THEORETICAL FRAMEWORKS AND CONCEPTS FOR PROMOTING INNOVATION IN ADULT WORK-BASED LEARNING WITHIN ORGANIZATIONS

AZIN SHARIRLOU

Educational Science Doctoral Program, Faculty of Education and Psychology, EötvösLoránd University, Budapest, Hungary
E-mail: Sharirlou@gmail.com

Abstract - In today's dynamic global landscape, organizations must continuously adapt and embrace change to succeed. This paper explores the profound interplay between innovation and work-based learning, emphasizing their pivotal roles in fostering organizational growth and competitiveness. It discusses building employees' innovative capabilities, driven by transformative learning processes within workplaces. As organizations shift towards embedding learning within the workplace, a culture of continuous learning emerges, integrating theoretical knowledge with practical application. This paper examines the theoretical underpinnings connecting work-based learning with innovation in organizational contexts.

Keywords - Employee Development, Innovation, Innovation Models, Work-based Learning.

I. INTRODUCTION

To achieve success in today's fast-paced world, organizations must embrace continuous change and adaptability (Meeta Dasgupta and R.K. Gupta, 2009). In a globalized environment, they must leverage their unique strengths, regularly assess performance, and foster a culture that encourages innovation (JarmilaŠebestová and ŽanetaRylková, 2011).

Economic and social progress critically depends on innovation, making it essential for organizations to develop a culture that values adaptability and change (Dorothy Sutherland Olsen, 2016). To promote innovation, organizations must establish a learning environment that integrates knowledge creation, management, and practical implementation systematically. This involves nurturing a skilled and adaptable workforce, as underscored by Dasgupta and Gupta (2009). A culture that places innovation and adaptability at its core is crucial for sustaining competitiveness, driving progress, and fostering growth.

Thriving in an ever-changing world necessitates a commitment to continuous learning (Dixon, 1998). Work-based learning, a comprehensive educational approach, seamlessly bridges theoretical knowledge with practical application. It transcends traditional educational boundaries, nurturing a culture of ongoing learning within organizations.

Learning serves as the vehicle through which organizations expand and diversify their knowledge base. By integrating adult work-based learning principles, organizations can enrich employees' skills and knowledge, laying the foundation for innovative practices that propel progress (Yeung, 1999). This paper explores the theoretical foundations underpinning the promotion of innovation through adult work-based learning in organizational contexts. It examines the symbiotic relationship between these vital elements and their capacity to guide organizations in fostering adaptability and remaining competitive. Subsequent sections will delve into varioustheoretical frameworks, key concepts, challenges, and solutions to support organizations in their quest for innovation through work-based learning. Readers will gain a comprehensive understanding of the intricate link between innovation and adult work-based learning.

II. THE PARADIGM SHIFT OF WORK-BASED LEARNING

Some scholars underline that learning is no longer considered a part of the preparation for employment but rather part of the working environment (Nijhof and Nieuwenhuis, 2008). With these considerations and other factors, the importance of the workplace learning processes has become more widely recognized in the academic debate. As Lave and Wenger argue, classroom learning is primarily concerned with abstract knowledge outside of context, whereas learning needs to be ‘embedded in activities, contexts, and cultures’ (1990, pp.104-107). According to the learning as participation approach (to which WBL is related), learning takes place socially, through participation in a variety of activities, as well as through daily participation and experience, including work relationships, content, and context (Sfard, 1998, quoted in Vaughan et al., 2011). Several dimensions of the learning as participation approach are included in this approach: Having a sense of belonging (community); learning by doing (practice); becoming a new person (identity); and gaining experience through learning (meaning) (Wenger, 2008). This approach involves learning within the workplace and practical application, emphasizing deep reflection on workplace experiences(Gray, 2001). Organizations serve as knowledge repositories encompassing principles,

vision, operational methods, and experiential examples (Schön, D.A., 1983).

Work-based learning (WBL) focuses not only on acquiring specific skills but also on developing meta-competences and learning-to-learn skills, supporting both horizontal and vertical development (Guile and Griffiths, 2001). WBL is categorized into narrow and broad interpretations, with the latter considering social and individual needs alongside employer needs (Nixon et al., 2006). Workplace learning has limitations, particularly in transferability and innovation, which are less evident in WBL, with the workplace's capacity for behavior change and knowledge acquisition influenced by factors like peer and manager support, opportunities for learning, and information accessibility (Nijhof and Nieuwenhuis, 2008). The quality and opportunities of WBL hinge on workplace processes (Mari-Hall- Ulicna-Duchemin, 2013). WBL incidence varies across sectors and company sizes, with factors such as human resource strategies, technological change, skills shortages, and government policies influencing a company's decision to offer training (Skule and Reichborn, 2002). Fierce competition motivates innovation and employee development, primarily due to demanding customers and the need for up-to-date skills (Cedefop, 2011e; Skule and Reichborn, 2002). Smaller companies participate less in WBL, offering fewer training programs, shorter training hours, and allocating a smaller portion of labor costs to training (Hefler, 2010).

III. THEORETICAL FOUNDATION OF WORK-BASED LEARNING

Work-based learning draws from essential theoretical frameworks shaping adult learning and development in organizational settings, providing the basis for fostering innovation.

Raelin(2000) extends experiential learning beyond simulated experiences to encompass practical application, highlighting the importance of integrating theory with practice. He emphasizes that practice-based theories in work-based learning offer greater practical utility. Raelin's perspective aligns with the shift away from traditional learning environments, acknowledging that knowledge is gained through active engagement in real-life situations, including work. This expanded view includes diverse knowledge production and learning experiences, known as life-based learning (Chisholm & Burns, 2003).

Schön (1988) supports the experiential approach, emphasizing practitioners' role in crafting theory through reflective engagement with real-world challenges. This perspective underscores the genuine nature of learning within multidisciplinary settings, both paid and unpaid, emphasizing the complexity of these environments.Workplace learning should be critically evaluated, considering its limitations, particularly in transferability and innovation, which depend on specific workplaces and their learning potential.

IV. THE CONCEPT OF INNOVATION IN ORGANIZATIONS

Innovation is commonly defined as the successful introduction of novel and valuable elements, such as new methodologies, techniques, practices, or modified products and services. Central to understanding innovation is recognizing that it is fundamentally a learning process wherein valuable concepts undergo transformation, resulting in enhanced value for the organization and its stakeholders (Rogers, 1995).

The innovation process is intricately linked to individual and social learning within the workplace, fostering knowledge creation and innovative outcomes. Acknowledging the profound significance of innovation in enhancing business performance, it is essential to underscore that in today's increasingly competitive market environment, innovation is not merely a growth strategy but a survival imperative (Dasgupta and R.K. Gupta, 2009). Sustainable innovation, which ultimately translates into a competitive advantage, hinges on the effective management of knowledge and learning. The capacity to assimilate and integrate newly acquired knowledge into existing wisdom is the cornerstone for continuous improvement and innovation.

According to Rogers (1995), individuals act as change agents, fostering innovation through interactions and networking within organizations. Managing this phenomenon via knowledge management and organizational learning is crucial. Organizational innovation should align with both internal and market demands, ensuring responsiveness to evolving preferences (Gupta, 2009).Wicksell & Schumpeter (2022) emphasize innovation's focus on transforming products and processes, sustaining competitiveness through continuous idea reevaluation, knowledge evolution, and method refinement.

V. WORK-BASED LEARNING AND INNOVATION

Innovation results from learning processes (Lundvall, 1992). Learning methods like R&D, learning-by-doing, learning-by-using, and learning-by-interacting drive product and process innovations (Edquist, 2001). Collaboration among people, firms, and nations fosters gradual innovation. Informal groups and communities in flexible organizations create

optimal learning environments, leading to innovative products (Nonaka et al., 1999). Learning plays a central role in the innovation process at both company and societal levels (Olsen, D. 2016).

The link between intellectual capital and innovation is also evident. However, it's unclear whether companies are aware of these connections or how they respond to them. Research by Halasz Gabor in 2021 identified four types of workplaces (Figure 1). Innovation activity is slightly higher in organizations with greater dynamic capacities. While 'Rocket' organizations are highly effective and dynamic, their innovation activity drops slightly compared to other organizations (Halasz, G., 2021.p.199).

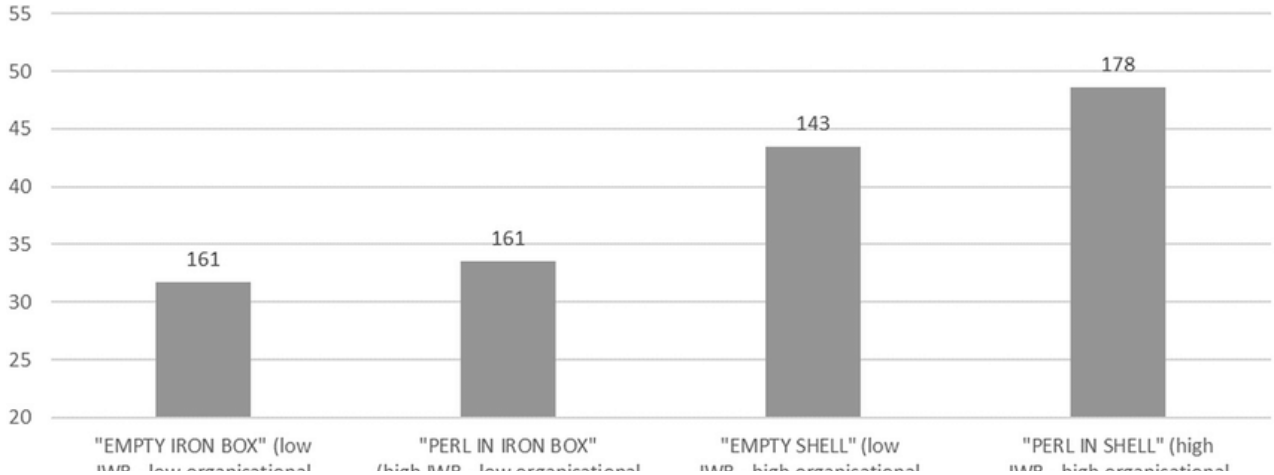


Figure 1: The level of innovation activity of individuals working in different organizational environments
Source: Halasz, G. 2021. P.203

Investing in knowledge, skills, and competencies (KSC) is crucial for future economic growth, business innovation, and adaptability to changing environments. Recent European analyses, including a Cedefop report on Learning while working, emphasize the positive link between KSC development and innovation in enterprises. As businesses introduce new products, adopt technology, and adjust their operations, the demand for training grows, highlighting the need for innovation in work-based learning (WBL). Various work-based learning models and definitions have been proposed, emphasizing employers' recognition of improved skills and management of work-based learning (Williamson, 2005).

VI. WORK-BASED LEARNING INNOVATION MODELS

Work-based learning is a dynamic and evolving field, presenting challenges and opportunities for organizations, employers, and stakeholders. Definitions and models of work-based learning can vary significantly across organizational contexts (Burke et al., 2009). Various studies have proposed diverse definitions and models of work-based learning, as summarized in Table 1.

Author	Year	Definition/model
Scardamalia and Bereiter	1994	Knowledge management and building
Nonaka and Takeuchi	1995	creating knowledge
Guile and Young	1995	connective models
Laybourn et al.	2001	formative models
Stenström	2009	educational and occupational connections models
Billett	2010	practice-based learning models

Table 1: work-based learning definitions/models
Source: Own compilation, based on Angove, M. 2020.

This research focuses on work-based learning innovation, specifically discussing two relevant models: NESTA's model of innovative working (Patterson et al., 2009) and HEA's model of workplace learning relationships (Nixon et al., 2006).
In order to promote innovative working, NESTA develops a model (based on Patterson et al., 2009) that emphasizes employee behaviors and characteristics conducive to innovation (see Figure 2). These include openness to ideas, problem-solving skills, initiative, strategic thinking, managerial and leadership abilities, self-esteem/confidence, risk tolerance, emotional intelligence (EQ), and ambiguity tolerance. Openness to new ideas is particularly significant, with six out of ten respondents ranking it among the top three important characteristics for innovation (Patterson et al., 2009). While intelligence, risk-taking skills, emotional intelligence, and ambiguity tolerance are essential, they alone are insufficient for fostering innovation. Emotional intelligence, as defined by Payne (1985), refers to an individual's ability to recognize, assess, and manage their emotions and the emotions of others. Ambiguity tolerance (Furnham and Ribchester, 1995) reflects an individual's openness and neutrality in perceiving ambiguity in behavior or information. Additionally, 35 percent and 50 percent of respondents cited strategic thinking and problem-solving as contributing factors to innovative work, respectively. The literature on idea implementation further highlights the importance of motivation and personal initiative (Sternberg and Lubart, 1999). Management and leadership styles significantly influence employees' motivation for innovation(Patterson et al., 2009). Self-efficacy, positively correlated with innovative behavior, was mentioned by three out of ten respondents as a crucial characteristic for innovative work (Patterson et al., 2009). According to NESTA's survey, the five most important characteristics were: openness to new ideas (59%), problem-solving skills (50%), initiative and motivation (43%), strategic thinking (35%), and management/leadership skills (33%). Self-belief/confidence was considered the least important (29%), followed by a willingness to accept risk (28%), emotional intelligence (13%), and uncertainty tolerance (8%).

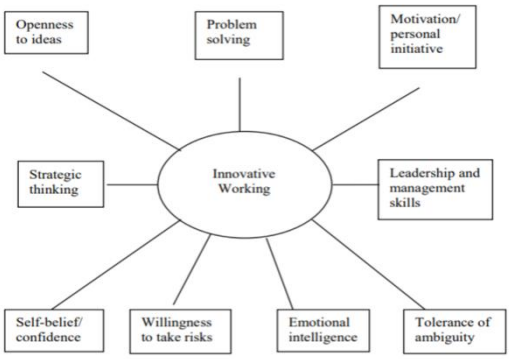


Figure 2: NESTA Model of Innovative Working
Source: Angove, M. (2019), p.5, based on Patterson et al.

Matuska et al. (2014) emphasized the significance of a company's business strategy and employee-leader cooperation in fostering innovation. They highlighted that employees' creativity is rooted in their knowledge and, to effectively manage innovation, a company should integrate values like loyalty and trust into its organizational culture. In conclusion, the research underscores the importance of managerial competence, a social mindset, and a well-defined company innovation strategy (see Figure 3).

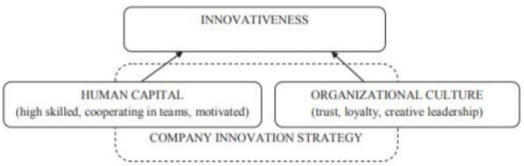


Figure 3: Innovativeness pillars in a company
Source: Matuska, E. &Sokól, A. (2014), p. 78

To achieve the goals of workplace learning programs, it's crucial to standardize skills, procedures, and policies locally and enhance compliance with regulations, manuals, audit forms, and error reports (Fenwick, 2010). In the face of global competition, organizations must prioritize innovation across all units and levels to ensure survival. This emphasis on innovation aligns with the vision of a learning organization, where employees are expected to continuously acquire new skills and increase work variety.

Globalization and rapid technological advancements have intensified global competition, necessitating continuous learning, particularly in innovation, at all organizational levels. Innovative learning is considered essential in today's uncertain environment, as organizations adept at managing exploration are better equipped to adapt to changing circumstances. Researchers have put forth theories promoting innovative learning processes that encourage risk-taking, experimentation, and seeking variances among workers (Crossan et al., 1999). Much of workplace learning for innovation draws on complexity theory, emphasizing concepts like complex responsive processes, nonlinear dynamics, self-organization, and emergence (Fenwick, 2010).

REFERENCES

[1] Angove, M. (2019). Work-Based Learning and Innovation: A Study of InternationalCommerce Degree Students. University of South Wales, UK. January 2019 DOI:10.4018/978-1-5225-7721-8.ch009
[2] Brown, J., Collins, A. and Duguid, P. (1989), 'Situated cognition and the culture of learning', Educational researcher, Vol. 18, No 1, pp. 32-42.
[3] Burke, L. (2009). Towards a pedagogy of work-based learning: perceptions of work-basedlearning in foundation

degrees. Journal of Vocational Education and Training, 61(1) 15-33.
[4] Cedefop (2011e), Learning while working: Success stories on workplace learning in Europe.Luxembourg: Publications Office of the European Union.
[5] Chisholm, C.U. and Burns, G.R. (2003). The Role of Work-Based Learning Methodologies in the Development of Life-Long Engineering Education in the 21st Century. Global J. of Engng. Educ., Vol.7, No.2
[6] Dasgupta, M. & Gupta, R.K. (2009). Innovation in Organizations: A Review of the Role of Organizational Learning and Knowledge Management. GLOBAL BUSINESS REVIEW,10:2 (2009): 203–224
[7] Dixon, P. (1998). Six Faces of Global Change, London: Harper Collins.
[8] Donald A. Schön, The Reflective Practitioner: How Professionals Think in Action. NewYork: Basic Books, 1983. ISBN 0—465—06874—X
[9] EDQUIST, C. (2001) The Systems of Innovation Approach and Innovation Policy: Anaccount of the state of the art. Paper presented at the DRUID conference, Aalborg, June 12-15, 2001.
[10] Fenwick, T. (2010). Standardization, Innovation and Learning in the Workplace: Missions incomplexity reduction. University of British Columbia, Canada
[11] Gray, D. (2001), A briefing on work-based learning. York: Higher Education Academy.
[12] Halasz, Gabor. (2021). Measuring innovation in education with a special focus on the impact of organizational characteristics. Hungarian Educational Research Journal. 11. 189-209.
[13] Hefler, G. (2010), The qualification-supporting company: The significance of formal adulteducation in small and medium organizations, Comparative Report, Krems: DanubeUniversity Krems.
[14] JarmilaŠebestová and ŽanetaRylková. (2011). COMPETENCIES AND INNOVATION WITHIN LEARNING ORGANIZATION. ISSN 1822-6515 ISSN 1822-6515 EKONOMIKA IR VADYBA: 2011. 16
[15] Lave, J. and Wenger, E. (1990), Situated learning: Legitimate peripheral participation.Cambridge: Cambridge University Press. Pp. 14-24.
[16] Lundvall, B. A. (Ed) 1992 National Systems of Innovation: towards a theory of innovationand interactive learning (London, Pinter Publishers).
[17] Mary M. Crossan, Henry W. Lane, Roderick E. White. (1999). An Organizational Learning Framework: From Intuition to Institution. The Academy of Management Review, Vol. 24, No. 3 (Jul., 1999), pp. 522-537
[18] Matuska, E,Sokół, A. (2014). ATTRIBUTES OF MODERN ORGANIZATION Creativity– Knowledge – Innovation – Trust. Published in August 2014 by Science Publishing,London. ISBN 978-0-9928772-1-7
[19] Nijhof, W.J. and Nieuwenhuis, L. (2008), 'The learning potential of the workforce', Rotterdam:Sense.
[20] Nixon, I., Smith, K., Stafford, R. and Camm, S. (2006), Work-based learning: Illuminatingthe higher education landscape. Heslington, York: The Higher Education Academy.
[21] NONAKA, I., TAKEUCHI, H. (1995) The Knowledge-creating Company: how Japanese companies create the dynamics of innovation (Oxford, Oxford University Press).
[22] Olsen, D. (2016), Adult learning in innovative organizations. European Journal of Education,Vol. 51, No. 2, 2016 DOI: 10.1111/ejed.12170
[23] Patterson, F., Kerrin, M., Gatto-Roissard, G. and Coan, P. (2009) Everyday Innovation: How to Enhance Innovative Working in Employees and Organizations. NESTA, London.
[24] Payne, W. L. (1985). A Study of Emotion: Developing Emotional Intelligence; Self-Integration; Relating to Fear, Pain and Desire. Doctoral Dissertation, Cincinnati, OH: The Union Institute.
[25] Raelin, J.A. (2000). Work-Based Learning: The New Frontier of Management Development, Prentice Hall, Upper Saddle River, NJ.
[26] Rogers, E.M. (1995). Diffusion of Innovations. 4th edition New York: The Free Press.
[27] Schön, D. A. (1988). Designing: Rules, types and worlds. Design Studies, 9(3), 181-190.
[28] Sfard, A. (1998), 'On two metaphors for learning and the dangers of choosing just one',Educational Researcher, Vol. 27, No 2, pp. 4-13.
[29] Skule and Reichborn (2002), Learning-conducive work: A survey of learning conditions inNorwegian workplaces. Luxembourg: Office for Official Publications of the EuropeanCommunities.
[30] Sternberg, R. J., &Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. In R. J. Sternberg (Ed.), Handbook of creativity (pp. 3–15). Cambridge University Press.
[31] Wicksell, K., & Schumpeter, J. (2022). Out of the Blue Danube. The Making of Modern Economics: The Lives and Ideas of the Great Thinkers, 173.
[32] Williamson T. (2005) Work-based learning: a leadership development example from an action research study of shared governance implementation. Journal of Nursing Management 13 (6), 490–499.
[33] Yeung, A.K., D.O. Ulrich, S.W. Nason, and M.A. Von Glinow. (1999). 'Organizational Learning Capability: Generating and Generalizing Ideas with Impact', New York: Oxford University Press.

★★★