

Improving the Critical Thinking Skills of Accounting Students Using the Framework-Based Teaching Approach

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Abstract

The purpose of this paper is to examine how the Framework-based Teaching (FBT) approach improves the critical thinking skill among accounting students at tertiary education level. This qualitative study is conducted using the Scholarship of Teaching and Learning (SOTL) approach, where reflections from lecturers' experience in teaching and learning process are gathered. Data are collected from both accounting lecturers and students who implemented the FBT approach using the inquiry-based learning technique in the financial accounting course. Data are analysed using content analysis. The results from the study indicate that, based on lecturers' reflection, students are pushed to think in depth in classes using the inquiry based learning of the FBT approach. This is supported by students' feedback on their own critical thinking ability. Thus, the FBT approach improves the critical thinking skills among accounting students. The implication of this study is the practicability of the FBT approach in teaching financial accounting course at university level in encouraging critical thinking skills.

Keywords: Accounting education; Critical thinking; Framework-based teaching; Reflection analysis.



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1. Introduction

Financial accounting practices are still revolving due to the dynamic changes in the business model. A complex business activity requires accountants to use their judgement in resolving accounting issues. As a result, the accounting standards used in practices, i.e. the International Financial Reporting Standards (IFRSs), are changing from time to time. However, the Conceptual Framework of Financial Reporting (the Conceptual Framework), which underlies the development of all IFRS standards, remains constant and relevant as a basic rule and guideline. Therefore, to produce accounting graduates who are ready for the dynamic changes in accounting environment, the students are expected to be able to think critically and use their professional judgement in applying the accounting concept to solve accounting issues (AICPA, 1998;2010; Myers, 2005). This could be achieved if the students have a strong understanding in the Conceptual Framework as the underlying concept of any IFRS accounting standards (Wells, 2011).

In the current practice at tertiary education level, lecturers are more focus on teaching the content rather than the thinking skills (IFRS Foundation, n.d). In accounting degree program, lecturers teach the accounting concept and treatment by applying the specific accounting standards (i.e. the IFRS accounting standards). For example, the International Accounting Standards 138 Intangible Assets (IAS 138) is used as a main reference to teach the financial accounting and reporting on intangible assets by business entities. In this standard-based teaching approach, students are taught about the accounting treatment of an economic event, but they are not exposed to the reasoning basis of such treatment. Lecturer rarely relates the accounting rules back to its basic principles as discussed in the Conceptual Framework. Therefore, students are less competent to justify the reasons for such accounting treatment and become rigid in solving accounting issues. Students tend to focus on rote learning by memorizing the accounting treatment rather than the analytical skills. Therefore, students are less capable to think critically (Myers, 2005). This condition will be getting worse especially when the accounting standards change in the future due to changes in business model and environment.

It is expected that by discussing the Conceptual Framework as an underlying concept of any accounting standards, students will be able to enhance their ability to apply their judgement in solving any accounting issues in the future. They will be able to understand better the basis of all accounting rules stated in the accounting standards. Using the Conceptual Framework as basis in teaching financial accounting concept is known as the Framework-based teaching (FBT) approach (Rajendran, 2008). The FBT approach is different from the standard-based approach because the former focuses on the application of the Conceptual Framework in explaining the accounting treatment of a particular accounting issues, whereas the latter focuses on the application of the specific IFRS accounting standards in explaining the accounting treatment.

Recently, the international accounting regulation body, i.e. International Accounting Standard Board (IASB) encourages lecturers to use the FBT approach in teaching accounting subjects in the universities (IFRS Foundation, n.d). Applying the FBT approach encourages students to think critically on the accounting issues that they might face. In Malaysia, the importance of problem solving and critical thinking skills among graduates are highly emphasized as documented in the Malaysia Higher Education Blueprint 2015-2025 (Higher Education) (Ministry of Education Malaysia, 2013). In fact, the Ministry of Higher Education Malaysia has specifically revised the curriculum of local universities that offers accounting degree program so that they keep abreast with the job market requirement. The FBT approach has been recommended to accounting faculty in universities in Malaysia since 2015 through the recommendation made in the Direction 3 report (Department of Higher Education Malaysia, 2015). However, the impact of the FBT approach to improve the critical thinking skill among accounting students are yet unveil, thus requires further investigation. Therefore, the objective of the study is to examine how the FBT teaching approach may improve accounting students' ability to think critically.

2. Literature Review

2.1. The Conceptual Framework for Financial Reporting

The main aim in accounting practice is to assist the preparation of general purpose financial report for a profit-oriented entity. Therefore, to facilitate the consistent and logical formulation of the accounting rules and standards, the International Accounting Standards Board (IASB) published the Conceptual Framework in July 1989. This framework is superseded by the Conceptual Framework for Financial Reporting (the Conceptual Framework) published in September 2010. Recently, the revised Conceptual Framework has been issued in March 2018 (IFRS Foundation, 2018). The Conceptual Framework discusses the objective, qualitative characteristics, elements, and recognition, measurement, and disclosure concepts of an economic event to be reported in a general purpose financial report.

The Conceptual Framework has become the underlying basis of development of other IFRS accounting standards (IFRS Foundation, 2017a). The IFRS accounting standards set out the specific accounting rules for a specific economic event. For examples, IAS 36 Property, Plant and Equipment specifies the accounting treatment for property, plant and equipment owned, and IFRS 9 Financial Instruments specifies the accounting treatment related to financial assets and liabilities. To date, there are 45 IFRS accounting standards issued by IASB that covers wide range of economic events (IFRS Foundation, 2017b). Therefore, for any IFRS accounting standards issued, it must consistent with the basic rules and principles underlying in the Conceptual Framework.

2.2. Framework-Based Teaching (FBT) Approach

The Framework-based teaching (FBT) approach requires students to relate the concepts in the Conceptual Framework to a particular IFRS accounting standard being taught in class (Wells, 2011). This approach relates the accounting treatment and reporting of the entity's economic event to the objective of the general purpose financial reports, before proceed to the application of the specific IFRS accounting standards. This teaching approach provides a more robust and cohesive understanding of the requirement in the specific IFRS accounting standards. It differs from the standard-based approach, where the concepts in the Conceptual Framework are not specifically highlighted in the class.

For instance, in explaining the accounting treatment for intangible assets, a lecturer will refer directly to MFRS 138 Intangible Assets and provide details about the accounting treatment of intangible assets, without attempt to explain the basic concept underlying the accounting treatment. Whereas, if a lecturer uses FBT approach, the lecturer will relate the accounting treatment for intangible assets to the basic concept as discussed in the Conceptual Framework. The lecturer shall discuss about the objective, qualitative characteristics, elements, and recognition, measurement, and disclosure concepts of intangible assets to be reported in a general purpose financial report.

According to IFRS Foundation Education Initiative, there are three stages of the FBT approach in teaching financial accounting subject (IFRS Foundation, 2017c). Stage 1 is the first stage where students are expected to create awareness of the IFRS judgement and estimates. In this stage, students are expected to understand the economics of the event and transaction. Stage 2 is the intermediate level where students are expected to understand the IFRS judgement and estimates. In this stage, students are expected to apply their knowledge about IFRS rules and principles on the economic events. Stage 3 is the final stage where students are expected to have the competence to make the judgement and estimation consistent with the IFRS accounting standards and requirement. The level of difficulty and critical thinking is progressing after each level to suits students' thinking ability. In Malaysia, all the three stages are incorporated in determining the curriculum of accounting degree program as recommended in the Direction 3 Report (Department of Higher Education Malaysia, 2015). However, the effectiveness of the FBT approach in enhancing students' critical thinking ability is not yet explored in depth.

2.3. Development of Critical Thinking Skills

Critical thinking skills refer to the ability to analyze and evaluate information. Critical thinking skills can be learned and thought. There are five steps to be taken to allow students think critically: (1) determine learning objective, (2) teach through questioning, (3) practice before assess, (4) review, refine and improve, and (5) provide feedback and assessment of learning (Duron *et al.*, 2006). Students with critical thinking skills are able to identify problems, formulate the problem statement, gather relevant information, think beyond the issues, suggest solution based on evidence, and communicate effectively with others (Duron *et al.*, 2006).

Critical thinking skills are very crucial among accounting graduates. Previous studies provide evidences on the importance of critical thinking skills for the accounting practitioners to remain competitive in real business world (AICPA, 1998; Camp and Schnader, 2010). However, accounting graduates were found to be lacking in this skill. One of the possible reasons is due to ineffective instructional approaches used in accounting education (Springer and Borthick, 2007). Therefore, a reform in accounting education is warranted to incorporate the critical thinking skills (Department of Higher Education Malaysia, 2015; Muhammad and Sulaiman, 2013).

Various teaching and learning strategies can be used by lecturers to stimulate students' critical thinking. Among the strategies available are mastery learning, cooperative learning, thematic instruction, cognitive coaching, inductive teaching, deductive teaching and inquiry-based learning (Rajendran, 2008). Other techniques could also be used to engage accounting students in learning the accounting theory, such as blended learning, games, debates, case study, activity-based modules and simulations (Camp and Schnader, 2010; Jaijairam, 2012). However, these pedagogies require long period of time to plan and develop a suitable teaching module. Inquiring or questioning is one of the techniques that can be used because it allows lecturer to establish what is already known and then extend the questions gradually to develop new ideas and understanding (Duron *et al.*, 2006).

In the FBT approach, students are required to exercise judgement and critical thinking in discussing the analysis of the concepts to be used (Wells, 2011). Students can make more informed judgement if they truly understand the main objective of financial reporting and how to achieve it. In accounting, students must first understand the basic concept of the reporting framework of an economic event, and then apply the concept to a specific accounting issues. This approach requires a development of critical thinking skills. However, there is no specific guideline on how to implement the FBT approach although materials of teaching using the FBT approach are provided in the IFRS website (IFRS Foundation, 2017b). Thus, an inquiry-based learning technique is used to deliver FBT approach in this study. The inquiry-based learning technique is carried out by asking students to solve a particular problem, rather than being presented with established fact from the specific IFRS accounting standards (Freda *et al.*, 2004; Mohd Ariff *et al.*, 2017). For instance, the lecturer will ask students several questions such as what type of information does investors want to know about a particular economic event, and how shall this event be reported in the financial statement based on the Conceptual Framework. The lecturer will also ask the students to provide justifications for their answers. In the FBT approach, students were asked to use their logical knowledge and critical thinking to discuss the appropriate accounting treatment of a particular economic events. In this approach, students have to challenge themselves to think and make sense of the reasonable and suitable accounting treatment based on their understanding about the Conceptual Framework.

3. Methodology

This is a qualitative study, using a Scholarship of Teaching and Learning (SOTL) approach. SOTL is a research approach which is oriented on scholar thought and action in discussing issues of teaching and learning at higher education (Boyer, 1990). The goal of a SOTL research is to improve teaching practices and enhance students learning. This is achieved by critically evaluate self-teaching practices and share their insights with other lecturers. This reflective practice is an important element in teaching profession because it assists the teachers or lecturers to externalize their internal cognitive and experience in teaching practices (Hussin, 2004).

The samples for the study were three accounting lecturers, who were identified as Lecturer A, B and C, and were assigned to teach Financial Accounting and Reporting 1 course in Semester 1, session 2016/2017 at Tunku Puteri Intan Safinaz School of Accountancy (TISSA-UUM), Universiti Utara Malaysia. This course was chosen because it was an introductory level of financial accounting paper offered. This is consistent with Level 1 of FBT approach. The students enrolled for this course were newly intake students and have no exposure to FBT approach. A number of 157 students enrolled for the course under six different groups and assigned under three different lecturers (i.e. each lecturer was assigned two groups). The FBT approach was implemented using inquiry-based technique in three consecutive weeks of teaching (i.e. Week 8, Week 9 and Week 10). Both lecturers and students were included in the study as the subjects who involved in the FBT approach in teaching and learning process. Therefore, they were able to provide feedback on the impact of the FBT approach in improving students' critical thinking.

Data were collected from the reflective journal of the three lecturers mentioned above. Reflective journal engages the researchers in the notion of creating transparency in the research process (Ortlipp, 2008). In the reflective journal, the lecturers observed and reflected all activities involved in implementing the FBT approach. It covered the planning until implementation stage. The reflective journal was kept on weekly basis by the lecturers, for three consecutive weeks (i.e. Week 8, Week 9 and Week 10). In the reflective journal, the lecturers used the Gibbs reflective cycle in making the observations and reflections. The Gibbs reflective cycle involve description, feelings, evaluation, analysis, conclusion and action plan (Gibbs, 1998). The lecturers documented on what they were thinking and feeling about students' ability to think critically during the teaching and learning process using the FBT approach.

In order to support the results from lecturers' reflective practices, data were also collected from students. Students' feedback was used in the triangulation process. Questionnaires were distributed to students asking about their opinion and experience in the learning process using the FBT approach. The purpose of this questionnaire was to seek for students' feedback on their ability to think critically and to support lecturers' reflective analysis. The questionnaire was distributed to students at the end of FBT approach class, i.e. Week 10. The response rate is 82% (130 out of 157 students returned the questionnaire).

Data from the reflective journal written by the three lecturers for three consecutive weeks were analyzed using the content analysis technique. Similarly, the returned questionnaire by students were also analyzed using the content analysis technique. Through content analysis technique, researchers are able to understand the studied phenomenon (Cole, 1988), which is in this study, how the FBT approach enhance students' ability to think critically. Data from the reflective journals were identified, coded and categorized according to the common theme emerged in the study. The emerging themes were reported in the results and discussions section.

4. Results and Discussions

This section reports the findings and discussions of the study. It presents and discusses lecturers' reflections on how FBT approach might help improving the critical thinking ability among accounting students. This is followed by students' feedback on their own critical thinking ability after learning using the FBT approach.

4.1. Lecturers' Reflection on Students' Critical Thinking Ability

The following paragraphs report the lecturers' reflection on the experience of teaching and learning using the FBT approach. The researchers provided their evaluation and analysis based on their experience with students' critical thinking ability. The reports are divided by themes emerged from the evaluation and analysis made by all three lecturers, i.e. Lecturer A, Lecturer B and Lecturer C, in their reflective journal. The evaluation and analysis are made in progressive manners based on the experience in the three consecutive weeks of classes.

All three lecturers analyzed the students' thinking process in the inquiry-based technique of the FBT approach. As a result from the rigorous questioning activity, the lecturers found that students had made an effort to think. Students had to push themselves to think using their own knowledge, logic and experience in answering the questions. In the FBT approach, students had to apply their understanding of the Conceptual Framework by answering lecturers' questions verbally and instantly. This is because the answers were not available in the lecture notes. So, students had no reference in answering the questions. This gave them a chance to think spontaneously and beyond the scope of the textbook and lecture notes. Questioning is proven to have great impact on students' thinking process (Clasen and Bonk, 1990). The lecturers had observed that the ability of students to think has improved progressively in each class, as can be evidenced by the increase in participation of students in answering the questions.

All three lecturers also evaluated the extent of students' critical thinking resulting from the FBT approach. With respect to the variety of answers given by students, the extent of the answer was, unfortunately, very brief. Students were not able to elaborate and explain their own answers. It was very difficult for them to express their own opinion and idea. They seemed to know the answer, but they could not put it in words. Little improvement could be seen throughout all three classes. Although lecturers have given a lot of encouragement, they were not able to think deeply and critically. This was probably due to little basic understanding on the topic itself and lack of experience. For example, they had no idea what an intangible asset was because they had no experience dealing with intangible asset. So, they could not conceptualize the topic and therefore, it was hard for them to relate the concept back to the Conceptual Framework. Students' difficulty in elaborating the answers was also probably due to their previous education experience in high schools which was exam oriented and lack of critical thinking activity (Ministry of Education Malaysia, 2013). It is hard for them to adapt to the new style of learning once they enter the university. However, the education reform is about to take place as outlined in the recent Malaysian Education Blueprint 2015-2025.

The lecturers also discussed about students' confidence level in answering the question. Based on lecturers' observations, students were able to give variety of answers with confidence. The improvement could be seen from the first until the third class. They were able to provide answers without worrying whether their answers were right or wrong. Lecturers accepted their answers without condemning their mistakes, and took the opportunity to ask students to elaborate more. Lecturer's role in encouraging students to give answer and not penalizing them for wrong answers plays a significant role in encouraging the students to think critically (Raux, 2006).

From the observations, it was also discovered that students' communication skills, volunteerism, participation and confidence level were increasing over time. Although only few students volunteered in giving the answers in the first class, the numbers were growing in the next class. It shows that FBT approach does not only help to encourage students to think critically, but also help to improve students' confidence level and communication skills. These skills are important as they are highly valued by future employers (Ministry of Education Malaysia, 2013).

As a conclusion, based on the above evaluation and analysis by the three lecturers, it is found that students' participation and confidence level has improved over time. The significant finding from this study is that students' ability to think has improved substantially, even though not up to the level as expected by the lecturers. However, this is reasonable as students are still at the introductory stage of financial accounting. At this stage, it is expected that students are able to create the awareness about the IFRS judgement and estimates (IFRS Foundation, 2017c). In the future, more efforts need to be done to improve students' critical thinking ability among accounting students. It is recommended that other teaching techniques should also be used to complement the inquiry-based technique, such as the use of case study or problem-based learning (Rajendran, 2008). A use of case study can help develop students' analytical and critical thinking skills, besides other soft skills development (Boyce *et al.*, 2001).

4.2. Feedback from Students About Their Critical Thinking Ability

Besides the lecturers' reflections, students' feedback on their experience in the learning process using the FBT approach were also obtained. They were asked to provide their feedback on the effect of FBT approach in their critical thinking ability. Table 1 presents the descriptive results of students' feedback.

Table-1. Descriptive results of students' feedback (N=130)

Questions	Number (%) of students		
	Yes	No	Not sure
Do you think that the FBT approach has helped you to think critically?	125 (96%)	4 (3%)	1 (1%)

The result in Table 1 indicates that almost all students (96%) agreed that the FBT approach has helped them to think critically. Among the reasons given by students are the spontaneous questioning activity that has encouraged them to think outside of the box. They are challenged to think of all possible answers on how to relate the Conceptual Framework with the topics learned. This activity has made them to think more critically. This differs from normal lecture where students will just sit and listen to the lectures by lecturers. This has created an active learning environment for students which has increased students retention rate (National Training Laboratories, 2011). This is consistent with the lecturers' reflection analysis, and is aligned with the expected outcome from the FBT approach (Rajendran, 2008).

The result also shows that students appreciate the thinking activity that were made available in the class. Some students appreciate the challenging and difficult questions posed by lecturers. This might be because students prefer to learn something new and challenging. It shows that by asking challenging question in class has helped the students to be positive in class and are driven to think critically (Ames and Archer, 1988). Students also provide feedback that their communication skills have improved as a result from the FBT approach. This is due to the two-way communication between lecturers and students. Also, it helps students to improve their soft and interpersonal skills. Students' responses above show that FBT approach has helped them to think critically, and this is consistent with lecturers' reflection.

However, there are very few students (3%) who do not believe the FBT approach has helped them to think critically. Among the reasons given is their unsecured feeling when the exact answers are not available at the end of the discussion, and their concerns about inability to think at the same pace with other friends. This is common because every students' ability to think and learn are different. Therefore, lecturers must identify students' individual level of learning and thinking, and persistently encourage the students to join the discussions.

As a conclusion, based on the feedback by the students, it is found that the students believe that they have improved their ability in thinking critically. The result is consistent with the reflections made by the lecturers, thus confirm the findings in the study. Although students' feedback on the extent of critical thinking seems to be slightly different from lecturers' expectation, it is generally acceptable to say that the FBT approach has provided a path for students to think critically. Therefore, it is highly recommended that the FBT approach shall be implemented in all financial accounting courses at university level.

5. Conclusion

Framework-based Teaching (FBT) is a teaching approach that uses the Conceptual Framework as a basis for understanding the accounting treatment and reporting process of an entity's economic event. This approach requires students to exercise critical thinking in discussing the application of the concepts outlined in the Conceptual Framework. In this study, it is found that FBT approach has improved students' ability to think critically. Although the level of critical thinking is not to the expected level, this approach has provided a pathway for students to think critically. Therefore, it is recommended that the FBT approach shall be implemented in financial accounting courses at tertiary education level. However, this study has several limitations such as time constraints and generalizability to other population, which are due to the short time period of study and small sample size. In the future, a study on the effectiveness of the FBT approach in enhancing students' critical thinking ability should be extended to accounting students in senior years at other tertiary education institutions.

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