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INFORMAL LEARNING AT WORKPLACE IN THE MIDDLE EAST: EXPLORING THE ROLE OF INFORMAL LEARNING LEVELS ON TEAM PERFORMANCE IN QATAR

Dana Al-Hajri
Program Management and Strategy Director
Supreme Committee for Delivery and Legacy, Qatar
d.alhajri@sc.qa

Abstract

In organisations, informal learning is recognised as one of the major contributors towards learning and development for employees. Over the years, researchers and practitioners continually attempt to understand the relationship between informal learning and team performance, yet this relationship is highlighted to be complex to assert. This study aims to explore the role of different informal learning levels (self-reflection (individual), managerial coaching (dyadic), and knowledge exchange (team)) on team performance in Qatar. Data collection was conducted using quantitative method through deploying the use of questionnaire survey with 47 teams within a selected company in Qatar. The findings showed that understanding the relationship between informal learning and team performance is complex, but using activities at different levels provided a holistic, yet more assertive approach to further understand that relationship. The study found that the team knowledge sharing have the highest values among the informal learning activities while managerial coaching were less practiced. On the one hand, the results derived from the regression tests showed that there is no strong association between informal learning and team performance which indicates that complex relationship between those two variables and how informal learning activities are motivated/demotivated in organisations. The study concluded by proposing an abstract conceptualisation to understand the relationship between informal learning and team performance.

Keywords: Informal learning, Workplace, Team Performance, Activities, Qatar

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1. Introduction

Qatar aims to enhance its development and status as an international business hub through the launch of the Qatar National Vision 2030 (Darwish, 2014). Qatar believes that it can build an economy that depends on human, as well as natural, resources through development in four main areas: social, economic, environmental, and human. For human development, Qatar seeks to increase and diversify the contributions of the citizens of Qatar who are part of the labour force in the country by broadening the investment in the institutions mandated to train and certify for the various programs in the private and public corporations (Ministry of Development Planning and Statistics, 2018). For example, in Qatar, oil and gas revenues account for more than 50% of GDP (John, 2018). Consequently, GCC members, including Qatar, are highly vulnerable to any drop in the price of oil in the global market (John, 2018). In 2017, a blockade, referred to as the Gulf Crisis (Meliksetian, 2019), was unexpectedly imposed on Qatar by four Arab countries. Recently, reports that Qatar is seriously considering withdrawing from the GCC (referred to in the news media as 'Qatexit') have become increasingly common (Toumi, 2018). This speculation comes after Qatar unexpectedly withdrew from the Organisation of Petroleum Exporting Countries (OPEC) in January 2019 (Koduvayur, 2018). These vast changes in the region's socio-political and economic environment have created numerous challenges for HRM functions (Budhwar *et al.*, 2018). Moreover, lower oil prices have made GCC governments, including Qatar's, focus mainly on expenditure reduction (Butt, 2019).

According to the reviewed literature, the significance of workplace learning in organisations is inevitable for their continual development and sustained growth (Holmgren and Sjöberg, 2022). Jacobs and Park (2009) argue that there is a significant potential relationship between workplace learning and human capital development when organisations consider the sustainability of learning and developmental processes alongside learning outcomes. Compared to formal learning, which often follows a structured and directed approach, informal learning does not have a structure and is often complex therefore making it harder to conceptualise. Although there are many studies that looked into informal learning and its impact within organisations (e.g. Milligan, Littlejohn and Margaryan, 2014; Gomes and Wojahn, 2017), efforts in the context of the Middle East are considerably limited. Within the context of Qatar, although formal certification and training programs are crucial for building knowledge there are two key obstacles: inadequate workforce education and the absence of the concept of informal learning within the organisation (World Economic Database, 2017). Therefore, this research explores the role of informal learning at different levels: individual (self-reflection), dyadic (learning from a supervisor), and team knowledge on team performance.

2. Literature Review

2.1. Informal Learning: Concept and applications

Informal learning is conceptualised in a multiplicity of ways. Billet (2002), in his study on workplace learning, states that the description of informal for any learning activity which

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occurs in the work environment is not correct. Further criticisms cited by Billet (2002) argue against the suggestion that there could be the implementation of workplace activities without structure and intent as the work environment is formalised by the practices and norms implemented there and is also highly structured. Therefore, the practices and goals which are embedded in a workplace impact on the activities that would be engaged in by its employees, in similar ways to academic institutions (Billet, 2002). In fact, some studies view informal learning as a unique and separate dimension of the learning and development processes. Researchers such as Becker and Bish (2017) and Rabin (2014) posit that informal learning is an alternative to formal learning. Lee *et al*. (2004) identify that the concept of informal learning is not new but it is a continually developing area of study and, as such, there are different methods through which the concept could be described or defined as informal learning connects with several different facets of the organisation.

Tannenbaum *et al*. (2010) identify four characteristics of informal learning including that it is self-guided by the individual learner, bears elements of the deliberate intention to learn, improve and develop at a personal level, entails the active search for knowledge, and occurs outside the formal learning settings. From another perspective, Decius *et al.* (2019) *and* Kyndt *and* Baert, (2013) view informal learning as a supplement to formal learning since it culminates in the acquisition of skills that are integral to the performance of employees' roles. Researchers who perceive informal learning as an alternative to formal learning base their arguments on the fact that most of the learning in the workplace occurs through this avenue. Borghans *et al*. (2007) argue that 94% of the time spent in the workplace culminates to informal learning with the remaining 6% of the learning occurring formally.

Decius *et al.* (2019) and Latchem (2014) indicate that 70-90% of the learning within organisations occurs informally. Research by Decius and Schaper (2017) indicates that, as a supplement to formal learning, informal learning is necessary for some categories of employees such as blue-collar workers. Due to the low level of suitability of the skills acquisition processes through formal learning these categories of employees rely heavily on informal learning. Johansson and Abrahamsson (2018), Nerland *et al*. (2019) and Noe *et al.* (2013) further cite the example of organisations that cannot afford formal training for all categories of skills due to budgetary constraints, lack of resources as well as the lack of capacity to train. Such institutions rely on informal learning to supplement whatever formal learning is carried out. Latchem (2014) and Manuti *et al.* (2015) further recognise the utility of informal learning within small- and medium-sized entities that rely on informal learning strategies as a way of achieving cost-effectiveness in their operations. Essentially, these small- and medium-sized organisations (SMEs) utilise formal learning for specific functions, specifically those mandated by law, then tap into informal learning to supplement the knowledge that is not available under the statutorily mandated skills category.

2.2. Levels of informal learning

The informal nature of organisational learning implies that it is challenging to map all levels and types of activities. Several distinct constructs are investigated herein to distinguish between

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the various activities that are associated with informal learning. Informal learning in the workplace could be described in terms of activities, however, it cannot be classified as the existence of one type of activity that won't exclude the presence of the others (Anselmann, 2016). Crouse *et al*. (2011) identified over 30 informal techniques of learning which could be adopted within an organisation and these include, but are not limited to, doing new tasks, observation, reading, researching, vision, action, and feedback. Another study on 131 respondents by Kortsch *et al.* (2019) was used to determine the most suitable techniques (activities) for informal learning based on four processes. These processes were learning from oneself, learning from others (peers), learning from existing official sources, and learning from unofficial sources (e.g. media). The study concluded that rather than relying on individuals' learning techniques, employees used three patterns: balanced high (whereby learning from all the techniques occurred but in a balanced manner), person-orientated (there were differences in the techniques adopted based on the individual), and balanced low (there were preferences in the techniques adopted primarily because some techniques served the interests of the employee more than others).

2.2.1 Individual Level

At the individual level, it is noted that the activities include reflections relating to actions which are performed daily, sharing of knowledge with colleagues at work, and incorporating behaviours which could be described as innovative (Bednall *et al.*, 2014). Reflection is a personal level of informal learning that depends on gaining experience to do things in a better way and on self-action to improve performance. Therefore, reflection helps to re-appraise self-experience so one can learn from it and improve performance. Moreover, learning at this level involves individuals following their desires and without any convictions pursue knowledge through searching for resources on the web among other sources/channels to facilitate their personal upskilling (Bednall *et al*., 2014).

2.2.2 Dyadic Level

Dyadic level activities involve a one-to-one form of relationship where conversations, talks, advice, coaching, and guidance is provided for workers in the organisation (Garrick, 1998). Supervisors and managers in the workplace play an integral role in the informal learning process. Wallo (2008) stated that direct managers play one of the key drivers for informal learning as a supporter, educator, and confronter. They play a critical role in easing informal learning, enhancing informal relationships, supporting learning culture, and easing open communications. Managerial coaching depends on both the supervisor and employees. A direct supervisor needs to provide constructive feedback, appreciate employee opinions, build trusting relationships, and encourage employees to learn. On the other hand, in a work environment employees need to listen carefully, ask questions, and be open-minded. Thus, it can be stated that informal learning at a dyadic level is a two-way process: active listening to supervisors/managers and willingness of supervisors/managers to share and provide feedback.

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2.2.3 Team Level

At a team level, informal learning involves activities such as discussions, presentations, and social forms of networking to facilitate the exchange and sharing of information between employees (Anselmann, 2016). Presentations, discussions, social networking, and membership in professional unions where information is exchanged are examples of informal learning at group level (Hart, 2014). Team learning also depends on open communications to be able to share knowledge. Through this experience, individuals come to know that other viewpoints can exist, accept their existence, and perhaps even consider them in their viewpoints (Engeström *et al*., 1995). Wilson and Hartung (2015) indicated that one of the unique forms of informal learning at team level is social learning which supports facilitating group-level through listening and sharing of different perspectives, beliefs, and experiences provided by individuals. In social learning, the discussion and engagement activities are the key learning sources and there could be differences in learning outcomes based on the extent of stimulation associated with individuals present within the social learning discussion activities (Wilson and Hartung, 2015). While some teams share relevant information and ideas, listen carefully, handle differences of opinions sensitively, and ask each other critical questions to verify opinions and ideas, other teams do not.

2.3. Informal learning and team performance

2.3.1 Team performance

Performance can be described as incorporating a wide array of indicators which illustrates either negative or positive outcomes for an organisation or team in terms of productivity and financial growth, among other forms of metrics, which could be used in judging an organisation's positioning compared to its competitors (Han and Williams, 2008). It is further stated that performance indicators are so complex that they could be identified within several levels (individual, team or bureaucratic) within an organisation, i.e. departmental level metrics could be instituted to identify positive and negative performance indicators by incorporating a standard for performance excellence or outcomes/expectations of the organisation. In fact, Garavan *et al.* (2019) identified that the performance outcomes that are obtained by a team are as a result of the composition of the team and the behaviours shown by members of the team as well as shared beliefs. In the context of this research, performance is examined from a team perspective in the following sections where existing studies on team performance and its related elements/aspects are illustrated.

2.3.2 Impact of informal learning on team performance

The performance of teams, which correlates with the performance of individuals, remains one of the key concerns for every organisation (Sibarani *et al*., 2015), hence research is continually looking into strategies and mechanisms that support team performance. This becomes more challenging when exploring the impact of informal learning specifically on team performance. For instance, a study by Choonara *et al.* (2017) relied on qualitative methods to analyse data from 18 participants to determine how significant informal learning was on the development

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of leadership in the department. The study found that informal learning enabled the team members to benefit from fostering the readiness for learning within the team framework, as well as learning from others regarding certain non-technical and soft skills such as delegation and communication. However, the study also revealed that informal learning is complicated by the fact that the procedures are not calibrated for some of the technical skills in the workplace such as those required in the finance department. Although, in addition to this study, there exist other studies that looked into the impact of informal learning on individual performance (e.g. job or characteristics) within a workplace, empirical research that evidences this is considerably limited (Park and Choi, 2016). Hence, research continues to further understand how informal learning can impact individual performance and how this can be extended to understand team performance. Another study by Choi *et al.* (2019) that used data from 221 employees revealed that informal learning can play a key role in improving the performance of organisations with a poor employee-job fit and poor employee-organisation fit. Although most organisations recruit employees who are qualified for a particular job, the study provided a perspective on the use of informal learning as mechanism to overcome challenges and complexities that may result of having employees who do not fit the job or the organisation. However, it is apparent that informal training plays an important role in enabling organisations to overcome the challenge with a skill shortage in a cost-effective manner. This can perhaps be explained by the learning processes used for informal learning which enables the organisations to reduce the unit cost and, indeed, the overall cost of upskilling employees (Kortsch *et al.*, 2019) The cost-efficiency arises from the fact that informal learning lays the foundation for identification of gaps in the skills of employees (Preenen *et al.*, 2015).

One of the most important outcomes of learning in organisations is an improved professional practice amongst different teams which makes the work easier and supports the relay of up-to-date information in related industry practices (Holmgren and Sjöberg, 2022). The utility of teams as the basic unit that performs and is responsible for the strategic objectives of an organisation is widely discussed in management theory (Johansson and Abrahamsson, 2018). Moreover, teams help to solve problems more effectively since they collectively generate and synthesise ideas on how to solve the problem. Teams promote a sense of achievement and create a synergy which will support a more efficient way of working. Teams help to solve problems more effectively, since they collectively generate and synthesise ideas on how to solve the problem (Lucas, 2010). In modern practice it is becoming necessary to be proficient across functions whereby each individual in the workplace is accomplished in multiple roles (Sibarani *et al.*, 2015). This highlights the importance of teams and team performance. Furthermore, good activity often relies upon the ability of a cross-functional team to create a shared understanding of the task, the process, and the respective roles of its members. According to Becker and Besh (2017), teamwork and informal learning are both interworking agents which drive organisational performance. In a workplace environment there are contextual factors (e.g. organisational structure, culture, procedures of work) which interrelate within the context of performance improvement and this impacts the effectiveness of informal learning in terms of improving performance. Beyond the context of the organisation, individual discretions play an important factor in motivating the team which, in essence, can influence the efficiency and effectiveness of informal learning for team performance.

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Based on the above studies, it can be summarised that informal learning and improved performance (whether at individual or team level) within an organisation are indirectly related. At an individual level, it was illustrated that informal learning played a role in improving several skills but the studies that correlated how this can improve team performance are considerably limited. At a team level, with the importance of improving team performance and the role this plays in organisations, the role of informal learning remains ambiguous and is perceived differently. One of the main underlying reasons is the uniqueness of every organisation and the intervening factors (e.g. organisational structure, culture, procedures of work) which can accommodate or prevent the environment for informal learning to contribute to team performance. Therefore, as part of this research, the correlation of informal learning to team performance is investigated in the present study.

3. Methodology

Due to nature of this research, a case-study approach was used as this supports capturing the investigated phenomenon and its dynamics in a natural setting (Yin *et al*., 2014). The case study is a telecommunication company located in Qatar. The case-study organisation also owns 12 other firms that operate in Asia and various parts of Africa. As the study included over 40 teams from the company, a questionnaire survey was used in the collection of data from the teams within a short time frame in a cost-effective way (Saunders *et al*., 2016). In developing the questionnaire, the aim was to identify teams who scored high or low on the informal learning measures by considering the performance of each team. It is important to indicate that, in collecting the quantitative data, two samples were targeted: employees and supervisor. Purposeful sampling was adopted in selecting the participants for the questionnaire survey. According to Saunders *et al*. (2016), purposeful sampling is a subjective approach where the researcher's judgment is used to select study participants; the selection of the sample is based on participants' relevance which is determined by the extent to which they have characteristics of interest to the study. Also, the decision to use this sampling technique considered the nature of the case organisation as an international firm with high standards.

3.1 Data Collection Procedure

In the context of the selected case-study organisation, with over 800 employees and more than 100 supervisors working in many teams, the researcher decided to distribute the survey to 65 teams to ensure the validity and reliability of the study. Questionnaires were distributed to potential participants by email. The researcher met with the main management team in the company's head office several times to co-ordinate this process. A list of all the employees' names and emails, in all units surveyed, were provided by the company. The company management team sent an email to all employees to support the research (see Appendix C). Invitations to the study were sent by email and the employees were provided with a link to the Qualtrics survey website and instructions to access the questionnaire survey. The employees and their supervisors were provided with unique personal codes to link each supervisor's data with their team's data. A uniform email template was used in all the emails sent to the employees and supervisors (see Appendix D). Before sending the survey invitations, the researcher discussed the survey's objectives and distribution approach with the HR manager

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and senior managers. The distribution method had some defects related to misunderstandings and vague questions. To mitigate these defects, the researcher made herself available to answer questions and visited the branches and the main offices. The researcher collected the quantitative data over four months.

For this study, it was important to maintain a minimum number of team members (two or more) to include the team in the research data. Following the distribution of the questionnaire, 47 of the 65 supervisors invited to participate completed the questionnaire, representing a response rate of approximately 65% whereas of the 492 employees invited to participate in this research, 160 employees completed the survey. However, of the 160 that participated in the questionnaire only 146 were accepted and this is due to two reasons: the participant did not fully complete the questionnaire survey or the link to the questionnaire survey was not accessible. In fact, this response rate may reflect various factors including the ability of the employee company's IT system to access the online survey web page. The selection of the teams followed the below criteria:

(1) When questionnaires were not returned by the team supervisor the data by the subordinate officers were excluded from the database.
(2) When a team had only a single respondent all the team's data, including that of the supervisor, were excluded from the database.
(3) When the main survey questions were not completed the responses were excluded.

3.2. Measures (Questionnaire Design)

The initial survey questions used in this study were drawn from validated measures (Yang and Johnson, 2012) that are identified in the literature and based on the measures (see Table 1). The type of questions included in the questionnaire survey were:

- Closed-ended questions: respondents were asked demographic questions and yes/no questions about their belief in the importance of informal learning in the workplace.
- Rating scale questions with Likert-type scales: informal learning activities and informal learning variables were both measured through a set of five-point Likert-scale questions (Strongly Disagree (1), Disagree (2), Neither Disagree nor Agree (3), Agree (4), and Strongly Agree (5)).

Two questionnaire surveys were developed: the employee survey and the supervisor survey. The reason for developing two separate questionnaires was to allow the survey to measure unique variables, such as the performance of the employees concerning informal learning, as the required performance data could only be obtained from supervisors.

3.2.1 Employees' Survey

In this study, for each informal learning activity, a number of constructs (see Table 1) were identified to indicate the informal learning activity practiced at different levels. The SPSS software tool was used to perform the tests on the data collected using the questionnaire survey.

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Table 1: Constructs used with respect to different informal learning activities based on the literature.

Informal learning Activity		Number of constructs identified	Studies
Self-reflection		4	Kim and Keyhani (2019) Yang and Johnson (2012)
Dyadic		12	Grover and Furnham (2016) Rosha and Lace (2016) Yang and Johnson (2012)
Team Knowledge Exchange		9	Jiang and Liu (2015) Sibarani *et al*. (2017) Wilson and Hartung (2015)

The above constructs were used in former studies (e.g. Yang and Johnson, 2012), and applied in different contexts, hence were used in this study to encompass an enriched understanding of informal learning activities within the targeted organisation (See Appendix A).

3.2.2 Supervisors' Survey

Using Yang and Johnson's (2012) study, the supervisor survey focused on five items capturing the supervisor's rating of their team's performance **(**see Table 2). The main goal of this survey was to measure team performance.

Table 2: Items used to measure team performance (Yang and Johnson, 2012; Janz *et al*., 1997).

Measure (constructs)	N	Item: survey questions
Team Performance	1	My team performs well.
	2	My team achieves its goals.
	3	My team meets the expectations of others.
	4	My team does what it should do.
	5	My team has satisfied (internal or external) clients.

3.2.3 Reliability of the Measures

For the purpose of the study, it was essential to explore the extent of informal learning activities within the targeted organisation. This commenced by exploring, from an organisational level, the extent of each informal learning activity (self-reflection, managerial coaching and team knowledge exchange) within the organisation where reliability test was applied. The use of reliability testing is most common in situations where multiple Likert questions are adopted in a survey/questionnaire forming a scale. For this purpose, Cronbach's Alpha was used which is a model of internal consistency based on average inter-item correlation. The closer Cronbach's Alpha values are to one, the more reliable a measure is. In this study, the Cronbach's Alpha value for the measurement of average organisational informal learning activities. The variables for managerial coaching (α =0.830), team knowledge exchange (α =0.866), and self-reflection (α =0.725), showed very high internal reliability scores which suggests there is solid empirical evidence to support the idea that these three sub-scales should be used as separate constructs.

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4. Results

4.1 Teams Characteristics

The characteristics of the teams are noted to be as follows: the largest proportion of teams (48.9%) are male-only teams while male-dominated teams form 19.1% of the sampled teams. Only 4.3% of the teams are female-only, with 10.6% being female-dominated. Of the 47 teams, 51.1 % comprise employees whose age range between 30-39 years. Only 6.4% have members aged between 50 and 59 years. The largest number of teams (42.6%) comprises members who have served in the company for between 5 and 10 years while only 2.1% of the teams have members who have worked there for less than a year. Based on these demographics, it is expected that the team members are well-versed with the operations within the company, specifically within the job they are attached to. Finally, the largest proportion of teams comprise individuals who hold a bachelor's degree (74.5%) while only 2.1% of the teams have a team member who holds qualifications classified as less than secondary education. However, only 8.5% of the teams comprise individuals holding qualifications at PhD level or another advanced degree.

4.2. Informal learning activities: The activities analysis

The extent of informal learning activities was tested across the 47 teams within the organisation. The frequency of informal learning activities was calculated for each team (see Table 3), showing that some teams prefer certain forms of informal learning activities to others. The frequencies provide a different insight into the type of informal learning activities carried out by each group. The results reflect that all the teams had a value of three or higher for each informal learning activity. This indicates an overall high level of informal learning adoption in the organisation.

Table 3: Informal learning activities based on the case study.

Variables	M	SD	Min	Max	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
1. Self-reflection	4.11	0.58	1.0	5.0	-1.677	0.201	6.139	0.399
2. Managerial coaching	3.64	0.47	1.67	4.58	-0.679	0.201	1.819	0.399
3. Team knowledge exchange	4.14	0.49	2.67	5.0	-0.058	0.201	-0.093	0.400

The mean of self-reflection and team knowledge exchange were almost identical and have the highest values among the informal learning activities. This suggests coaching is practised less and highlights the extent to which a variety of informal learning activities are dominantly practised by the 47 teams within the organisation in focus. The research instrument is designed to test the type of informal learning activities relating to these general categorisations. Based on the frequency tests, it was found that team knowledge exchange (M (Mean) = 4.14, SD (Standard Deviation) = 0.49) is the most common form of the informal learning process in the case study organisation. Managerial coaching (M = 3.64, SD = 0.47) typically occurs in collaborative settings distinguishing this form of activity from self-reflection (M = 4.11, SD =

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0.58). Hence, it is realised that self-reflection and team knowledge exchange are the most adopted forms of informal learning within the organisation.

4.3. Informal learning and team performance

In responding to the main research question, which seeks to explore the impact of informal learning activities on team performance, a number of regression tests were applied: R-test, coefficient and Pearson correlation. The importance of using multiple regression tests within the context of this research is to understand whether the same result/conclusion can be achieved on the impact of each team by each different learning activity.

R-test: team performance and informal learning activities

In this test, the relationship between informal learning and team performance was examined. The R=0.320 (see Table 4) reveals that the correlation between informal learning activities and team performance is low. The R^2=0.102 indicates that informal learning activities predict 10.2% of the variability in the performance of the teams. The unexplained variability can be attributed to the fact that the independent variables are part of a broader collection of activities associated with informal learning. Following the strength test between team performance and informal learning activity, the effects of the control variables were tested. Based on the results, it is apparent that the inclusion of the control variables increases the correlation between the dependent and independent variables to R=0.429. Similarly, the extent to which the independent variable predicts the dependent variable increased by 8.2% (from 10.2% to 18.4%). The results indicate that the inclusion of the control variables increases the predictive abilities of the independent variables regarding the dependent variables.

Table 4: R-test summary between team performance and informal learning activities.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.320[a]	.102	.039	.55873	.102	1.630	3	43	.197
2	.429[b]	.184	.012	.56664	.082	.761	5	38	.583
a. Predictors: (Constant), Team_Exchange_Knowledge_mean_1, Self_reflection_mean_1, Managerial coaching_mean_1									
b. Predictors: (Constant), Team_Exchange_Knowledge_mean_1, Self_reflection_mean_1, Managerial coaching_mean_1, Highest education attainment, Gender, Length of Service, Age									

Coefficient test

The test is performed to determine the direction of the relationship, whether it is positive or negative, and whether the relationship is statistically significant. It is important to highlight that statistical significance is measured at the 95% confidence level. In the results shown hereunder, the relationship between the independent and dependent variables are provided in addition to the constant effects. Based on the coefficients output, the effects of the individual independent variables on the dependent variable are shown below. Among the independent variables, in the first model, neither self-reflection (B= -.392, p=0.138), managerial coaching,

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(B= .337, p=0.319) nor team knowledge exchange (B=.326, p=0.247) has shown a positive effect on team performance. Under the second model, after examining the effects of the control variables of the team members, the same results was found: neither self-reflection (B= -.371, p=0.204) managerial coaching (B=.265, p=0.469), nor team knowledge exchange (B=.418, p=0.162) have a statistically significant impact on team performance. In addition, it was also found that the control variables did not have a major impact when added to the second model (see Table 5).

Table 5: Coefficient test outputs

Coefficients						
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.339	1.279		2.612	.012
	Self_reflection_mean_1	-.392	.260	-.248	-1.510	.138
	Managerial coaching_mean_1	.337	.334	.184	1.008	.319
	Team_Exchange_Knowledge_mean_1	.326	.278	.192	1.173	.247
2	(Constant)	2.790	1.408		1.981	.055
	Self_reflection_mean_1	-.371	.287	-.235	-1.293	.204
	Managerial coaching_mean_1	.265	.363	.144	.731	.469
	Team_Exchange_Knowledge_mean_1	.418	.293	.247	1.427	.162
	Gender	.036	.071	.079	.506	.616
	Age	.204	.167	.288	1.222	.229
	Length of Service	-.074	.146	-.101	-.507	.615
	Highest education attainment	-.059	.162	-.058	-.364	.718
	Type of work	.115	.225	.100	.509	.614
a. Dependent Variable: Team_Performance_mean						

Pearson Correlation tests

Pearson's correlation tests are utilised to indicate the extent to which the dependent, independent, and control variables are associated with one another. Moreover, this research looked into how demographic variables are related to the three learning activities by conducting correlational analyses. The correlation was assessed based on the strength where strong correlation is when r >.50, middle range when .30 < r < 0.50 and weak when r < 0.30.

Self-reflection was found to be statistically significant (R=-0.210) with negatively strong correlation with team performance (R=-0.210, p=0.011). The results also show that neither managerial coaching (R= 0.073, p=0.380) nor team knowledge exchange (R= 0.150, p=0.071) are significantly correlated to team performance.

5. Discussion

5.1. Informal learning and team performance: The complexity

Based on the analysis derived from the data, it was found that none of the informal learning activities, including self-reflection, managerial coaching, and team knowledge exchange had a statistically significant impact on the performance of the teams within the examined

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organisation. Although this finding aligns with some of the previous studies (e.g. Carrasco and Silva, 2017; Rogoff *et al.*, 2016) that identified the lack of evidenced relationship between informal learning and team performance, the significance of this research is that it looked into informal learning at different levels which provided a more-holistic perspective. For instance, team knowledge exchange (e.g. conversations and social interaction) ranked the highest among the most widely practised informal learning activity with managerial coaching reported as having the lowest mean among the 47 teams. Another finding is that, amongst the three informal learning activities, statistically significant negative correlation was found between self-reflection (e.g. doing new tasks, observation, reading articles online and researching) and team performance. Studies in the literature (e.g. Park and Choi, 2016) pointed out the value of self-reflection as being one of the major drivers in improving the competencies of employees which effectively should support the improvement of overall team performance.

Although the literature has not evidenced that there is direct relationship between informal learning and team performance, conceptualising informal learning at three levels supported further understanding about this relationship. For instance, the finding of negative correlation between self-reflection and team performance, within the context of this research, would draw the attention towards multiple factors including type of the organisation, nature of tasks handled by employees, and even the learning processes followed within the workplace. For instance, some studies have even discussed that team knowledge exchange is the most effective form of informal learning which was not evidenced based on results from this study. Also, the study by Yang and Johnson (2012), incorporating the three levels of informal learning activities, concluded that informal learning as a whole is negatively correlated with team performance. Therefore, it can be asserted that informal learning across different organisations may lack the association with team performance and, in some instances, can also be too complex to be examined. This shows that informal learning in organisations differ and this can be attributed to a variety of factors that can intervene as part of learning in the workplace. Although learning in the workplace is often formally facilitated by human resource practices (Coetzer *et al.*, 2022), it is vital to simultaneously monitor how informal learning can also be facilitated in organisations (Coetzer *et al.*, 2019). Thus, there is a need to conceptualise the relationship between informal learning and team performance to further understand its complex nature.

5.2. Informal learning and team performance: Conceptualising the relationship

This research revealed that the relationship between informal learning and team performance is complex to assert. The findings from the analysis revealed that such relationship can be unfolded when looking at informal learning from different levels where within the examined organisation should that self-reflection was inversely related to team performance. Another instance is that, using the regression tests, it was that there a number of relationships that occur between informal learning activities (e.g. age has a statistically significant relationship with managerial coaching). Following such findings, this research proposes a framework to conceptualise of the relationship between informal learning and team performance, which will be through the use of scatter plots. The use of scatter plot in statistics is very common and is

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used to identify the linear associate between two variables. In this study, the linear association was between each informal learning activity and team performance. The scatter plots (see Figure 1) for the means for the team performance are provided to indicate the relationship between the dependent and independent variables. The quadrants (see Figure 1) indicate the presence of outliers which include the teams that do not conform to the norms of most of the other team members based on where they lie. The use of scatter plots clusters teams into four quadrants: high informal learning-high team performance, high informal learning-low team performance, low informal learning-high team performance, and low informal learning-low team performance.

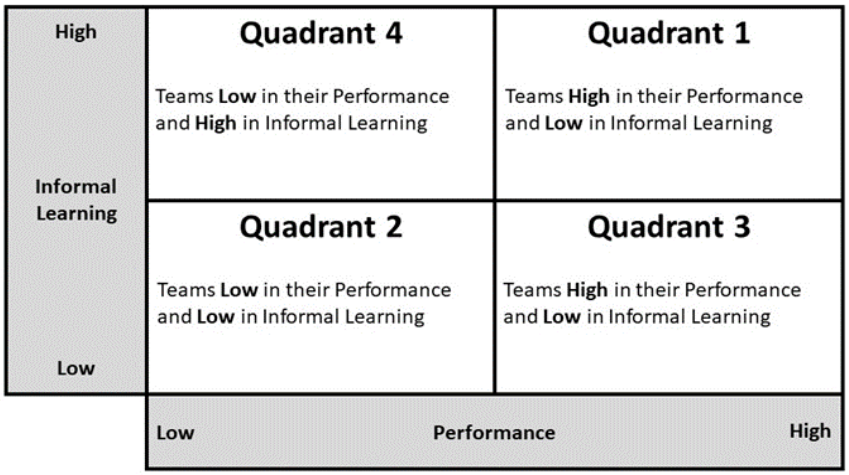
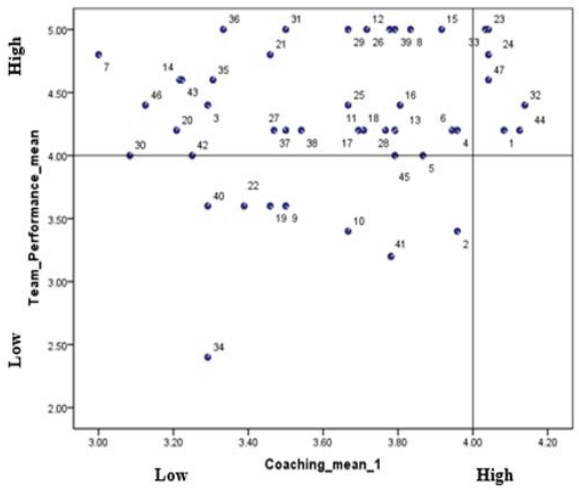


Figure 1. Abstract conceptualization of Informal learning and team performance**.**

The frequency of informal learning activities was calculated for each team, showing that some teams prefer certain forms of informal learning activities to others. The frequencies provide a different insight into the type of informal learning activities carried out by each group. This provides further insights into the type of informal learning activities that were found to have varying levels of impact on team learning in the scatter plot (see Figure 2).



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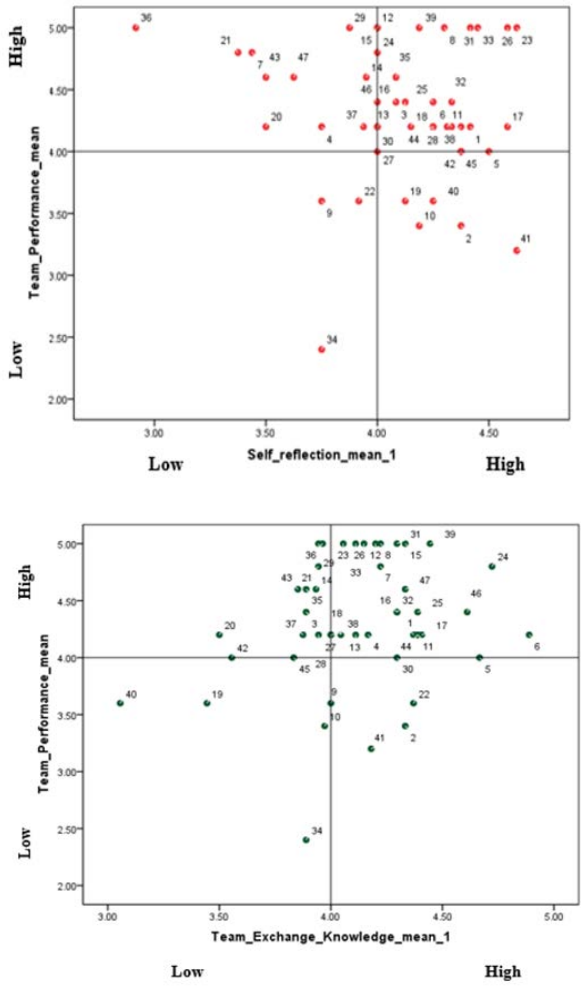

Figure 2: Scatter plot for informal learning (self-reflection "left", managerial coaching "middle" and team knowledge exchange "right") and team performance.

The team level, which is based on an aggregation of the individuals' responses classified into the 47 teams, reveal that team knowledge exchange activities are most practised form of informal learning activities. Managerial coaching is the least practised informal learning activity. Based on the scatter plot analysis, the largest proportion of teams that practice self-reflection and team knowledge exchange are classified under Quadrant 1 because they experience high performance from engaging in high informal learning activity. On the other hand, most of the teams that practise managerial coaching lie in Quadrant 4, in which high informal learning activities is linked to low team performance. This indicates that there are differences in the impact of the specific informal learning activity in team performance. The frequency of informal learning activities was calculated for each team, showing that some teams prefer certain forms of informal learning activities to others. The frequencies provide a different insight into the type of informal learning activities carried out by each group. This provides further insights into the type of informal learning activities that were found to have varying levels of impact on team learning in the scatter plot analysis in the previous section. The average score for each form of informal learning was obtained by computing the mean of each activity for all teams allowing for the identification of each team's informal learning preferences. As illustrated below, all the teams had a value of three or higher for each informal

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learning activity. This indicates an overall high level of informal learning adoption in the organisation

5.3 Theoretical Contributions

The proposed framework has supported acknowledging the interrelationships between different informal learning activities at different levels and the link to the team productivity. This can support informing existing bodies of knowledge on how different informal activities are facilitated and the role harmony between those different levels plays in facilitating the performance of the team. Looking at the informal learning in three different levels, this will provide a more focused and traceable mechanism in monitoring learning in the workplace and prompt more attention towards how informal activities occur in organisations. In return, this can potentially support indicating how informal learning activities might support team performance. The indicated harmony between different facilitators towards informal learning can also inform future research into the integration of informal learning activities as part of the overall learning in workplace. Therefore, this research enriches the need to further explore informal learning using different informal learning activities and also the harmony between different facilitators. This will provide a more controlled approach to recognise external organisational factors that can impact the facilitation of informal learning in organisations.

5.4 Practical Implications

The conclusions drawn from this research can enable the organisation to build more effective workplace learning and become more competitive. Based on the findings, the organisation will gain a better understanding of the learning environment and of its employees' learning behaviour and attitudes. This will also enable the company to implement the appropriate strategy to provide the right learning tools and channels. As it currently stands, the organisation experiences informal learning through self-reflection, managerial coaching and team knowledge exchange. As a result of this research, the developed framework can provide a better understanding of different informal learning activities. Through analysis of this research, the case study organisation is anticipated to become more cautious to improve the awareness of line managers and supervisors in terms of providing adequate support and time to assist their employees. In other words, the case study organisation needs to foster the coaching skills of team leaders. Also, the company should consider managerial coaching skills as a requirement for any future promotion. More importantly, although learning in the workplace is often formally facilitated by human resource practices, it is vital to simultaneously monitor how informal learning can also be facilitated in organisations. This research provides help and guidance for other companies that wish to either understand their informal learning environments or to assess the informal learning activities. This study can provide organisations within the same region, or similar settings, into how informal learning different activities can be linked and, potentially, the values that can be gained from it (the output). As a result of this study, organisations need to engage in a system-wide improvement of informal learning to achieve balanced understanding of how different informal activities (self-reflection, managerial coaching, and team knowledge exchange) can be facilitated so that the value can be tangibly measured.

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5.5. Limitations and future research

One of the main limitations is the generalisability of this study as the case study targeted a telecommunications company in Qatar. Although the researcher has abstracted the output in a way that can support generalising the outcomes, further research is needed to apply the results to other countries and different industries. Within the study itself, and taking into account that it covered 47 teams as part of the primary data collection, the data was collected at an individual level and then aggregated into a team level using the average response of the team members. This could pose a limitation because the accuracy of the outputs at team level can be impacted due to this averaging process from individual to team level. Future work can investigate the synchronisation between informal and formal learning in terms of how they impact team performance collectively. In this way there will be potential to understand the correlation between informal learning activities and team performance.

6. Conclusions

To conclude, this research aimed to explore the role of informal learning at different levels: individual (self-reflection), dyadic (learning from a supervisor), and team knowledge on team performance. The research commenced with reviewing the literature on informal learning and team performance where it was highlighted that the relationship between them is considerably complex and difficult to assert. More importantly, it was also highlighted that research on informal learning in the Middle Eastern context is limited, hence the focus of the study targeted Qatar as one of the developing countries. The research used a case study approach of a telecommunication company where data was attained using questionnaire survey with 47 teams targeting supervisors and employees. The results indicated that, impact of informal learning on team performance was possible to recognise when informal learning was conceptualised using the three (self-reflection, managerial coaching, and team knowledge) levels. The research also recognised that there is a relationship between different informal learning activities, which highlights the need to take organisational context into account so that informal learning can be perceived more holistically. The study concluded with an abstract conceptualisation of informal learning and team performance using scatter plots where this will act as an effective mechanism to understand the role of informal learning activity on a team, and seek further organisational factors, which provides a more overarching approach towards informal learning in organisations.

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References

Anselmann, V. (2016). Informal Social Learning Activities at the Workplace: interrelations of Learning Activities, Contexts, Triggers, Outcomes and Domain Specifics. [Dissertation] *Universität Regensburg.*

Becker, K. & Bish, A. (2017). Management development experiences and expectations: informal vs formal learning. *Education and Training*, *59*(6), 565–578. https://doi.org/10.1108/ET-08-2016-0134

Bednall, T. C., Sanders, K. & Runhaar, P. (2014). Stimulating informal learning activities through perceptions of performance appraisal quality and human resource management system strength : a two-wave study, The University of New South Wales. *Academy of Management Learning & Education*, *13*(1), 45–61.

Billett, S. (2002). Critiquing workplace learning discourses: participation and continuity at work. *Studies in the Education of Adults*, 34 (1), 56-67.

Borghans, L., Golsteyn, B. & de Grip, A. (2007). What does research teach us about informal learning? In A. de Grip (Ed.), *Handbook of Effective Training*. Maastricht, the Netherlands: Maastricht University, pp. 65-84.

Budhwar, P., Pereira, V., Mellahi, K. & Singh, S. (2018). The state of HRM in the Middle East: Challenges and future research agenda. *Asia Pacific Journal of Management*, *1*, 1–29. https://doi.org/10.1007/s10490-018-9587-7

Butt, G. (2019). *GCC moves to mend Qatar rift*. *Petroleum Economist*, 20 November 2019. https://www.petroleum-economist.com/articles/politics-economics/middle-east/2019/gcc-moves-to-mend-qatar-rift

Carrasco, T.S. & Silva, F. (2017). Informal Learning at work context: A meta-study of Brazilian Scientific Production. *Revista de Administração Mackenzie*, *18*, 137-163.

Choonara, S., Goudge, J., Nxumalo, N. & Eyles, J. (2017). Significance of informal (on-the-job) learning and leadership development in health systems: Lessons from a district finance team in South Africa. *BMJ Global Health*, *2*. e000138. 10.1136/bmjgh-2016-000138

Coetzer, A., Redmond, J., Sharafizad, J. and Lundy, J. (2022). Enhancing Learning in Small Businesses. Human Resource Management Journal, 33(2), 470 – 490.

Coetzer, A., Wallo, A., & Kock, H. (2019). The owner-manager's role as a facilitator of informal learning in small businesses. Human Resource Development International, 22(5), 420– 452.

Crouse, P., Doyle, W. & Young, J. D. (2011). Workplace learning strategies, barriers, facilitators and outcomes: A qualitative study among human resource management practitioners. *Human Resource Development International*, *14*(1), 39–55. https://doi.org/10.1080/13678868.2011.542897

Darwish, B. (2014). The State of Qatar: Along the Way to Sustainable Development. In P. Sillitoe (Ed.), *Sustainable Development: An Appraisal from the Gulf Region* (1st ed., pp. 97–115). Berghahn Books. http://www.jstor.org/stable/j.ctt9qdd86.9

Decius, J. & Schaper, N. (2017). The Competence Management Tool (CMT) – A New Instrument to Manage Competences in Small and Medium-sized Manufacturing Enterprises, *Procedia Manufacturing*, *9*,

©Copyright 2024/College of Business and Economics, Qatar University

Decius, J., Schaper, N. & Seifert, A. (2019). Informal workplace learning: Development and validation of a measure. *Human Resource Development Quarterly, 30*, 495-535.

Engeström, Y., Engeström, R. & Kärkkäinen, M. (1995). Polycontextuality and boundary crossing in expert cognition: Learning and problem solving in complex work activities. *Learning and Instruction, 5*(4). www.sciencedirect.com/science/article/pii/0959475295000216

Garavan, T., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M. and Carbery, R. (2019). Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderators. *Human Resource Management Journal*, pp. 31-93.

Garrick, J. (1998). *Informal Learning in the Workplace: Unmasking Human Resource Development*. London: Routledge.

Grover S. & Furnham A. (2016). Coaching as a Developmental Intervention in Organisations: A Systematic Review of Its Effectiveness and the Mechanisms Underlying It. *PLoS ONE, 11*(7): e0159137.

Han, T. Y. & Williams, K. J. (2008). Multilevel investigation of adaptive performance: Individual- and team-level relationships. *Group and Organisation Management*, *33*(6), 657–684. https://doi.org/10.1177/1059601108326799

Hart, J., (2014). Informal Learning Takes off. *Guild Survey Research Report*, The Learning Guild.

Holmgren, R. and Sjöberg, D. (2022) Who should i talk to? - Informal workplace learning among teachers in police education, *Studies in Continuing Education*, DOI: 10.1080/0158037X.2022.2111411

Jacobs, R. L. & Park, Y. (2009). A proposed conceptual framework of workplace learning: Implications for theory development and research in human resource development. *Human Resource Development Review*, *8*(2), 133–150. https://doi.org/10.1177/1534484309334269

Jiang, J. Y. & Liu, C. W. (2015). High performance work systems and organisational effectiveness: The mediating role of social capital. *Human Resource Management Review*, *25*(1), 126–137. https://doi.org/10.1016/j.hrmr.2014.09.001

Johansson, K. & Abrahamsson, L. (2018). Gender-equal organisations as a prerequisite for workplace learning. *The Learning Organisation*, 25(1), 10-18.

John, P. (2018). Qatar economy seen to gain traction this year on stronger fixed investment. *Gulf Times, 17 March 2018*, p. 1. https://www.gulf-times.com/story/585439/Qatar-economy-seen-to-gain-traction-this-year-on-s

Kim, M. S. & Keyhani, N., (2019). Understanding STEM teacher learning in an informal setting: a case study of a novice STEM teacher. *RPTEL 14.*

Koduvayur, V. (2018). OPEC's reputation in D.C. is hurting. Qatar's exit will make it worse. *CNN Business*. https://edition.cnn.com/2018/12/14/perspectives/qatar-leaving-opec/index.html

Kortsch, T., Schulte, E.-M. & Kauffeld, S. (2019), Learning @ work: informal learning strategies of German craft workers, *European Journal of Training and Development*, Vol. 43 No. 5/6, pp. 418-434. https://doi.org/10.1108/EJTD-06-2018-0052

Kyndt, E. & Baert, H. (2013). Antecedents of employees' involvement in work-related learning: a systematic review. *Review of Educational Research, 83*(2), 273–313.

©Copyright 2024/College of Business and Economics, Qatar University

Latchem, C. (2014). Informal learning and non-formal education for development. *Journal of learning for Development -JL4D*.

Lee, T., Fuller, A., Ashton, D., Butler, P., Felstead, A., Unwin, L. & Walters, S. (2004). Workplace Learning: Main Themes and Perspectives'. *Learning as Work Research*, Paper No. 2.

Lucas, L.M. (2010). The role of teams, culture, and capacity in the transfer of organizational practices. The Learning Organization, 17 (5), 419–436.

Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L. & Morciano, D. (2015). Formal and informal learning in the workplace: A research review. *International Journal of Training and Development*, *19*(1), 1–17.

Meliksetian, V. M. (2019). Is the Qatar Blockade coming to an end? *Oilprice.com, 15 December 2019*. https://oilprice.com/Geopolitics/Middle-East/Is-The-Qatar-Blockade-Coming-To-An-End.html

Milligan, C., Littlejohn, A. & Margaryan, A. (2014). Workplace Learning in Informal Networks. *Journal of Interactive Media in Education*, 2014(1). http://doi.org/10.5334/2014-06

Ministry of Development Planning and Statistics (2018). *Qatar Second National Development Strategy 2018- 2022*, Doha. https://www.psa.gov.qa/en/knowledge/Documents/NDS2Final.pdf

Nerland, M., Damsa, C., Guile, D. & Unwin, L. (2019). *VET as Lifelong Learning*, pp. 395-414. doi: 10.1002/9781119098713.ch20.

Noe, R. A., Tews, M. J. & Marand, A. D. (2013). Individual differences and informal learning in the workplace. *Journal of Vocational Behavior*, *83*(3), 327–335. https://doi.org/10.1016/j.jvb.2013.06.009

Park, Y. & Choi, W. (2016). The effects of formal learning and informal learning on job performance: the mediating role of the value of learning at work. *Asia Pacific Education Review*, *17*(2), 279–287. https://doi.org/10.1007/s12564-016-9429-6

Preenen, P., Verbiest, S., Van Vianen, A., & Van Wijk, E. (2015). Informal learning of temporary agency workers in low-skill jobs: The role of self-profiling, career control, and job challenge. *The Career Development International*, *20*(4), 339–362

Rabin, R. (2014), *Blended Learning for Leadership: The CCL Approach*. Greensboro, NC: Centre for Creative Leadership. https://www.ccl.org/wp-content/uploads/2015/04/BlendedLearningLeadership.pdf

Rogoff, B., Callanan, M., Gutiérrez, K. D. & Erickson, F. (2016). The organisation of informal learning. *Review of Research in Education*, *40*, 356–401.

Rosha, A. & Lace, N. (2016). The scope of coaching in the context of organisational change. *Journal of Open Innovation: Technology, Market, and Complexity*, *2*.

Saunders, M., Lewis, P. and Thornhill, A. (2016). Research Methods for Business Students (7th ed.), Harlow: Pearson.

Sibarani, R. M., Tjakraatmadja, J. H., Putro, U. S. & Munir, N. S. (2015). The influence of leadership in informal learning of multigenerational teams. *Mediterranean Journal of Social Sciences*, *6*(4), 411–419.

Tannenbaum, S., Beard, R., McNall, L. & Salas, E. (2010). Informal learning and development in organisations. In S. W. J. Kozlowski and E. Salas (Eds), *Learning, Training, and*

©Copyright 2024/College of Business and Economics, Qatar University

Development in Organisations. New York: Routledge, pp. 303-332

Toumi, H. (2018). Qatar's exit will not implode GCC. *Gulf News, 8 December 2018*. https://gulfnews.com/world/gulf/qatar/qatars-exit-will-not-implode-gcc-1.60822085

Wallo, A. (2008). *The Leader as a Facilitator of Learning at Work. A study of learning - oriented leadership in two industrial firms*. [PhD Thesis] Linköping University.

Wilson, D. & Hartung, K. (2015) Types of informal learning in cross-organisational collegial conversations, *Journal of Workplace Learning*, *27*(8), 596-610. https://doi.org/10.1108/JWL-09-2014-0070

World Economic Database (2017). *Qatar: The Global Competitiveness Index 2017-2018 edition.* http://www3.weforum.org/docs/GCR2017-2018/03CountryProfiles/Standalone2-pagerprofiles/WEF_GCI_2017_2018_Profile_Qatar.pdf

Yang, H. & Johnson, J. (2012). *Feedback Report on Workplace Informal Learning At Rathbone Brothers PLC*. University of Liverpool, pp. 1–37.

Yin, R. K. (2014). Case study research design and methods (5th ed.). Thousand Oaks, CA: Sage.

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Appendix A: Questions for Employees other than Supervisors

The following statements describe the different ways that people participate in learning activities and learn from their line-manager and other colleagues in the workplace. Can you indicate to what extent each of these statements applies to your situation?

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
1. I always question the way others do things and try to think of a better way.					
2. I like to think over what I have been doing and consider alternative ways of doing it.					
3. I often reflect on my actions to see whether I could have improved on what I did.					
4. I re-appraise my experience so I can learn from it and improve for my next performance.					

Indicate to what extent you agree with the following statements regarding your Supervisor:

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
1. Encouragement from my supervisor, especially about taking risks on my career decisions, is important to me.					
2. To help me think through issues, I like it when my supervisor asks questions rather than providing solutions.					
3. I always try to seek constructive feedback from my supervisor.					
4. I know that my opinions/suggestions are appreciated by my supervisor even when they conflict with his/hers.					
5. I like that my supervisor uses real world cases, scenarios, and examples to help me learn.					
6. I often tell my supervisor whether and how their feedback and my interactions with him/her are helpful to me.					

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7. I trust that my supervisor always shares his/her feelings openly in conversations with me.					
8. I trust that my supervisor focuses on my needs in discussions with him/her.					
9. My supervisor and I leave time for relationship building when interacting with each other.					
10. I look for connections with my supervisor when being coached in the workplace.					
11. I am open and candid with my supervisor about my opinion in difficult work situations.					
12. I openly share my personal values with my supervisor when being coached.					

Indicate to what extent you agree with the following statements regarding your team at work:

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
1. Members in my team share all relevant information and ideas.					
2. Members in my team listen carefully to each other.					
3. If something is unclear we ask each other questions.					
4. Members in my team elaborate on each other's information and ideas.					
5. In my team, information from one member is often complemented with information from another.					
6. My team draws conclusions from ideas that are discussed.					
7. My team tends to handle differences of opinions by addressing them directly.					
8. In my team comments on ideas are acted upon.					
9. Members in my team often ask each other critical questions to verify different opinions and ideas.					

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Appendix B: Pearson Correlation test outputs

Correlations

		Gender	Age	Length of service	Education qualification	Team Performance mean	Self-reflection mean	Managerial coaching mean	Team knowledge exchange mean
1.Gender									
2.Age	Pearson Correlation	.104							
	Sig. (2-tailed)	.214							
	N	146	146						
3. Length of service	Pearson Correlation	-.047	.770**						
	Sig. (2-tailed)	.578	.000						
	N	144	144	144					
Education qualification	Pearson Correlation	.051	.256**	.209*					
	Sig. (2-tailed)	.543	.002	.012					
	N	146	146	144	146				
Team Performance mean	Pearson Correlation	.113	.124	.195*	.055				
	Sig. (2-tailed)	.173	.135	.019	.512				
	N	146	146	144	146	146			
Self-reflection mean	Pearson Correlation	.030	-.021	-.068	.194*	-.210*			
	Sig. (2-tailed)	.717	.802	.420	.019	.011			
	N	146	146	144	146	146	146		
Managerial Coaching mean	Pearson Correlation	.153	.163*	.092	.135	.073	.533**		
	Sig. (2-tailed)	.066	.049	.272	.105	.380	.000		
	N	146	146	144	146	146	146	146	
Team knowledge exchange mean	Pearson Correlation	-.032	.063	.151	-.111	.150	.270**	.460**	
	Sig. (2-tailed)	.700	.452	.071	.182	.071	.001	.000	
	N	146	146	144	146	146	146	146	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

N = number.

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** The demographic characteristics have varying correlations with the independent variables. Age has a statistically significant relationship with managerial coaching (R=0.163) with positively strong correlation (p=0.049). Similarly, statistically significant relationship between education level and self-reflection (R=0.194) with positively strong correlation (p=0.019). These results indicated that informal learning activities differ across age groups and educational levels (Appendix C). The older employees are more likely to engage in managerial coaching; the higher education they receive, the more self-reflection they engage in. Interestingly, the average length of service in the team has a statistically significant relationship with team performance (R=0.195) with positively strong correlation (p=0.019) indicating that seniority is one of the factors that impact team performance. However, although the above indicator may draw an interesting finding, it does not feed into the scope of the study in this research.*

This section presents the findings from the primary data collection. As explained previously, 146 employees, drawn from 47 teams, participated in the survey. In total, four demographic characteristics were identified within the primary data collection: gender, age, length of service and highest educational attainment. The gender range of the teams were redefined into five categories including teams comprising purely males or females, teams that are male or female-dominated, and balanced teams. For the rest of the characteristics, including age, education level and length of service, the average was identified to ensure equal distribution of the demographics within the targeted sample.

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Appendix C: The Case-Study Company's Management Team's Invitation to all Employees Supporting the Research

Dear Employee,

We are pleased to invite you to join the following project which is carried out per the requirements of the Doctor of Business Administration (DBA) degree at Nottingham Trent University (UK) supervised by two senior academics, Prof. Helen Shipton, and Dr. Stefanos Nachmias. Please contact the researcher Dana Al-Hajri in the first instance if you have any questions about the project after you have read the below brief (dana.alhajri2015@my.ntu.ac.uk).

Before you decide whether to participate in the study it is important that you understand the reasons why we are carrying out the research and what your participation will involve. We would be grateful if you read the information carefully and get back if anything is unclear.

This research will help organisations in Qatar to understand the best method for learning in the workplace in order to develop your knowledge and expertise when performing your daily tasks and jobs to outstanding and high qualities.

All of your contributions will be treated as strictly confidential. **All data will be used only for addressing the objectives of the study**. Any reporting of the findings will ensure your personal anonymity as the only details required in the study are demographic and work experience information, omitting other details such as location and personal names. **Names will not be shared with your manger**. **Aggregated results, not your individual results, will be used to produce an academic research report** and ultimately be made available to the public domain via journal article or/and conference proceedings. We are confident that the arrangements described above will prevent any of your information being shared with anyone outside of the research team. There is no risk or discomforts involved in this study apart from your valuable time.

If you decide to take part in the online survey please be aware that it will take no longer than 10-15 minutes to complete. Should you decided to withdraw your data from the study (premature and after full participation), you will be free to do that within two weeks without having to give a reason and with impunity. In the case that you wish to withdraw from the study please email Dana

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Al-Hajri (dana.alhajri2015@my.ntu.ac.uk) expressing that you would like to do so. By completing this survey you agree and consent to the conditions above.

Thank you for participating in the project.

Dana Al-Hajri

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Appendix D: Email Invitation Template Sent by the Researcher to all Employees and Supervisors (Source: The Researcher, 2018)

Dear Dana,

Hope this email finds you well. Based on Mr.[redacted] email, I am writing to you to request your participation in a brief survey. Your responses to this survey will help us evaluate the effectiveness of specific factors in the workplace which will help the organization to improve the workplace. This research is supported and approved by the company and your branch manager.

Personal Access Code: **DA17B** (Please **Do Not** Share this Code with Anyone)

The team were are refereeing to in this survey is the following team supervised by Abdulrahman:

1-[redacted]
2-
4-
5-

The survey is very brief and will only take about 10 minutes or less to complete. Please click the link below to go to the survey website and then enter the personal code to begin the survey.

Should you have any comments or questions, please feel free to contact me at dana.al-hajri2015@my.ntu.ac.uk or 66655544. Your participation in the survey is completely voluntary and all of your contributions will be **treated as strictly confidential**. All data will be used only for addressing the objectives of the study. Aggregated results, **not your individual results will be used** to produce an academic research report.

Thank you very much for your time and cooperation. Your Feedback is very important to us.

Regards,

Dana Al-Hajri

Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://nbsntu.eu.qualtrics.com/jfe/preview/SV_eFAAvVyZyVQ9SRv?Q_CHL=preview

Follow the link to opt out of future emails:
Click here to unsubscribe

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Dana AlHajri holds a Bachelor Degree in Engineering with honors from Qatar University along with an Executive Master's degree in Strategic Business Unit form HEC University Paris (Qatar Campus).Dr. Dana has completed the Leadership program in Qatar in 2016. In addition, she has completed her Doctorate in Management from Nottingham Trent Business School UK. She is a board member in the HEC Advisory Board Committee in Qatar since 2020. Her recent research received the best research award from Nottingham Business School.

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