Improving Cognitive Engagement in Introducing International Financial Reporting Standard through Open-Ended Experiential Learning Cases

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Abstract: The aim of this research is to improve Cognitive Engagement in introducing International Financial Reporting Standards (IFRS) for accounting students at Yogyakarta State University through the implementation of Open-Ended Experiential Learning Cases. The present action research consisted of two cycles. The data were collected using a test and questionnaires and were analyzed descriptively. The result shows that there were improvements in students' Cognitive Engagement for the indicators students' persistence, focus, full absorption, and mastering knowledge. However, the students' effort that also constituted one indicator of Cognitive Engagement was still difficult to be improved in this research.

Keywords: cognitive engagement, open ended experiential learning case

Abstrak: Tujuan penelitian ini adalah untuk meningkatkan *Cognitive Engagement* dalam memperkenalkan *International Financial Reporting Standards* (IFRS) pada mahasiswa Akuntansi Universitas Negeri Yogyakarta melalui implementasi *Open-Ended Experiential Learning Cases*. Penelitian ini merupakan penelitian tindakan kelas terdiri atas 2 siklus. Data diperoleh melalui tes dan angket kemudian dianalisis secara deskriptif. Penelitian membuktikan bahwa implementasi *Open-Ended Experiential Learning* Cases dapat meningkatkan *Cognitive Engagement* mahasiswa untuk indikator ketekunan, fokus, keterlibatan penuh, dan penguasaan materi. Akan tetapi, penelitian ini belum berhasil membuktikan bahwa usaha mahasiswa yang juga merupakan salah satu indikator *Cognitive Engagement* meningkat.

Kata kunci: *cognitive engagement, open ended experiential learning case*

International Financial Reporting Standards (IFRS) are the accounting standards set by the International Accounting Standard Boards (IASB) and used internationally by around 1115 countries in the business world (Kieso, Weygandt, & Warfield, 2011). The IASB set this standard with the purpose to overcome problems related to comparability of financial statements (Stovall, 2010). Due to the problem of comparability, many countries including Indonesia decided to converge its accounting standard to IFRS (Stovall, 2010). Indonesia that previously implemented US Generally Accepted Accounting Principles (US GAAP) then moved to IFRS in 2012 (Muchlis, 2011).

Convergence to IFRS has raised many problems in setting the accounting learning model at higher education in Indonesia. The first problem is related to the change of mainstream from US GAAP to IFRS. US GAAP is a rule base standard, while IFRS is a principle base standard (Derstine & Bremser, 2010; Thomas, 2009). The implementation of principle standard requires students to be able to use their professional judgment to decide the accounting policies that must be followed by companies and to make several estimations that are appropriate with the conditions and environments of the companies. This creates a serious problem for higher education since professional judgment is rarely exercised in the implementation of rule base standards. The students have not yet been prepared to master knowledge of providing professional judgment (Jones, Vedd, & Yoon, 2009; Kroll, 2009; Muchlis, 2011)

Another problem of convergence to IFRS is the need to use the work of other professions. It is necessary for students to increase knowledge of other professions so that the students have reasonable capabilities to provide professional judgments and to disclose complete information asked by

IFRS (Muchlis, 2011). This will be a problem for higher education to provide the ways for students to integrate accounting with other subjects. The role of lecturers to encourage students to be more persistence to find information that could not be learned in the class therefore should be improved.

The third problem is the availability of IFRS accounting text books (Cherubini, Rich, Zhu, & Michenzi, 2011; Yallapagrada, Toma, & Roe, 2011). Lack of IFRS text books creates difficulties for students to use the books that are relevant with the condition in Indonesia (Muchlis, 2011). Students have no effort to find the information from many sources since they only used one mandatory text book that was asked by their lecturer in the previous learning (Muchlis, 2011)

The last problem is due to the accounting learning model that is focused on the use of lecture model (Hartono, 2006). The rule base model forces the lecturers to practice the lecture model since there are a lot of standards that must be learned by students in limited time. The lecture model then creates students to have less focus in the learning process because there is no other creative model that can be used by students to understand and apply the accounting standards. This will imply the more serious effect that students feel it is hard to make a connection between what they get in the class and what they must do in the real business world (Giri, 2008; Hartono, 2006)

All those problems will have negative effects in the level of students' cognitive engagement (Newmann, Wehlage, & Lamborn, 1992; Rotgans & Schmidt, 2011). Rotgans and Schmidt (2011) define cognitive engagement as the extent to which students are willing and able to take on the learning task at hand. To reach a high level of cognitive engagement, students must be able to show that they have efforts (Corno & Mandinach, 1983; Rotgans & Schmidt, 2011), persistence (Walker, Greene, & Mansell, 2006; Rotgans & Schmidt, 2011), full absorption (Rotgans & Smith, 2011), focus (Valentine, Milton, & Lipnevich, 2006), and mastering knowledge (Newmann, Wehlage, & Lamborn, 1992).

Rotgans and Schmidt (2011) develop an instrument-called situational cognitive engagement to measure the level of student's cognitive engagement. There are three aspects that must be considered to measure the level of cognitive engagement: (i) the amount of efforts students take in each learning activity (ii) the level of persistence that students take in working on the task, and (iii) the level of absorption that students feel in learning tasks. These aspects seem reasonable to be used in measuring the level of cognitive engagement in this study because each process in working on the task is measured. Students have a high level of cognitive engagement if they take a high effort, persistence, and absorption to do the task. This can be shown by the willingness of students to find information from many sources (Smiley & Anderson, 2011) and the willingness of students to make connections with other subjects to find solution (Walker, Greene, & Mansell, 2006). In addition, it is also necessary to give value to students who are fully emerged in the learning activity. The students who are being fully absorbed by the task will be forgetting everything which is not related with the task, so it is reasonable to consider their involvement in working on the task as a part of cognitive engagement.

The students' focus on learning activities is also another important aspect that should be recognized in measuring cognitive engagement. This aspect is derived from Valentine, Milton, and Lipnevich (2006) who defines that cognitive engagement is the mental efforts that individuals actively use to focus on tasks that lead to learning. Focus on tasks is used as one indicator to measure cognitive engagement in this study since it is important to measure whether students keep their attention while working on the task. It is necessary to appreciate students who are not disturbed by every obstacle they face in the process to finish the work.

All the above aspects are considered important to measure cognitive engagement. However, they are not sufficient to measure cognitive engagement. There is always a probability that students take a lot of effort, persistence, absorption and focus while they are working on the task, but they are not able to master the knowledge. As a result, the final output of learning process-mastering knowledge-should be used as another factor to measure cognitive engagement. This point of view is supported by several studies conducted by Ernst (2013) and Fitch & Steinke (2013) and the definition of cognitive engagement given by Newmann, Wehlage, and Lamborn (1992) who state that cognitive engagement is the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote.

The unsatisfactory level of cognitive engagement must be solved by implementing a learning model that emphasizes more on students' activity. Several

studies (Archer & Wong, 2010; Ernst, 2013; Fay, Brozovsky, & Lobingier, 2011; Fitch & Steinke, 2013; Fuglister, Stegmoyer, & Castigrano, 2010, Penny, Frankel, & Mothersill, 2012) suggest that experiential learning can improve cognitive engagement since this model can build a link from theories to practical world. Therefore, this study was conducted to improve cognitive engagement in learning IFRS for accounting students in Yogyakarta State University by implementing one type of experiential learning-called open-ended experiential learning cases.

Penny, Frankel, and Mothersill (2012) suggest that experiential learning is one type of learning models that will result in the high level of student's cognitive engagement. Experiential learning is a learning process whereby knowledge is created through the transformation of experience (Dewey, 1938; Kolb, 1984; Silberman, 2007). This definition, according to Kolb (1984), implies that learning processes should be able to translate the ideas from the academic world to the practice world. Therefore, Kolb (1984) emphasizes that the lecturer should design a learning model which makes students have a real experience to apply the theories they get in the class to the real world.

Kolb (1984) develops the experiential learning model that consists of four steps: (i) concrete experience: students encounter a new situation or experience, or students reinterpret existing experience, (ii) reflective observation: students conduct observations of the new experience to gain the information whether there are any inconsistencies between experience and understanding, (iii) abstract conceptualization: students gain a new idea or a modification on an existing abstract concept, and (iv) active experimentation: students apply this idea to the world around them to see the result.

Beaudin and Quick (1995) suggest that experiential learning could be conducted in the class. This is known as experiential classroom-based learning. Here, lecturers should be able to design a learning model that provides students with opportunities to have formal experiences to apply the theoretical ideas they get in the class. The techniques that can be used under this category are case study and simulation (Beaudin & Quick, 1995). If the case study is used as the technique in experiential classroom-based learning, it must stress on the ability of students to solve and investigate problems (Rossman, 1993) and to provide critical thinking (Archer & Wong, 2010). To fulfill those requirements and to provide the experience of students in giving professional judgments, open-ended cases should be used in this study. According to Fuglister, Stegmoyer, and Castigrano (2010), an open-ended case is a case that does not have any specific answer but it really asks the students to provide their critical thinking to solve the problems.

Rotgans and Schmidt (2011) state that different activites in the learning process reflect different extent of student's autonomy; therefore it also results in the different level of cognitive engagement. Each step in the experiential learning also demands different levels of cognitive engagement. During the concrete experience step, students encounter new experiences and they may work in a team to share about what actually happens in the company. It is expected that students' autonomy would be relatively low and therefore they have less cognitive engagement. The reflective observation step demands students to independently find information from many sources. Students conduct intensive observations to convince that their understanding and experience is consistent. The level of students' autonomy would be relatively higher and they would be more cognitively engaged. In the abstract conceptualization, students take the conclusion of what they get in the previous steps. This step demands higher students' autonomy than concrete experiences and reflective observations since students will try to construct a new concept or adjust an existing theoretical idea. Consequently, the level of students' cognitive engagement would increase. The highest students' autonomy and therefore the highest level of cognitive engagement are shown in the active experimentation step. During this step students applied the idea they generated from abstract conceptualization step to see whether their idea could be worked out in other companies.

Based on those framework described previously, the action research hypothesis is set as follows: the implementation of open-ended experiential learning cases can improve students' cognitive engagement in introducing IFRS.

METHOD

This study was action research that applied Kemmis and Mc Taggart (1988) model. There were two cycles that were conducted during the study whereby each cycle consisted of planning, action, observation, and reflection (Kemmis & Mc.Taggart, 1988).

The class action research was conducted to 42 students enrolling the first intermediate financial

accounting course. This course was chosen because several studies (Fay, Brozovsky, & Lobingier, 2011; Jones, 2009) suggest that IFRS should be integrated in the accounting curriculum at higher education, particularly in the intermediate financial accounting course. The first cycle of the study measured the level of students' cognitive engagement in measuring inventory cost, and the second cycle was determining the value of inventory.

Questionnaire was used in this study to collect the data about the extent of students' effort, persistence, absorption, and focus. The questionnaire uses a Likert scale from 1 (really not true for me) to 5 (really true for me). The pilot test was conducted to meet its validity and reliability. The validity was examined using Pearson product moment, while the reliability was examined using Cronbach alpha. Table 1 shows the items of the questionnaire used in this study.

In addition to the questionnaire, a test was used to collect the data of mastering knowledge. The test was prepared in accordance with Bloom taxonomy from the lowest level (memorizing) to the highest level (creating). Tables 2 and 3 show the indicators of the test used in the first and the second cycles.

The data then were analyzed by using descriptive statistics. The data about students' effort, persistence, absorption, and focus were divided into five levels as shown below:

Very High : $X \geq Mi + 1.5\ DSi$
High : $Mi + 0.5\ DSi \leq X < Mi + 1.5\ DSi$
Moderate : $Mi - 0.5\ DSi \leq X < Mi + 0.5\ DSi$
Low : $Mi - 1.5\ DSi \leq X < Mi - 0.5\ DSi$
Very Low : $X < Mi - 1.5\ DSi$

while

Mi = ideal mean
DSi = ideal deviation standard

The data regarding mastering knowledge was divided into two categories: success and failure. Student is successful in mastering knowledge if they achieve a score at least 56 points in the test (*Academic Regulation*, 2011).

The criterion that was used in this study is drawn from Heikkinen, Huttuner, and Syrjala (2007). Based on their study, the implementation of open-ended experiential learning cases will improve cognitive engagement if there is useful movement of the indicators of cognitive engagement in the learning process.

RESULTS AND DISCUSSIONS

Description of the Results

This research was designed as class action research consisting of two cycles. The first cycle was conducted for three weeks. In this cycle, students were trained to decide whether companies should apply First in First out (FIFO) method or Weighted Average (WA) method to determine the inventory cost. At Concrete Experience phase, students entered

Table 1. Items to Measure Cognitive Engagement

Indicators	Item
Effort	1. I work hard to get the best answer for the cases.
	2. I exert maximum efforts in order to master the material.
	3. I try to find another way to learn the material when I do not understand about that material.
	4. When I make a mistake, I try to find the correct answer by my own way.
Persistence	1. I hope that I can still continue with the work for a while.
	2. I prepare the material before coming to the class.
Focus	1. I can keep my focus when doing the cases.
	2. I can keep my focus when having a discussion in the class.
	3. I just guest the answer for the cases without conducting scientific research.
	4. I prefer to talk with other students when the discussion is held in the class,
	5. I have trouble to be able to focus in following learning activities.
Full absorption	1. I am actively involved with the cases so I forget anything else.
	2. The learning materials in the class are very interesting for me.
	3. I apply the learning materials I get in the class to solve the problems of companies.
	4. I feel bored in the class.
	5. I am so excited to get an understanding of learning materials.

Source: Rotgans & Schmidt (2011); Valentine, Milton, & Lipnevich (2006)

a new experience by working on the open-ended case studies. The case studies were taken from Kieso, Weygandt, and Warfield (2011) whereby students tried to solve the problems faced by the Supervalu Company and Englehart Company. Students tried to understand the condition and environment of those companies so that they gained the initial information about company characteristics. In the second phase, Reflective Observation, students have worked independently to find information from many sources for one week. They tried to make a connection between the information they got from International Accounting Standard (IAS) 2 about regulating inventory and the condition of the companies. The students then decided the appropriate method that should be followed by companies. In the next phase, Abstract Conceptualization, students constructed new ideas during this step. The new ideas were drawn from the experience they got in working at open-ended cases. At first, students were successful to create the idea that the company should consider the effect of each inventory cost flow model to financial statement and tax expense during the inflation or deflation period. The second idea that was successfully produced by students was the implementation of consistency principle. Students convinced that once inventory cost flow model was chosen, it had to be used consistently from one period to another period. Students agree that the deviation from this principle is permitted as long as the company discloses the reasons and the effects of moving to another inventory cost flow model. However, students still had difficulties to generate the concept to build a link to choose an appropriate inventory cost flow model based on the liquidity ratio and inventory turnover ratio. Finally, in the Active Experimentation phase, students were given other open-ended cases. Students again were trained to provide their professional judgment to decide the appropriate inventory cost flow model based on the ideas they generated from abstract conceptualization step.

The second cycle was conducted for three weeks. In this cycle, students practiced estimating net realizable values (NRV) of inventory. In addition, students also practiced applying lower cost or net realizable values (LCNRV) to determine the value of inventory. To achieve those purposes, students were provided with two open-ended cases that were taken from Kieso, Weygandt, and Warfield (2011) in the Concrete Experience phase. The first case was the problem faced by Anonymous Company. There was different perspective between the accountant and the financial director to journalize the decreasing values of inventory. The accountants suggested that they must use loss method to record decreasing value of inventory. On the other hand, the financial director preferred to choose cost of goods sold method since this method concealed the decrease value of inventory under cost of goods sold. This case provided students with a meaningful learning since they had experiences in resolving business ethics problems. The second case was about Englehart Company. In this case, students had experiences to estimate the NRV of inventory and to determine the value of inventory that must

Table 2. Indicators for the 1st Cycle Test

Test Number	Indicators	Cognitive Level
1	Mention the methods for measuring the cost of inventory that are permitted under IFRS	C1
2	Understand the effects of each method during the inflation and deflation period	C2
3	a. Calculate ending inventory and cost of goods sold under the FIFO and Weighted Average method when the company uses a periodic system.	C3
	b. Analyze the effects of using each method during the inflation period	C4
	c. Decide the appropriate method that should be used by the company during the inflation period.	C5
	d. Link between the policy to change the method of measuring inventory with the consistency principle.	C6
4	a. Calculate ending inventory and cost of goods sold under the FIFO method if the company uses a perpetual system.	C3
	b. Link between FIFO in the perpetual system and FIFO in the periodic system.	C6
	c. Analyze the inventory turnover.	C4
	d. Evaluate management performance to handle the inventory.	C5

be presented in the financial position statement. In the second phase, Reflective Observation, students independently found references related to methods to record decreasing values of inventory, NRV, and LCNRV. However, there was a serious drawback as a result of providing reference written in Indonesian. Students only used this reference as a single reference to provide solutions to the cases. Consequently, students' horizon was limited to one author perspective. In the third phase, Abstract Conceptualization, students was able to generate the concept that follows cost of goods sold method or loss method that would result in the same amount of net income. Both methods are permitted under IAS 2. However, students were able to generate the idea that it is better if the company applying a loss method. This idea was based on their success to make a correlation with qualitative characteristics of financial statement-called faithfulness representation. Under this characteristic, the company should choose the method that provides a true condition of the company. Students were also able to create the idea that can be used by companies to determine whether the companies would apply LCNRV to each item or total item. The idea is that the level of product heterogeneity had to be considered to apply LCNRV. Then, in the Active Experimentation phase, students worked on other cases to apply the ideas they generated in the abstract conceptualization phase. This increased knowledge and skills of students since they got more experiences in exercising professional judgment.

Data Analysis and Discussions

a. The Level of Students' Effort on Learning Activities

The amount of efforts that students take in each learning activity is considered as the first indicator of Cognitive Engagement (Rotgans & Smith, 2011). Students will have a high level of Cognitive Engagement if they show a high level of effort during learning activities. The data about students' effort in this study was collected through questionnaires. The result is presented in Table 4.

As can been seen in Table 4 the proportion of students' effort in the very high and high levels decreases 9.02% from the 1st cycle to the 2nd cycle, while the level of students' effort as shown by its mean value also decreases for 1,34%. This result does not accord with the study from Rotgans and Schmidt (2011). They state that the level of autonomy increases when students find information to solve problems. The higher autonomy will increase the level of students' effort. In this research, the lecturer made a mistake when trying to help students who have problems in understanding references written in English. The lecturer provided the Indonesian text book with the expectation that students also tried to search other information from other sources. Giving help to students makes the level of students' autonomy decreases and therefore the level of students' effort decreases (Rotgans & Schmidt, 2011). It is important then to always allow students in the reflective observation phase to work independently in finding information they need to solve the problems (Kolb, 1984). Burnard (1989) adds that students should be able to make a reflection based on the information they gain independently during the learning activities. Based on those arguments, the lecturer must emphasize that the primary reference is not sufficient to make reflection. The lecturer should advise students to find other information so that they can enrich their

Table 3. Indicators for the 2nd Cycle Test

Test Number	Indicators	Cognitive Level
1	a. Mention the definition of net realizable values.	C1
	b. Explain how to estimate net realizable values	C2
2	a. Calculate the value of the inventory based on LCNRV	C3
	b. Analyze how the company uses LCNRV per item and LCNRV per total.	C4
	c. Decide the appropriate LCNRV for the company whether using LCNRV per item or LCNRV per total	C5
3	a. Record the decrease value of inventory based on the cost of the goods sold method and the loss method.	C3
	b. Find the weaknesses of applying the cost of the goods sold method.	C6

knowledge.

b. The Level of Students' Persistence in Working on the Tasks

The level of persistence that students take in working on the task is considered as the second indicator of Cognitive Engagement (Rotgans & Smith, 2011). Students will have a high level of Cognitive Engagement if they show a high level of persistence during working on the tasks. The data about students' persistence in this study was collected through questionnaire. The result is presented in Table 5.

Table 5 shows that students who have a satisfactory level of persistence increase 8.14% and the mean value increases 1.74%. This result is in accordance with several studies from Rotgans and Schmidt, (2011) and Walker et al. (2006) who demonstrate that a learning model which focuses on student is able to improve students' persistence.

According to Rotgans and Schmidt (2011), persistence means preparing everything before coming to the class. During the concrete experience phase, students deciding what accounting policies related to inventory is appropriate to the company. Students prepared themselves by searching and reading many references, such as text books and journal articles. Students also found information about conditions faced by the company. In the next phase –reflective observation- students discussed the information they gained as a foundation to provide solutions. All preparations that students did individually and in a team led them to their ability to generate ideas in the abstract conceptualization phase. Students then prepared themselves to apply the new idea to other companies. Therefore, all the phases in experiential learning are shown to improve the level of students' persistence.

c. The Level of Students' Absorption in Learning Tasks

The level of students' absorption in learning tasks is considered as the third indicator of Cognitive Engagement (Rotgans & Smith, 2011). Students will have a high level of Cognitive Engagement if they show a high level of absorption

Table 4. The Level of Students' Effort in the 1st Cycle and 2nd Cycle

Level	Interval	1st Cycle	2nd Cycle	Increase (Decrease)
Very High	≥ 7.995	52.38 %	41.86 %	(10.52%)
High	6.665 ≤ x ≤ 7.995	35.71 %	37.21 %	1.5 %
Moderate	5.335 ≤ x ≤ 6.665	4.76 %	16.28 %	11.52 %
Low	4.005 ≤ x ≤ 5.335	7.14 %	4.65 %	(2.49%)
Very Low	< 4.005	0 %	0%	-
Mean Value		7.45	7.35	(1.34 %)
Very High and High Level		88.09 %	79.07 %	(9.02 %)

Table 5. The Level of Students' Persistence in the 1st Cycle and 2nd Cycle

Level	Interval	1st Cycle	2nd Cycle	Increase (Decrease)
Very High	≥ 4.005	0.00 %	2.33 %	2.33 %
High	3.335 ≤ x ≤ 4.005	50.00 %	55.81 %	5.81 %
Moderate	2.665 ≤ x ≤ 3.335	45.24 %	34.88 %	(10.36 %)
Low	1.995 ≤ x ≤ 2.665	4.76 %	4.65 %	(0.19 %)
Very Low	< 1.995	0.00 %	2.33%	2.33 %
Mean Value		3.45	3.51	1.74 %
Very High and High Level		50 %	58.14 %	8.14 %

during working on the learning tasks. The data about students' absorption in this study was collected through questionnaire. The result is presented in Table 6.

Table 6 shows that the satisfactory level of students' absorption also increases 12.68% and the mean value increases 6.51%. The result is supported by the studies by Rotgans and Schmidt (2011) and Valentine, Milton, and Lipnevich (2006). Their studies suggest that students' absorption is measured by fully emerged in working the task at hand (Rotgans and Schmidt, 2011) and students' interest to the learning topic (Valentine, Milton, & Lipnevich 2006). The open-ended experiential learning cases are shown to improve the level of students' absorption. This can be shown from the concrete experience phase whereby the use of open-ended cases was successful to encourage curiosity students'. They spent more time and forgot anything else to fulfill their curiosity. When students were able to provide solutions, they tried to form a group to discuss the solution they gain. The debate in the discussion at the reflective observation phase raises a lot of questions and their interest to the topic increase. They really wanted to convince themselves that their professional judgment was permitted under IFRS. Their high level of interest made them involve in the class discussion. They did not feel bored when they tried to generate new concepts in the abstract conceptualization phase. Afterward, their interest led them to see whether the concepts could be used in other companies.

The result of this research also supports the research by Anisa (2011). In her research, she found that the implementation of experiential learning improved students' involvement in the class. This improvement occured because students are motivated to have more participation in the class. The experiential learning enabled students to be not afraid of making mistakes so their self confident to participate more in the class increased. The use of open-ended cases therefore enabled students to be more relaxed in the class because there were no correct or wrong answers. Students felt confident because their answers were

Table 6. The Level of Students' Absorption in the 1st Cycle and the 2nd Cycle

Level	Interval	1st Cycle	2nd Cycle	Increase (Decrease)
Very High	≥ 16.005	9.52 %	20.93 %	11.41 %
High	13.335 ≤ x ≤ 16.005	45.24 %	46.51 %	1.27 %
Moderate	10.665 ≤ x ≤ 13.335	38.10 %	32.56 %	(5.54 %)
Low	7.995 ≤ x ≤ 10.665	7.14 %	0.00 %	(7.14%)
Very Low	< 7.995	0.00 %	0.00%	-
Mean Value		13.67	14.56	6.51 %
Very High and High Level		50.76 %	67.44 %	12.68 %

Table 7. The Level of Students' Focus in the 1st Cycle and 2nd Cycle

Level	Interval	1st Cycle	2nd Cycle	Increase (Decrease)
Very High	≥ 19.995	7.14 %	13.95 %	6.81 %
High	16.665 ≤ x ≤ 19.995	35.71 %	39.53 %	3.82 %
Moderate	13.335 ≤ x ≤ 16.665	45.24 %	37.21 %	(8.03 %)
Low	10.005 ≤ x ≤ 13.335	11.90 %	9.31 %	(2.59%)
Very Low	< 10.005	0.00 %	0.00%	-
Mean Value		16.31	16.81	3.10 %
Very High and High Level		42.85 %	53.48 %	10.63 %

appreciated in the class, so their involvement in each learning activities increased.

d. The Level of Students' Focus on Learning Activities

The level of students' focus on learning activities is considered as the fourth indicator of Cognitive Engagement (Valentine et al., 2006). Students will have a high level of Cognitive Engagement if they show a high level of focus during learning activities. The data about students' focus in this study was collected through questionnaire. The result is presented in Table 7.

As can be seen in Table 7, students who are in the satisfactory level of focus reached an increase 10.63% and the mean value increases 3.10%. This means that the implementation of open-ended experiential learning cases improved the level of students' focus. The result is in a line with the study from Valentine et al. (2006). Valentine et al (2006) explain that students who have a high level of focus show high attention in the learning process and provide solutions based on scientific research. Students feel that they are able to keep high attention when they are working on the cases at concrete experience phase, finding the information and discussing the results in a study group at reflective observation phase. Their reason to keep high attention is that they feel the cases are difficult to solve since this is the first time for them to do the real cases in the business world. This high attention is still kept when students enter the class discussion at abstract conceptualization phase to produce the new concepts. In this phase, students are able to provide professional judgments that are appropriate with the environment of the companies and the regulation under IFRS.

e. The Level of Mastering Knowledge

The level of students' mastering knowledge is considered as the fifth indicator of Cognitive Engagement (Newmann et al., 1992). Students will have a high level of Cognitive Engagement if they show a high level of mastering knowledge. The data about students' mastering knowledge in this study was collected through the test. The result is presented in Table 8.

Table 8 shows that open-ended experiential learning cases improve students' mastering knowledge. This can be seen from the students who are in the success category in mastering knowledge increase 20% and the mean value increases 36%. The result is consistent with the theory and studies from Newmann, et al. (1992); Archer and Wong (2010); Ernst (2013); Fitch (2013). All the phases in experiential learning provide a link between the theoretical framework and the practical world so students are able to mastering knowledge. Students' curiosity is first triggered by giving problems. Then, students independently try to generate ideas that are relevant to the problems. All of the information is pulled together into solutions. Students who are able to provide solutions are able to make critical thinking and therefore their mastering knowledge increases (Archer and Wong, 2010). In addition, the experiential learning that is designed by emphasizing the use of cases also improves the ability of students to investigate problem and find solutions and therefore the level of students' mastering knowledge will increase (Rossman, 1993).

Experiential learning is a learning model that focuses on students' activity. This model enables students to explore ideas, to discuss the explorations' results, to explain the ideas by using students' words, to apply the material to the real world, and to evaluate students' success. Through all these characteristics, students will be able to improve their mastering knowledge (Garner, 2008).

f. The Level of Cognitive Engagement

The implementation of Open-Ended Experiential Learning Cases improves Cognitive Engagement if the level of each indicator is in the high and very high levels. Table 9 shows the average level of students' cognitive engagement both in the first cycle and the second cycle.

As can be seen in Table 9, the average level of all Cognitive Engagements' indicators in the first cycle is in the satisfactory level, except for students focus' indicator. In the second cycle, all the indicators are already in the satisfactory level. This means that the implementation of Open-Ended Experiential Learning Cases is able to improve Cognitive Engagement. As shown in the study conducted by Penny, Frankel, and Mothersill (2012), experiential learning is able to improve cognitive engagement due to the use of critical reflection both in the reflective observation and abstract conceptualization phases. In these phases, students conduct cognitive and affective reflection. Cognitive reflection enables students to evaluate the new knowledge and skills they

have gained from their experiential activity. Meanwhile, affective reflection enables students to consider what they feel as a result of their experience and how this experience has changed their attitudes, opinions, and sensitivity (Penny et al., 2012). The open-ended cases that were given to students encourage students to find information and provide solutions to the companies. Students did a cognitive reflection to choose relevant information that can be used to decide the best solution for the companies. Afterwards, students also conducted a cognitive reflection to construct the new knowledge that can be concluded from doing the open-ended cases. As a result, the ability of students to master knowledge increases. Moreover, the open-ended cases changed students' effort, persistence, focus, and absorption because they have to be more independent in each phase of experiential learning.

CONCLUSIONS AND SUGGESTIONS

The implementation of open-ended experiential learning cases improves cognitive engagement since there is a useful increase to the level of persistence, full absorption, focus, and mastering knowledge. Open-ended experiential learning cases can encourage students to be more persistent to prepare the materials that will be learned in the class meeting. Students feel interested in the cases and this leads them to be fully involved in the tasks. The result is that the level of students' absorption increases during learning process. In addition, students also keep their attention when working at the cases and this leads their focus on learning process rise. At last, the ability of students to master knowledge increases due to the professional judgment that they can offer to solve the problems. The ability to provide professional judgment means that students can apply the theoretical ideas to the practical business word.

However, open-ended experiential learning cases in this study do not improve the students' effort. The primary textbook provided by the lecturer causes students' willingness to search for other information to decrease. Therefore, it is necessary for the next study to lengthen the cycle of action research to get the actual information whether the open-ended experiential learning can improve students' effort.

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Table 8. The Level of Students' Mastering Knowledge in the 1st Cycle and 2nd Cycle

Level	Interval	1st Cycle	2nd Cycle	Increase (Decrease)
Success	≥ 56	80.00 %	100.00 %	20.00 %
Fail	< 56	20.00 %	0.00 %	(20.00) %
Mean Value		62.43	84.91	36.00 %

Table 9. The Average Level of Students' Cognitive Engagement

Indicators	Level in the 1st Cycle	Level in the 2nd Cycle
Effort	High	High
Persistence	High	High
Absorption	High	High
Focus	Moderate	High
Mastering Knowledge	Success	Success

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