THE EFFECT OF JOINT AUDIT ON AUDIT QUALITY: EMPIRICAL EVIDENCE FROM COMPANIES LISTED ON THE EGYPTIAN STOCK EXCHANGE

Mahmoud Ghanem Mahmoud *
Alexandria University, Egypt

Abd El Wahab Nasr Ali **
Alexandria University, Egypt

Hebatallah Abd El Salam Badawy ***
Alexandria University, Egypt

ABSTRACT

The purpose of this paper is to investigate the effect of joint audit on earnings conservatism, our proxy for audit quality, of companies listed on the Egyptian stock exchange, by examining whether companies audited by two independent auditors are more conservative than companies audited by a single auditor. In addition, we investigate whether this relationship is affected by the type of joint audit regimes (i.e., voluntary versus mandatory), and the mix of joint auditors appointed (i.e., two big 4 auditors, or two non-big 4 auditors, or one Big 4 auditor paired with one non-big 4 auditor). To test our hypotheses, we use a sample of 32 companies listed on the Egyptian stock exchange during the period 2009 through 2013. The results of our multiple regression analyses show that companies audited by joint auditors are more conservative than companies audited by single auditors. However, we find no significant difference in levels of earnings conservatism between companies audited by joint auditors mandatorily and companies audited by joint auditors voluntarily. We also find no significant difference in levels of earnings conservatism between companies audited by two big4 auditors and companies audited by two non-big4 auditors, or by one big4 auditor paired with one non-big4 auditor.

JEL Classifications: M410, M420

Keywords: Joint Audit, Audit Quality, Earnings Conservatism, Joint Audit Regimes, Mix of Joint Auditors.

PARENTAL EDUCATION BACKGROUND AND STUDY MATERIALS AS CORRELATES OF ACADEMIC PERFORMANCE OF SECONDARY STUDENTS IN ABIA STATE

BEATRICE OKORE OGBONNAYA

School of Vocational Education,
Abia State College of Education (Technical), Arochukwu,
Abia State

Email: Beatrice_okore@yahoo.com

ABSTRACT

This study investigated the difference between the academic performance of students from parents with high education background and students from parents with low education background. It also investigated the influence of having study materials at home on academic performance. The population for this study comprised of 3220 students from 220 public secondary schools students in Abia State. The sample consisted of 240 students from 6 selected schools using stratified random sampling technique. An instrument tagged "Academic Performance of Students' Questionnaire" (APSQ) was used for collection of data. Face and content validity instrument was obtained by giving it to 2 experts in measurement and evaluation. Test-retest technique was used to determine the reliability of the instrument and a reliability coefficient of 0.82 was established. Data collected were analysed by using t-test. The result revealed a significant difference between academic performance of students from parents with high educational background and students from parents with low educational background. A significant difference was also found between the academic performance of students having study materials at home and students with no study materials at home. From the results, the paper concluded that educational background of parents and having study materials at home have great influence on academic performance of students. The paper recommended among others that the government at all levels should establish and equip more adult education centres for the training of illiterate parents, and also that principals of schools should discuss the importance of learning materials with Parents-Teachers Association Meetings.

Keyword: ***Parents, Educational background, study materials, academic performance***.

THE EFFICACY OF EXPLICIT INSTRUCTION ON IMPLICIT AND EXPLICIT KNOWLEDGE OF ENGLISH ARTICLES

Faten A. Alarjani,

Lecturer, English translation, Princess Norah University,
Riyadh, Kingdom of Saudi Arabia,
E-mail: fatenalarjani@gmail.com

ABSTRACT

This study examined the extent to which second language (L2) learners of English acquire English articles in terms of implicit knowledge (IK) and explicit knowledge (EK). It investigated the effects of explicit instruction (EI) on IK and EK. The participants were divided into two groups where the experimental group (n=40) was explicitly instructed on the use of English articles, while the control group (n=35) received no EI. Four sessions on English articles were delivered to the experimental group through face to face classroom interaction. Four tests were implemented on both groups to measure article acquisition in terms of IK and EK: an elicited imitation task, timed and untimed grammar judgment tests, and a metalinguistic knowledge test. These tests were administered in the pretesting, immediate post-testing and delayed (three-weeks) post-testing stages. Results on all four tests revealed gains during the immediate post-test stage on both IK and EK. Furthermore, the experimental group continued to gain more IK four weeks after the intervention. The theoretical implication of these results suggests that EI facilitates development of L2 language knowledge of non-salient forms in terms of both IK and EK. Finally, the findings of this study contributed towards a better understanding of EK and IK of L2s. It also sheds light on the potential effectiveness of EI on the acquisition of English articles.

Keywords: explicit knowledge, implicit knowledge, explicit instruction.

INTRODUCTION

The limited success of second language acquisition (SLA) compared to first language acquisition in adults underlies the controversy surrounding the role of grammar instruction in second language (L2) learning (Krashen, 1981). In SLA, it is assumed that both implicit and explicit 'learning' are involved, resulting in a combination of implicit and explicit L2 'knowledge' (R. Ellis, 2009). SLA, however, is considered different from L1 acquisition in terms of explicit knowledge (N. Ellis, 2006, 2008). Implicit language knowledge (IK) is defined "as the intuitive and procedural knowledge that is normally accessed automatically in fluent performance and that cannot be verbalized" (Gutierrez, 2012, p. 21). Explicit language knowledge (EK) is defined "as the conscious and declarative knowledge of L2 that is accessed during controlled processing and that is potentially verbalized" (Bowles, 2011, p.284).

There are two contradicting views about the role of EK in developing IK in SLA. Some SLA researchers consider EK to have a facilitative role in developing IK, hypothesizing interface between IK and EK (e.g., N. Ellis, 2002, 2008; R. Ellis, 2002, 2009;), while others have been skeptical of the function of EK in developing IK, hypothesizing no-interface between IK and EK (e.g., Hulstjin, 2002; Krashen, 1985).

There is a lack of accurate evaluation of L2 acquisition in communicative language abilities, such as fluency, which is considered to be an indicator of IK (N. Ellis, 2008). Furthermore, he added that many of the studies evaluating SLA did not use measures of IK, but rather used measures of EK. Thus, the results of such studies cannot be generalized. Therefore, measurement issues have added to the controversy surrounding the effectiveness of EI (Hulstijn, 2005). Studies have begun to directly address the issue of

measurement of IK and EK (Akakura, 2009, 2012; Bowles, 2011; Erlam, 2006, R. Ellis, 2002-2009; Gutierrez, 2012) in spite of methodological difficulties. R. Ellis (2005) revolutionized the SLA field by operationalizing IK and EK and identifying the criteria for measuring each separately. In addition, Akakura (2012), Bowles (2011), and R. Ellis (2005) provided promising results in the design of valid tests and tasks that can measure IK and EK separately.

LITERATURE & THEORY

Linguistic knowledge is an "elaborate network of nodes and internode connections of varying strengths that dictate the ease with which specific sequences or rules can be accessed" (R. Ellis, 2005, p. 142). According to cognitive psychologists, linguistic knowledge (linguistic competence) is developed in a step-by-step fashion that implies language is learned like other activities are learned (Clark, 2010). They argue that learning is driven mainly from input. Thus, the way input is delivered to learners, whether explicitly through instruction or implicitly through language exposure, affects the way that knowledge is stored and processed in learners' minds (R. Ellis, 2005). This view of linguistic knowledge is the one adopted in this study and widely accepted by many SLA researchers such as Akakura (2009, 2012), Bowles (2011), Dekeyser (2009, 2011), R. Ellis (1998-2009), N. Ellis (1994, 2008), Gutiérrez (2011, 2012), and Zhang (2015), to name a few. They also agree that the purpose of language theory is to study how IK is acquired, since L2 linguistic knowledge consists of IK (R. Ellis, 2009). Furthermore, Rebuschat (2013) argued that for learners to use a language fluently and accurately they need to have IK of that language, thus, it is of great importance to develop IK within learners.

2.1. Distinction between implicit and explicit knowledge

L2 speakers have two distinct types of knowledge storage: IK and EK (Bowles, 2011; Dekeyser, 2011; N. Ellis, 2008; R. Ellis, 2009; Zhang, 2015). Implicit learning results in IK, which is tacit and inaccessible to conscious introspection, while explicit learning results in conscious EK (Rebuschat, 2013). R. Ellis (2009) identified seven criteria to 'differentiate' between IK and EK. The first criterion is that EK is conscious while IK is tacit and intuitive. Second, IK is procedural while EK is declarative. Third, learner procedural knowledge may well be similar to the target language or not; however, declarative rules are usually imprecise and inaccurate. Fourth, EK is accessed in controlled processing while IK is available through automatic processing. The fifth criterion is learners who have difficulty in performing a language task usually rely on EK. This is not the case with IK, which is used by learners as the default in L2 production. The sixth criterion is that IK manifests in verbal behavior whereas EK could be verbalized. The seventh criterion is the limitation of learner ability to acquire IK while most of EK is learnable.

2.2. Measurement of implicit and explicit knowledge

2.2.1. Operationalization of implicit and explicit knowledge

R. Ellis (2005, 2009) hypothesized the following seven criteria to 'operationalize' IK and EK. 'Degree of awareness' is the extent to which learners are aware of their own linguistic knowledge. It can be measured by asking the learners to report on what they rely on when answering by feel (implicit) or by rule (explicit). 'Time available' is a criterion that refers to whether the learner is pressured to perform a task within a time limit or not. Learners under time pressure do not have the opportunity to plan their response; thus, it measures their IK, while without time pressure it measures their EK. 'Focus of attention' involves focus on message creation in order to convey an idea or information, while accuracy entails focus on form. Thus, primary focus on meaning is an indicator of IK and primary focus on form is an indicator of EK. 'Systematicity' is a criterion concerned with whether the learners are consistent or variable in their responses to tasks. Hence, if learner responses are consistent, this measures IK; and if responses are variable, it measures EK. 'Utility of metalanguage' focuses on the relationship between metalanguage and EK, where learner knowledge of metalinguistic terms will be related to their analyzed knowledge. 'Certainty in response'

is a criterion concerned with how certain the learners are that the linguistic form they produced conforms to the target language rule. R. Ellis (2005) argued that learner EK has been shown to be irregular, while some learners will be more confident in their responses to tasks if they have drawn on their IK. Finally, 'learnability' of IK and EK varies by age of acquisition.

R. Ellis' (2005) study exploreed to what extent it is possible to differentiate between IK and EK on the basis of the behavioral measures hypothesized to distinguish between the two. The participants in this study were 111. The tests were designed to test learner knowledge of 17 English grammatical structures considered to be difficult by L2 users. The participants were examined by a set of five tests consisting of an oral imitation test, oral narrative test, timed grammaticality judgment test (TGJT), untimed grammaticality judgment test (UGJT), and a metalinguistic knowledge test (MKT). Test scores were analyzed using factor analysis to conclude whether there are two separate domains of L2 knowledge (implicit and explicit). The oral imitation test, the oral narrative test, and the TGJT required unplanned language usage under speeded conditions and loaded on one factor, IK. The UGJT and the MKT were expected to be representative of analyzed EK and loaded on another factor. The results of the tests confirmed that there is a possibility to measure IK and EK relatively separately by manipulating conditions to elicit one type of language knowledge over the other.

2.2.2. Measures of explicit knowledge

Grammar judgment tests (GJTs) and MKT are commonly used to measure EK. GJTs consist of grammatical and ungrammatical sentences where learners are asked to determine whether a sentence is well formed or deviant (R. Ellis, 1991). GJTs draw attention to form, thus tapping into EK, especially when there is no time limit. However, it is imprecise because it may be an indicator of both EK and IK (R. Ellis, 2005). Guiterrez (2013) argued that GJTs without any time constraints on learners' response, allows learners to engage in the three processes of semantic processing, noticing, and reflecting. Thus, learners will have more opportunity to access their EK (R. Ellis, 2004).

Measuring EK entails assessing both of its components: structural knowledge and metalinguistic knowledge. Therefore, to have a better measurement of EK researchers employed an assessment of metalinguistic knowledge, "which is that part of explicit knowledge able to be expressed in technical linguistic terminology" (Akakura, 2009, p.31). The common method to evaluate metalinguistic knowledge is through error correction and verbalizing the rules (Bowels, 2011). These tests focus on form, unlike GJTs where there is some focus on meaning. Nonetheless, there is a problem with this type of measurement because it only measures a part of EK and not EK as a whole (Akakura, 2009). For that reason, studies attempting to study EK usually employ MKT as well as GJTs (Akakura, 2012; Bowles, 2011; R. Ellis, 2004, 2005; Gutierrez, 2012). Hence, a MKT and UGJT were suggested when measuring EK. Also, no time pressure was used to ensure that participants used their EK.

2.2.3. Measures of implicit knowledge

Two types of testing are used to measure IK: receptive testing, such as TGJT (Akakura, 2009; R. Ellis, 2005; Gutierrez, 2012), and productive measures, such as oral interviews or free and elicited language production tasks (Akakura, 2009; Bowles, 2011; R. Ellis, 2005; Gutierrez, 2012).

As discussed above, GJTs are problematic for measuring IK because the task demands focus on form rather than meaning, and participants are likely to tap into their EK. R. Ellis (2004) argued that to ensure that the participant would not tap into EK a time limit should be implemented to stop participants from reflecting and to only process meaning when noticing the grammatical mistake. The reason was that reflecting likely required access to EK to verify sentence grammaticality (R. Ellis, 2004). Few studies used both timed and untimed versions of GJT (Bowles, 2011; R. Ellis, 2005; Gutierrez, 2012). These studies were interpreted as proof that UGJTs employed participants' EK while TGJTs employed participants' IK.

R. Ellis (1994) argued that IK was accessible by means of 'automatic processing' and it was evident in natural language production where it did not require time for monitoring. Thus, language users who were mainly focused on meaning and who had no or limited awareness of language forms would be accessing IK. Consequently, free language oral production tasks (e.g., describing pictures or oral interviews, etc...) are considered the most reliable measures of IK (Erlam, 2006, 2009; R. Ellis, 1994). Yet free production tasks have two important limitations, which are imposing time limit and that there is no guarantee that the participants would use the targeted structure (Erlam, 2003). Therefore, Akakura (2012), Bowles (2011), Erlam (2009), R. Ellis (2005, 2009), Zhang (2015) and others proposed and used elicited imitation tests to measure IK. Elicited imitation tests involve the repetition of spoken sentences, which are either grammatical or ungrammatical. Furthermore, Erlam (2009) hypothesized that participant acceptance and rejection of grammatical violations of spoken stimuli presented in real time would be an indication of their internalization of the target structure (i.e., having IK of a specific structure lead to better imitation of the stimulus).

Bowles (2011) and Zhang (2015) conducted two separate studies to validate the set of tests developed by R. Ellis (2005) to measure IK and EK separately. The participants in Bowles (2011) were L2 learners and heritage learners of Spanish while in Zhang (2015) study, they were Chinese first-year university students. Both studies concluded that their results point to the to the validity of the tests because the participants' results loaded on two separate factors, one representing EK and the other representing IK, thus, providing further evidence that these tests tapped into relatively two separate areas of knowledge.

Thus, where measuring IK is concerned, studies (Bowels, 2011; Erlam, 2006; R. Ellis, 2005; Zhang, 2015) implemented oral tests (imitation test, narration test, and spontaneous oral test) and TGJTs. Multiple measures of both IK and EK were considered necessary to avoid making erroneous inferences (VanPatten & Sanz, 1995), as pure measures of IK and EK are not possible.

RELATED WORKS

Akakura (2012) investigated the effectiveness of EI on L2 learners' IK and EK of English articles. The study was conducted on 115 participants who were L2 learners of English with a high level of proficiency. EI was delivered to the experimental group by computer for three hours in one week. The control group received no EI. A pretest and two posttests were conducted, immediate and delayed posttests (after 6 weeks). The elicited imitation task and the oral narration task were used to measure IK, while the UGJT and MKT were used to measure EK. The experimental group gained significantly in IK immediately after EI and on delayed post-testing, with increase in degree of significance. The significant delayed effect of instruction in the delayed post-test was at the $p = .000$ level, with large effect sizes. As for gains in EK, no significant effect of instruction between groups was observed for judgments of generic articles through the UGJT. Akakura (2012) concluded that EI could benefit implicit L2 knowledge as well as EK.

In summation, the discussed studies examined measures of IK and EK. Most of the studies attempted to develop valid and reliable measures of IK and EK separately. However, most of the studies were conducted on participants with high proficiency levels in the L2. Thus, their results cannot be generalized. Therefore, the proposed study explored the effect of EI on EK and IK of English articles and did so with low to mid-proficiency L2 learners.

METHODOLOGY

4.1. Research questions & Research hypotheses

The research questions addressed in the study were as follows:

1. Does EI affect the acquisition of EK of English articles?
2. Does EI affect the acquisition of IK of English articles?

The following hypotheses were posited on the bases of literature reviewed for the purposes of the study:

H1: EI would result in considerably higher scores on posttests (immediate and delayed) measuring EK (untimed GJT and metalinguistic knowledge test) in line with previous findings on effects of EI (Akakura, 2012; Bowels, 2011; R. Ellis, 2005; Gutierrez, 2012, 2013).

H2: EI would result in considerably higher scores on posttests (immediate and delayed) measuring IK (timed GJT and elicited imitation test) in line with findings from Akakura (2012).

*4.2. **Instruments***

Grammar Judgment Test (GJT): The study used TGJT and an UGJT as pretests and posttests (immediate and delayed) to measure IK and EK. On the TGJT, participants were given a limited time of five minutes to judge 10 underlined parts of the sentences for grammaticality, divided evenly into five grammatical and five ungrammatical sentences. The UGJT was given to participants without time limit to judge 10 underlined portions of sentences for grammaticality. The GJT items were adapted from Akakura (2012).

Metalinguistic Knowledge Test(MKT): This two-part test was adapted from Akakura (2012) to have a more reliable measure of EK. In the first part participants were asked to correct 10 sentences, each containing an article error that was underlined. In the second part, the rule-stating section, participants were required to provide written explanations for five ungrammatical articles.

Elicited Imitation Task: This is a semantic processing and sentence repetition accuracy task. The task was designed by Akakura (2012) and was used to measure IK. The task involved 14 true or false sentences in which 10 grammatical and 10 ungrammatical articles were tested. The participants were asked to listen to a story while looking at a series of 16 pictures that illustrated it. Participants were asked to describe the picture orally using all of the words provided under the picture. Akakura calculated Cronbach's alpha reliability for the pretest as 0.804.

Instructional Material: The study used a descriptive approach in the intervention stage to explain the English articles and how and why they are used. Participants assigned to the experimental group received an intervention that included EI for one hour every week for four weeks. In the one-hour intervention articles' forms and function were explicitly explained to participants through illustrative sentences and by stating the grammatical rule on the board using PowerPoint slides. Each lesson was concluded with a worksheet that had two exercises, and participants were given time to complete them. The first exercise required participants to fill in the gaps, while the second exercise asked participants to decide whether the underlined articles were correct. The instructor provided explicit feedback after each point, whether participant answers were correct or incorrect.

*4.3. **Participants***

The participants in this study were 75 female learners of English at a public university in Riyadh, Saudi Arabia. They were native speakers of Arabic between the ages of 19 and 25. They were randomly assigned to one of two course sections through the college registry system. One class was assigned to be the experimental group ($n = 40$); while the other class was assigned to be the control group ($n = 35$).

*4.3. **Procedure***

The study was conducted during the summer of 2014. All four tests (elicited imitation task, TGJT, UGJT, and MKT) were used at the pretest, immediate post-test, and delayed post-test stages. The control group did not receive any article instruction during the intervention stage and was tested only twice (pretest and the immediate post-test). The experimental group received explicit article instruction during the intervention stage (for one hour every week for four weeks). The experimental group was assessed three times around the intervention: pretest, immediate post-test, and delayed post-test. The written tests (TGJT, UGJT, MKT) took up one hour to complete. The oral test (the elicited imitation task) took up 15-18 minutes to

complete individually. The pretest was conducted one week before the intervention and the immediate posttest was conducted one week after the intervention, while the delayed posttest was conducted three weeks after the immediate posttest.

RESULTS

5.1. Effect of explicit instruction on explicit knowledge

The first research question asked: "*Does EI affect the acquisition of EK of English articles*?" The hypothesis stated that EI would result in higher scores on the immediate and delayed posttests in measures of EK in line with previous findings (Akakura, 2012; Bowels, 2011; R. Ellis, 2005; Gutierrez, 2012). Results of the UGJT and MKT supported the hypothesis.

5.1.1. Untimed grammar judgment test

Before the intervention, the control group scored higher (M = 5.6 out of 10) than the experimental group (M = 4.9 out of 10). After the intervention, the experimental group performed better on the immediate post-test (M= 7.0 out of 10). The experimental group continued to improve on the delayed post-test (M = 7.35 out of 10), which meant that they sustained knowledge three weeks after the intervention. The control group, however, performed slightly worse on the immediate post-test (M = 5.2 out of 10) than on the pretest.

Table 1 presents the mean scores and significance values of an independent *t*-test for the differences between the control group and the experimental group on the UGJT measuring EK. There was not a statistically significant difference between groups before the experiment (p = 0.079) on the pretest. There was, however, a statistically significant difference between the two groups on the immediate post-test (p = 0.00). This suggested that when participants were exposed to EI, their EK of the targeted structure increased significantly.

Table 1

Independent *t*-test for the untimed grammar judgment test

Test	Groups	Mean	*t*-value	Significant value
Pretest	Control group	5.6286	1.781	0.079
	Experimental group	4.9000		
Immediate post-test	Control group	5.2	-5.012	*0.00
	Experimental group	7.0		

*. The mean difference is significant at the 0.05 level

Table 2 presents a Tukey HSD test, additionally showing a significant difference between the pretest and the delayed post-test (p = 0.00), and revealing nonstatistic gains from immediate post-test to delayed post-test (p = 0.673).

Table 2

Tukey HSD results for the experimental group on the untimed grammar judgment test

(I) group	(J) group	Mean Difference (I-J)	*Std.* Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Pretest	Immediate	-2.10000-*	.41174	.000	-3.0774-	-1.1226-
	Delayed	-2.45000-*	.41174	.000	-3.4274-	-1.4726-
Immediate	Pretest	2.10000*	.41174	.000	1.1226	3.0774
	Delayed	-.35000-	.41174	.673	-1.3274-	.6274
Delayed	Pretest	2.45000*	.41174	.000	1.4726	3.4274
	Immediate	.35000	.41174	.673	-.6274-	1.3274

*The mean difference is significant at the 0.05 level.

5.1.2.*Metalinguistic knowledge test*

As indicated in the literature review, EK has two components: structural knowledge and metalinguistic knowledge (Akakura, 2009). Table 3 shows that participants in the control group (M = 4.4286 out of 15) performed better than participants in the experimental group (M = 3.125 out 15) before the intervention, with no statistical difference between the groups. After the intervention, the experimental group (M = 7.725 out of 15) outperformed the control group (M = 4.8286 out of 15) significantly (p = 0.00). The experimental group did not continue to improve on the delayed post-test (M = 7.38 out of 15), with a slight and non-significant difference (p= 0.313).

Table 3
Independent *t*-test for the metalinguistic knowledge test

Type of test	Group	Mean	*t*- value	Significant value
Pretest	Control group	4.4286	1.884	0.064
	Experimental group	3.1250		
Immediate post-test	Control group	4.8286	-4.555	*0.00
	Experimental group	7.7250		

* The mean difference is significant at the 0.05 level.

Tukey HSD test results shown in Table 4 confirmed the findings from the *t*-test (a significant difference between the pretest and the immediate post-test). It also indicated a significant difference between the pretest and the delayed post-test at the *p-value* of 0.00. Like the UGJT, there was no significant difference between the immediate post-test and the delayed post-test (p = 0.865). This suggested that increased EK was sustained three weeks after the intervention, though not further improved.

Table 4
Tukey HSD results for the metalinguistic knowledge test during the three stages of testing

(I) group	(J) group	Mean Difference (I-J)	*Std.* Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Pretest	Immediate	-4.60000-*	.68179	.000	-6.2185-	-2.9815-
	Delayed	-4.25000-*	.68179	.000	-5.8685-	-2.6315-
Immediate	Pretest	4.60000*	.68179	.000	2.9815	6.2185
	Delayed	.35000	.68179	.865	-1.2685-	1.9685
Delayed	Pretest	4.25000*	.68179	.000	2.6315	5.8685
	Immediate	-.35000-	.68179	.865	-1.9685-	1.2685

*The mean difference is significant at the 0.05 level.

Thus to answer the first research question, EI did have a positive and significant effect on EK of English articles. The effect was evident in the results of the experimental group on the UGJT and the MKT. The experimental group significantly outperformed the control group on immediate post-tests and sustained improvement on delayed post-tests.

5.2. Effect of explicit instruction on implicit knowledge

The second research question asked: "*Does EI affect the acquisition of implicit knowledge of English articles*?" The hypothesis stated that EI would result in higher scores on measures of IK (TGJT and elicited imitation test) in line with findings from Akakura (2012). Results from both tests supported the hypothesis.

5.2.1. Elicited imitation task

As indicated earlier when group under group compatibility, the control group (M = 6.11 out of 20) performed significantly better than the experimental group (M = 4.700 out of 20) on this task before the intervention with a p-value of 0.009. On the immediate post-test, however, the experimental group (M = 9.9 out of 20) significantly outperformed the control group (M = 6.4571 out of 20) with a *p-value* of 0.00. The experimental group continued to improve significantly three weeks after the intervention (M = 12.45 out of

20). The control group remained at a constant level from pretest (M = 6.1 out of 20) to immediate post-test (M = 6.5 out of 20), as shown in Table 5.

Table 5
Independent *t*-test results for the elicited imitation task

Type of test	The groups	Mean	*t*- value	significant value
Pretest	Control group	6.1143	2.667	*0.009
	Experimental group	4.7000		
Immediate post-test	Control group	6.4571	-5.248	*0.00
	Experimental group	9.9		

* The mean difference is significant at the 0.05 level.

The Tukey HSD test shown in Table 6 confirmed the significant difference between the pretest and the immediate post-test for the experimental group. It showed a significant difference between the pretest and the delayed post-test (p = 0.00), as well as a significant difference between the immediate post-test and the delayed post-test (p = 0.001).

Table 6
Tukey HSD test on the elicited imitation task during the three stages of testing

(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Pretest	Immediate	-5.20000-*	.67174	.000	-6.7947-	-3.6053-
	Delayed	-7.75000-*	.67174	.000	-9.3447-	-6.1553-
Immediate	Pretest	5.20000*	.67174	.000	3.6053	6.7947
	Delayed	-2.55000-*	.67174	.001	-4.1447-	-.9553-
Delayed	Pretest	7.75000*	.67174	.000	6.1553	9.3447
	Immediate	2.55000*	.67174	.001	.9553	4.1447

*. The mean difference is significant at the 0.05 level.

5.2.2. *Timed grammar judgment test*

Table 7 shows that on the pretest, the experimental group (M = 6.2 out of 10) performed slightly better than the control group (M = 6.0 out of 10), but not significantly (p = 0.637). On the immediate post-test, the experimental group (M = 7.97 out of 10) significantly outperformed the control group (M = 5.77 out of 10) with a significance *p-value* of 0.00.

Table 7
Independent *t*-test for the timed grammar judgment test

Type of test	The groups	Mean	*t*- value	Significant value
Pretest	Control group	6.0000	-0.474	0.637
	Experimental group	6.1750		
Immediate post-test	Control group	5.77	-6.230	*0.00
	Experimental group	7.97		

* The mean difference is significant at the 0.05 level.

Table 8 presents the results of the Tukey HSD and the *t*-test confirms the significant difference between the pretest and the immediate post-test at the 0.00 level for the experimental group. It additionally shows a significant difference between the pretest and the delayed post-test with a significance value of 0.002. There was no significant difference between the immediate post-test and the delayed post-test.

Table 8
Tukey HSD test results for the timed grammar judgment test

(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval

					Lower Bound	Upper Bound
Pretest	Immediate	-1.80000-*	.32761	.000	-2.5777-	-1.0223-
	Delayed	-1.12500-*	.32761	.002	-1.9027-	-.3473-
Immediate	Pretest	1.80000*	.32761	.000	1.0223	2.5777
	Delayed	.67500	.32761	.103	-.1027-	1.4527
Delayed	Pretest	1.12500*	.32761	.002	.3473	1.9027
	Immediate	-.67500-	.32761	.103	-1.4527-	.1027

* The mean difference is significant at the 0.05 level.

To answer the second research question, EI positively affected IK of generic and non-generic English articles. The effect of EI was evident in significant gains on the immediate post-test results of the experimental group on the elicited imitation task and TGJT. Gains continued significantly on the delayed post-test in the elicited imitation task.

CONCLUSION AND FUTURE RESEARCH

Results of the study showed that EI improved EK of articles, both short-term and long-term. Results also showed that EI improved IK of articles, both short-term and long-term. The study thus found evidence that EI benefited IK by bringing learner awareness to targeted structures in everyday input. This study indicated that only being exposed to was not sufficient for learners when it came to knowledge of articles. The control group did not improve in spite of their enrollment in several English classes the entire duration of the study. Thus, L2 learners require some EI in order to begin noticing target structures in everyday input.

The results of this study suggested that EI affected L2 grammar development. Further verification of this claim would benefit from more empirical evidence with participants with varying proficiency levels and a larger sample. Other grammatical structures would benefit from similar exploration. To conclude, this study investigated the effectiveness of EI on the development of EK and IK. The quantitative data suggested that EI affected EK and IK. The findings of this study made valuable theoretical and pedagogical contribution to the SLA and TESL fields, concerning the role of EI and the possibility of measuring EK and IK separately.

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RBL : THE DEVELOPMENT OF LEARNERS' LEARNING SKILLS

Teeraporn Plailek
Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, Thailand
E-Mail: teeraporn.pl@ssru.ac.th

ABSTRACT

This article illustrated the development of learners' learning skills using Research-Based Learning. It described the meaning of Research-Based Learning and four different models of Research-Based Learning: research-tutored learning, research-based learning, research-led learning, and research-oriented learning which guiding principles in teaching and learning management. Moreover, this article presented the implementation of Research-based learning in teaching and learning. From the studying of research's findings, it found that the learners gained research knowledge and research skills and also knowledge of the subject they are taught. The key issues to be addressed are the learner's learning skills which are derived from the Research-Based Learning. The findings showed that the learners will have self-directed skill, analytical thinking skills, systematic thinking skills, problem solving skills, research skills, life and social skills, and working skills that suit to the 21st-century skills of learners.

Keyword: RBL, learners' learning skills

INTRODUCTION

Nowadays, Thai society has entered the digital world, transformed and developed in many aspects, including economics, society and education as well as human resource development, which human resources are considered as a powerful force in driving and developing the country. Quality human resource development is one of the key factors that must be developed in order to upgrade human resource quality to be equivalent to that of other countries.

The Thai education system has continuously developed its education system, with the concept of developing the learner to be able to fit in the context of the global society, whether it is child-centered education or 21st-century skills are taught by the concept of Active Learning which emphasizes learning by learners. Learners are self-directed learners who change the role of the learner from the original. Passive becomes the active participants. The instructor must be responsible for preparing the experience for the learners. Learners learn a variety of learning management models, such as Creative-Based Learning (CBL), Participatory Learning (PL), Problem-Based learning (PBL), and Research-Based Learning (RBL). Each concept of Active Learning will help to create different skills for learners. One learning management model that empowers learners to create their own knowledge, learn from research, and discover facts by self-study, create thinking skills, and acquire knowledge and working skills is Research-Based Learning.

In this paper, we propose a Research-Based Learning (RBL), which is a learning management model based on Active Learning. RBL will help students to develop the skills and knowledge they need in the 21st century, which is the direction of the current development of education in Thailand.

OBJECTIVE

To point out the development of learners' learning skills derived from Research-Based Learning.

METHODOLOGY

The Components of Research-Based Learning (RBL)

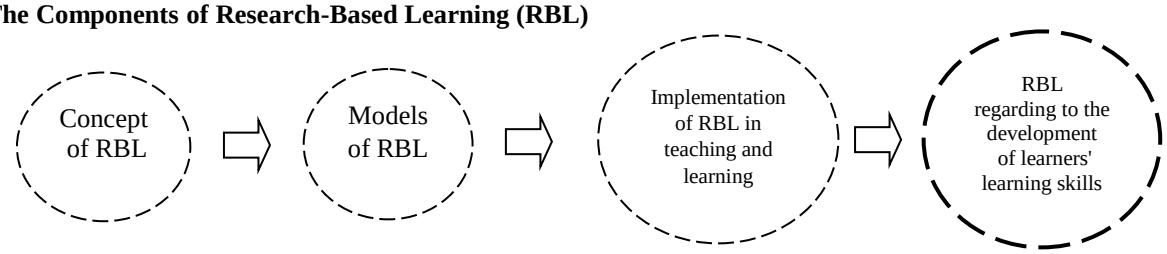

Figure 1: The components of Research-Based Learning (RBL)

The concept of RBL

RBL or Research-Based Learning is one of the learning model based on the theory of learning constructivism, the emphasis is that learning is a process that takes place within the individual. The learner is the creator of knowledge through the process of intellectual structure and the integration of pre-existing knowledge with newly gained experience, resulting in self-thinking (Nakorntup, 2004). Research-Based Learning is the combination of teaching and research, blended harmoniously to provide students with both the knowledge and desirable characteristics as illustrated in Figure 2.

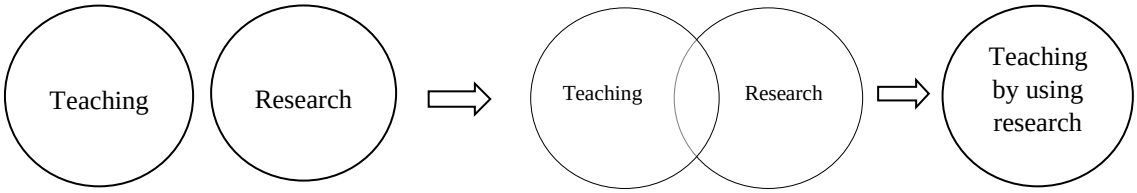

Figure 2: The concept of RBL

In addition, Research-Based Learning is based on an inquiry teaching method that emphasizes the student's suspicion of investigating, experimenting, and discovering the answers on their own, focusing on the process of searching and examining knowledge. Investigative teaching requires learners to learn by the problem which encourages learners to seek information for solving problems. In addition, learners must learn primarily by themselves (Methakunavudhi, 2002). Thus, the use of Research-Based Learning is a process of teaching and learning that emphasizes the learner's ability to learn from the study and discover the facts of self-study through systematic research or it can be said that Research-Based Learning model is a research process as a part of the learning process.

The models of the relationship between teaching and research

There are four models of the relationship between teaching and research in the following ways (Hoskins & Mitchell, 2015) :

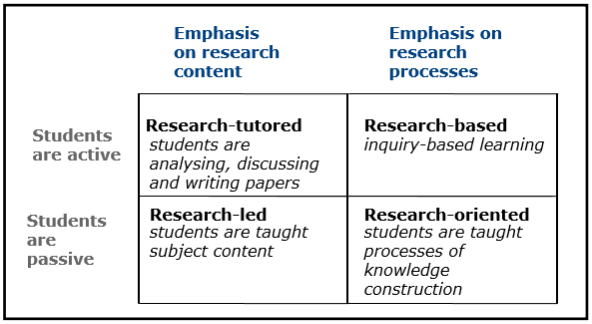

Figure 3: The models of the relationship between teaching and research

Model 1: Research-tutored learning - curriculum structured around subject content; focus – analyzing and discussing research findings;

Model 2: Research-based learning - curriculum designed around inquiry-based activities; focus – learning through inquiry;

Model 3: Research-led learning - based on the 'information transmission' model; curriculum structured around subject content; focus – understanding research findings;

Model 4: Research-oriented learning - curriculum structured around research processes as well as subject content; focus – understanding research processes, teaching inquiry skills and research ethos

The implementation of RBL in teaching and learning

Model 1: Research-tutored learning

The teaching style in which the learners use research findings in learning. They are as follows:

1. The instructor gives advice on the information resources of research papers that the learners will need to search for knowledge and also selects the research papers appropriate for the age of the learners.
2. The learners seek information about research related to the subject matter of their interest.
3. The instructor introduces how to read, study, analyze, report research as appropriate to the level of learners including elements of research, objectives, research methodology and conceptual framework, research findings, and references, etc.
4. The learners study various research papers by practicing the above learning skills.
5. The learners present the subject matter of the research linked to the subject matter being learned.
6. The instructor and the learners discuss research findings and research processes, and the importance of the research.
7. The instructor measures and evaluates reading skills, learning the research findings and research processes.

Model 2: Research-based learning

The teaching styles in which the learners use research process in learning. They are as follows:

1. The instructor considers and analyzes the objectives and contents of the learning units so that the learners are able to do research papers.
2. The instructor designs learning activities that allow the learners to conduct research, encourages the learners to be interested in the subject and gives the learners the ideas of the research titles they are interested in.
3. The learners study the research process, including identifying research problems, objectives, hypothesis, research design, research methodology, data collection, analyzing data, summarizing

the findings, discussing findings, etc.

4. The learners conduct researches based on appropriate research procedures.
5. The learners record thoughts and experiences as well as observations, the instructor observes the learner's behavior and the learners' research process skills.
6. The instructors and learners discuss the research process and findings together.
7. The instructor measures and evaluates the learners' skills in conducing researches, and results obtained with the evaluation of the learner's normal learning.
8. Self-assessment in reading skills on research reports, research findings, and research processes.

Model 3: Research-led learning

Teaching style in which the instructor uses research findings in learning management. They are as follows:

1. The instructor searches for resources related to the subject matter taught, studies the research or knowledge related to content, and chooses the research that best suits the subject and the learner's age.
2. The instructor uses the findings of the research along with the content for teaching to enhance the learners' knowledge.
3. The instructor and the learners collectively discuss research findings, research processes and research benefits.
4. The instructor measures and evaluates learners' learning outcomes.

Model 4: Research-oriented learning

The teaching styles in which the instructor uses research process in learning management. They are as follows:

1. The instructor considers the purpose and the content that will be provided to learners including analysis of the research process that will be used in teaching, which may be used in some steps of research processes or all steps.
2. The instructor designs learning activities using the research process defined for learning the desired subject.
3. The instructor conducts learning activities using the research process, including identifying research problems, objectives, hypothesis, research design, research methodology, data collection, analyzing data, summarizing the findings, discussing findings, etc.
4. The instructors and the learners discuss issues related to research processes
5. The instructors measure and evaluates learning the research findings and research processes, along with the regular assessment of student learning.

Based on four models above, the instructor can apply any models by selecting the appropriate one for learning management. More importantly, it is considered to develop the learners' learning skills in all kinds of research skills, self-directed learning skills, thinking skills, and collaborative skills.

RBL regarding to the development of learners' learning skills

Research findings related to RBL management are reported. The findings of these research papers reflect the development of learners' learning skills as follows:

C. Waree (2015) found that the students' academic scores after learning by using research were higher than the pre-test scores at the .05 level corresponds to S. Siriworasin (2014) found that the posttest scores of Mathayom Suksa 2 students learning by using baseline learning were significantly higher than those before

the study. The statistical significance was at .05 and the students had a high level of research ability after learning by using baseline research and consistent with F. Fachaiyaphum (2011), who found that students learning by using Research-Based Learning, where there was a significantly higher level of learning and creativity than students with normal learning management at .03 level of significance. S. Suwatanpornkool (2008) found that students who study under the integrated learning management plan. Local students using the research process had a higher average score on life skills than the students in the normal classroom learning program. W. Munephol (2004) found that Research-Based Learning encourages students to have a learning habit, know the idea, have social skills, work with others, and solve the problems. And the results also found that students study in a Research-Based Learning management will have academic ability, thinking skills, knowledge acquisition, and working skills. Moreover, the characteristics of being good citizens are higher than that of students in traditional learning schools. Healey (2005) found that University students will learn and deeply understand the content of the investigated learning that links research and teaching into the curriculum.

Based on the above research, it can be seen that the RBL will lead to the development of learners as follows: self-directed skill, analytical thinking skills, systematic thinking skills, problem solving skills, research skills, life and social skills, and working skills.

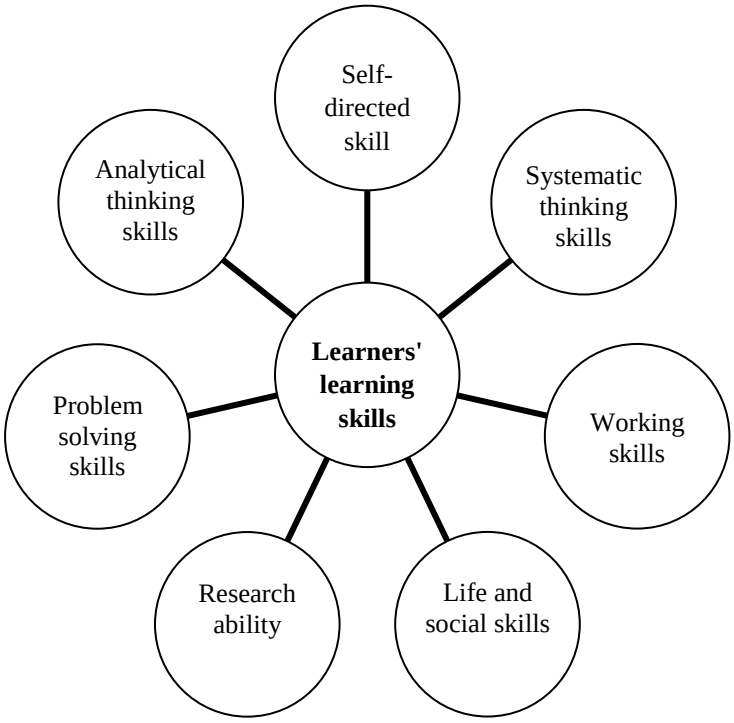

Figure 4: Learners' learning skills derived from using RBL

CONCLUSION

The instruction by using Research-Based Learning will help develop learners' learning skills. Learners will have the skills to seek knowledge, create self-knowledge and continuing to learn which is also called lifelong learning. The most important is Thai educational system should reform the education system by transforming from the traditional learning management to Active Learning. Consequently, it can help develop learners to have the potential to learn and have learning skills. It can be seen that learning only the content is not an important goal of teaching and learning in the era of educational reform anymore.

ACKNOWLEDGEMENT

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THE NATURE AND USE OF RESEARCH-BASED LEARNING FOR ENHANCING PRE-SERVICE TEACHERS' RESEARCH SKILLS

Dr. Sasiporn Phongploenpis

Faculty of Education, Suan Sunandha Rajabhat University, Bangkok, Thailand

E-Mail: sasiporn.ph@ssru.ac.th

ABSTRACT

This article described the meaning of research-based learning (RBL). From the point of the author's view, RBL has a relation with active learning where learners learn by doing. Linking research with teaching is made in different forms dependent on the educational context and learning objectives. In general, teaching research link/nexus is implemented in four different forms: research-led learning, research-oriented learning, research-tutoring learning and research-based learning. Moreover, this article investigated how RBL is implemented in different educational contexts. This investigation shed the light on implementing RBL in teaching her course entitle 'English Language Teaching for ASEAN Community' to pre-service teachers of English. With the potential of RBL, the author believes that the pre-service teachers of English will gain research skills and knowledge of English language teaching through research-based learning. However, an empirical study is required in order to confirm the above beliefs and also investigate the pre-service teachers' interest in research after experiencing it.

Keywords: research-based learning, teachers' research skills

INTRODUCTION

The starting point for this article is the "Knowledge Management Project" (KM Project) established by Suan Sunandha Rajabhat University (SSRU), the top Rajabhat University in Thailand. One aim of this project is to identify what it means by active learning and then produce a handbook of teaching approaches under the concept of active learning. Research-based learning (RBL), one of the teaching approaches related to the concept of active learning, was proposed and accepted by the members of KM project. This article describes the characteristics of RBL and the relationship between RBL and active learning. Then the implementation of RBL in terms of learners and teachers' role will be presented as well as its potential regarding the creation of pre-service teachers' research skills. The article is closed with the recommendation for further research.

RESEARCH BASED LEARNING AND ACTIVE LEARNING

There are many excellent approaches of teaching implemented in Thai universities and the idea of linking research and teaching is a topic of international interest. A link between research and teaching can be made in four different models as follows: research-led learning, research-oriented learning, research-tutoring learning and research-based learning (Hoskins & Mitchell, 2015, p. 3). Research-led learning is referred to as teaching current research conducted within a university as a part of lectures in the university while research-oriented learning is referred to as teaching students to learn about research processes and methodologies (Hoskins & Mitchell, 2015, p.9 - 10). In research-tutored learning, students learn through discussion about research within a given tutorial meeting (Healey, 2005 cited in Hoskins & Mitchell, 2015, p.11). In research-based learning (RBL), students are treated as researchers and RBL seems to be the hardest among the four models, according to Hoskins and Mitchel (2015, p11). Furthermore, Healey (2005b cited in Spronken-Smith, 2009, p. 9) argues that among the four models, research-tutored and research-based learning provide the most benefit for student learning and should be implemented in higher education.

Through research-based learning, students learn as researchers with the lecturers (Hoskins and Mitchell, 2015, p. 5). The role of learners as researchers is in line with active learning which students learn by doing (Gibbs, 1998; Healey & Roberts, 2004 cited in Spronken-Smith, 2009, p. 2) e.g. discussion, asking questions, and solving the problems (Prince & Felder, 2006 cited in Spronken-Smith, 2009, p.2). Based on students' roles (learners as researchers and students as active learners), it might be argued that RBL seems to have commonalities with the teaching approaches as follows: inquiry/enquiry-based learning and teaching research link/nexus where research is brought into teaching.

THE IMPLEMENTATION OF RBL IN HIGHER EDUCATION

Linking research and teaching is adopted in many forms. Having students learn about research methods and techniques is referred to as research-oriented learning and having them to undertake their own research project is known as research-based learning (Jenkins et al. 2003 cited in Healey, 2005, p. 68). Research-based learning (RBL) prepares students as researchers (Griffith, 2004 cited in Healey, 2005, p. 69) with the central goal of developing research skills and preparing life-long learning for students (Spronken-Smith, 2009, p.6). Based on its central goal, teaching and learning is stimulated by inquiry (questions or problems) for seeking new knowledge and new understanding (Spronken-Smith, 2009 p. 5). In RBL classroom, a teacher plays a role of the facilitator while students are responsible for their learning (Spronken-Smith, 2009, p.5).

RBL has been adopted by a number of scholars for different courses. Kazura and Tuttle (2010, p. 211) implemented RBL for two semesters for teaching a child development course which was previously based on lecture-only. In this course aligning teaching and research, 83 college students of a New England land-grant university were assigned to collect observational data on children and their teachers at a university's child

study center during the fall semester and then conduct interviews with those children to investigate the social interactions with their peers during the spring semester (Kazura & Tuttle, 2010, p. 211).

Research-based learning is also promoted at Humboldt University (HU), Germany under the HU-Q Program The program consists of four different projects as follows: Q-Tutorials, Q-Teams, Q-Kellogs and Q-Module (Deike, Gess & Rueβ, 2014, p. 29). Participating in each of the four projects, students are to act as researchers. Firstly, Q-Tutorials is available for from undergraduate students, second year onward to master students (Deike, Gess & Rueβ, 2014, p. 29). In this model, the research grant is given to successful students who are then employed as tutors leading a student research team and reporting the teams' research results (Deike, Gess & Rueβ, 2014, p. 29). Secondly, Q-Teams is available for junior research staff with the aim to tie their research with teaching (Deike, Gess & Rueβ, 2014, p. 29). The junior research staff or the leader of this project acts as a coach to enable the student researchers to conduct a group or individual research project (Deike, Gess & Rueβ, 2014, p. 29). Thirdly, Q-Kollegs is referred to as the project with the aim of having students conduct a co-research project with students from an international partnership institution in their home university (Deike, Gess & Rueβ, 2014, p. 29). Finally, Q-Modules is related to complete an existing academic module by conducting a research project (Deike, Gess & Rueβ, 2014, p. 29). In this project, students do not have to attend class regularly but they have to work under the guidance of subject specialists and attend seminar or work-in-progress workshops (Deike, Gess & Rueβ, 2014, p. 30).

THE POTENTIAL OF RESEARCH BASED-LEARNING

Kazura and Tuttle (2010, p.210) state that research based-learning, using research as a teaching method, is perceived by educators as beneficial for undergraduate students in terms of general skills, research/discipline knowledge, and relationship building. According to Elgren and Hensel, 2006; Wolfe et al., 2002 cited in Kazura and Tuttle, 2010, p. 210), general skills include problem-solving, critical thinking, writing, speaking and reading skills. In terms of research/discipline knowledge, students gain and increase knowledge of literature in their discipline, methodology and ethics for human subjects (Perlman & McCann, 2005 cited in Kazura & Tuttle, 2010, p. 210. Relationship building is referred to as the communication between students and peers or students and lecturers outside the classroom through mentoring session, meeting and teamwork (Landrum & Nelson, 2002 cited in Kazura and Tuttle, 2010, p.210). It can be concluded that RBL prepares students for the competitive workforce. As for the research study conducted by Kazura and Tuttle (2010, p. 212), the Likert items showed the research skills obtained through RBL for teaching the child development course during two semesters which includes data collection, writing and presentation, and professional development. The result of the open-ended questions indicated that RBL classroom was enjoyable in terms of giving students opportunities to observe and itnerview the children and to apply knowledge they learnt in class.

Waree, Ontkwanmuang and Chanfoy (2016) investigated the impact of research-based learning on developing classroom research skills for pre-service teachers in year two majoring in Thai, English and Mathematics (N=214) of Suan Sunandhar Rajabhat Univerisity, Bangkok. The results of their study showed that 204 students got C+ and 10 students got A measured through 60 items of objective test and the students' work assessment Waree, Ontkwanmuang and Chanfoy (2016, p. 901). Based on the result of their study, the classroom research skills gained through RBL included research problem determination, hypotheses establishment, and data collection (Waree, Ontkwanmuang and Chanfoy, 2016, p. 901).

On the other hand, research-based learning seems not to significantly increase students' interests in research, according to Deike and colleagues (2014). Approximately 300 students of HU-Q projects (Q-Tutorials, N=260 and Q-Teams, N= 40) were asked how they are interested in specific research activities (Deike, Gess & Rueβ, 2014, p. 30 – 31). The results of the pre-test showed average of interest level of 31.5 points while those of the post-test showed the average of interest level of 33.0 points (Deike, Gess & Rueβ, 2014, p. 31). The immediate follow-up question of this study showed that the top three research activities which are of interest to the students include working with research literature, developing a research design and carrying out empirical research (Deike, Gess & Rueβ, 2014, p. 31).

THE USE OF RESEARCH-BASED LEARNING IN ENGLISH LANGAUGE TEACHING

Based on the literature review, research-based learning has potential for enhancing research skills for the students especially in higher education. Therefore, research-based learning has been brought into teaching a course entitled 'English Language Teaching for ASEAN Community' to pre-service teachers of English at Faculty of Education, Suan Sunandha Rajabhat University. The course is learnt by undergraduate students in year four (N = 54). In the 17-weeks course, students are to understand classroom management of English in early childhood, primary and secondary education under the context of ASEAN Community in order to be able to distinguish and analyze the differences and similarities of English language learning classroom management.

The students are to act as researchers through the learning activities as follows: literature review (week 2-5) data collection (week 10-11) and data analysis (week 12-13). Similar to Q-Modules (Deike, Gess & Rueβ, 2014), the students do not have to attend the classroom during week 10-13. Instead, they collect and analyze the research results with the guidance from their course lecturer. However, conducting a research project is relatively new to the students and English is not their first language. As a result of this, research-oriented learning have to be implemented in several weeks of learning the course through learning contents as follows: writing a research proposal (week 6-7), research methodology and methods (week 9), writing an abstract (week

14) and research presentation (week 15-16). In week 8 and 17, the students are to take a mid-term and final-term examination, respectively. The examinations are related to their research project which include a research (750-1000 words) proposal and a research abstract (250 words). It might be argued that both examinations are set up to prepare the students to participate in real life projects related to the core content of the course which is English language teaching for ASEAN community.

The further steps of research-based learning in teaching the course 'English Language Teaching for ASEAN Community' will be about the investigation of the research skills and knowledge in relation to English language teaching in ASEAN countries that the students will probably gain from teaching and learning through this approach. Apart from this, students' interest and ability to engage in research-based learning will be investigated in order to visualize the factors in the implementation of RBL in higher education in Thailand.

CONCLUSION

Research-based learning (RBL) is one form of teaching research link/nexus. It is argued that RBL is the hardest model among the four models (Hoskins & Mitchell, 2015, p 9 – 10). In RBL classroom, students are to act as a researcher. In certain context, students do not have to attend the classroom regularly but support and guidance on conducting research are surely given. RBL is beneficial to develop research skills: literature review, research methodology and research ethics (Perlman & McCann, 2005 cited in Kazura & Tuttle, 2010, p. 210; Deike, Gess & Rueβ, 2014, p.31). The positive impact of RBL on learning is taken into account which leads towards teaching the author's course entitled 'English Language Teaching for ASEAN Community' through research-based learning in semester 1, 2017 at Faculty of Education, Suan Suanandha Rajabhat University.

However, the potential of research-based learning has been evident by scholars. The model has been used over the full range of academic discipline; however, the level of students suitable for RBL experience is debatable. One the one hand, the implementation of RBL is best suitable for advanced students who have mastered fundamental knowledge in the subject (Spronken-Smith, 2009, p. 10). On the other hand, RBL is suggested to be implemented with first year or freshmen students in order to prepare them for student-centered learning (Spronken-Smith, 2009, p.10). As a result of the debatable potential and implementation of research-based learning, further studies are required especially research on students' research interests and skills gained through research-based learning but not limited to the study of factors in implementing research-based learning in language teacher education.

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Thanks to Suan Sunandha Rajabhat University for initiating the valuable project of 'Knowledge Management'. The project is the starting point of my research on research-based learning and the implementation of this teaching approach into my course entitled 'English Language Teaching for ASEAN Community'.

NOTES ON CONTRIBUTORS

Dr. Sasiporn Phongploenpis is head of English Department at Faculty of Education, Suan Sunandha Rajabhat University. She completed EDD in Teaching English to the Speakers of Other Languages (TESOL) at University of Exeter, England, UK. Now she delivers teaching on English Reading Techniques and ELT for ASEAN Community to pre-service teachers of English and supervises teacher trainees' classroom research.

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KNOWLEDGE MANAGEMENT FOR PROCESS DEVELOPMENT: INFORMATION RESOURCES CLASSIFICATION AND CATALOGING IN THE LIBRARY OF SUAN SUNANDHA RAJABHAT UNIVERSITY

Supaporn Wongsa*, Supaporn Jaisook**,
Dr. Ganratchakan Ninlawan*** and Asst.Prof. Dr. Sirilak Ketchaya******

*,**,***,****Academic Resource Center, Suan Sunandha Rajabhat University, Bangkok, Thailand
E-Mail: *supaporn.wo@ssru.ac.th, **supaporn.ja@ssru.ac.th, ***ganratchakan.ni@ssru.ac.th,
****sirilak.ke@ssru.ac.th

ABSTRACT

Knowledge management for process development is used for information resources classification and cataloging in the library of Suan Sunandha Rajabhat University. The purpose of this study were to investigate the current situation of working process and finding method to reduce working time for establish effectively work. In order to, support lecturers and students to use moderately information resources and materials. This will be beneficial for teaching and learning in the university. To get some information and methods from cataloging librarians who have been doing classification and cataloging. Studied the process development including; Information resources classification and cataloging, knowledge management; knowledge extracting and experience sharing, current situation analysis and result. The result of this study show the effectively method is retrieved resource information from other library database. This practice will be transferred information resources and materials to library user on time.

Keyword: Classification and cataloging, Information resources, Knowledge management, Process development

INTRODUCTION

Recently, many countries around the world are changing and developing themselves to achieve global competitiveness and to become knowledge-based societies. [1] The paradigm for libraries and librarianship shifted radically in the 20th century with the advent of new information technologies. [2] Most people spend a considerable time acquiring information and learning new skill. The rapidity of change, the creation of new knowledge, much of this learning takes place at the learner's initiative, even if available through formal setting. [3] There is not only the content but space is also the factor which make people learning. Nearly every campus library today is transforming the longstanding model of housing collections into a thriving and open-ended learning hub. [4] The library as an information provider needs to adjust its services to the diverse needs of its users brings together information, engagement, and technology.

According to [5] separate library user into 4 types;

1) Unskilled user/computer illiterate user, they will not be able to use the resources of the library because of lack of ICT skills.

2) Semi-skilled user/semi-computer literate user, they can effectively use the basic search facilities such as the basic search engine (information literacy), but cannot effectively use the advanced search engine features and operators which have the capacity to retrieve only relevant information from the library's collections.

3) Skilled user/computer literate user, those people are able to break their information needs into searchable units, translate them into keywords, search by using basic or advanced search technologies, and retrieve up-to-date, relevant, and adequate information.

4) Users and Abusers describe people are very crafty in gaining illegitimate access to library resources available online.

At present, the library users are skilled user/computer literate user. People use the library for various reasons and to satisfy different needs. Some use the virtual library specifically to read, others use it

for research, and some others use it to communicate and share information. The most crucial component of the 21st century library is the user. [5], [6] Every effort put into the establishment of library will be wasted if the library is not encounter to the user satisfy his information need. According to [6] currently library users need space for their technology specifications, strong wireless signals throughout and content providing. Library should adapt study need dedicated to users.

Suan Sunandha Rajabhat University library is provided learning space, computers, online resources, and database online to encourage students learning. However, it cannot be argued that books are a factor in the library. According to the book borrowing statistics in the SSRU library between 1st September 2015 – 31st August 2017, books were check out of the library more than 5,000. Some student use the library space to read the content, there were more than 170,000 books out of their shelf according shelving statistics in the same time as above. Besides, there were book requesting from lecturers and students that they need to use in every semester. Thus library still need to provide books for these users.

In every physical year, there will be many books come to the library while there are limited cataloging librarians. Cause these books are waiting for organizing. For most librarians, the ideal is providing the physical and virtual learning, research, and teaching needs of an entire user with immediately resources. [4] In addition, the library is offered an urgent book request service. If there are books which is in the cataloging process, but user need that book. User can fill in the urgent book form. It will be taken 3 working days for the book to get ready for the user. That is the later problem solving. Therefore, the cataloging librarians need to develop a faster book delivery process by using knowledge management approach.

INFORMATION RESOURCE CLASSIFICATION AND CATALOGING

The university library will be providing several resources such as books, audio visual, database online, to provide the different of user need. As there are many resources, library will be organized the materials to be classified. Classification systems in libraries generally play two roles.

Firstly, to classify, it is a system of coding and organizing library materials according to their subject and allocating a call number to that information resource. [2] In libraries where the collection is arranged through accession subject books on the similar subject will be stacked throughout the collection. [7] There is some general classification system using around Thailand such as Library of Congress Classification (L.C.), which is use in the large library where many material has. Dewey Decimal Classification (D.C. or D.D.C) which is use in the middle size of library. Each of them has different symbol. Library will be chosen the classification system by their size and number of book. [8] SSRU library is used Dewey Decimal Classification (D.C.) which is analyzing by content or subject to classify the book together with author number. Author Number is given by the first letter of the author's name with 3 digits, following the Thai Author Table of the National Library of Thailand manual, and then follows by the first letter of the book's title, called "call number". It is important to note that each work can only be placed in one class. This is due to shelving purposes: A book can have only one physical place. [9]

Secondly, to catalog, bibliographic cataloging is to define details of the book, such as the author's name, title, call number, publication, subject, etc., following the standards of Anglo-American bibliography, the 2nd edition (AACR2) and MARC rules (Machine Readable Cataloging) to make the listing standard. This is a great way for users to find the information they need through the online search. [10]

In the work process found that librarian use search engine for seeking resources catalogue such as OhioLINK, OCLC WorldCat, and WebOPAC for retrieving their resources analyze and catalog. [11] There are service from OCLC (Online Computer Library Center) held by the Library of Congress where provides a gateway for searching OCLC WorldCat. Which is nearly 1.5 million catalog records describing archival and manuscript collections and individual manuscripts in public, college and university, and special libraries located throughout North America and around the world. [12]

Even there are gateways to get the material information. In the practice, SSRU library provide a number of Thai books, so we could not be able to use those information. In addition, books are classified not so much by their characteristics as by the degree, may be classified by their varying hardness rather than by the characteristic of hardness itself. [2] Due to classification and cataloging is important procedure for

bringing the currently book to users. So that, cataloging librarians have done knowledge extracting and experience sharing to investigate the current situation and finding practice by knowledge management.

KNOWLEDGE MANAGEMENT FOR PROCESS DEVELOPMENT

Knowledge management is essentially about getting the knowledge from person. It implies understanding of where and in what forms knowledge exists, creating planning, organizing, motivating, and controlling of people, processes and systems in the organization to ensure that its knowledge-related assets are improved and effectively employed and supported by organizational members. [3], [13]

Knowledge management for information resources classification and cataloging process development is a practice that getting the knowledge from cataloging librarians who related in this work. To get that knowledge, implemented the knowledge management process to extract the necessary knowledge and apply it to the information resources classification and cataloging process development of SSRU library.

CURRENT SITUATIONS AND RESULT

According to knowledge determined, created and seek information by knowledge sharing and focus groups of cataloging librarians. Cataloging librarians were discussing to understand the process of classifying and cataloging. According to the discussion, the current situation can be summarized as follows.

1) Each book has several contents. Some of them have more than one subject / not individual. Make it difficult to perform category classification.

2) There are a lot of Thai and English books in the library, while there are not many catalogers. Books are waiting for classify and posting then it cannot be able to serve the needs of users.

To find out, how to develop the process that suitable for the context of the SSRU library. Establish as a guideline for implementing process development is used for information resources classification and cataloging. In this study we found some condition and solution as follow;

Table 1

Condition	Solution	Score
SSRU library has a number of Thai book which cannot use the international cataloging search	Need to find Thai library database online to retrieve the classification	3
Each book has different content	Considers the resources content, which is nearby topics that can be analyze and catalog in the same time	2
	Fiction books will assign alphabetical letters for their call number. They are no need to classify by subject	2
	Create ad hoc information, the resources are similar content can be use those ad hoc data, and then make a copy in the database	1
	Create a bibliography template instead of creating a new page in the library automation	1

The study of classification and cataloging process, found that each cataloging librarian has the same speculation. That is SSRU library has a number of books are waiting for classification and cataloging process which we cannot use the international cataloging search. From the results of knowledge management implementation, we got some solution by sharing knowledge and weighting score for that. According to the

score show, retrieving resources from other library database is the highest score. This solution can streamline the classification and cataloging process by reduce working time. The practice are as follows:

1. Select a library database using the Dewey Decimal Classification (D.C.) which is the same system as SSRU library

2. Search for titles/author names

3. Check the international standard book number (ISBN) of the resources. If the data is match, then duplicate that data and add to the SSRU library automation according to the Marc Tag

4. Re-authenticate and save data

In addition, the study found, to consider the resource content which is nearby topics that can be analyze in the same time and to assign alphabetical letters to fiction books for their call number have the second same score. Then create ad hoc information and create a bibliography template are the lowest same score.

CONCLUSION

This study can be concluded that cataloging librarians who perform the classification and cataloging have similar approach to operate quickly work. Include, searching resources from other library databases. From the original process, cataloging librarians need to read the content to perform the classification, determine the category number according to DDC classification which is take time as said above. Adaptation a new process by selecting the library where is used the DDC classification system. Searching for materials information, check the matching information by the international standard book number (ISBN). In case the data is match, then apply that data and add to the SSRU library automation according to the Marc Tag. Validate and save the data. This practice seem cataloging librarians could transfer the currently resources to users on time. Not only to support teaching, studying and reach the user satisfied but also reduce working time. Those cataloging librarians can spend the rest of the time by benefit to the library.

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THE STUDY OF TECHNOLOGY ASSISTED OFFICE ADMINISTRATION OF SUAN SUNANDHA RAJABHAT UNIVERSITY

Suntaree Patcharaprateep*, Pornkiat Phakdeewongthep & Wannee Sutthachaidee*****

*,**,***College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Thailand
E-mail: *suntaree.pa@ssru.ac.th, **pornkiat.ph@ssru.ac.th, ***wannee.su@ssru.ac.th

ABSTRACT

Technology assisted office administration in terms of follow up on work progress in office administration can be conducted by using lots of techniques, namely via social media including Line Group and Facebook, verbal follow up, follow up via meeting, telephone, memo, e-office, follow up sheet, documents and filing. However, lots of problems found in the use of these techniques include the delay in operation, the lack of follow up and documents, and time consumption leading to the delay of work submission or the ignorance of work. The purposes of this study are to find out technology assisted office administration in follow up on work progress, and to study the effectiveness of this technique. Samples include 22 Chiefs of Office from 22 offices in Suan Sunandha Rajabhat University.

Research tool is Knowledge Management procedures including knowledge exchange, extraction, and refinement conducted among members of Chief of Office Group. The research result discloses follow up on work progress technique by using Excel Form. Moreover, the results of the implementation of the Excel Form in follow up on work progress, prior to using the follow-up form, it is presented for 24.90 % from the comparison of the recording results. The utilization of follow-up form has assisted in work procedures and accounted for 2.70 % as reductions. The work errors are 18.60 % before using the follow-up form and 5.60 % after using the follow-up form. And another the late in informing report is 8.20 % before the follow-up form and 2.20 % after using the follow-up form, respectively.

Keywords: office administration, technology

INTRODUCTION

Knowledge Management Process is one of the important elements of the development of Thai government system. In reference to Royal Decree of Principles and Procedures of Good Governance, 2003 A.D., no. 11, it is stated that government units are required to develop knowledge in terms of continuous and sustainable learning organization so that the awareness of the latest information and news including the precise, and quick implementation of such information and news in the government units in line with the situation should be emphasized. Moreover, the support and development of the civil servants' abilities including creating of their vision, and changing their attitudes should be conducted to increase their performance and continuous cooperative learning. In addition, based on the guidelines concerning the annual Performance Commitment Report and the follow up on the performance commitment, Knowledge Management in Organization is included as an aspect of the officials' performance evaluation in dimension no. 4 concerning organization development. The new government administration pays vital emphasize on knowledge management process which can be used for collecting and developing knowledge systematically, and used as a tool for the development of humans, work, and organization.

Suan Sunandha Rajabhat University has administrated the institution in line with the principles of Good Governance with 22 offices of supportive personnel, namely 1) Faculty of Management Science, 2) Faculty of Humanities and Social Sciences, 3) Faculties of Industrial Technologies, 4) Faculty of Fine Arts, 5) Faculty of Education, 6) College of Allied Health Science, 7) College of Innovation and Management, 8) Suan Sunandha International School of Art, 9) College of Architecture, 10) College of Logistics and Supply Chains, 11) International College, 12) Learning Center, Samutsongkram, 13) Learning Center, Nakhorn Pathom, 14) Graduate School, 15) Institute of Research and Development, 16) Art and Culture Center, 17) Center of Information Technology Resource Center, 18) Office of General Education and Innovative Electronic Learning, 19) Office of Property and Revenue, 20) Office of Student Affairs, 21) Office of Education Services, and 22) Office of Treasury.

Members of Chief of Office Group, Office Administration Unit, organized Knowledge Management based on the University's guidelines by organizing knowledge management, knowledge extraction, and knowledge implementation in follow up on work progress in office administration. The goals in knowledge management plan specified by the members include identifying necessary knowledge for knowledge exchange serving the University' strategies and missions,

RESEARCH PURPOSES

1) To find out technology assisted office administration in follow up on work progress
2) To study the effectiveness of this technique.

RESEARCH SCOPE

Scope of Contents include techniques of follow up on work progress of office administration

RESEARCH PROCEDURE

Population and Samples
22 members of Chief of Office from 22 government units in Suan Sunandha Rajabhat University

RESEARCH TOOLS

Knowledge management processes employed in identifying needed knowledge for the improvement of the operation include knowledge exchange meeting among group members to find out problems and needed methods for knowledge extraction. The processes include identifying lessons learned from each individual member by allowing each member to tell the methods used as tacit knowledge which enable the reduction of time and steps in operation and to write his/her own methods in work sheet no. 2: core knowledge necessary for knowledge exchange based on job responsibility for further knowledge extraction. These sources from research tools are produced for the purpose of transmitting information to be used in the study. Also, tools facilitate access to holdings or collections, the development of work process and special indexes for its improving competencies.

RESULTS

Table 1 Problems of using technologies

Procedure needed to be changes	**Problems found in the use of technologies**
- Follow up on work progress through social media: Group Line and Facebook	- The receivers do not read the messages leading to the delay of operation
- Follow up through telephone	- time consumption due to the large numbers of documents and persons responsible leading to the lack of follow up, proof of documents and the delay of operation
-Follow up through memo	- time consumption
- Follow up through e-office	- time consumption, the ignorance of receivers leading to the delay of operation

Table 1 shows the problems of technology assisted office administration based on knowledge extraction. The problems are caused by 4 techniques of follow up on work progress through social media, verbal follow up, telephone, memo, and e-office. These problems lead to the delay in operation, the lack of follow up and proof of documents, time consumption, and the ignorance of work. The group members, therefore, conducted knowledge exchange to find out new technique of follow up on work progress in office administration, and the result of the knowledge exchange discloses the new technique supposed to solve the above problem which is the use of Excel Form in follow up on work progress in office administration.

Follow-up on Office Administration
Assignment and Office Administration
Office……..
Department…….

Name	Assignment Date	Assignment	Assignment Due Date	Work Procedure				Performance Outcome		Problems and Obstacles	Remark	Acknowledgement Assignment
				Numbers of Follow-up	Work Errors	Late in Information Report	Total	Success	Failure			

Fig 1. Excel Form for follow up on work progress

The result of the trial of Excel Form for follow up on work progress can be concluded as shown in table 2

Table 2 The Results of the trial of Excel Form for follow up on work progress

Problems found from using original techniques	**Results of the trial of Excel Form**
- the delay in operation	- The reduction of the delay in operation
- the lack of follow up due to the lack of proof of documents	- The convenience of follow up based on Clear proof of documents
- time consumption in follow up	- time saver due to the use of IT
- time consumption in producing	- time saver due to the continuous process no need to reproduce

After that the results of the 2 processes; the original techniques and the use of Excel Form in follow up on work progress in office administration are compared. It is found that the use of improved process or using Excel Form in follow up can reduce the delay of operation. Moreover, the Excel Form can assist the validation of the completeness of work and the Prior to using the follow-up form, it is presented for 23.90 % from the comparison of the recording results. The duration of the operation and this lead to the reduction of follow up duration, the errors, and the delay in information submission. In addition, the use of the Excel Form in place of the original techniques results progress, prior to using the follow-up form, it is presented for 23.90 % from the comparison of the recording results. The utilization of follow-up form has assisted in work procedures and accounted for 2.70 % as reductions. The work errors are 18.60 % before using the follow-up form and 5.60 % after using the follow-up form. And another the late in informing report is 8.20 % before

the follow-up form and 2.20 % after using the follow-up form, respectively. As the bar graph has demonstrated.

Overall, this study is to improve the office management process. The technology as innovative tool used in the job tracking of the office. Using the Microsoft Excel to develop information systems, the study has demonstrated the outcome in terms of assistive technology to monitor the management of work process. And using the form instead of tracking the job with the same process, the study has also demonstrated the supportive sources of innovative tool. The result presented reducing the number of follow-up tasks of job process, job errors, and delays in delivery.

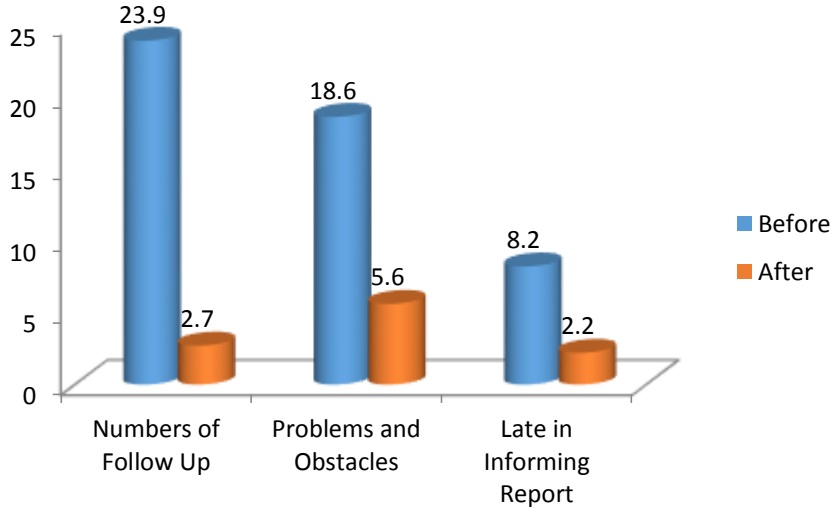

Fig. 2 Graph representing the comparative results of the reduction of problems in office administration

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THE EXPOSURE AND SATISFACTION OF THE GRADUATE STUDENTS FOR THE CHANNAL OF THE INFORMATION AT SUANSUNANDHA RAJABHAT UNIVERSITY

Phakit Treesakult[*] & Netdao Yooyong [**]

[*]Department of communication arts, Faculty of management science, Rajabhat Suansunandha University, Bangkok, Thailand,

[**]Office of President, Center of the public relation, Rajabhat Suansunandha University, Bangkok, Thailand

E-mail:[*]Phakit.tr@ssru.ac.th, [**]Netdao.yo@ssru.ac.th

ABSTRACTS

The public relations (PR) of Suan Sunandha Rajabhat University were division that have send the massage to the graduate students. There are five channel for sending the massages to undergraduate students: (1) Website (2) Facebook (3) Public Relations Boards (PRB) (4) wire broadcasting (5) light emitting diode signboard (LED-signboard). The information were about: begin and end of the study semester, payment of education fee, classroom timetable, examination in midterm and final term, student activities, university activities and official holidays. The questionnaires 400 were tested by the undergraduate students for investigated the exposure and satisfaction of media.The study showed the undergraduate students were exposure the information about 1) begin and end of the study semester 2) payment of education fee 3) classroom timetable 4) examination in midterm and final 5) student activities, 6) university activities and 7) official holidays were 90, 80, 83.8, 65, 67.5, 46.3 and 65%,respectively .The undergraduate students showed the satisfaction the channels of information in (1) Website (2) Public Relations Boards (3) Facebook (4) light emitting diode signboard (LED-signboard) and (5) wire broadcasting calculated by Likert scale were 0.46-1.99 which showed the low satisfy in the channel media.

Keywords: channel, exposure, graduate students, information, satisfaction.

INTRODUCTION

Suan Sunandha Rajabhat university (SSRU) has roots in its founding. "Suan Sunandha College" on May 17, 1937, taught the certificate of elementary school teacher (later), and later became a teacher of Suan Sunandha College. In 1975, under the Teachers College Act. 1975 to undergraduate teaching. Bachelor of Education Program. In 2017

Suan Sunandha Rajabhat University is ranked the university as the first ruling class in the rankings of the Spanish Research Council of the European Union. SSRU has Philosophy: Spirituality, Faith, Society, Society, Identity : As an academic, expert, expert, competent communicator, thinker, public mind. SSRU was communicated out to the public to create a good corporate image by division of the Publish Relation (PR) (Treesakult, 2014, p 10). PR has rules of communication with staff, instructor, the undergraduate students between the organizations and out to public (McCombs, 1979). The channel of the media is a very important factor in helping organizations succeed in managing (Treesakult, 2013, p5).There are many channels of internal communication such as e-office, wire broadcasting, website, facebook, publish relation broads and LED-signboard but the students were missing the information (Hunt & Brent ,1993).The study were survey in the case of undergraduate students were exposure and satisfaction about information with necessary for them (Adams, 1971).The study were improved and were adapts the communication within the organization for successful and progress for PR division.

RESULTS

The study has 400 the undergraduate student and showed demographic characteristics in the age of students were 18-22 years old. The population showed 125 male and 275 female (Table1).

Table 1

The questionnaires showed demographic characteristics of undergraduate students.

The undergraduate students		Sex	
level	age	male	female
1	18-19	45	55
2	19-20	30	70
3	20-21	25	75
4	21-22	25	75
Total		**125**	**275**

The exposure of the undergraduate students for information were about: 1) begin and end of the study semester 2) payment of education fee 3) classroom timetable 4) examination in midterm and final 5) student activities 6) university activities and official holidays. For the 400 questionnaire 400 showed 90% were begin and end of the study semester and 83 % were classroom timetable. The resulted showed the undergraduate students prepared themselves for studying in the education semester. The students were not interesting in the university activities which showed 43% for opening the information. The exposure of students for the 7 information were summarizes in Table2.

Table 2

The exposure of the undergraduate students for information for 400 samples.

No.	Questions	The undergraduate students (level)				Sum	%
		1	2	3	4		
1	begin and end of the study semester	100	100	80	80	360	90.0
2	payment of education fee	80	70	80	90	320	80.0
3	classroom timetable	100	80	80	75	335	83.8
4	examination in midterm and final term	80	70	60	50	260	65.0
5	student activities	90	90	50	40	270	67.5
6	university activities	60	55	40	30	185	46.3
7	official holidays	50	60	70	80	260	65.0

The score is based on Likert scale showed the satisfaction of the 400 undergraduate students for the channel of website were 2.25 which were low satisfy. Facebook was the channel which middle satisfies for the score of 3.25 in the secondary undergraduate students. For the 5 channel of media were summarized the low satisfaction of students in Table 3.

Table 3

The satisfy of the undergraduate students for the channel of media for 400 samples.

No.	Channel of media	Evaluated of satisfaction			
		The undergraduate students (level)			
		1	2	3	4
1	Website	0.4	0.95	1.4	2.25
2	Facebook	0.4	3.25	0.75	0.6
3	Public Relations Boards	0.15	1.5	1.85	1.5
4	wire broadcasting	0.25	2.5	2	0.25
5	LED-signboard	0.3	1.75	2.05	0.9
Average in every channel		0.46	1.99	1.61	1.1

The averages in every channel were 0.46, 1.99, 1.61, and 1.1 the first to fourth undergraduate students, respectively. The results showed the first students were not received the information from SSRU which the first year for entrance of this university.

DISSCUSION

PR division has attended to sending the information for the first to fourth level of undergraduate students that have the different of regulation. The media reminded the undergraduate students for appreciated information. The study showed the best channel for sent the massage and improved channel for increase efficiency. The study showed the channel of media could not sent information for the students. For the improved the channel of media by adding the another channel such as lines, e-mail of SSRU, the number of LED-signboard and news release paper.The study of exposure and satisfaction toward public relations media in undergraduate education are important for creating awareness both in the corporate and non-corporate media. Media Relations used as a public relations tool within undergraduate students. The study was improving the media in the organization and presents the media in the organization to meet the needs of students.

METHODOLOGY

The study on exposure behavior and satisfaction of media of students in SSRU were examined the channel of media in the organization as follows. 1) Website 2) Facebook 3) Public Relations Boards (PRB) (4) wire broadcasting (5) light emitting diode signboard (LED-signboard) (McQuail &Windahl,1986).

Population sample

The undergraduate students (first to fourth) and the each of a level for 100 students have 400 students.

Research tools

The questionnaires 400 were sent to the undergraduate students of Suan Sunandha Rajabhat University and the each of level received 100 questionnaires. All questions were closed-ended questionnaires and used by the checklist and three parts were:

Part I The general of demographic characteristics as sex, age, graduate students in the level first to fourth

Part II The exposure of the information about: 1) begin and end of the study semester 2) payment of education fee 3) classroom timetable 4) examination in midterm and final 5) student activities 6) university activities and official holidays. Examined the data of exposure by calculated of percentage.

Part III The satisfy of the channel of the media: 1) Website 2) Facebook 3) Public Relations Boards (PRB) 4) wire broadcasting 5) light emitting diode signboard (LED-signboard). By studying the content of the channel media in 5 satisfactions in the rating scale of 1-5 score:

1 =the least satisfy,

2 = low satisfy,

3=middle satisfy,

4=satisfy,

5=very satisfy.

The score is based on Likert scale and calculated in formula:

$$\frac{\text{hightest score} - \text{lest score}}{\text{number level of score}}$$

Evaluation of criteria showed the satisfaction in the range of 4.21–5.00 = very satisfy, 3.41–4.20 = satisfy, 2.61 – 3.40 = middle satisfy, 1.81 – 2.60 = low satisfy and 1.00 – 1.80 = the least satisfy (Pongwichai, 2010, p.38).

CONCLUSION

PR division were developed the channel of media for information which are supporting and useful for students. Every media were appreciate in the some case. Therefor students ought to regarding the information. The public relations were sent message by website was suitable for internet excess, facebook was quickness but not details data, publish relation broad was suitable for the passenger students, wire broadcasting was quickness but fast speech, unbalanced language and spoken words and LED-signbroad was interesting but has only one LED-signbroad in the SSRU. The satisfaction of the 5 channel of the media were not appreciated the undergraduate students. The next research will be studying about the behavior and attitude of students for the channel of media in SSRU.

CONFLICTS OF INTEREST

The authors declare that they do not have conflict of interest.

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FLIP IT AROUND: THE POSITIVE IMPACT THAT THE REFINED FLIPPED CLASSROOM MAY HAVE ON REDUCING THE BLACK ASIAN MINORITY ETHNIC (BAME) ATTAINMENT GAP

Professor Charles Wild,

School of Law, Criminology & Political Science, University of Hertfordshire,
Hatfield, Hertfordshire, United Kingdom,
E-mail: c.wild@herts.ac.uk

ABSTRACT

Many HE institutional education strategies have traditionally been based on provision targeted at a predominantly white student cohort. However, in an environment where degree programmes are being delivered to increasingly culturally diverse cohorts, it is an assumption that needs to be questioned and addressed by universities of they are to respond effectively to this changing cultural environment. Research highlights that Black Asian Minority Ethnic (BAME) students differ in the ways they learn and communicate from their White counterparts, and that many are less likely to be satisfied with their educational experience or to attain good honours degrees when compared to their White peers.

Based on a case study, the author highlights the significant reduction in the BAME attainment gap that has been achieved through the use of a refined flipped-classroom model across an entire undergraduate degree programme. The refined model allows students to watch lectures at times that suit them and provides them with a database of stored information to refer back to, when it is time to revise for exams or to write coursework. However, there is the additional benefit which encourages students to develop critical reasoning skills in a way which the standard classroom method of delivery does not explicitly provide for, and the traditional flipped classroom has difficulty achieving.

When comparing the performance of students during the period 2012/13 through to 2014/15, the following pattern may be noted in Table 1 with regards to the percentage of students graduating with a good honours degree:

Table 1

Ethnicity	2012/13	2013/14	2014/15
White	79	79	75
Asian	67	73	75
Black	55	58	69
Chinese	50	100	100

The success of the refined flipped classroom is clearly highlighted above with a marked and sustained reduction in the attainment gap of BAME students, against their White peers, has taken place.

Keywords: BAME attainment gap, Critical reasoning, Refined flipped classroom