

Reflective learning through learning journals: Can business students do it?

Ho Poh Ling

Curtin University of Technology, Sarawak, Malaysia
pauline.ho@curtin.edu.my

Abstract: *Business students focus on the application of accepted standards and principles to problem-based questions. They often do not have the patience to look at issues from different perspectives. They show impartiality and less thoughtful consideration when working through a learning experience. However, to enable them to learn better and to help them becoming lifelong learners, business students should be exposed to metacognitive learning through keeping learning journals. This way, business students are provided with the opportunity to reflect on learning process, learning environment, on themselves as learners, as well as identify ways to plan, monitor, evaluate and adapt to learning. This paper reports the investigation of learning journals as a means of facilitating reflective learning in an attempt to prepare students to live in, and engage within the changing world context. The aims of the study are to encourage business students to become reflective learners by having them keep learning journals, and to investigate students' perception of the use of learning journal. Honey and Mumford (1986) Learning Styles Instrument is administered to ascertain the change of learning styles of students. Students are randomly selected for interviews in order to explore the students' perception on the use of learning journal. The data suggests an improvement in the use of learning journals in promoting increased reflective learning. Students' perceptions encourage such techniques to be implemented in business courses.*

Keywords: *reflective learning; learning journal; business students*

Introduction

In a high-school class reunion dinner held last July, a mathematics academic with a local university in Malaysia blurted out that business students were only keen to get on things and quickly solve and accomplish tasks. I was taken aback by his statement. I gave a thought to his statement and after much recollection of memories of my own students during my five-year teaching in business discipline, I could not agree more with what he said. Generally, these students seek to take immediate action by applying accepted standards and principles to problem-based questions. They tend to be impatient with open-ended discussion and are less willing to display thoughtful judgment when working through a learning experience.

Curious to find out the learning style of a group of existing final year business students, Honey and Mumford's (1986) Learning Styles Inventory (LSI), adapted from Adler (2002), was administered in a seminar class of Taxation 331 in the first week of the semester. The instrument has twelve items, with

each item containing one of four phrases namely, “feeling”, “watching”, “thinking”, and “doing”. These four phrases respectively correspond with the four stages of Kolb Learning cycle: concrete observation, reflective observation, abstract conceptualization, and active experimentation. The respondents ranked orders according to how well the phrases describe his/her learning styles.

The outcome of the learning styles inventory revealed that these students tend to display preference for active experimentation in learning. This conforms to a pre-conception of learning among students in business courses that they understand concepts and principles in the attempt to quickly apply and solve problem-based questions. They are less likely to show preference for reflective observation in their learning. A further analysis of this result is discussed in the later part of this paper.

Today’s business world has undergone swift changes brought about by globalisation and trade liberalization. In the first instance, it is logical to think that these fast-paced changes require business professionals to react and apply accepted rules of thumb to solve and accomplish tasks quickly. However, it is likely that any given rule of thumb will become less and less relevant, if not abandoned, in the face of a fast changing business environment. To keep pace with the dynamic environment, students should be able to appreciate a given situation to know when a rule of thumb is still applicable. They should be provided with opportunities to reflect on their experiences in order to see how their learning could be improved.

This study is designed to encourage reflective learning among business students through the use of learning journals, and investigate their perceptions of the learning journals as a means to facilitate reflection. The remainder of this paper is organized in the following manner. The second section is designed to discuss the importance of the reflection in achieving metacognitive aspect of learning. The third section then describes the implementation of the study on how students are encouraged to be reflective learners. The results from this study are presented and discussed in the fourth section. The summary of the study is then provided in the final section.

Metacognitive learning

After the completion of their three-year business course, most students will enter into the workforce in their respective disciplines. They may be knowledgeable about the content, and may have acquired some generic skills in that respect. At the same time, they are expected to have the ability to be metacognitive about their learning in order to learn better (Flavell, 1979) and to be outstanding. Biggs (1999) suggested the importance of graduates displaying cognitive, metacognitive, motivational and affective characteristics in university study, achievement and learning for life. Radloff and de la Harpe (2001) agreed with Biggs (1999) that the graduates should possess these characteristics in order to be lifelong learners.

Learning is a broad issue and should therefore incorporate what we already know and how it can be transferred to other situations and adapted into different contexts. It is a fact that an individual chooses how and when to apply their learning that makes each situation unique. Learning in the business discipline should also focus on metacognitive aspects where these students should be provided with the opportunity to reflect on their learning process, the learning environment and themselves as learners, as well as how to go about in planning, monitoring, evaluating and adapting their learning.

Kolb (1984) commented that the key stage in learning was reflection, the mechanism that considered the link between action and result and subsequent action. Reflection, as defined by Dewey (1933, p.7), is “the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it leads”. In reflection, learners engage

in “intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations” (Boud, Keough and Walker 1985, p.15). This idea of reflection harmonizes well with Kolb’s model of experiential learning. In particular, reflection is the process of observing, watching and generally trying to make sense out of one’s concrete experiences.

Further, Schon (1983, 1987) described that reflection should be accompanied with action. He identifies two types of reflection: reflection-in-action and reflection-on-action. Reflection-in-action involves the analysis, interpretation, decision-making, and action that learners display as they undertake a learning experience. Whilst reflection-on-action refers to a learner’s attempt to mentally reconstruct the learning situation for the purpose of further analyzing, thinking about, and appreciating the learning experience. By and large, reflection involves a metacognitive approach in which learners observe and think of their own actions. They evaluate them in light of prior situations and experiences before coming to a considered opinion, and seek improvement in their own learning.

Using learning journals to facilitate reflection

Adler (2002) and Radloff and de la Harpe (2001) suggested that a way to assess metacognitive aspects of learning is to ask students to keep learning diaries. The use of learning diaries, which are also referred to as reflective journals or portfolio or learning logs, enables students to describe their learning, reflect on their personal learning experiences and outcomes in terms of how they have changed or intend to change or not change the way they learn. They provide written evidence of change or support individual personalized problem-solving. In particular, the act of writing commits students to revisiting their learning experience to think through what happened and to prevent issues becoming blurred or simply forgotten. Hopefully, the process will lead the students to a deeper understanding of their initial conception of the topic.

Literature shows that learning diaries have profound effect on students learning. Veitch (1999), Alderman, Klein, Seeley and Sanders (1993), and Dart and Clarke (1991) documented that learning diaries have been used to foster and assess students’ cognitive and metacognitive learning strategies. Hartley (1998) found that learning diaries helped students evaluate their learning, developed more sophisticated conceptions of learning and stimulated critical thinking.

Recognising benefits of learning diaries can bring, many professional education programs engage students in writing learning diaries as one of the learning activities (e.g., Conner-Greene, 2000; Woodward, 1998). The use is also prominent in fields of study like nursing (e.g., Kreka, 1999) and mathematics (e.g., Challis and Gretton, 1997). Notwithstanding the prevalent of writing learning diaries in other academic disciplines, this practice is recommended by Certified Public Accountants (CPA) Australia’s Practical Experience Mentor Program. The Program requires the Associate members to provide documentary evidence of their progress and participation in their areas of work when they apply for progression from Associate membership to CPA full membership. The Program Manual recommends the documentation be in the form of diary entry regarding a particular experience or event at work, or about personal values and goals, which may be required to submit for audit and validation purposes. The act of documentation implicitly suggests the necessity of engaging in reflective practice as a basis to competent professionals.

Motivation for the study

As noted early, business students show a preference for active experimentation. They are generally more interested in the end result than the process that one might travel in reaching the end. This study is initiated to motivate business students to display reflective observation in learning in an attempt to prepare them to embark on the CPA Australia’s Practical Experience Mentor Program and to keep pace

with fast changing business environments. Hence, the use of learning diaries would seem eminently sensible and valuable.

The objectives of this paper are to describe a study that encourages and assists business students in becoming more reflective learners by having them to keep learning journals, and to investigate students' perceptions of the use of learning journals in facilitating reflection.

The research proposition that guided this study is that students who keep learning journals will display greater reflective observation at the end of the course than they did at the start of the course.

The context of the study

This study is carried out with the offshore campus students of Curtin University of Technology in Sarawak, Malaysia. The subjects consist of 28 final year accounting students enrolled in a final year Taxation unit in the Bachelor degree with a major in accounting in semester 2, 2004.

The unit for which this study is conducted is called Taxation 331. The aim of the Unit is to provide students with skills to understand and interpret the tax legislation and apply it in a very practical manner. Concurring with the aim is the objective to develop students' analytical, problem solving, critical, and creative thinking skills, while implicitly promoting within them a positive attitude towards the learning process.

The manner in which the class structure and assessment is set out is the same across all four classes. All students meet weekly for three hours in the semester of twelve teaching weeks. The first two hours is spent presenting, exploring, discussing and understanding the underlying principles pertaining to the topic. Students experience the application of these principles to selected problem-based questions in the last hour of the seminar class. This assessment entails 100% examination including mid-semester and final examinations. There is no deviation in the time allocation for class activities carried out in all four classes, with the exception that students in the subject group are required to maintain learning diaries after the class.

The unique environment in which Curtin Sarawak Malaysia operates is noteworthy. As an offshore campus, CSM is dependent on the main campus in Perth, Australia for all the teaching materials and guidelines. The main campus undertakes the design of unit structure including assessment while any variations proposed by the offshore campus must be approved by the main campus. At the time this study is initiated, the use of learning journals in learning has not been put forward to the main campus for approval and thus, it cannot be embedded into the assessment structure. Rather, the use of learning journals, as a stand-alone activity, is implemented to replicate the diary writing recommendation made within CPA Australia's Practical Experience Mentor Program and to simulate the real world with academia.

Methodologies

Each student in the subject group is required to keep a learning journal. Students are told to make the entry in the journals on a weekly basis, and take no more than 20 minutes to complete in order not to perceive it as a burden since it is not embedded into the assessment structure of the unit.

In view of the fact that this is a relatively new learning experience for all the students in the subject group, guidelines on how to use learning journal were provided to assist with the practice of reflective learning. After all, November (1993) indicated that the best results occur when there has been considerable

guidance on the journal writing given. In addition, it was highlighted to the students that there is no one right approach to making entries in learning journals. They were advised to express their feelings, thoughts and beliefs about learning freely by using informal writing styles and structures, and re-read the journals (self-reflection) in order to crystallize their learning.

Before the implementation of keeping a learning journal, the Honey and Mumford (1986) Learning Style Instrument (LSL) is administered in the first week of the semester to ascertain the learning styles of students. The same instrument is administered again at the end of the semester after having encouraged the students to keep learning journals as a learning technique. The purpose is to find out whether the students have changed their learning styles to that of reflective learning, and becoming reflective learners.

To explore the students' perceptions of the use of learning journals as a means to facilitate reflection, ten students are randomly selected for interview. During interview, they are invited to talk about their perceptions of this learning technique, the process and experience of it.

Results

Students' reflective observation scores increase slightly during the semester from 28.32 to 31.14. Their preference for active experimentation remains high even though there is a slight decrease in the average scores from 33.25 to 32.29. Table 1 gives means and standard deviations of the preferred learning styles by students during the semester.

Sample size = 28		
	Mean	Standard deviation
Reflective observation		
Start of semester	28.32	4.81
End of semester	31.14	5.28
Active experimentation		
Start of semester	33.25	8.84
End of semester	32.29	7.20

Table 1. Students' Learning Style Scores

A paired samples t-test is conducted to assess the change in learning styles adopted by students. The result reveals that the change in mean score is statistically significant for reflective observation with t-statistics and p-value of 2.94 and 0.03 respectively. Hence, it supports the study proposition that students display greater reflective observation after keeping journals in learning. However, the test fails to show significant change in active experimentation. The statistical results for the paired samples t-tests are provided in Table 2.

Ten students were randomly selected for interview to investigate their perceptions of the use of learning journals. Out of ten, seven students are generally positive about their experience in making entries into the learning journals while the other three are not enthusiastic about it. The detail, frequency of entry and the reflective nature of the entries varied across all of them.

	Mean	Std deviation	Std error	t-statistic	Significance
Change in reflective observation score	2.82	5.07	0.57	2.94	0.03
Change in active experimentation score	0.96	7.85	0.98	0.03	n.s

Table 2. Paired samples test statistics

Generally, students are perturbed at the introduction and implementation of this learning technique which they have never had experienced throughout their years of studies. Nonetheless, they agree to cooperate and try it out. Quotes of students' comments on the use of learning diary are provided below:

I feel restricted in writing when it is required to submit my learning journal. Too embarrassing.... However, I feel easy to write whatever I feel about my learning of the subject after you scratch the requirement of submitting journals. It should be the way as diary (journal) is personal to the writer.

Since it does not form part of the requirement of the course, I feel no pressure in writing. I can express in any three languages (English, Chinese and Bahasa Malaysia) freely. My attention can now focus on how well I learn.

At first I felt awkward in putting my feelings towards learning in words. The feeling is really funny.

I did it merely to entertain you (lecturer). After all, the suggested time in writing is not consuming.

On the other hand, they agree that the process has been beneficial in some way or another in their learning. Quotes from interview on the perception of learning journal as a useful tool to facilitate reflection is accounted for as follows:

.. as I proceed I discover it is a place where I can highlight issues and cast doubt over my understanding of a principle and ability of application. It forces me to find ways to solve any problems I encountered.

I learn to form an opinion about a topic ... something which I never consider of doing it before. Re-reading my own writing is more fun than reading the Tax Legislation. The process of re-reading my journal enables me to know my weakness and prompts me to take action immediately.

...enables me to re-think what I had heard and practiced in the class. I reflect on how well I apply principles to problem-based questions. It allows me to express my learning in a personal way ... very good experience ... but please, do not ask for my diary.

It is a good idea as the notes I made in the diary revealed areas that need attention and improvement.

...makes me think about Taxation, what it is and how it is related to my other accounting studies.

Discussions and limitations

The outcome of the learning styles inventory suggests that students still prefer to 'work their ways through' as their preferred learning style. They are more tuned to what the old saying says, 'practice makes perfect' as a way to learn. These students do not seem to be ready to entirely display the preference for reflective observation. This could be attributed to the students who are characterized as Confucius Heritage Culture (CHC) learners in this campus (Abdullah, Balasingam, Krishnan, and Kong, 2002) as well as the educational background they were exposed to in this country. Also, the implementation of learning journals as a non-assessment item as well as the design of the assessment structure comprising all examinations may cause students to continue adopting the familiar active experimentation approach. Kolb describes these students as pragmatists who only have 'pragmatic concern' about their learning. In essence, they like being exposed to techniques or processes which are clearly practical, have immediate relevance and which they are likely to implement. They are less likely to look at issues from different perspectives and appreciate different points of view (Kolb, 1984).

Nonetheless, the experience of using learning journals by the students is encouraging. Students' comments provide evidence that learning journals can be an effective tool in encouraging reflective learning. It appears that the learning approach seems to be helpful in deepening the quality of learning and in helping students to integrate the material of learning. The very nature of journal entry allows students to engage in, search for and express their learning in a personal way. This learning allows students make personal meaning and is useful in their own context.

During implementation, learning journals of students were collected in 5th week of the semester to ascertain the process was followed through. A glance through learning journals reveals the areas that are commonly included by students. These are (i) summary of key learning points for each topic, (ii) identification of problem areas and ways to resolve them, (iii) dissatisfaction with topic content, classroom setting and activities, etc., and (iv) even personal problems! Despite variation in the length and content of entries in journals, they provide justification that learning journals have been employed in some ways or another in the learning. Nonetheless, feedback from students about the collection requirement is that they feel uncomfortable due to the personal and sensitive information included therein. Inevitably, sharing learning journals is yet to be a culture among these CHC-characterised students. Considering the fact that keeping journals is a new learning experience and it being a non-assessment item, and to continue encouraging them to use learning journals in enhancing reflective learning, I decided not to be judgemental and encroach on the use of learning journals.

In the premise, the immediate concern in the study is the lack of interaction between students and teacher. Subsequently, except for the first and only collection, I failed to respond in ways that will bring a critical dimension to reflecting on learning. As a result, the mutual exploration of teaching and learning issues is not able to be achieved in this study.

The second concern arising from the study is the tendency to assume students in subject group would have become reflective learners solely through keeping journals and practising reflection. As Adler (2002) put it, 'the process of reflection is seldom an automatic process'. The skills and strategies of reflective writing need to be nurtured and developed slowly over a period of time with a clear goal of moving gradually to a more reflective writing. Opportunities for reflection need to be introduced early in order to inculcate reflective culture in the university in an attempt to develop lifelong learners who are actively responsible for self-directed learning and self-discovery (andragogy).

This study is not completed without shortcomings. It is a one-off study conducted over one semester with subjects who have never had the experience of using journals in learning. Future studies can be

conducted, with approval sought to embed it into assessment, over a longer period of time (say, over one to two years) to familiarise students with learning journals in order to assess the effect on students' reflection. Since this study also fails to address the effectiveness of the learning journals, future study may evaluate the effectiveness by looking at both performance and attitudinal measures that would demonstrate the expected changes in the depth of students' learning.

Conclusion

Many business students still prefer to adopt 'doing' as a way to learn. However, in the face of the fast changing business world, it is important they realize the practicality of the exposed technique and process. Hence, it is necessary for students to be given opportunity to reflect on their personal learning experiences.

Writing a journal is recommended to encourage reflection. The process gives rise to deep approaches to learning. Through it, learners develop personal understanding of subject matter and the ability to relate it to what they have already known. Critical, creative and independent thinking will then be encouraged, which will turn students into reflective learners. Being able to express ones learning is a great source of motivation for continuing development – a step towards achieving lifelong learning.

As the study of this paper reveals, there is a slight improvement in the use of journals in promoting reflective observation approach in learning, and students' perception of the use is encouraging for such technique to be implemented in business course in the future. The benefit will certainly be reaped if the business academia takes a proactive role in its development.

References

- Abdullah, S.k., Balasingam, D.M., Krishnan, A. and Kong, E.F.E. (2002). Learning styles of Confucius Heritage Learner: A case study at Curtin University of Technology, Sarawak. Teaching and Learning Forum 2002, Perth, Australia.
- Adler, R. (2002). *Using learning diaries to enhance student learning*. Winnipeg, Manitoba: Administrative Science Association of Canada.
- Alderman, M. K., Klein, R., Seeley, S. K., & Sanders, M. (1993). Metacognitive self-portraits: Preservice teachers as learners. *Reading Research and Instruction*, 32(2), 38-54.
- Biggs, J. (1999). *Teaching for quality learning learning at university*. Buckingham: SRHE and Open University Press.
- Boud, D, Keough, R. & Walker, D. (1985). *Reflection: Turning experience into learning*. London: Kogan Page.
- Challis, N.V. and Gretton, H.W. (1997). Learning diaries and technology: their impact on student learning. Retrieved from <http://euler.uni-koblenz.de/ictmt3/cd-rom/pdf>.
- Conner-Greene, P.A. (2000). Making connections: Evaluating the effectiveness of journal writing in enhancing student learning. *Teaching of Psychology*, 27(1), 44-46.
- Dart, B. C., & Clarke, J. A. (1991). Helping students become better learners: A case study in teacher education. *Higher Education*, 22, 317-335.
- Dewey, J. (1933). *Experience and education*. New York: MacMillan.
- Flavell, J. (1979). Metacognitive aspects of problem-solving behaviour. In *Reflective Writing* (Ed) Retrieved 25 May 2005 from: <http://www.ucd.ie/teaching/good/lea.htm>.
- Hartley, J. (1998). *Learning and studying: A research perspective*. London: Routledge.
- Honey, P and Mumford, A. (1986). Learning Styles Questionnaire. In A.Radler (Ed), *Using learning diaries to enhance student learning*. Administrative Science Association of Canada, Winnipeg, Manitoba.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice Hall.
- Kreka, S. (1996). Journal writing and adult learning, ERIC Digest No. 174. Eric Document No ED399413.
- November, P. (1993). Journals for the journey into deep learning. *Research and Development in Higher Education*, 16, 299-303.
- Pintrich, P.R., Smith, D.A., Garcia, T. and McKeachie, W.J. (1993). Reliability and predictive validity of the motivated strategies for learning questionair (MSLQ). *Educational and Psychological Measurement*, 53, 801-813.

- Radloff, A. and de la Harpe, B. (2001). Expanding what and how we assess: Going beyond the content. In A. Herrmann and M. M. Kulski (Eds), *Expanding Horizons in Teaching and Learning*. Proceedings of the 10th Annual Teaching Learning Forum, 7-9 February 2001. Perth: Curtin University of Technology. Retrieved 25 May 2005 from <http://lsn.curtin.edu.au/tlf/tlf2001/radloff.html>.
- Schon, D. (1983). *The reflective practitioner*. New York: HarperCollins.
- Schon, D. (1987). *Educating the reflective practitioner*. London: Jossey-Bass Ltd.
- Veitch, J. (n.d.). Veitch journal page. Retrieved 25 May 2005 from <http://www.ate.co.nz>
- Woodward, H. (1998). Reflective journals and portfolios: learning through assessment. *Assessment Evaluation in Higher Education*, 23(4), 415-423.

Copyright © 2005 Ho Poh Ling: The author assigns to HERDSA and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author also grant a non-exclusive licence to HERDSA to publish this document in full on the World Wide Web (prime sites and mirrors) on CD-ROM and in printed form within the HERDSA 2005 conference proceedings. Any other usage is prohibited without the express permission of the authors.