

IMPROVING STUDENTS' CRITICAL THINKING SKILLS AND PSYCHOLOGICAL WELL-BEING THROUGH COACHING APPROACH AS TEACHING STRATEGY

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ABSTRACT

Critical thinking is important to students in providing them to become an excellent employee or entrepreneur because with the skills they are able to identify issues/ problems in a complex situation ,assess and justify complex situation, think beyond boundaries at most times and to provide challenging views. Positive psychological well-being of students develops students' constructive attitude toward challenges faced. Realizing the importance of critical thinking skills and positive psychological well-being to accounting student, this study was conducted to examine the effectiveness of coaching approach as a teaching strategy to improve the above factors. Coaching approach is a method that directly involves the learners, by actively encouraging them to do something in order to achieve their goals. A culture of mentoring and coaching will, over time, have an impact on young people and their learning. The approach can increase reflectivity and clarity of thinking, improved psychological wellbeing and confidence and better problem-solving or decision making skill. This study employed action research with the use of 'Grow Coaching Model'. A management accounting students comprised of 29 participants were under studied. The instrument used to measure the attitude of critical thinking skills is Universiti Utara Critical Thinking Skills Rubric and Ryff Scales for psychological well-being. In this study, the researcher's reflection and observation checklist were used to gather data throughout the interventions. This provides information of changes /improvement on how well the students develop critical thinking skills ability and positive psychological well-being. Results showed that students' critical thinking skill as well as positive psychological well-being are enhanced through coaching approach. However, effective bonding/closeness between student and lecturer as well as longer time per student are needed to make this approach successful.

Keywords: coaching approach, psychological wellbeing, critical thinking skills, action research.

INTRODUCTION

Critical Thinking Skills

Critical thinking is “the ability to think clearly and rationally about what to do or what to believe. It includes the ability to engage in reflective and independent thinking” (Lau & Chan, 2017). Critical thinking is important to students in providing them to become an excellent employee or entrepreneur because with the skills they are able to identify issues / problems in a complex situation and able to

assess and justify the situation, able to think beyond boundaries at most times and to provide challenging views and able to make decision based on real solid evidence and to identify the source of evidence (Edwards, 2015; Flood, 2015; Facione, & Gittens, 2015; Whiley, Witt, Colvin, Sapiains Arrue & Kotir, 2017).

Braun (2004) suggests that “empirical assessment data on the success of techniques for developing critical thinking skills are minimal” (p. 235) and Sormunen and Chalupa

(1994) stressed that “increasing pressure to produce employees who can think critically” (p. 172). The World Economic Forum issued a report (January 2016) “The Future of Jobs”. It says that:

“The Fourth Industrial Revolution, which includes developments in previously disjointed fields such as artificial intelligence and machine-learning, robotics, nanotechnology, 3-D printing, and genetics and biotechnology, will cause widespread disruption not only to business models but also to labour markets over the next five years, with enormous change predicted in the skill sets needed to thrive in the new landscape”

Psychological Wellbeing

Psychological wellbeing is referring to positive mental states (i.e. satisfaction, happiness, sadness) (Salami, 2010; Ryff & Singer, 2013; Ryff & Keyes, 1995; Ryff, 1989). According to Turashvili and Japaridze (2012), students’ wellbeing is a dynamic concept that includes subjective, social, and psychological dimensions as well as health-related behaviors resulting from educational gatherings that both guide students in the search for significance and instruction in life and help them see their true potential. It is important for the students to be in a psychologically healthy condition in order to attain their life goals and gain academic success. Students’ academic performance can be affected by stressful atmosphere that lead to psychological distress (Dwyer & Cummings, 2001). Students’ learning, success and quality in education can be elevated by emotional intelligence, self-efficacy, and psychological well-being (happiness, life satisfaction and depression) (Salami, 2010).

The most important ingredients in psychological well-being are happy feelings brought on by something a person enjoys and feeling that life has purpose and meaning. The term “Hedonic” wellbeing refers to the subjective feelings of happiness and the term, “Eudaimonic” wellbeing refers to the purposeful aspect of psychological well-being (Ryff, 1989; Ryff & Keyes, 1995; Ryff & Singer, 2013). The psychologist, Ryff (1989), has developed a very clear model that breaks down Eudaimonic wellbeing into six broad facets associated with optimal psychological functioning as follows: 1) self-acceptance; 2)

positive relations; 3) autonomy; 4) environmental mastery; 5) purpose in life and 6) a sense of personal growth.

Effective Teaching Strategy

Learning is the lifelong activities for everyone to be successful in life. Therefore, an effective teaching and learning process is vital to ensure the learning process leads to its intended goals. Various techniques and strategies has been introduced and applied in the classroom to ensure effective teaching and learning activities. Discussing the issue of effective teaching requires the definition and ultimate goal of teaching and learning. Atkins, Brown and Brown (2002) defined that teaching is an activity that concerned with providing students with opportunities to learn and the objective of learning are to gain knowledge and skills, deepening of understanding, the development of problem-solving and changes in perception, attitudes, values and behaviour. In addition, Brown also highlighted another important goal of learning that is to develop the capabilities to learn to the students. Clear understanding of these definitions will improve the understanding on the criteria for effective teaching and learning strategy in teaching and learning sessions.

The effectiveness of a particular teaching methods such as the experiential learning, problem-based learning and co-operative learning have been discussed by many authors. For instance, Albanese and Mitchell (1993) provide evidence on the impact of using the PBL on medical students. They found positive and negative impacts of PBL as a teaching method in a medical school setting. Their study showed that medical students who have gone through the PBL learning methods perform well on clinical evaluation and faculty evaluations. However, they scored lower on basic sciences examination; view themselves as less well prepared for the examination. The PBL students also tend to engage in backward reasoning rather than forward reasoning and appeared to have gaps in their cognitive knowledge compare to their traditional learners’ counterparts. Slavin (2010) found that the positive impact of co-operative learning is depending on two key factors that are the availability of a clear group objective and the effective individual learning skill of every members. Kirschner, Sweller, and Clark (2006)

categorised the experiential, problem-based and inquiry-based teaching as the less instructional teaching methods. They commented that these teaching methods as less effective to learners compare to the instructional or guided teaching methods. However, they did not provide any specific method that are considered as more instructional or guided methods.

The Coaching Models

There are a few coaching models available in practice such as STRIDE, OSKAR and GROW models (Othman and Chia, 2015). Shaker (2012) highlighted three models that are the EQ, EXACT and GROW models. Among these, the GROW is the most popular and widely used by coaches worldwide (Othman and Chia, 2015). According to Shaker (2012) the first coaching model is the EQ model that emphasized more on leadership while the GROW model is the core to coaching. This section will discuss only the GROW model as this is the model selected to be used in this study for its easy to understand and implement and suit with the learning process of accounting subject.

The GROW model

The GROW model was developed by Sir John Whitmore (2002). which suggested that this model can be integrated into teaching sessions as it is expected to drive the students to actively learn in class. In the Grow stage, teachers are expected to guide the students to understand the goals of the session for example to understand the learning outcome from the class. By setting this early in the class, students are expected to actively learn, process and able to evaluate their own learning from the class. In the second stage, the reality stage, teachers should help the students to understand their level of knowledge with concerning the topic. Understand their level of knowledge on the topic is expected to open up their mind on the wider reality of that knowledge that they can or should learn. Thirdly, in the options stage, teachers are expected to guide the students to search for alternatives or other relevant or comparable knowledge related to the topic under discussion. This is expected to develop students thinking skills in which they can make comparison and evaluations on the topic discussed. Finally, in stage will, teachers are

expected to guide the students to make their own judgement or decision on the application of the knowledge in their daily activities as the product of knowledge learned from the class. Applying this strategy in class is expected to lead the students to actively learn, unlearn and relearn any topic and apply it for good reasons.

Gap of Study

Critical thinking is important to students in providing them to become an excellent employee or entrepreneur because with the skills they are able to identify issue/ problem in a complex situation, assess and justify complex situation, think beyond boundaries at most times and to provide challenging views. Positive psychological well-being of students develops students' constructive attitude toward challenges faced. Critical thinking skills and positive psychological well-being are important to students in providing them to become an excellent decision maker as an employee or entrepreneur (Edwards, 2015; Flood, 2015; Facione, & Gittens, 2015; Whiley, Witt, Colvin, Sapiains Arrue & Kotir, 2017). Realizing the importance of critical thinking skill and positive psychological well-being to accounting student and lack of literature in this aspect, the researcher did a study to investigate how coaching approach can enhance critical thinking skill and positive psychological well-being.

Significance of Study

This study will lead the use of coaching approach as teaching strategy in enhancing critical thinking skills and positive psychological well-being on students. Coaching approach is a new method ever done for accounting students that directly involves the learner, by actively encouraging the students to achieve their goals in learning their subject. A culture of mentoring and coaching will, over time, have an impact on young people and their learning. The approach can increase reflectivity and clarity of thinking, improved psychological wellbeing and confidence and better problem-solving skills or decision-making.

METHODOLOGY

This study employed action research. According to Mc Niff (2010), action research is done by the practitioner. It involves oneself thinking about and reflecting on his/her work. Action research is an enquiry conducted by oneself where the practitioner thinks about his/her own life and work. In action research report, it shows how practitioner has carried out a systematic investigation into his/her own behaviour, and the reasons for that behaviour. In this study, the lecturer observation, checklist and interviews were used by the lecturer/researcher to gather data throughout the intervention.

A management accounting students comprised of 29 participants were under studied. In this study, the lecturer is acting or behave as if she is 'the coach' in the learning session. The instrument used to measure the attitude of critical thinking skills is Universiti Utara Critical Thinking Skills Rubric. In this study, the researcher's reflection and observation checklist was used to gather data throughout the intervention. This provides information of changes /improvement on how well the students develop critical thinking skills ability, reaction and understanding. Students were asked to reflect on their experience and feelings and comments on the effectiveness of the teaching session based on the four GROW teaching stages. Below were the phases/stages used in this study:

Phase 1: Beginning

Stage 1 – Grow – Before starting the session, students were asked to provide their ideas on the goal of the class (pre-assessment). The lecturer guided the students on the real objectives of the class. Get to an agreement on the objectives between the lecturer and the students. Students' goals may be different from the lecturer's intended goals. – asked the students to rewrite the goals after explanations. Stage 2 – Reality – The lecturer guided the students to search and think of their own available knowledge on the topic under discussion. Explore further to get more – the lecturer asked the students to reflex on their own knowledge regarding the topic.

Phase 2: Middle

Stage 3 – Option – In the class/teaching session, the lecturer guided the students to relate, compare and contrast with the available knowledge that the students have. - asked the students to write the goals. The lecturer guided the students to search for other possible topic or concepts that may be in the same line to the topic under discussion. For example, if the topic is about a specific performance management system – guide the students to find for more performance management system in practice to widen their knowledge on that topic.

Stage 4 –Will - The lecturer guided the students on what can they do with that knowledge?

Practicing the knowledge will sharpen their understanding on that topic. The lecturer assessed the students understanding of the topic using critical thinking rubric. By using critical thinking rubric, the lecturer can understand the students' ability to identify and analyse issue/problem in a complex situation and able to assess and justify the situation, clearly explain a situation and assess the discussion, think beyond boundaries at most times and to provide challenging views and able to make decision based on real solid evidence and to identify the source of evidence.

Phase 3: Observation and Reflection

For every stage students were asked to mention/write their feedbacks on their learning experience and how they think it helped them to understand their topics with the use of coaching approach. In this study, the researcher tested three elements from the Ryff's Scales; the positive relations with others, Environmental mastery and Personal growth. Semi structured interviews were conducted with the students to explore more on their feelings about the class and the effectiveness of that teaching session. The reflections were done by the lecturer on every stage.

RESULTS AND DISCUSSION

The beginning phase:

In stage 1: Grow - What do you want to achieve. At the beginning of the session, the lecturer asked the students on their goal for the lesson. Most of them expressed their view, which were quite general perspective;

“I want to be expert and fully understand the topic”

Acting as a coach, the lecturer tried to ensure that at the first stage, the students understand the goal of the lesson under study by giving clear explanation. So that students’ goals were the same and aligned with the lesson’s goal or course learning outcome.

This action had created awareness and readiness on the expected goal. The feedback from students showed that only two third of the students understand the goal of the lesson under study even after the lecturer gave explanations on the expected goal.

In stage 2: Reality – Current situation. In order to enhance the students’ understanding of the topic/lesson under study, the coach/lecturer tried to understand the level of knowledge and experience that the students had. The feedback showed that current knowledge and experience of the students on the topic under study are considerably medium-low. With this understanding, the coach/lecturer improved the explanations and discussions of the topic.

The middle phase:

In stage 3: Option – What could you do. Understand that students’ level of understanding were low, the lecturer enhanced the discussion of the topic. There were about ten different scenario exercises done during the

session. Every students were guided on every exercises. The lecturer would only move to the next exercises after clarifying with students whether they understand or not on the exercise given.

During discussions of the exercises, the coach/lecturer imposed other options to enhance students’ understanding. The lecturer searched for other possible topic or concepts that might be in the same line to the lesson under study. This had enhanced students’ understanding in solving the given exercises. The students were able to identify and analyze issue/ problem in a complex situation and were able to assess and justify the situation in the exercise given.

In stage 4: Will – What will you do. Students were guided on what they can do with the knowledge and how practicing the knowledge can enhance their understanding on the topic. The feedback showed that students were able to think beyond boundaries at most times and to provide challenging views.

After the completion of lesson, all 29 students were given a quiz with the use of critical thinking rubric. All participants score full mark on the quiz (see Table 2).

The full marks of quiz is 5%.

Table 2: Participant Scores on a Quiz Using Rubric Assessment

P1: 5%	P7: 5%	P13: 5%	P19: 5%	P25:5%
P2: 5%	P8: 5%	P14: 5%	P20: 5%	P26: 5%
P3 :5%	P9: 5%	P15: 5%	P21: 5%	P27: 5%
P4: 5%	P10:5%	P16: 5%	P22: 5%	P28: 5%
P5: 5%	P11:5%	P17: 5%	P23: 5%	P29: 5%
P6: 5%	P12:5%	P18: 5%	P24: 5%	

Critical thinking criteria	Able to identify issue/ problem in a complex situation and able to assess and justify the situation	Able to analyze issue/problem in a complex situation and able to assess and justify the situation.	Able to develop and improve thinking skills. Able to analyze and clearly explain a situation and assess the discussion.	Able to think beyond boundaries at most times and to provide challenging views.	Able to make decision based on real solid evidence and to identify the source of evidence.
Participant	29	29	29	29	29

The final phase: *Observation and Reflections*

At the beginning, students felt awkward when they were asked about their goals or what they wanted to achieve from the topic since nobody else asked about their goals before started a new topic. They were quite confused why the lecturer asked such question. After giving some explanation on coaching approach, they felt relax and started mentioning/writing their goals. After they had done written their goals, the lecturer explained on the goal to be achieved for the topic/lesson. Their faces looked relief after the lecturer gave clear explanation on what to gain or to achieve for the topic/lesson under study.

Since the students had been explained about this coaching approach, they were not asking further questions when they were asked about their previous knowledge on the topics under study. Instead, they just mentioned/wrote about their previous knowledge on the topics. Understanding the students' previous experience is important in measuring how much efforts must the coach/lecturer must put in coaching the students. After understanding the level of understanding of the students, the coach/lecturer explained/discussed repeatedly on different kinds of exercises. The coach/lecturer would move to the next exercises after clarifying with students whether they understand or not on the existing exercise. During teaching session, every students took part and concentrated on the explanation and exercise given. They focus on the topic since the topic is related to real life circumstances. The coach/lecturer tried her best to link or connect the discussion with real situation.

From observation, most students felt comfortable with this teaching approach since the lecturer kept repeatedly explained on any parts that they were not understood and only moved to the next exercise only if every students said they understand. The lecturer would then proceed to the next techniques.

In written feedback after the lesson finished, there were few students who would rate 'medium' or 'low' in their understanding with the remark that they felt uncertain on their understanding if they were to do other new exercises. This showed that, even though the coach/lecturer keep explaining and asking if the

student understand or not, some student were not telling the whole truth in front of their coach/lecturer. This might relate to bonding/closeness aspects where the trust must to be built first in order for the student to follow the coach/lecturer's guidance. Trust allows student to share their genuine selves with the lecturer, without fear of being judged or mistreated. It put confidence in coachee-coach relationship (Hauer, K. E., Oza, S. K., Kogan, J. R., Stankiewicz, C. A., Stenfors-Hayes, T., Cate, O. T., & O'sullivan, 2015; Netolicky, 2016; Zhang, Z., & Surujlal, J., 2015). The researcher/lecturer also felt that the time spent per student is important in ensuring the coaching process can take place since this approach needs the coach/lecturer guides the students exclusively.

From the interviews in the class, students' reactions according to Ryff's scales were:

The positive relations with others

"I discuss with my friend and frequently ask the lecturer on solutions"

"The lecturer assists me in answering the exercise"

The interviews and observations revealed that students has warm, satisfying, trusting relationship with others. They cared with each other and tried to help others' problem with high intensity. The relationship showed genuine gestures with so much affections.

Environmental mastery

"I feel more alive in my classroom"

"Now, I understand where the subject lead to. Thus, less stress!"

"I feel less tension cause the lecturer will guided me"

The student has a sense of mastery and competence in managing the environment, handling difficult situations and make the best use of surrounding opportunities. They were able to understand suitable context to their personal needs and values.

Personal growth

"It gives me a good experience in understanding the question provided"

"I feel more confident in solving problem and not afraid to ask"

Students had feeling of continues development and able to see future undertakings. They were open to new experiences, possible potential, self-improvement and self-knowledge.

CONCLUSION

In conclusion, coaching approach has enhanced the critical thinking skills and psychological well-being of accounting students in identifying, analysing, assessing or justifying issues/ problems in a complex situation and feeling happy in classroom. Students have more opportunity in discussing topic under study more effectively with the collaboration of the lecturer as the coach. With the constant help/guidance from coach/lecturer, students are also able to think beyond boundaries at most times and to provide challenging views. They feel more confidence and happy on the subject under study since they understand their goal or where they are leading to.

Coaching approach however, needs 'bond' or closeness between students and coach/lecturer. It is important to develop a trust-based connection. By developing trust, students confidently can express their problems or give their views more effectively. Longer time per student are needed to make this approach successful since more time are spent in each students. Thus, in limited session, small groups are more applicable for this approach.

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