface acting. Through the collation and analysis of the literature, it can be found that emotional labor is no longer the exclusive term of service workers. Starting from this, the whole society has begun to pay attention to the emotional problems of employees. From the perspectives of economics, management, psychology, education and other disciplines, scholars have added rich theoretical connotation to emotional labor, laying a theoretical foundation for the development of this paper. At the same time, with the continuous attention of the country and society to the field of education, the group of teachers has attracted much attention. To truly make teachers an enviable profession, we must be people-oriented and pay attention to teachers' psychology. Teachers belong to the group of high emotional labor, emotional labor plays an important role in their work. This group of teachers has its own uniqueness, and emotional labor has a far-reaching, lasting and decisive significance for the development of teacher and student education. If there is no active attention and guidance, excessive emotional labor will lead to emotional exhaustion and job burnout, which is not conducive to the vigorous growth of teachers. This paper aims to analyze the current situation of teachers' emotional labor research, sort out its main research progress and viewpoints, and look forward to its future development trend, in order to provide a new vision and new ideas for further enriching teachers' emotional labor research.

2. Data sources and research methods

2.1 Data sources and statistics

In China, CNKI(China National Knowledge Network) is the main source of literature related to research data. Through advanced search, all journals (covering EI source journals, core journals, SCI source journals, CSSCI journals, etc.) are designated in all time spans and years based on relevant keywords. The data of this study was collected until August 29, 2024, with the theme of "emotional labor" and "teachers" as the subject and the search content, and a total of 216 literatures were retrieved. In order to ensure the scientificity and accuracy of the study, 3 irrelevant literatures were deleted after analysis, and 213 valid data were finally included.

2.2 Research Methods

Literature measurement method: the trend of the annual number of published documents. Statistical analysis of the annual number of published documents in the field of teachers' emotional labor research can well reflect the development trend of this field. At the same time, scientific statistics on the number and direction of research literature by year can also

predict the future development direction of this field.

Knowledge graph analysis: Analysis through knowledge graph, also known as knowledge graph method, is a relatively emerging research method in the field of literature statistical analysis in recent years. Through the effective use of visual analysis software CiteSpace6.3, the graph is drawn to further demonstrate the hot spots and development context of domestic teachers' emotional labor research.

3. Analysis of published research articles related to teachers' emotional labor and emergent words

3.1 Trend chart of the number of published articles on teachers' emotional labor

As can be seen from Figure 1, since 2007, Chinese scholars' research on teachers' emotional labor has shown an obvious growth trend, indicating that teachers' emotional labor has received more and more attention. Due to the continuous deepening of research on teachers' emotional labor in various fields and institutions in China in recent years, the number of relevant articles has increased significantly and the length of publication has also increased significantly.

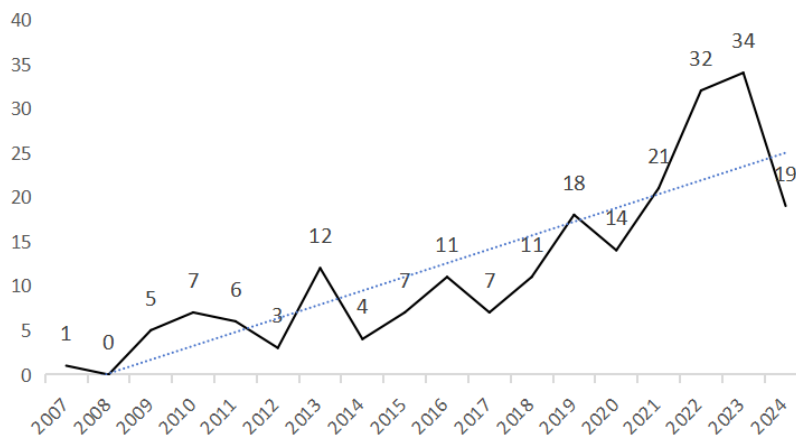


Figure 1. Trend chart of the number of published articles on teachers' emotional labor

3.2 Emergent words of teachers' emotional labor research

"Emergent words" refer to the emergence of an emerging field at a certain moment, which may indicate the development direction of the topic. It is the result obtained by the software through the emergent algorithm, which can identify the change trend of the topic in time. The research emergent words in Figure 2 show the development vein and evolution path of teacher emotional labor research, and the areas highlighted in red represent the years range of keyword research hotspots. The greater the intensity, the higher the frequency of the keywords in the years of the hot topics.

Top 15 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2007 - 2024
Teacher's Emotions	2007	1.3	2007	2012	[Red bar from 2007 to 2012]
Job Burnout	2011	1.47	2011	2016	[Red bar from 2011 to 2016]
influence	2011	1.2	2011	2013	[Red bar from 2011 to 2013]
mental health	2013	1.51	2013	2015	[Red bar from 2013 to 2015]
Psychological capital	2013	1.43	2013	2016	[Red bar from 2013 to 2016]
teacher	2010	2.61	2016	2017	[Red bar from 2016 to 2017]
influence factor	2016	1.57	2016	2017	[Red bar from 2016 to 2017]
Teacher management	2010	1.46	2018	2019	[Red bar from 2018 to 2019]
Teacher Development	2019	1.2	2019	2019	[Red bar at 2019]
Vocational colleges	2019	1.2	2019	2019	[Red bar at 2019]
mindfulness	2021	1.3	2021	2022	[Red bar from 2021 to 2022]
Parental work	2022	1.64	2022	2022	[Red bar at 2022]
Resignation intention	2023	1.63	2023	2024	[Red bar from 2023 to 2024]
Emotional exhaustion	2013	1.43	2023	2024	[Red bar from 2023 to 2024]
occupational stress	2019	1.33	2023	2024	[Red bar from 2023 to 2024]

Figure 2. Year ranking of keyword emergence in teachers' emotional labor research

According to the research emergence glossary, the author believes that the evolution path of teacher emotional labor research in recent years can be divided into the following three stages.

3.2.1 Stage of theoretical discussion: the discussion of the connotation and characteristics of teachers' emotional labor

After emotional labor was put forward, it was applied in various aspects, and many scholars added rich theoretical connotation for emotional labor from the perspective of pedagogy. Researchers in colleges and universities and those engaged in education first pay attention to the relevant theoretical basis and core meaning of this concept. As can be seen from Figure 2, at the beginning (2007-2013), most studies related to teachers' emotional labor focused on the connotation and structure of this concept, with the purpose of providing references for scholars to accurately understand the characteristics and influencing factors of teachers' emotional labor. For example, Tian Xuehong made an in-depth analysis[2] of the connotation and composition of teachers' emotional labor in her article Teachers' Emotional Labor and its Management Strategies, and Yin Hongbiao made an attempt to integrate teachers' emotional labor in a cross-field way by using the symbolic interaction theory in her article Teachers' Emotional Labor: An Interpretation of Symbolic Interaction Theory. By re-structuring and analyzing the components of teachers' emotional labor, he proposed a three-layer structure[3] of "self-interaction-society".

3.2.2 Theoretical guidance and practice level: Duan teachers' emotional labor practice research is booming

After being able to grasp the core concept and connotation of teachers' emotional labor, researchers began to shift the research focus to the actual work of teachers, and strive to find out the factors affecting teachers' emotional labor in practice, so as to provide strategies for optimizing teachers' emotional labor and improve teachers' mental health. As can be seen from Figure 2, the key words from 2013 to 2017 were "mental health", "psychological capital", "teachers", "influencing factors", etc., indicating that scholars' research on teachers' emotional labor mostly began to combine with teachers' actual work, analyze daily work, and propose relevant emotional regulation strategies according to influencing factors, so as to improve teachers' mental health. For example, in his Research on Emotional Labor Strategies of special education Teachers from the Perspective of Positive Psychology, Zhou Houyu proposed that the level[4] of emotional burnout of teachers can be reduced by developing psychological capital, enhancing emotional labor ability, and reasonably adjusting emotional labor. In a Qualitative Study on Teachers' Emotional Expression Rules, Xu Changjiang et al. proposed that teachers mainly seek help and self-adjustment from good colleagues, leaders and family members, and schools should pay more attention to providing channels[5] for teachers' emotional catharsis.

3.2.3 Stage of theoretical development and innovation: The blooming of teachers' emotional labor

After the practice of the second stage, researchers believe that the influential factors and mechanism of teachers' emotional labor can be combined with theory and practice to further achieve high-quality psychological development of teachers and relieve the professional pressure of teachers. As can be seen from Figure 2, the breakout words from 2017 to 2024 are "teacher management", "teacher development", "turnover intention", "emotional exhaustion" and "occupational stress", indicating that the research on emotional labor mainly focuses on the discussion of the relationship between variables, and the resulting variables are mostly emotional exhaustion, job burnout, turnover intention and occupational happiness. In the early period, many researchers explored the relationship between emotional labor and a certain factor, while in the later period, scholars' studies gradually became diversified with increasingly rich models, which can better reveal the mechanism of teachers' emotional labor. For example, Hu Yingying et al. concluded in the Longitudinal Relationship between Emotional Labor and job Burnout of primary and secondary School teachers: The Chain mediating role of emotional resilience and teacher-student Relationship that emotional labor plays a vertical mediating role between surface behavior and job burnout, and emotional resilience plays a chain mediating role through teacher-student relationship. In the deep behavior and job burnout, only the teacher-student relationship plays a vertical mediating role; Between natural behavior and job burnout, emotional resilience and teacher-student relationship play longitudinal independent mediating roles and chain mediating roles[6] respectively. Wang Wenlan et al. discussed the influence of emotional labor on job engagement of primary and secondary school teachers and the mediating role of teacher-student relationship in their paper The Vertical Mechanism of emotional Labor, teacher-student Relationship and Job Engagement: from the perspectives of variable center and individual center based on the dual perspectives of variable center and individual center. This paper provides a theoretical basis for improving the educational practice of teachers' emotional labor and job involvement, and a new perspective[7] for helping the emotional turn of education and the construction of teachers' ranks.

4. Author of teacher emotional labor research, cooperation map of institutions, keyword clustering co-occurrence map and analysis

4.1 Authors and institutions of the research on teachers' emotional labor (co-occurrence map of authors and institutions)

The distribution of authors and institutions is one of the core contents of literature system analysis and research. Statistical analysis of the distribution of authors and institutions can help us understand the distribution of research teams in this field. The author imported the collected articles on the research of core literacy in physics into the software, and the software generated the author cooperation map. Among them, Wang Yuan, Suo Changqing, Zhang Jinrong and other authors are relatively obvious in the graph, indicating that these authors have published more papers on teachers' emotional labor, while Yin Hongbiao, Ma Hongrui, Liu Yingchun, Xu Changjiang and other scholars have published more than 3 papers. In addition, scholars Wang Yuan, Suo Changqing and Zhang Jinrong have published close papers in cooperation with most scholars. There is a certain continuity in researchers' research on teachers' emotional labor from 2007 to 2024. Meanwhile, scholars' research enthusiasm on teachers' emotional labor is increasing year by year. However, the cooperative relationship between most scholars is not very close, and according to the cooperation map of publishing institutions, it is found that the cooperation between authors is only limited to the same research institution or the same region, and there is no obvious cross-education research institution or cross-region cooperation, and a few of them have research cooperation between 2-3 educational institutions. In addition, most of the institutions of the authors belong to well-known teachers' colleges and universities in China. For example, College of Preschool and Primary Education, Shenyang Normal University, Faculty of Education, Beijing Normal University, School of Teacher Education, Capital Normal University, etc.

4.2 Clustering co-occurrence map of teachers' emotional labor keywords

The author will use CiteSpace software to analyze the hot spots and development frontiers of teachers' emotional labor from the relationship between the keywords of teachers' emotional labor. Based on the clustering of the selected research samples, the keyword matching knowledge graph and keyword frequency graph of teachers' emotional labor are established. After clustering, "N=239, E=458" indicates that 239 nodes and 458 connections are generated. It is generally believed that the cluster structure is significant when the average contour value Q is greater than 0.3, and the cluster is reasonable[8] when the average module value S is greater than 0.5. In this study, Q=0.636, S=0.9357, indicating that the clustering of teachers' emotional labor keywords is reasonable. There were 8 clusters in the keyword co-word cluster analysis, the order was emotional labor, preschool teachers, teachers, teacher emotions, emotional exhaustion, job engagement, primary school teachers, optimization strategies, and beginning teachers. By ranking the occurrence of keywords according to frequency, it is found that the core of the research on emotional labor of preschool teachers is the influencing factors, effects and emotional labor strategies of teachers' emotional labor. After removing the keywords "emotional labor" and "teacher", the author sorted them according to their frequency and selected the 12 keywords with the highest frequency to show in Table 1.

Table 1. Frequency table of teachers' emotional labor keywords

Ranking	Quantity	Centrality	Vintage	Keywords
1	152	1.35	2007	Emotional Labor
2	26	0.23	2013	Preschool teacher
3	20	0.14	2010	Burnout
4	19	0.27	2010	Teachers
5	14	0.02	2010	College teachers
6	10	0.22	2007	Teacher Mood
7	9	0.02	2013	Emotional exhaustion
8	8	0	2013	Psychological capital
9	7	0.01	2009	Middle School Teachers
10	6	0.02	2009	Emotional Intelligence
11	6	0	2016	Influencing factors
12	5	0.02	2019	Career stress

According to Table 1, the current hot spots and directions of teachers' emotional labor research are analyzed.

4.2.1 About teachers' emotional labor

In recent 17 years, scholars' research on teachers' emotional labor mainly involves the rules of teachers' emotional labor, the strategies of teachers' emotional labor, the influencing factors of teachers' emotional labor and the consequences of teachers' emotional labor. As for the rules of teachers' emotional labor, the basic consensus of existing research is that teachers should love students, show positive emotions and hide negative emotions in the teaching process. In terms of the tendency to use emotional labor strategies, a general opinion is that teachers most often use real expression, followed by deep acting, and finally surface acting, but there are also some different findings. As for the influencing factors of teachers' emotional labor, researchers usually focus on individual factors and work situation factors. The former involves emotional intelligence, psychological capital, emotional type, personality, etc. The latter includes emotional work needs, emotional expression rules, organizational environment, and management practices. As for the consequences of teachers' emotional labor, many studies have pointed out that teachers' emotional labor will affect teachers' emotional exhaustion, job burnout, turnover intention, career happiness and job engagement. In other aspects, there are current situation investigation and improvement countermeasure research in various fields, summary class analysis, scale compilation and so on.

4.2.2 About the effect of teachers' emotional labor: job burnout, emotional exhaustion, job engagement

After reading the relevant literature, the author found that the early research on the effect of teachers' emotional labor mainly had negative results. Most scholars focus on the negative effects of emotional labor such as job burnout, emotional exhaustion and occupational stress. Domestic scholars have found that emotional labor has a negative impact on job satisfaction, because it may stifle natural performance and exhaust emotional resources, especially surface performance has a significant negative impact[9] on teachers' job satisfaction. Recently, emotional labor is a "double-edged sword", and the positive impact of teachers' emotional labor has gradually attracted the attention of academic circles. Some scholars have proved that deep emotional labor, job satisfaction, psychological capital and job involvement are significantly positively correlated through questionnaire survey, and some scholars have concluded that turnover intention is significantly negatively correlated with natural behavior and happiness, while it is significantly positively correlated[10-11] with surface performance and emotional exhaustion.

4.2.3 Factors and strategies affecting teachers' emotional labor

Grandi's classic model divides the influencing factors of emotional labor into three parts, namely, individual factors, work situation factors and emotional event factors. The early research on teachers' emotional labor mainly discussed individual factors. In recent years, the academic research on work situation factors has increased, but the research on emotional event factors is still few. In terms of the tendency to use emotional labor strategies, a general view is that teachers most often use real expression, followed by deep acting, and finally surface acting. However, there are some different findings[12].

In a word, although the research on teachers' emotional labor has been deepening continuously in recent years, the cooperation among middle school teachers, universities and teaching and research departments is not close, so there is still a lot of room for further development of the research on teachers' emotional labor. Moreover, in the research on teachers' emotional labor, scholars mostly focus on job burnout, emotional exhaustion, job engagement, etc., and there are few in-depth studies on turnover intention and career commitment. After reading relevant literature, the author initially sorted out the hot issues in the research on teachers' emotional labor. In the future research on teachers' emotional labor, attention should be paid to the communication and exchange between different education departments or institutions, so as to lay the foundation for further resource sharing and cooperation. At the same time, the research on teachers' emotional labor should be further deepened.

In addition, combined with emergent words, charts and a large number of literatures, the author believes that with the in-depth study of the influencing factors and mechanism of teachers' emotional labor by researchers, only the natural acting behavior among the three behavioral aspects of teachers' emotional labor is the least explored by scholars, and this is precisely the need to further combine theory and practice. Therefore, it is necessary to further improve the cooperation, communication and inquiry ability of teachers of all school ages and experts and scholars in universities, and give professional guidance on how to optimize teachers' emotional labor.

5. Conclusion and Enlightenment

Using CiteSpace software, this study conducted a systematic comparative analysis of keywords, authors, and institutional cooperation maps generated by literatures related to teacher emotional labor research in CNKI database from 2007 to 2024. Combined with a large number of literature reading analysis, the following conclusions were drawn: (1) The research on teachers' emotional labor still has a promising prospect. The number of relevant studies is increasing but the research field is narrow. Researchers and front-line teachers can continue to conduct in-depth research. (2) There are many institutions

involved in the research of teachers' emotional labor, but there is little cooperation among them. In the future research on teachers' emotional labor, researchers should strengthen the communication and cooperation among themselves, and research institutions should also strengthen the communication and sharing of research directions and research results. At the same time, the depth of research on teachers' emotional labor in all aspects should be further deepened. (3) Research on teachers' emotional labor mainly focuses on "emotional exhaustion", "job engagement", "job burnout", "optimization strategy" and so on. In future research, scholars should keep expanding their research horizons and pay more attention to the double-edged sword effect of turnover intention and career commitment in teachers' emotional labor.

Acknowledgments

Fund project: This paper is one of the phased results of the open project of Preschool Education Development Research Center of Yili Normal University in 2023 (project number :XQJY202309).

References

- [1] Li Yongzhan. Emotional Labor and emotional burnout in special education teachers: the moderating role of psychological capital [J]. Chinese Special Education,2022(10):89-96.
- [2] Tian Xuehong. Teachers' Emotional labor and its management strategies [J]. Educational Research and Experiment, 2010, (03): 67-70.
- [3] Yin Hongbiao. Teachers' Emotional Labor: An Interpretation of Symbolic Interaction Theory [J]. Global Education Perspectives, 2011, 40 (08): 27-33.
- [4] Zhou Houyu. Research on Emotional Labor Strategies of Special Education Teachers from the Perspective of Positive Psychology [J]. Research on Teacher Education, 2016, 28 (01): 61-66+88.
- [5] [Xu Changjiang, Fei Chun, Ding Congcong, et al. A qualitative study on teachers' emotional expression Rules [J]. Research in Teacher Education, 2013, 25 (04): 68-73+50.
- [6] Hu Yingying, Yang Yiming, Wang Wenjing. The longitudinal relationship between emotional labor and job burnout in primary and secondary school teachers: the chain mediating role of emotional resilience and teacher-student relationship [J/OL]. Psychological Development and Education, 2025, (03): 357-367[2024-08-30].
- [7] Hu Yingying, Yang Yiming, Zhang Cuiping, et al. The Longitudinal Mechanism of Emotional Labor, teacher-student relationship and Job Engagement among primary and secondary school teachers: Based on variable centered and individual-centered perspectives [J]. Journal of Education, 2024, 20 (02): 92-105.
- [8] Wang Z C, Zhang Y. Characteristics and progress of natural resource asset accounting and balance sheet research: Knowledge Graph analysis based on CNKI paper database [J/OL]. China Land and Resource Economics, 2023.
- [9] Zhou F,Wang N,Wu Y J.Does university playfulness climate matter? a testing of the mediation model of emotionallabour[J].Innovations in education and teaching international,2019,56(2):239-250.
- [10] Xie Qing-Bin, Wu Ruo-qian, Chen Yu-Ling, et al. The effect of emotional labor on turnover intention of kindergarten teachers: the multiple mediating roles of emotional exhaustion and occupational well-being [J]. Research on Teacher Education, 2023, 35 (03): 74-81.
- [11] [Jiang Rong, Zeng Xiao, Ren Zhuo.] The Relationship between Deep Emotional Labor and Job Satisfaction of rural teachers: the Chain mediating Role of Job Involvement and psychological Capital [J]. Research on Teacher Education, 2023, 35 (02): 56-62.
- [12] Li Hong, Xing Chao-guo, Sun Tong, et al. During the past 20 years, teachers' emotional labor research: core issues and research enlightenment [J]. Journal of education, 2024, 20 (02) : 77-91. The DOI: 10.14082 / j.carol carroll nki. 1673-1298.2024.02.008.

Author Bio

Mingjie Liu(1997-), female, born in Korla, Xinjiang, Master of Science, research direction: Educational psychology.