Equipping young learners with learning to learn strategies by developing their meta-cognitive skills through reflection

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Dissertation submitted in partial fulfillment of the requirements for the degree of MA in English language teaching (with a Specialism in Teaching Young Learners)

Contents

In memory of my father

Acknowledgements

Abstract

In the 21st century meta-cognitive skills are recognised as one of the key competences in learning a foreign language. However, a lot of opportunities throughout the world in English language teaching are being missed. This is especially so in Asian contexts because such skills are not taught and as the text books and published materials do not encourage such skills. This research, thus, attempts to describe an intervention where these skills could flourish.

In attempting to describe an intervention where such skills can flourish this research outlines a small-scale study on implementing meta-cognitive strategies for students of English as a foreign language (EFL). These students range from 10 to 12 years of age and are also referred to as the 'middle aged group'. The dissertation discusses the value of reflection and teaching within a reflective framework. For this purpose, four Iranian children were chosen to participate in an 8 hour intervention, which was especially designed to enhance their reflective skills. The intervention consisted of three stages. These three stages were planning, monitoring and evaluating learning tasks. The students were then invited to incorporate the three stages into their collaborative activity, which included the making of a project and performing a written task.

The results indicated that throughout this small intervention the learners grew an explicit awareness of the reflective process or the reflective cycle. Furthermore, they demonstrated knowledge of self-evaluation and some signs of self-regulated behaviour. After these 4 hours the students reported on how they had benefited from the reflective process. The feedback also reflected their enthusiasm and interest in the project.

Finally, this research highlights the limitations of this study and suggests the implications that may arise for teachers. It then recommends the type of further research needed in the field of meta-cognition.

Chapter 1: Introduction

The key idea of this research emerged from my personal lack of reflective attitude. This lack of reflective attitude came to my attention when I had to constantly reflect on lectures, in my Master's programme. At the time I found it very difficult to do this. I did not know how to reflect, and specifically on what to reflect. However, after all my hard work such as taking part in workshops at the University of Warwick, I realized that there exist a number of strategies to learn and that by implementing these strategies reflection would become a second nature.

I realized that this problem had its roots in my educational background as it was based on more of a teacher-centred approach. This teacher-centred approach produces very dependent learners and in my opinion these types of learners do not feel that there is any necessity of, for example, thinking before performing a task and evaluating their progress. In other words, such students do not get equipped with strategies to go along with their own journey of learning.

1.1. The context

Teachers in my context in Iran, who teach languages at a private institution, attend a two week pre-service training course and after which they immediately start their career. They are obliged to teach a set course, based on specified books, which are provided by the institution. The teachers then prepare students for the end of term examinations. Students in such language schools are from a variety of ages, ranging from 7 to 12 years of age in some classrooms. In each classroom there might be approximately 10 to 12 students and sometimes there might be even more. These students attend English language classes for one and a half hour, the classes being run twice a week for a term of one and a half month. There is limited access to English Language outside the schools' classrooms. In the class the students and the teachers follow the text book procedures. These text books series are published by Oxford and are tailored to meet the Middle Eastern culture. The series mainly focus on the four main skills. These skills are that of listening, speaking, writing and reading, with reading encompassing both intensive and extensive reading.

Although teachers in similar situations to mine attempt to follow a communicative approach and embrace learner-centeredness through more group and pair work activities, the students are still very dependent on their teachers. They are accustomed to spoon-feeding and like to be told what to do, and the students do what is needed to be done essentially for good grades and examinations.

The roots of such behaviour may be perpetuated by the governmental education system which follows a teacher-centred approach. Neither at school, nor at private institutions, do students have the opportunity to express their thoughts and opinions about the subject they are learning. They never get to think about: the tasks they have to perform, monitoring their performances and even evaluating their own progress. This is to say that, the elements of reflective process which ultimately leads to effective learning are not evident, in both the text books and the classroom routines. Brewster et al. (1992) claim that reflection is neglected even in approaches such as the communicative approach.

In the following section, I will discuss the necessity of equipping students – with regards to the above mentioned context - with some strategies that would help them be less dependent on teachers and more aware of their learning process. In this respect Pinter (2006a) explains that it is necessary for children to start to realize why some activities are used in the classroom and how students can effectively contribute towards their learning. She further claims that 'such reflection on the learning process is a natural part of effective learning…' (Pinter, 2006a: 104).

1.2. The necessity of implementing learning strategies in Iranian context

Living in the modern world and in turn the 21st century, we are obliged to be more independent learners. This is so as the pace of learning and information out there in the world is enormous. Not everything we need or desire can be answered by other people like our parents, care takers or teachers. Therefore, we need to develop our own skills on how to better our understanding of what we desire to learn. These skills are not only helpful to students studying in school but also outside the school environment (Pinter, 2006a). This means that these learning strategies are not

only beneficial in the short term but also in the long term as these strategies shape our future learning. These strategies are better known as "learning to learn strategies".

Learning to learn is a broad term that generally means 'raising children's awareness of the various factors that influence their learning of a particular language and to give them some time and space to think for themselves' (Pinter, 2006a: 99).'Learning how to learn has been identified as one of the key competences by the EU [European Union]' (Boström, 2012: 11). As such, it can be claimed that learning to learn is a very important aspect in children's educational success.

The fact that children are too young and not capable of comprehending the classroom procedure along with not being reflective of their learning (Ellis, 2007) is a misassumption that might hold some teachers or curriculum designers back from applying these strategies. It is also assumed that teachers find learning to learn strategies challenging for students as they fear to incorporate these strategies in their lessons or encourage children to think more explicitly about what and how they should learn (Ellis, 2007; Kirkwood, 2005).

Research, however, shows that 'even quite young children possess a considerable degree of metacognitive knowledge' (Ellis, 2007: 26) and that the best time to introduce these strategies is at early stages of students' lives (Pinter, 2006a). This early start gives learners plenty of practise and opportunity throughout their lives to think, plan and revise. In other words this means that children will be quicker to master these meta-cognitive skills.

Nevertheless, learners of foreign languages are believed to use less learning strategies in comparison to learners of a second language (Oxford, 2003). Furthermore, Ghavamnia et al. (2011) based on some studies argue that Asian students do not respond well to strategy training. These arguments are in line with a study conducted by Bonyadi et al. (2012) in Iranian context, which revealed that Iranian learners have less knowledge about language learning strategies in comparison to European learners. However, this could also be due to the reason that the learners have never been introduced to such strategies, and also because they do not practise applying such strategies for a productive learning experience in their academic lives. The need of implementing learning to learn strategies thus is highlighted more in an Iranian context.

Pinter (2006a) states that there are different strategies that can be developed under the umbrella term "Learning to learn". These strategies include: social and effective strategies; strategies related to raising awareness about comprehending a language; direct or cognitive strategies; and meta-cognitive strategies.

For the scope of this dissertation I have focused on equipping young learners with learning to learn strategies by raising their awareness of meta-cognitive strategies. One element of metacognition is known as reflection. The rationale behind choosing reflection as a meta-cognitive skill will be described in the next section.

1.3. Rationale behind choosing reflection as a strategy

The rationale behind choosing reflection as a strategy was threefold. Firstly, it was due to my desire to implement this strategy as part of my teaching context. It is vital to bear in mind that 'most text books do not present materials that may promote students' metacognitive awareness' (Melo and Ferreira, 2012: 178), and neither do most of the classroom situations and materials explicitly encourage children to reflect on the way they are building their understanding (Ellis, 1999a). This is a bare truth with regards to the text books being used and the classroom situations in the above mentioned context (section 1.1).

Secondly, reflection involves both teachers and students. By this I mean teachers are the ones who have to foster "reflection" in the learning environment and who also help students to learn the strategies that promote this quality. Similarly at later stages, listening to students' voices and opinions aids teachers to reflect and make changes in the way they teach. This it is hoped will have the effect of the teachers respecting students' interests and making the learning process more enjoyable. In other words, it is useful for the development of both the learners and the teachers.

Thirdly, the reflective process is applicable with all types of activities in the class and teachers will not have to make any changes to their actual lesson plans (Pinter, 2006a). On the other hand, it is also not a challenging skill for the teachers to learn. Ellis (2007) claims that reflective process, which will be discussed later in more depth in chapter 2, is a flexible model that fits in with different approaches to teaching a language. It can be applied to a whole lesson or even just to

an activity. This is so as this cyclical process can also 'cater for individual teacher preferences and educational and cultural expectations' (ibid.: 26).

For this purpose the dissertation is organized in five chapters. Chapter 1, the introduction highlights the significance of this research, and elaborates on the purpose of this study. Chapter2, the literature review, clarifies the definition of some of the key concepts in metacognition and also provides an overview of the relevant studies in the field of metacognition. Chapter 3, puts forward the methodology and the procedures of collecting data. Further in chapter 4, the data has been analyzed and the findings have been presented. After that Chapter 5, puts forward a discussion of the significant results of this study. It discusses, the implications that may arise for the teachers, the institutions and the curriculum designers as a result of the findings of this study. Finally, the chapter highlights the limitations of this study and puts forth suggestions for future research in the field.

Chapter 2: Literature review

The main objective of this dissertation is to examine whether middle aged i.e. (8 to 12 years old) young learners' ability to reflect on learning strategies changes or improves at all as a result of having the opportunity to practice with a repetitive task and a relatively short period of time. The purpose of this dissertation is also to find out the views of students about their reflective experience and afterwards to what extent they have found the reflective process useful. Therefore, to meet these aims this chapter will start by discussing briefly, why meta-cognitive strategies should be introduced in today's educational world. The chapter will then go on to consider, the definition of meta-cognition and regulatory strategies in more depth. Later in other sections of this chapter the definition of reflection and the reflective cycle will be explained. After that how reflection and learning to learn are related will be considered. Further down in this chapter the common components of meta-cognition, reflection and regulatory skills will be analyzed. Finally, the sections "tasks" and "collaborative writing" will be discussed in more detail because it is believed that repetitive collaborative writing tasks can promote meta-cognition and reflection in young students.

2.1. Why meta-cognitive strategies are important in today's world?

For long the purpose of education had been to impart knowledge that students required to pass the examinations. It was not the central purpose of education to prepare children for 'adult life and the world of work'. It was also not the purpose of education to provide children with the knowledge and skills that they needed to get by in society (Bonnett, 1994: 4).

However, nowadays a lot of attention is being given to the notion that schools should be more concerned with the way students think and learn (Coles and Robinson, 1989). Good thinking skills are vital to cope with the challenges of modern day society. This is so as thinkers tend to have a better chance of flourishing in the world of technology that keeps changing rapidly. Thinkers are better at taking charge of their lives and achieving personal and academic success even in their lives beyond school (Swartz and Parks, 1994 in Kirkwood, 2005).

Children are curious learners who try to make sense of their world and their environment. They learn best when they feel safe, secure, and where they are presented with opportunities to enjoy the acquisition of knowledge and certain key skills. It is believed that as children grow older they can step by step 'deepen their awareness of themselves by planning, questioning and reflecting' (Kirkwood, 2005: 3) which are also considered to be aspects of thinking. Nevertheless, in classroom situations, most of the materials do not explicitly make children aware as to why they are using a specific type of activity. These materials do not encourage children to reflect on what they have learnt and how they should be learning it (Ellis, 1999a).

In part it is crucial to point out that, planning, monitoring and evaluation skills might unconsciously already exist in our brains. But to be skilful learners, skills such as planning, monitoring and evaluation need to be brought to our conscious understanding (Kirkwood, 2005). Flavell et al. (1995: 53) argue 'if we can bring the process of learning to a conscious level, we can help students to gain control or mastery over the organization of learning'. One way to do this is to raise students' awareness of meta-cognitive strategies. 'There has been a growing recognition that meta-cognition or self-awareness including awareness of oneself as a learner, helps us to learn more effectively' (Scottish, 1996 in Fisher, 1998: 1). This is also recognised as a key to successful learning (Ellis, 1999a).

2.2. Meta-cognition

In this section the different aspects of the definition of meta-cognition will be analysed. The section will also present an account of how meta-cognition is presented in the literature devoted to the study of this field.

2.2.1. Definition of meta-cognition

The word meta-cognition was first coined in 1979, by Flavell, who referred to it as 'the individual's own awareness and consideration of his or her cognitive process and strategies' (Flavell, 1979 in Kerndl and Aberšek, 2012). In simple terms it means that a person is able to self

reflect. It is also the development of skills by which human beings get acquainted with themselves. Meta-cognition is not only possible by thinking; it is also possible when a learner thinks about how they perceive knowledge. This perception of knowledge would exhibit meta-cognition if the students have developed an awareness of their academic abilities strengths and weaknesses (ibid.: 52). According to Kuhn and Dean (2004), meta-cognition helps students to solve a problem by way of incorporating a strategy in a particular context. This is so as learners will be able to retrieve and exercise a particular strategy within the same context but that might have a different setting. In other words, meta-cognition will aid students' understanding where they have been taught a strategy to complete a task, and where upon learning the strategy the learners are given a second task which is different from the first task but which is structurally equivalent to the original one (Hacker et al. 1998). Thus, if students could practise the strategies again and again, in different settings, they would be able to master them eventually and apply the strategies more confidently.

Moreover, some researchers refer to meta-cognition as the awareness of cognitive resources available to people to accomplish a task. Researchers also refer to meta-cognition whereby people engage themselves in a particular task and optimize the learning process to achieve better outcomes (Winne and Perry, 2000). Based on Flavell (1979: 908): 'cognitive strategies are invoked to make cognitive progress, metacognitive strategies to monitor it or to achieve both goals' which means sometimes cognitive strategies are meant to involve both cognitive progress and also monitoring the cognitive progression. Therefore, it has been argued that 'cognitive skills are necessary to perform a task, while metacognition is necessary to understand how the task was performed' (Garner, 1987 in Schraw, 1998: 113). It is necessary to point out that there are two distinctive components of meta-cognition known as knowledge of cognition and regulation of cognition (Schraw, 1998).

Knowledge of cognition refers to the awareness that individuals have about their own cognition and their 'strengths and limitations' (Flavell, 1979). On the other hand, regulation of cognition, which is our main focus here, refers to an individual's control of his or her learning (Schraw and Moshman, 1995).

The most essential regulatory skills in the literature are "planning, monitoring and evaluation" (Jacobs and Paris, 1987 in Schraw, 1998). In the next section these regulatory skills will be described in more detail.

To conclude, there had been a lack of consensus since meta-cognition was first introduced, but researchers have reached a general agreement as to the definition of meta-cognition. Accordingly, the consensus is that meta-cognition is:

> Knowledge of one's knowledge, processes, and cognitive and affective states; and the ability to consciously and deliberately monitor and regulate one's knowledge, processes, and cognitive and affective states (Hacker et al. 1998: 11).

Moreover, in a language learning context meta-cognition means 'knowing about oneself as a learner, in other words, the knowledge and self-awareness a learner has of their own language learning process' (Ellis, 1999a: 108).

2.2.2. Regulatory skills, development and age

Regulatory skills resemble the meta-cognitive or reflective cycles (as explained later in section 2.3.2.). These skills are important in the students' learning and reflective process, along with the students overall educational development.

This section introduces the skills of planning, monitoring and evaluation. It briefly highlights the time and the stages in the lives of students whereby they themselves are capable of using these strategies.

• Planning:

refers to selecting suitable strategies and resources that influence ones performance such as prediction, sequencing and allocation of time before beginning a task (Schraw,1998). Studies by Berieter and Scardamalian (1987) reveal that planning ability develops throughout childhood and adolescence and at the ages of 10 to 14 improves dramatically (Schraw, 1998).

• Monitoring:

indicates the "on-line awareness" (Schraw, 1998) of understanding a task while performing it. Research reveals that this ability develops very slowly and poorly in both children and adults (Pressley and Ghatala, 1990). However, some other studies show that even kindergarteners can accurately monitor their performance (Hacker et al., 1998). The key point here is that this skill can be improved through practice and training (Delclos and Harrington, 1991). It is believed that children who do more cognitive monitoring learn better both in and outside school (Flavell, 1979).

• Evaluation:

refers to the exercise of making careful judgments about the effectiveness of one's learning such as revisiting and evaluating one's goals and outcomes (Schraw, 1998). Evaluation is also a slow developing skill like monitoring and remains incomplete even in many adults (Schraw and Moshman, 1995). As at this stage learners require more time and training. This is because sometimes learners do not recognize that they lack sufficient knowledge for accurate self-assessment (Anderson, 2002) and evaluation.

In general, Flavell and his colleagues (1995 in Fisher, 1998: 3) argue that 'metacognitive ability changes with age, and that older children are more successful learners because they have internalized a greater amount of metacognitive information'. In this regard Pinter (2006a) claims that children in between the ages of 8 and 13 years start to have adult like patterns of thinking and that children of 10 to 11 years of age think in an organized and reasonable way . According to Piaget's theory of stages children from the ages of 11 and above are considered as abstract thinkers who have formal operational knowledge (Greig et al. 2007). In Pinter's opinion children of these ages also have the ability to reason and think rationally (Pinter, 2011). To put it another way, children start to develop the understanding of abstract concepts at this stage and are able to use the information they have to form an opinion and justify their actions.

However, criticism of Piaget's theory clarified that Piaget was underestimating younger children's mental ability. The criticism reflected that younger children might also be able to think in logical

ways (Pinter, 2011) and acquire meta-cognitive skills (Schraw, 1998; Ellis, 2007), if they were presented with tasks that were meaningful to them and if the children had clear instructions.

Nevertheless, regardless of age a number of studies report significant improvements in learning when 'regulatory skills and an understanding of how to use these skills are included as part of classroom instruction' (Brown and Palincsao, 1989 in Schraw and Moshman, 1995: 355). Therefore, if the skills of planning, monitoring and evaluation are practised on a regular basis, and if learners are able to understand the importance of applying and mastering these skills, they can eventually become active learners who make a lot of progress in the process of learning and understanding their learning.

2.3. Reflection

This section provides a review of the literature on the definition of reflection which is the main focus of this study. The meta-cognitive or reflective cycle is introduced as an important reflective process and later the similarity between meta-cognition and reflection is also discussed.

2.3.1. Definition of Reflection

The elusive quality of reflection makes it difficult to define (Jay and Johnson, 2002). As a matter of fact it has been interpreted differently by different scholars. Bitting and Clift (1988) distinguish reflective thought from other types of mental activities such as picturing or imagining something in your mind or day dreaming. They believe it to be a rather distinctive process of thinking from the other types of mental activities mentioned above. Dewey (1933) differentiates a routine action of thinking from reflective thinking. This is so as reflective thinking according to him is more conscious, thoughtful and a voluntary effort. Ross (1990: 22) argues that reflection is 'a way of thinking about educational matters that involves the ability to make rational choices'. Moreover, Moon (1999: 4) describes reflection as 'a process of learning and the representation of that learning'. Wildman et al. (1990: 139) recognize reflection as an "active and effortful" process.

To determine the quality of reflection, Moon (2004b) proposes two dimensions of reflection known as superficial and deep reflection. For instance the descriptive nature of our thoughts is at the superficial level (ibid.). 'Deep reflection, on the other hand, involves a functional understanding of the constructed nature of knowledge and a metacognitive stance towards knowledge' (Moon 2004b: 96). According to McCollum (1997 in Leijen et al., 2012) reflection can be divided into three levels:

- description level :

At this level one provides a description of their information and thoughts. For instance, in the language learning domain students are able to answer questions such as "who and what" to describe something.

- justification level:

At this level one tries to be logical and more rationale and provides answers to questions such as "why, how and what if".

- critique level:

At this level one tries to evaluate and explain things from different perspectives and thinks of questions such as "so what and where can I go from here".

Later, Leigen et al. (2012) added a fourth level to the above three levels:

- argumentation level:

At this level one goes beyond self-evaluation and thinks more creatively of alternative solutions for changing their practice such as by asking oneself "what else".

This fourth level is known to be the deepest reflective level, and is considered to be as thinking 'out-of-the-box' (Leijen et al., 2012) about one's experience. This level seems a challenging level as one needs to see things from an objective perspective (ibid.). Nevertheless, all levels are considered to be important in the development of the reflective process since one is not able to reach higher levels of reflection without passing the lower levels primarily (ibid.).

At this point it is essential to remember that some people are not able to reflect (Lucas 2001 in Moon, 2004a). This is to say that, reflection is not part of their personality traits. This could be true to a large extent as it might not be easy for some learners to understand the reflective process and some other learners might not be willing to get involved with reflection (Moon, 2004a). In spite of this fact, still there are ways to meet the challenge of trying to be reflective through practice and conscious understanding of the process. Moon (2004a: 9) states: 'for many the capacity to reflect purposefully needs to be fostered and coached'.

To sum up, reflection could be seen as considering something in more depth that which had not been given enough thought previously. In other words, reflection may be put as consciously looking at our own emotions, behaviours, experiences and responses (Atkins and Murphy, 1994). To enhance effective learning reflection should eventually move from a low or broader level to a deep or higher level.

2.3.2. Reflective cycle

Pinter (2006a: 105) considers the "reflective cycle or meta-cognitive cycle" to be a three step process of planning, doing and reviewing. These steps refer to thinking in advance or planning, thinking while doing an activity or monitoring, and thinking how the activity went and why it went the way it did; what the learners enjoyed and what they did not, and finally evaluating the learners own performances.

Most classroom lessons based on Ellis (1999a: 113) to some extent include stages of 'revision and presentation of language items, doing an activity or a task to practice the language items and to develop skills areas' and then there is further practice sometimes in another context to review and consolidate students' knowledge (ibid.). Some outcomes such as books, posters and worksheets are also produced (Ellis, 1999a) in these classes. Therefore, the three step reflective cycle can be easily adapted to these stages and it can be adapted to any activities or subjects that are being represented in the classroom. Ellis (1999a: 113) further claims these stages provide teachers with a framework within which they can include 'reflection, experimentation and

further reflection'. This framework represents the ongoing cyclical process of planning, doing and reviewing (ibid.) discussed earlier.

It is essential to point out that children cannot reflect on their own and that too all of a sudden. Thus, the role of the teacher in promoting the reflective attitudes of children is unavoidable. Teachers can guide learners by modeling questions and making them aware of certain strategies; by discussing the learning stages with children; and by encouraging children to reflect on what they are going to do, and how they are going to do it. This guidance provided by the teachers will help the children to evaluate their own progress and will also gradually develop their problem solving skills (Ellis, 1999a). It will make the students more aware of their learning process and will produce efficient thinkers who are more responsible of their own learning journey.

From all that has been said above, these three steps also remind us of the essential regulatory skills which were defined earlier as components of meta-cognition. And with that said, it is time that we turned our attention to how the regulatory skills, meta-cognition and reflective cycle are intertwined.

2.4. Meta-cognition, reflection and self regulatory skills

Meta-cognition develops with social interaction (Larkin, 2010). Meta-cognitive development from a social constructionist point of view has been very important in educational practice (ibid.). Vygotsky (1896-1934 in Pinter 2011) as a social constructionist believed in the role of social environment as a means of educational development. This is to say that, the social process of learning between people contributes to individual learning and development (Pinter, 2011). As a matter of fact, the notion of 'metacognition developing from social interactions has linked metacognition to the broader issue of self-regulated learning' (Larkin, 2010: 13).

As discussed earlier, self regulation learning involves planning, monitoring and evaluation which resemble the meta-cognitive or reflective cycle. Additionally, an outcome of reflection according to Moon (2004a: 86) is 'metacognition that supports learning'. Therefore, it is clear, how reflection, meta-cognition, and self regulatory skills are interrelated. All three of these factors achieve joint outcomes and encourage successful learning as the growth of one of these factors

results in the development of the other factors. In education our aim should not only be teaching the curriculum, but it should also be 'to ensure that our students understand how to learn and to take responsibility for their own learning' (Larkin, 2010:13).

Reflection plays a vital role in the process of promoting good quality learning, (Moon, 2004a). One way of promoting meta-cognitive development is by imparting explicit and detailed knowledge of tasks to the learners so that they can master this knowledge for future use (Pinter, 2006a). Another contributor to meta-cognitive understanding, according to Robson (2010), is that the students' should be consciously talking about how they are learning and how they are thinking and as well as how well they are aware of their thinking. It can be assumed that good learners are the ones who can reflect better; are those who are aware of their learning; and are those who are able to identify their strengths and weaknesses (ibid.). Through the process of reflection and self-regulation, learners are encouraged to eventually work on their shortcomings and to be able to transform them to their strengths.

2.5. Reflection and learning to learn

Reflection, as discussed earlier, 'not only plays a part in the process of good quality learning, but it is also important in the development of appropriate learning behaviour' (Moon, 2004a: 86). The development of an appropriate learning behaviour and reflection are attainable through improving learning to learn strategies. This section, thus, aims to look at how reflection and learning to learn strategies are related.

Language learning strategies and skills are recognized by many different names. They are referred to as "strategy training", "learner training", or "learning-to-learn-training" and etc (Oxford, 1990:200). However, as discussed earlier learning to learn is a broad term which incorporates learning strategies. These strategies help students broaden their experience of learning and these learning strategies also attempt to change the learners' learning behaviour. Learning to learn or learner training is a way to work with the strategies learnt in an explicit way (Brewster et al., 1992). It brings change in the learning behaviour of the students by giving the

learners the opportunity to think, review, and question themselves more systematically. It attracts students' attention to what they learn and how they learn it (ibid.).

The reflective cyclical process or the plan-do-review model which was explained earlier could be considered as a method to improve learning to learn skills (Ellis and Brewster, 2002). Such a methodology provides a frame work for teachers within which they can 'incorporate opportunities for children through reflection to plan, do and review with very little disruption' (ibid.: 61) to their actual lesson plans. Reflection here represents the idea of children thinking about a task or an activity they are going to do and planning ahead to meet the requirements of that task or activity. Children experiment with the activities or tasks by engaging with them. This experimentation on behalf of the children later stimulates further reflection on their part. Such further reflection makes them enquire about how they did that particular task and it also gets the children involved in self evaluation (ibid.).

This reflective process has many benefits for learners. It develops the curiosity and the interest of students in learning a foreign language; it provides a "positive learning experience"; and it equips children with lifelong learning tools especially so when they need to prepare themselves for "formal and exam oriented courses" (Brewster et al., 1992).

Oxford (1990: 201) states: 'Strategy training is especially necessary in the area of second and foreign languages'. Moreover, training a learner to reflect is a very important feature of any educational programme (Brewster et al., 1992). In this regard, it is essential to train students to be aware of how they learn best and to encourage them to reflect on their learning which in turn is helpful to make the learning process more effective.

Furthermore, introducing learning to learn strategies to young learners and using reflective dimensions should be done in a meaningful context (ibid.). Students should be encouraged to learn how to reflect within the activities and the tasks they are asked to perform in the classroom. This is so as this will enable the learners to naturally relate themselves with the reflective process and make sense of why they are doing a certain type of task, and also whether they are enjoying the particular task or not. The children will realize that if they are enjoying the task, then why is it that they are, and they will also realize that if they are not, then why that is

so. Therefore, in order to continue our discussion it is essential that we briefly define "tasks" and consider the advantages of task repetition in the next section.

2.6. Tasks

This section defines a task as a meaningful context that provides an opportunity for learners to reflect and work within a reflective framework.

Various definitions have been proposed for the term "task" by scholars. Tasks are known to be activities that have a purpose or goal (Willis, 1996). A task is an activity in which learners take part to achieve a specific outcome (Willis, 1996 and Ellis, 2009). Ellis (2009) claims that while performing a task, the primary concern of the learners is understanding the requirements of it. Learners need to rely on their own sources of information because they might need to convey certain types of information to complete a task or an activity. Furthermore, according to Ellis (2009) tasks have their own clear outcomes.

Skehan (2003) believes that tasks can be impacted by different conditions. In the domain of the conditions that might influence tasks, "task repetition" is highly valued (Bygate, 1996). This means that significant differences might arise in the learning process and in the use of strategies by students where a task is repeated several times. A study conducted by Pinter (2006b) with 10-year-old students from Hungary confirms that task repetition has a positive effect on the learners' verbal improvement. She further reported that strategy training relating to the appropriate way to complete tasks can also be used to develop cognitive and meta-cognitive skills in addition to improving linguistic and social skills.

Taking the point from Pinter (2006b), task repetition was used, in the study that I conducted, to help learners practise reflection and to improve their meta-cognitive ability.

In the next section, tasks that might promote reflection and meta-cognition will be introduced with particular regards being given to collaborative writing, as it is the sort of task that will be focused on in this study.

2.6.1. Collaborative writing

Collaboration is a crucial part of education and is known to facilitate meta-cognition (Schraw et al., 2006). It is also considered to encourage: the better comprehension of tasks; the negotiation of ideas; the discussion of ways to perform a task; and a discussion of what individual students may be able to bring to a task (Larkin, 2010).

Writing collaboratively can be viewed as a way of writing, that not only 'occurs in the head of an individual, which is then transferred onto paper or screen, but also as something which can be constructed socially and performed with others' (Larkin, 2010: 81). Studies show that collaborative writing promotes a context in which reflection and meta-cognition strategies can be developed.

Generally, writing is considered to be a complex task. One reason for this is the limited awareness of meta-cognitive knowledge and control on behalf of the learners (Englert and Raphael, 1988 in Noel and Robert, 2004). Children might "lack awareness of appropriate strategies" or have problems implementing and monitoring these strategies (Noel and Robert, 2004: 64). Thus, some ways of dealing with such difficulties are to raise the students' awareness of meta-cognitive strategies along with providing enough support and training (ibid.). In this respect collaborative writing is known to do a number of things. It promotes meta-cognition; structures peer interaction (Yarrow and Topping, 2001); and also "fosters reflective thinking" (Storch, 2005: 154).

Research on the process of collaborative writing began in the late 1980s. Mackler (1987 in Noel and Robert, 2004) was among the first to find that group-work-effort lead to better results as compared to those who worked individually. Moreover, it is believed that structured pair writing system can promote meta-cognition. According to Noel and Robert (2004: 64): 'Paired writing is a structured but flexible collaborative writing system which combines metacognitive and social interactive approaches …'.

Earlier it was mentioned that children need to reflect in a meaningful context. A writing task can provide a meaningful context for self-regulation and reflection (Perry, 1998). This is so as a writing task gives students a chance to plan their draft before starting the exercise. It allows the students to pool in their ideas. The exercise also provides an opportunity for the students to read their first draft, edit their produced work, generate a final draft and evaluate their own work by reflecting on what they have accomplished. An action research project conducted by Yarrow and Topping (2001), with twenty eight participants, all of whom were students in a primary school and of 10-11 years of age proves the value of collaborative writing, reflection and better writing outcomes.

This study had the aim of assessing the relative contribution of meta-cognitive prompting on the development of the students' quality of writing. The students had two sessions of training on how to complete a collaborative writing exercise. In these sessions the researcher introduced students to a writing-flow-chart to provide meta-cognitive support. The students were encouraged to look at their flow-charts during the writing process. Then the intervention continued over six weeks, where the students needed to produce five pieces of writing. Four sessions were allocated for each piece of writing. The first session was just for planning. The second session was for the preparation of the first draft with the third session remaining for reading and editing the work. The fourth and the last session was for producing and evaluating the best work. The study resulted in an improvement of the meta-cognitive content of the students writing in pairs especially so in comparison to those writing individually. In this respect, Kasper (1997 in Oxford, 2011) claims that there is a positive correlation between meta-cognition and writing proficiency.

However, I would like to argue that the reflective cycle within the writing process, which was distributed and divided in four different sessions, did not resemble a natural context within which the students in a typical class might work on a piece of writing. The researcher reported that 'the students were fed up with the amount of writing they had to do for the experiment' (Yarrow and Topping, 2001: 276). Hence, in the intervention that took place for my study to keep

the experiment resembling the natural context, the reflective cycle was completed in one session.

In a nutshell, this chapter up till now has only introduced one aspect of learning to learn strategies. The aspect that has been introduced is known as reflection and it produces meta-cognitive awareness. This awareness leads to more independent learning whereby learners take responsibility of their own educational progress and success. Moreover, meta-cognitive awareness yields to self regulation which enables learners to think before starting an activity and where while performing that activity they also learn to monitor their own development which allows the learners to finally make their own judgments about how well they are doing a particular task. These strategies eventually contribute to effective learning as learners become able to take charge of their own learning.

Collaborative writing is one task among a variety of tasks that can stimulate reflection. In the process of this type of writing, students can practise learning strategies and reflect on the whole process through interaction with their peers. This interaction plays an important role 'in emergence of metacognitive theories' (Schraw and Moshman, 1995: 365). Apart from collaborative writing teachers also play a crucial role in the preparation of an environment conducive to reflection and promoting learning to learn strategies. Teachers can encourage students to think about their learning and facilitate the reflective process by prompting the students and taking on a "questioning role" (Ellis, 1999b). The more practice the students get, the more naturally and spontaneously will they be able to reflect.

2.7. Studies related to meta-cognitive skills and their short-comings

In general, middle aged learners or learners of 8 to 12 years of age have 'received very little focused attention' (Borland et al., 1998: 153) in research. Observing related studies in the field of meta-cognitive development, one is made aware that a wide range of research has been conducted with very young learners of a mother tongue (L1) or with language learners who are adults. Not enough research is seen to be conducted with regards to the children learning a second or a foreign language in the field of meta-cognitive development. As such, due to the lack

of research in this field 'the voice of young learners of English in Asia has not yet been heard' (Lan and Oxford, 2003: 339).

Carr (2011) ran a two year action research project in New Zealand, with teachers in nine different early childhood centres, to explore the opportunities available for young children to reflect on their learning of a mother tongue (L1). In a two year study in the United Kingdom, Whitebread and his colleagues (2009) observed the development of the meta-cognitive and self regulatory abilities of young learners between 3-5 years of age. A study conducted on collaborative activity by Mercer and Wegerif (1999), involving school children of ages 9-10, had the effect of improving the quality of reasoning adopted by the children. This study was designed to explicitly develop their awareness of how language was being used. The outcome of this study was that there was an improvement in the use of language used for reasoning by the children.

As is evident, the studies have mostly targeted very young learners in a context very different from its Iranian or Asian counterpart. Even the study that has targeted the age group that I am interested in, has been conducted with learners of a mother tongue (L1) and not with students learning a foreign language. Additionally, as has been claimed by Whitebread et al. (2009), the studies in the area of meta-cognition have mostly focused on older children and adults.

The studies carried out in the Iranian context by Ghavamnia et al. (2011) and Bonyadi et al. (2012) have addressed adults. These studies have had the interest of observing the use of learning strategies by students and they have also been interested in trying to understand the connection between the use of these learning strategies with other variables such as motivation, proficiency and beliefs. These findings were used to assess the type of learning strategies frequently employed by university students for studying English as a foreign language. The results from the studies were collected by questionnaires and later analyzed. Another study conducted by Lan and Oxford (2003) which targeted young children from the 6th grade of elementary school in Taiwanese context, also used questionnaires to enquire and gather information about the children's meta-cognitive behaviour.

In both studies conducted in the Asian context, there was not enough evidence to explicitly raise the awareness of students on meta-cognition. The studies, however, have been conducted to find out what strategies are adopted by students to learn a foreign language. The data on which strategies have been most frequently employed by the students in learning a foreign language have been collected by questionnaires. These studies were not designed to train students, or provide an environment in which they could prove that they could competently use such strategies.

As discussed earlier we all might have unconscious knowledge of meta-cognitive skills, but to be effective learners the knowledge is needed to be brought to our conscious awareness. Therefore, there needs to be an environment where the strategies could be practised and mastered so as to prove that one is becoming a competent user of the strategies. On the other hand, answering questionnaires about how we think we use strategies cannot be sufficient to indicate whether we consciously use the strategies in a situation that arises in an uncontrolled environment.

Even child friendly questionnaires where students have to put smiley faces or faces that are not smiling to indicate what they liked or did not like as means of demonstrating reflection on their behalf, has not enough bearing on reflection and reasoning. This is so as students putting those emoticons have no chance of explaining why they put that particular emoticon (Ellis, 2002). On top of all, 'the self-tests and the checklists which focus solely on the product or the linguistic content of a learning unit and not, in any way, on the process involved', (Ellis, 1999a: 112) cannot be good tools for reflection.

Additionally, all the studies discussed above have been longitudinal studies which are so conducted due to the nature of reflection or meta-cognition which requires plenty of time to see concrete results. However, as discussed earlier we live in a fast world where learners have immediate need for learning a language. In some contexts, like my own context, teachers are needed to implement learning strategies that raise the awareness of the students with regards to their learning in a short span of time. This is so as students learn English for one and a half month, and the teacher changes with every new term. The suggestion that teachers need to

implement learning strategies that raise the awareness of students with regards to their learning, in a short span of time, by no means is meant to convey the idea, that the process of raising the awareness of students about their learning should be stopped after one term. Instead the suggestion seeks to emphasize that in every single term, the reflective process needs to be continued and practised up to a point, that the students master the skills needed to reflect and that they are able to prepare themselves for academic and work life as has been discussed earlier.

To sum it all up, research shows that there is a lack of empirical studies conducted on reflective attitude and also on the evaluation of 'the effects of learning to learn in terms of performance' (Oxford, 1990: 102). This being especially true with regards to the middle-aged group learning a foreign language i.e. children of 8-12 years of age. On the other hand, there was lack of evidence in terms of the related research on children in the Iranian context. So to say evidence is also lacking on whether children can grasp knowledge of the reflective process in a short period of time. There is also a lack of evidence on the use of the meta-cognitive strategies by the children and on whether children have the explicit awareness of such strategies if they are given the opportunity to practise them. Since the time dedicated to English learning per month in my context is limited, I am interested to explore how reflection will work within a short period of time.

Therefore, this research attempts to look at the following questions: (1) does the ability of children to reflect, change as a result of having the opportunity to repeat the task? If yes, then how does it change and what form does the change take? (2) how is the reflective process perceived by students?

Chapter 3: The intervention: research methods

This chapter explores the methods that were utilized for raising meta-cognitive awareness in young EFL learners. The research questions and the methodology for conducting the study are described in detail below along with a consideration of the ethical issues.

3.1. Research questions

The following research questions guided the study:

Question 1: Does the ability of children to reflect, change as a result of having the opportunity to repeat the task? If yes, then how does it change and what form does the change take?

Question 2: How is the reflective process perceived by children?

3.2. Methodology

This section describes the general design, participants, setting, instrumentation, data collection procedure and the ethical considerations.

3.2.1. General design

Studies reveal that 'language students might not use the strategies that research indicates would be most effective, such as strategies that promote self-regulated [or in other words meta-cognitive] learning … this information is of great utility in designing intervention studies to teach effective strategy use' (Chamot et al., 1999: 178).

Taking into account the above suggestion, an eight hour intervention has been designed to raise learners' awareness on meta-cognitive strategies and help students reflect on their learning. For this purpose the teacher (a colleague of mine in Iran) has been equipped with step by step instruction or in other words the lesson plan (Appendix 1, pages: 72 to 84) of the sessions to facilitate the teaching process. In this intervention I have provided an environment in which learners could reflect on their learning process through a repetitive task and interaction with

their peers. Learners are involved in a task where they have to work on a project and produce a written outcome through collaborative writing. The sessions are video- taped and recorded.

3.2.2. Participants

My colleague, who is a non native English teacher, has agreed to cooperate and run the sessions. She has six years experience of teaching EFL. On the other hand, she had taken the responsibility of looking for participants and introducing the project to the students. Some students showed interest and volunteered for the project. Thus, the children's and their parents' consent was obtained via letters (Appendix 2, pages: 85-86).

The subjects are two girls Nika and Anahita 12 years old and two boys, Mahdi 11 and Parsa 10 years old (the real names have been used by their own consent). They are at pre-intermediate or almost flyer level according to Cambridge English young learners' language assessment.

3.2.3. Setting

The sessions will be held in a private language school in Tehran. The classes will run once a week outside regular learning hours. The students will be sitting in a classroom with all the necessary equipments to design their projects. The participant teacher will hold the classes based on the lesson plans provided by the researcher in advance as mentioned earlier.

3.2.4. Qualitative research

Qualitative research has been chosen for carrying out this study, due to the features that it offers and matches with the type of the study I am doing. Firstly, the "emergent nature" (Dörnyei, 2007) of a qualitative research gives me the opportunity to be flexible, look back at my research design and make constructive changes to obtain best results. Since the reflective type of teaching is new in my context, if something does not go to the plan, it gives me, the researcher, the chance to 'accommodate the changes and to capitalize on them and produce exciting results' (ibid. 40). Secondly, qualitative research provides an "insider meaning" (ibid.) which means

participants' views, perceptions, feelings and experiences are explored in the situation being studied and this is what my study is going to examine. Thirdly, as I just have four participants, this approach gives me the privilege of studying small samples. Finally, its "exploratory nature" equips researchers with 'effective ways of exploring new, uncharted areas' (ibid.: 39). As in my case the reflective way of teaching and learning is new for the students as well as the teacher thus, the study is considered a new path which needs to be explored in my context.

Dǒrnyei (2007) posits that collecting qualitative data includes methods such as journal, photos recordings, videos, documents and field notes, which are mostly transcribed into written form. I have decided to choose recordings as a means of data collection.

Recording is one of the most popular research methods in qualitative inquiries. Video and tape recordings are known to be richer sources of collecting interactional data in comparison to other ways, for instance, note-taking (Heritage, 1995 in Liddicoat, 2007). The golden rule of recording conversations is to get simple recording equipment (Richards, 2003) such as an MP3 player. The tape recordings will be transcribed using Richards (2003) transcription conventions. There has been an extra symbol *   * added, which indicates that the sentence has been translated from Persian to English. Schiffrin (1994: 422) suggests: '...where the standard systems do not provide what you need, it is acceptable to include symbols of your own'.

The symbols are defined below:

?   questioning intonation

(xxx)   unable to transcribe

((   ))   other details

*   *   the translated sentence from Persian to English

The recorded videos will be played in the last session to remind students of what they have done and for them to reflect on this type of reflective learning. Anderson and Vandergrift (1996) argue that it is an excellent stimulus to videotape learners whilst they are completing a task and later allowing them to view the videos and think aloud and reflect upon them. Moreover, Robson

(2010) claims that video data is considered to be a valuable tool for educational and research means to elicit young learners' notions and perceptions. For this purpose students' utterances in this session will be transcribed using the same convention system described above.

Due to my personal limitation to travel back to my country for data collection, I planned to try out an innovative approach to collecting data. In addition to video recording and tape recording the sessions, I am going to watch the sessions live using a free mobile application called "TANGO". This application is very easy to work with. Simply by pressing the application you choose to dial the related person's number when the call goes through, it provides the both parties with sound and video. In this respect, the participant teacher is willing to cooperate. As we both have been working closely for several years she claims that she will not feel any pressure or anxiety of being watched.

Watching the sessions as they are happening will give me, as the researcher of the project, the chance to be part of the class and get the essence of how the whole project will go on, and provides the opportunity of adjusting my lesson plans accordingly. Additionally, since the reflective type of lesson plan is new in my context, I can help the teacher in case she asks.

3.2.5. The Classroom projects and the means of collecting data

This section introduces the projects designed within the reflective framework and the outline of the intervention. It also describes in depth how evaluation and meta-cognitive cards have been utilized to collect data.

3.2.5.1. The projects

Research shows that children like getting involved in games, songs, projects, drawings and plenty of other activities that promote "real life activities" (O'Kane, 2008) and make the whole process of learning more enjoyable for them (Pinter, 2011). Due to the reason that the students are still dealing with their examinations, a more fun approach was needed. As a matter of fact, I decided to introduce project work where students will be involved in drawing, cutting and

pasting. It is hoped that the activities will reduce the pressure of examinations for the time they are involved with the research.

The table below represents the outline of the intervention:

Sessions	Project	Activity	Topic	Duration
1	Book	Collaborative writing	Introduce Yourselves	2hour
2	Magazine	Collaborative writing	Write about your country	2 hour
3	Wallpaper	Collaborative writing	Write about your experience of attending in these classes	2 hour
4	Reflection	Watching video recordings of the previous sessions/ Writing a letter / award ceremony	Reflect on the 3 sessions/ A letter for the researcher about any feelings they would like to share	2 hour

As it is evident from the table, day 1 involves making a book and children providing some information about themselves. Day 2 engages children in producing a magazine about their country. Day 3 focuses on designing a wall paper in which they provide some information about their recent experience of taking part in this intervention. Each session at the collaborative writing stage, the learners will need to collaboratively plan their writing process, brainstorm ideas, think of the type of information that needs to go into their project, write their first draft,

edit and then write their final draft (Appendix 1, sections 2.1.3., pages:74, 76 and 79). As it was discussed earlier the writing task can provide a self-regulated and a reflective context.

 The first hour of day 4, the students will be invited to watch some parts of their own video tapes and reflect on their performances. The second hour, the students are encouraged to write an informal letter for me and jot down their feelings and experiences of participating in this project.

It is essential to point out that all sessions and the lesson plans are based on the reflective framework which consists of three stages planning, monitoring and evaluating (Appendix 1, sections: 2.1.1., 2.1.2 and 2.1.4., pages:73,74) and at each stage some questions are prompted by the teacher to help students reflect on what they are doing. The table below categorizes the questions asked from the students at each stage:

Table 1

Planning	Monitoring	Evaluating/ Reviewing
How many ideas do you have to start with?	Are doing fine so far?	What did you learn from the project?
Which idea you should start with first?	Have you got enough time?	Did you enjoy working together?
How can you work collaboratively with your partner?	Have you got any problem?	Why?
How can you write together cooperatively?	Do you need to change your original plan?	Did you like or didn't like the project?
	How can you sort out your problem and get help?	Any changes you would like to apply for future?
		Any advice for students doing the same project?
		Additional ideas?

3.2.5.2. Evaluation cards

At the evaluation stage there are some reflective questions adapted from Pinter (2006a) to encourage students explicitly "think aloud" (Fisher, 1998) about what they are doing and how they are thinking. At this stage students are given the choice to use their mother tongue, this is to 'encourage pupils to reflect on their basic assumption about learning' (Brewster et al., 1992: 102).

After the first session, I realized that the students were more excited about completing the project than talking about it. They interpreted the task as a competitive game that needs to be performed better than the other pair. However, this was natural and indicated that students were enjoying the process. Pinter (2006b: 12) admits that 'learners do not always interpret the task the same way as the teacher or the researcher would have intended'. As a matter of fact, in second and third session, to make the evaluation step more meaningful, students are equipped with a set of cards. These cards include the questions and have a related picture to promote more reflective discussion (Appendix 3, pages: 87 to 90). Pictures are believed to hold students' attention and make the questioning process more tangible than just a verbal representation (Scott, 2008).

Moreover, there is a card with a set of questions at evaluation stage that requires further elaboration (Appendix 3, card no. 7, p: 89). Card number 7 asks participants to score themselves from 1 to 5 in different categories such as planning, monitoring, writing and working together. For these questions O'Kane's (2008) "pots and beans" participatory activity is used. This technique provides an interesting framework for children to reflect and evaluate their own progress. Children are provided with 4 pots in each pair with some beans. Each pot is related to one topic and students need to evaluate themselves from 1 to 5. If they think that their writing deserves 4 out of 5, for instance, they would put 4 beans in the related pot. Furthermore, they are asked to provide reasons for the scores they associate with each topic. The results of this activity will be analyzed using graphs which represent how the scoring has differed from the first to the last session.

Moreover, within the whole reflective process there are some strategy cards to remind students of the strategies they need to apply whilst working with their partner. Next section will look more into depth on how these cards work.

3.2.5.3. Strategy cards

The "strategy cards" or meta-cognitive cards adapted from Quicke and Winter (1994) (Appendix 4, pages: 91to 92) are to aid students' memory with meta-cognitive strategies. This is a tangible reminder of a number of learning strategies for students to become aware of the strategies they are about to apply within the tasks given to them (ibid.).

These reminders are a product of an explanatory study conducted by Quicke and Winter (1994). They had originally chosen the words and phrases on the card from discussion with students about their learning. The phrases on the cards were the significant features that the students in Quick and Winter's study mentioned. The students, for instance, in their study believed that it is important to think ahead and plan for learning (ibid.) therefore, thinking and planning ahead was chosen as one strategy and listed.

For my study, I have transferred these strategies on some cards. The cards will be enlarged for students to be able to see them clearly when displayed on the wall. To this set of meta-cognitive reminders, I have added colourful pictures. Pictures are considered to be useful visual stimuli for children (Scott, 2008) and more attractive than just a list of sentences.

These cards will be on the classroom wall throughout the whole project and referred to at different stages of the project as 'a stimulus and a starting point' (Quicke and Winter, 1994: 433). These cards aim to engage students in meta-cognitive dialogue, articulation of the learning strategies and understanding of what effective learning is (ibid.).

The table below groups the strategies on the cards in the category of reflective framework. Some of the categories share same strategies which have been highlighted in same colour.

Table 2

Reflective framework	Strategies	Strategies	Strategies	Strategies	Strategies
Planning	Look and listen carefully	Listen to what my friend says	Decide who is going to do what	Think ahead and plan	Talk about what we have to do
Monitoring	Look and listen carefully	Listen to what my friend says	Check our work	Stop and think when working	-
Evaluating	Talk about what you have done	Listen to what my friend says	Check our work	Learn from our problems for future	-

This idea, however, was further developed after the short-comings of the first session. To make the presence of the cards more meaningful and remind students of meta-cognitive strategies, the second and third sessions will firstly start with an explicit introduction of three reflective steps (plan-do-review). The students will be asked to provide a general definition for planning, doing and reviewing and connect the cards with the reflective stages (Appendix 1, section 1.1., p: 75). Throughout the project, the teacher refers back to the cards whenever possible. This is done to constantly remind learners of the strategy they need to incorporate within their performances. There is a possibility of students memorizing and repeating the fixed sentences on the cards, however, I would like to argue even if they repeat the same sentences there is a sign that they are at least aware of the strategies required to do a task. To make sure the students are not just parroting the strategies, they would be encouraged to provide examples of the time they incorporated the strategies while doing the task. It is crucial to remind that these cards are not the only tools in this study where learners display their meta-cognitive awareness.

The table below gives an overview of the changes made from fist to second/ third session.

Table 3

First session	*Second/ Third session*
no explicit explanation of the reflective cycle	explicit explanation of the reflective cycle
oral questioning system at evaluation stage	provided evaluation cards
representation of metacognitive cards	students relating the reflective cycle to the metacognitive cards
	Pots and beans activity

3.3. Ethical issues

Ethics is known to be 'a vital part of every stage of a project' (Alderson, 2005: 30) especially when dealing with children who are known to be "fairly powerless" (ibid.).

Therefore, ethical standards have been taken into consideration throughout the research. The consent of the authorities of the institute, the teacher, parents and the subjects have been obtained through a written letter (Appendix 2, pages: 85-86). Moreover, I have tried following Richards' (2003) framework of ethical issues that suggests:

- to explain why classes are going to be recorded
- to keep the findings confidential and explain that it will just be used for academic purposes
- to share the findings with the institute if required
- to consider the right for students to want to stop the recordings anytime.
- to keep students identity confidential. Nevertheless, the students have asked me to use their real names.

Chapter 4: Data analysis

4.1. Data analysis procedure

From the recordings of the sessions a great deal of data were gathered and due to the limited scope of this dissertation, some particular parts of the data were selected for the analysis. It was not possible to analyze the whole data. More interesting features were noted in the last stage known as review or evaluation stage where students used to reflect on the whole procedure of the class. As a matter of fact, this stage has been chosen for precise analysis and discussion.

Evaluation stage:

It is essential to note here that in the first session the students were asked the evaluation questions orally and were not introduced to the reflective cycle explicitly. In this session after the students completed the project they assumed the class is over and wanted to leave. The teacher explained that they need to answer some questions after finishing the project. As this was an exploratory stage, as explained in chapter 3, some changes were made after observing the first session. For instance, in the second session, the teacher explicitly explained the three features of the reflective cycle (planning, doing and reviewing)(appendix 1, section 1.1., p: 75) thus, the students were aware that they have to complete three stages. From the second session onwards the students were presented with a set of evaluation cards as discussed earlier in chapter 3 to help them focus and reflect more on their performances.

On the other hand, the writing topic in the third session engaged the students in expressing their feelings about the project. Later their pieces of writing were analyzed to find out if students were consciously reflecting on the whole process or not. In the fourth session, the learners were encouraged to watch their own videos and comment on the changes they noticed in terms of their performances. The learners had also been asked to write an informal letter. This was to find out how they perceive the reflective cycle of learning.

4.2. Results for question one

Does the ability of children to reflect, change as a result of having the opportunity to repeat the task? If yes, then how does it change and what form does the change take?

From all the data, here some extracts have been presented to show the development of students' reflective attitude throughout this project. Moreover, a table (table 1) has been designed to summarize the learners' notions at the evaluation stages. This table also provides an overview of the changes in students' reflective attitude from the first to the third session.

The data has been transcribed using Richards (2003) convention system as explained earlier. Now onwards the participants will be referred to using the letters described below:

T: here refers to the teacher, N: is one of the girl participants (Nika), A: is the other girl participant (Anahita), M: is one of the boy participants (Mahdi), P: is the other boy participant (Parsa).

Session one: evaluation stage

In this session- as the extracts show- the learners provided short answers to the questions asked at the evaluation stage. They mostly pointed to the friendship relationship as the reason for enjoying the class and the project.

Extract A

```
01   T:   did you enjoy the class?
02   N:   yes
03   A:   it was good we are friends at school and now here
04   N:   we are in the same class at school.
05   A:   we are friends in hermes and now we could make a
          book together
```

In line 01 the teacher asks if they enjoyed the project Nika provides a short positive answer (line 02). Anahita also mentions that it was good and explains further that they are friends both at

school and in their language class. Nika (line 03) builds on Anahita's answer and feels excited about doing a project with her friend. Nika (line 04) confirms it with a short response confirming the notion that their friendship is the reason for this enjoyment.

Extract B

```
06   T:    what didn't you like?
07   A:    the time
08   N:    the time
09   T:    so what are you going to do about time?
10         how are you going to manage it?
11   N:    we hurry up
12   A:    and do it fast
13   T:    ok so what changes would you make?
14   N:    i don't know
15   T:    you had lots of ideas for writing maybe
16         you could use one or two?
17   A:    we don't know.
18   N:    we should be in the situation.
```

In extract B line 06, the teacher poses the question about what they did not like. Anahita and Nika both answer "the time" (lines 07 and 08). Hence, the teacher continues by asking what their plan was to solve this problem (lines 09 and 10). This time they both replied that they would perform the task faster (lines 11 and 12). The teacher challenges them by asking how they would be able to do it faster (line 13). Nika replies she does not know (line 14). The teacher tries to provide some alternatives (line 15) but still Anahita tends to say she does not know the answer (line 17). Nika's response shows that she cannot predict and she needs to be in that situation to be able to answer the question (line 18).

Session 2: evaluation stage

This session the teacher had explicitly explained the three stages of the reflective cycle and presented students with the evaluation cards. As it is evident from the extracts below the learners are using longer utterances and providing more reasons for their ideas. They do not give any "I don't know" responses to the questions. They further explain that planning ahead has made the writing process easier for them.

Extract A

```
01   N:   if you could do this again how would you do it better?
02   A:   we will do it faster and more beautiful
03   N:   and we will prepare something for example the
04        cardboard we will draw lines on it and measure it
05   A:   we will prepare in advance we will think about
06        it in advance better
07   A:   what will you change?
08   A:   at home I will cut the cardboards and draw lines on it
09   N:   and do more research.
```

In extract A line 01, they are answering the question about the changes they will make if they could do the project again. Anahita replies she would do if faster and will pay more attention to the design (line 02). Nika emphasizes on planning ahead and preparing some of the materials and doing the more time consuming work in advance (lines 03 and 04). Anahita points to the importance of thinking in advance and planning which they learnt this session (lines 05 and 06). She thinks of drawing lines at home as she finds it hard and time consuming (line 08). Line 09 indicates that the students have enjoyed the planning process, thus, they are willing to do some research for the next project.

Session 3: evaluation stage

This session the learners are showing a complete awareness of the reflective cycle. They had more ideas to share and provided long and complete sentences about their attitudes and

feelings. Their answers seem well thought-out and more detailed in comparison to the first session. They go through a "performance process" (Sternberg, 1987) seeking similarities and differences of this session with the first session and make value judgments.

Extract A

```
01    P:    what did you learn from the project?
            ((reading the question))
02          we learnt to work together,
03    M:    help someone to work better
04    P:    manage our time
05    M:    help each other
06    P:    * do group work and listen to each others' ideas*
07    M:    we need to pay more attention to the planning part
08          because it is more general and more important *because
09          the bases of the rest of the stages are dependent on
10          this stage*
11    P:    *and the writing is needed to be done together
12          and with our joint ideas*
13    M:    *it means it shouldn't just be one person's idea*
14    P:    and when our work is done we need to review it to see
15          if it is done correctly and if we have made a mistake
16          we can correct it
17    M:    and check the grammar and dictation
```

Parsa (line 01) explains they have learnt to work collaboratively. Mahdi includes that they have also learnt how to help each other out (line 02). Parsa builds up on Mahdi's sentence and claims that they have learnt to manage their time (line 04). In lines 05 and 06 again they mention working together and respecting each other's idea as something they have learnt throughout this project. Mahdi (line 07) reflects on the idea of planning as the foundation of the other stages and believes if this stage is planned perfectly the rest of the stages will go well (lines 08, 09, and 10). Parsa states the collaboration in the writing stage (lines 11 and 12) as something they learnt this session. Mahdi elaborates on his answer and tries to explain that for a good piece of work, they

need to share ideas (line 13). Parsa also mentions that they have learnt to evaluate their work after it has been completed and make changes where necessary (lines 14, 15 and 16). Mahdi thinks that it is necessary to look at the structure of their sentences by checking the grammar while they are monitoring (line 17).

Extract B

```
18   N:    do you have any other comments?
           ((reading from the card))
19   N:    *we could have done it neatly and added some bigger
20         clouds and we could have put some more space
21         between lines and could have had more clouds
22         to write in*
23   A:    but I think this session we had less problems than
24         other sessions *we used to run out of time we learnt to
25         do faster and better
26   N:    in comparison to other sessions we did some work at
27         home and managed our time and the brainstorming helped
28         us a lot*
```

In this extract Nika is reflecting back to what they have already done and thinking how she could have done it better (lines 19 to 22). In addition, Anahita reflects on how easier this session had been for them in comparison to other sessions and that they have learnt to overcome their lack of time problem (lines 23 to 25). Nika describes planning ahead and brainstorming as other reasons for their success in this project (lines 26 to 28).

Extract C:

```
29   T:    which part you didn't like much?
30   P:    this session because everything was fine I liked
31         everything this session was better than the other two
32         sessions because this session we have had the
33         experience from magazine session and
34         *our magazine turned out fine*
35   M:    *because at first our book wasn't that good and
```

```
36          we made some mistakes we planned for the
37          other sessions and because on the second session we
38          learnt the three stages plan-do and review
39          we could perform better and faster*
40    P:    *on the first session we didn't know about plan neither
41          do neither review and we hadn't set these three rules
42          for ourselves so it wasn't good at all but this session
```

Parsa in lines 30 and 31 claims he liked everything about this session and tries to compare it with the other two sessions. He provides a rationale for his feeling (lines 32 to 34) and he refers to his experience as an important element for his success in this project. Mahdi also compares this session with the book project on the first session he posits that they have learnt from their mistakes and learnt to plan ahead for the other sessions (lines 35 to 37). He further thinks that being introduced to reflective cycle has resulted in better performance (lines 38 and 39). Parsa also admits that on the first session they had no idea about the reflective cycle and that had been the reason to their poor performance in comparison to other sessions (lines 40 and 41). He refers to the reflective process as three rules that they tried implementing from the second session after they were introduced to (lines 41 and 42).

4.2.1. Summary of the evaluation stages

The table below (table 1) summarizes all the comments the learners had made at the evaluation stage. This stage is the third stage of a reflective cycle as discussed earlier. At this stage the learners were invited to reflect on what they had already done and identify their strengths and weaknesses. It also gave the learners the opportunity to set some goals for further improvement in the task they were performing.

The evaluation questions (Appendix 1, section 2.1.4. p: 74) in table 1 have been categorized in three groups. Firstly, there are questions which help students' assess and reflect on their attitudes and feelings towards the whole process. The second type of questions gives the

learners the opportunity to raise their awareness on what they have learnt, and finally the third

category prepares learners to set some goals for future learning.

Table 1

3 categories	Girls' and Boys' replies	Session 1	Session 2	Session 3
Assessing attitudes and feeling	What did you enjoy?	• the project • working together	• drawing • designing • doing research	• working with a friend • brainstorming • planning • writing • checking our work
	What did you like?	• Painting • making a craft • working together	• the topic of writing • writing • working together	• writing • thinking together
	What didn't you like	• making a mess • lack of time	• drawing lines • writing very little • not writing together	• drawing lines
Awareness of learning	What was easy?	• Drawing	• Painting • Writing	• pasting • planning • writing
	What was difficult?	• time managem ent	• drawing lines • writing and rememberin	• narrowing down our choices for writing

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			g about geography	
	What did you learn?	• working together	• pair work • time management • writing neat and nicely • to think about a topic together • doing research	• working together • brainstorming • consulting each other • planning, doing and then reviewing • planning at home
Setting targets and goals	What changes would you make if you could do this again?	• don't know	• cutting cardboards in advance • drawing lines in advance	• working more neatly • providing more space for writing • mixing some brainstormed ideas for writing
	What are your goals for next session?	• working faster • drawing lines in advance	• thinking and planning in advance • drawing lines in advance	• cutting and drawing lines at home • brainstorming before writing • thinking and then doing • using our experience

	What is your advice / comment?	- manage your time - work together - share your belongings - listen to your friend	- manage your time - pair work - share your ideas - match your work	- plan, do and then review - manage your time - consult your partner - plan some parts at home - divide your work

Interpretation of the table

As can be seen, the learners' description of their feelings and attitudes towards the project moved gradually from social aspects such as cooperation in a project to focusing on language skills such as writing. They also mentioned the brainstorming strategy they incorporated to do the written task. They further discussed the necessity of planning ahead and thinking about a topic. However, they realized that they need to work on the strategy of being more selective about their writing, through consulting each other. They also showed a problem-solving attitude when they referred to skills they learnt in this project. One of the skills, for instance, was doing a time consuming task such as drawing lines, at home. They started showing a more reflective attitude as they mentioned the importance of the meta-cognitive cycle in their comments.

The learners found it difficult to set any goals for their upcoming session in the beginning. Nevertheless, as they practiced the same task for the second time and faced similar problems they developed an awareness of putting these problems as their aims to work on and achieve in the next sessions. They also mentioned facing some technical difficulties such as drawing lines and managing their time. They eventually developed some strategies to solve these problems. In third session, they started setting some language learning goals such as combining their ideas for their collaborative written task.

In sum, as it is evident from table 1, learners' overall reasoning and reflective attitude is changing from the second session where the teacher does some explicit training. This change could also be due to the familiarity and repetition of the similar task. They are providing longer utterances and as the data shows they are using more complete sentences in comparison to the first session. In all the sessions and all categories the learners have pointed out the necessity of working together and sharing ideas for better outcomes and more effective learning. Interestingly, in the third session they show an awareness of the importance of the reflective cycle. Moreover, they have set some future goals which they attempt to work on in the upcoming sessions.

4.2.2. Shared-regulation

The repetitive nature of the comments the learners gave about the necessity of working together made me look at how this phenomenon has been represented in the whole data. Therefore, I counted all the instances of verbal evidence where students were actually planning or doing a joint activity. This was to illustrate how far the social interaction was apparent in practice and to find the existence of meta-cognition in the pairs' joint working process (Iiskala et al., 2004). In other words if they just think that pair work is important, and/or they also verbally incorporate pair work while they are performing a task.

The verbal evidence of joint activities was compared to the verbal evidence where learners were directing their own, individual performances. Table 2 represents the number of verbal evidence used. This evidence was coded as shared-regulation and self-regulation verbal evidence. The table below provides a definition of what is meant by self and shared regulation. Later there are some extracts to support the idea.

Table 2 (adapted from Iiskala et al., 2004)

focus	Definition	number of fragments used in 3 sessions
Self- regulation	a process which is directed by learners themselves. It mostly includes verbalizations regarding the learners' own activity for instance: "I am going to draw a map."	31%
Shared-regulation	this is mostly related to pairs planning, monitoring and regulating a joint activity. Here the talk is more related to what needs to be done together and the plural pronoun "we" is used for instance: " We should do this."	69%

In the extracts below the red colour represents shared-regulation examples and the colour blue is for differentiating the self-regulated utterances.

Extract A:

```
T:    ok any other ideas?
A:    we think of designing it, and using glitters for the *margins* and
      draw paintings and and the clouds are medium size not very big not
      very small
N:    yes we can punch it at the top and then we can hang it
N:    I want to put here all of the pages
A:    we think of writing it from first to last session
T:    what is your next plan
A:    I am drawing small picture of a book, magazine and wallpaper.
```

Extract B:

```
P:    we can use two paper
M:    we should be faster
P:    I am writing geography area of iran
M:    ok we can collect our writing on paper and then we glue
P:    ok then I will write in here again
```

Table 2 indicates that in comparison to self-regulated behaviour, there was more verbal evidence of shared-regulated behaviour. These examples from extract A and B and the numerical evidence show how the learners were trying to construct the task together and help each other out. They rely on their peer's skills and abilities to perform a task. This is in line with learners' notions of enjoying a joint activity. Moreover, the graphs below also show how important pair work has been for the learners.

4.2.3. Pots and beans activity

The graphs below show how the learners have scored themselves from one to five (one indicating the lowest score and five the highest). In addition, the graphs represent how the ranking has changed from the first to the last session. The way this activity was conducted has been described in the methodology section 3.2.5.2 of chapter 3.

Girls' pots and beans activity
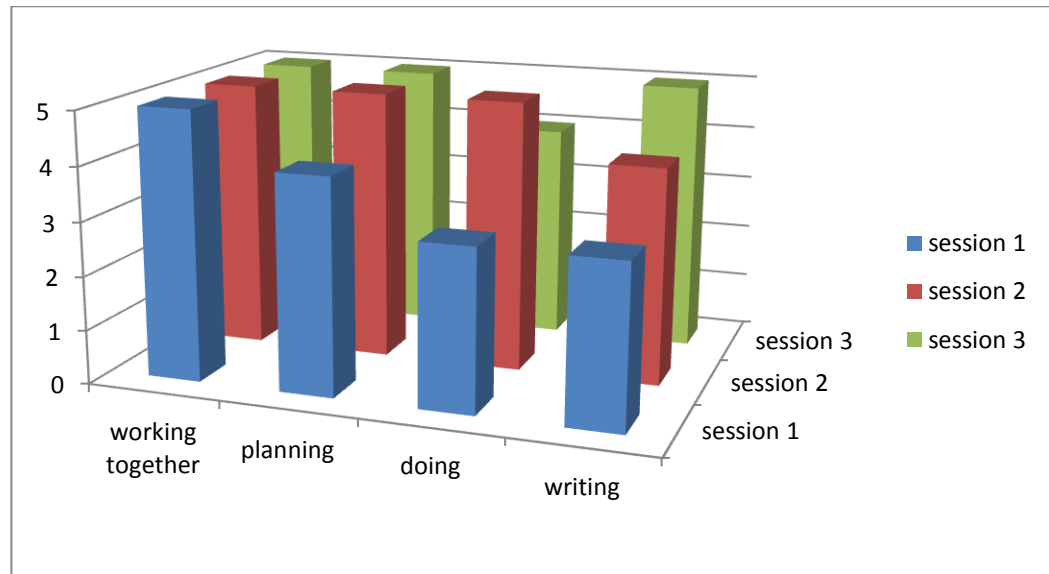
Boys' pots and beans activity
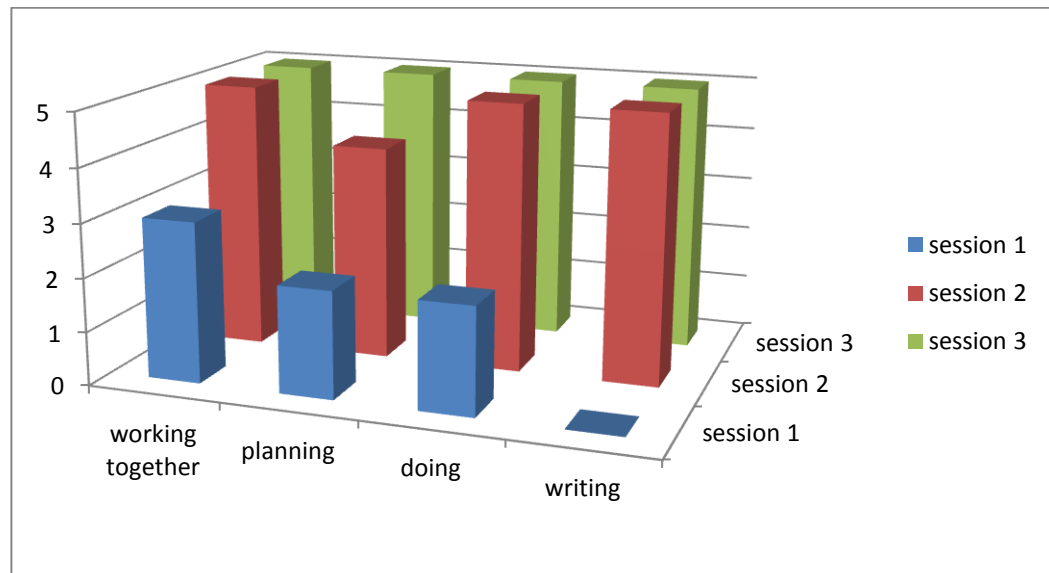
*Note: The students did not do this activity on the first session (see table 3, chapter 3) the evaluation of the first session was done on the fourth session. While watching their videos, the students reflected back on the first session and scored themselves.

As the two graphs show pair work in all the three sessions has got the highest score. The students have always had the feeling that they have managed to work well in their pairs. They

also claim that the friendship relationship has helped their cooperation, reaching an agreement easily and even enjoying the project. The boys have evaluated their writing the lowest on the first session as they admitted that the design of the writing had not been good enough and attractive for other readers and it had been messy. Girls' lowest score in the first session was three both for doing and planning. In their second attempt of doing the project the boys have given the lowest score (4) to their planning since they claimed they had not planned enough. Girls have evaluated their writing as lowest giving a score of four since they could not write a lot. In the third session the boys have given full score to all categories as they believed they have learnt from their previous experiences to perform the task better. The girls have scored themselves four, the lowest, at the doing stage because they felt they have not been able to finish designing their project entirely.

To sum up, the verbal evidence and student's own perceptions and the pots and beans activity results show that they highly depend on the other peer. Moreover, they have enjoyed working in pairs and this has been one of the reasons to their better performance.

4.2.4. Reflective evidence in students' third piece of writing
Boys' writing:

```
1. Our last projects:
2. making book was good. it was about ourself, but magazine was
   better,
3. because we had some experience from book and we knew we want to
   do what.
4. so magazine was better.
5. Our planning:
6. Our planning was very good because we could writing our ideasit
7. was very important
8. Our doing:
9. Our doing was good too, because we worked together and helped
   our friend.
```

```
10. I write and Parsa designed
11. Our reviewing:
12. Reviewing was very easy because we check our writings after we
    write.
13. Our experience:
14. we learnt how to work with someone and how to manage our time.
    Of course plan, do and review.
```

The topic of the third writing was for the students to describe their project class. The way in which the boys have organized the writing topic is of a great interest (Appendix 5, p: 93). They have mainly categorized the topic towards the reflective process which they learnt during the sessions (lines 5, 8 and 13). They have reflected their feeling towards each stage (line 6, 9, 12) of the reflective process and have compared their performances to the first session (line 2). Moreover, they have expressed their feelings towards each project providing some reasons (lines 2 to 4). An evaluative attitude is evident since they have provided rationale for what they claim in their writing using "because" (lines 3, 6, 9 and 12). On top of all in line 14, they have reflected on what they have learnt throughout these sessions.

Girls' writing:

```
1.  rules of the class
2.  some rules to obey in the class:
3.  Look and listen carefully, think ahead and plan, stop and think
4.  when working,check our work, learn from our problems for future
5.  working together:
6.  working together is very good because we are good friends and when
7.  we are working with each other we can share our ideas and we had
    Lots of fun.
8.  advice and suggestion
9.  1. we should manage the time to be fast and quick.
10. 2.made some of them at home;
11. for eg: draw lines and cut papers at home. 3. we should learn from
12. our problems for the other projects.
```

```
13. we enjoy the class. we think it was great we had lots of fun.
14. and we have learnt lots of things of this class; Like:
15. working to getter and… .
16. we Like working to gether and making magazine and book and
17. walpaper.
```

Looking at girls' third piece of writing (Appendix 6, p: 94) shows that they have tried to divide their writing under four main headings. One of the categories is related to the meta-cognitive cards. They have listed the meta-cognitive reminders as the rules of the class. Other categories have been dedicated to working together and advice and suggestions. Finally, they have reflected on their feelings towards these sessions.

From all the sentences on the meta-cognitive cards they have pointed to the necessity of planning ahead, monitoring their work and evaluation as the rules that they need to follow in their classes (lines 3 and 4). In the pair work section they have claimed that being friends have led to enjoyment and better cooperation (lines 6 and 7). Interestingly, under the advice and suggestion heading they had described the problems they faced and already overcome as suggestions to other learners (lines 9 to 12). They have also claimed that they have learnt from their experiences and have tried applying them in the upcoming sessions (line 13). Under the other section they assess their feelings describing what they enjoyed, liked and disliked (lines 14 to 17).

4.3. Results for question two

 How is the reflective process perceived by children?

The students' were invited to watch their performances in the fourth session. Meanwhile, the teacher asked them some questions (Appendix 1, day 4, section 1.1.3., p: 81) to find out how they perceived the reflective process. The students reflected on their performances and commented on the changes they noticed in the three stages known as planning, doing and reviewing. This session was conducted in L1, but the students have answered some parts in English. Below is the translation of the comments from Persian to English. The learners' comments are transcribed and some of the interesting extracts have been selected.

Furthermore, some parts of students' informal letters have also been translated from Persian to English and included as findings.

Reflection session:

Extract A

```
N:   *The  first  session  we  were  concerned  about  cutting  it  was
     difficult and first session we did not have enough time because it
     was  the  first  session  we  were  not  aware  of  what  we  were  supposed
     to do
N:   we  monitored  better  the  other  sessions  since  we  did  not  have
     enough  time  on  the  first  session  so  we  just  had  to  write  and  did
     not  get  the  chance  to  monitor  ourselves.  we  were  not  familiar  with
     the whole process of the class and I think that is the reason
A:   the  first  session  we  didn't  know  what  to  talk  about  I  didn't  talk
     much I talked really less
N:   we  did  not  know  that  we  were  running  out  of  time  and  we  were
     wasting  a  lot  of  time  on  choosing  colours  which  was  not  that
     important
A:   we worked really slow*
A:   *the  first  session  we  didn't  know  what  to  talk  about  I  didn't  talk
     much I talked really less
N:   we talked briefly
```

Nika acknowledged that they have found the first session more difficult than the other sessions. They felt that their initial problem was their unfamiliarity with the requirements of the project. They admitted that the monitoring did not go well for they were more concerned with finishing their writing task. They think that they wasted a lot of time on some technical issues such as choosing the colour of something, which were not the aim of the task. On top of all, they felt in the first session they were slow, quiet and they did not talk enough.

Overall, they did not enjoy the first session in comparison to the other sessions. This is because they claimed that they did not plan and did not have enough knowledge of the task and therefore, they ran out of time. They included that they did not do enough in terms of monitoring, planning and properly evaluating their work. They learnt about the reflective process on the second session, and they reported that it got easier for them to perform the task after they practised working within the reflective framework.

Extract B

```
N:    third session was very good we had planned, cut and underlined our
      paper in advance we monitored and also the teacher asked us
      questions
A:    *the third session we gave better answers because we had worked
      better everything like planning, doing was complete so we could
      evaluate better we knew what we had done so we could provide
      complete answers*
N:    *we swapped our writing on the last session so we could match our
      work well and found some of our grammatical mistakes
A:    in evaluation we said that we didn't like something and explained
      the reason for example I didn't like drawing lines because it was
      time consuming.*
N:    we would give 5 to everything on the last session it was very
      *smooth* and good we improved in all the stages
```

They acknowledged that they have enjoyed the last session very much. This feeling has been clearly articulated in their reflections. The skill of good planning and thinking about their plans ahead, monitoring themselves and teachers' help had contributed to this feeling. They provided complete answers with underlying reasons. They also commented that they were paying more attention to some of their language problems.

All in all, they evaluated the last session with high scores since they felt more confident and relaxed. Moreover, they felt that they made progress in the way they planned, monitored and evaluated their performances.

4.3.1. Findings from students' informal letters

Students were asked to write an informal letter (Appendix 7, p: 95) to the researcher. This was for the students to share their feelings about the sessions and the reflective process more comfortably. Later the key comments were chosen and analyzed.

- Analysis of the letters:

The comments indicate that the students mainly expressed their positive feelings towards this intervention. They claimed that they had fun and have enjoyed the projects and working with their friends. Moreover, the intervention had been an amazing experience for them and they learnt a lot working within the reflective cycle. They admitted that the first session had been difficult, but from the other sessions it was easier for them to deal with the requirements of the project. They claimed that speaking English got easier for them. Additionally, the evaluation questions which were asked made them realize their strengths and weaknesses. Finally they requested to have sessions like these more often.

Chapter 5: Discussion

This chapter discusses the different findings represented by the data. The final sections of this chapter will put forth the conclusion and consider the limitations and the implications of this study. Finally, this chapter will then put forward suggestions for further research in the related field.

5.1. General discussion

The findings and an analysis of the various extracts of this research highlight that teacher-led reflective questions gave the learners a chance to develop their meta-cognitive knowledge. I say this because in the various extracts of this research where reflective questions were put to the students, the students were able to express their opinions and feelings towards their learning experience in a meaningful way.

According to Perkin (2004) a way to make thinking visible is by the teachers to question the learners. Ellis (2000) explains that teachers have a vital role in modeling the type of questions put forward to the students, and that they also have a vital role in the process of asking well formulated and concrete questions. All of the questions in this study, and more specifically the questions in table 1 of chapter 3, were formulated in a way that invited the learners to think and which encouraged them justify their answers. These type of questions give learners the chance to transform their feelings and to be gradually liberated from the habit of needing to be prompted by the teacher in the form of asking questions.

It is also believed that learners will be able to reach a level of self-regulation where they will have eventually learnt to question themselves if a systematic questioning approach is adopted and practised on a regular basis (ibid). An example of the interaction between self-regulation and a systematic questioning approach is as follows.

```
T:    do you remember any of the questions?
A:    yes did you enjoy it?
N:    did you enjoy group work?
```

```
A:    what was difficult for you?
N:    and the bean
```

This extract from my research demonstrates whether the students remembered any of the questions that had been asked by the teacher at the planning, doing and reviewing stages. The extract shows that the students were able to remember some of the questions. However, it could not be claimed that in this short intervention the students would have started to question each other without the teacher initiating the questions or the students reading the questions from the evaluation cards. As a matter of fact, a lot more practice is needed to reach such a level of independence and self- regulation where the students do not need to be prompted by the teacher in the form of asking direct questions (Ellis, 2000).

In this project intervention the teacher adopted the practice of asking questions along with explicitly introducing the learners to the reflective framework in every session. The students started to show signs of awareness of the reflective process. They were also aware of the ways in which the reflective process had benefited them. This awareness of the students was not only evident by the comments that they made. It was also evident from their participation in the reflective sessions and from their written pieces of work. The performance of the students from the first session to the last session also signified a gradual development in the reflective attitude of students. It did so as the students started to provide longer and more detailed utterances. The data also reveals that the responses of the learners transitioned from a "superficial or descriptive level" to a more "analytical level" (Moon, 2004c) because the students were able to provide logical explanations for what they had done. An example where a student provides sufficient reason for his choice is as follows:

```
T:    why have you chosen this topic?
N:    we chose (xxx) maybe it is interesting for someone that want
      to do this project to know about the rules of the class
```

Finally, it could be seen that the responses of the learners reached a deep level of "critical reflection" (McCollum, 1997 in Leijen et al., 2012). This was so as the learners were able to explain and evaluate the task they were performing (ibid.). The deeper level of critical reflection was evident in their explanation and evaluation of the task as the students would, from time to time, reflect back on their previous experiences and make comparisons of their performance with similar tasks (chapter 4, session 3, extract C, p: 39). Moon (2004b) believes that learners need to go through the descriptive, analytical and critical phases as discussed earlier in chapter 2. According to him all three of these phases are important as they aid the learners to effectively perform a task.

The students also handed in neater projects (Appendix 8, p: 96). They paid more attention to grammatical mistakes in both their written and spoken discourses. Below are examples where the students have corrected each other's mistakes.

An example of a written discourse:

```
N:    I changed some of the words in ahanita for example she write
      we had lots of fun and we learn lots of thing. I changed it
      we have learnt
```

An example of a spoken discourse:

```
P:    this is the part about writing mahdi write it
M:    wrote it
P:    mahdi wrote it and I cut it to be more beautiful
```

The written discourse in the example above is chosen from the third session. In this example, with the help of the teacher the students were able to brainstorm ideas. They also learnt to edit their peer's work by swapping their written exercises.

Editing grammar, spelling and punctuation are known to be surface features of a written piece of work (Wray, 1995). However, according to Wray (1995), acknowledgement of these features allows children to develop transferable strategies such as editing their peers in future work (Wray, 1995: 38) and a step towards independency.

Furthermore, reflecting back on their previous experiences and self-assessments, the students claimed that they had learnt from their mistakes and that they had understood their strengths and weaknesses (chapter 4, session 3, extract C, lines 35 to 39). This is the level of self-reflection or 'knowledge of cognition' which was proposed by Flavell (1979 in Kerndl and Aberšek, 2012).

The children also started to think 'out of the box' (Leijen et al., 2012) and provided better solutions for the completion of some tasks. This type of creative thinking where students think of some changes in the way they normally carry on a task, is of the highest reflective level known as the argumentation level (ibid.). As the children had reached this stage their level of awareness went beyond mere self evaluation and towards 'discussing alternative solutions for changing their practice' (ibid.: 206)(chapter 4, session 3, extract B, p: 39).

In order to improve strategic knowledge one needs to know when and how to apply the strategies used for completing similar projects. This knowledge aids learners' understanding of how best to approach a language learning exercise and what strategies to apply within these exercises (Wenden, 2001). Accordingly, in this study the learners developed some strategies to combat the weaknesses in their previous performances. The students, for instance, came to the realization that brainstorming ideas allowed them to perform a task with much more ease or drawing fewer lines will save them some time (chapter 4, session 3, extract B, line: 27). These strategies that were developed by the students became a part of their future goals.

It is said by Wood, that children involved in shared projects and activities become more self-regulated (Wood, 1988). Furthermore, Brewster et al. (1992) believe that taking part in shared projects, self assessments and evaluation motivates students to take responsibility of their own learning. This assertion might in fact be true as students from this research, who took part in all the activities mentioned above, were instilled with the motivation to take responsibility for their own learning. This was by doing some research outside the classroom and on a topic they were supposed to write on. This motivation on part of the students can also be considered as their first step towards independently self-regulating their behaviour.

Furthermore, planning ahead can help reduce the pressure on learners carrying out a difficult task. It can also help learners 'deal successfully with the intellectual demands of the tasks'

(Gollwitzer, 1996: 287). This mental strategy i.e. planning ahead, can prepare learners for future actions and has a positive effect on achieving the goals that the learners have set for themselves (ibid). The example below illustrates what learners think about planning ahead.

```
A:   *it is good that our teachers tell us what we are going to
     do for the next session this will help us plan and think
     ahead and be prepared for that session and do some research*
M:   and do our work faster and easier and learn more
```

5.1.1. Students' reflective attitude and the contributors to its change

It is essential at this point to examine the features that have contributed to the change in the learners' reflective attitude. Firstly, it seems that the students familiarity with the task they were presented, the systematic repetition of that task, and the reflective questions put forward to them by the teacher were of great influence to bring about a change in their reflective attitude. At the beginning of each session the teacher used to review what the children had previously done. The teacher also used to enquire how the activity had been useful. An example of this is the following extract from my research.

```
T:   what did we do last session?
P:   made a magazine
T:   what did you learn?
M:   planning, doing and reviewing
A:   working together and being friends
N:   managing our time
```

Brewster et al. (1992: 103) report that 'this type of reviewing is important as it … helps pupils perceive progress, and helps them become aware of what they know and don't know '. Hence, due to this process the students were provided with a chance to improve their planning and to revise what they had done. Pinter (2004) adds that systematic reviewing improves learners'

confidence in using the target language. The example below illustrates that students felt more confident using the language.

```
A:    *the first session we didn't know what to talk about I didn't talk
      much I talked really less
N:    we talked briefly
P:    * yes and other sessions I spoke a lot more English I think I
      improved my English and learnt some new words*
```

This example is provided from the fourth session of this research (the reflection session). In this example it is evident that the learners were not confident in the beginning. This is so as the learners admitted that they did not cooperate enough in the first session. However, as more sessions took place, the students became more confident to speak in the class and felt that they had learnt some new vocabulary. The students also enjoyed speaking the English language (chapter 4, reflection session, extract A p: 51).

Secondly, it might also be claimed that the use of evaluation cards, which presented the questions in a written form accompanied by colourful pictures, was the root cause behind the students providing longer and more detailed answers. This is so, and as has already been discussed, the evaluation cards certainly did give the students the extra time and space to think; and to discuss the answers with their partners before finally presenting them.

Another aspect that significantly influenced the stimulation of reflective behaviour was the students being grouped in pairs for completing a task. Empirical evidence of this is provided by table 1 and the graphs in chapter 4. It is also provided in the students' written work and their general comments, where the students have expressed their desire to work in pairs. According to Dewey (1995 in Rodgers, 2009) reflection best takes place while interacting with others and as the students were working in pairs they were interacting with their partners. The students while working in pairs tried to negotiate ideas with their partners; they tried to build up on those ideas with their partners; and then finally after a collaborative effort they constructed the ideas that they wanted to present.

Moreover, in this study the students tried applying their previous experiences and building their Piaget calls 'schema' (Wood: 1998). This behaviour exhibited by the learners is in line with Schraw and Moshman's (1995) studies which state that peer interaction can facilitate an increase in meta-cognition which aids learners to focus more on the whole process of learning rather than just the final product.

Nevertheless, it is impossible to claim that all the changes in the students' reflective behaviour resulted from the social interaction with their peers, or due to the systematic repetition of the tasks, or even due to the questions put to them by the teacher. It is pertinent to say that there might have been other factors at play which could have affected the quality of the data. One of the other factors that might have affected the quality of data is friendship and this has been made known by the students in this research. Researchers believe that the "composition of friendship groups" (Langston et al. 2004) and whether the children know each other or not raise different dynamics (ibid.). This study however shows that the close relationship between the students resulted in an enjoyable and peaceful collaborative activity.

Another factor which could have influenced the quality of data could be the novelty effect. By this I mean that the reflective framework could have come across as interesting to the learners as it was new to them, and that this could be a reason for why this research received the level of cooperation and enthusiasm as it did. Additionally, the competitive nature of children and the belief that their projects were going to be observed by an audience from a foreign country, (Appendix 1, days 2 and 3 section 2.1.4, p: 77 and 80) could have also motivated them to reflect on the previous sessions and apply the strategies that they had learnt throughout these projects. This indeed might have encouraged more planning, monitoring and evaluation on the part of the students. On the other hand, this motivation certainly did cause the learners to plan ahead, to do some research, and to possess a large number of ideas to talk about in class. It also led to the students presenting better projects in comparison to those in the first session.

All in all, the familiarity of the students with the stages of the project; the familiarity of the students with the reflective framework; the repetition of the questions; and the interaction of

the students with their partners and on top of all the teachers' role all together drew out the innate ability to reflect within the students.

5.2. Conclusion

This study made an attempt to evaluate the effects of working within a reflective framework. In terms of the students' performances, the results indicated the learners' responses to become more reflective, moving from a superficial level to a deeper level of reflection. Additionally, since this framework was new for the learners, they kept a positive attitude and seemed very motivated to plan, monitor and evaluate themselves with the help of the teacher. The learners as such participated actively in the project. This study, however, has not looked at the effects that motivation can have on reflection.

With regards to children it can be said that the children showed a vivid understanding of planning, doing and reviewing after they were introduced to the reflective cycle. They have learnt a lot from the reflective process. In particular they have learnt to assess their feelings and attitude; to assess their learning progress; and to identify their strengths and weaknesses. However, with that said, learners from their own accord need to keep on questioning themselves to continue the reflective process. This is so as a lot more practice is needed for the learners to master these skills.

In short, this reflective process had been a stepping stone for these learners to start taking charge of their own learning and to deepen their awareness of themselves as learners.

5.3. Implications

The results indicate that the teachers' role of involving students in the learning process by way of asking questions which provoke reflection is inevitable. However, this enquiry-based role of the teachers can be gradually diminished by providing more practice and training to the learners. This is so as practice and training will enable the learners to question themselves. And once the

students have started to question themselves, they will automatically start to reflect on their learning process (Ellis and Brewster, 2002). This ability of students to reflect on their learning process encourages independency and self regulation of behaviour. Furthermore, providing guidance to students on how to learn to think about what happens during the language learning process will eventually lead the students to develop stronger learning skills (Anderson, 2002).

Therefore, it appears that meta-cognitive awareness can benefit both the learners and the teachers and can aid the overall development of a class. For this reason, it is recommended that schools and authorities should hold short training sessions to familiarize the teachers with the workings of the reflective framework. Apart from this, the students can also learn to value their learning process by taking part in collaborative activities and by interacting more with their peers. The effect of both the collaborative activity and an increase in the interaction of the students with their peers will lead to the students reflecting more on their work. It will also lead to the communication and negotiation of a particular meaning being carried out in English by the students (Ellis and Brewster, 2002).

The teachers can also video tape some of the sessions so that the students can watch and reflect on their learning which would enable the students to identify their strengths and weaknesses. By paying attention to the voices, feelings and the likes and dislikes of students, the teachers will be able to identify the strengths and weaknesses of the students learning a language. This identification of the students' strengths and weaknesses will remind teachers that there might in fact be a reason behind the choices which learners make to improve their learning. It will also remind the teachers that there might be reasons behind the students approaching the tasks differently and preferring some types of tasks over others (Wenden, 2001). This might ultimately give teachers clues as to why some learners are more successful than the others. It will also give the teachers clues as to what actions they need to take to help the less successful learners become more effective learners. Finally, teachers can make effective changes to their own teaching approach and can also provide their learners with 'guidance for pursuing their learning independently in informal settings' (ibid.: 64).

As we are now aware that meta-cognition is a missing dimension in our classrooms, and that children do not get to reflect and understand the importance of what they are doing or why they are doing it (Ellis, 1999b), I would like to recommend teachers to adapt their lesson plans in a way which gives learners the opportunities to evaluate themselves and where they are constantly able to reflect on their feelings towards learning a language. On the other hand this will also help the students set some future goals for themselves and will make them more self regulated, independent and effective learners.

Moreover, the teachers might probably find students that are motivated and involved in the learning process. Coming into contact with such students might also encourage teachers to reflect back on their own teaching. By listening to what students have to say teachers can make the journey towards learning more enjoyable and effective for the learners. The learners in the study quoted:

```
N:   *when the teacher asks us about our feelings she makes an
     effort to understand us better and she knows that we have
     thought about our problems. For example about our writing
     she would know that we are not ignorant towards our
     mistakes.
A:   and then the teacher knows what to do and she can help us
     with our problems.*

N:   *it is also good for the teacher when she knows for example
     this student has a problem in grammar she can work more on
     that*
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5. 4. Limitations

It is essential to emphasize that there were some limitations and methodological problems with this research. The limitations of this study included a small sample size consisting of just four students; the limited time of just 8 hours which was available for conducting this research; the

unfamiliarity of the teacher with regards to the reflective framework; the fact that the research concentrated on just one language skill; and that all the participants were high achievers with a good level of English proficiency. All of these factors contributed to limiting the scope of this research. They did so as they confined my analysis of the data by imposing restrictions on the different interpretations and inferences which could have been drawn if such factors were not a part of this study.

Additionally, the limitations of this research do not end just here. As has been already mentioned, since the students were extremely interested in the project they took the first two projects home in order to complete them. Therefore, I was not able to compare their actual written work. Moreover, it cannot be said that the three pieces of writing made use of in this research are sufficient enough to make any claims about how reflection has improved the learning process. On top of all, due to the restrictions placed by the word limit, I have been unable to discuss the perceptions of the teacher and the parents towards the reflective process. It is a discussion which would have undoubtedly provided an invaluable insight into the reflective process.

5.5. Further research

Due to all the reasons mentioned above, it is suggested that research should be conducted with regards to a different culture or context; and that any further research should encapsulate a large number of participants. It is also urged that research on meta-cognitive strategies should be conducted in a mixed ability classroom as it would be interesting to investigate if low achieving participants would show the same level of reflection as compared to the high achieving participants of this study. Such research would also aid in investigating whether or not the reflective process is more likely to motivate low achieving participants towards learning a foreign language.

It is recommended that research should take place on other language skills such as reading, speaking and listening skills of young learners of English as a Foreign Language and how

reflection might affect the learning outcomes of these skills. Finally, an investigation into the views of the teachers and the parents on the reflective process should be undertaken as such an investigation would further enhance the quality of research.

References

Alderson, P. 2005. 'The researcher-participant relationship'. In Farrell, A. ed. *Ethical research with children*. England: Open University Press.

Anderson, N. J. 2002. *The role of metacognition in second language teaching and learning*. Washington, DC: Centre of Applied linguistic ERIC Clearinghouse on languages and Linguistic.

Anderson, N. J. and **L. Vandergrift.** 1996. 'Increasing metacognitive awareness in L2 classroom by using Think-Aloud protocols and other verbal report formats'. In Oxford, R. L. ed. *Language Learning Strategies Around The World: Cross-Cultural Perspectives.* Hawai'i: University of Hawai'i Press.

Atkins, S. and **K. Murphy.** 1994. 'Reflective Practice'. *Nursing Standard* 8/39: 49-54.

Bereiter, C. and M. Scardamalia. 1987. *The Psychology of written composition*. Hillsdale, NJ: Erlbaum.

Bitting, P. F. and **R. T. Clift.** 1988. 'Reflection upon Reflection: the classical and modern views'. In Waxman, H. C., H. J. Freiberg, J. C. Vaughan, M. Weil. eds. *Images of Reflection in Teacher Education.* Reston: Association of Teacher Education.

Bonnett, M. 1994. Chil*dren's thinking: Promoting understanding in the primary school.* London: Cassell.

Bonyadi, A., F. RimaniNikou, and **S. Shahbaz.** 2012**.** 'The relationship between EFL learners' self-efficacy beliefs and their language learning strategy use'. *Canadian centre of science and education* 5/8: 113-121.

Borland, M., A. Laybouru, M. Hill and **J. Brown.** 1998. *Middle childhood: the perspectives of children and parents.* London: Jesica Publisher Ltd.

Boström, L. 2012. 'Do ten year old children in Sweden know how they learn? A study of how young students believe they learn compared to their learning styles'*. Canadian centre of science and education* 5/6: 11-25.

Brewster, J., G. Ellis and **D. Girard.** 1992. *The primary English teacher's guide.* London: Penguin Group.

Bygate, M. 1996. 'Effects of Task Repetitions: Appraising the Developing Language of Learners'. In Willis, J. and D. Willis. eds. *Challenge and Challenge in Language Teaching.* Oxford: Macmillan Heinemann.

Carr, M. 2011. 'Young children reflecting on their learning: teachers' conversation strategies'. *Early years: An International Research Journal* 31/3: 257-270.

Chamot, A. U., S. Barnhardt, B. P. El-Dinary and **J. Robbins.** 1999. *The Learning Strategies Handbook.* NewYork: Longman.

Coles, M. J. and **W. D. Robinson.** 1989. *Teaching Thinking: A survey of programs in education*. Bristol: The Bristol Press.

Delclos, V. R. and **C. Harrington.** 1991. 'Effects of strategy monitoring and proactive instruction on children's problem-solving performance'. *Journal of Educational Psychology* 83: 35-42.

Dewey, J. 1933. *How we think.* Buffalo. New York: Prometheus Books.

Dörnyei, Z. 2007. *Research Methodology in Applied Linguistic.* Oxford: Oxford University Press.

Ellis, G. 1999a. 'Developing Children's Metacognitive Awareness'. In Kennedy, C. ed*. Innovation and Best Practice.* England: Pearson Education Limited.

Ellis, G. 1999b. Children's literature as a means of developing metacognitive awareness. *Young Learners SIG Newsletter, IATEFL.*

Ellis, G. 2000. 'Is it worth? Convincing teachers of the value of developing metacognitive awareness in children'. In Sinclair, B., I. Mc Grath and T. Lamb. eds. *Learner Autonomy, Teacher Autonomy: Future direction.* Harlow: Longman in association with British council.

Ellis, G. 2002. *The primary English teacher's guide.* England: Pearson Education limited.

Ellis, G. and **J. Brewster.** 2002. *The primary English teacher's guide.* England: Pearson Education limited.

Ellis, G. 2007. 'Learner Training and Young Learners'*. Independence the newsletter of the learner autonomy special interest group* 40: 26-27.

Ellis, R. 2009. 'Task-Based Language Teaching: Sorting out the Misunderstandings'. *International Journal of Applied Linguistics* 19: 221-246.

Fisher, R. 1998. 'Thinking about thinking: Developing metacognition in children'. *Early Child Development and Care* 141: 1-15.

Flavell, J. H. 1979. 'Metacognition and Cognitive Monitoring: A new area of cognitive developmental inquiry'. *American Psychologist* 34/10: 906-911.

Flavell, J., F. Green and **E. Flavell.** 1995. 'Young Children's Knowledge about Thinking'. *Monographs for the Society for Research in Child Development.* 60/1: 1-113.

Ghavamnia, M., Z. Kassaian and **A. Dabaghi.** 2011. 'The relationship between language learning strategies, learning language beliefs, motivation, and proficiency: A study of EFL learners in Iran'. *Journal of language teaching and research* 2/5: 1156- 1160.

Greig, A., J. Taylor and **T. Mackay.** 2007. *Doing research with children.* London: SAGE publication Ltd.

Gollwitzer, P. M. 1996. 'The volitional benefits of planning'. In Gollwitzer, P. M. and J. A. Bargh. eds. *The psychology of action: linking cognition and motivation to behaviour.* New York: The Guilford Press.

Hacker, D. J., J. Dunlosky and **A. C. Graesser.** 1998. *Metacognition in educational theory and practice.* New Jersey: Lawrence Erlbaum Associates, Inc.

Iiskala, T., M.Vauras and **E. Lehtinen.** 2004. 'Socially shared metacognition in peer-learning?'. *Hellenic Journal of Psychology* 1/2: 147-178.

Jay. J. K. and **K. L. Johnson.** 2002. 'Capturing complexity: A typology of reflective practice for teacher education'. *Teaching and Teacher education* 18/1: 73-85.

Kerndl, M. and **M. K. Aberšek.** 2012. 'Teacher's competence for developing reader's reception metacognition'. *Problem of education in the 21st century* 46: 52- 60.

Kirkwood, M. 2005. *Learning to think: Thinking to learn: An introduction to thinking skills from nursery to secondary.* UK: Hodden Gibson.

Kuhn, D and **Dean, D.** 2004. 'Metacognition: A bridge between cognitive psychology and educational practice'. *Theory in Practice* 43/4: 268-273.

Lan, R. and **R. L. Oxford.** 2003. 'Language learning strategy profiles of elementary school students in Taiwan'. *IRAL* 41: 339-379.

Langston, A., L. Abbott, V. Lewis and **M. Kellet.** 2004. 'Early Childhood'. In Fraser, S., V. Lewis, S. Ding, M. Kellett and C. Robinson. eds. *Doing research with children and young people.* London: Sage Publications LTD.

Larkin, S. 2010. *Metacognition in young children.* Oxon: Routledge.

Leijen, Ä., K. Valta, D. A. J. Leijen and **M. Pedaste.** 2012. 'How to determine the quality of students' reflection?'. *Studies in higher education* 37/2: 203-217.

Liddicoat, A. J. 2007. *An Introduction to Conversational Analysis.* London: Continuum.

Melo, M and **C. Ferreira.** 2012. 'Looking at the mirrors: students' metacognition procedures on history learning journey'. *Literacy: Practices and Discourse on Educational contexts (CIED)* 22: 177-188. University of Minho, Portugal.

Mercer, N. and **R. Wegerif.** 1999. 'Children's talk and the development of reasoning in the classroom'. *British educational research journal* 25/1: 95-110.

Moon, J. A. 1999. *Reflection in Learning and Professional Development: Theory and Practise.* London: Kogan Page Ltd.

Moon, J. A. 2004a. *A Handbook of Reflective and Experiential Learning Theory and Practice.* Oxon: Routledge Falmer.

Moon, J. A. 2004b**.** *Reflection in learning and professional development.* New York: Routledge Falmer.

Noel, S. and **J. M. Robert.** 2004. 'Empirical study on collaborative writing: what do co-authors do, use, and like?'. *Computer supported cooperative work* 13: 63- 89.

O'Kane, C. 2008. 'The development of Participatory Techniques: Facilitating Children's Views about Decisions Which Affect them'. In Christensen, P. and A. James. eds. *Research with Children: Perspectives and Practice*s. 2nd ed. Oxon: Routledge.

Oxford, R. L. 1990. *Language Learning Strategies: What every teacher should know.* Boston: Heinle and Heinle Publishers.

Oxford, R. L. 2003. 'Learning styles and strategies: concepts and relationships'. *IRAL* 41/4: 271-278.

Oxford, R. L. 2011. *Teaching and Researching Language Learning Strategies*. Edinburgh: Pearson Education Limited.

Perry, N. E. 1998. 'Young children's self regulated learning and contexts that support it'. *Journal of Education Psychology* 90/4: 715-729.

Pinter, A. 2006a. *Teaching Young Language Learners. Oxford: Oxford University Press.*

Pinter, A. 2006b. 'Verbal evidence of task related strategies: Child versus adult interactions'. *System* 767: 1-16.

Pinter, A. 2007. 'Some benefits of peer-peer interaction: 10-year-old children practicing with a communication task'. *Language Teaching Research* 11/2: 189- 207.

Pinter, A. 2011. *Children Learning Second Languages.* UK: PalgraveMacmillan.

Pressley, M. and **E. S. Ghatala.** 1990. 'Self –regulated learning: Monitoring learning from text'. *Educational Psychologist* 25: 19-33.

Quicke, J. and **C. Winter.** 1994. 'Teaching the language of learning: towards a metacognitive approach to pupil empowerment'. *British Educational Research Journal* 20/4: 429-445.

Richards, K. 2003. *Qualitative Inquiry in TESOL.* NewYork: PalgraveMacmillan.

Robson, S. 2010. **'**Self-regulation and metacognition in young children's self-initiated play and reflective dialgue'. *International Journal of Early Years Education* 18/3: 227-241.

Rodgers, C. 2002. 'Defining reflection: Another look at John Dewey and reflective thinking'. *Teachers College Record* 104/4: 842-866.

Ross, D. D. 1990. 'Programmatic structures for the preparation of reflective teachers'. In Clift, R. T., W. R. Huston and M. C. Pugach. eds. *Encouraging Reflective Practice in Education.* New York: Teachers College Press.

Schiffrin, D. 1994. *Approaches to Discourse.* Oxford: Blackwell.

Schraw, G. 1998. 'Promoting general metacognitive awareness'. *Instructional Science* 26: 113-125.

Schraw, G. and **D. Moshman.** 1995. 'Metacognitive theories'. *Educational Psychology Review* 7: 351-371.

Schraw, G., K. J. Crippen and **K. Hartley.** 2006. 'Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning'. *Research in Science Education* 36/ 1-2: 111-139.

Scott, J. 2008. 'Children as Respondents: The challenge for qualitative methods'. In Christensen, P., and A. James. eds. *Research with children perspectives and practices.* 2nd ed. Oxon: Routledge.

Skehan, P. 2003. 'Task-Based Instruction'. *Language Teaching* 36: 1-14.

Sternberg, R. J. 1987. 'Questions and Answers about the Nature and Teaching of Thinking Skills'. In Atkinson, R. C. and G. Lindzey eds. *Teaching Thinking Skills: Theory and Practice.* New York: W.H. Freeman and Company.

Storch, N. 2005. 'Collaborative writing: Product, process, and students' reflections'. *Journal of Second Language Writing* 14: 153-173.

Wenden. A. L. 2001. 'Metacognitive knowledge in SLA: the neglected variable'. In Breen, M. P. ed. *Learner Contribution to Language Learning: New Directions in Research.* England: Pearson Education Limited.

Whitebread, D., P. Coltman., D. P. Pasternak., C. Sangster., V. Grau., S. Bingham, Q. Almeqdad., and **D. Demetriou.** 2009. 'The development of two observational tools for assessing metacognition and self-regulated learning in young children'. *Metacognition Learning* 4/63-85.

Wildman, T. M., J. A. Niles, S. G. Magiliaro and **R. A. McLaughlin.** 1990. 'Promoting reflecting practice among beginning and experienced teachers'. In Clift, R. T., W. R. Huston and M. C. Pugach. eds. *Encouraging Reflective Practice in Education.* New York: Teachers College Press.

Willis, J. 1996. 'A flexible framework for task based learning'. In Willis, J and D. Willis. eds. *Challenge and Challenge in Language Teaching.* Oxford: Macmillan Heinemann.

Winne, P. H. and **N. Perry.** 2000. 'Measuring self-regulated learning'. In Boekaerts, M., P. R. Pintrich and M. Zeidner. eds. Handbook of self-regulation. San Diego: Academic Press.

Wood, D. 1988. *How Children Think and Learn.* 2nd ed. U.S.A.: Blackwell Publishing.

Wray, D. 1995. *English 7-11 developing primary teaching skills .*London: Routledge.

Yarrow, F. and **K. J. Topping.** 2001. 'The effects of metacognition promoting and structured peer interaction'. *British Journal of Educational Psychology* 71: 261-281.

Appendix 1

The projects:

There are three different projects for three sessions. Project one is about designing a book, the second project is making a magazine and the third is a wallpaper. Detailed information can be found in each lesson plan. These projects will run for 3 sessions 2 hours each. The students will be in pairs. All the sessions should be recorded. * Note: the time provided at each stage is approximate you can adjust it whenever needed.

Teacher's role:

- To scaffold students throughout the project
- Answer any related questions
- Because these sessions are out of the regular working hours, some students might not take it seriously , so the teacher can set some ground rules in the beginning (such as turn taking while speaking … any rules that fit the context of the class)
- Help them construct their ideas if they get stuck explaining something (this by no means represents imposing your personal ideas)
- Recording the sessions
- Having materials available for students to use, such as picture dictionaries or other dictionaries , glue cardboard paper, scissors … in the class
- Show them examples of other projects. Remind students that their projects do not need to look like the examples.
- Inform the learners about the topics of the written tasks in advance, so if they like to bring something along for example pictures they could.
- Maintain students motivation
- Allow them to use their mother tongue
- Informing that the sessions will be recorded and whenever they like they can ask the teacher to stop the recording.

Day 1: Book project

Introduce the project. Tell the students that they have to make a book for me (the researcher) and in this book they need to provide some information about themselves.

1. **Meta cognitive cards 5 min:**
   - Display the metacognitive cards. Cover the words for now.
   - Ask them what they think the pictures on the cards represent.

2. Procedure

2.1.1. Step 1 planning stage 15 min:

   - Show the students the pictures of some creative books (Appendix 1.1. p: 83).

   - Tell them they are going to make something similar to these or something new, which consists

      of 2 or 3 pages.

   - Ask students if they have ever done something like this before
   - What do they need for their book? Ex: Glue , scissors , cardboard, dictionaries
   - How many ideas do they have to start with?
   - Which should they do first?
   - How can they work together on one book?
   - How can they write together in one book?
   - Would they like to write about the things they have in common?
   - Or they would each like to write on separate pages of their books?

   - Note: the students can talk freely about any other related ideas
      Ss need to brainstorm ideas and note it down.

2.1.2. Stage 2 monitoring stage 30 min

   - At this stage the students prepare the book the way they like
   - While they are preparing that you need to ask them some questions such as: (*note: find a good timing to ask the questions)
   - How are you doing so far?
   - Have you got enough time?
   - Do you have to change your plan?
   - Have you got a problem?
   - How can we sort out the problem and get help?
   - Note: It is not really important to have a perfect book.
   - If they are struggling to express ideas in English it is okay to use L1

2.1.3. Writing stage 50 min

- Now that the book is ready, the students need to think about the type of information they want to jointly put in about themselves in the book they have created.
- Note: It is a collaborative writing it could be done as they planned in the beginning.
  10 min:
- They could brainstorm the type of information they would like to put in about themselves and jot it down. (They can use their dictionaries to look up words.)
  10 min:
- Guide them to narrow down their choices and think about some of the information they would like to put in. (the teacher can ask why they choose to put this information about themselves and rejected the others)
  10 min:
- The students try writing their first draft on a piece of paper. Tell them not to worry about any mistakes at this stage (the teacher can help them with any problems)
  10 min:
- The students read and make any changes required, select or reject ideas.(the teacher can ask why they are choosing this sentence or rejecting it)
  10 min:
- The students write their final draft and they check for any changes.

2.1.4. Stage 3 evaluation stage 20 min

- Note: encourage students to answer in Persian
- Ask the students what they learnt from the project today?
- Did they enjoy working together?
- Why?
- What did they enjoy about the project and why?
- What was easy for them? Why?
- What was difficult for them? Why?
- If they had the chance to do this project again how would they do it better?
- What would you change/ improve if they could do this project again
- What would your advice be to other students who want to do the project
- Any other ideas?

Day 2: Magazine project

1. **Meta cognitive cards 5min**
- Review the displayed metacognitive cards on the wall.
- Note: As you introduce the 3 stages see 1.1. you can refer back to the cards.
- Introduce today's project to the students. Explain that they have to make a magazine for readers in England they need to give some information about Iran and it is done in 3 steps.

1.1.   The three stages 8 min:
- Let them know this project will be done in 3 stages plan- do and review (can write it on the board)

Stage 1: Tell them first stage is planning together.

- Ask what does it mean to plan?
- Give students some time to think and answer then refer back to the meta-cognitive cards (Appendix 4, p: 91) and ask which of the pictures on the wall matches with planning. (Example they might need to think ahead and plan, divide their work, listen to each other)

Stage 2: Tell them at stage 2 they start the project. It means they do the project.

- Ask what do they have to think of when they are doing something with a partner?
- Give them time to think and answer. Again refer back to the cards and see if they can identify what they need to do at this step (check their work, stop and think when working, …)

Stage 3: Tell them that in stage they review their work.

- Ask how can you review?
- What do you check?
- Why is it good to review? Refer to the cards (example: checking, you learn from your problems for future).

2.1. Procedure

2.1.1. Step 1 planning stage 15 min:

- Ask students if they remember doing something similar to this before in session one?
- What do they need for their magazine? Example: Glue , scissors , cardboard, dictionaries, some pictures
- How is a magazine different from a book?
- Note: Give them some time to brainstorm ideas with their partner (they can take notes if they want to)
- How many ideas do you have to start with?
- Which should you do first?

- How can you work together on one magazine?
- How can you write together in one magazine?
- Can you remember anything from last session that they wanted to do differently?
- Are you going to do use that idea?
- Note: the students can talk freely about any other related ideas
  Ss need to brainstorm ideas and note it down.

2.1.2. Step 2 monitoring stage 30 min

- At this stage the students prepare the magazine the way they like
- While they are performing the task you need to ask them some questions such as: (*note: find a good timing to ask the questions)
- How are you doing so far?
- Have you got enough time? If not what do you need to do to manage your time? (example: Do you have to change your plan?)
- Have you got a problem?
- How can you sort out the problem and get help? (If students respond: we can ask the teacher for instance say: yes, ok what else? give them time to come up with a solution themselves)
- Note: It is not really important to have a perfect magazine.
- If they are struggling to express ideas in English it is okay to use L1
- If possible from time to time refer to the cards

2.1.3. Writing stage 45 min

- Now that the magazine is ready, the students can start thinking about the type of information they want to jointly put in about Iran in the magazine they have created.
- Note: It is a collaborative writing it could be done as they planned in the beginning.
  10min:
- They could brainstorm the type information they would like to put about their country and write it down (example about people, music, geography, …) (for brainstorming template look at (Appendix 1.2., p:84)
- Note: Students are allowed to use their dictionaries to look up words.
  5min:
- Ask them to choose from the ideas they have brainstormed. (Give them some time to choose)
- Help them to narrow down their choices and think about some of the information they would like to put in.
- Ask why they choose to put this information about Iran and not the other.
  10 min:
- Now they try writing their first draft on a piece of paper.
- Note: Tell them not to worry about any mistakes at this stage (you can help them with any problems)

10 min:

- Give them time to read and make any changes they want.
- Ask them to select or reject ideas from what they have written and chose the ones for the final draft.
- Ask why they are choosing this sentence or rejecting it?

10min:

- They write their final draft
- They check for any changes and discuss together
- Note: from time to time try to refer to the cards where necessary

2.1.4. Step 3 evaluation stage 15 min

- Tell the students that some reporters from England are interested in your ideas about today's project.
- Provide them with the evaluation cards (Appendix 3, p: 87).
- Give them some time in their pairs to think about these questions and discuss.
- Note: The recorder needs to be there to record all their conversations
- Get feedback on some of them you do not need to check all answers

    *Questions: (You don't need to ask just give them the cards to discuss in pairs)
- Did they enjoy working together? Why yes? Why not?
- Which part of the project did you enjoy and why?
- What didn't you enjoy? why
- What did they learn from the project?
- If you had the chance to do this project again how can they do it better?
- What would you change/ improve if you could do this project again?
- What would your advice be to other students who want to do the project?
- Any other ideas?

Day 3: Wall paper project

1. Meta cognitive cards 5min
- Review the displayed metacognitive cards on the wall.
- Introduce today's project to the students. Explain that they have to make a wallpaper describing their feelings towards these sessions and it is done in 3 steps.

1.1. Review the three stages 8 min

- Encourage children to remember what they have been doing in the beginning of each session? or how they start the class?
- Example:
  T: how do we start the class?

  Ss: we talk about 3 steps.

  T: ok what are they?

  Ss: plan- do- review

  T: What do we think of at planning stage?

  What do we think about at doing stage?

  What do we think about at review stage?

- Note: You can refer to the metacognitive cards while talking about the stages.

2.1. Procedure

2.1.1. Step 1: Planning stage 15 min:

- Ask students do they remember doing something similar to this before?
- What do they need for their wall paper? Ex: Glue , scissors , cardboard, dictionaries, some pictures
- How is a wall paper different from a book or a magazine?
- How many ideas do they have to start with?
- Note: Give them some time to brainstorm ideas with their partner (they can take notes if they want to)
- Which one should you start with first?
- How can you work together on one wall paper?
- How can you write together on one wallpaper?
- How are you going to divide their work?
- Can you remember anything from last session that you wanted to do differently?

- Are you going to use that idea? Or not? Why?
- Are you going to make changes to the way you worked before?
- Note: the students can talk freely about any other related ideas
  Ss need to brainstorm ideas and note it down

2.1.2. Step 2 monitoring stage 30 min

- At this stage the students prepare the wall paper the way they like
- While they are doing you need to ask them some questions such as: (*note: find a good timing to ask the questions)
- How are you doing so far?
- Have you got enough time? If not what do you need to do to manage your time? (Example: Do you have to change your plan?)
- Have you got a problem?
- How can you sort out the problem and get help? (If students respond we can ask the teacher for instance say yes, ok what else? give them time to come up with a solution themselves)
- Note: It is not really important to have a perfect wallpaper.
- If they are struggling to express ideas in English it is okay to use L1
- If possible from time to time refer to the cards

2.1.3. Writing stage 45 min

- Now that the project is ready, the students think about the type of information they want to jointly put in about their class in it. Give them the brainstorming template (Appendix 1.2, p: 84)
- Note: It is a collaborative writing it could be done as they planned in the beginning.
  10min:
- They could brainstorm the type of information they would like to put about their class and take notes down (example, it could be a list of what they liked or didn't, what they learnt, do they recommend a class where they have to think about their steps to others, or a list of advantages or disadvantages of these sessions …)
- Note: Students are allowed to use their dictionaries to look up words.)
  5min:
- Ask them to choose from the ideas they have brainstormed. (Give them some time to choose)
- Help them to narrow down their choices and think about some of the information they would like to put in.
- Ask why you choose to put this information about your class and not the other.
  10 min:
- Now they try writing their first draft on a piece of paper.
  *Tell them not to worry about any mistakes at this stage (the teacher can help them with any problems)

10 min:
- Give them time to read and make any changes they want.
- Ask them to select or reject ideas from what they have written and choose the ones for the final draft.
- Ask why they are choosing this sentence or rejecting it?

10min:

- They write their final draft
- They check for any changes and discuss together
- Note: from time to time try to refer to the cards where necessary

2.1.4. Step 3 evaluation stage 15 min:

- Tell them Samira is going to write a book in England including your ideas which will help other students in the world.
- Provide them with the evaluation cards
- Take your time and prepare your answers to these questions (appendix 4, p:91 to 92).
- Give them some time in their pairs to think about these questions and discuss.
- Note: The recorder needs to be on the table to record all their conversations.
- Get feedback on some of them you do not need to check all their answers.

*Questions: (Appendix 4)

- Did you enjoy working together? Why yes? Why not?

- What part of the class did you enjoy and why?
- What didn't you enjoy? why
- Ask what did you learn from the project?
- If you had the chance to do it again how will you do it better?
- What would you change/ improve if you could do this project again?
- What would your advice be to other students who want to do the project?
- Are you a good writer? How do you know?
- Any other ideas?

Session 4:

Reflection session 2 hours: watching their videos, writing a letter and award ceremony

- Note: This session needs to be conducted in Persian

1.1. Preparation:

- Tell them you are going to watch some parts of their videos

- Ask why do you think you are going to watch it?

- How do you think this is going to be useful for your learning? (watching the sessions)

1.1.2. Before playing the videos

-Ask have you ever done something similar to this? (examples: have you ever been a participant of a project, or a class that was video recorded , or have you ever thought about how you did in the class ?was your performance good or bad? Or have you thought about what you enjoyed or didn't in your class?

-If the answer is yes let them elaborate and explain how it was similar?

1.1.3. Playing the videos

- let them watch some parts of the first session and comment on it what they think of the way they worked

- Play the second session let them (reflect) think and comment on their performances

- Ask them how would they compare it to the first session? (do they think they were getting better at any stages (plan-do review) ask them to provide examples from the video

- let them watch the third session and comment again on the way they think and plan, monitor and evaluate

 - Ask can you notice any differences about the way you worked in the first and last session?

- Have you noticed a lot of improvement in planning or doing or reviewing from second to third session or not? (example: answers in session one about how they think and reasons for their ideas were shorter than session 2 and session 3 they had a lot more to say, they worked more confidently and tidily in the other sessions since they had an idea and a plan)

1.1.4. Reflection

- Stop the videos and ask

- Do you like to always plan first and then do, and then review your plans?

- Do you enjoy evaluating yourselves (example: scoring yourselves) or

- Do you like your teacher always marking you? Why yes? Why not?

- Do you like if your teachers gave you a chance to judge your performances?

-Can you use planning, monitoring, reviewing strategies for other subjects? (example: mathematics, geography, English, science and etc.)

- How?

- Do you think it is important to think about everything you are doing?

- Do you think working in three steps is going to help you to be better learners? How?

- Ask them to think of two strong and weak points of themselves that they learnt about themselves participating in this class. (something they didn't know about themselves before)

2.1. Writing an informal letter to the researcher 1 hour

-just on a simple piece of paper ask them to write a letter for me and jot down anything they would like to share with me.

A sample project:
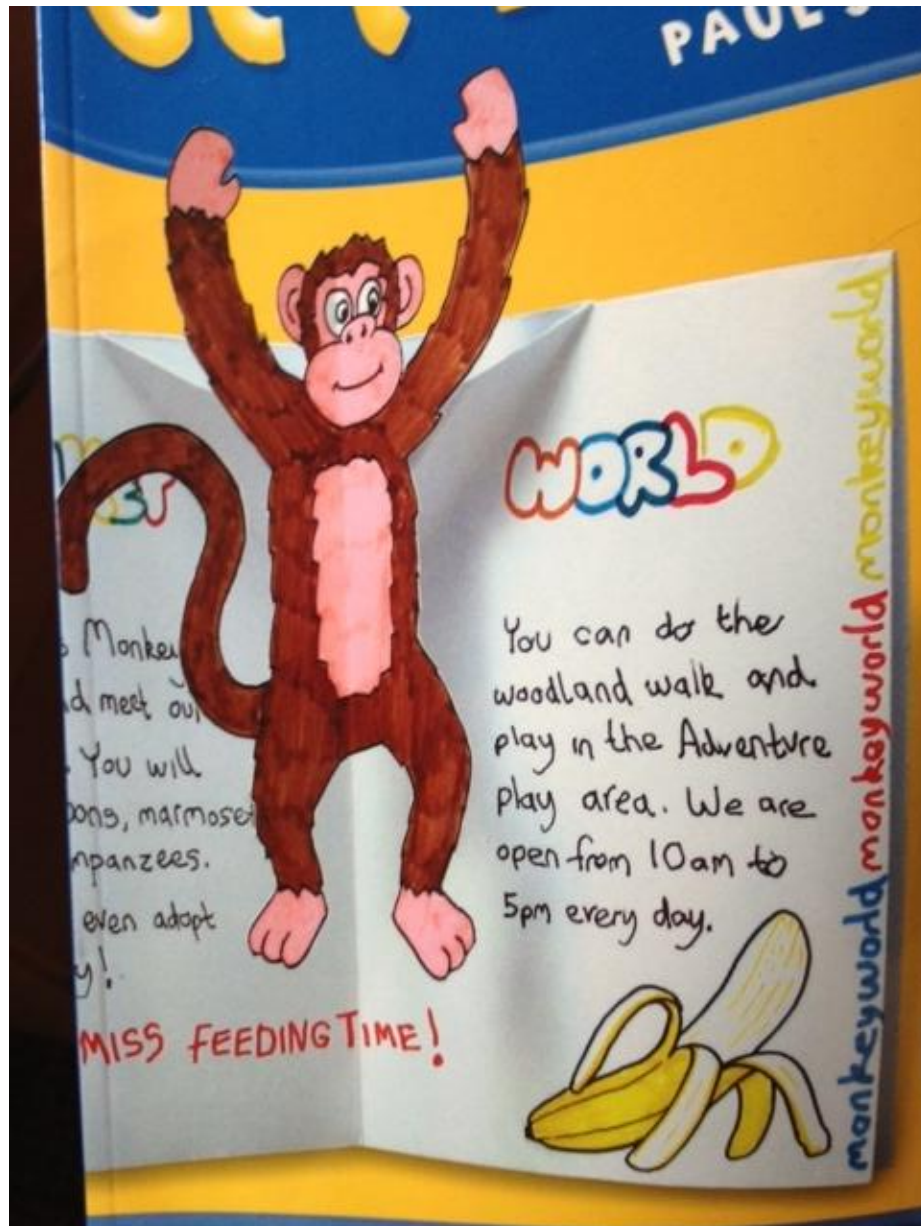
Appendix 1.2.

Brainstorming template for girls

Folding Flower
CD Case

Brainstorming template for boys

Name:_____   Date:_____

Brainstorming Web

Mrs Solarte 202
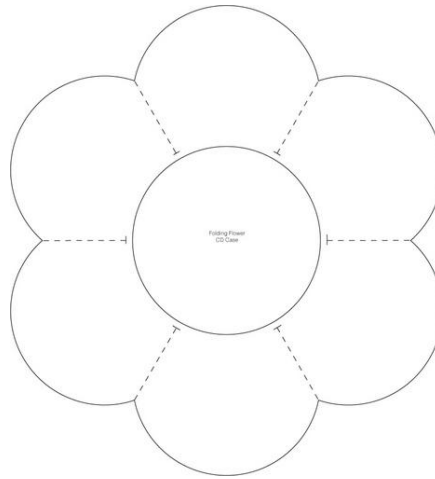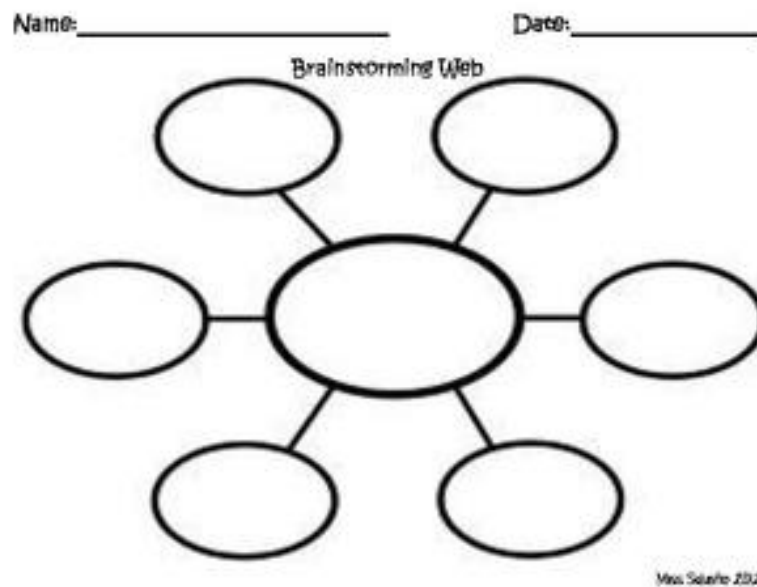
Appendix 2

Parents' letter of consent translated in English

Dear parents,

I am Samira Hazari a teacher and teacher trainer at Hermes institute, currently I am postgraduate student at University of Warwick, UK. In the frame of my master course, I am interested in doing a research on helping students to think of their own learning which is a 21^{st} century essential skill.. For this reason, I would like to ask for your permission to work with your children at Hermes institute. The students will participate in some activities and discussions. Their names and all the data that I will collect will remain confidential and anonymous in my research. Only me and my supervisor at University of Warwick will have access to them.

I am looking forward for your cooperation.

Many Thanks

Samira Hazari

 Signature:

Students' letter of consent translated in English

Dear friends

I am Samira and I am a student like you, but I am studying far away from you. I am writing this letter because I need your help.

Here in England my teachers are interested in your views. To tell you the truth this is part of my study which is called research.

So you will have to participate in some classes where, you work on some projects and talk about your ideas. Then I will show your projects and ideas to my teachers. Don't forget there is an award ceremony afterwards.

Thank you for helping me with my studies and research.

 Your signature if you are willing to participate:

Evaluation cards

Did you enjoy working together?

Why yes? Why not?

1.

What part did you enjoy most? Why?

What part did you enjoy least? Why?

2.

What did you learn today?

3.

If you could do this again, how would you do it better?

What would you change?

4.

What are your comments for students who want to do this project?

5.

What was easy for you? Why?

What was difficult for you? Why?

6.

From 1 to 5 how will you score your "planning" part?

From 1 to 5 how will you score the "doing" part?

From 1 to 5 how would you score your writing?

From 1 to 5 how would you score working together?

Why?

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7.

What have you learnt?

8.

What are your goals for next session?

9.

Any other ideas???

10.

Strategy cards (metacognitive cards):

Get ourselves in learning mood	
Look and listen carefully	
Talk about what we have to do	
Decide who is going to do what	
Listen to what my friend says	
Think ahead and plan	

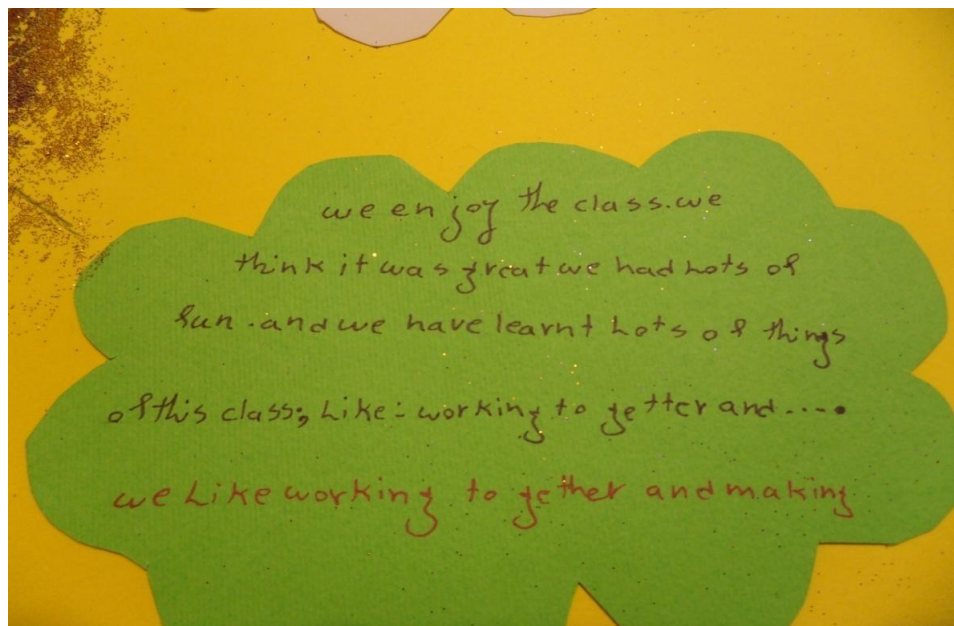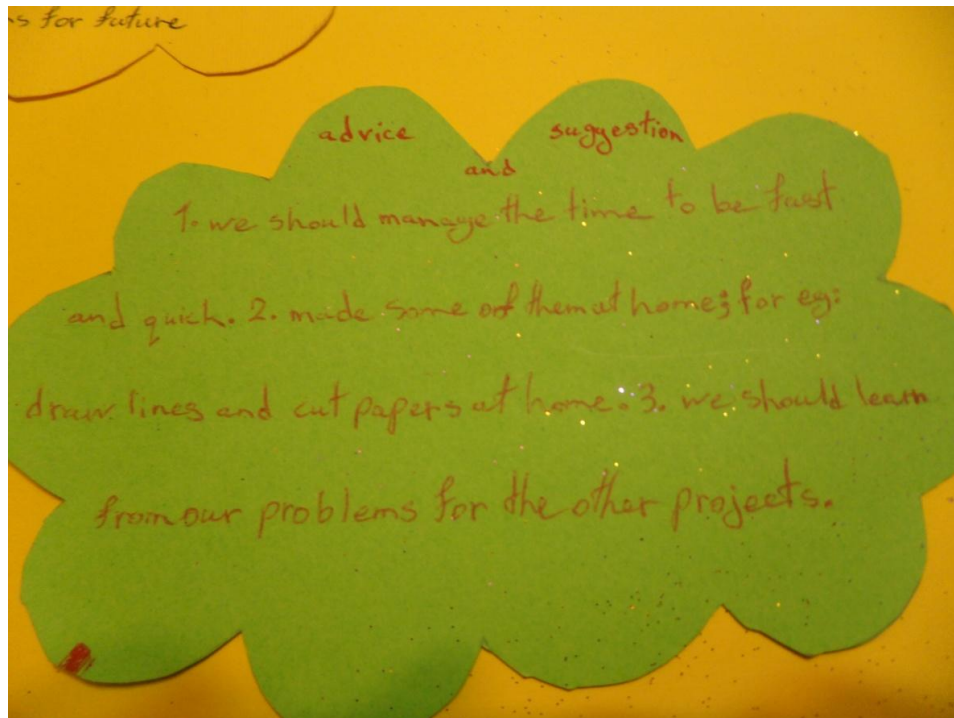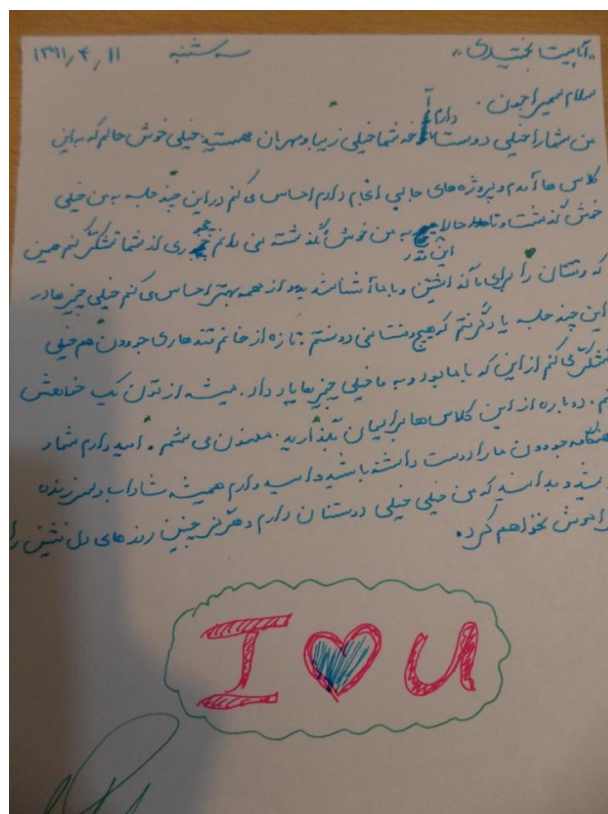|	
Stop and think when working	
Check our work	
Learn from our problems for future	
Adapted from Quicke and Winter (1994)	Retrieved from www.google.co.uk/search

Boys' writing (project) session 3

Appendix 6

Girls' writing (project) session 3

s for future

advice and suggestion

1. we should manage the time to be fast and quick. 2. made some of them at home; for eg: draw lines and cut papers at home. 3. we should learn from our problems for the other projects.

we enjoy the class. we think it was great we had lots of fun. and we have learnt lots of things of this class; like: working to getter and .... we like working to getter and making

Appendix 7

Samples of students' informal letters
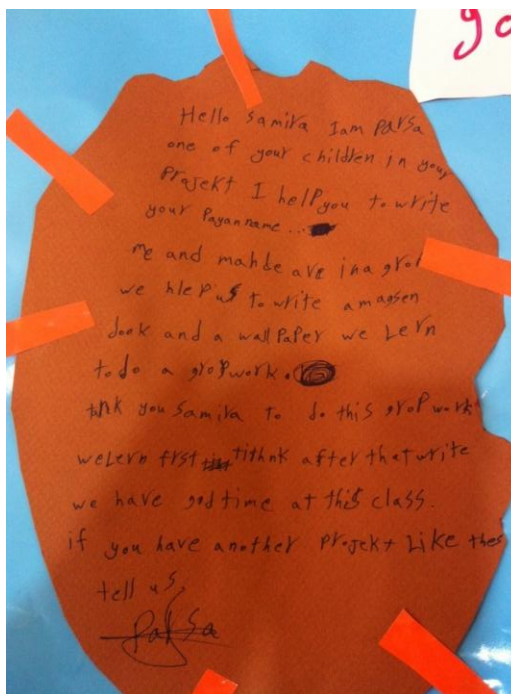
Comparison of projects 1 and 3:

Project day 1

Project day 3

Appendix 9

A sample of transcription of boys' Evaluation stage session 3:

```
P: what did you learn from the project?

P: we learnt to work together,

M: help someone to work better

P: *manage our time*

M: * help each other*

P: * do group work and listen to each others' ideas*

M: we need to pay more attention to the planning part because it is

   more general and more important because the bases of the rest of

   the stages are dependent on this stage*

P: *and the writing is needed to be done together and with our joint ideas*

M: it means it shouldn't just be one persons' idea*

T; *why do you think it is important to have your ideas both?*

P: *because if he is writing something wrong I can stop him and make

   it better* and when our work is done we need to review it to see if

   it is done correctly and if we have made a mistake we can correct it*

M: and check the grammar and dictation

P: what part did you enjoy most and why?

M: planning*because it is the most important part*

P: and *we were thinking together and it wasn't one persons' idea and

   about group which was the previous question if I was doing this alone

   I could have made some mistakes and if mahdi wasn't here my work

   wouldn't have been finished*

M: and because we are two we can do more work in a limited time

P: and if I were to do this alone in one hour I couldn't have completed

   it and it wouldn't be nice*
```