

## USING THE PEER SOCRATIC QUESTIONING (PSQ) TECHNIQUE TO DEVELOP CRITICAL THINKING SKILLS IN GROUP DISCUSSION

### *PENGGUNAAN TEKNIK PEER SOCRATIC QUESTIONING (PSQ) UNTUK MEMBANGUNKAN KEMAHIRAN BERFIKIR SECARA KRITIS DALAM PERBINCANGAN KUMPULAN*

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#### ABSTRACT

One of the main foci of 21<sup>st</sup> century learning is developing critical thinking skills. It is believed that the skills can be promoted through collaborative work and questioning. This paper presents the results of a study which was conducted to investigate how a technique called the Peer Socratic Questioning (PSQ) (adapted from the Socratic Questioning technique by Paul (1993)) could increase the levels of critical thinking of pre-service teachers at an Institute of Teacher Education (ITE) or also known as Institut Pendidikan Guru (IPG). The study involved 20 second semester first-year pre-service TESL teachers who were doing their degree programme. The study was conducted by employing basic qualitative research design. Data were collected from transcripts of group discussions, the reflective journal entries and the focus group interview transcripts. The transcripts were analysed for the types of Socratic questions used by the participants. The levels of thinking were measured by using the revised Bloom's taxonomy indicators. The perceptions of participants were analysed from their reflective journal entries and the transcripts of the focus group interview. The results indicated that there were improvements in critical thinking levels shown by the HOTS levels (analysing and evaluating levels) as measured by the Bloom's taxonomy indicators after using the PSQ technique as compared to before using the technique. Participants also perceived that the PSQ technique had increased their critical thinking levels. Generally, the PSQ technique helped the participants to ask questions that enabled their friends to give answers of HOTS levels, thus enhancing their critical thinking skills.

*Keywords:* socratic questions, Higher Order Thinking Skills, group discussion, Bloom's taxonomy, critical thinking

#### ABSTRAK

*Salah satu fokus utama pembelajaran Abad 21 adalah menerapkan kemahiran berfikir secara kritis. Adalah dipercayai bahawa kemahiran ini dapat diterapkan melalui aktiviti kolaborasi dan penyoalan. Artikel ini membentangkan hasil kajian yang dijalankan untuk mengkaji bagaimana teknik yang dipanggil Peer Socratic Questioning (yang diadaptasi daripada teknik Socratic Questioning oleh*

*Paul (1993) dapat meningkatkan tahap pemikiran kritis guru pra-perkhidmatan di Institut of Teacher Education (ITE) atau juga dikenali sebagai Institut Pendidikan Guru (IPG). Kajian ini melibatkan 20 orang guru TESL pra-perkhidmatan semester pertama tahun kedua yang sedang mengikuti program ijazah pertama. Kajian ini dijalankan dengan menggunakan reka bentuk penyelidikan kualitatif asas. Data dikumpulkan daripada transkrip perbincangan kumpulan, catatan jurnal reflektif dan transkrip temu bual kumpulan fokus. Transkrip dianalisis untuk jenis soalan Socratic yang digunakan oleh para peserta. Tahap pemikiran diukur dengan menggunakan petunjuk taksonomi Bloom semakan semula. Persepsi para peserta dianalisis daripada catatan jurnal reflektif dan transkrip temu bual kumpulan fokus. Keputusan menunjukkan bahawa terdapat peningkatan dalam tahap pemikiran kritis yang ditunjukkan oleh tahap KBAT (menganalisis dan menilai) seperti yang diukur oleh petunjuk taksonomi Bloom selepas menggunakan teknik PSQ berbanding sebelum menggunakan teknik tersebut. Peserta juga berpendapat bahawa teknik itu telah meningkatkan tahap pemikiran kritis mereka. Secara amnya, teknik PSQ didapati membantu para peserta untuk bertanya soalan yang membolehkan rakan-rakan mereka memberikan jawapan tahap KBAT dan meningkatkan kemahiran berfikir kritis mereka.*

*Kata kunci:* penyoalan\_socratic, Kemahiran Berfikir Aras Tinggi, perbincangan kumpulan, taksonomi Bloom, pemikiran kritis

## **Introduction**

Critical thinking skills have been considered one of the important soft skills to develop. Critical thinking skills are becoming more important for students to develop especially for 21<sup>st</sup> Century learning with the emphasis on the 21<sup>st</sup> Century skills. These skills, among others, include critical thinking, teamwork, collaboration, cooperation, facility in using virtual workspaces and information and communication technology (ICT) literacy. Critical thinking skills such as problem solving, reasoning, analysis, interpretation and synthesizing information are becoming more important in the 21<sup>st</sup> century. These skills are deemed to be critically important by teachers and professors, school reformers, employers, and others to succeed in today's world, especially in educational programmes and modern-day careers and workplaces. These skills can be applied in all subject areas, and in all educational, career, and civic settings throughout a student's life ("Hidden Curriculum," 2014). Among the foci of 21<sup>st</sup> century learning are collaboration and critical thinking. Questioning techniques, for example the Socratic questioning and using the Bloom's taxonomy keywords to ask questions, were also recommended for 21<sup>st</sup> century learning to encourage critical thinking skills (Norhailmi, 2017).

## **Statement of the Problem**

Despite the importance of critical thinking, Hurd (2013) claims that studies reveal that critical thinking skills are rare in college classrooms. He asserts that teachers or instructors tend to focus only on facts and concepts, which are at the lowest cognitive levels rather than higher cognitive levels. Studies also show that teachers, instructors or lecturers are also not trained and have to find ideas to teach critical thinking on their own (Muhammad Kamarul, 2013; Sidhu & Sarjit, 2013).

There have been many efforts done by the Ministry to ensure that critical thinking skills are emphasised and developed at schools and higher learning institutions including changing the syllabuses for schools and also for tertiary levels to include critical thinking skills (Ministry of Education, 2013). In the National Blueprint 2013-2025, it is also mentioned that the Ministry would review the curriculum for pre-service teacher training at Institute of Teacher Education (ITE) or Institut Pendidikan Guru (IPG) since teachers too need to be adequately prepared to teach Malaysian students the desired higher-order thinking skills (Ministry of Education, 2013). They need the skills to make decisions when they are working later, either in classrooms when dealing with the pupils, or

when making decisions regarding various matters. They do not only need the skills for themselves but also to teach their future students to think critically.

Group discussion is a very popular activity in IPG (Institut Pendidikan Guru Malaysia, 2017) and it is believed to enhance critical thinking among students (Adams & Galanes, 2012). At least one of the coursework tasks in IPG requires students to work in groups. However, it is not known whether students are guided on how to conduct their group discussion in order to develop or enhance their critical thinking skills. Most of the time, students are supposed to conduct group discussion without supervision from their lecturers prior to completing their tutorial tasks and how, where and when they conduct their discussion is up to them.

One of the ways to facilitate critical thinking is by questioning. According to Eggen and Kauchak (2012), "Questioning encourages students to put their understanding into words, and responding to questions is the most effective way for them to develop this ability." One such technique is called Socratic questioning. Many studies have discovered that by using the Socratic questioning technique, the students' critical thinking can be enhanced (Van Erp, 2008; Boulter, 2010; Menden, 2012; Cojocariua & Butnarub, 2014; Jensen, 2015). By using the Socratic Questioning technique, students can be trained to ask questions which can enhance their critical thinking during group discussion. Therefore, it was the aim of this study to investigate how the Peer Socratic Questioning technique (adapted from the original Socratic Questioning technique) can influence the critical thinking levels of TESL students in IPG and how it can help to carry out effective group discussion. The purpose of this study was to evaluate the levels of critical thinking of participants involved in group discussion activities after employing the Peer Socratic Questioning technique (PSQ).

### **Research Objectives**

The objectives of this study were:

1. to investigate how the Peer Socratic Questioning (PSQ) technique has influenced participants' critical thinking skills in group discussion
2. to investigate the perceptions of the participants with regard to the PSQ technique in improving their critical thinking skills.

### **Research Questions**

Specifically, the research questions for this study were as follows

1. How has the Peer Socratic Questioning (PSQ) influenced the critical thinking skills of participants in group discussion?"
2. What are the perceptions of participants with regard to the Peer Socratic Questioning (PSQ) technique in improving their critical thinking skills?

### **Literature Review**

#### **Critical Thinking Skills**

The term critical thinking comes from the Greek word 'kritike', which means the art of judgment. Building on the work of early Greek philosophers, critical thinking is the basis of the intellectual history of the West. Scriven and Paul (1996) define critical thinking as skilfully and actively conceptualizing, analysing, applying, synthesizing, and/or evaluating information collected from, or generated by experience, observation, reasoning, reflection, or communication to guide belief and action. Critical thinking also involves skills such as analysing arguments carefully (Kizlik, 2005;

Lamb, 2000), seeing various viewpoints (Kizlik, 2005; Kurland, 1995) and making conclusions from ideas and evidence provided (Kizlik, 2005; William & Stockdale, 2003). It also includes the students' ability to choose conclusions that are most acceptable from ideas and evidence provided and applying knowledge and understanding to different and new problems and developing reasonable and rational interpretations (William & Stockdale, 2003; Kurland, 1995). All these skills are highlighted in the revised Bloom's taxonomy as higher order thinking skills (HOTS) which are analysing, evaluating and creating levels (Forehand, 2011).

There are many benefits of critical thinking. According to Schoeman (1997), critical thinking skills are essential for good citizenship and academic excellence. If students do not have the ability to critically evaluate the world around them, they will not be able to both define problems and find their solutions. Lau and Chan (2012) list several reasons why it is important to have critical thinking skills. First, whatever we choose to do, it is very important to be able to think clearly and rationally. It is an asset for any career to be able to think well and solve problems systematically. Second, in the new knowledge economy, which is driven by information and technology, we have to be able to deal with changes quickly and effectively. The new economy places increasing demands on flexible intellectual skills, the ability to analyse information and put together various sources of knowledge in solving problems. Third, with critical thinking, language and presentation skills can be enhanced. We can improve the way we express our ideas by thinking clearly and systematically. Critical thinking also leads to creativity because to solve a problem creatively does not only require having new ideas. Critical thinking is very important in assessing new ideas, choosing the best ones and changing them when necessary. Finally, it is crucial to use critical thinking in doing self-reflection. We need to justify and reflect on our values and decisions in order to live a meaningful life and to organize our lives accordingly.

### **Collaborative Learning**

One of the emphases of Social Constructivism theory and Communicative Approach is on collaborative learning. Collaborative learning is a learning approach that requires students to work in groups. In collaborative learning, usually two or more students of mixed ability working together in a group and it is the responsibility of each group member to learn the content taught in class as well as help other group members learn. This learning approach is believed to increase overall learning and enhance interpersonal relationships among group members (Panitz, 1996). According to Phelan (2012), collaborative learning activities are capable of enhancing the development of critical thinking abilities due to the nature of how students process information collectively with results that not only optimize their own learning but the learning of other group members as well.

As emphasised by Social Constructivism theory, collaborative learning through group work is one of the activities that can promote and help develop participants' communicative competence. Students can have meaningful and purposeful interaction with one another and work collaboratively to use the language to establish and to negotiate meaning (Richards, 2006). Working together in groups is the fundamental requirement of social constructivism as a means for the participants to construct their knowledge and understanding by working together to solve problems as highlighted in collaborative learning by MacGregor (1992) and Panitz (1999).

### **Socratic Questioning**

One of the techniques to teach critical thinking is by questioning and Socratic Questioning or probing questioning technique is one of them. According to Eggen and Kauchak (2012), by questioning, students are encouraged to put their understanding into words and the most effective way for them to develop this ability is by responding to question. Chin and Osborne (2008) claim that the process of asking questions allows students to articulate their current understanding of a topic, to make connections with other ideas and also to become aware of what they do or do not know. The act of

asking questions encourages students to engage in critical reasoning. Asking questions means the students are thinking about the ideas presented.

Socratic questioning originated from the Greek philosopher, Socrates back in 470-399 B.C. and it is at the heart of critical thinking. The Socratic questions are also called the probing questions. A Socratic approach to teaching is also known as dialectical approach or dialogic teaching where the teacher is engaged in dialogue with the participants. Socrates believed that students would be able to examine ideas logically and determine the validity of the ideas through thoughtful questioning. He also believed that this type of questioning could correct misconceptions and lead to reliable knowledge construction. Through Socratic questioning students will have the capacity to recognize contradictions and correct any incomplete or inaccurate ideas; hence, leading to progressively greater truth and accuracy. In Socratic questioning, teachers should be asking the questions and students should be doing the talking, discussing and writing (Wilcomb & Wilcox, n.d.).

Paul (1993) develops the taxonomy of Socratic Questioning, which covers six types of Socratic questions. They are the questions about conceptual clarification, the questions that probe assumptions, questions that probe reasons and evidence, questions that probe viewpoints and perspectives, questions that probe implications and questions about questions. Usually, Socratic questioning is used by instructors, teachers or facilitators to lead discussions. They ask the questions to direct participants' thinking. However, the researcher believes that if the teacher models and trains the participants with this type of questions they can be guided to use the technique on their own when conducting group discussion activities. They can ask each other probing questions to complete their task or to solve problems so that they help each other to use their critical thinking skills. In this study the participants applied the Peer Socratic Questioning technique and implemented the six types of Socratic questions. The examples for each type of question are illustrated in Table 1.

Table 1

*The six types of Socratic questions*

<b>Type of Question</b>	<b>Example</b>
Questions about conceptual clarification	What exactly does this mean? Can you give me an example? Can you rephrase that please?
Questions that probe assumptions	What else could we assume? What are you assuming? How did you choose this assumption?
Questions that probe rationale, reasons and evidence	Why is that happening? How do you know this? What evidence is there to support What you are saying?
Questions about viewpoints and perspectives	What alternative ways of looking at this are there? What is the difference between ... and...? What are the strengths and weaknesses of...?
Questions that probe implications and consequences	What are the consequences of the assumption? What are the implications of? How does ... fit with what we learned before?
Questions about the question	What was the point of asking that question? Why do you think I asked this question? What else might I ask?

## Methodology

### Research Design

This study employed a basic qualitative research design. The study examined in detail how the participants used the PSQ technique and how it influenced their critical thinking skills and also their perceptions on using the technique in improving their critical thinking in group discussions. By employing a basic qualitative method, processes (with the use of the Peer Socratic technique), involved in group discussion could be observed and understood.

### Sample

A purposive sample was used in this study. The participants for this study were chosen from a class of semester two first year students taking a degree in Teaching English as a Second Language (TESL) at an IPG in Terengganu. Since there was only one class of semester two first year students, everyone in the class was chosen as the research participants. There were altogether 20 students in this class. The participants were used to questioning by their lecturers and group discussion activities after spending three semesters of their foundation year and one semester of their degree programme.

### Instrumentation

The main instrument used for this study was video recording. The other instruments were reflective journals and interview protocol. The data was collected from the transcripts of video recordings of participants' group discussions, the reflective journal entries and the transcripts of the focus group interview. The Bloom's taxonomy indicators were used to measure the participants' critical thinking levels based on their responses to the questions asked during their group discussions.

### Research Procedure

The participants were required to record their discussions before and after the introduction of Peer Socratic Questioning technique. Socratic questioning technique is commonly used by instructors or lecturers to ask their students questions in order to probe their thinking. However, the technique used in this study was called the Peer Socratic questioning because, instead of the instructor asking the Socratic questions to students as commonly practised, the participants used these questions with their peers to ask one another. The participants were introduced to the Socratic questions in two workshop sessions. Then, they were given the tasks to carry out their discussion using the technique on their own.

In order to conduct their group discussions, the participants were given seven tasks. The tasks were according to the syllabus for the ELT Methodology course that they had taken in their second semester of the degree programme. Data collection took about eleven weeks to complete. The data was obtained from video recordings of the participants' group discussions before the introduction of PSQ technique and then from another six recordings after the introduction of PSQ technique and participants' reflective journals for a period of eleven weeks. Finally, data was obtained from focus group interview to elicit participants' perceptions on the technique introduced to enhance critical thinking. This interview was done in Week 11.

The video recordings were collected after each discussion and transcribed verbatim. The journal entries were also collected at the end of the week after the discussion was conducted. The focus group interview was also recorded by using video recording and later transcribed verbatim. The transcripts from the participants' discussion were analysed for the level of critical thinking according to the revised Bloom's taxonomy. The analysis was the responses or answers to the questions posed by the participants during their group discussions. The level of thinking according to the Bloom's taxonomy are remembering, understanding, applying, analysing, evaluating and creating. The analysis

was done by highlighting the responses given by the participants after their peers asked questions and giving the codes according to the levels of the revised Bloom’s taxonomy by using the ATLAS.ti software. However, the tasks did not require the participants to show any applying or creating levels of thinking. Therefore, only four codes were identified and used - remembering, understanding, analysing and evaluating. Remembering and understanding levels are considered as Lower Order Thinking Skills (LOTS) while analysing and evaluating levels are considered as the Higher Order Thinking Skills (HOTS) or the critical thinking levels (Forehand, 2011). By looking at the frequency of the levels of critical thinking in the answers provided by the participants, it gave a general idea of the level of critical thinking in each discussion as well as in all the discussions in general. The reflective journal entries and the focus group interview transcripts were also analysed by using the ATLAS.ti software for qualitative research for their perceptions on the use of PSQ on their critical thinking.

### Results of the Study

The findings from the analysis of discussion transcripts before and after using PSQ showed that there were increases in the levels of thinking according to the revised Bloom’s taxonomy indicators. From the analysis of answers or responses given by the students to the questions asked by their peers during the discussion before PSQ, it can be seen that most of the answers were of understanding level. There were only three levels of responses given by the participants which were the understanding, evaluating and remembering levels. The answers were very much dependent on the type of questions asked; their questions were also at low levels (Table 2).

Table 2

*LOTS and HOTS levels in discussions before and after using PSQ*

Level of Bloom’s taxonomy	Number of responses									
	Discussion before PSQ				Discussion after PSQ					% increase
	G1	G2	G3	AVG	G1	G2	G3	AVG		
<b>HOTS</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>4</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>13</b>	<b>225</b>	
analysing	0	0	0	0	3	7	5	5	Post-PSQ	
evaluating	2	0	11	4	11	7	7	8	100	
<b>LOTS</b>	<b>15</b>	<b>12</b>	<b>6</b>	<b>11</b>	<b>12</b>	<b>14</b>	<b>19</b>	<b>15</b>	<b>36.4</b>	
remembering	4	2	1	2	2	4	5	4	100	
understanding	11	10	5	9	10	10	14	11	22.2	
<b>TOTAL</b>	<b>17</b>	<b>12</b>	<b>0</b>	<b>15</b>	<b>26</b>	<b>28</b>	<b>31</b>	<b>28</b>	<b>86.7</b>	

In Table 2, the average number of responses given by the participants had increased for all levels of Bloom’s taxonomy – remembering, understanding, analysing and evaluating levels. For understanding level, the responses had increased from nine to 11 responses on average (an increase of 22.2%). The average responses for evaluating and remembering levels had increased from four and two responses to eight (100%) and four responses (100%) respectively. In discussion before using PSQ, only three responses were given but in the discussion after using PSQ, there was an addition of responses given at the analysing level with an average of five responses. Since none of the tasks required the participants to apply their knowledge or create something, there was no response given at the applying and creating levels.

Table 2 also shows that there were increases in the average number of responses at HOTS and LOTS levels from discussion before PSQ to discussions after using PSQ. In total, there was an increase in the average number of responses from 15 to 28 responses (86.7%). However, the increase in the HOTS level was more significant than the increase in LOTS level. For HOTS level, there was an increase from an average of four responses to 13 responses (225%). For LOTS level, there was an

increase from an average of 11 responses to 15 responses (36.4%). Since HOTS level indicates higher critical thinking level, therefore, it can be concluded that there was an increase in the level of critical thinking of participants with the use of PSQ technique.

The findings from the analysis of responses given by the participants showed that after the introduction of the PSQ technique, the most frequent responses given by the participants were mainly at understanding level followed by evaluating, analysing and remembering levels. The levels of responses had increased from only three levels (understanding, evaluating and remembering) to four levels (understanding, evaluating, analysing and remembering). There were no responses at the applying and creating levels since none of the tasks required participants to show the application of their knowledge or create something. The average responses had increased for HOTS levels (analysing and evaluating) while there were decreases in LOTS responses.

## Discussion

Before the PSQ technique was introduced, the participants did not really know what to discuss and what kind of questions they would ask. They were merely asking for examples and some explanations from their group mates and the analysis of the responses showed that responses were at LOTS levels. The discussions were very short since they did not know what to ask, as they admitted during the focus group interview and also as written in their reflective journal entries. The same situation was reported by Cacchioti (2011). Cacchioti (2011) conducted an action research to study student engagement through the intervention of guided instruction of developmental critical reflection and critical thinking skills by motivating students' higher order thinking skills based on King and Kitchener's (1994) theoretical framework of reflective judgment model. The participants in his study claimed that before the study, they did not know what the teachers were asking them to do when they were supposed to think of something but the intervention used in the study helped them to understand what they were supposed to do by defining what it takes to think.

By using the PSQ technique, the participants learned to ask questions that required their peers to answer not only to recall information (remembering) but also to demonstrate their understanding (understanding). They also learned to compare and contrast between two elements or concepts, analyse information, organise their ideas, discuss implications of a theory they had learnt, make links to their own life as student teachers (analysing), and also make judgement by giving their views and opinions (evaluating). Even though the answers were mainly at understanding levels, they were necessary as they helped the participants to understand the concepts or the topics better. According to Paul and Elder (2007) before students can use all these skills, they need to have the necessary knowledge and understanding about the concepts. In order to understand the concepts, they had to be clear about them and this was done by asking clarification questions which would provide the answers either at remembering or understanding level. Once they had understood the concepts, they could start giving answers at higher level of thinking such as analysing and evaluation.

A study by Nor Lisa (2012) supported these findings as it showed that the practice of asking open-ended questions such as the Socratic questioning in small group discussions were effective to promote critical thinking skills of students. This is also supported by many studies which proved that Socratic Method had improved critical thinking skills of students for instance Cleveland (2015), Lee (2009), Yang, Newby and Bill (2005), Jensen (2015), McGuire (2010) and Menden (2012). Another study also proved that student-initiated questions increased higher-order learning by requiring them to analyse information, connect seemingly disparate concepts, and articulate their thoughts (Tofade, Elsner & Haines, 2013).

The findings from the reflective journal entries revealed that a majority of the participants believed that the PSQ technique had made them think critically. The participants had to think critically or think deeply in order to answer the questions asked by their friends. For example, they



needed critical thinking to answer questions which required them to compare and contrast and to give opinions (viewpoints and perspective questions), questions that probed reasons and evidence and also questions for conceptual clarification. Instead of merely giving closed-ended answers, they learned to explain and elaborate their answers.

The following are some extracts from the participants' reflective journal entries on what they felt about the use of PSQ in increasing their critical thinking skills. To illustrate, Dijah from Group 1 felt that using this technique gave the group a better environment to encourage critical thinking of the group.

I find that my group members are able to use this method and success in thinking of the questions and answers. In general, this method provides a better environment to promote critical thinking... (Dijah's Journal Entry 5)

Kiah from Group 3 in her Journal 6 wrote that she also felt that using this technique helped her in many areas including developing their critical thinking.

In conclusion, peer group discussion indeed helps us in many areas such as social skills, developing critical thinking, and also increases our knowledge. (Kiah's Journal Entry 6)

Similar to what was written by Kiah in her journal, another participant from Group 5, Hana, also wrote in her journals that she believed the PSQ technique should be used in classroom as it had helped them in developing critical thinking. For example, she wrote in her Journal entry 6:

In conclusion, peer group discussion helps in many areas such as social skills, developing critical thinking, and also deepens our understanding of the subject matter. (Hana's Journal Entry 6)

The findings from the journal entries were supported by the findings from the focus group interview. When participants were asked whether the PSQ had improved the way they conducted their group discussion and their critical thinking, the answers were in the positive. They agreed that the technique had helped them to increase their critical thinking skills. According to the participants, the questions helped to make them understand the topics better because when they gave their opinions, it did not just stop there as their friends would ask them to explain further in order to clarify their points or give justifications for their answers. Everyone in the group was alert and actively thinking as they had to be ready to answer the questions asked by their peers and at the same time think of the questions that they themselves would ask. They also had to keep thinking to develop ideas for the discussion which means no one could be a "free rider", without contributing anything to the discussion. Extract 1 from the focus group interview illustrates this.

## Extract 1

*Focus Group Interview, lines 125-160*

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- Interviewer: So now.... with the introduction of Peer Socratic Questioning technique ah... how do you think of the Peer Socratic Questioning? Does it improve the way you carry...carry out your group discussion? The way you think, maybe?
- Ray : Yes... (nodding). In general, it's more to ... umm...**enhance this... HOTS... High order thinking skill** ...because erm...when you... still there is something. Of course, if you want to convince the audience... your... your peers, right? So ah...so that... believe in yours... turn or your point. So, you've to provide with elaboration and examples to make it clear just to question.
- Syah : Before this ah...we did try some discussion where that is for EDU. Me, Ray, Dijah I think and some others are in the group, we talked about... we divided about ah... the NPE, the National Philosophy of Education... we divided into parts and then we ah... divided ourselves into pairs and threes and then we discussed. In the end after we finish discuss...umm...we...we just present it and then ah...some...some will ask some questions and then but the questions are too... of... too... on the surface not deeper enough... not deep enough.
- Interviewer: You mean compared to peer questioning?
- Syah : Ah...compared to peer questioning. Because peer questioning...ah... when we ask questions, ah... some doesn't know the answer but some people do. When we ask the question, those who have the answers will try to answer and explain to them. So that we give others some ideas on what they ah... what they don't know.
- Interviewer: Anyone... ya...
- Hana : In my opinion peer questioning helps in terms of what question... what variety of question that we can.... question our friends because basically before this... before we are introduced to the peer questioning we are...we are only umm... asking questions such as why, what and that's umm...not specific enough... to help the... to help the person to deliver the ... so, ya... gives some varieties... of question to be asked.
- Shiha : I agree with Hana, **the technique er... somehow helps in generate our thinking skills**... because using the technique err... sometimes we... **should think out of the box** because we are not only depends on the materials...we...er...there are... sometime that are very curious to know ... about the answer so we...should search for the answer... by... asking the question to the...another person
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The findings from both the reflective journal entries and the focus group interview showed that participants perceived that PSQ technique had enhanced their critical thinking as they learned to ask higher order thinking questions and answer the questions asked by their peers by giving explanations, evidence and opinions instead of just presenting the facts as they normally did in their previous discussions and presentations before using the technique.

### Conclusion

Peer Socratic Questioning technique has proven to be a useful technique to develop or enhance critical thinking skills of students (Van Erp, 2008; Menden, 2012; McGuire 2010; Jensen, 2015). This technique should first be introduced to teachers or lecturers to familiarise them with this technique before it could be introduced to the students. The technique should be practised in classroom first before the students can practise it among themselves. The topics chosen for the discussion are also important to enable the students to develop different levels of thinking. With longer time to practise the technique, the students could develop higher levels of thinking.

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