RAISING METACOGNITIVE THINKING
FOR THE LEARNING OF ENGLISH
AS A SECOND LANGUAGE

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ABSTRACT

This study investigates the use of metacognitive thinking by eight high ability students preparing for their *Cambridge A-level* and English language qualifications in a Malaysian pre-university college and its impact on their ESL learning. A further aspect of this study was to investigate how these Malaysian students respond to new perspectives on learning English. The research relies mainly on qualitative data produced by a cycle of reflection and self-regulation. The Effective Lifelong Learning Inventory (ELLI) was used to identify the students' relative strengths in seven dimensions of learning. Individual reflection and written self-reports, interviews with the teacher-researcher, video-recorded and audio-recorded interactions between the participants and their classmates, and selected ESL learning activities were also used for data collection. The findings indicate that awareness of learning dimensions promoted metacognitive thinking and crystallised self-knowledge about learning strategies, what works and does not work, along with new possibilities to become independent learners. The students were able to value self-evaluation and self-regulation, and perceive the role of affective and socio-cultural factors in ESL learning, even though they were already conventionally successful learners. Reflection and self-knowledge seem to be important factors to allow students to be more independent and confident learners of English. It is hoped that the value of metacognitive thinking has been confirmed, and that programme designers, teachers and learners of ESL can benefit from the pedagogical implications of enhancing independent learning.

MENINGKATKAN PEMIKIRAN METACOGNITIF UNTUK PEMBELAJARAN BAHASA INGGERIS SEBAGAI BAHASA KEDUA

ABSTRAK

Kajian ini bertujuan mengkaji pengunaan pemikiran metakognitif oleh lapan orang pelajar berkebolehan tinggi yang menjalani persediaan untuk *Cambridge A-level* dan ujian kelayakan Bahasa Inggeris di kolej pra-universiti Malaysia dan kesan terhadap pembelajaran Bahasa Inggeris sebagai Bahasa Kedua. Aspek lanjut kajian ini adalah untuk mengkaji tindak balas pelajar-pelajar tersebut terhadap perspektif baharu pembelajaran Bahasa Inggeris. Kajian ini memfokuskan kepada data kualitatif yang dihasilkan melalui kitaran refleksi dan pemantauan kendiri. Instrumen yang bernama Effective Lifelong Learning Inventory (ELLI) digunakan untuk mengenal pasti kekuatan relatif pelajar-pelajar dalam tujuh dimensi pembelajaran. Selain itu, refleksi individu dan juga laporan bertulis individu, temuduga dengan guru-penyelidik, rakaman video dan rakaman suara interaksi antera pelajar dengan rakan-rakan sekelas dan aktiviti-aktiviti pembelajaran Bahasa Inggeris sebagai Bahasa Kedua juga digunakan untuk tujuan pengumpulan data. Hasil kajian menunjukkan kesedaran terhadap dimensi pembelajaran menggalakkan pemikiran metakognitif dan pengetahuan kendiri berkaitan strategi pembelajaran, pembelajaran berkesan dan sebaliknya serta peluang-peluang baharu untuk menjadi pelajar yang berdikari. Para pelajar mampu melakukan penilaian kendiri serta memahami peranan efektif dan faktor sosio-budaya dalam pembelajaran Bahasa Inggeris sebagai Bahasa Kedua walaupun mereka adalah pelajar yang berjaya. Refleksi dan pengetahuan kendiri merupakan faktor penting untuk membantu pelajar menjadi lebih berdikari dan berkeyakinan dalam pembelajaran Bahasa lnggeris. Di harap faedah pemikiran metakognitif ini dapat diperkukuhkan dan pereka bentuk program, guru-guru dan pelajar-pelajar Bahasa Inggeris sebagai Bahasa Kedua mendapat faedah dari implikasi pedagogi bagi meningkatkan pembelajaran secara berdikari.

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DEFINITIONS OF KEY TERMS

Dimensions of learning – 7 learning concepts defined by ELLI, namely Changing and Learning (CL), Meaning Making (MM), Critical Curiosity (CC), Creativity (Cr), Learning Relationships (LR), Resilience (Re), Strategic Awareness (SA)

ELLI – the Effective Lifelong Learning Inventory, a research-based assessment tool of learning strengths, developed at Bristol University, UK (Broadfoot et al, 2002)

ELLI Profile – the 7-legged diagram produced after completion of an online questionnaire showing each participant's strength in 7 learning dimensions; two ELLI Profiles were produced, one pre- and one post- the research period

L1 and L2 – first, or native, language and second language

Language learner strategies (LLS) - specific actions, behaviours or techniques used, often consciously, by students to improve their apprehension and internalisation of the L2 (Oxford, 1990)

Learning power - a form of consciousness characterised by particular dispositions, values, and attitudes with a lateral and a temporal connectivity (Deakin Crick, 2006).

Metacognition – one's knowledge concerning one's own cognitive processes or anything related to them, eg the learning-relevant properties of information or data, a term first coined by Flavell (1976 p 232); terminology is still unsettled, but includes reflection and control by developing, monitoring and evaluating a plan of action

Metacognitive thinking – often referred to as **'**thinking about thinking' involves both reflection and active control over the thinking processes involved in learning, such as planning strategies, monitoring progress, evaluating the outcome and planning appropriate corrective action.

CHAPTER 1

INTRODUCTION

1.1   Background and need for the study

Today, the capacity to learn and communicate in English is essential. The revolution in the world of information and communication technology has necessitated the learning of new skills and the ability to use and understand English. The key message from DYMM Raja Zarith Sofiah at MELTA's 2013 ELT conference was that students need to achieve high levels of fluency and understanding of English to become effective and independent adults.

"Malaysia has increasingly found that it does not have enough citizens who are able to function well in a knowledge-rich environment especially in the international context...   English is increasingly becoming the language of education and international communication… This means that Malaysia also needs to empower her citizens with the capacity to proficiently access and develop knowledge in the English language... ” (Zarith Sofiah, 2013, p. 2) This reflects a widespread belief that higher

standards of English are necessary both in Malaysia's schools and Universities to develop the ability to write and communicate effectively with the rest of the world (Muhyiddin, 2014).

Raja Zarith Sofiah believes we need to produce innovative and inventive adults in a world where lifelong learning and multiple careers are likely to lie ahead. She stated that students must become independent learners, and this can best be achieved through student-centred and personalised methods. Now that access to knowledge is universal and immediate, the question for educators is no longer simply how to increase knowledge, skills and understanding, but how to develop more independent and proactive learners. Competition for government sponsorship and university places has promoted an exam-orientated society, but exam results that mainly measure theoretical and practical skills are not sufficient to indicate a person's aptitude. As argued by Deakin Crick (2007), "There is an urgent need for our education system to foster flexible, creative, self aware and dynamic learners who have the capacity to apply and adapt what is learned to their own lives, embedded in their local and global communities." (Deakin Crick, 2007, p. 137)

I would argue that independent learners are better able to improve their fluency and understanding of English. In other words, we need students who have the ability and motivation to learn without being reliant upon their teachers. This study is an attempt to see if raising metacognitive thinking could be a means to developing more independent and self-regulated learning of English.

1.2   Problem Statement

In order to achieve higher standards of English, learners need to be creative, intellectually curious and capable of independent thought and learning (Small, 2007). Whilst an exam-orientated society can produce highly motivated students who achieve exemplary exam results, it can also result in turning them into passive recipients of knowledge and reliance on their teachers. I witnessed this problem of dependency in the frustration and loss of confidence experienced by a group of students whose knowledgeable and lucid teacher was replaced by someone whose command of English was limited. These students were forced to take the initiative to do extra private study, to form study groups to help each other, and seek help from alternative sources. Their exam results were generally as good as had been predicted when they were taught by their excellent former teacher. If students lack the initiative and creativity to learn independently, it is possible that they will not reach their full potential, which is particularly true in learning English. Since many students are required to operate in English for academic purposes and verbal interaction is central to their studies (Mustapha, 1992), the problem is accentuated. There seems to be a need for Malaysian students to be more confident in their capacity to use and develop their English as independent learners (Mostafa, 2004).

1.3   Purpose of the study

This study is an attempt to find out if a group of ESL students can become more self-regulating learners by identifying their learning dimensions and raising metacognitive

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thinking.   In other words, will self-assessment and reflection help them to use strategies to become more autonomous language learners?   This is particularly relevant for ESL learners in Malaysia, where the ability to seek opportunities to practise and use English is necessary to develop confidence and communication skills for academic, business and international affairs.

The research describes 8 Malaysian ESL students preparing for their Cambridge A-level and English language qualifications, with the goal of studying in a British university and pursuing a profession operating in English.   It recognises the social and affective sides of learning, as well as intellectually related strategies, based on learning dimensions and specific goals (O'Malley & Chamot, 1990), and attempts to identify the learners' capacity for self-awareness and for taking responsibility for themselves as learners of English.

1.4   Research Questions

Two main objectives emerged for the study:

1. To investigate how metacognitive thinking affects awareness of learning dimensions in participating ESL students

2. To find out if these highly able students use awareness of their learning dimensions to self-regulate their learning of English

The following 3 Research Questions were formulated:

1. Does metacognitive thinking affect awareness of learning dimensions in a group of ESL students?

2. Does metacognitive thinking influence the participants' ESL learning?

3. How do these Malaysian students perceive learning dimensions to regulate their learning of English?

1.5   Significance of the study

It would be valuable to know more about how metacognitive thinking can enhance self-regulated learning despite the influence of extrinsic goals such as passing exams and individual differences. (Schunk & Zimmerman, 1997) They stress the importance to self-regulated learning of the students' use of cognitive and metacognitive strategies to control their learning from a developmental and diagnostic perspective. Pintrich and Schunk (1996) suggest that self-regulated learning can be facilitated by the fostering of mastery goals, positive self-efficacy and task value beliefs but hindered by the adoption of extrinsic goals, such as exams. It seems that further research into how to promote independent learning of English would be valuable, especially amongst Malaysian students about to meet the challenge of university study in the UK.

I hope this study will be a useful contribution to the literature by confirming the value of metacognitive thinking, and have pedagogical benefits for language course designers, teachers and learners of ESL in terms of enhancing independent

learning. Using insights into the role of socio-cultural and affective factors such as motivation and self-efficacy, this study attempts to raise metacognitive thinking in a group of high ability students, and to investigate its influence in the ESL classroom. To my knowledge, it is the first such study conducted in Malaysia. By identifying and assessing dimensions that affect learning, the participants will be enabled to use metacognitive thinking to plan what to do and decide how (or whether) to change their behaviour. Since language is the means of verbalising metacognitive thinking, the study will use the expression and interpretation of thoughts in English, through the skills of writing and speaking which were practised in a real-life, ESL context.

1.6   Theoretical Framework

It is widely agreed that metacognitive thinking is beneficial to learning (Garcia & Pintrich, 1994; Pintrich, 1999; Shannon, 2008). It is central to planning, problem-solving and evaluation of one's learning. Flavell (1976) described metacognition as one's knowledge concerning one's own cognitive processes, and ability to develop new strategies for thinking. It is a reflective and executive process, which takes us beyond Piaget's (1964) theories of cognitive development, whereby learners build knowledge by exploring and experiencing their environment. It starts with self-evaluation and reflection.

Metacognition is a form of self awareness that requires active control over the thinking processes involved in learning, and focuses on the process of learning itself. Rajendran (2008) draws the distinction between cognitive strategies, such as critical

thinking, analysing and hypothesising, and the metacognitive processes of planning, monitoring and reviewing in his study of higher-order thinking skills in the language classroom.   At the heart of the approach used in my study lies the opportunity for individuals to reflect on their learning strengths, plan corrective action and monitor progress, in other words to think metacognitively about their approach rather than the content of their learning.   It is an articulation of Vygotsky's (1978) concept of the Zone of Proximal Development assisting learners to reach higher levels of knowledge by orientating them towards analysis and evaluation of their own learning.   In my study, metacognitive thinking will be encouraged to allow a broad spectrum of learner orientation to be developed, rather than the narrow view of ability as a fixed entity that can be assessed in Binet style IQ tests (Binet & Simon, 1916).   It acknowledges Howard Gardner's (1983) theory of multiple intelligences, which reminds us that the diverse capabilities of a human being cannot be represented by a single measurement.

Fostering learner autonomy is an important and appropriate goal in language course design (Cotterall, 2000; Cotterall & Murray, 2009).   Allowing students to select and carry out their own language learning plans, determine their own goals, choose appropriate materials, monitor their progress and assess their learning is conducive to metacognitive growth and improved ESL proficiency.   Of particular relevance was their discussion of the theory of affordances, possibilities for action within an environment as perceived by the observer (Gibson, 1979).   Thus different people will see different opportunities for action and view them in different ways.

By raising metacognitive thinking it is hoped that learners will evaluate their learning and seek ESL strategies which will enable them to attain their goals within a

socio-cultural context. Such learners are successfully intelligent by virtue of recognising their strengths and making the most of them at the same time as they recognise their weaknesses and find ways to compensate for them (Sternberg & Grigorenko, 2000). They adapt to environments by finding a way effectively to exploit whatever pattern of abilities they may have and exhibit qualities that go beyond cognitive skills, drawing upon their motivation, values and attitudes. These ideas guided the design of this study to promote metacognitive thinking and more independent learning of English.

1.7   Conceptual Framework

Although it is essentially an individual activity, metacognitive thinking is influenced by many factors. Dispositions, such as motivation, goal orientation and sense of identity, and socio-cultural context develop alongside and can be as significant as intellectual ability (Sternberg & Grigorenko, 2000; Veenman & Spaans, 2005). The relationship between affective and cognitive factors has been represented by McGettrick (2002) as a Double Helix of Learning (Figure 1.1).
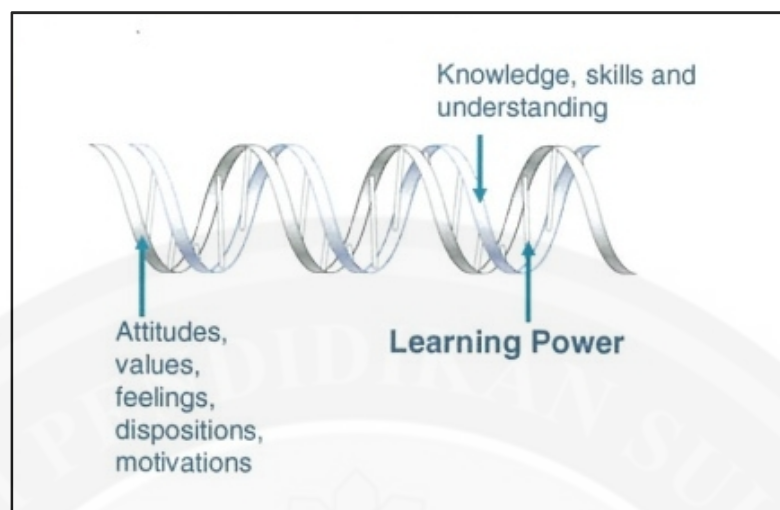
Figure 1.1   The Double Helix of Learning (McGettrick, 2002)

Deakin Crick (2010) has further broken down dispositions and represented them as a continuum to give greater recognition to personally chosen learning objectives (Figure 1.2). Initially, sense of identity, goal orientation and motivation take centre-stage in one's attitude towards learning. Progressively personal values and attitudes become harnessed to develop the knowledge, skills and understanding to produce formal educational outcomes, namely exam results and personal expertise.
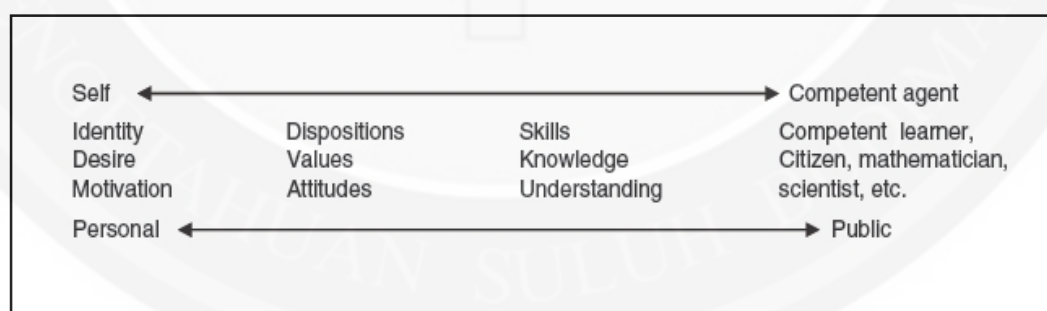

Figure 1.2 Elaborated description of dispositions (Deakin Crick, 2010)

This marks the influence of affective and socio-cultural factors on cognitive factors. I have placed these concepts in a concentric form, which shows how affective factors and the socio-cultural setting of interactive and personalised learning in the classroom are related to metacognitive thinking (Fig. 2.1). I discuss this framework further in Chapter 2. Suffice it to say here that metacognitive thinking mediates how self-assessment procedures influence the planning, implementing and monitoring of individual language learning strategies employed in ESL lessons. Raising metacognitive thinking could have particular value for ESL students by promoting reflection on their learning dimensions and the motivation to control their learning of English through their use of language learning strategies.

Personal motivation and dispositions are inextricably linked with the knowledge and skills required to achieve goals (McGettrick, 2002; Deakin Crick, 2010). Upon receiving personal information about their learning dimensions, students participating in this study were required to choose appropriate strategies to strengthen their weaknesses and regulate their future learning. It was the student's responsibility to choose suitable activities, and monitor their progress. It is said that the best learning occurs when learners are engaged in interesting and relevant subjects (Deakin Crick, 2012). Since ownership of the measures planned to improve their learning lay with the students, it was hoped their commitment would be high. Students who understood the relevance and potential value of metacognitive thinking to their learning were likely to be motivated to maximise their learning opportunities. If they had the power to choose what, where and how they learn, they would find the drive needed to make meaningful connections with their experience and aspirations. It was important to provide these opportunities. It was hoped that their aims of achieving top

grade A-levels and university degrees would promote the motivation to reflect on the process of learning English that was oriented towards these goals.

Metacognitive thinking is an individual activity but it can never be separated from social and cultural contexts. Learning and thinking are always situated in a cultural setting and always dependent upon the utilisation of cultural resources (Bruner, 1990). This is particularly true of ESL learning where socio-cultural factors influence second language learning. Language 1 (L1) is assimilated in the context of one's experience, but being aware of other social expectations and behaviour enables students to learn meaningful English as a second language (ESL) in a non-English speaking environment (Foord, 2002). Research has shown that Malaysian students can understand both English and Malay, but prefer to express themselves in Malay (Mostafa, 2004). They do not participate in class as they are not confident in the English language. Inability to express themselves is a factor that is likely to have an influence on their learning, but this does not invalidate their ability to learn. First language interference occurring in student errors illustrates a cultural distinction between inadequate English and cognitive skills which needs to be recognised (Mustapha, 1992). These factors indicate that positive encouragement and exposure to English culture as well as the language are important in the ESL classroom.

Vygotsky's (1978) theory of social interaction provides the classic view of modern learning theory and emphasises the importance of interactive learning. In order to consolidate individual learning, social interaction can activate reflection and self-evaluation by requiring the learner to verbalise and defend his thoughts, thus enabling him to reach higher levels of metacognitive thinking. In other words,