

INFORMAL WORKPLACE LEARNING AMONG NOVICE TEACHERS: A STUDY IN KUCHING DIVISION, SARAWAK

HASBEE USOP¹, YEN-PING KI², KIAN-SAM HONG^{3*}

Abstract. The purpose of this study was to investigate the types of informal learning activities that novice teachers in Kuching Division, Sarawak, engaged in at work and the level of novice teachers' engagement in informal learning activities. Specifically, this study explored the individual and organizational factors affecting novice teachers' engagement in informal learning activities, the relationship between level of informal learning engagement and organizational culture in school, and it also investigated the differences in the level of novice teachers' engagement in informal learning activities based on gender. This study was a cross-sectional survey research involving 85 novice teachers randomly selected from ten schools in Kuching Division, Sarawak. Findings showed that novice teachers were only moderately involved in workplace informal learning activities. The findings also showed moderate but significantly positive relationship between school culture and the level of informal learning engagement among novice teachers. However, there was no significant difference between male and female novice teachers in the level of engagement in workplace informal learning. In addition, findings also indicated that novice teachers learnt most frequently from their own trial and error activities. Novice teachers' engagement in informal learning activities was influenced by their interest in the current professional field and job environment. The findings of this study showed that schools need to promote and support informal learning opportunities for novice teachers as such learning activities serve as important impetus for their continuous professional development.

Keywords: Learning; informal learning; novice teachers; continuous professional development

Abstrak. Tujuan kajian ini ialah untuk mengenal pasti jenis aktiviti pembelajaran tidak formal dan tahap penglibatan pembelajaran tidak formal dalam kalangan guru yang baru di Bahagian Kuching, Sarawak. Secara khususnya, kajian ini meneroka faktor-faktor organisasi dan individu yang mempengaruhi penglibatan guru baru dalam aktiviti pembelajaran tidak formal, hubungan antara aras penglibatan pembelajaran tidak formal dengan budaya organisasi sekolah serta perbezaan aras penglibatan guru baru dalam pembelajaran tidak formal berdasarkan jantina. Kajian ini berbentuk kajian tinjauan keratan rentas melibatkan 85 orang guru baru yang dipilih secara rawak dari sepuluh buah sekolah menengah di Bahagian Kuching, Sarawak. Dapatan kajian menunjukkan guru baru terlibat secara sederhana di dalam aktiviti pembelajaran tidak

^{1,2&3} Department of Cognitive Science, Faculty of Cognitive Science and Human Development, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak
Corresponding author: hksam@fcs.unimas.my

formal di tempat kerja mereka. Dapatan juga menunjukkan bahawa hubungan yang sederhana tetapi signifikan secara positif antara budaya sekolah dengan aras penglibatan dalam pembelajaran tidak formal dalam kalangan guru baru. Bagaimanapun, tiada perbezaan yang signifikan didapati antara guru baru lelaki dan perempuan dari segi aras penglibatan pembelajaran tidak formal di tempat kerja. Tambahan pula dapatan kajian juga menunjukkan bahawa guru baru lebih kerap belajar melalui aktiviti secara percubaan dan kesilapan. Penglibatan guru baru dalam aktiviti pembelajaran tidak formal dipengaruhi oleh minat mereka dalam bidang profesional semasa dan persekitaran tempat kerja. Dapatan kajian menunjukkan pihak sekolah perlu memupuk serta menyokong peluang pembelajaran tidak formal bagi guru baru kerana aktiviti pembelajaran sedemikian boleh menjadi pencetus kepada pembangunan berterusan profesionalisme guru.

Kata kunci:: Pembelajaran; pembelajaran tidak formal; guru baru; pembangunan profesionalisme berterusan

1.0 INTRODUCTION

Teachers play an important role in the development of human capital as Malaysia strives to achieve a knowledge-based economy by the year 2020 (Tenth Malaysian Plan, 2010). The Educational Development Master Plan aims to bring about a new era of education reform and to develop the country education system to attain a world class standard. To achieve this aim, one of the strategic steps is to increase the quantity and quality of its teachers (Yaacob Wan Ibrahim, 2007). According to Syed Azizi Wafa, Ramayah, and Tan (2001), a country's nation building process and success depends on its teachers. Teachers are valuable human resources that a country should invest in effort to mould and nurture the young minds of the nation. A step towards developing teachers' quality is through continuous professional development of teachers (Fullan & Hargreaves, 1996). It has been reported that 80 percent of the learning in organizations is informal (Cross, 2007).

However, not much is known on the Malaysian novice teachers' awareness of their work environments from the point of view of learning (Krauss & Khaw, 2008). The teaching profession has often lost newly trained teachers early in their careers, long before their retirement years (Johnson & Birkeland, 2003). Generally, there has been a lack of studies that investigated how certain characteristics of employees and work environment influence engagement in specific informal learning activities (Doombos, Bolhuis, & Simon, 2004).

Furthermore, informal learning is an ill-defined concept that lack theoretical foundation and the literature on this topic is patchy (Cullen, Batterbury, Forresti, Lyons, & Stern, 2000). Employees seem to lack awareness of their own learning

(Eraut, 2004). The development of teacher communities is a difficult and time consuming work (Grossman, Wineburg, & Woolworth, 2001). Teachers' involvement in informal learning is inhibited by four aspects of their work environment, which are lack of time for learning, lack of proximity to learning resources, lack of meaningful rewards for learning and limited decision-making power (Lohman, 2000).

1.1 Purposes of the Study

The main aims of the study were to identify the nature of informal learning processes and how it took place in secondary school setting among novice teachers. Specifically, this study aimed at:

- (i) identifying the types of informal learning activities that the novice teachers engaged in at work,
- (ii) determining the level of novice teachers' engagement in informal workplace learning activities,
- (iii) identifying the individual factors affecting novice teachers engagement in informal learning activities,
- (iv) identifying the organizational factors affecting novice teachers engagement in informal learning activities,
- (v) examining the relationship between level of informal learning engagement among novice teachers and organizational culture in school, and
- (vi) identifying the differences in the level of novice teachers engagement in informal learning activities based on gender.

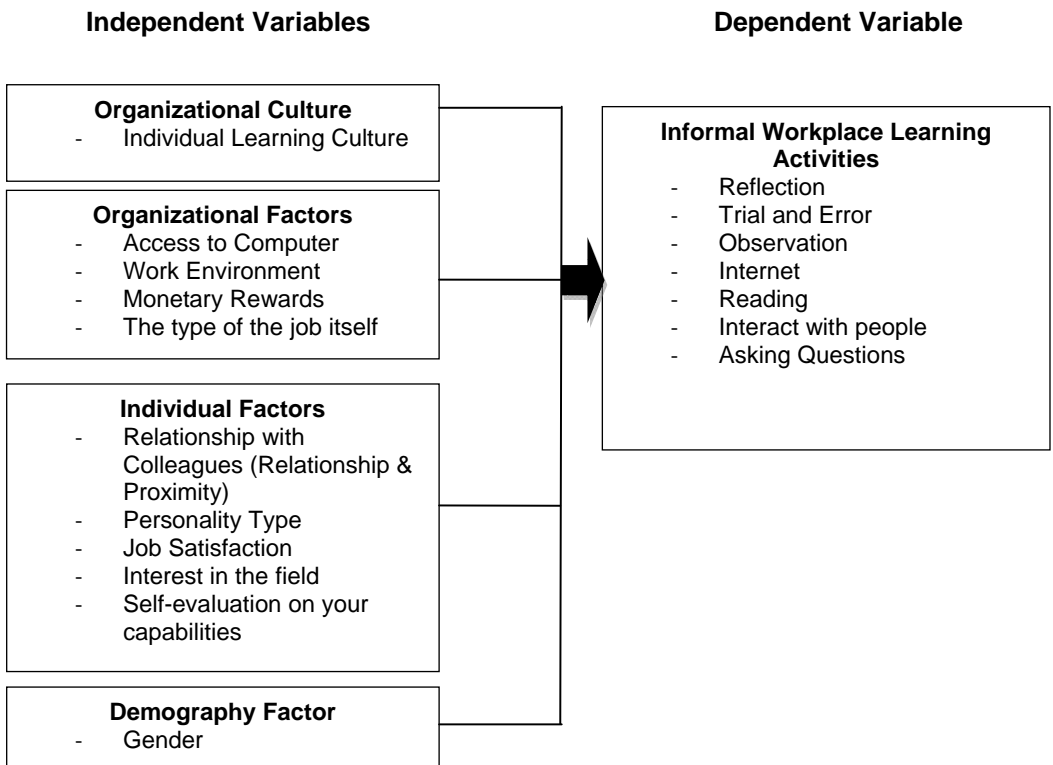


Figure 1 Research framework of the study

Figure 1 shows a visual representation of the relationship between the independent variables and dependent variable in this study. The independent variables were Organizational Culture, Organizational Factors, Individual Factors, and Gender. The dependent variable was the informal workplace learning activities.

2.0 REVIEW OF RELEVANT LITERATURE

According to Lassey (1998), learning is an active and cooperative process and depends on the willingness of those concerned. For an individual to become a learner it requires the commitment of that individual. Learning often occurs as a result of people working with others (Penn, Abg'wa, Forster, Heydon, & Richardson, 1998). In organizations, training requires the creation of spaces and

opportunities for people to learn. Effective learning for people and organizations requires an awareness and consciousness of the process as an option (Honold, 2000).

Informal learning is an experiential learning which occurs in a particular context. Informal learning can be self-determined, planned, deliberate or conversely unconscious, emotional or random. This type of learning often produces change and positive development, results from reflection and awareness (Gola, 2009). Much learning in organizations occurs through informal means (Doyle & Young, 2003; Eraut, 2004; Lans, Wesselink, Biemans, & Mulder, 2004; Livingstone & Sawchuk, 2005).

A qualitative study of informal learning among public school teachers conducted by Lohman and Woolf (2001) found that teachers engaged in three types of informal learning activities:

- Knowledge exchanging, in which teachers shared and reflected on others' practices and experiences,
- Experimenting, in which teachers actively experimented with new ideas and techniques; and
- Environmental scanning, in which teachers independently scanned and gathered information from sources outside the school.

Berg and Yonnie's (2008) study showed that the most frequently used type of informal learning activities are reflecting on their previous knowledge and actions and the least frequently used type of activities are posing questions to others.

However, the degree of engagement in informal learning might be influenced by personal factors such as age, gender and educational level. Research findings by Tikkanen's (2002) and Kremer's (2005) indicated that less experienced and younger workers engaged more in informal learning activities. This contrasted with Livingstone's (2000) findings that older respondents engaged in as much informal learning as did younger respondents. Nevertheless, Livingstone (2001) also discovered that younger learners see others as sources of information in informal learning, whereas older learners tended to engage in more individualistic activities. Livingstone (2001) found that informal learning activities were about the same for all levels of education from high school diploma to university degree. The research findings of Livingstone (2001) and Berg and Yonnie (2008) showed that informal learning engagement did not seem to differ based on age characteristics.

Recent studies showed that informal learning lies in the work itself, organizational environment or employees' own initiatives (Van Eekelen, Vermunt, & Boshuizen, 2006). Moreover, Kwakman (2003) found that four personal characteristics (professional attitudes, appraisals of feasibility of learning activities, appraisals of the meaningfulness of learning activities, and loss of personal accomplishment), two task factors (work pressure and job variety), and two work environment factors (collegial support and intentional learning support) influenced participation in informal learning activities, with the personal characteristics influencing participation more substantially than either the task or work environment factors.

In the school setting, a study by Lohman (2006) showed that teachers always learn informally through talking with others while seldom observing others and scanning professional magazines and journals due to lack of time (Lohman, 2000). A significant difference was found between elementary and secondary teachers. Specifically, elementary teachers reported that they share materials and resources to a significantly greater degree than secondary teachers.

Teachers as the key players in ensuring each individual realizes his or her full potential should no longer be seen as only a provider of knowledge. They should rethink their roles by promoting problem solving, decision making, creative skills and lifelong learning in their teaching (Hong, Liao, Law, & Abg Ekhsan Abg Othman, 2007). Knowledge that one acquire in schools is not enough for an employee to survive in the workplace. Accordingly, employees are expected to continuously learn in the workplace (Park & Wentling, 2007).

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This is a quantitative, cross-sectional survey research. Survey research provided an unbiased representation of population of interest and the same information is collected from every respondent. Survey research is suited to collect data in a large population (Babbie, 2002). Specifically, this survey was carried out just once by using a questionnaire as the research instrument.

Based on the Education Management Information System (EMIS) Portal of Ministry of Education Malaysia, in 2009, there were approximately 386,031 teachers all over Malaysia and approximately 3501 of them are secondary school

teachers who teach in Kuching division. Among these teachers, approximately 570, which is 16.28% of them are novice teachers who have five years or less of teaching experiences. Thus, the target population of this study was these 570 novice teachers who are teaching in secondary schools in Kuching. Simple random sampling was used to select ten out of the 40 secondary schools in Kuching Division. Then, all the novice teachers in these ten schools were selected as the respondents of the study. However, only 85 novice teachers in these ten schools completed the questionnaires, constituting the sample of the study. Female respondents made up 74.1% of the respondents compared to 25.9% male respondents. The respondents were all new teachers who generally aged between 24-30 years old with at least a bachelor's degree qualification.

3.2 Research Instrument

The research instrument used in this study was a questionnaire, which was adapted from Berg and Yonnie (2008). This questionnaire consisted of four sections. The first section was to investigate the respondents' basic demographic information. The second and third sections of the questionnaire measured their level of engagement in informal learning activities, types of informal learning activities involved and the individual and organizational factors affecting their informal learning activities. The final section referred to organizational cultures and consisted of the first 13 individual learning culture questions of the Dimensions of the Learning Organization Questionnaire (DLOQ) (Marsick & Watkins, 2003). The response format for all the items was based on a 7-point-Likert Scale ranging from "1" to "7". In Section 2 and 4, "1" represented "almost never" and "7" represented "almost always". However, "1" represented "not at all" and "7" represented "very much" in Section 3. The Likert Scale was based on the assumption that the overall score on the responses to these items would reasonably reflect the variables under consideration (Babbie, 1990). The research questionnaire is appended in Appendix 1.

A pilot test was carried out with 30 novice teachers teaching in two secondary schools in Kuching. They were not involved in the actual study. The pilot study was conducted to determine the reliability of the questionnaire. The reliability of the questionnaire was analyzed using the Cronbach Alpha coefficient to measure the consistency of the research instrument and it was proposed that the alpha

values should be at least 0.70 for research purposes (Frankel & Wallen, 1993). The pilot study showed that the reliability of the questionnaire used was acceptable with overall $\alpha = 0.889$.

4.0 RESULTS

4.1 Reliability Analysis

The reliability analysis was conducted for Section II, III and IV of the questionnaire based on a pilot study of 30 novice teachers from two secondary schools in Kuching who were not involved in the actual study. Besides, the reliability analysis was also conducted for Section II, III and IV of the questionnaire based on the actual study of 85 novice teachers from ten secondary schools in Kuching division. The results are presented in Table 1.

Table 1 Reliability analyses results of the questionnaire

	Cronbach's Alpha Coefficient, α	
	Pilot Study	Actual Study
Overall (Section II, III and IV)	0.889	0.924
Section II Type of Informal Learning Activities	0.710	0.807
Section III Factors Affecting Informal Learning	0.791	0.870
Section IV Organizational Culture in School	0.926	0.930

Based on Table 1, the Cronbach's Alpha Coefficients of the pilot study for the three sections ranged from 0.710 to 0.926. The Cronbach's Alpha Coefficients of the actual study for the three sections ranged from 0.807 to 0.930. The Cronbach's Alpha Coefficients were more than 0.7 which were of acceptable levels. Likewise, the overall questionnaire Cronbach's Alpha Coefficients was 0.924 which was considered as at a good reliability level.

4.2 Types of Informal Learning Activities

Section II of the questionnaire measured the types of informal learning activities that the novice teachers engaged in at work. Table 2 shows the frequencies, percentages, means, and standard deviations of the nine activities studied in this research.

Generally, the novice teachers felt that they learnt most frequently from their own trial and error (Mean = 5.67, Std. dev. = 0.981). They also learnt through reflecting on their previous knowledge and actions (Mean = 5.52, Std. dev. = 1.076). They were also learning through talking with others at work face-to-face (Mean = 5.48, Std. dev. = 1.130). Furthermore, they found that observing others (Mean = 5.27, Std. dev. = 1.418) and searching the web or Internet (Mean = 5.22, Std. dev. = 1.248) also helped in their informal learning. In addition, they also read professional magazines and journals to update themselves (Mean = 4.42, Std. dev. = 1.285). However, they seldom engaged in interacting with other people at work via email (Mean = 3.67, Std. dev. = 1.621) and attending training program by themselves (Mean = 3.41, Std. dev. = 1.761). In addition to the nine activities, a few respondents also stated that they learnt through sharing with their spouses to solve problem (n = 1, 1.2%), learning from their own superior (n = 1, 1.2%), and discussing with friends or former university course mates (n = 1, 1.2%).

4.3 Level of Novice Teachers' Engagement in Informal Workplace Learning Activities

Based on the results shown in Table 2, the novice teachers' engagement in informal workplace learning activities was at the moderate level (Overall Mean = 4.85, Std. dev. = 0.841).

Table 2 Responses of types of informal learning activities

Type of Activities	Responses							Mean	Std.dev
	1	2	3	4	5	6	7		
Reflect on my previous knowledge and actions.	0 (0.0%)	1 (1.2%)	0 (0.0%)	14 (16.5%)	27 (31.8%)	25 (29.4%)	18 (21.2%)	5.52	1.076
Learn from my own trial and error.	0 (0.0%)	0 (0.0%)	2 (2.4%)	10 (11.8%)	17 (20.0%)	41 (48.2%)	15 (17.6%)	5.67	0.981
Observe others.	1 (1.2%)	4 (4.7%)	5 (5.9%)	9 (10.6%)	26 (30.6%)	22 (25.9%)	18 (21.2%)	5.27	1.418
Search the web/Internet.	0 (0.0%)	3 (3.5%)	3 (3.5%)	17 (20.0%)	25 (29.4%)	23 (27.1%)	14 (16.5%)	5.22	1.248
Read professional magazines and/or journals.	0 (0.0%)	5 (5.9%)	19 (22.4%)	18 (21.2%)	24 (28.2%)	16 (18.8%)	3 (3.5%)	4.42	1.285
Talk with other people at work face to face.	0 (0.0%)	1 (1.2%)	2 (2.4%)	16 (18.8%)	17 (20.0%)	34 (40.0%)	15 (17.6%)	5.48	1.130
Interact with other people at work via email.	11 (12.9%)	11 (12.9%)	14 (16.5%)	21 (24.7%)	18 (21.2%)	7 (8.2%)	3 (3.5%)	3.67	1.621
Ask questions in professional purposes.	2 (2.4%)	0 (0.0%)	10 (11.8%)	18 (21.2%)	21 (24.7%)	24 (28.2%)	10 (11.8%)	4.98	1.354
Attend a training program by yourselves.	16 (18.8%)	12 (14.1%)	18 (21.2%)	14 (16.5%)	15 (17.6%)	5 (5.9%)	5 (5.9%)	3.41	1.761
Overall								4.85	0.841

Note. 1= Never, 7= Always, Std. dev = Standard Deviation

4.4 Individual Factors Affecting Informal Workplace Learning Engagement

Section III of the questionnaire measured the factors affecting informal workplace learning engagement among novice teachers. Items 1, 2, 6, 7, 8 and 10 were designed to study individual factors affecting informal workplace learning engagement among novice teachers. Table 3 shows the means, standard deviations, frequencies and percentages of the six individual factors studied in this research.

Table 3 Responses of individual factors affecting informal workplace learning

Individual Factors	Responses							Mean	Std. Dev.
	1	2	3	4	5	6	7		
Physical proximity to your colleagues.	1 (1.2%)	1 (1.2%)	4 (4.7%)	27 (31.8%)	32 (37.6%)	15 (17.6%)	5 (5.9%)	4.80	1.089
Relationship with your colleagues.	0 (0.0%)	1 (1.2%)	0 (0.0%)	10 (11.8%)	28 (32.9%)	32 (37.6%)	14 (16.5%)	5.55	0.982
Your personality type.	1 (1.2%)	0 (0.0%)	0 (0.0%)	15 (17.6%)	27 (31.8%)	33 (38.8%)	9 (10.6%)	5.38	1.023
Your job satisfaction.	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (11.8%)	24 (28.2%)	37 (43.5%)	14 (16.5%)	5.65	0.896
Your interest in the current professional field.	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (12.9%)	25 (29.4%)	29 (34.1%)	20 (23.5%)	5.68	0.979
Self-evaluation on your professional capabilities	1 (1.2%)	0 (0.0%)	0 (0.0%)	8 (9.4%)	40 (47.1%)	25 (29.4%)	11 (12.9%)	5.41	0.967
Overall								5.41	0.989

Note. 1= Not at all, 7= Very Much, Std. dev = Standard Deviation

In general, the teachers felt that their interest in the current professional field (Mean = 5.68, Std. dev. = 0.979) was the most important individual factor that might affect their informal learning at workplace. In particular, in involving themselves in informal learning, they were highly influenced by their own job satisfaction (Mean = 5.65, Std. dev. = 0.896). They perceived their informal learning as having influence by their relationship with their colleagues (Mean = 5.55, Std. dev. = 0.982), self evaluation on their professional capabilities (Mean = 5.41, Std. dev. = 0.967), and their personality type (Mean = 5.38, Std. dev. = 1.023). However, they felt that they were less influenced by physical proximity to their colleagues (Mean = 4.80, Std. dev. = 1.089).

4.5 Organizational Factors Affecting Informal Workplace Learning Engagement

Items 3, 4, 5, and 9 of Section III of the questionnaire measured the organizational factors affecting informal workplace learning engagement among novice teachers. Table 4 shows the means, standard deviations, frequencies and percentages of the four organizational factors studied in this research.

The respondents listed their job environment (Mean = 5.66, Std. dev. = 0.970) as the most important organizational factor that might affect their informal learning at workplace. They also perceived the type of their job as influencing their informal learning (Mean = 5.64, Std. dev. = 0.974). They believed that their level of informal learning were also affected by their access to computer technology (Mean = 5.29, Std. dev. = 1.163). However, they felt that their learning were less affected by monetary rewards given by their organizations for good performance (Mean = 4.82, Std. dev. = 1.347). In addition to the ten individual and organizational factors, some respondents also believed that their workplace informal learning engagement was affected by their family support (n = 1, 1.2%), individual financial level (n = 1, 1.2%), school management (n = 1, 1.2%), and students' behaviours and engagement in learning (n = 1, 1.2%).

Table 4 Responses of organizational factors affecting informal workplace learning

Organizational Factors	Responses							Mean	Std. dev
	1	2	3	4	5	6	7		
Your access to computer technology.	0 (0.0%)	1 (1.2%)	5 (5.9%)	16 (18.8%)	20 (23.5%)	32 (37.6%)	11 (12.9%)	5.29	1.163
Your work environment.	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (14.1%)	23 (27.1%)	32 (37.6%)	18 (21.2%)	5.66	0.970
Monetary rewards given for good performance.	2 (2.4%)	3 (3.5%)	7 (8.2%)	18 (21.2%)	29 (34.1%)	18 (21.2%)	8 (9.4%)	4.82	1.347
The type of your job itself.	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (12.9%)	28 (32.9%)	27 (31.8%)	19 (22.4%)	5.64	0.974
Overall								5.35	1.114

Note. 1= Not at all, 7= Very Much, Std. dev = Standard Deviation

4.6 Relationship between Level of Informal Learning Engagement and Organization Culture

Kolmogorov-Smirnov test of normality showed that the collected data for level of informal learning engagement (Kolmogorov-Smirnov Statistics = 0.058, $p = 0.200$) and organization culture (Kolmogorov-Smirnov Statistics = 0.078, $p = 0.200$) are normally distributed. Therefore, Pearson Moment Correlation Analysis was carried out to determine the relationship between level of novice teachers' informal learning engagement and organization culture. The strength of relationship between level of informal learning engagement among novice teachers and organizational culture were determined based on Frankel and Wallen's (1993)

criteria. The results of the analysis showed that the null hypothesis was rejected ($r=0.522$, $p<0.0005$). Thus, according to the criteria suggested by Gall, Gall, and Borg (2006), there was a moderately strong positive relationship between organization culture and the level of informal learning engagement among novice teachers. If the organization’s learning culture was high, the level of workplace informal learning engagement among novice teachers would also be high.

4.7 Informal Workplace Learning’s Culture

Section IV of the questionnaire measured the school culture and participation in informal learning. Table 5 shows the means, standard deviations, frequencies and percentages of the informal learning culture’s elements studied in this research.

Table 5 Responses of informal workplace learning’s culture

School Culture	Responses							Mean	Std. Dev.
	1	2	3	4	5	6	7		
People openly discuss mistakes.	0 (0.0%)	8 (9.4%)	13 (15.3%)	21 (24.7%)	26 (30.6%)	11 (12.9%)	6 (7.1%)	4.44	1.349
People identify skills for future work tasks.	0 (0.0%)	6 (7.1%)	9 (10.6%)	24 (28.2%)	26 (30.6%)	16 (18.8%)	4 (4.7%)	4.58	1.248
People help each other learn.	0 (0.0%)	1 (1.2%)	7 (8.2%)	11 (12.9%)	26 (30.6%)	31 (36.5%)	9 (10.6%)	5.25	1.143
People can get money and resources to learn.	5 (5.9%)	12 (14.1%)	18 (21.2%)	25 (29.4%)	15 (17.6%)	7 (8.2%)	3 (3.5%)	3.78	1.451

Continued Table 5

School Culture	Responses							Mean	Std. dev
	1	2	3	4	5	6	7		
People are given time for learning.	0 (0.0%)	5 (5.9%)	12 (14.1%)	23 (27.1%)	29 (34.1%)	15 (17.6%)	1 (1.2%)	4.47	1.150
People view problems as opportunity to learn.	0 (0.0%)	3 (3.5%)	7 (8.2%)	30 (35.3%)	28 (32.9%)	12 (14.1%)	5 (5.9%)	4.64	1.121
People are rewarded for learning.	4 (4.7%)	15 (17.6%)	12 (14.1%)	29 (34.1%)	13 (15.3%)	8 (9.4%)	4 (4.7%)	3.85	1.492
People give open and honest feedback to each other.	3 (3.5%)	4 (4.7%)	13 (15.3%)	17 (20.0%)	33 (38.8%)	12 (14.1%)	3 (3.5%)	4.42	1.331
People listen to others' view before speaking.	2 (2.4%)	8 (9.4%)	13 (15.3%)	23 (27.1%)	22 (25.9%)	15 (17.6%)	2 (2.4%)	4.27	1.366
People are encouraged to ask questions.	2 (2.4%)	3 (3.5%)	13 (15.3%)	19 (22.4%)	22 (25.9%)	21 (24.7%)	5 (5.9%)	4.64	1.379
People ask what others think before they state their view.	3 (3.5%)	3 (3.5%)	8 (9.4%)	25 (29.4%)	24 (28.2%)	16 (18.8%)	6 (7.1%)	4.60	1.373
People treat each other with respect.	0 (0.0%)	0 (0.0%)	12 (14.1%)	13 (15.3%)	28 (32.9%)	23 (27.1%)	9 (10.6%)	5.05	1.194
People spend time build trust with each other.	0 (0.0%)	2 (2.4%)	9 (10.6%)	23 (27.1%)	27 (31.8%)	17 (20.0%)	7 (8.2%)	4.81	1.190
Overall								4.52	0.955

Note. 1= Not at all, 7= Very Much, Std. dev = Standard Deviation

Generally, the novice teachers felt that learning culture existed in their organization (Overall Mean= 4.52, Std. dev= 0.955). In particular, the respondents felt that people in their organization always help each other learn (Mean = 5.25, Std. dev. = 1.143) and treat each other with respect (Mean = 5.05, Std. dev. = 1.194). In addition, the teachers also believed that their colleagues spent time building trust with each other (Mean = 4.81, Std. dev. = 1.190), viewed problems in their work as opportunities to learn (Mean = 4.64, Std. dev. = 1.121) and were encouraged to ask questions (Mean = 4.64, Std. dev. = 1.379). In their schools, people asked what others thought before they stated their views (Mean = 4.60, Std. dev. = 1.373) and always identified skills they required for future work tasks (Mean = 4.58, Std. dev. = 1.248).

The teachers' responses also showed that their team members were given time for learning (Mean = 4.47, Std. dev. = 1.150) and always discussed mistakes openly in order to learn from each other (Mean = 4.44, Std. dev. = 1.349). Furthermore, staffs in schools also continuously gave open and honest feedback to each other (Mean = 4.42, Std. dev. = 1.331) and consistently listened to others' views before speaking (Mean = 4.27, Std. dev. = 1.366). However, there was a lack of reward for learning in their organization (Mean = 3.85, Std. dev. = 1.492) and staff was not able to get monetary support or obtained other resources to support their learning in their workplace (Mean = 3.78, Std. dev. = 1.451).

4.7 Differences in the Level of Novice Teachers Engagement in Informal Learning Activities based on Gender.

Independent t-test was carried out to determine the differences in the level of novice teachers' engagement in informal learning activities based on gender. The results were shown in Table 6 indicating that the null hypothesis was not rejected ($t= 1.173$, $p=0.244$). Therefore, there was no significant difference between males and females novice teachers in the levels of engagement in workplace informal learning.

Table 6 Differences in the level of novice teachers' engagement in informal learning activities based on gender

Gender	n	Mean	Std Dev	t	df	p-value
Male	22	5.03	0.89	1.173	83	0.244
Female	63	4.79	0.82			

Note. $p > 0.05$

5.0 DISCUSSIONS AND CONCLUSIONS

The findings indicated that novice teachers learnt most frequently from their own trial and error. Particularly, they learnt through reflecting their previous knowledge and actions. Besides, they were also involved very much in talking with others at work face-to-face. Availability of good mentors is another important aspect of informal learning in schools as novice teachers tend to learn by observing their peers. With ICT becoming more pervasive in schools, the Internet is also becoming an important knowledge source for informal learning among novice teachers. The results of this study supported the findings from Lohman and Woolf (2001) who found that teachers engaged in knowledge exchanging activities, in which teachers shared and reflected on self and other's practices and experiences. The model constructed by Van Woerkom, Nijhof, and Nieuwenhuis (2002) proposed eight workplace informal learning activities associated with critical reflective behavior. The eight activities are reflection on oneself in relation to the job; learning from mistakes; vision sharing; challenging group thinking; asking for feedback; experimentation; sharing knowledge; and awareness of employability. Nevertheless, Lohman (2006) proposed eight informal learning activities to learn new things at work, including talking with others; collaborating with others; observing others; sharing materials and resources with others; searching the internet; scanning professional magazines and journals; trial and error; and reflecting on your actions. According to Lohman (2006), teachers showed greater involvement in interactive informal activities such as talking to others due to the sociable nature of teachers.

Overall, the level of novice teachers' engagement in informal workplace learning activities was moderate. Therefore, the opportunities and occurrences to informal learning should further be enhanced as Eraut (2004) and Williams (2003) have pointed at the importance of informal experiences in understanding

how teachers learn. Williams (2003) also found that informal activities were the most highly valued induction activity by newly qualified teachers. More efforts to encourage informal learning among novice teachers in school should be encouraged to enhance the quality of teaching and learning in schools (Lohman, 2006).

In general, the findings indicated that the respondents' interest in the current professional field was the most important individual factor that might affect their informal learning at workplace. In particular, they were highly influenced by their own job satisfaction and their relationship with their colleagues. This was followed by self evaluation on their professional capabilities, their personality type and physical proximity to their colleagues. These findings were similar with those reported by Van Eekelen *et al.* (2006). They concluded that informal learning is very much dependant on the employees' own initiatives. Kwakman (2003) also reported that informal workplace learning was affected by four personal characteristics which are professional attitudes, appraisals of feasibility of learning activities, appraisals of the meaningfulness of learning activities, and loss of personal accomplishment.

The findings also showed that job environment was the most important organizational factor that might affect their informal learning at workplace. In addition, their learning was also influenced by the type of their job itself, their access to computer technology, and monetary rewards given by their organizations for good performance. Similar results were reported by Ashton (2004) who discovered that access and availability of relevant information, opportunities to learn and to apply learned skills and support and feedback of managers seemed to be conditions that impacted the possibilities of informal learning.

Overall, the novice teachers felt that learning culture existed in their organization. In particular, the respondents felt that teachers in their schools always helped each other to learn and treated each other with respect. Furthermore, the findings showed that there was a moderate positive relationship between school culture and the level of informal learning engagement among novice teachers. If the school's learning culture is high, the level of workplace informal learning engagement among novice teachers would be slightly higher, as well. This was similar with findings from Arnell (2002) which pointed out that workplace culture and learning opportunities were intrinsically linked. Findings from Suhardini (2005) also indicated that there were positively significant relationships between organizational culture and workplace learning.

Past studies such as Livingstone (2001) and Berg and Yonnie (2008) reported that teachers' informal learning engagement did not seem to differ based on gender characteristics. The results of the present study supported these findings, as there were no significant differences between male and female novice teachers' level of workplace informal learning engagement.

6.0 Implications of the Study

Generally, this study showed that novice teachers in Kuching Division were moderately involved in workplace informal learning. Therefore, more efforts need to be carried out to increase teachers' awareness on informal learning in their teaching profession. In particular, school management should ensure a better school culture in supporting informal learning by improving the resources, rewards and environment for informal learning activities. Novice teachers, on the other hand, should inculcate within themselves the desire to continuously improve themselves as learning does not stop with the completion of their formal pre-service teachers training program. Life-long learning is an important component of novice teachers continuous professional development.

This study contributed to the limited literatures on informal workplace learning, especially with respect to teachers and informal learning in Malaysia. This study could also be one of the literature of references for HRD practitioners who are interested to study on informal workplace learning. Overall, this study confirmed that there was a relationship between organization culture and the level of informal learning engagement among novice teachers. Thus, school management should facilitate informal learning by creating a continuous school learning culture. Informal learning activities that were reported to be most frequently engaged in by novice teachers in this study such as trial and error, reflection from their previous knowledge and actions and sharing with others at work face to face should be encouraged in school.

This study also contributed to the practice on how schools could encourage and provide a conducive learning environment for informal workplace learning among teachers. The results from this study reported that teachers' interest in the current professional field and job environment were the factors that influenced them most in informal learning. Therefore, school management should encourage

teachers' interest in the current professional field and cultivate continuous learning job environment in the school environment.

7.0 Recommendations for Future Research

Future research could take into consideration the following suggestions. Firstly, future research should include primary schools, smart schools and boarding schools with different school cultures to differentiate between different types of schools. In addition, the location of schools should also be extended to rural and semi-urban areas which have different school environments. Furthermore, qualitative techniques should also be used to collect the data by using interviews and observations methods to illuminate the numerical findings and to increase the validity of the data collected. The study could also be conducted in a controlled or experimental condition in future by involving larger sample size to increase the reliability of the findings. Lastly, other dimensions of individual and organizational factors that could influence the informal workplace learning among novice teachers, such as teachers' additional responsibilities, educational changes and organizational behaviour should also be investigated in future. In addition, other activities that could help in novice teachers' informal learning should also be investigated.

REFERENCES

- [1] Arnell, S. A. 2002. Workplace Learning in an Aged Care Environment. *E journal of Research in Workplace*. Retrieved January 10, 2010, from <http://www.une.edu.au/sat/pdf/AgedCare.pdf>.
- [2] Ashton, D. N. 2004. The Impact of Organisational Structure and Practices on Learning in the Workplace. *International Journal of Training and Development*. 8(1): 43-53.
- [3] Babbie, E. 2002. *Survey Research Methods*. 3rd Edition. California: Wadsworth Publishing Company.
- [4] Berg, S. A., & Yonnie, C. 2008. Factors that Influence Informal Learning in the Workplace. *Journal of Workplace Learning*. 20(4): 229-244.
- [5] Cross, J., 2007. *Informal Learning: Rediscovering the Natural Pathways that Inspire Innovation and Performance*. San Francisco: Pfeiffer.
- [6] Cullen, J., Batterbury, S., Forresti, M., Lyons, C., & Stern, E. 2000. *Informal Learning and Widening Participation*. Nottingham: DfEE.

- [7] Doombos, A. J., Bolhuis, S., & Simon, P. R. 2004. Modelling Work-Related Learning on the Basis of Intentionality and Development Relatedness: A Noneducational Perspective. *Human Resource Development Review*. 3(3): 250-274.
- [8] Doyle, W., & Young, J. 2003. *Small Business Owners: Barriers to and Facilitators of Their Workplace Learning*. Victoria: Canadian Council on Small Business and Entrepreneurship.
- [9] Eraut, M. 2004. Informal Learning in the Workplace. *Studies in Continuing Education*. 26(2): 247-273.
- [10] Frankel, J. R., & Wallen, N. E. 1993. *How to Design and Evaluate Research in Education*. New York: McGraw-Hill Inc.
- [11] Fullan, M., & Hargreaves, A. 1996. *What's Worth Fighting for in Your School*. New York: Teachers College Press.
- [12] Gall, M. D., Gall, J. P., & Borg, W. R. Borg. 2006. *Educational Research: An Introduction*. Boston: Allyn Bacon
- [13] Gola, G. 2009. Informal Learning of Social Workers: A Method of Narrative Inquiry. *Journal of Workplace Learning*. 21(4): 334-346.
- [14] Grossman, P., Wineburg, S., & Woolworth, S. 2001. Toward The Theory of Teacher Community. *Teacher College Record*. 103: 942-1012.
- [15] Hong, K. S., Liau, T. L., Law, L., & Abang Ekhsan Abang Othman. 2007. *Rethinking Teacher Education: A Compilation of Papers*. Kuching, Sarawak: PROFES.
- [16] Honold, L. 2000. *Developing Employees Who Love to Learn*. 1st Edition. Palo Alto, CA: Davies-Black Publishing.
- [17] Johnson, S. M., & Birkeland, S. E. 2003. The Schools That Teachers Choose. *Educational Leadership*. 60(8): 20-24.
- [18] Krauss, S. E., & Khaw, A. G. 2008. An Exploration of Factors Influencing Workplace Learning Among Novice Teachers In Malaysia. *Human Resource Development International*. 11(4): 417-426.
- [19] Kremer, A. L. 2005. *Predictors of Participation in Formal and Informal Workplace Learning: Demographic, Situational, and Motivational Factors*. Unpublished Doctoral Dissertation, George Mason University, Virginia.
- [20] Kwakman, K. 2003. Factors Affecting Teachers' Participation in Professional Learning Activities. *Teaching and Teacher Education*. 19(2): 149-170.
- [21] Lans, T., Wesselink, R., Biemans, H. J. A., & Mulder, M. 2004. Work-related Lifelong Learning For Entrepreneurs in the Agri-Food Sector. *International Journal of Training and Development*. 8(1): 72-88.
- [22] Lassey, P. 1998. *Developing A Learning Organization*. London: Kogan Page Limited.
- [23] Livingstone, D. W. 2000. Exploring the Icebergs of Adult Learning: Findings of the First Canadian Survey of Informal Learning Practices. *The Canadian Journal for the Study of Adult Education*. 13(2): 49-72.
- [24] Livingstone, D. W. 2001. *Working And Learning in the Informational Age: A Profile of Canadian*. Ottawa: Canadian Policy Research Networks.
- [25] Livingstone, D. W., & Sawchuk, P. H. 2005. Hidden knowledge: Working-Class Capacity in the Knowledge-Based Economy. *Studies in the Education of Adults*. 37(2): 110-22.
- [26] 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.
- [27] Lohman, M. C. 2006. Factors Affecting Teachers' Engagement in Informal Learning Activities. *Journal of Workplace Learning*. 18(3): 141-156.

- [28] Lohman, M. C., & Woolf, N. H. 2001. Self-initiated Learning Activities of Experienced Public School Teachers. *Teachers and Teaching: Theory and Practice*. 7(1): 61-76.
- [29] Marsick, V. J., & Watkins, K. E. 2003. Demonstrating the Value of an Organization's Learning Culture: The Dimensions of Learning Organizations Questionnaire. *Advances in Developing Human Resources*. 5: 132-151.
- [30] Park, J. H., & Wentling, T. 2007. Factors Associated with Transfer of Training in Workplace e-learning. *Journal of Workplace Learning*. 19(5): 311-329.
- [31] Penn, D.W., Abg'wa, W., Forster, R., Heydon, G. and Richardson, S. J. 1998. Learning in Smaller Organizations. *The Learning Organization*. 5(3): 128-37.
- [32] Suhardini, D. 2005. *The Relationship Between Organizational Culture, Organizational Learning Capability and Organizational Effectiveness in Higher Educational Institutions in Indonesia*. Unpublished Doctoral Dissertation. Universiti Utara Malaysia, Perlis, Malaysia.
- [33] Syed Azizi Wafa, Ramayah, T., & Tan. M. Y. 2001. Malaysian Teacher: A Study of the Factors Associated with Work Attitudes. *Jurnal Manajemen & Bisnis*. 3(3): 219-234.
- [34] Tenth Malaysian Plan. 2010. *Chapter 5: Developing and Retaining A First World Talent Base*. Putrajaya, Malaysia: Economic Planning Unit.
- [35] Tikkanen, T. 2002. Learning at Work in Technology Intensive Environments. *Journal of Workplace Learning*. 14(3): 89-97.
- [36] Van Eekelen, I. M., Vermunt, J. D., & Boshuizen, H. P. A. 2006. Exploring Teachers' will to Learn. *Teaching and Teacher Education*. 22(2): 408-423.
- [37] Van Woerkom, M., Nijhof, W. J., & Nieuwenhuis, L. F. M. 2002. Critical Reflective Working Behaviour: A Survey Research. *Journal of European Industrial Training*. 26(8): 375-383.
- [38] Williams, A. 2003. Informal Learning in the Workplace: A Case Study of New Teachers. *Educational Studies*. 29(2/3): 207-19.
- [39] Yaacob Wan Ibrahim. 2007. *Malaysian Education System at Crossroad the Way Forward*. Paper presented at The 11th Malaysian Education Summit (Kuala Lumpur, 16th -17th April, 2007).

Appendix: Survey Questionnaire

Section I: Demography

Please indicate your response with a tick (√) in the box provided.

1. Gender: Male Female

Section II: Informal Learning Activities in Workplace

How frequently do you use the following activities when you need to learn something new at work?
Please circle the appropriate answers using the given scale below. Please respond to all the statements.

(Never 1 2 3 4 5 6 7 Always)

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 1. Reflect on my previous knowledge and actions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Learn from my own trial and error. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Observe others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Search the web/ Internet. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Read professional magazines and/or journals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Talk with other people at work face to face. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Interact with other people at work via email. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Ask questions in professional purposes. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Attend a training program by yourselves | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Other methods (Please identify) _____ | | | | | | | |

Section III: Factors Affecting Informal Learning Engagement in Workplace.

How much do you think the following factors affect the degree of your engagement in informal learning? Please circle the rating most indicate your interpretation and feeling based on the scale below. Please respond to all the statements.

(Not at all 1 2 3 4 5 6 7 Very much)

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. Physical proximity to your colleagues. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Relationship with your colleagues. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Your access to computer technology. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Your work environment. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Monetary rewards given for good performance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Your personality type. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Your job satisfaction. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Your interest in the current professional field. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. The type of your job itself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Self-evaluation on your professional capabilities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Other factors (Please identify) _____ | | | | | | | |

Section IV: School Culture and Participation in Informal Learning.

Below are statements regarding your school culture. Please circle the rating based on what is reflected by your school based on the scale below. Please respond to all the statements.

(Almost Never 1 2 3 4 5 6 Almost Always)

1. In my school, people openly discuss mistakes in order to learn from each others.
1 2 3 4 5 6 7
2. In my school, people identify skills they need for future work tasks.
1 2 3 4 5 6 7
3. In my school, people help each other learn.
1 2 3 4 5 6 7
4. In my school, people can get money and other resources to support their learning.
1 2 3 4 5 6 7
5. In my school, people are given time to support learning.
1 2 3 4 5 6 7
6. In my school, people view problems in their work as an opportunity to learn.
1 2 3 4 5 6 7
7. In my school, people are rewarded for learning.
1 2 3 4 5 6 7
8. In my school, people give open and honest feedback to each other.
1 2 3 4 5 6 7
9. In my school, people listen to others' views before speaking.
1 2 3 4 5 6 7
10. In my school, people are encouraged to ask questions.
1 2 3 4 5 6 7
11. In my school, whenever people state their view, they also ask what others think.
1 2 3 4 5 6 7
12. In my school, people treat each other with respect.
1 2 3 4 5 6 7
13. In my school, people spend time building trust with each other.
1 2 3 4 5 6 7