

## Multimodality in The Teaching of Critical Thinking Skills

**Syakirah Mohammed**  
UiTM Cawangan Kedah  
syakirah@uitm.edu.my

**Fathiyah Ahmad @ Ahmad Jali**  
UiTM Cawangan Kedah

**Rafidah Amat**  
UiTM Cawangan Kedah

### ABSTRACT

Critical thinking skills are one of the most important skills to be possessed by an individual in surviving this world of globalization. Due to this, the teaching of these skills is given paramount importance in higher institutions of learning the world over. The teaching of these skills is found embedded in many areas including in the Teaching of English as a Second and Foreign Language. However, Critical thinking skills is found to be not an easy skill to teach. Traditional method employed in the teaching of the skills often prove inefficient especially in ensuring the transfer across domain. This paper explores the possibility of using multimodality both as material and methodology in the teaching of critical reading and thinking skills. Multimodality that allows meaning making from different semiotic modes may allow greater engagement by the learners; thus allowing them to better retain the concepts that they have learned and subsequently transfer this knowledge across their learning domain

**Key Words:** *Critical Thinking Skills, Multimodality, Multimodal Text*

### INTRODUCTION

As early as 1991, Deborah Court posited that critical thinking skills need to be taught to youngsters. According to her, youngsters today face pressing global problems that demand solutions. There is a need to help students develop the vision and capacity to meet the challenges that they will face. They need to be encouraged and taught to question, analyze, generate creative solutions and work cooperatively (Court,1991). This is especially true now as the world is becoming increasingly globalized and as countries around the globe are striving for economic leadership. Halpern (1997) stressed that in the 21st century, decisions made as individuals and society, as well as personal decisions on issues related to economy, natural resources conservation and the development of nuclear weapons bring great impact on the future generation and all people around the globe. This had made critical thinking skills imperative. According to her, people need these skills on order to be able to detect propaganda and not to be victimized by them, to analyze hidden assumptions, to detect blatant deception and to evaluate sources credibility and find best solutions to problems.

Halpern (1997) also posited that the nature of technology which allows accessibility to massive amount of information; that is through the Internet, has made the need for critical thinking even more vital as information posted over the Internet can be questionable in term of reliability and can be maliciously deceptive. Therefore, it is crucial for students in post-secondary education to be taught the critical thinking skills so that they will know how to evaluate the credibility of the information and make decisions on what to believe and not to believe. Kalantzis and Cope (2006) argued that critical thinking is vital to learning and necessary in the construction of knowledge as students need to be able to question facts rather than "believe the immediate preceptor", to

analyze evidences that support theories, to decipher texts, to compare between different intellectual discourse and question norms.

Unfortunately, research attested to students being unable to apply sophisticated reasoning at tertiary education level (Halpern, 1997; Kuhn, 1999). Research also shows that students often do not develop the skills and attitudes associated with critical thinking on their own (Weiten, 2004). An answer to this problem is to teach critical thinking explicitly at tertiary level. Critical thinking pedagogy will allow the promotion of social values that can protect citizens within a society (Paulsen, 1991), personal autonomy (Lipman, 1991), resolution of ethical conflicts (Thomson, 1991), building of self-confidence (Keeley, 1994) independence (Ruggiero, 1995) and political awareness and empowerment (Lipman, 1991). These inarguably are some of the most important skills needed for someone to face the challenges in the world today

### **Problems in Teaching Critical Thinking Skills**

Though experts generally come to the consensus that critical thinking can be taught, the process of teaching is not an easy one. Hairuzila, Hazadiah and Normah (2009) attested that students' attitude are among the factors that hamper the teaching of the skills. Negative attitude of the students' stems from their lack of awareness of the importance of the skill; thus, leading to lack of attentiveness and interest in developing the said skills. Another hindrance arises from the teachers' lack of awareness of the various teaching methods that can be utilized to integrate the promotion of these skills in their lessons. Wan Shahrazad et al. (2008) stated that it is difficult to incorporate critical thinking skills into tertiary students' contemporary learning as students are used to being passive learners. In order to foster critical thinking, a learner centered approach which provides the right learning environment and takes into consideration of factors that empowered the students need to be constructed. They also stressed on the need to give voice to the students so that they may articulate their thought through assignment as well as class discussion.

Scriven (2003) believes that skills associated with critical thinking can be learnt as a subject of its own, free from any specific domain. These skills can then be transferred across domains. This is validated by a study in which college students were taught inductive reasoning tasks by using realistic scenarios in many different domains. The findings show that students were able to use the skills in later contexts, leading to the conclusion that critical thinking is a transferable skill (Jepson, Krantz & Nisbett, 1993).

Halpern (1998) also holds the believe that critical thinking if taught as subject-specified course is not ideal as there is a lack of transferability due to content-specified skills. Instead, she suggested that critical thinking be taught using examples from various disciplines as it aids students to improve their thinking across discipline and she suggested that examples that simulate the real world are used in the teaching of the skills.

Bluedorn & Bluedorn (2003) associate critical thinking skills with the teaching of logic. They divide the teaching of logic into two, namely, formal logic and informal logic. According to the, formal logic is a more topic-neutral method of examining argument using mathematical structure and symbols and often used with deductive reasoning. On the other hand, informal logic relies on background knowledge and focuses on language or the natural setting of the arguments. In dealing with informal logic, the role of language is considered fundamental.

Case (2004) also stressed on the importance of language in dissecting, analyzing and understanding arguments. According to him elements of language in critical thinking includes concepts such as arguments validity, credibility, truth, soundness, inductive and deductive reasoning as well as various informal fallacies. Looking at this view, it is not suprising then, to see that critical thinking has found its way into the ESL pedagogy.

## Critical Thinking in ESL Curriculum

Atkinson (1997) opposed the idea that incorporating critical thinking in ESL/EFL curricula would be a successful enterprise. He based his doubts on four premises which are:

1. Critical thinking is a form of social practice and is not easily defined as a pedagogical set of behavior.
2. Critical thinking is exclusive and reductive in nature.
3. Critical thinking may not be valued in some non-native culture.
4. Critical thinking is not transferable beyond their context of instructions.

On the other hand, other experts differ in opinion from him. Davidson (1998) stressed that second language teacher should introduce students to aspects of critical thinking in their language lessons as failure to do so will result in students being unable to think critically when forced to do so in academic setting. Duff (2000) meanwhile posited that the language curriculum is the apt place for critical thinking incorporation as it considers both students' academic needs and interests. In addition, the language curriculum often transcends the boundaries between language and subject-matter course as it aims to develop students' academic language skills. As the language curriculum often includes various topics and themes, the language curriculum imbues the students with the critical thinking skills which enable them to express viewpoints and interact in discourse on diverse social issues.

This viewpoint is further supported with evidence that shows the effectiveness of teaching critical thinking in second language (ESL) as well as foreign language (EFL). A study carried out by Davidson and Dunham (1996) which followed the progress of 36 Japanese EFL college students showed that after receiving a year of Intensive English instructions with critical thinking instructions incorporated in the course, the students scored higher on Ennis-weir Critical Thinking Essay Test as opposed to the control group that receive the same EFL instructions minus the critical thinking instructions.

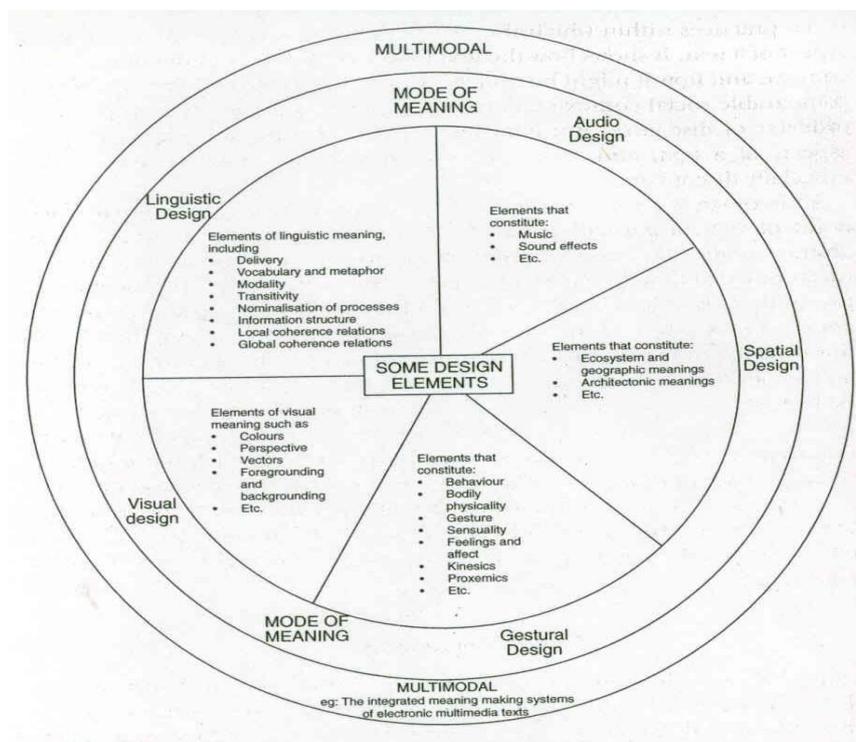
However, at present there is still a dearth of research suitable teaching method or approaches that can be employed in teaching critical thinking skills as part of ESL curriculum. One possible way to teach the skills would be through the use of multimodal texts in the lessons.

## The Use of Multimodal Texts in Teaching English

Multimodality is a term used to describe the complex combinations between media (e.g. a book, a screen), modes (e.g. speech, writing, image, music) and semiotic resources (e.g. fonts, intonation, colours) to express meaning and determine how meaning is shaped. (Kress, 2003). Multimodal texts are texts that have more than one 'mode' so that meaning is communicated through a synchronisation of modes. They may incorporate spoken or written language, still or moving images, they may be produced on paper or electronic screen and may incorporate sound. Different types of multimodal texts that students commonly encounter in their educational environment in print form are picture books, information books, newspapers and magazines. Multimodal texts in non-print form are film, video and, increasingly, those texts through the electronic screen such as email, the internet and digital media such as CD Roms or DVDs. (Walsh, 2004).

The various elements and modes of meaning that interact to make up a multimodal text are best illustrated by Cope and Kalantzis' Model of Multimodal Design as shown in the figure below. They termed the modes of meaning making as linguistic design, visual design, audio design, spatial design and gestural design. Combinations of two or more of these modes make up a

multimodal text and differentiate it from a mono modal text that contains only one mode or design.



**Figure 1 Model of Multimodal Design (Cope and Kalantzis 2000 p.26)**

Apart from presenting their Model of Multimodal Design, Cope & Kalantzis (2000) also stressed that students need “multimodal literacy” as the advancement in technology has shaped communication in such a way that meaning-making is formed by varied semiotic modes. The varied semiotic modes or multimodality has allowed communication to transcend cultural and national boundaries. A new “multimodal literacy” is therefore imperative to enable one to understand the various complex modes and the various settings which may affect communication.

This means that changes should be made in teaching and learning as well since in the outside world, students no longer rely on a mono modality to arrive at meaning. Barry (1997) stated that one often relies on visual images to make sense of the world and the reliance on visual images now overshadows written language which was once considered as a dominant mode.

Students in today's world often engage in multimodal texts that present information through a combination of modes including visual images, design elements, written language and other semiotic resources (Jewitt & Kress, 2008). Most contemporary texts today contain hypertext, videos, music, graphic designs or some form of visual images. Duncum (2004) stressed that multimodality cannot be avoided; therefore, students nowadays need the skills and strategies which allow them to construct meaning as conveyed by the multimodal texts.

In addition, the evolving nature of communication means that multimodality needs to be integrated in the teaching of English as well, as the teaching of language is essentially about communication. English educators need to integrate multimodality in their language curriculum as they are central to the effectiveness of English language teaching (Swenson et al., 2006).

This view is supported by a research done by Sasikala (2010) on the impact of multimodality on English language proficiency. The findings of her research show that the use of technology and multimodal texts is important in the students' life worlds. The students find multimodal texts to be helpful in developing their English language proficiency as they can improve their listening and speaking skills by imitating speech and pronunciation. The students also find the use of multimodal texts interesting and prefer it to the use of print-based texts. They state that multimodal texts are easier to understand and obtaining information from multimodal texts is easier than obtaining information from a printed text. The research also finds that students who make more use of the Multimodal and Language Proficiency Procedures to perform better in the English Language Proficiency Test. The findings also show that there is a positive and significant relationship with performance in English Language Proficiency through the procedures of Multimodal and Language Proficiency.

Another research conducted by Santhini and Ravichandran (2010) studied the use of multimodal approaches to develop appreciation of literature and critical reading concepts. They based the construct of their study on three assumptions- 1 ) Not all students arrive at meaning making through a mono modal delivery, 2) Theoretical and conceptual understanding is not completely possible using a singular modal and 3) Multimodal approach can assist the linguistically deficient learners to arrive at theoretical and conceptual understanding.

They also posited that mono-modality or singular modality delivery of information lead to difficulty in capturing students' interest and this approach limits students' understanding of critical concepts. The findings of their study show that the use of multimodality capture the attention of students and enhance their understanding of critical theory and concepts and that the students find the learning experience more enjoyable and engaging.

## Conclusion

In conclusion, the need to teach critical thinking skills in tertiary education is deemed as being of paramount importance, especially in the new information era. The expanding access to information necessitates the students with the skills to evaluate arguments, recognize underlying assumptions, and evaluate validity and strength of arguments before they decide what to believe and what action to take stemming from the argument offered.

Experts, while generally agreeing that critical thinking skills can be explicitly taught, are still debating on how they should be taught. Some suggest that the skills be taught as a subject-specific course while others disagree with the idea, citing lack of transferability as the main disadvantage. This gives rise to the idea of teaching critical thinking skills as a course that is independent of specific subject, instead presented as a course that incorporate issues and topics from various disciplines. English language course which theme and topics often derived from various disciplines is seen apt for the incorporation of critical thinking. This is supported by the fact that arguments essentially involve the use of language.

Previous research proved that incorporating critical thinking in the ESL/EFL curricula can be effective. However, there is still a need to find suitable approaches and methodology to incorporate these skills in the English language course. Using multimodal text is one of the approaches in ensuring students are able to grasp the critical thinking skills. It is deemed suitable as the students deal with multimodal texts on daily basis and the fact most contemporary texts are multimodal only support this belief.

## REFERENCES

- Cope, B., & Kalantzis, C. (2000). *Multiliteracies: Literacy Learning And The Design Of Social Futures*. London: Routledge
- Court, D. (1991). Teaching critical thinking: What do we know? *The Social Studies*, 82(3), 115-119.
- Duff, A. (2000). Learning styles measurement: The revised approaches to study inventory, *Bristol Business School Teaching and Research Review*, 3.
- Duncum, P. (2004). Visual culture isn't just visual: multiliteracy, multimodality and meaning. *Studies in Art Education*, 45(3), 252-264.
- Halpern, D. F. (1997). *Critical Thinking Across the Curriculum: A Brief Edition of Thought and Knowledge*. Mahwah, New Jersey: Lawrence Erlbaum Associates
- Halpern, D. F. (1998). Teaching critical thinking for transfer across domains. *American Psychologist*, 53(9), 449-455
- Jewitt, C. (2008). Multimodality and Literacy in School Classrooms, *Review of Research in Education 2008*. Retrieved 10 July 2010 from <http://rre.sagepub.com>
- Kalantzis, M., & Cope, B. (2006). Big change question – taking into account mainstream economic and political trends, can/should school have a role in developing authentic critical thinking? *Journal of Educational Change*, 209-214.
- Keeley, S. (1994). *Asking the right questions in abnormal psychology*. New Jersey: Prentice Hall
- Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge: Harvard University Press
- Kress, G. (2000). Multimodality: Challenges to Thinking about Language. *TESOL Quarterly*, 34(2), 337-340. Retrieved 15 July 2010 from <http://www.jstor.org>
- Kress, G. (2003). *Literacy in the New Media Age*. London, Routledge.
- Kuhn, D. (1999). A Developmental Model of Critical Thinking, *Educational Researcher*, 28(2), 16-26.
- Lipman, M. (1991). *Thinking in Education (2nd Ed.)*. Cambridge: Cambridge University Press.
- Luke, A., & Carpenter, M. (2003). Literacy Education for a New Ethics of Global Community, *Language Arts*, 81(1), 20-22.
- Moore, B.N., & Parker, R. (1989). *Evaluating Claims And Arguments In Everyday Life*. California: Mayfield Publication.
- Pascarella, E., & Terenzini, P. (1991). *How College Affects Students: Findings And Insights From Twenty Years Of Research*. San Francisco: Jossey-Bass.
- Paulsen, R. (1991). *Critical Thinking: What Every Person Needs To Survive In A Rapidly Changing World*. California: Center for Critical Thinking and Moral Critique. pp. 1-572.