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# REFLECTION AND PERSPECTIVE ON INTERNATIONAL WORKPLACE LEARNING RESEARCH: A LITERATURE REVIEW

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## ABSTRACT

In recent years, researchers' interest in workplace learning has increased dramatically. Many journals show the current research status of workplace learning. This study uses bibliometrics, cluster analysis, knowledge map to analyze 1764 literatures in 8 journals of workplace learning in 2010-2019. Research findings: (1) The research topics of workplace learning are relatively micro and diverse. Workplace learning theory, influencing factors of workplace learning, workplace learning evaluation, leadership, performance improvement and organizational change are the current research hotspot. (2) Empirical research is the majority research method. (3) Workplace learning theoretical model, informal learning, performance improvement, organizational learning, innovation, leadership are the future research trends.

Keywords: workplace learning; research hotspot; research reflection; research prospect

## METHODOLOGY

This study uses bibliometrics, cluster analysis, knowledge map to analyze the research distribution, hot spots and trends of all papers in 8 journals (*Adult Education Quarterly*, *Journal of Workplace Learning*, *Journal of Education and Work*, *Vocations and Learning*, *Human Resource Development Review*, *Advances in Developing Human Resources*, *Human Resource Development Quarterly*, *Human Resource Development International*). The steps of the study are as follows: (1) Using Web of Science database to extract 1764 articles of the 8 journals in 2010-2019. (2) Using *citespace.5.6.3* and *vosviewer1.6.14* software, clusters high-frequency cited papers, keywords, authors, institutions and countries, analyzes the research topics and current status in the past decade, and reflects and prospects the research and practice progress of workplace learning.

## RESEARCH DISTRIBUTION AND OVERVIEW

### *Country distribution of research*

From Figure 1 and table 1, the United States has the largest radiation area, ranking first with frequency of 751. England ranks second, Canada ranks third. Australia, South Korea, India and other countries also have some research results, but European and American countries have become the academic center of international workplace learning research.

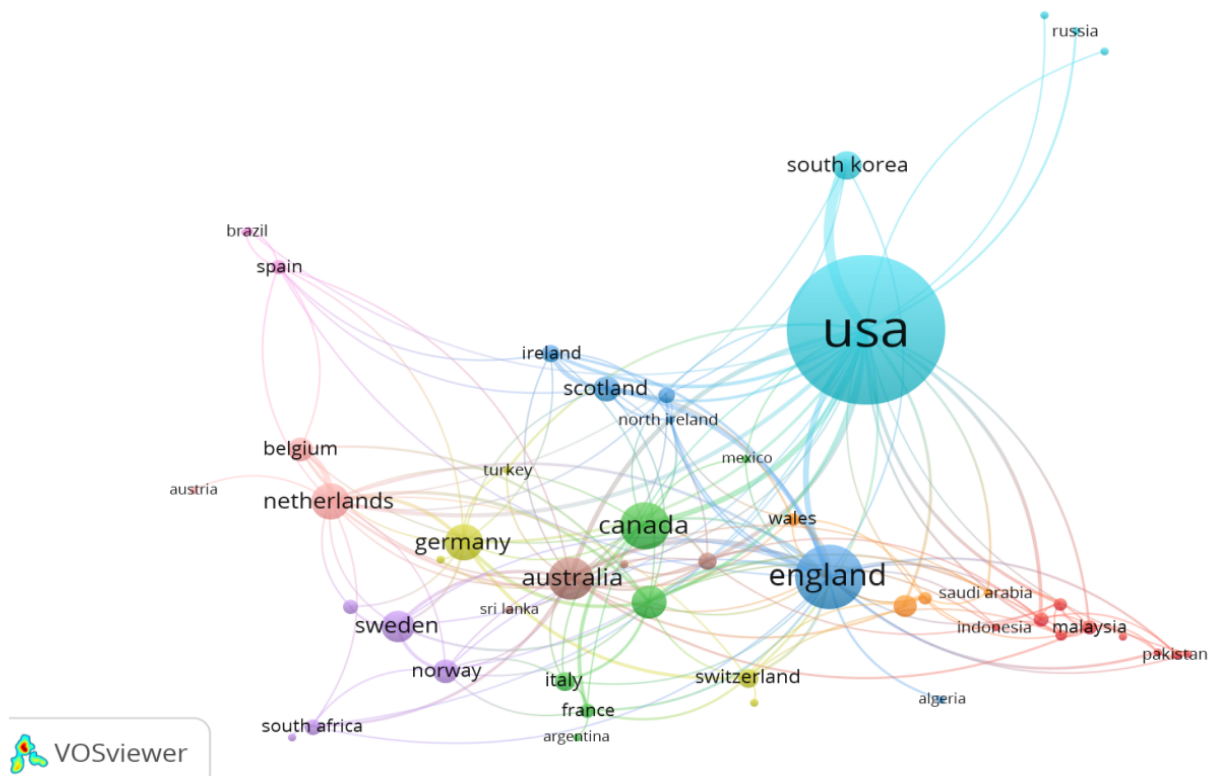


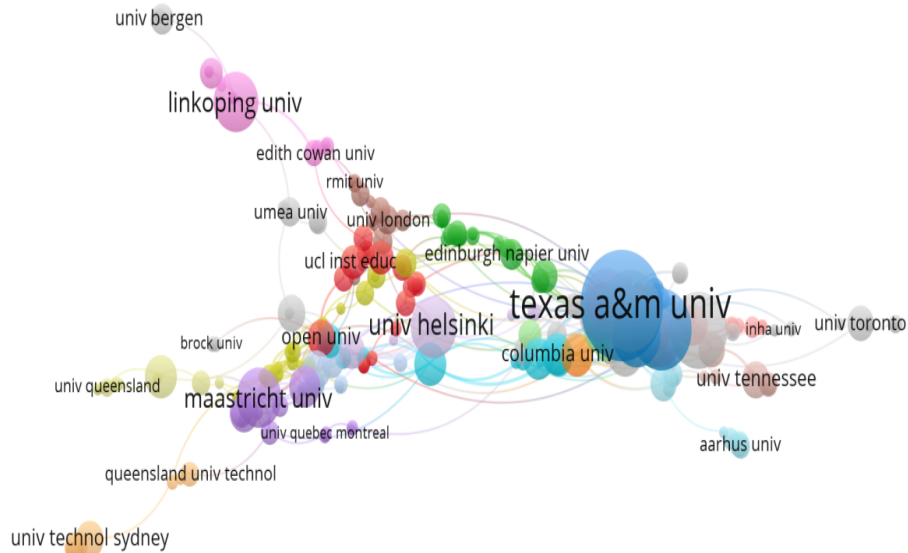
Figure 1. Country distribution map of research.

Table 1. Statistics of the frequency and index of the top 15 research countries.

Ranking	Country	Frequency	Centrality
1	Usa	751	0.42
2	England	188	0.45
3	Canada	105	0.04
4	Australia	92	0.11
5	Germany	71	0.1
6	Netherlands	62	0.21
7	Finland	61	0.11
8	Sweden	59	0.01
9	South Korea	41	0.01
10	Scotland	38	0.04
11	Norway	23	0.03
12	Belgium	20	0
13	India	17	0
14	Italy	10	0.01

### ***Institutional distribution of research***

Based on the cluster and cooperation map of research institutions, we can see the research contribution of various institutions in the field of workplace learning. From Figure 2 and table 2, Texas A & M University has the highest frequency. The next high-yield institutions are University of Illinois and University of Louisville. Figure 3 shows the cooperation between different institutions, and the thickness of the connection between nodes indicates the number of institutional cooperation. The research team in the field of workplace learning is relatively scattered, and there are few intersections between different institutions, so a stable research community has not yet been formed.



*Figure 2. Clustering and co-occurrence map of research institutions.*

*Table 2. Statistics of frequency and index of top 15 research institutions.*

Ranking	Institution	Frequency	Centrality
1	Texas A&M Univ	70	0.12
2	Univ Illinois	42	0.05
3	Univ Louisville	41	0.04
4	Univ Minnesota	37	0.03
5	Univ Helsinki	26	0.01
6	Univ Texas Tyler	23	0.02
7	Penn State Univ	22	0.04
8	Florida Int Univ	21	0.03
9	Linkoping Univ	21	0
10	Univ Georgia	21	0.04
11	Drexel Univ	17	0.01
12	Maastricht Univ	17	0
13	McLean Global Consulting Inc	16	0.01
14	Univ Minnesota Twin Cities	16	0.01
15	George Washington Univ	14	0



Figure 3. Spatial distribution and co-occurrence of research institutions.

### Author distribution and cooperation

According to the generated author clustering and cooperative co-occurrence map, as shown in Figure 4 and table 3, Gary Mclean has the highest frequency in the field of workplace learning, and Jia Wang、Meera Alagaraja、Kim nimon、Joshua Cloins are also active. According to figure 5, the cooperation between different authors is still small, and no close cooperative research community has been formed.

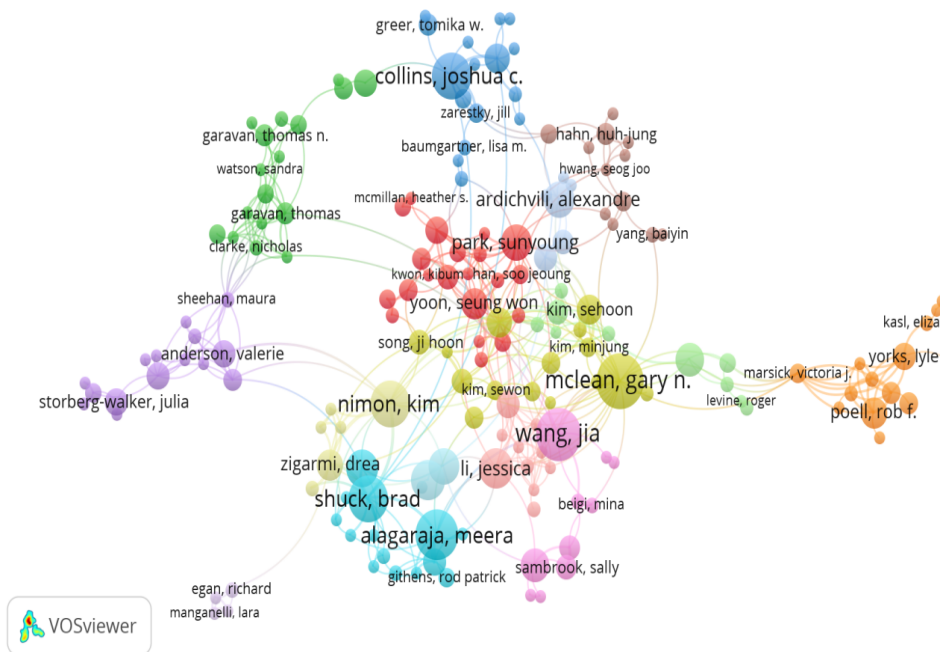


Figure 4. Clustering and co-occurrence map of authors.



*Table 4. Top 20 Keywords in 2010-2019.*

Ranking	Frequency	Keyword	Ranking	Frequency	Keyword
1	192	Performance	11	83	Perspective
2	169	Work	12	80	Motivation
3	131	Education	13	75	Organization
4	118	Management	14	67	Hrd
5	107	Knowledge	15	66	Workplace
6	98	Model	16	64	Outcome
7	97	Impact	17	63	Antecedent
8	91	Workplace learning	18	63	Higher education
9	88	Human Resource Development	19	62	Gender
10	84	Leadership	20	58	Behavior

*Table 5. High frequency keywords 2017-2019.*

Mediating role	Technology	Further education
Framework	Diversity intelligence	Human resource
Authentic leadership	Job demand	Inequality
Scholar-practitioner	Life	Knowledge management
System	Self-determination theory	Labor market
Sme	Social support	Race
Sustainability	Determinant	Undergraduate
Talent development	England	University

### ***Analysis of high frequency cited papers***

In 1764 papers, 18 papers (Table 6) with citation frequency  $\geq 50$  were screened, which can reflect the hot topics of workplace learning research in 2010-2019. From table 6, paper by Avey et al. (2011) on the impact of positive psychological capital on employees' attitude, behavior and performance have the highest cited frequency. Two papers by Luthans (2010, 2012) et al. on psychological capital also have high citations. It can be seen that positive psychological capital has become a new core structure, which is related to positive results at the individual and organizational levels. At the same time, employee development and enterprise performance are also the research hotspot in the past decade. Other papers by Saks et al. (2014), Joo (2010), Merriam et al. (2014), Shuck et al. (2014) on the improvement of employee engagement and enterprise performance also have high citations.

*Table 6. High frequency cited papers.*

Ranking	Year	First author	Frequency	Title
1	2011	James Avey	394	Meta-Analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance
2	2010	Fred Luthans	293	The development and resulting performance impact of positive psychological capital
3	2014	Alan Saks	107	What do we really know about employee engagement?
4	2013	Paivi Tynjala	112	Toward a 3-P model of workplace learning: a literature review
5	2010	Baek-Kyoo Joo	89	Organizational commitment for knowledge workers: the roles of perceived organizational learning culture, leader-member exchange quality, and turnover intention
6	2011	Dennis Laker	88	The differences between hard and soft skills and their relative impact on training transfer
7	2016	Richard Torraco	87	Writing integrative literature reviews: using the past and present to explore the future
8	2012	Michael Newman	72	Calling transformative learning into question: some mutinous thoughts
9	2012	Ji Hoon Song	71	Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement
10	2011	Richard Jordi	68	Reframing the concept of reflection: consciousness, experiential learning, and reflective learning practices
11	2012	Sanne Akkerman	57	Crossing boundaries between school and work during apprenticeships
12	2012	Harmen Schaap	56	Students' learning processes during school-based learning and workplace learning in vocational education: a review
13	2014	Sharan Merriam	52	Promoting community wellbeing: the case for lifelong learning for older adults
14	2014	Brad Shuck	52	Human resource development practices and employee engagement: examining the connection with employee turnover intentions
15	2010	Harry Martin	52	Workplace climate and peer support as determinants of training transfer
16	2012	Hyoung Koo Moon	52	Previous international experience, cross-cultural training, and expatriates' cross-cultural adjustment: Effects of cultural intelligence and goal orientation
17	2011	Woojae Choi	52	Influences of formal learning, personal learning orientation, and supportive learning environment on informal learning
18	2012	Fred Luthans	50	Psychological capital: Implications for HRD, retrospective analysis, and future directions



## **MAIN CONTENTS OF RESEARCH**

### ***Workplace learning theory***

In the past ten years, informal learning has been paid more and more attention, and the meaning and framework of imitation behavior, learning from mistakes, games, anti learning, flipped learning, forgetting, reflection, sharing, commenting and daily generative learning have gradually emerged.

Chan (2017) proposed that imitation learning plays a key role in skill learning, including many non-verbal communication and trade work. Through imitation learning, the relationship between tutors and apprentices can be improved. Makoto (2018) studies the process of anti learning and finds that team anti learning is completely mediated by personal reflection, which has a positive impact on the creativity of employees evaluated by supervisors. Leicher et al. (2016) found that the tendency to cover up mistakes will have a negative impact on the participation of bankers, and the false pressure and perception of the atmosphere of the safe social team will indirectly affect the participation of social learning. Cattaneo et al. (2017) Confirmed the effectiveness of learning from mistakes (and learning from error analysis) through research, and proposed strategies for learning from mistakes, including induction, analysis of task experience, prompting self explanation and reflection, recording and annotating the situation to be analyzed by video recording, etc. Roessger (2014) found that under the condition of critical reflection, the error rate of non reflective learners was higher than that of reflective learners, which greatly affirmed the important value of reflection in workplace learning.

### ***Factors influencing workplace learning***

Workplace learning will be affected by various factors, such as learning motivation, learning attitude, learning tendency, learning identity, learning environment, organizational culture, etc. Kyndt et al. (2013) found that employee's qualifications were negatively correlated with learning intention, and self orientation, financial satisfaction and learning support had positive predictive effect on learning intention. Fuller et al. (2010) found that: (1) Employees without education background and full-time contract have the lowest learning willingness; (2) Employees who participate in formal work-related learning activities have stronger learning willingness; (3) Self orientation, economic benefits, self-efficacy and autonomy are significant positive predictors of learning willingness of low-level employees. Hyunkyung et al. (2018) found that self motivation, learning community and social media use were significantly related to learning performance, and the use of social media adjusted the relationship between other social learning structures and learning performance. Daal et al. (2014) found that: (1) Responsibility, extroversion and openness have a positive impact on teachers' participation in workplace learning activities. (2) Learning orientation and self-efficacy have a better predictive effect on experimental participation, informal interaction and self-regulation. Vanthournout et al. (2014) found that: (1) Working environment and learning motivation directly affect the learning style of employees. (2) Good supervision has an entirely mediating effect on deep learning. (3) The influence of choice independence on deep learning method is mediated by the same motivation drive. Lee et al. (2019) found that at the individual level, task uncertainty, motivation, organizational commitment, job satisfaction and promotion opportunity perception were positively correlated with employees' perception of informal learning effectiveness. At the organizational level, training and development (T&D) support

and trust climate were significantly correlated with the perception of informal learning effectiveness, while senior management support and open communication were not. Choi et al. (2011) found that formal learning and personal learning orientation had a significant positive impact on informal learning. Supportive learning environment had a significant indirect impact on informal learning through formal learning.

### ***Workplace learning assessment***

Cervai et al. (2015) has customized the Exper4care model for workplace learning in the medical industry, which can assess the quality of learning outcomes, focusing on competencies, workplace impact, transferability, engagement and credits. The assessment process involves different categories of stakeholders (learners, trainers, colleagues, managers, internal or external institutions that can benefit from the training results, That is, end users of services, such as patients and citizens), the assessment process is based on a systematic comparison between data collection and expectations and perceptions. Elmholdt et al. (2016) analyzed the performance of assessment tools used to measure the learning effectiveness of leadership development projects. It is found that: (1) there is a gap between the knowledge learned by the participants and the "correct" knowledge and operation in the assessment tools. (2) the managers distinguish the important assessment of the managers themselves, the daily work of the managers and the important assessment of the "organizational system". Although assessment tools can play a role in defining good leadership and legitimate learning, these divisions may be disconnected from the daily practice of leadership, resulting in the disconnection between assessment tools and participants' daily practice of leadership.

### ***Leadership***

Leeds et al. (2018) found that the more well-trained and educated leaders in the organization are, the more favorable their working attitude is to employees, and the more attention they attach to senior leaders, the smaller the proportion of complaints. Sharma et al. (2019) classifies all kinds of abilities that educational leaders should have and defines five abilities: teaching ability, leadership ability, innovation ability, research ability and evaluation ability. The research holds that "helping others to improve, not complaining about the environment", "setting high standards" and "making classroom activities consistent with learning objectives" are the most important abilities of education leaders. Han et al. (2016) found that transformational leadership had a significant impact on employees' psychological empowerment and organizational commitment, and then had a significant indirect impact on employees' willingness to share knowledge. Hwang et al. (2015) found that in different countries, charismatic leadership behavior and directive leadership behavior are positively correlated with leaders' perception of work performance, while supportive leadership behavior is not as influential as charismatic leadership behavior and directive leadership behavior.

### ***Performance improvement and organizational change***

Joo et al. (2010) found that when employees have higher core self-evaluation and intrinsic motivation, they have higher perception of role work performance. In order to improve motivation and work performance, managers and human resource development professionals need to develop a comprehensive strategy, including strengthening selection methods, elements of work redesign and interpersonal development practices. Kim et al. (2015) found that organizational identity had a significant predictive effect on training performance, while

organizational commitment had no significant predictive effect on training performance. To a great extent, the success of organizational change depends on the loyalty and high engagement of employees. Ning et al. (2012) found that if an organization wants to achieve successful change, it must understand the complexity of change commitment, cultivate change commitment, and use change commitment as an intervention solution to reduce pressure.

## **RESEARCH REFLECTION AND PROSPECT**

### ***Research reflection***

Based on the analysis of 8 sample journals from 2010 to 2019, it can be found that:

- 1) Human resource development and workplace learning have become two main research camps in the field of international workplace learning, and the convergence of these two camps is deeper, and the trend is deepening. At present, there are a large number of research results in the field of workplace learning, and the content and theme are more diverse. However, compared with the relevant data in other fields, the impact factors, promotion degree and applicability of the research results still need to be improved.
- 2) European and American countries have become the center of international workplace learning research, and the right of academic discourse is in English speaking countries. There are few exchanges and cooperation among different countries, research institutions and scholars, so it is necessary to build research communities to strengthen cooperation and exchange between research institutions, break the boundaries, and create cross institutional and cross disciplinary cooperation teams.
- 3) The research methods of workplace learning are mainly empirical research, most of which adopt quantitative analysis, theoretical modeling and other methods. Some researchers also pay attention to the application of qualitative research methods such as narrative and story in workplace learning research.
- 4) The trend of interdisciplinary research (pedagogy, management, histology, psychology, Sociology) in the field of learning in the international workplace is obvious, which also contributes to research innovation.

### ***Research prospect***

Based on the existing data, the future research trend can be inferred:

- 1) The future research will still focus on micro practical issues such as organization, management and performance, and informal learning research will enter the mainstream research camp. Workplace learning model, adult learning theory, informal learning, organizational performance, organizational learning, leadership style and leadership development, workplace learning and urban sustainable development have potential value and exploration space.
- 2) In terms of research methods, empirical research will continue to be the mainstream method, which is also an important trend of standardized and scientific research. At the same time, story telling, narrative, case study, text analysis, investigation, social network data analysis, ethnography and other research methods, as well as some digital research technologies, will also enrich the research related to workplace learning.
- 3) The research will show a trend of diversification. With the gradual disintegration of traditional forms of work and organization, the working environment and scene are more

diversified than ever before, and there are more traction forces in the workplace and labor market, which makes the learning problems in the workplace more complex. A single perspective has been difficult to understand many problems in the workplace.

Interdisciplinary and diversified research topics will continue to increase in the future, and it is difficult to focus on them by specific classification. Researchers will understand workplace learning more comprehensively and scientifically through the integration of methodology, theory and tools of different disciplines.

- 4) In the information age, social network, electronic media and virtual learning space will become the focus of researchers' attention. The construction and planning of virtual learning scene can greatly improve the policy learning efficiency and resources, help employees get better promotion, and effectively improve enterprise performance.

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