

ASSOCIATION BETWEEN ORGANIZATIONAL FACTORS AND
INVOLVEMENT IN INFORMAL LEARNING AMONG
NON-ACADEMIC STAFF IN UITM PASIR GUDANG CAMPUS

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*To my beloved daughters
“Always believe in yourself
Go forth & live your dreams
Stride ahead shun your fears
And seek help in patience & prayers”*

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ABSTRACT

This study aims to identify the occurrence of informal learning at workplace. It is also aims to determine the association between organizational factors management support, organizational physical setting, rewards and technology in workplace to promote involvement in informal learning in the workplace among non-academic staff. Previous research emphasized the importance of lifelong learning at the workplace that existed in all forms of learning including informal learning. It was also stated that conducive work environment supported the practices of lifelong learning within the organization that shows contextual factors play an important aspect in workplace learning. This study used quantitative survey of analysis and 120 self-administered questionnaires were distributed to all non-academic staff in UiTM (Pasir Gudang Campus) in order to determine and answer the research objectives. The result revealed that the level of external factors and level of informal learning are being rated high, and the contextual factors are positively influenced in informal learning involvement as follows: 1) level of external factors is in the range of medium and high level; 2) level of informal learning is also being rated high; 3) management support, physical setting, rewards, and technology characteristics affect informal learning involvement. Thus, it is essential for organization to emphasize on combination of the right organizational factors and strategies, in order to promote and encourage informal learning involvement in a workplace.

ABSTRAK

Kajian ini bertujuan untuk mengenal pasti kewujudan pembelajaran tidak formal di tempat kerja, serta mengenal pasti hubungan antara faktor-faktor organisasi seperti sokongan pengurusan, persekitaran fizikal organisasi, ganjaran dan teknologi untuk menggalakkan penglibatan dalam pembelajaran tidak formal di tempat kerja dalam kalangan kakitangan bukan akademik. Kajian lalu ada menekankan kepentingan pembelajaran sepanjang hayat di tempat kerja yang wujud dalam semua bentuk pembelajaran termasuklah pembelajaran tidak formal. Turut juga dinyatakan bahawa persekitaran kerja yang kondusif menyokong amalan pembelajaran sepanjang hayat dalam organisasi yang menunjukkan bahawa faktor luaran memainkan aspek penting dalam pembelajaran di tempat kerja. Kajian ini menggunakan kajian berbentuk analisis kuantitatif dan sebanyak 120 borang soal selidik telah diedarkan kepada semua kakitangan bukan akademik di UiTM (Kampus Pasir Gudang) untuk menentukan dan menjawab kesemua objektif kajian. Hasil dapatan menunjukkan bahawa tahap faktor-faktor luaran dan tahap pembelajaran tidak formal diberi nilai sederhana dan tinggi, dan faktor-faktor luaran menunjukkan hubungan yang positif dalam mempengaruhi penglibatan pembelajaran tidak formal seperti berikut: 1) Tahap faktor-faktor organisasi adalah dalam lingkungan tahap penglibatan sederhana dan tinggi; 2) tahap penglibatan dalam pembelajaran tidak formal juga adalah tinggi; 3) sokongan pengurusan, persekitaran fizikal organisasi, ganjaran, dan ciri-ciri teknologi mempengaruhi penglibatan pembelajaran tidak formal. Oleh itu, adalah penting bagi sesebuah organisasi untuk memberi penekanan terhadap faktor organisasi dengan mengabungkan faktor-faktor yang praktikal serta strategi yang baik dalam usaha untuk mempromosikan dan menggalakkan penglibatan pembelajaran tidak formal di tempat kerja.

TABLE OF CONTENT

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iv
	ACKNOWLEDGEMENT	v
	ABSTRACT	vi
	ABSTRAK	vii
	TABLE OF CONTENT	viii
	LIST OF TABLES	xii
	LIST OF FIGURES	xiv
1	INTRODUCTION	1
1.1	Background of The Study	1
1.2	Problem Statement	3
1.3	Purpose of the Study	6
1.4	Research Questions of the Study	7
1.5	Objective of the Study	7
1.6	Significance of the Study	8
1.7	Limitations	9
1.8	Conceptual and Operational Definition of Terms	10
1.8.1	Informal Learning	10
1.8.2	Involvement in Informal Learning	11
1.8.2.1	Working Environment	11

1.8.2.2	Organizational Resources	12
2	LITERATURE REVIEW	14
2.1	Introduction	14
2.2	Learning	14
2.3	Workplace Learning	17
2.4	Forms of Learning	19
2.5	Types of Informal Learning	25
2.6	Relationship Between Environmental Factors and Involvement in Informal Learning	38
2.7	Relationship Between Resources Factors and Involvement in Informal Learning	44
2.8	Conceptual Framework	50
3	METHODOLOGY	51
3.1	Introduction	51
3.2	Research Design	51
3.3	Research Sampling and Population	52
3.4	Research Instrument	52
3.4.1	Reliability and Validity	62
3.5	Analysis of Data	64
3.5.1	Descriptive Analysis of Data	65
3.5.2	Inferential Analysis of Data	66
3.5.2.1	Pearson Correlation Coefficient	66
4	DATA ANALYSIS AND RESULTS	68
4.1	Introduction	68
4.2	Demographic Information	68
4.2.1	Gender	69
4.2.2	Age	69
4.2.3	Level of Education	70

4.2.4	Length of Service	70
4.2.5	Job Grade	71
4.2.6	Department or Office	71
4.3	Normality Test	72
4.4	Research Objective 1: To identify the level of working environment (management support and organizational physical setting), and organizational resources (extrinsic rewards and technology).	74
4.5	Research Objective 2: To identify the level of informal learning among non-academic staff in Pasir Gudang Campus, UiTM Johor Branch.	77
4.6	Research Objective 3: To identify the relationship between management support and informal learning involvement.	79
4.7	Research Objective 4: To identify the relationship between physical setting and informal learning involvement.	80
4.8	Research Objective 5: To identify the relationship between rewards and informal learning involvement.	81
4.9	Research Objective 6: To identify the relationship between technology provided and informal learning involvement.	82
4.10	Conclusion	83
5	CONCLUSION AND RECOMMENDATIONS	84
5.1	Introduction	84
5.2	Discussions	85
5.2.1	Research Objective 1: To identify the level of working environment	85

	(management support and organizational physical setting), and organizational resources (extrinsic rewards and technology).	
5.2.2	Research Objective 2: To identify the level of informal learning among non-academic staff in Pasir Gudang Campus, UiTM Johor Branch.	86
5.2.3	Research Objective 3: To identify the relationship between management support and informal learning involvement.	87
5.2.4	Research Objective 4: To identify the relationship between physical setting and informal learning involvement.	87
5.2.5	Research Objective 5: To identify the relationship between rewards and informal learning involvement.	88
5.2.6	Research Objective 6: To identify the relationship between technology provided and informal learning involvement.	89
5.3	Contributions and Recommendations	89
5.4	Conclusion	92
	REFERENCES	93
	APPENDIX	100

LIST OF TABLES

TABLE NO.	TITLE	PAGE
3.1	Research Instrument's Questions	54
3.2	Details of Items Used in Questionnaire	54
3.3	Joy's (2007) Reliability Guidelines	63
3.4	Reliability of the Survey	64
3.5	Research Tools Used in This Study	64
3.6	Classification of Level	66
3.7	Cohen's strength of relationship	67
4.1	Respondents Distribution Based on Gender	69
4.2	Respondents Distribution Based on Age	69
4.3	Respondents Distribution Based on Level of Education	70
4.4	Respondents Distribution Based on Length of Service	71
4.5	Respondents Distribution Based on Job Grade	71
4.6	Respondents Distribution Based on Department or Office	72
4.7	Normality Test	72
4.8	Co linearity statistic model	73
4.9	Level of Working Environment and Organizational Resources	75

4.10	Level of Informal Learning	78
4.11	Relationship between Management Support and Informal Learning Involvement	79
4.12	Relationship between Physical Setting and Informal Learning Involvement	80
4.13	Relationship between Rewards and Informal Learning Involvement	81
4.14	Relationship between Technology and Informal Learning Involvement	82
4.15	Summary of Relationship of Each Variable	83

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
2.1	Dynamic Model of Informal Learning	29
2.2	Interactive Experience Model	34
2.3	Map of How Positive Organizational Contextual Factors Influence the Process of Informal Learning	36
2.4	Map of How Negative Organizational Contextual Factors Influence the Process of Informal Learning	37
2.5	A Conceptual Framework of Factors Influencing Non-Academic Staff Involvement in Informal Learning	50
4.1	Distribution of Data	74

CHAPTER 1

INTRODUCTION

1.1 Background of The Study

Globalization brought many challenges, impacts and opportunities to developing countries like Malaysia. Rapid change of technology and demographic, issues of labor and employment gave a significant impact towards the needs of skill and expert workers. In the present diverse and globalized world, there is interdependency with the environment where people face constant life changes and all adult learners experience transformative learning to attain new knowledge (Yeboah, 2012). Moreover, learning must be a lifelong learning especially in facing an accelerating changing world, where adult learning should be concerned by providing adequate resources and supports for self-directed enquires (Knowles, 1970). In order to survive in the rapid globalization era and highly competitive environment, mankind becoming more aware with the needs and expands their knowledge and skills in order to increase and improve their productivity and performance in order to gain satisfaction which can be gained through learning.

As mentioned above, one of the ways for people to develop their skills, ability and knowledge is through learning that can occur in a workplace. In addition,

work-place learning takes place in many settings and in different ways, resulting in knowledge and skills of different kinds (Berglund & Andersson, 2012), which support the concept of lifelong learning and its emergence. Lifelong learning can be recognized as the opportunity to learn beyond the formal setting of education that able to enhance capabilities especially among adults. Learning aspects in an organization, starts on the level of the individuals when they reflect on something that they have experienced (Albinsson & Arnesson, 2012). Furthermore, it is a learning process effort based on their workplace training and experience which includes gain knowledge, skills, competencies either in formal or informal way (Nordin, 2008). This explains how individuals or employees gain several types of learning especially informal learning, which they learned every day beyond their consciousness especially through workplace experiences.

There are three types of learning: (a) formal learning, (b) non-formal learning, and (c) informal learning. Formal learning is more structured and systematic in nature. Formal learning is as an institutional ladder that goes from preschool to graduate studies (Schugurensky, 2000). The author also explained non-formal learning refers as all organized educational programs that take place outside the formal school system, and are usually short-term and voluntary. However, in this research, the focus will emphasize more on informal learning which is refers as any learning activity that inspired outside of a classroom or seminar setting (Kremer, 2005). It includes self-directed learning, learning by doing, learning by watching, reflection, and talking to colleagues (Alonderiene, 2010)

Among professionals view was that their learning had been achieved, and continued to be achieved, largely by informal learning during, or in association with, their day to day work (Chivers, 2011). Besides, it is revealed that most of the learning occurring in the workplace is a result of informal, rather than formal mechanism (Kremer, 2005). Thus, in order to sustain and improve the performance of the employees, it is important for any organization to emphasize on learning aspects specifically in terms of informal learning among their employees and understand what influence its emergence. Besides, informal learning can be unarticulated and tacit

(Berglund & Andersson, 2012), where it is hard in gaining information of such learning that are not directly express.

Workplace learning activities involve participation or engagement in a specific program that is planned and/or supported by the organization, or an individual activity for the purpose of acquiring knowledge and skills to deal with a task, challenges or situation that happen in the workplace (Choi, 2010). Workplace activities usually situated within a context and thus characteristics of the employee and the environment must be considered (Kremer, 2005). Work environment characteristics are defined as the perception of the conditions or practices in an organization that are likely to promote or inhibit participation or engagement in workplace learning activities (Choi, 2010). A right environment and mix of strategies are a great foundation for workplace learning effort (Cofer, 2000). The above statements show the important of organizational characteristics in learning effort, hence the influence of organizational factors are take into account in this research. Moreover, this study aims to determine the association between organizational factors and involvement in informal learning aligned or inconsistent with the past studies. It is expected based on most of previous research shows that the external factors such as resources and environment provided by the organization have significant relationship with informal learning. For that reason, the purpose of this research is to identify the level and relationship organizational factors which are the environment (management support and organizational physical setting) and resources (rewards and technology) in the workplace setting to promote involvement in informal learning

1.2 Problem Statement

Based on the past research that focus in informal learning aspect, had identified a number of variables that relate on the factors that influence the involvement in informal learning activities, however with variety point of view shown

and were mainly conducted in western countries. While organizational context is considered to be significant in facilitating or inhibiting informal learning, limited research has been conducted that explores such factors and how they influence informal learning (Ellinger, 2005).

Few researches had examined informal learning among administrators in organizational context. Several local researches are focus on academic staff or teachers rather than on the administrator. A research in Malaysia, reports teachers' individual and team learning practices, formal and informal; are very important to enhance their knowledge and professionalism (Ishak, Ghani & Siraj, 2013). A research of informal learning among the Malays, concluded that contextual factors such as culture and religion, influences the involvement in informal learning (Junoh, Amran & Danial, 2009). In the other hand, a research on informal learning among academic staff in Public Higher Learning Institutions revealed that informal learning among academicians involved in several ways such as online interactions and using the internet to share information and experiences with coworkers that able to enrich knowledge, skills and attitudes among them (Mat Junoh et al., 2009).

The workplace context brings new perspectives to research on learning because it encompasses a wide range of more or less structured environments, which are only rarely structured with learning in mind (Eraut, 2004). A past research findings emphasized the importance of lifelong learning at the workplace that existed in all forms of learning including informal learning, and concluded that conducive work environment supported the practices of lifelong learning within the organization (Mohamad, Hassan & Silong, 2004). It shows that work environment plays an important aspect in workplace learning.

By reviewing past research findings, it shows that some of them are conflicting and inconsistent with one another. Choi & Jacobs (2011) revealed that a supportive learning environment did not have a direct effect on informal learning but it had a modest but significant indirect effect on informal learning through formal

learning where it influences informal learning differently in different cultural contexts. Additionally, the study revealed that informal learning is influenced more by personal characteristics as the authors explain that learning process is usually initiated by themselves regardless of whether the organization encourages it. According to Berg & Chyung (2008), there is no significant correlation between informal learning engagement and the presence of learning organization characteristics.

However, in terms of physical setting context according to Lohman (2006), work areas need to be strategically designed so that employees, especially those in their early stages of development, are located near colleagues in the same technical or professional area. Kyndt et al. (2009) also mentioned that clerks who are always situated between the staff members and the workers have more chance to gain information and knowledge from others.

Moreover, there is considerably extend understanding of the importance of learning-committed leadership and management as an organizational contextual factor, and of how managers and leaders support or inhibit informal workplace learning (Ellinger, 2005). Thus, it is required to identify the relationship of environment factors such as management support and physical setting and resources factors such as rewards and technology in promoting informal learning.

According to Nordin et al. (2008) Higher Education Institutions also play roles in enhancing the development of lifelong learning by improving the quality in teaching and learning, improvement in tertiary education, and introducing various path and modes for each individual. Higher Education Institutions face increasing challenges nowadays where they are facing and undergoing major transformations that highly gaining their attention to emphasize more on attracting not only high quality students but also high quality human resource (Kee Ming Sia, 2011). To maintain the nation's competitive economic edge, workforce must have education and training beyond high school, and post-secondary institutions must attract and retain a growing

number of students (Lotkowski, Robbins & Noeth, 2004). These challenges are not only being faced by academic staff, but also to non-academic staff.

There have not much attention being given among non-academic staff especially in Higher Education Institutions, even though there are many past research based on informal learning conducted in various areas such as among local authorities, teachers and academic staff in higher institution from Madinah (2004); Mat Junoh et al. (2009); and Ishak et al. (2013). Therefore, the purpose of this research is to find out if there are any similarities or differences from the previous research findings in determining the organizational factors that influence the involvement of non-academic staff in informal learning. Moreover, this research aims to identify the relationship of environment factors (management support and organizational physical setting) and resources factors (rewards and technology) in the workplace setting to promote involvement in informal learning that has been recognized however less being examined among non-academic staff.

1.3 Purpose of the Study

This research aims to identify the occurrence of informal learning at workplace. Moreover, it is also to determine the association between organizational factors such as environment and resources that influence the involvement of informal learning in the workplace among non-academic staff.

1.4 Research Questions of the Study

1. What is the level of working environment (management support and organizational physical setting), and organizational resources (rewards and technology)?
2. What is the level of informal learning among non-academic staff in Pasir Gudang Campus, UiTM Johor Branch?
3. What is the relationship between management support and informal learning involvement?
4. What is the relationship between physical setting and informal learning involvement?
5. What is the relationship between rewards and informal learning involvement?
6. What is the relationship between technology provided and informal learning involvement?

1.5 Objective of the study

1. To identify the level of working environment (management support and organizational physical setting), and organizational resources (rewards and technology).
2. To identify the level of informal learning among non-academic staff in Pasir Gudang Campus, UiTM Johor Branch.
3. To identify the relationship between management support and informal learning involvement.
4. To identify the relationship between physical setting and informal learning involvement.
5. To identify the relationship between rewards and informal learning involvement.

6. To identify the relationship between technology provided and informal learning involvement.

1.6 Significance of the Study

This study will contribute by inserting values and understanding to future learning effort especially in working environment context in many ways. Moreover, it also contributes to theories and practices related in workplace learning. Learning is considered as continuous process in life, and as an important element to achieve in the development of a nation (Junoh et al., 2009). The objective of lifelong learning is to increase individual, nations' quality of life, and Malaysia's human capital development (Zainal Abidin, Esa, Ahmad & Rashid, 2008). Lifelong learning concept in Malaysia is largely formal learning and involve in non-formal learning, however little value is attached to informal learning (Bax & Hassan, 2003).

Fuller & Unwin (2005), research confirmed the importance of the workplace as a site for learning and a site in which older people continue to learn. An important starting point for thinking about workplace learning is recognition that learning is not the primary goal of the workplace but a by-product of engagement in the activities and relationships involved in the production of goods or service (Fuller & Unwin, 2005). Besides, workplace learning has taken on an increasingly popular role as a vehicle which organizations can achieve not only their short goals, but also their long term strategic visions (Cofer, 2000). Therefore, this research also able to assist and respond the management or Human Resource (HR) practitioner in integrating and developing learning effort and activities in the workplace in order to achieve organizational goals as well.

This study will provide several suggestions and recommendations on

potential organizational contextual factors that able to enhance the involvement of staff in informal learning activities. In addition, this study able to assist HR practitioner, managers, and top management level by providing them relevant information in fostering better working environment that could motivate staff at the workplace as well.

Under the umbrella term of workplace learning, organization can categorize their efforts as either formal or informal (Cofer, 2000). Therefore, this study helps in giving deeper understanding of what kind of activities and why people involve in learning activities especially in informal learning context, which is hard to study and examined because it's not explicitly express as compared to formal learning that are more structured and well documented.

Several factors including individual and organizational factors are taken into account in the past research, either from local or western countries. While according to (Lohman, 2006), few studies have investigated the ways in which certain characteristics of workers and the work environment influence participation in specific informal learning activities. More study should be conducted in future to contribute with the existing informal learning research by determining and understand its importance in present organizational environment. Therefore, this study able to assist future research by evaluating the information revealed with the facts that they will gain especially that related with informal learning.

1.7 Limitations

There are several limitations in studying informal learning in this research. It might be hard for candidates to actually understand, acknowledge, and aware their involvement in informal learning. It is because informal learning is

largely invisible, because much of it is either taken for granted or not recognized as learning; the resultant knowledge is either tacit or regarded as part of a person's general capability rather than something that has been learned (Eraut, 2004); it is the type of learning which is often invisible and unknown even to the learners (Hagh Talab, 2013).

There might be lack of available and reliable data from the candidates that can bring difficulty in gaining meaningful findings. Moreover, the data to be collected depends on having access to all staff (non-academic staff) that could be challenging because some of the group is working in shift.

1.8 Conceptual and Operational Definitions of Terms

1.8.1 Informal Learning

Informal learning refers to any learning activities which occurs outside the domain of formal and non-formal educational programs (Hagh Talab, 2013). People mostly are unaware of such learning even though it happens in their everyday life. It includes self-directed learning, learning by doing, learning by watching, reflection, and talking to colleagues (Alonderiene, 2010). Additionally, informal learning is defined as any learning activity that inspired outside of a classroom or seminar setting (Kremer, 2005), and it's often happens spontaneously and unconsciously without any a priori stated objectives in terms of learning outcomes (Kyndt, Dochy & Nijs, 2009).

1.8.2 Involvement in Informal Learning

There are different ways that people get involve in informal learning, where in some case, it can be spontaneous involvement such as accidentally or unintentionally learned something (Jurasaitė-Harbison, 2008). The author also stated people deliberate involve in informal learning when they seemed to have detailed plan of what they wanted to learn, and were motivated to find out something specific in order to solve a dilemma being faced. The involvement in this research means the engagement, voluntary or not, of an individual (Kremer, 2005) in informal learning activity, where the variables range from environments factors (management support and organizational physical setting) and resources factors (rewards and technology).

1.8.2.1 Working Environment

Working environment is the perception of the conditions or practices in an organization that are likely to promote or inhibit engagement in workplace learning activities (Choi, 2010). Previous author also stated that it is able to influence process of learning informally (Redling, 2010). In this research the variables that had been identified are management support and physical setting.

1. Management Support

Management support is defined as perceived support from supervisors for learning activities which consists of things as encouraging participation in learning activities, assigning tasks to use knowledge or skills, providing information regarding learning activities, and arranging work schedules for learning, rewards, and materials and supplies allocated for learning (Choi, 2010). The attitude and interaction of a manager can directly affect an employee's choice to learn or perform in the workplace and superiors have more control over the opportunity and employee will have and can

provide feedback and guidance (Redling, 2010), that able to encourage in informal learning involvement in the workplace. Based on this study, management support will referred as senior management support, management support, leadership commitment (Choi, 2010), managers, and leaders (Ellinger, 2005) that can encourage in informal learning involvement.

2. Physical Setting

Physical setting is referred as the physical structures that accommodate impromptu interactions, side-by-side work, the possibility to drop in to chat, and access to essential technology (Bjørk, Tøien & Sørensen, 2013). In addition, architectural barriers associated with physical structure of the current facility that can suppress learning, and movement toward the process-focused structure will eventually alleviate the silo mentality and may promote more collaboration and cross-fertilization of ideas around processes as opposed to functions and products, but at present the existence of some of these barriers inhibits informal learning (Ellinger, 2005). Based on this study, physical setting is referred as work areas (Lohman, 2006); background atmosphere (Cox, 2014); office designs; and organizational ecology (Becker, 2007) that may encourage in informal learning involvement.

1.8.2.2 Organizational Resources

Organizations play important role in employees learning involvement by providing adequate organizational resources such as access to a computer, the Internet (Redling, 2010), and rewards (Lin, 2007), where the accessibility to these works tools enhance learning independently which is essential to informal learning in the workplace (Redling, 2010). In this research the variables identified are rewards and technology that will be focused in this research that will be emphasized in this research.

1. Rewards

Rewards can be range from monetary rewards such as bonuses, increased in salary and non-monetary rewards such as job security and promotions opportunities (Lin, 2007). This study, will focus on both extrinsic and intrinsic rewards such as pay, promotions opportunities, career development, performance recognition, greater responsibility and interesting job task that may influence in informal learning involvement (Ozutku, 2012; Matsson & Dahlqvist, 2013).

2. Technology

Technology is a medium that able to support informal learning such as computer, internet, and social networking; and these technologies can be used for learning in a multitude of innovative and interesting ways (Hague & Logan, 2009), as well as provides access to information, encourage meaningful interactions with information and materials, and able to brings people together (Imel, 2003). This study will focus on technology factor as follows: internet and computer (Redling, 2010; Madinah, 2004; Mat Junoh et al., 2009; Ellinger, 2005); social media such as blogging (Park, Heo & Lee, 2011); Facebook (Madge, Meek, Wellens & Hooley, 2009); and other media such as intranet, chat rooms, e-mail and/or mailing lists (Cofer, 2000) that may influence in informal learning.

REFERENCES

- Albinsson, G., & Arnesson, K. (2012). Team learning activities: Reciprocal learning through the development of a mediating tool for sustainable learning. *Learning Organization, The, 19*(6), 456-468.
- Alonderiene, R. (2010). Enhancing informal learning to improve job satisfaction: Perspective of SMEs managers in Lithuania. *Baltic Journal of Management, 5*(2), 257-287.
- Anderson, D. (1999). *The development of science concepts emergent from science museum and post-visit activity experiences: Students' construction of knowledge*. Queensland University of Technology.
- Bax, M. R. N., & Hassan, M. N. A. (2003). *Lifelong learning in Malaysia*. Paper presented at the Conference NA International Policy Seminar Co-organised by IIEP/UNESCO and KRIVET on Making Lifelong Learning a Reality; Seoul, 24-26 June 2003.
- Becker, F. (2007). Organizational ecology and knowledge networks. *California Management Review, 49*(2), 42.
- Berg, S. A., & Chyung, S. Y. Y. (2008). Factors that influence informal learning in the workplace. *Journal of Workplace Learning, 20*(4), 229-244.
- Berglund, L., & Andersson, P. (2012). Recognition of knowledge and skills at work: in whose interests? *Journal of Workplace Learning, 24*(2), 73-84.
- Bertram, N. (2012). *An investigation into bridging formal and informal education in schools*. University of Glasgow.
- Bjørk, I. T., Tøien, M., & Sørensen, A. L. (2013). Exploring informal learning among hospital nurses. *Journal of Workplace Learning, 25*(7), 426-440.
- Cain, J., & Policastri, A. (2011). Using Facebook as an informal learning environment. *Am J Pharm Educ, 75*(10), 207.
- Chivers, G. (2011). Supporting informal learning by traders in investment banks. *Journal of European Industrial Training, 35*(2), 154-175.
- Choi, W. (2010). *Influences of Formal Learning, Personal Characteristics, and Work Environment Characteristics on Informal Learning among Middle Managers in the Korean Banking Sector*: ERIC.

- Choi, W., & Jacobs, R. L. (2011). Influences of formal learning, personal learning orientation, and supportive learning environment on informal learning. *Human Resource Development Quarterly*, 22(3), 239-257.
- Cofer, D. A. (2000). Informal Workplace Learning. Practice Application Brief No. 10. 4.
- Colomo-Palacios, R., & Lytras, M. D. (2012). Informal learning in work environments: training with the Social Web in the workplace. *Behaviour & Information Technology*, 31(8), 753-755.
- Conlon, T. J. (2004). A review of informal learning literature, theory and implications for practice in developing global professional competence. *Journal of European Industrial Training*, 28(2/3/4), 283-295.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology*, 78(1), 98.
- Cox, A. (2014). Learning over tea! Studying in informal learning spaces. *New Library World*, 115(1/2), 34-50.
- Cullen, J., Batterbury, S., Foresti, M., Lyons, C., & Stern, E. (2000). *Informal learning and widening participation*: DfEE.
- Cunningham, J., & Hillier, E. (2013). Informal learning in the workplace: key activities and processes. *Education+ Training*, 55(1), 37-51.
- Eisinga, R., Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *Int J Public Health*, 58(4), 637-642.
- Ellinger, A. D. (2005). Contextual Factors Influencing Informal Learning in a Workplace Setting: The Case of "Reinventing Itself Company". *Human Resource Development Quarterly*, 16(3), 28.
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247-273.
- Eraut, M. (2011). Informal learning in the workplace: evidence on the real value of work-based learning (WBL). *Development and Learning in Organizations*, 25(5), 8-12.
- Fuller, A., & Unwin, L. (2005). Older and wiser?: workplace learning from the perspective of experienced employees. *International journal of lifelong education*, 24(1), 21-39.
- Furtado, F., Aquino, G., & Meira, S. (2012). Improving Organizational Performance Through Reward Systems. *BUSINESS DYNAMICS IN THE 21st CENTURY*, 1.

- Given, L. M. (2008). *The Sage encyclopedia of qualitative research methods*: Sage Publications.
- Hagh Talab, A. (2013). Informal learning in youth volunteer work: perspectives from the European Voluntary Service programme.
- Hague, C., & Logan, A. (2009). A review of the current landscape of adult informal learning using digital technologies. *Educational Research*, 47.
- Hoekstra, A., Brekelmans, M., Beijaard, D., & Korthagen, F. (2009). Experienced teachers' informal learning: Learning activities and changes in behavior and cognition. *Teaching and Teacher Education*, 25(5), 663-673.
- Houde, J. (2013). *The Influence of Formal Training on Informal Learning Networks*: North Carolina State University.
- Imel, S. (2003). Informal Adult Learning and the Internet. Trends and Issues Alert. 5.
- Ishak, R. B., Ghani, M. F. B. A., & Siraj, S. (2013). AMALAN PEMBELAJARAN DALAM KALANGAN GURU SEKOLAH BERPRESTASI TINGGI. *Jurnal Kurikulum dan Pengajaran Asia Pasifik*, 1(2), 9.
- Joy, M. (2007). *Research methods in education*: The Higher Education Academy Innovation Way, York Science Park, Heslington, York YO10 5BR.
- Junoh, A. M., Amran, S. M., & Danial, J. (2009). Pembelajaran Tidak Formal dalam masyarakat di kalangan orang melayu. 19.
- Jurasaite-Harbison, E. (2008). *Learning in and from practice: opportunities and implications for teachers' informal learning in Lithuania and the United States*: ProQuest.
- Kee Ming Sia, J. (2011). Post-Secondary Students' Behaviour in the College Choice Decision. *Journal of Marketing Research & Case Studies*, 2011, 15.
- Kelly, S. W. (2012). Incidental Learning *Encyclopedia of the Sciences of Learning* (pp. 1517-1518): Springer.
- Knowles, M. S. (1970). *The modern practice of adult education* (Vol. 41): New York Association Press New York.
- Kremer, A. L. (2005). *Predictors of participation in formal and informal workplace learning: Demographic, situational, motivational, and deterrent factors*. George Mason University.
- Kyndt, E., Dochy, F., & Nijs, H. (2009). Learning conditions for non-formal and informal workplace learning. *Journal of Workplace Learning*, 21(5), 369-383.

- Le Clus, M. (2011). Informal Learning in the Workplace: A Review of the Literature. *Australian Journal of Adult Learning*, 51(2), 355-373.
- Ledford, G. E., Gerhart, B., & Fang, M. (2013). Negative effects of extrinsic rewards on intrinsic motivation. More smoke than fire. *World at work journal*, 2, 17-29.
- Lee-Gorman, M. (2010). *Factors that influence informal learning and performance within the context of a professional organisation*. Dublin Business School.
- Lee, T.-C. (2005). Review and Classification of the literature on the Critical Success Factors for Knowledge Management Adoption. 8.
- Leone, S. (2013). *Characterisation of a personal learning environment as a lifelong learning tool SpringerBriefs in education* (pp. 7).
- Levenberg, A., & Caspi, A. (2010). Comparing perceived formal and informal learning in face-to-face versus online environments. *Interdisciplinary Journal of E-Learning and Learning Objects*, 6(1), 323-333.
- Lin, H.-F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135-149.
- Livingstone, D. W. (2001). Adults' informal learning: Definitions, findings, gaps and future research. 45.
- Lohman, M. C. (2000). Environmental Inhibitors to Informal Learning in the Workplace: A Case Study of Public School Teachers. *Adult Education Quarterly*, 50(2), 83-101.
- Lohman, M. C. (2006). Factors influencing teachers' engagement in informal learning activities. *Journal of Workplace Learning*, 18(3), 141-156.
- Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). The Role of Academic and Non-Academic Factors in Improving College Retention. ACT Policy Report. *American College Testing ACT Inc*, 41.
- Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: 'It is more for socialising and talking to friends about work than for actually doing work'. *Learning, Media and Technology*, 34(2), 141-155.
- Marsick, V. J., & Watkins, K. E. (2001). Informal and incidental learning. *New directions for adult and continuing education*, 2001(89), 25-34.

- Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in developing human resources*, 5(2), 132-151.
- Mat Junoh, A., Hamid, A., Azhar, M., Ghafar, A., Najib, M., & Hassan, Z. (2009). Pembelajaran informal ke arah memperkasa modal insan: penglibatan, halangan dan cabaran dalam kalangan staf akademik IPTA. 31.
- Matsson, A., & Dahlgvist, A. (2013). The impact of extrinsic and intrinsic rewards on employees' motivation—A case study of an insurance company. 56.
- Mohamad, M., Hassan, Z., & Silong, A. D. (2004). Practices of Lifelong Learning in a Local Government Authority. *Malaysian Journal of Distance Education* 6 (2), 75-98.
- Nordin, M. K. (2008). *Mengubah senario global dalam pengajian tinggi*. Paper presented at the Seminar Pengurusan Akademik IPT.
- Nujjoo, A., & Meyer, I. (2012). The relative importance of different types of rewards for employee motivation and commitment in South Africa: original research. *SA Journal of Human Resource Management*, 10(2), 1-10.
- OuYang, Y.-C., Yeh, J.-Y., & Lee, T.-C. (2010). *The critical success factors for knowledge management adoption-a review study*. Paper presented at the Knowledge Acquisition and Modeling (KAM), 2010 3rd International Symposium on.
- Ozutku, H. (2012). The Influence of Intrinsic and Extrinsic Rewards on Employee Results: An Empirical Analysis in Turkish Manufacturing Industry. *Business and Economics Research Journal*, 3(3), 29-48.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*: McGraw-Hill International.
- Park, Y., Heo, G. M., & Lee, R. (2011). Blogging for Informal Learning: Analyzing Bloggers' Perceptions Using Learning Perspective. *Journal of Educational Technology & Society*, 14(2), 13.
- Pettenati, M., & Ranieri, M. (2006). Informal learning theories and tools to support knowledge management in distributed CoPs. 11.
- Raeseide, R., Khan, H. T. A., & White, D. I. (2007). *Research Methods for Graduate Business and Social Science Students*: SAGE Publications India.

- Redling, M. (2010). *Influence of feedback, resources and interaction with superiors on work self-efficacy levels and employee engagement in informal learning activities in the workplace*: University of Southern California.
- Riaz, S., Rambli, D. R. A., Salleh, R., & Mushtaq, A. (2010). Study to Investigate Learning Motivation Factors within Formal and Informal Learning Environments and their influence upon Web-Based Learning. *iJET*, 5(4), 41-50.
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers*: Sage.
- Sambrook, S. (2005). Factors influencing the context and process of work-related learning: synthesizing findings from two research projects. *Human Resource Development International*, 8(1), 101-119.
- Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of extension*, 37(2), 1-5.
- Schugurensky, D. (2000). The forms of informal learning: Towards a conceptualization of the field.
- Siemens, G. (2014). Connectivism: A learning theory for the digital age.
- Tannenbaum, S. I., Beard, R. L., McNall, L. A., & Salas, E. (2010). Informal learning and development in organizations. *Learning, training, and development in organizations*, 303-332.
- Trinder, K., Guiller, J., Margaryan, A., Littlejohn, A., & Nicol, D. (2008). Learning from digital natives: bridging formal and informal learning. *Higher Education*, 1, 71.
- Turpin, B. (2013). A Study Exploring Learners' Informal Learning Space Behaviors, Attitudes, and Preferences. *New Review of Academic Librarianship*, 19(1), 58-77.
- Ucko, D. A., & Ellenbogen, K. M. (2008). Impact of technology on informal science learning. *The impact of the laboratory and technology on learning and teaching science K*, 16, 239-266.
- van der Heijden, B., Boon, J., van der Klink, M., & Meijs, E. (2009). Employability enhancement through formal and informal learning: an empirical study among Dutch non-academic university staff members. *International journal of training and development*, 13(1), 19-37.
- Vaughan, K. (2008). Workplace learning: A literature review.

- Wahab, A., Syahir, M., & Selamat, M. H. (2011). Proposing work-environment inhibitors to informal work-place learning amongst Malaysian accountants. *Global Review of Accounting and Finance*, 2(1), 57-72.
- Werquin, P. (2010). Recognition of non-formal and informal learning: Country practices. *Organisation de coopération et de développement économiques OCDE. Paris. Disonible en.*
- Yeboah, A. K. (2012). *Factors that Promote Transformative Learning Experiences of International Graduat-Level learners*. University of South Florida.
- Zainal Abidin, R., Esa, A., Ahmad, W., & Rashid, W. M. (2008). Pendidikan sepanjang hayat: isu, cabaran dan peranan sekolah membangun modal insan dalam komuniti setempat. 9.