Creating Thinking Classrooms: Perceptions and Teaching Practices of ESP Practitioners

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Abstract

Critical thinking skills (CTS) have been shown to enhance English language competency. However, studies on what educators think of CTS and how they incorporate CTS in English for Specific Purposes (ESP) classrooms remain limited. This paper explores the perceptions and teaching practices of five ESP lecturers/teachers using a qualitative approach. The study revealed that although lecturers/teachers observed a lack of CTS among learners, there was a lack of emphasis on developing CTS due to several factors. The results of this study provide insights for educators to reflect on their own teaching practices and incorporate CTS into English language teaching.

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1. Introduction

English is officially the second language in Malaysia and has been taught as a compulsory subject to students at both primary and secondary schools. Unfortunately, even after 11 years of schooling (year one to secondary five), English language proficiency among Malaysian university students remains at a low level (Yamat, Fischer & Rich, 2014). According to studies carried out by the Malaysian Ministry of Higher Education (2006), more than half the
MUET (Malaysia University English Test) scores of Malaysian students were between Band 1 (extremely limited user) to Band 3 (modest user). Although most students are able to understand instructions and content conveyed in English, the majority of them find it difficult to express themselves in the language. This is worrying as limited English language proficiency among university graduates lowers their chances of getting employed (Kaur & Sidhu, 2010). To remedy this issue, it is common for institutes of higher education to offer general English courses or English for Specific Purposes (ESP) courses to help students improve their English language proficiency and cope with the language demands of university courses. There are several reasons why English language proficiency remains low among Malaysian undergraduates. One of the reasons is the exam-oriented education system in Malaysia. Thus, English lecturers/teachers tend to focus more on the technical aspects such as grammar, reading and writing skills and place less emphasis on the communicative aspects in their teaching (Che Musa, Koo & Azman, 2012; Koo, 2008) so that students will be able to score well in national examinations. Hence, students may view English learning as a means to an end; to pass examinations and not for communicative reasons. The situation is made worse by English language classrooms which are still dominated by traditional teacher-centred approaches and drills such as revision using past-year examination papers, textbooks and exercises (Che Musa et al., 2012). These methods discourage students from employing critical thinking skills which are crucial for developing better learners.

Even though efforts have been made to include critical thinking as part of the curriculum in institutions of higher learning (MoHE, 2006), studies have shown that this may not have been implemented effectively because lecturers/teachers may not have a clear idea on how to incorporate critical thinking skills in the classroom (Choy & Oo, 2012; Rajendran, 2013; Rudd, 2007). As a result, students may not be able to apply critical thinking skills well in the learning process as their lecturers/teachers are not fully aware of how critical thinking skills can be integrated with their lessons effectively.

Since lecturers/teachers’ perceptions can influence their teaching practices (Choy & Oo, 2012), it is important to find out what lecturers/teachers today think of critical thinking skills and what they do to instill critical thinking among students. With that in mind, this study aims to answer the research questions below:

1. What is the perception of lecturers/teachers on critical thinking skills among students?
2. What are the current teaching practices of lecturers/teachers in promoting critical thinking skills in ESP classrooms?
3. What are the challenges of lecturers/teachers in the integration of critical thinking skills in ESP classrooms?

2. Literature review

2.1. Defining critical thinking

Learning and thinking have long been regarded as lifelong processes which are interrelated (Chaffee, 1994). This statement is supported by Bailin and Siegel (2003) who proposed that critical thinking (CT) should be the primary goal of education. The inculcation of critical thinking in education is important for reasons such as to facilitate students to think for themselves and make decisions, to equip them with skills to do well in subjects such as mathematics, science, literature, art and history, to prepare students for challenges of adulthood and to enable them to lead a democratic life which involves good and analytical thinking (Siegel, 2010). While the short-term objective of training students to become critical thinkers is to make them better students, the far more important goal is to make them high-functioning and productive adults who are able to contribute to the development of a nation (Abrami, Bernard, Borokhovski, Wade, Surkes, Tamim & Zhang, 2008).

Although critical thinking is seen as a rather complex concept to explain, it has been widely defined by educators and theorists worldwide, along with the evaluation criteria, skills and dispositions that go along with it (Siegel, 2010). Abrami et al (2008) defined critical thinking as the ability of an individual to engage in a purposeful, self- regulatory thinking process. Halvorsen (2005) describes thinking critically as viewing things from “various perspectives, to look at and challenge any possible assumptions that may underlie the issue and to explore its possible alternatives”. In terms of Bloom’s taxonomy, the three highest levels of thinking which are analysis, synthesis and evaluation are believed to represent critical thinking skills (Kennedy, Fischer & Ellis, 1991).
Of the many definitions found on critical thinking, critical thinking can be summarised as a skill to assist learners in achieving better understanding by actively thinking about their own learning process and discovering how to solve problems by evaluating different perspectives. This in turn could assist learners in learning more effectively.

2.2. Critical thinking and language learning

Even though thinking and language development go hand-in-hand, a lot is left to be desired when it comes to efforts in integrating critical thinking skills into English language teaching in Malaysia. A study by Yunus et al. (2006) involving 3025 respondents from 7 public universities and 2 private universities from Malaysia revealed that undergraduates performed moderately in terms of critical thinking ability. This is worrying as it shows that Malaysian undergraduates lack critical thinking skills necessary to stay competitive in the workforce even though steps have been taken by the Malaysian Ministry of Higher Education over the years to incorporate the critical thinking component in the curriculum as well as assessments.

As with all skills, practice is essential in order to improve critical thinking (Facione, 2011). A few methods which have been identified to promote critical thinking include group activities such as discussion, debate and case studies. However, carrying out activities like these take time away from lecture, which is a traditional method widely used by educators to deliver curriculum content (Wallace and Jefferson, 2015). In Malaysia where the education system is still very much exam-oriented and result-based, lecturers/teachers may hesitate to employ alternative methods to promote critical thinking, choosing instead to focus more on finishing the syllabus and teaching students how to score well in exams.

Based on the literature reviewed, it is important to incorporate critical thinking skills into English classes for several reasons. According to Masduqi (2011), many ELT experts believe that critical thinking skills should be promoted in English classes in order to enhance the English language competency of students. Shirkani and Fahim (2011) postulated that when learners are able to incorporate critical thinking skills into language learning, they will be better able to monitor and assess their own learning. In addition, they believe that critical thinking is able to enrich learners’ learning experience and make it more meaningful. Critical thinking has also been shown to be highly correlated to learning achievement (Rafi, 2010).

Liaw (2007), on the other hand, stresses that while it is necessary for critical thinking skills be taught in an ESL classroom, this does not translate into students lacking the ability to think critically. However, she emphasised that it is important for language lecturers/teachers to guide students in developing critical thinking skills while learning English to enable them to advance in today’s increasingly competitive workplace.

The studies above show that there is a dire need for critical thinking to be inculcated in English language classrooms in order to improve language proficiency of learners and enhance the whole language learning experience. However, lecturers/teachers may be ill-informed on ways to include critical thinking as part of their teaching and this could affect students’ ability to apply critical thinking skills in their learning (Lauer, 2005). In a Malaysian context, Choy & Cheah (2009) found that even though lecturers/teachers in institutions of higher learning believe that they are teaching critical thinking, there seemed to be a lack of understanding on how they could help students to develop critical thinking. Therefore, it is important to find out the current teaching practices of English lecturers/teachers in integrating critical thinking with English courses so that more can be done to improve the current situation.

3. Methodology

This study employs a qualitative approach which consists of both semi-structured interviews and classroom observations. 5 lecturers/teachers (4 females, 1 male) teaching ESP courses were chosen for the interview and will henceforth be addressed as T1, T2, T3, T4 and T5 in the results and findings. The ESP courses involved are Academic English, Technical Writing, Technical Communication and Effective Communication. These courses are offered by Universiti Tun Hussein Malaysia (UTHM) to equip students with English language skills required for undergraduates to get on with their tertiary studies.
The participants of the study were selected via purposive sampling. Purposive sampling is defined as the intentional selection of samples which possess certain characteristics or qualities in accordance to the research objectives (Coyne, 1997; Koerber & McMichael, 2008). This technique was selected because it is useful for learning about central issues by allowing in-depth study to take place using information-rich samples (Patton, 1990). In order to obtain information-rich samples, only language lecturers/teachers with at least 24 months of teaching experience were approached. Written consent for the interview and classroom observations was promptly obtained from each of the language lecturers/teachers. The interview questions were developed based on the objectives of the study and revolved around lecturers/teachers’ understanding of critical thinking skills, teaching practices in the integration of critical thinking skills in the classroom and potential challenges. Furthermore, field notes of classroom observations for each course were recorded by the researcher to validate the data obtained through the interviews. The interviews were audio recorded, transcribed using TRANSANA v.2.61; a qualitative video analysis software (Fassnacht & Woods, 2006), coded and finally organised into themes for descriptive analysis.

4. Findings

The findings are organised according to the objectives of the study. The first section presents the perceptions of lecturers/teachers towards critical thinking skills among students. This is followed by teaching practices of lecturers/teachers to develop critical thinking skills. The final section highlights the challenges faced by lecturers/teachers in the integration of critical thinking skills in ESP courses.

4.1. Lecturers/teachers’ perception towards critical thinking skills among students

In general, lecturers/teachers think that their students lack critical thinking skills and were passive in terms of their learning attitude. From the interviews, the participants concurred that there was a lack of critical thinking skills among most of their students. These excerpts from the interviews show that students tend to possess a “herd mentality” where they tend to blindly follow the suggestions of their group members and have difficulty generating ideas when it comes to classroom discussion. “I ask them to brainstorm to develop the idea, they cannot think critically. I mean, the idea is very limited.” (T4) “Some of them they were actually like very, only follow with the flow” (T5)

Through the classroom observations and interviews, it was gathered that students in general were quite passive in their learning. Although some interaction could be observed going on between the lecturers/teachers and students during the lessons, most of it was led or initiated by the teacher. For example, students in Foundation English class uttered one-word responses such as “Yes” or “No” to questions posed by the teacher. This took place mostly in the form of a choral response, where the entire class or most of the students answer in unison. These findings are consistent with that of Choy & Cheah (2009), where students are thought to be lacking in critical thinking skills due to their passive behaviour in class.

On the other hand, although there were occasions where students posed questions to the lecturers/teachers during class, they were few and far between. The majority of the questions only required factual answers as they were mostly related to the tasks or assignments given. For instance, during Effective Communication class, students were observed asking questions such as “How many marks we get for this task?” or “How long are we given to present?” This indicates that students were concerned about the evaluation process, possibly caused by the years spent immersed in exam-oriented education system. Little interaction occurred between the students as four out of five classroom observations were teacher-centred and consisted mostly of lectures where the teacher talks and the students listen. The following statements further illustrated passive behaviour among students. “I ask them...a very simple question, they just sat there and waited for me to give them the answer” (T1) / “They just do whatever I ask, never question.” (T4)

When probed further, lecturers/teachers attributed the observed passive behaviour among students to the exam-oriented system and spoon-feeding culture prevalent in primary and secondary education. The emphasis on traditional teaching methods such as drills which focuses on memorisation could possibly be part of the reason why students are unable to think critically. Interestingly, one of the participants maintained that drills remain important for English language learning and applies it in her teaching. “So students are more like, wait for lecturers/teachers to
tell them what to do, and wait for notes...drilling, things like that. So they are trained like that. So when they come to the university education, they are still bringing that kind of culture.” (T1)

4.2. Teaching practices to develop critical thinking skill

The next part of the paper focuses on what English lecturers/teachers do in order to integrate critical thinking skills in the teaching and learning process. Brainstorming in small groups, identifying issues, questioning and reflection were some of the ways used by the lecturers/teachers to help students develop critical thinking skills.

4.2.1. Brainstorming in small groups

Brainstorming is frequently associated with creative thinking skills as it encourages the generation of ideas and in doing so, discourage students from judging the ideas. The quantity of ideas is emphasized over the quality of ideas. So where does critical thinking occur? According to the interviews, ESP courses such as Effective Communication and Technical Writing require students to write proposals or plan projects based on real-world problems. Lecturers/teachers frequently ask students to use this technique in order to list down as many ideas as possible and then select the best option. In doing so, students need to think critically and select the best possible choice through justification of ideas. “I wanted them to be critical, so I asked them to brainstorm about problems around them.” (T2). While brainstorming on its own does not promote critical thinking skills, assessing and making decisions based on the ideas engages students to critically analyse and evaluate their choices (Case, 2005). “When they are brainstorming, they should provide concrete and valid reasons behind every points that they come up with.”(T5)

What was interesting to note was not the act of brainstorming itself, but also how the lecturers/teachers carried out the brainstorming session. T2 commented breaking the class into small groups of five for the brainstorming session was more effective than allowing the class of 40 to brainstorm together. During the classroom observation, students seemed to be more responsive when brainstorming in small groups of five or six instead of a teacher-led classroom brainstorming session. This could be because students feel more relaxed and comfortable interacting with their peers in small groups. This observation is supported by Horwitz (2001) who suggests that getting students to deal with challenging tasks in small groups could allay their feelings of anxiety and fear of speaking in public. This in turn can assist students in expressing their thoughts more openly and helps in the development of critical thinking skills. “Instead of asking students to brainstorm in a group of 40 or a class, I group them in a smaller group...able to produce 100 brainstorming ideas within an hour...But if I brainstorm in a class of 40 in an hour. After 15 minutes I'd be alone standing there. The students will not respond back to me.” (T2)

4.2.2. Identifying issues

Participants of the study expressed that they often used group discussions to promote critical thinking among students and also because all ESP courses except Academic English involved assessments which require students to work in groups. One of the teachers, T2, mentioned that he used group discussions because he thinks that students need to be exposed to different perspectives. Exposing students to different opinions or ideas helps to foster open-mindedness, a disposition believed to be important for critical thinking (Staib, 2003).“(Students) have to be..exposed to different point of views.” (T2)

However, group discussions alone are not sufficient to develop critical thinking skills among students. As mentioned by Garrison & Cleveland-Innes (2005), interaction among students does not necessarily mean that they are “cognitively engaged in an educationally meaningful manner”. Based on the classroom observations made, facilitation provided by lecturers/teachers during group discussions played an important part in helping students to think deeply about certain topics or issues. Facilitation can take place through a variety of ways. For instance, lecturers/teachers may guide students by asking questions, demonstrating how to select issues for discussion or by encouraging students to reflect on their learning: “At the beginning I've asked them to look for issues, I'll give them some examples. I showed a photo and then discuss with them issues and turned that into problem statements and objectives.” (T1)
From the interview excerpts above, it can be concluded that teachers/lecturers associate critical thinking skills with problem-solving. Relatively, previous studies (Case, 2005; Şendağ&Odabaşı, 2009) have shown that learners have a higher tendency to engage in critical thinking if the subject matter or learning content is problematised.

4.2.3. Questioning

All participants used questioning techniques in class to promote students' critical thinking skills. As questioning is often seen as a way to challenge learners and their thinking, the quality and types of questions used during lessons should be examined when it comes to integrating critical thinking with the subject matter. According to Case (2005), questions which promote critical thought should ensure that learners are not merely regurgitating facts, but are making judgments or evaluating possible alternatives. During the classroom observations, most questions employed by lecturers/teachers were lower-order questions which often includes the question word “What” - “They discuss then I will go to each group to see to look at their points and then whenever they write something I will ask them why do you say this? What do you want to write actually? So, how can you make it write better?” (T4)

In addition, T2 asked the students questions such as, “Before the meeting, what did you do?” in order to activate students’ prior knowledge about meetings. In a separate ESP class, T4 asked students many questions about report writing. Most of the questions started with question words such as “What?”, “How many?”, and “Where?” which required factual answers. The use of lower order thinking questions could mean that lecturers/teachers tend to focus more on the mastery of the subject matter instead of emphasizing on the development of critical thinking skills. On the other hand, lower-order thinking questions may also be an approach teachers use to encourage participation in class and reduce learner anxiety among students with low English proficiency.

4.2.4. Reflection

Besides brainstorming, identifying issues and questioning, training students to reflect on their own learning is an important part of developing critical thinkers (Cotton, 1991). However, out of the five lecturers/teachers interviewed, only one shared that she encourages critical thinking among students by guiding them to reflect on their learning process when they face difficulty in completing a task: “I always ask them to actually look back at the question, read back at the question, read back the questions, try to understand the questions. I asked to reorganise first, look at what you have done, look at what you haven't done and then after that I will actually encourage them to think to think.” (T5)

In reference to the discussion above, it was evident that lecturers/teachers preferred approaches, strategies and techniques which are not too time-consuming and can be easily incorporated with their lessons without much preparation. This is understandable since these lecturers/teachers have to handle at least five classes per week as well as administrative tasks in the university. Furthermore, in the process of developing critical thinking skills among students, the lecturers/teachers see themselves playing the role of a facilitator instead of a transmitter of knowledge or information. From the interviews as well as the classroom observations, it can also be concluded that even though the lecturers/teachers involved do not really emphasize on developing critical thinking skills among students during lessons, they believe that critical thinking skills should not be taught explicitly, but should instead be embedded into the English language programs through in-class activities, assignments or teaching approaches.

4.3. Challenges faced by lecturers/teachers in the integration of critical thinking skills in ESP courses

This final part of this paper presents and discusses the challenges encountered by the lecturers/teachers which are language anxiety among learners, lack of technical knowledge on how to integrate critical thinking skills into the ESP courses and attitudes of ESP practitioners. Several suggestions will also be proposed to tackle these challenges.

4.3.1. Language anxiety among learners

Many lecturers/teachers tend to gauge students’ critical thinking skills from productive skills such as speaking and writing. However, one of the challenges faced during the integration of critical thinking skills in ESP
classrooms is language anxiety among students. Language anxiety can be defined as “the feeling of tension and apprehension, specifically associated with second language context including speaking, listening and learning” (MacIntyre & Gardner, 1994). This may impede them from displaying signs of critical thinking as the development of critical thinking skills requires “rich stimulation and interaction” (Hansen-Pauly, 2014). Students who suffer from language anxiety in this study context are not keen to share their thoughts and ideas during group discussions or brainstorming sessions, preferring to keep to themselves because of their low confidence in their English language ability and fear of being ridiculed by their peers. “They are not that good in English… they don't have that kind of confidence …They are afraid of people laughing at them or criticising their language production” (T1)

Thus, language anxiety among students is a problem because it becomes difficult for lecturers/teachers to gauge the level of critical thinking if a student chooses not to express his or her ideas at all due to feelings of anxiety or embarrassment. This shows that the challenge faced by language lecturers/teachers in creating a thinking classroom is multi-layered and cannot be solved by simply teaching students how to think critically. It also has to be tackled from other aspects such as by improving students’ language proficiency, reducing language anxiety and guiding students in expressing their thoughts clearly and confidently using the target language.

4.3.2. Lack of technical know-how of integrating critical thinking skills with ESP courses

Through the interview sessions, the lecturers/teachers admitted that they do not know enough methods or ways to promote critical thinking skills because they were not exposed to it often enough. This is consistent with the findings by Rajendran (2013) where lecturers/teachers in general found it difficult to combine the teaching of the subject matter and critical thinking skills. All participants of the interview expressed that attending courses on ways to integrate critical thinking skills into ESP courses would benefit them greatly. T1 and T2 expressed that there were courses organized by the university on critical and creative thinking skills but none of them catered specifically for ESP courses. Therefore, it is essential for professional development programs to be customised accordingly so that lecturers/teachers will not only be able to obtain a deeper understanding of critical thinking skills, but will also be able to apply instructional strategies to promote critical thinking skills in context. Another suggestion by one of the participants was to establish a platform where lecturers/teachers can freely exchange knowledge and experience on their teaching practices.

4.3.3. Attitude of ESP practitioners: Compromising the use English language to promote critical thinking

Although the participants insist that their students use English in class whenever possible, it was alarming to note that some of them did not mind students holding a discussion in their first language (L1) if necessary, so that “the flow will be there”. They did insist, however, that the final product of the students’ discussion should be in English, be it in the form of a written assignment or an oral presentation. In retrospect, not stressing on the use of English for discussions defeats the purpose of an ESP classroom which is supposed to help learners develop their English communicative skills for specific disciplines. It may also lead to students undermining the importance of practising the language. While studies (Miles, 2004; Meyer, 2008) have shown that the use of L1 can be used to facilitate and scaffold learning in English classrooms for students with low English proficiency, the use of the target language should still be maximised where applicable.

To develop critical thinking skills without compromising communicative competence in English, lecturers/teachers may consider providing systematic language support instead of allowing students to communicate entirely in their first language. Hansen-Pauley (2014) found that “a step-by-step, conscious development of concepts and appropriate language prevents experiences of frustration which are detrimental to learning”. When students start viewing English as a manageable way to channel their thoughts, they will be able to focus better on developing critical thinking using the language. To illustrate, lecturers/teachers can equip students with common English phrases used for questioning and responding to general issues. This may help to reduce language anxiety and at the same time, aid students to express their ideas in the target language despite their limited language proficiency.
5. Conclusion

In a nutshell, this paper has delved into the perception of lecturers/teachers towards critical thinking skills among students as well as teaching practices to promote critical thinking among students. Even though the participants involved in the study were aware that their students lack critical thinking skills, it was found that lecturers/teachers do not really emphasize on these skills and chose to focus instead on the subject matter. Other challenges such as lack of the technical know-how to integrate critical thinking skills into ESP courses, lecturer/teacher attitudes and language anxiety among students have also contributed to the current state of affairs. The findings reveal that more should be done to empower lecturers/teachers on how to embed critical thinking skills in ESP classrooms such as by organising relevant teacher training courses or by creating platforms where lecturers/teachers can freely share their teaching practices. Subsequently, future research can steer towards the development of ready-to-use ESP modules which lecturers/teachers can easily adopt and adapt to integrate critical thinking skills among learners.

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References

Abrami, P. C., Bernard, R. M., Borokhovski, E., Wade, A., Surkes, M. A., Tamim, R., & Zhang, D. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage 1 meta-analysis. Review of Educational Research, 78(4), 1102-1134.
Bailin, S., & Siegel, H. (2003). Critical thinking. In N. Blake, P. Smeyers, R. Smith, & P. Standish (Eds.), The Blackwell guide to the philosophy of education (pp. 181-193). Oxford, UK: Blackwell
Case, R. (2005). Moving critical thinking to the main stage. Education Canada, 45(2), 45-49.
Chaffee, J. (1994). Thinking critically (4th ed.). Boston: Houghton Mifflin.
Che Musa, N., Koo, Y. L., & Azman, Z. (2012). Exploring English language learning and teaching in Malaysia. GEMA Online™ Journal of Language Studies, 12(1), 35-55.
Choy, S. C., &Oo, P. S. (2012). Reflective thinking and teaching Practices: A precursor for incorporating critical thinking into the classroom?. Online Submission, 5(1), 167-182.
Choy, S. C., &Cheah, P. K. (2009). Teacher perceptions of critical thinking among students and its influence on higher education. International Journal of Teaching and Learning in Higher Education, 20(2), 198-206.
Coyne, I. T. (1997). Sampling in qualitative research: Purposeful and theoretical sampling; merging or clear boundaries? Journal of advanced Nursing, 26(3), 623-630.
Cotton, K. (1991). Teaching thinking skills. School Improvement Research Series, Close-up #11. Retrieved from http://www.qsm.ac.il/userfiles/ershad_tarbawi/general/Teaching_Thinking_Skills.pdf
Cotton, K. (1991). Close-up #11: Teaching thinking skills. Retrieved from Northwest Regional Educational Laboratory’s School Improvement Research Series Web site. http://www.nwrel.org/scpd/sirs/6/cu11.htm
Facione, P. (2011). Think critically. Boston, MA: Prentice Hall.
Fassnacht, C. & Woods, D.K. (2006). Transana (Version 2.12). University of Wisconsin: Madison, WI USA
Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. The American Journal of Distance Education, 19(3), 133-148.
Halvorsen, A. (2005). Incorporating critical thinking skills development into ESL/EFL courses. The Internet TESL Journal, 11(3), 1-5.
Hansen-Pauley, M. A. (2014). Teacher education: Language issues in multilingual educational contexts: Sensitising Subject Student Lecturers/teachers for Language Issues and Cultural Perspectives. Council of Europe, 1-45.
Horwitz, E. (2001). Language anxiety and achievement. Annual Review of Applied Linguistics, 21, 112-126.
Kaur, R. & Sidhu, G. (2010). Learner autonomy via Asynchronous Online Interactions: A Malaysian perspective. International Journal of Education and Development Using ICT, 6(3), 88-100.
Kennedy, M., Fisher, M. B., & Ennis, R. H. (1991). Critical thinking: Literature review and needed research. Educational values and cognitive instruction: Implications for reform, 2, 11-40.
Koerber, A., & McMichael, L. (2008). Qualitative sampling methods a primer for technical communicators. Journal of Business and Technical Communication, 22(4), 454-473.
Koo Yew Lie. (2008). Language, culture and literacy: Meaning-making in global contexts. Bangi: PenerbitUniversitiKebangsaan Malaysia.
Lauer, T. (2005). Teaching critical-thinking skills using course content material. Journal of College Science Teaching, 34(6), 34-44.
Liaw, M. L. (2007). Content-based reading and writing for critical thinking skills in an EFL context. English Teaching and Learning, 31(2), 45-87.
Masduqi, H. (2011). Critical thinking skills and meaning in English language teaching. *TEFLIN Journal*, 2(2), 185-200.

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44(2), 283-305.

Meyer, H. (2008). The pedagogical implications of L1 use in the L2 classroom. *Maebashi KyooaiGakuen College Ronshu*, 8, 147-159.

Miles, R. (2004). *Evaluating the use of L1 in the English language classroom*. Doctoral dissertation, University of Birmingham.

Ministry of Higher Education, Malaysia (MoHE). (2006). Towards excellence, report by the committee to study, review and make recommendations concerning the development and direction of higher education in Malaysia. Kuala Lumpur: Univision Press Sdn. Bhd.

Patton, M. Q. (1990) *Qualitative evaluation and research methods* (2nd ed.). London: Sage.

Rafi, M. S. (2010). Promoting critical pedagogy in language education. *International Research Journal of Arts & Humanities*, 37, 63-73

Rajendran, N. S. (2013). *Teaching and acquiring higher order thinking skills: Theory and practice*. PenerbitUniversitiPendidikan Sultan Idris TanjongMalim, Perak.

Rudd, R. D. (2007). Defining Critical Thinking. *Techniques*, 82(7), 46-49.

Şendağ, S., & Odabaşı, H. F. (2009). Effects of an online problem based learning course on content knowledge acquisition and critical thinking skills. *Computers & Education*, 53(1), 132-141.

Shirkhani, S. & Fahim, M. (2011). Enhancing critical thinking in foreign language learners. *Procedia-Social and Behavioral Sciences*, 29, 111-115.

Siegel, H. (2010). Critical thinking. *International Encyclopedia of Education*, 6, 141-145.

Staib, S. (2003). Teaching and measuring critical thinking. *Journal of Nursing Education*, 42(11), 498.

Wallace, E. D., & Jefferson, R. N. (2015). Developing critical thinking skills: Assessing the effectiveness of workbook exercises. *Journal of College Teaching & Learning (Online)*, 12(2), 101-108.

Yamat, H., Fisher, R., & Rich, S. (2014). Revisiting English language learning among Malaysian children. *Asian Social Science*, 10(3), 174-180.

Yunus, A. S. M., Hamzah, R., Tarmizi, R. A., Abu, R., Nor, S. M., Ismail, H., & Bakar, K. A. (2006). Problem solving abilities of Malaysian university students. *International Journal of Teaching and Learning in Higher Education*, 17(2), 86-96.