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A Rationale for the Integration of Critical Thinking Skills in EFL/ESL Instruction

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Abstract

Critical thinking has become a high priority in almost every institution and educational system around the world, particularly since the second half of the 20th century. Developing the learners' critical thinking skills has become an educational ideal that schools strive to achieve. There is a tacit consensus about the importance of incorporating critical thinking in education and ample literature has been written about it although there are different approaches to how this should be done. Integrating critical thinking skills in language instruction, however is a less explored area, especially when it comes to justifying this process. The main purpose of this paper is to present a rational for the inclusion of critical thinking skills in language teaching with reference to EFL and ESL. Five categories of reasons are suggested to support the implementation of critical thinking skills in the language classroom. The first is philosophical reasons related to the connection between language and thought. The second is cognitive and metacognitive reasons dealing with how critical thinking skills influence and are influenced by processes such as memory, comprehension and metacognition. The third is pedagogical reasons related the fact that many modern language teaching methods and techniques today require the learner to engage in problem solving, evaluation and decision making. The last are socio-economic reasons linked to the requirements of the job market.

Key words: Critical thinking; Language instruction; ESL; EFL

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INTRODUCTION

Critical thinking is not a recent concept, and historical accounts traced it back to the Greek philosophy 2000 years ago. However, as an ideal, critical thinking did not find its way to education until the mid 20th century (Hare, 1998; Lipman, 2003). Literature on critical thinking in education has started to grow sporadically since then, especially the taxonomies of critical thinking skills and dispositions. One of these is Bloom's taxonomy of educational objectives (1956) which was and is still a seminal reference in teaching critical thinking skills. The importance of this taxonomy is that it has presented critical thinking skills in a hierarchical order, and it distinguished the higher order thinking skills, evaluation, synthesis, and analysis from the lower order thinking skills: application, comprehension and knowledge. By doing so, it became clear and relatively easy to integrate these skills in the curriculum and to evaluate them. Ennis's taxonomy of critical thinking skills (1987) is another influential work that identifies a set of abilities that a critical thinker should possess as well as a number of dispositions which will encourage him/her to use the aforementioned abilities. A third taxonomy of critical thinking skills was presented by the American Psychological Association (Facione, 1990) which identified six critical thinking skills each of which contains sub-skills, and two categories of dispositions: approaches to life in general and approaches to specific issues and questions.

Critical thinking has become an indispensable skill for individuals, especially in modern societies which are confronted with an unprecedented massive amounts

of information that they need to process and evaluate. That is why the development of the critical thinking skills of students has become the uppermost priority of educational institutions and systems around the world. Siegel (1988) proposes four reasons for fostering the critical thinking skills of students. First, being equipped with critical thinking skills is necessary for students to be treated with respect by society. The ability to think for oneself and the capacity to determine how to live and who to be made one worthy of respect. It is the educator's job to help students develop critical thinking skills to be worthy of respect. The second reason is the overall purpose of education which is to prepare students for adulthood. This entails developing their self-sufficiency and self-direction, something which cannot be achieved without developing their critical thinking skills. The third reason is the fact that the majority of school subjects such as mathematics, science, literature, history, etc. require students to use critical thinking skills to fully understand these subjects. The fourth reason is related to democracy as an ideal that governs political life in a modern society. One cannot function effectively and practice his/her duties as a citizen in a democracy if one cannot make sound judgements about political issues, nor if one cannot analyse media critically.

In this regard, the educational system is supposed to train citizens who capable of reasonable thinking to contribute to the progress of democracy. Language teaching, precisely ESL and EFL, is part of education, and it can contribute significantly to the development of learners' critical thinking skills. However, not all educators are aware of the reasons why critical thinking skills ned to be integrated in ESL/EFL instruction. In this paper, four categories of reasons are suggested, namely philosophical, cognitive and metacognitive, pedagogical, and socioeconomic.

1. PHILOSOPHICAL REASONS

Philosophers, psychologists and linguists have long pondered upon the relationship between language and thinking. This resulted in three main theories: language determinism, unity of language and thinking, and thinking determinism. The American linguist B. L. Worf is credited for theory of language determinism. Worf claims that the grammatical and lexical structure of language affects the way people perceive the world. Although this hypothesis was not supported with strong empirical evidence, it remains one of the most influential viewpoints which explains the relationship between language and thinking. Language and thinking unity presupposes that since thinking does not happen in isolation of thinking, and language is a result of thinking, the two are identically the same. Wang (1988) believes that "thinking is just like language for it is a language habit, or thinking in a language format". The evidence behind this is the common observation that when people think aloud, they actually talk to themselves. Not only that but experiments show that when subjects are asked to engage in silent thinking, they move their lips very slightly (Chang, 1990). This went as far as to consider reading, writing, speaking and listening not only language skills but thinking as well (Zhu, 1988).

The last perspective departs from the fact that some animals, like chimpanzees, do not have a real language although they are capable of some form of thinking that is called "pre-thinking" (Vygotsky, 1962). The same fact applies to human babies who babble but do not yet produce language, a stage that can be labelled "pre-language". One more observation is that the development of thinking precedes the development of language. This leads to the idea that thinking and language are not equal, but thinking determines language and restricts it. Vygotsky also coined term "verbal thought" to account for the overlap between language and thought. This third perspective enjoys a wider support from academia although the two other viewpoints are accepted explanations. Regardless of which perspective hold ground, the fact remains that language and thinking are interrelated and that thinking skills can be developed through language and within language instruction.

2. COGNITIVE AND METACOGNITIVE REASONS

The importance of critical thinking can be attributed to the fact that it is related to, if not dependent on, a number of cognitive processes such, memory, comprehension and metacognition. Research has proven that human beings make use of two types of interrelated memory, short term and long term. The first is a working memory which stores information temporarily. The second stores information for long period of time, and the ultimate goal of any cognitive activity, especially in education, is to transfer information from short term memory to long term. Some even claim that higher order thinking skills such critical thinking skills are dependent on long term memory because it is quite unreasonable to think critically about an idea or a piece of information if one does not remember it (Krathwohl, 2002). The transfer of information from short term memory to long term memory is determined by another cognitive process which is comprehension (Pollock, Chandler, & Sweller, 2002).

Comprehension is a cognitive process that has been studied under different fields, especially cognitive psychology. A number of theories attempted to explain comprehension, one of which is the schema theory. A schema is the organised knowledge that one has about people, objects, places, events, processes, concepts, and virtually everything that provide a basis for learning

(Rumelhart, 1984). Accordingly, comprehension occurs when the individual's schemata, or existing knowledge, is activated. Not only does critical thinking explains how schemata are activated and how new ones are constructed (Norris & Philip, 1987), but critical thinking skills does actually activate the schemata (Collins et al., 1980). On another level, a number of studies proved that teaching critical thinking skills to learners influences of positively their reading comprehension (Karimi & Veisi, 2016; Nikoopour et al., 2011; Kamali & Fahmi, 2011; Hashemi & Zabihi, 2012).

A third process that is related to critical thinking is metacognition. This process which is defined as "knowledge concerning one's own cognitive processes and products or regulation and orchestration of these processes" (Flavell, 1976), is in a reciprocal relationship with critical thinking. This relationship has been documented by a number of works (Brookfield, 1989; Dewey, 1933; Farisson, 2002; Willingham, 2008). Metacognition is also similar to self-regulation, which is a critical thinking skill that refers to the state in which "individuals are metacognitively, motivationally, and behaviourally active participants in their own learning process (Zimmerman, 1995). Similarly, metacognition involves knowledge about one's own cognitive processes, i.e, self-regulation, and the ability to apply cognitive processes [such as analysis, evaluation and inference] to solve problems (Ku & Ho, 2010). The following figure illustrates the relationship between metacognition and critical thinking.

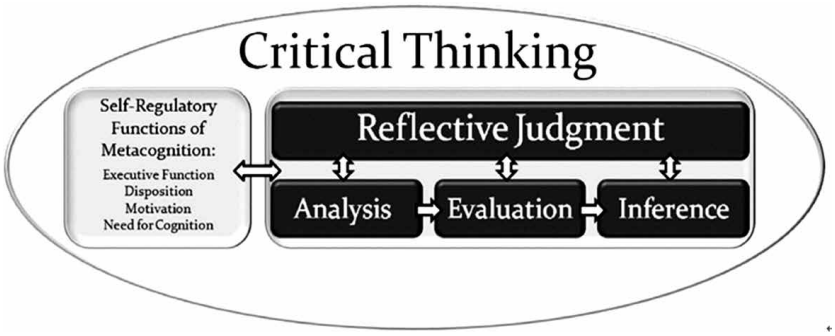

Figure 1
The Interdependencies Among the Self-Regulatory Functions of Metacognition, CT Skills and Reflective Judgement
Source: Dwyer and Stewart, 2014, p.47.

The relevance of the relationship between metacognition and critical thinking is that they are part of the overall autonomy of the language learner, and there is a unanimous agreement among language educators and researchers that learner autonomy enhances language learning (Holec, 1981; Riley, 1985; Little, 1991; Dickinson, 1992).

3. PEDAGOGICAL REASONS

Critical thinking skills can be implemented in the language classroom because the current language teaching methods and techniques evolve around information processing, problem solving, decisions-making and evaluation. In fact, many agree that "learning a language is closely connected to learning to think critically in specific subject matters" (Dong, 2006, p.23) that is why the language classroom can be an appropriate context for developing critical thinking skills. The current language teaching methods and techniques used in the classroom require learners to use critical thinking skills to perform different language tasks. Unlike traditional methods like grammar translation method and direct method, which focus on mastering language rules, and the audiolingual method which is based on repeating and memorising dialogues, modern methods and techniques, like communicative language teaching encourages active learning.

The arrival of communicative language teaching in the 1960s was a turning point in language teaching in the sense that language learning was no longer considered a passive habit-formation process, but rather an active hypothesis-testing process (Kumaravadivelu, 2006). A number of researchers do believe that communicative language teaching classrooms provide an environment for students to develop and practice thinking skills (Jacob & Farrel, 2003). The kind of activities that are used in communicative language teaching permits learners to practice critical thinking skills through mental awareness, developing observation skills, valuing differences, practicing empathy, accepting new ideas, and controlling emotions and cognition (Sofo, 2004).

In addition to communicative language teaching, methods, techniques, and procedures such as problem-based learning, project work, content based instruction, among others, allow learners to develop and practice effective learning strategies. There is a growing consensus among scholars that learning strategies are useful in language learning (Chamot, 1995; Oxford, 1990; Zare & Nooreen, 2011) based on the finding that learners who use learning strategies actively are more effective learners

and better critical thinkers (Zare, 2012). In addition to this, to succeed in language learning, learners need to be critical thinkers, and this should be reflected in the way they manage their learning (Oxford & Nyikos, 1989). Therefore, the implementation of critical thinking skills in the language classroom has the potential to transform language teaching from mere memorisation and repetition of language to actual development of thinking skills.

4. SOCIO-ECONOMIC REASONS

Critical thinking skills are needed in social and interpersonal life because they allow individuals to make good decisions and solve problems on a daily basis (Ku, 2009). The same idea is echoed by Halpern (2003) when she contends that critical thinking skills are means to adapt successfully to the modern world. Education is somehow responsible for preparing students to access and function in the job market, and language education should contribute to this end by equipping students with *employability* skills. Employability is "a set of achievements—skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy" (York, 2006, p.8). Employability thus is "a framework of interrelated skills" (Kennedy, 2010) which includes critical thinking. In the same vein, a number of national and international organisations in the US, UK, European Union, and Australia have determined a list of skills of employability (see Table 1 below) and critical thinking is the recurring skill in the list.

Economy across the globe is changing to what is known as *knowledge economy*, which is a result of the mass production and use of technology. The change in economy resulted in a change in employability skills in the sense that job seekers are required to possess different skills. In 2007 the World Bank issued a report about knowledge economy, and one of its recommendations is that for organisations to stay competitive they should employ people who are capable of thinking critically so that they link knowledge with business strategy (World Bank Institute, 2007).

Table 1
Thinking Skills Components of Employability

	Organisation	Skill group or type	Skill-specific ability
USA	American Society for Training and Development (ASTD)	Adaptability skills	Problem solving, thinkig creatively
USA	Secretary's Commission on Achieving Necessary Skills (SCANS)	Thinking skills	Thinking creatively,making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning
EU	Bologna process	Other transferable skills	Autonomous learner and the capacity to approach new issues higher level cognitive abilities
UK	National Committee of lnquiry into Higher Education (NCIHE) (Dearing Report)	Employability skills	High-level analytical skills problem identification and solving
UK	Centre for Research into Quality	Personal attributes cognitive skills	Intellect ability in critical analysis
AU	Mayer Report	Key competencies	Analysing information solving problems
AU	Australian Chamber of Commerce and lndustry and the Business Council of Australia	Employability skills	Problem-solving skills

Source: Kennedy, 2010, p.44.

Therefore, education is required to turn out critical thinkers who possess the new employability skills of the knowledge economy, and the language classroom is a suitable context to develop these skills.

CONCLUSION

Critical thinking skills are indispensable for educated people in general and for learners in particular. These skills can be integrated in school subjects, but the best context to develop them is the language classroom. The first reason for this is that language and thinking are so intertwined to the extent that it is often difficult to determine which is which and which influences which. The second reason is that critical thinking skills are closely connected to other processes which are crucial for learning, namely memory, comprehension and metacognition. The third reason is related to the current methods and techniques used in language teaching, most of which require the learners to use critical thinking skills. The fifth reason is that critical thinking skills have become important employability skills which can be developed in the language classroom.

Implementing critical thinking skills cannot be entirely successful unless a number of issues are addressed. One of these is the integration of the critical thinking dispositions in the implementation process for the simple reason that knowledge of a certain cognitive skill does

not guarantee its automatic use. Also, the implementation of critical thinking skill should allow learners to transfer these skills to other subjects and other contexts. The ultimate objective of teaching critical thinking skills in the language classroom is not to use them in this exact context but to be able to apply these skills in other contexts outside the classroom. Another issue is the use of appropriate material to teach critical thinking skills in the language classroom. Obviously this calls for the inclusion of these skills in the language textbooks and classroom material. One final measure is to take critical thinking skills into consideration in the language assessment procedures. In other words, the ideal language assessment is one that measures language performance through procedures and items which require the learners to practice critical thinking skills.

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