

Project Summary for IAL Website

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Project Title:	Understanding and Promoting Networked Learning in the Workplace: A Learning Analytics Approach
Project Number:	GA19-09
Year of Approval:	2020
Funding Source:	WDARF
Objectives and intended outcomes of the project:	The research project aims to explore the phenomenon of networked learning in the workplace and gain insights into how individuals learn through networks by investigating different components of the learning process using a learning analytics approach. The findings from the project will provide an understanding of the learning process in the case of networked learning for individuals.
Project Team	
Principal Investigator:	Dr. Khor Ean Teng
Summary of Project (up to 300 words)	
As most learning for the continuous development of professional knowledge and expertise in the workplace has been identified as informal, it has not been available to be readily analysed for the evaluation of outcomes (Keely & Hager, 2015). Therefore, this research project is focused on studying and investigating components of the human-mediated networked learning processes that promote knowledge sharing and collaborations by examining how individuals develop connections (networks) and understanding the contextual conditions that support their learning in the workplace. The research project is based on a multi-method design that employs a set of analytic methods to (1) find out the connections or networks between individuals and (2) identify the contextual conditions in which learning interactions occur. Consequently, by triangulating data from multiple perspectives and contextualising the findings, the project will be able to develop an accomplished understanding of the networked learning process. The findings from the research will provide an understanding of the learning process in the case of networked learning for individuals. It then serves as a guide to design, facilitates and promote networked learning; develop new theory in the field of professional development; and create a holistic view of informal lifelong learning activities in work and society.	
Summary of Project Findings, Deliverables and Impacts (up to 500 words)	
This research project explores the phenomenon of networked learning in the workplace, with a focus on how individuals form professional connections and engage in informal learning interactions. Using a learning analytics approach, the project aimed to investigate both the learner characteristics and environmental conditions that support knowledge sharing and collaboration. Grounded in the recognition that much professional learning in the workplace is informal and often underexplored, the study adopted a multi-method design that combined social network analytics with qualitative methods to uncover how networked learning unfolds in practice.	

Survey data were used to map professional networks and identify key individuals based on centrality metrics such as degree, closeness, and betweenness centrality. These insights informed the selection of participants for in-depth interviews, which, together with focus group discussions with supervisors, offered a rich understanding of the contextual and social dynamics shaping learning interactions. The findings revealed that environmental factors played a foundational role in facilitating networked learning. Organizational structures such as scheduled in-service sessions, the presence of "super trainers," and mentor-mentee systems created conducive conditions for knowledge exchange.

In parallel, learner characteristics such as proactive attitudes toward career growth and participation in professional associations influenced the quality and frequency of learning engagement. Individuals who demonstrated a strong sense of professional responsibility were more likely to seek out learning opportunities and share knowledge with peers. The study found that learning from experienced seniors was the most frequent and impactful form of networked learning, offering reliable and contextually relevant guidance for junior workers.

The interplay between learner and environmental factors was a central finding of the study. A supportive environment not only enabled more learning interactions but also nurtured positive learner dispositions, suggesting a cyclical relationship between workplace culture and individual motivation. Furthermore, differences in perspective between supervisors and junior workers highlighted the multi-level nature of workplace learning. Supervisors tended to focus on structural and team-based enablers of learning, while junior staff emphasized personal networks and informal peer interactions. This duality provided a more holistic understanding of how networked learning is experienced across different levels of an organization.

Overall, the project delivered a comprehensive framework for understanding networked learning as a dynamic and socially situated process. The findings have implications for designing more effective professional development initiatives, particularly in sectors where team-based and fast-paced work environments are prevalent. By integrating quantitative network measures with qualitative inquiry, the project contributes both methodological insights and practical recommendations for promoting lifelong learning in the workplace. The results advocate for policies that formalize mentorship, recognize informal learning, and support cross-disciplinary collaboration, thereby strengthening the foundation for sustainable professional growth in contemporary work settings.