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PROMOTING SELF-REGULATION IN THE CLASSROOM: EFFECTS OF TEACHER, ACADEMIC TASKS, AND PEERS

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The research on how pupils regulate their behaviors has come up in the educational fields and had an acknowledgement that pupils need to regulate behaviors and challenges in the classroom, which are conducive for them to become a self-regulated learner and get benefit through learning process.

This study investigated the effects of three factors, the teacher, academic tasks, and peers, on pupils’ behaviors self-regulation in the classroom. The purpose was to find out the key elements which influenced pupils’ self-regulation, so that it was able to select and design effective methods and approaches to promote pupils’ self-regulation. There were two types of theories acting as the basis of this study. One was Zimmerman’s self-regulatory theory, and the other one was collaborative learning involved interdependency theory, Piagetian theory, and Vygotskian theory. Eleven Grade Four pupils and their English teacher in one classroom were involved in the study. Self-report was assigned to pupils before and after classroom observations. Observers recorded pupils’ behaviors and the teacher’s teaching activities which occurred in the classroom. The pupils were also asked to fill in the learning diary during implementing the academic tasks. The mixed methods were used in this study. Through these methods, several descriptive analyses were also carried out. The self-report was categorized into three aspects and the means of each item between pre- and post- self-report were used to compare pupils’ transformation of thoughts and viewpoints. The descriptive data from the classroom observation were used to evaluate the academic tasks and the teacher’s role in the implementation of those academic tasks. The learning diary was inclined to evaluate the teacher, academic tasks, and peers through the activities carried out in the classroom, and the data were interpreted with the means and the number of decreasing frequency of each item separately.

The result of the study showed that peers had some positive effects on pupils’ self-regulation of behaviors. Pupils could interact with peers immediately and get support from peers when carrying out some types of tasks, which were helpful for them to raise self-efficacy beliefs, regulate behaviors, and complete the academic tasks better. However, the other two factors, the teacher and academic tasks, were not significant. Although the teacher provided clear explanation, modeled how to execute the activities, and gave interventions in the classroom, there was no significant effect was found that the teacher promoted pupils’ self-regulation of behaviors effectively in the classroom. In addition, there were various types of academic tasks designed and implemented in the classroom, and the technological tool (e.g. Ipad) was also applied in some of them. But some academic tasks did not stimulate pupils’ interests and even caused pupils’ attention distraction, which made them have poor implementation in the learning process at times so that they were difficult to regulate behaviors in the classroom.

In this study, the validity and reliability were strived through data collection, data analysis, and interpretation. However, there were also some limitations. The number of pupils participating in the sample size was discrete, so the generalizability of the result was limited inevitably. Furthermore, the translation of relevant data could have a little deviation and therefore influenced reliability and validity more or less.

One important implication in this study is that self-regulation studies should focus on how to teach self-regulation knowledge and skills in authentic teaching environment. After explanation and instruction of self-regulation knowledge and skills, the teacher need construct proper learning context for pupils to practice and experience. These opportunities are beneficial for pupils’ internalization of self-regulatory process. Therefore, linking knowledge and strategies training to the regular teaching process is conducive for pupils to transform the knowledge and skills to their daily learning. For the future research, the appropriate pedagogical approaches are demanded to design which will be used in teaching pupils’ self-regulation knowledge and skills in the classroom.

Asiasanat/Keywords self-regulated learning, self-regulation, teacher, academic tasks, peers’ influence, learning diary, classroom observation
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1 INTRODUCTION

In traditional schools, the pupils rely on their teachers to acquire knowledge and information. They expect their teachers to offer learning resources, satisfy learning motivations, and achieve learning outcomes. It is well known that teachers need to decide and control the learning content, methodology, length, depth, and so on. The general pattern is teachers are responsible to convey knowledge and pupils must comprehend and store that knowledge (Boekaerts & Niemivirta, 2000). This pattern makes pupils do not have options to choose and control the dimensions of learning. They do not have more opportunity to regulate themselves in the school (Schunk & Ertmer, 2000). The schools and teachers cannot help pupils to attain knowledge and skills that are significant for their lives outside the school. The challenge that faced is how to assist pupils become self-directed, strategic, and motivated in the learning process and as a result they can use their strategies and efforts in the different contexts (Paris & Winograd, 1999). With the development of learning theories, it has come to change that condition. The contemporary learning theories emphasize the significance of the individual’s independent learning which is called self-regulated learning (SRL).

1.1 Self-regulated learning

The term “self-regulated learning” (SRL) started being popular at the end of 1980s, since it underlines pupils’ responsibility and autonomy in their learning (Paris & Winograd, 1999). This term is used to describe “self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (Zimmerman, 2000, pp.14). In the process of regulating, the pupils plan, set goals, organize, self-monitor, and self-evaluate, which are able to make them to be self-aware and knowledgeable in the learning procedures. They employ efforts and persistence rather than giving up when tasks are challenging. In the process of strategic action, the pupils seek out advice, information, and strategies which are suitable and helpful for them to learn appropriately, they can also self-instruct and self-reinforce during performance enactments (Zimmerman, 2000; Perry & Rahim, 2011; Pintrich, 2003).

The characteristics of self-regulated learning involve awareness of thinking, use of strategies, and sustained motivation. The awareness of thinking is the awareness of valid
thinking and analyses which mean pupils are aware of their knowledge states, the traits of the tasks, and the strategies they own. It could develop pupils’ ability of self-appraisal and self-monitoring. The pupils can apply metacognitive knowledge to make the plan, select the strategies, and explain the performance to solve the problem effectively. The use of strategies is the indication of being a strategic learner. The pupils should be clear about what the strategies are, how the strategies operate, why the strategies are select, and when the strategies are applied. Understanding the features of strategies may aid pupils to distinguish and use appropriate strategies for problem-solving. The sustained motivation is the sustainment of motivational decisions about the goal of the task, the value of the task, the self-management of behaviors, the positive attitude, and the benefit of success or failure. When pupils are hard to sustain their motivation and undermine the learning, the teachers should diagnose and understand the reasons of the situations which are helpful to analyze pupils’ motivation so as to improve pupils’ self-directed actions (Paris & Winograd, 1999).

What is a self-regulated learner? As a self-regulated learner, she or he should own the skills to learn effectively when entering the learning situation. They set the goal, have specific plan to attain it, monitor their performance and behaviors, enhance the motivation, continue to use the effective strategies, reflect the progress, and evaluate the results (Schunk & Ertmer, 2000). When pupils have competence of self-regulated learning, they can analyze the requirements of the task according to their domain knowledge and search the effective strategies to enhance their learning process and outcomes (Perry & VandeKamp, 2000). They may realize that achieve the goal is not difficult, check work do not spend much additional time, and it is easy to get great accuracy. Self-regulated learning has been a tacit knowledge for them and the skills of self-regulated learning will last a lifetime (Paris & Paris, 2001). Unfortunately, not all pupils can regulate their learning in an effective way. Therefore, how to foster pupils to be self-regulated learners has been one of the main targets in the educational research. In the past decades, the self-regulated learning has become a key construct in the fields of education and psychology, and there are many empirical evidences involved various aspects of self-regulated learning.
1.2 Ways of promoting self-regulated learning in the classroom

1.2.1 Teachers influence pupils’ self-regulated learning

Several studies pointed out teachers could provide explicit instruction about self-regulated learning in the classroom (Paris & Paris, 2001; Moos & Ringdal, 2012; Randi & Corno, 2000; Housand & Reis, 2008; Perry & VandeKamp, 2000). For example, when teaching in the mathematic course, the teacher described the need to analyze the specific question, put it in the right place, calculated it step by step, and checked the answer. The instruction of self-regulated learning underline details strategy instruction and increase pupils’ awareness of goals and standards. Paris and Paris (2001) reviewed the self-regulated learning literatures and categorized relevant research into two groups, the focus of both groups was to promote self-regulated learning in pupils. One group of studies assumed a developmental view of self-regulated learning and sought to examine how pupils self-regulated their learning and met personal goals. The other group was to examine the role of a transmission model in the acquisition of self-regulated learning. These studies displayed the effect of explicit instruction in the use of self-regulated learning strategies (Moos & Ringdal, 2012).

Randi and Corno (2000) indicated that teachers could improve pupils’ competence about self-regulated learning purposefully in the classroom learning through making regularities and action methods, e.g. principles, strategies, and patterns of behaviors about self-regulated learning, combine with the curriculum and classroom environment. They also pointed out that teachers could afford opportunities for pupils’ self-regulated learning, which included provide explicit instruction in individual and group studying skills, model strategies about planning and time management, teach pupils to evaluate work with criteria, and emphasize the importance of feedback.

Housand and Reis (2008) observed two reading classrooms that were conducted with two instruments (Schoolwide Enrichment Model-Reading Observation Scale and Self-Regulation Observation Scale). One of major findings through observation was the comparison of instructional methods applied by teachers across both the high self-regulation classroom and low self-regulation classroom. In the high self-regulation classroom, the teacher provided choice in contents, gave clear expectations, developed 'book-markers' to support pupils, asked and answered open-ended question, requested weekly reflection, supplied strategy instruction, modeled book selection processes and goal setting,
and so on. Those methods affected pupils’ engagement in learning and contributed to improve their self-regulated learning behaviors in the classroom.

In one of Perry’s research’s experiences about self-regulated learning (Perry & VandeKamp, 2000), she observed literacy activities in five classrooms which were Grade Two and Three. She characterized three classrooms as high-SRL classroom. In these classrooms, teachers created complex and open-ended reading and writing tasks for pupils, afforded them opportunities and options to control challenges, and encouraged them to evaluate their works. Apart from this, teachers supplied helpful support and instructions, assisted pupils to make applicable choice, and increased their ability which ensured pupils obtain domain and tactic knowledge that they needed to accomplish activities independently. The pupils in the high-SRL classrooms monitored and assessed the reading and writing process independently and flexibly. They could seek help from teachers and peers when facing difficulties, enabled to focus on learning process, and had high efficacy for studying.

In addition, teachers could explicitly tell pupils to display a particular activity, such as explaining that this activity was to learn strategy and promote their performance. For pupils, they were given the information about the meaning and significance of that activity and strategy. Brown, Campione, and Day (1981, as cited in Kistner et al., 2010) called this explicit strategy teaching ‘informed training’. The informed training informed pupils about the importance of the strategy and how to use, manage, and assess this strategy. The informed training was conducive for pupils to obtain particular strategy and made them solve the familiar problems when facing in the learning process.

1.2.2 Academic tasks influence pupils’ self-regulated learning

Except for teacher’s role to promote pupils’ self-regulated learning, the effect of academic tasks executed in the classroom can also foster pupils’ self-regulated learning. The tasks decide how pupils come to understand the knowledge within and across domains. The academic tasks arrange pupils’ information processing through highlighting specific aspects of contents and directing them to get information in particular ways. For example, the complex tasks are useful to promote the level of thinking process and decisions making. It is reasonable to believe that the challenges, which should be the moderate difficulty, would
provide pupils more opportunities to promote their interests and engagement in the learning (Turner, 1995).

1.2.2.1 Types of the task value

The values of task are defined as interest value, attainment value, and utility value. Interest value is the enjoyment pupils get from the working for the task. If pupils have high interests in a specific task, they will be likely to use cognitive and metacognitive strategies such as planning, self-management, and so forth. There are two ways that interests have effect on motivation. The first one is interests decide pupils’ selection and persistence of the information. If pupils are interested in the task, they would like to work longer even though the task is a little hard. Another one is interests influence the goal set by pupils. If pupils are busy with the task, they tend to set a learning goal and continue to achieve the goal. Attainment value is the significance of the activity to the pupils and what extent of sense to oneself. When pupils believe the academic task is important, they will engage in learning and understanding better than before. Utility value is the usefulness of the task for the pupils. The tasks should have clear application and meaning even out of schools, and the learners would like to pursue with their volition (Wigfield, Klauda, & Cambria, 2011; Housand & Reis, 2008; Turner, 1995).

The researchers indicated the task value had a deep influence on pupils to decide how they performed and accomplished the activity (Schunk & Zimmerman, 2007). It was found that if pupils valued the academic task, they preferred to use more learning strategies, and invest more efforts and time (Turner, 1995). This requires the academic tasks activate pupils’ intrinsic interests, get a sense of ownership, connect to the life, and have collaboration among pupils (Paris & Paris, 2001). Thus, the classroom tasks should provide chances for pupils to motivate self-regulated learning when they offer knowledge and information to ask pupils know, give pupils chance to make meaningful choice and practice learning strategies and other tactics, get feedback about progress and promotion from teacher and peers, and work with others collaboratively to invent new ideas (Turner, 1995).

1.2.2.2 Types of academic tasks

Stipek, Feiler, Daniels, and Milburn (1995, as cited in Paris & Paris, 2001) made distinguishing between children in child-centered classrooms and children in teacher-directed classroom, and found that the children in child-centered classes demonstrated more attitudes and behaviors associated with self-regulated learning. In the child-centered class-
rooms, children were willing to interact with peers, and had chance to choose various activities and materials that were interesting and meaningful to them. In contrast, teacher-directed classrooms paid more attention to basic skills which were not applied in meaningful activities and only controlled by teachers.

The academic tasks were also classified as open task and closed task. In the open task, pupils had choice about what, when, and where they work. They were able to select the meaningful materials they intended and worked with partners or groups. In contrast, the closed task constrained chance for decision making, limited the choice of materials and types of tasks. In the open task environments, pupils could demonstrate their control, applied more strategies, and insisted longer when they faced difficulties. Hence, open task could improve self-regulated learning involving choice making, goal setting, self-monitor, collaboration or cooperation, and self-efficacy deriving (Paris & Paris, 2001).

Although the authentic tasks can motivate pupils’ self-regulated learning, the project-based learning as a specific task-based approach is often in favor of pupils to develop the skills of self-regulated learning. When pupils engage in project-based learning, they need to choose the questions about project, make plan for the problem-solving, select the available resource, collaborate with others, choose strategies, control behaviors, determine solutions, and monitor progress for goals. Meanwhile, the teacher’s explicit instruction about self-regulated learning strategies is still important in the process of project-based learning (Randi & Corno, 2000; Paris & Paris, 2001).

1.2.2.3 Other important elements

Several studies of learning revealed the influence of other elements on pupils’ learning (Butler & Cartier, 2004; Turner, 1995). These theories indicated learning, as an interaction among peers, could contribute to development of self-regulated learning. Firstly, peers’ ideas and comments may motivate pupil’s interests and curiosity. Secondly, the other peers’ emulation may increase pupils’ confidence to succeed. Thirdly, peers’ models may help pupils to evaluate oneself and set accurate goals. Fourthly, collaboration with peers may improve pupils’ engagement in task. Accordingly, the academic tasks with collaboration or cooperation provide chances for pupils to enhance knowledge of content and process, increase self-efficacy, and set goals for self-promotion (Turner, 1995).

Therefore, when teachers select and design academic tasks, they should not only think about pupils’ metacognitive knowledge and task conceptions, but also provide ap-
appropriate challenges, choice, control, and collaboration. The teachers need to consider (a) the goals of learning for pupils, (b) the complexity and variety of the tasks, (c) the nature of the tasks, and (d) whether the tasks are suitable to facilitate pupils’ learning achievement. If the academic tasks are designed on the basis of aforementioned details, it will be significant to promote pupils’ competences of self-regulated learning (Butler & Cartier, 2004; Turner, 1995).

1.3 Principles of promoting self-regulated learning in the classroom

Paris and Winograd (1999, pp. 8-15) described twelve principles that teachers could apply in the contextual teaching (include teachers’ role and academic task design) which were in favor of improving pupils’ self-regulated learning in the classroom. The principles were organized according to four features of research on self-regulated learning that was presented as follows:

1. “Self-appraisal leads to a deeper understanding of learning.
   A. Analyzing personal styles and strategies for learning, and comparing them with others, increases awareness of different ways of learning.
   B. Evaluating what you know and what you do not know, as well as discerning your personal depth of understanding about key points, promotes efficient effort allocation.
   C. Periodic self-assessment of learning processes and outcomes is a useful habit to develop because it promotes monitoring of progress, stimulates repair strategies, and promotes feelings of self-efficacy.

2. Self-management of thinking, effort, and affect promotes flexible approaches to problem-solving that are adaptive, persistent, self-controlled, strategic, and goal-oriented.
   A. Setting appropriate goals that are attainable yet challenging are most effective when chosen by the individual and when they embody a mastery orientation rather than a performance goal.
   B. Managing time and resources through effective planning and monitoring is essential to setting priorities, overcoming frustration, and persisting to task completion.
   C. Reviewing one’s own learning, revising the approach, or even starting anew,
may indicate self-monitoring and a personal commitment to high standards of performance.

3. Self-regulation can be taught in diverse ways.
   A. Self-regulation can be taught with explicit instruction, directed reflection, and metacognitive discussions.
   B. Self-regulation can be promoted indirectly by modeling and by activities that entail reflective analyses of learning.
   C. Self-regulation can be promoted by assessing, charting, and discussing evidence of personal growth.

4. Self-regulation is woven into the narrative experiences and the identity of each individual.
   A. How individuals choose to appraise and monitor their own behavior is usually consistent with their preferred or desired identity.
   B. Gaining an autobiographical perspective on education and learning provides a narrative framework that deepens personal awareness of self-regulation.
   C. Participation in a reflective community enhances the frequency and depth of examination of one’s self-regulation habits”.

From the previous studies mentioned above, it is clear that the teachers themselves and academic tasks they designed have significant roles in fostering pupils’ self-regulated learning in the classroom. Among those studies and experiments, research on how pupils regulate their behaviors has come up in the fields and had an acknowledgement that pupils need to regulate behaviors and challenges they face in the classroom. If pupils are able to regulate behaviors, they can not only achieve learning outcomes and obtain positive developments, but also become a self-regulated learner and get benefit through their lives (Wigfield et al., 2011).

In this study, several factors that were designed to promote pupils’ self-regulation of behaviors in the English classroom are discussed. First of all is the teacher’s role. The teacher provides explicit explanation and instruction about activities, explains the usefulness and significance of the tasks, models the operation process in specific condition, gives appropriate support and intervention when pupils need help, and supplies valuable feedback. Secondly is the academic task. The academic tasks provide opportunities for pupils to increase interests, enhance the motivation, make meaningful selection, collaborate with peers, and obtain progress. Lastly is peers’ influence. The pupils prefer to working with
peers, get assistance with each other, facilitate self-efficacy beliefs, and accomplish the academic tasks better. This study was to orchestrate those three factors and make them work together in order to promote pupils’ self-regulation of behaviors in the English classroom.
2 THEORETICAL FRAMEWORK

In the next section, I will elucidate two types of theories which act as the basis of this study. One is Zimmerman’s self-regulatory theory, and the other one is collaborative learning involved interdependency theory, Piagetian theory, and Vygotskian theory.

2.1 Zimmerman’s self-regulatory theory

The social cognitive theories indicate all the elements, which affect self-regulation, are interacted in the whole process. Therefore, self-regulation is a cyclical procedure, since the elements, such as behaviors, strategies, cognition, motivation, and emotion, would change and be managed during the learning (Schunk & Ertmer, 2000; Panadero & Alonso-Tapia, 2014).

Zimmerman’s self-regulatory theory is one of the most common models that captures the cyclical nature and presents how various processes work (Zimmerman, 2000; Moos & Ringdal, 2012; Panadero & Alonso-Tapia, 2014). There are three cyclical phases in this model: the forethought phase refers to the processes that set the stage before acting. The performance phase refers to the processes that occur during learning and implementation, and affect attention and action. The self-reflection phase refers to the processes which occur after performance, individual’s reaction to their experiences and efforts. It should be emphasized that the self-reflection phase would influence forethought phase according to the subsequent result, which can accomplish the cycle of self-regulation (Zimmerman, 2000; Schunk & Ertmer, 2000).
2.1.1 Forethought phase

There are two categories of forethought phase: task analysis and self-motivation beliefs. The stage of task analysis encourages pupils to split tasks into pieces which is conducive to select appropriate strategies (Panadero & Alonso-Tapia, 2014). In the task analysis, it involves goals setting and strategic planning. Goal setting refers to determine a specific achievement of learning or performance, such as finishing reading a medium difficult book in one week or studying to swim in three months. There are two important elements to affect pupils’ goal setting: one is assessment criteria, the other one is learning/performance level they expect to achieve (Panadero & Alonso-Tapia, 2014). Meanwhile, the goals can be divided into process goals and outcome goals. The process goals are able to convey the evidence of progress and increase self-efficacy (Zimmerman, 2000). For instance, a pupil decides to read a medium difficult book in one week. He can separate the book into several parts, read fixed pages each day, and finish the whole book reading in seven days. Completing this book reading in the required days is the outcome goal, and reading the fixed page each day is the process goal. It is clear that setting a process goal is helpful to increase pupils’ self-efficacy and intrinsic interest.
The other form of task analysis is strategic planning. For the realization of process goals and outcome goals, the pupils need appropriate methods and approaches for the task. Self-regulated strategies are beneficial in the individual process and actions to acquire skills. Choosing proper strategies would enhance learning and performance through aiding cognition, controlling effort, and direct implementation. For example, key words strategy is used to improve comprehension and accuracy in the reading performance. The planning and selection of strategies should consider the changes of environmental and behavioral components. Therefore, it needs to make adjustment promptly when relevant transformation occurs. In addition, if the current goal has come true and the higher goal is set, it is necessary to change the initial strategy and use another strategy which would be effective for the new goal (Zimmerman, 2000).

If pupils are not motivated to apply self-regulatory skills, there will not be any values at all. The key self-motivation beliefs in forethought phase are (a) self-efficacy, (b) outcome expectations, (c) intrinsic interest/value, and (d) learning goal orientation. (a) Self-efficacy is that the pupil believes he has the methods and competence to learn or perform a task effectively. (b) Outcome expectations mean the pupil believes he will get the success of performance ultimately. Pupils are willing to engage and keep their self-regulatory efforts because they believe they have capability to plan and work in the tasks, which means their self-efficacy helps them to insist all the time. Therefore, the self-efficacy beliefs influence the regulatory processes which include goal setting, use of academic learning strategy, self-monitoring, and self-evaluation (Zimmerman, 2000). For example, if the pupil believes he is capable to operate the task, he will set higher goal for himself and take efforts to work for the goal. Meanwhile, if pupils set an outcome goal, those who are self-efficacious will enhance their efforts and engagement, whereas those who are not self-efficacious will withdraw or even give up. Correspondingly, goals can also affect self-efficacy beliefs. The pupil who has self-efficacy beliefs often adapts process goals in the learning procedure. The progressive success provides him satisfaction until the final outcome goal is achieved. The attainment of process goal still stimulates intrinsic motivation sometimes (Zimmerman, 2000).

(c) Intrinsic interest or value refers to pupils’ skills about valuing the tasks from their own sides. Intrinsic interest and task value have various characteristics. On the one hand, the interest means pupils’ emotion in the execution which is energized by task characteristics or individual evaluation of the task. On the other hand, the task value means the
significance of the task for pupils. If pupils identify the task is useful, they will prefer to perform and learn from it, so that their motivation increase (Panadero & Alonso-Tapia, 2014). Both of intrinsic interest and value can activate pupils to invest more efforts in the task, supplement and even surpass extrinsic outcomes to a certain extent. For instance, the artists see the final value of their talent lies in performing masterfully rather than winning a significant competition (Zimmerman, 2000 & 2002).

(d) The learning goal orientation refers to pupils’ beliefs about intentions of their learning and performance. Pupils value learning process with their previous knowledge which can contribute to learning goal selection and strategies application. It will promote pupils’ deeper understanding and performance, make beneficial reflection, and have more intrinsic interests in the task (Zimmerman, 2000 & 2002; Panadero & Alonso-Tapia, 2014).

2.1.2 Performance phase

There are two major types of performance phase: self-control and self-observation. The self-control processes, such as imagery, self-instruction, attention focusing, and task strategies, make pupils insist concentration and interests, and eliminate potential disruptions during engagement in the tasks (Stoeger & Ziegler, 2011). The first form of self-control is imagery which is to form mental pictures. The use of imagery can organize the learning materials and aid to concentrate attentions on learning and memorizing (Panadero & Alonso-Tapia, 2014). For example, the teacher can teach pupils to create integrative images according to the sentences made with the new vocabulary, ‘the cat is sleeping on the carpet’ is to promote memory of new vocabulary ‘sleep’ and ‘carpet’.

The second form of self-control is self-instruction. Self-instruction describes how pupils carry out the task with self-directed order or elaboration, such as solving a physical problem or memorizing new words. Some studies display the verbalization is useful to improve pupils’ learning (Zimmerman, 2000; Panadero & Alonso-Tapia, 2014). For example, if pupils are likely to speak out the methods which can assist them to solve the mathematics problem and enhance their self-instruction during the learning periods.

The third form of self-control is attention focusing. The attention focusing is used to promote pupils’ concentration and prevent distraction from other events. Some experts
use a variety of techniques to enhance attention’s control, such as environmental construction to remove diversions or ineffective task execution. The other way is to ignore interruption and avoid the reflection of former mistakes, which are also effective to focus attention. It can be said that if a pupil knows how to concentrate attention and prevent distraction, he has got an elemental strategy for studying (Zimmerman, 2000; Pekrun, Goetz, Titz, & Perry, 2002).

The last form of self-control is *task strategies*. The task strategies help pupils to understand the task clearly and perform it effectively (Panadero & Alonso-Tapia, 2014). It would reduce some unnecessary issues for the task execution. For instance, when persons listen to a lecture, they might write down the main structure and key points in brief sentences. The effective task strategies have been studied by many researchers, which include note taking, test preparation, reading for comprehension, writing techniques, problem solving, and so forth (Zimmerman, 2000; Panadero & Alonso-Tapia, 2014).

The second type of performance phase is self-observation. It refers to the persons’ path in the specific sides of their own performance, the situation around it, and the influences it produces. The skill of self-observation is significant for the pupils, since the amount of information within the performance can easily cover them and result in disorganization. Therefore, the correct understanding of appropriateness and quality of their current result assist their judgment to continue or make necessary changes. In addition, setting process goals in the forethought phase will also foster selective self-observation because the process goals focus on specific processes and events (Zimmerman, 2000; Panadero & Alonso-Tapia, 2014).

The self-observation involves two forms: self-recording and self-experimentation. *Self-recording* is a good self-observational technique which is easy to assess the proximity and accuracy of the actions that have been done in the performance, manage and improve reflection when the task is done as well (Panadero & Alonso-Tapia, 2014). Records can get individual information at the point it happens, build the information to be more meaningful, reserve the accuracy of information, and store the data for evidence of progress. For example, the pupils are asked to record their time used in homework doing, which make them alert to how much time they spend on studying at home (Zimmerman, 2000 & 2002).

Self-observation can bring about *self-experimentation*. When the behavior of self-observation cannot provide definite information, pupils will engage in individual experi-
mentation with various aspects of the information that is in question. For example, a pupil finds studying with a friend can finish homework faster than study alone. To test this opinion, he chooses the familiar amounts of homework to work alone and work with a friend respectively in order to see if the friend is a good point for his studying (Zimmerman, 2000 & 2002).

2.1.3 Self-reflection phase

In this phase, pupils assess their works and define reasons for the results (Panadero & Alonso-Tapia, 2014). There are two processes in self-reflection phase: self-judgment and self-reaction. Self-judgment refers to self-evaluating performance and attributing causes to the outcome. Self-evaluation involves comparing and assessing own performance with a goal or standard, such as an athlete judges practice runs in the light of his best previous result, or another athlete’s best result. It is easy to judge pupil’s performance if they produce objective target at the beginning of the task, for example, complete mathematic practice between five and six o’clock, or finish an assignment within the limited time. In addition, it always depends on the criteria or standard to make the judgment, such as driving a car expertly within four months (Zimmerman, 2000; Panadero & Alonso-Tapia, 2014).

There are three types of criteria people used for self-evaluation, which are mastery, previous performance, and normative (Zimmerman, 2000). Mastery criteria refers to using a hierarchical sequence of test scores to range from performance, such as ten level systems in the taekwondo exercise, which use different color belts to present different level. It indicates that the use of processes goal graduation can encourage people to employ mastery criteria to evaluate themselves. The second type of criteria is based on previous performance, which refers to contrasting current performance with the previous performance. For instance, the dieter can assess his success by comparing the current weight with earlier weight (e.g. last week). The same as mastery comparison, the previous performance also emphasizes the significance of progress in the processes. The third type is normative criteria, which refers to the social comparisons with other’s performance, such as contrasting with classmates or partners. There are some shortcomings in normative criteria. One is they focus attention on social factors, whereas deemphasize the importance of self-observation. Another one is the social comparison are always prone to highlight the functioning’s negative aspects instead of positive aspects. If an athlete loses his competition,
nobody will pay attention that his result has been better than former time. The teachers should not use normative criteria to assess or award pupils, since they will result in pupils’ negative self-evaluation (Zimmerman, 2000). Beyond that, teachers need to set up the assessment criteria before starting the task in order to help pupils assess their work precisely and choose proper knowledge and strategies to correct mistakes (Panadero & Alonso-Tapia, 2014).

_Casual attribution_ is pupil’s explanation about success or failure of the performance, which is linked to self-evaluation and self-judgment (Panadero & Alonso-Tapia, 2014). For example, when pupils evaluate and judge the result, they may ascribe poor performance to limited ability, insufficient efforts, inappropriate strategies, and so on. The judgment of attribution is one of significant aspects that could influence pupils’ motivation of engagement in the future performance. If pupils attribute a poor score to limitation in fixed ability, it will damage pupils’ motivation in following learning. However, if pupils attribute a poor score to controllable process, it will sustain pupils’ positive motivation continually. It should be claimed that attribution is not the outcome of favorable or unfavorable self-evaluation automatically. The environmental conditions always affect pupils’ attribution about the result. For instance, when pupils receive a negative feedback about their task performance, those who have self-efficacy are likely to attribute it to inappropriate strategy or insufficient effort, whereas, self-doubter will not (Zimmerman, 2000 & 2002).

There are two forms of self-reaction: self-satisfaction/affect and adaptive/defensive. _Self-satisfaction/affect_ refers to the emotive and cognitive response that pupils experience in their self-judgment (Panadero & Alonso-Tapia, 2014). This form is very important, since the pupil wants to work to produce satisfaction and positive affect, and keep away from working to produce dissatisfaction and negative effects. Self-satisfaction is helpful to impact pupils’ target realization, since it stimulates their motivation to generate efforts and work hard. In addition, the intrinsic value or importance of the task also influences pupils’ self-satisfaction. For example, pupils who are interested in the task will experience dissatisfaction if they are given unfavorable performance assessment from the teacher or peers. Therefore, the teacher should assist pupils to value their feeling of self-satisfaction from the performance rather than grade or scores (Zimmerman, 2000).
The other form of self-reaction is *adaptive/defensive inferences*. Adaptive inference is significant, since it guides pupils to perform the task continuously, such as keep the same strategies or select a more effective one (Panadero & Alonso-Tapia, 2014). It favors pupils to self-adjust and increase effectiveness of learning methods, for instance, giving up or modifying the futile learning tactics. However, defensive inference prevents pupils from dissatisfying future or unfavorable effect, but it also undermines successful adjustment, such as making effort to protect their self-esteem by withdrawing or avoiding learning and performing, which puts up the limitation of their growth ultimately. The defensive self-reaction involves helplessness, task avoidance, procrastination, self-handicapping, lack of interest, and cognitive disengagement (Zimmerman, 2000 & 2002; Panadero & Alonso-Tapia, 2014).

The self-reaction does not only impact the forethought processes cyclically, but also impact the action engaged in the goal achievement. For instance, adaptive inference enhances pupils’ self-efficacy beliefs about mastering academic skills, having interests in the tasks, and realizing the goal. These self-motivational beliefs augment pupils’ sense to continue self-regulatory efforts and attain their goals. Conversely, defensive inference weakens pupils’ sense of self-efficacy and interests in task engagement. For this reason, if a pupil who owns the feeling of self-efficacy, it will be easy to change his behaviors in the learning; but if he dissatisfies with grade or scores in the course, it will undermine the sense of efficacy to continue working in the program (Zimmerman, 2000; Panadero & Alonso-Tapia, 2014).

### 2.1.4 Implications of Zimmerman’s self-regulation model

Zimmerman’s theoretical framework does not only cover cognitive, behavioral, and motivational sides, but also explains the roles of teacher, academic tasks, and peers that affect pupils’ self-regulation (Panadero & Alonso-Tapia, 2014). It indicates that those factors have a bidirectional interaction with pupils’ personal and behavioral characteristics, and lead to the cyclical development and adaptation of pupils’ self-regulation as well (Moos & Ringdal, 2012).

First of all, teacher can improve pupils’ self-regulation of behaviors during the three cyclical phases. The teacher may guide and prompt pupils’ engagement in learning tasks and challenging activities to make them acquire cognitive skills in forethought phase,
such as explicit instruction about goal setting, strategies planning, intrinsic value, and outcome expectations. In the performance phase, the teacher provides meaningful opportunities and scaffolding to help pupils practice and get appropriate strategies. Meanwhile, some interventions and modeling can assist pupils to control their behaviors and efforts, have clear understanding and recognition for the implementation of tasks. In the self-reflection phase, the teacher supplies instructions to support pupils evaluate their performance correctly (e.g. on the basis of their own earlier performance or pre-determined criteria, but not peers’ outcome), attribute their outcomes in a positive attitude in order to avoid negative motivation, and increase effective methods of learning (Rheinberg, Vollmeyer, & Rollett, 2000; Perry & Rahim, 2011). In addition, feedbacks from the teacher are in favor of improving pupils’ learning motivation. When pupils receive teacher’s feedback in the process of performance, it helps them to understand the reasons for their successes or failures, support them to select efficacious strategies, and enhance self-efficacy beliefs (Rheinberg et al., 2000; Panadero, Alonso-Tapia, & Huertas, 2012).

Second, the academic tasks influence pupils’ self-regulation in the forethought and performance phases. In the forethought phase, the academic tasks affect pupils to set master goal or performance goal, which means acquiring knowledge and skills or completing a task simply. The master goal favors for pupils to focus attention on learning process and strategies selection which help them to acquire skills. Meanwhile, the intrinsic value of academic tasks impact pupils’ behaviors since pupils do not work hard in activities if they do not value it. And the outcome expectations of academic tasks are influential in pupils’ engagement in activity if they believe to attain positive outcome (Schunk & Ertmer, 2000). Wigfield, Klauda, and Cambria (2011) pointed out that if pupils set process goals and had strong expectation of outcome for the tasks, they would like to distribute the efforts and time to accomplish the tasks. In the performance phase, academic tasks may not merely help pupils focus attention on behaviors and effort management so as to avoid distraction in the process, but also focus attention on information that is relevant to the unfinished intention (Kuhl, 2000). In addition, the academic tasks still encourage pupils to apply appropriate strategies taught by teacher in the learning process. Therefore, teachers need to choose the tasks carefully making sure self-regulated learning is needed to complete the tasks, and for this complexity level is crucial.

At last, the peers’ influence affects pupils’ self-regulation in the forethought, performance, and self-reflection phases. Hadwin, Järvelä, and Miller (2011) considered peers
could provide support and assistance to foster self-regulatory processes. The peers’ influence is helpful for pupils to set an appropriate goal, plan the strategies use, and facilitate self-efficacy beliefs in the forethought phase. In the performance phase, peers have an effect on metacognition monitoring, behaviors controlling, and help seeking so as to encourage pupils to implement the tasks effectively. In the self-reflection phase, pupils can evaluate their results and efforts with peers’ performance, or get feedback from peers, which favor them to attribute poor results to insufficient efforts or wrong learning strategies selecting, and then make necessary changes for their outcome goals. However, it should be emphasized that the teacher needs to assist pupils accurately to recognize the result of the comparison with peers’ and instruct them to make active and efficacious transformation. As peers are so important for self-regulated learning, we next analyze the situations in which pupils interact working together and what the implications are.

2.2 Collaborative learning

Collaborative learning is a significant part in education. Dillenbourg and his colleagues proposed that “collaboration is a social structure in which two or more people interact with each other and, in some circumstances, some types of interaction occur that have a positive effect” (Dillenbourg, Baker, Blay, & O’Malley, 1996, pp. 209). The viewpoint that collaboration can promote pupils’ learning has been recognized by educators and researchers (Webb, 2013). The effective collaboration is able to lead to the construction of knowledge when pupils engage in explanations jointly (Hmelo-Silver & Desimone, 2013).

2.2.1 Collaborative learning VS cooperative learning

Collaborative learning and cooperative learning are used as the synonymous terms sometimes, but in fact, there are some differences between them (Dillenbourg, 1999). Cooperative learning means the task is divided into several portions, every person is responsible for a portion of the task, and then they assemble the parts of results into the final production. However, collaborative learning means that the participants engage in a coordinated effort, get into interaction, and accomplish the task together (Dillenbourg et al., 1996; Dillenbourg 1999).

Collaborative learning and cooperative learning do not differ in the light of whether or not the task is split only, but also have some distinction about virtue of the separated
way. In cooperative learning, the task is split into independent parts hierarchically. The participants work in the different levels and seldom change the subtasks. However, in collaborative learning, cognitive procedure is divided into interweave layers, and participants may shift the roles frequently. In cooperative learning, the coordination is merely demanded when congregating the portions of results. Whereas, in collaborative learning, the result is the coordinated and synchronal action which stimulates participants create and insist in the process of activity (Dillenbourg et al., 1996; Dillenbourg, 1999).

2.2.2 Interdependence theory

Interdependence is one of social-psychological principles that used in collaborative learning. It refers to a goal structure which directs interaction among group members. Interdependence is also a condition where group members are connected together to complete the goal. If one member can succeed in completing his goal, the other members will still complete their goals; but if one member cannot complete his goal, the other members will fail yet. These conditions are called positive interdependence and negative interdependence (O’Donnell & Hmelo-Silver, 2013).

There are two methods applied to create the types of interdependence for collaborative learning. One is social-motivational method. It depends on the use of rewards or recognition for group outcome so as to create interdependence. It supposes pupils will be stimulated to work together and support each other since they would be rewarded or receive recognition as a group. Therefore, if one member is not able to work collaboratively with other group members, the whole group does not have opportunity for reward or getting recognition. The social-motivational method can encourage group members to influence mutually and interact equally. It ensures that every member is responsible to work and get promotion in the performance (O’Donnell & Hmelo-Silver, 2013).

Another one is social cohesion method. It creates interdependence within the group relies on social cohesion. From this method, pupils are motivated to work together and provide help mutually since they care about each other and want to see their success. It can make pupils improve interaction to facilitate cognition and emotional skills in the group context, and embrace their personal responsibility (O’Donnell & Hmelo-Silver, 2013).
2.2.3 Piagetian theory

Piaget advanced a constructivist theory of cognitive development. From his theory, the children enable to form several types of new conceptual structures of interactions under their environment. Cognitive growth comes about in the process of adaptation. Conceptual development does not only continue in the process of assimilation to change outward matters into personal ways of thinking, but also in the process of accommodation to transform from low level pattern to high level pattern. The modification of cognitive structures will happen when the structure is altered in some ways during the children experienced new matters or have a new object. The children attempt to seek balance in the cognitive system, and if the balance is disturbed, they will seek to reinstate balance. The children always experience cognitive imbalance or cognitive conflict in the collaborative learning. For instance, when children do not agree with the solution of a problem, they may work together to discuss and argue about the issues, check the related information, or design other activities so that they can get accurate understanding of the problem and reinstate the cognitive balance, which is helpful for them to develop the cognitive structures (O’Donnell & Hmelo-Silver, 2013).

Piaget’s work has significant effect on collaborative learning because he emphasizes the influence of peers. On the basis of his opinion, children are able to improve cognition under the environment where peers have similar ability, and they have equal chances to impact each other. When working together in the group, they have equal opportunities to speak their own viewpoint, provide explanation, offer answers of question, discuss and negotiate, and support each other (O’Donnell & Hmelo-Silver, 2013). If collaborative learning occurs in this context, it will motivate children to work effectively in the group and improve their cognitive knowledge and skills.

2.2.4 Vygotskian theory

Vygotskian theory is another approach that connects with collaborative learning. Vygotsky’s perspective included two aspects: cultural-societal and individual components. For the cultural-societal component, he indicated that there was a dialectical relation between children and cultural environment. He stated “in the process of development, the child not only masters the items of cultural experience but the habits and forms of cultural behavior, the cultural methods of reasoning” (1929, as cited in O’Donnell & Hmelo-Silver, 2013,
It should be pointed out that although the social environment offers the models of activities and skills, the children still need to master the knowledge and skills by themselves. From the dialectical constructivism’s view, there is a reciprocal influence between individuals and environment which refers to the acquisition of knowledge and skills depends on the continuous interaction between individuals and environment (O’Donnell & Hmelo-Silver, 2013). Thereby, both the characteristics of environment and children are all the important parts in the collaborative learning process.

The second aspect involves what Vygotsky defined as the zone of proximal development. In the light of Vygotsky’s view, the zone of proximal development is a plane of ability in the task which child cannot master by himself; however, he can perform the task with proper instruction and help from the other partners, especially the more capable peers. When the more capable peers identify the pupil’s current condition and difficulties, they will provide appropriate assistance during the implementation of the activity. If the child internalizes the procedure that occurs in the progress of interaction with the more capable peers, their cognition will be developed (O’Donnell & Hmelo-Silver, 2013).

The zone of proximal development can be founded by the participants and completed when the peers are aware of another partners’ current plane of functioning and enable to facilitate, encourage, scaffold, and aid another partners to develop competences. However, sometimes the peers are not good at recognizing the partners’ current plane of functioning and providing effective support so that they cannot promote their performance. Therefore, it is necessary to train pupils to recognize and act in the others’ zone of proximal development. With appropriate instructional assistance, the partners enable to respond efficiently to the peer’s effort (O’Donnell & Hmelo-Silver, 2013).

Vygotsky’s views of how the person interacted with the social world have influenced collaborative learning considerably which focus on the significance of participation in the social practice of knowledge and skills creation (O’Donnell & Hmelo-Silver, 2013). In the collaborative learning environment, the pupils participate in the social context, work for the shared target, get academic knowledge, and improve competence with the support of group members.
2.2.5 Summary of collaborative learning

The theories described above illustrate the different perspectives on collaborative learning. It should be emphasized that pupils are able to obtain benefits when they are working in the collaborative learning settings, which is in favor of improving their behavioral regulation.

On the one hand, the collaborative learning may trigger pupils’ internal cognitive processes that prompt them to understand and accomplish the task better. During the group work, pupils display their ideas, present the explanation, argument the challenges, and justify the ideas when facing the conflicts. In the procedure of communication, the pupils can activate and fortify the understanding of the learning materials, fill in the blank of missing knowledge, and correct some misconceptions. Through the internal process, the pupils construct their learning via linking the new information to the prior information, changing the thinking according to the new information acquired from peers or teachers, and internalizing knowledge and strategies about problem-solving (Webb, 2013). The collaborative learning experience associated with internal cognitive process may promote pupils’ self-efficacy beliefs, increase interests in the academic tasks, and foster them to regulate behaviors when learning in the group.

On the other hand, the collaborative learning may provide support which motivates pupils to solve the problems. It is helpful for pupils to regulate behaviors and efforts in the learning process. The pupils who received assistance in the group activity can understand the problem accurately, integrate thinking in the new way, select appropriate strategies, and stimulate to engage in the problem-solving. The pupils who provided helps can strengthen knowledge mastering, develop deeper understanding, and promote communication competence and skills (Webb, 2013). It needs to declare that the teacher also offers instructions and assistance to make pupils work coordinately in the process of collaborative learning. The support in collaborative learning makes pupils prefer to work with peers, get positive influence with each other, and prompt to regulate their behaviors effectively.

The theories of self-regulation and collaborative learning explain the methods about how to foster pupils’ ability of learning strategically. However, the prior studies are apt to use the methods to investigate the ways of improving pupils’ motivational control and emotional control in the learning process; they do not apply those methods to facilitating pupils’ behavioral regulation. In this study, the theories of self-regulation and collaborative
learning were used in the research about how to promote pupils’ self-regulation of behaviours in the classroom.
3 METHODOLOGY

3.1 Aim and research questions

The aim of this study was to examine pupils’ self-regulation of behaviors facilitated by the factors of teacher’s function, academic tasks, and peers’ influence. Those three factors orchestrate together and have a significant influence on pupils’ self-regulation. The aim can be presented with the Figure 2:

![Diagram](image)

Figure 2. How to promote pupils' self-regulation of behaviors

particularly, the following research questions were examined:

1. How can teachers help pupils to regulate behaviors? The teachers can help pupils to regulate behaviors if they provide explicit explanation of the activities before pupils’ implementation, model some strategies about problem-solving, encourage them to practice learning tactics, and give feedback (Hypothesis 1).

2. How can academic tasks make pupils regulate behaviors? The academic tasks make pupils regulate behaviors if they are able to increase pupils’ interests and engagement in the learning process, enhance the learning motivation, and obtain progress and improvement (Hypothesis 2).

3. How peers impact pupils to regulate their behaviors? The peers impact pupils to regulate behaviors if they can assist each other, raise self-efficacy, and complete the academic tasks better (Hypothesis 3).
3.2 Participants

The data were collected in an elementary school in Northern Finland. The participants were 11 pupils in Grade Four. Those pupils were from one class which was called 4A-A, including seven boys and four girls. Their mean age was 10.3 years old. All of the pupils were born in Finland. Their native language was Finnish, and English was the foreign language. The teacher also participated in the study. The classroom chosen was English classroom. The learning materials included textbook and activity book. The whole process of data collection was carried out by five researchers (including me). We established a plan to work as a team for collecting data. But the data analysis and interpretation were carried out separately according to individual research aim, and the results were used in respective studies.

3.3 Measures

3.3.1 Classroom observation

There are several advantages to use classroom observation. Firstly, classroom observation can guarantee the reliability through documenting pupils’ behaviors. The data come from the issues that actually happened in the classroom is a better way to study the relevant conditions. Secondly, classroom observation can relate pupils’ behavior with teachers’ instruction, tasks, and peers’ collaboration. In order to describe teachers’ role in promoting pupils’ self-regulation, it is necessary to be familiar with context, academic tasks, and pupils’ reaction. Finally, classroom observation can record pupils’ verbalizations and emotions which will be used to interpret their behaviors, because pupils’ spontaneous speaking and mood could assist to reveal their internal thoughts. Thereby, classroom observation offers the most helpful and reliable resources about how teachers and peers facilitate pupils’ self-regulation in the classroom (Turner, 1995; Boekaerts & Corno, 2005; Perry, VandeKamp, Mercer, & Nordby, 2002).

Through the classroom observation, teachers transferred teaching contents to pupils as a usual way; observers (five researchers) took field notes involved lesson targets, learning contents, instructional activities, and tactics teachers used in lessons. Meanwhile, observers also wrote down pupils’ reaction and behaviors in the various stages of the whole lessons (e.g. individual tasks, cooperative tasks, interaction with teacher or peers, etc.) in
the field notes. The goal of these field notes was to put up “detailed description of observed phenomena in order to explain developing processes and to identify generic principles by exploring specific processes” (Turner, 1995, pp. 423). We were able to analyze and illustrate specific conditions with field notes later.

The period of classroom observation was six lessons in four weeks from April to May (twice in first two weeks, once in following two weeks). After six classroom observations, I made the transcription for each observational material according to the video recording (Derry et al., 2010). There were two kinds of transcription completed: one was to transcribe all of the actions both of pupils and teacher occurred in the classroom, which was verbatim speech in teacher-pupil and pupil-pupil interactions; the other one was to transcribe and explain individual pupil’s action on the basis of learning diary every pupil filled in the classroom, which was the description and interpretation of each pupil’ behaviors and actions in the classroom. Although the classroom was English lesson, the teacher also spoke Finnish in the process, for example, explained some activities, interpreted the concept of specific words or grammar, and gave instruction to pupils. Pupils often spoke Finnish when they interacted with teacher and peers.

3.3.2 Self-report

Self-report is designed “to cause the learner to recall or to generate a particular kind of response” (Winne, Jamieson-Noel, & Muis, 2001, pp.135). Through the self-report, people are asked to respond to the questions in the light of what they did in a specific context.

The self-report included pre- and post- self-report, and designed with the pattern of Likert-type scales (1 = strongly disagree, 5 = strongly agree). There were twenty items in the self-report which contained various aspects about self-regulated learning and collaborative learning. The self-report was created by five researchers’ altogether (including me). Each researcher would use several items of self-report in their own study. I used nine items in this thesis. There were two versions of self-report, English and Finnish, since the participants were too young to complete self-report in English (see Appendix A & B).

Making a self-report before executing classroom observation and other activities could help to acquaint the current situation with pupils’ learning and teacher’s teaching in the English classroom, since it asked pupils to make judgment and evaluation of prior
learning experience. Meanwhile, making a self-report after executing classroom observation and other activities could help to compare the condition after applying relevant interventions in the classroom which was in favor of designing the effective methods for teachers to cultivate pupils’ self-regulation in the future. Hence, the pre- and post- self-report provided the opportunity to study the effects of whole process with respect to the measurements of teacher, academic tasks, and collaboration.

3.3.3 Learning diary

The learning diary is a useful tool to measure pupils’ self-regulation process. At the same time, it is an effective means to influence self-regulation in an expected environment (Schmitz, Klug, & Schmidt, 2011). The learning diary is able to record the reflections of the different components which occurred in the classroom from individual pupil’s point of view. Meanwhile, it ensures the true feedback gotten from pupils in the first time which is useful to analyze the related issues.

The learning diary was standardized format and included nine items which also designed with pattern of Likert-type scales (1 = strongly disagree, 5 = strongly agree). Three researchers (including me) designed the learning diary, and would use some items in the respective studies. I used three items in this thesis. It was as same as self-report that there were still two versions of learning diary, English and Finnish, since the participants were too young to complete learning diary in English (see Appendix C & D).

There are many reasons for learning diary to be used in the study: first of all, it allows observing learning process and evaluate results from the different angle. Second, it can be used as an instrument to measure learning process in a period of time. Third, it increases the validity and reliability of data, since it records the real-time learning process without memory errors. At last, the process of repeatedly answering the same questions is also a positive effect on pupils’ self-regulatory behaviors (Schmitz & Wiese, 2006; Schmitz et al., 2011).

3.3.4 Lesson plan

According to the teaching contents and targets, we laid down the lesson plan before each lesson and accomplished six lesson plans in all. In the process of instructional design, the
tasks designed and technology applied were decided according to our research fields. The lesson plan would be sent to the teacher by email before the coming lesson in order to get teacher’s reflection and suggestion. On the basis of teacher’s advice, the lesson plan would be revised and formed the final version.

3.4 Procedure

Two of the researchers completed the data collection of pre self-report in the general classroom setting. They told pupils the purpose of self-report and assisted them to fill it in Finnish. 10 pupils filled out the pre- self-report.

Before the classroom observation, the teacher received the lesson plans designed by us and got her permission after revision. Except for lesson plan, the teacher would be given some instructions and methods used in the classroom in advance. The instructions and methods involved specific teaching strategies and our requirements. Based on the lesson plan, the teacher could carry out classroom teaching in her usual way.

The classroom observation occurred from April to May, and it involved six lessons (twice in first two weeks, once in following two weeks). In order to record pupils’ actions with video camera, pupils were divided into three groups by the teacher based on their daily performance, and desks and chairs were placed differently from routine pattern. There were four video cameras used in the classroom: three were put in each group so as to record individual pupils’ actions, one was controlled by me and moved following the teacher to record her utterances, behaviors, and interaction with pupils.

All the five researchers stayed at the classroom, so we could clearly hear and see both pupils and the teacher without being interrupted. Issues and actions were recorded in the field notes, and events related to teacher and pupils of that time were still kept. After each classroom observation, one researcher read and annotated her field note, added some details about matters and actions that she did not have time to write down in the observation, and posted in the document of Google Drive which was shared within us. Then other four researchers could read and supplement the missing contents observed in the classroom (Perry & VandeKamp, 2000).

The learning diary was assigned to pupils by the teacher in the middle of their implementation of the task through each classroom observation. They could fill it out in sev-
eral minutes, and then returned it back to the teacher and went on to work for the task. The pupils spent three or four minutes in average to finish leaning diary, and the teacher provided explanations for single pupils at times. The learning diary was assigned to pupils six times in total. Ten pupils filled the entire learning diary, and two pupils filled five times. The missing learning diary was different for the two pupils.

After six times’ classroom observation, the participants were asked to complete the post-self-report in their general classroom setting one week later. Two researchers also joined and helped them to fill in Finnish. There were 10 pupils accomplished the post-self-report. The missing pupil was different between pre- and post-self-report.

3.5 Data analysis

Mixed methods were used in this study. Through these methods, several descriptive analyses were also carried out. Firstly, the data of pre- and post-self-report were categorized into the items of each aspect (the teacher’s role in the classroom, academic tasks, and the peers’ influence), and presented the means of each item by histogram, so that it could compare pupils’ transformation of thoughts and opinions from different aspects. The data also could be used to illustrate some events happened in the classroom observation.

Secondly, the learning diary completed in six lessons was shown with means and line chart and interpreted. The means could bring out the related data about each item in the learning diary from different angle which was helpful to be a standard for the illustration. However, the line chart was made for each pupil according to their evaluation of three items in the learning diary. The data of line chart would be analyzed with the relevant classroom observation which favored to explain the cause of the downward trend showed in individual learning diary.

Lastly, the classroom observation was analyzed using content analysis through transcription. In the process of descriptive analysis, the academic tasks designed by researchers and the teacher (e.g. activities, tasks, time schedule, etc.) were assessed yet. At the same time, the teacher’s role in the implementation of those tasks was also evaluated. Beyond that, the descriptive data still explained the related data generated in the learning diary.
In addition, it should be indicated that pupils wrote their names and ages when filling in the self-report and learning diary, but data are presented in anonymous way here.
4 RESULTS

The results would be presented in two aspects: one was the single information about the descriptive results from the classroom observation. The other one was multivariate information which was the results from the combination of classroom observation with self-report and learning diary respectively.

4.1 Descriptive data: classroom observation

The classroom observation and descriptive data which contained field notes and transcription were used to evaluate the academic tasks designed by researchers and the teacher. Although the main aim focused on the assessment of tasks, the teacher’s role in the implementation of those tasks were also necessary to illustrate (Turner, 1995).

The data revealed that there were four types of academic tasks observed within the six lessons. They included (a) Vocabulary learning; pupils would learn the new words shown in the text and exercise. (b) Text learning; pupils could learn the application of words in sentences, grammar, and other information in the text. (c) Dialogue practice; pupils spoke in pairs to practice the relevant knowledge which favored them to apply and master better. (d) Other tasks, which included individual task and group task, and the purpose was to give pupils more exercises (Turner, 1995). Each type of tasks was explained in the following sections.

4.1.1 Vocabulary learning

The general way teacher utilized to teach vocabulary was showing the page of new words on the Smartboard. She clicked on the words, and then pupils listened and repeated words following the sound from computer. The teacher would ask pupils to translate some words into Finnish if they were difficult to understand for most pupils, and she also explained one more time. The listening and repeating of new words were only once no matter whether pupils had master words or not, and most of pupils did not like to repeat. Their voices were even lower than teacher’s.

The following example chosen from the video recording was a different way to teach vocabulary, which was designed by the researchers with PowerPoint. The goal of the
task was to learn some words of transportation. In this activity, the teacher clicked on the horn shown on the page of Smartboard, pupils heard the sound and guessed what transportation it was. After that, the picture and word were presented to confirm their answer was right or not (the teacher-pupil dialogue was recorded verbatim).

<table>
<thead>
<tr>
<th>16 April, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.56-23.56</td>
</tr>
<tr>
<td><strong>Teacher:</strong> Close your book again. You are going to hear the sound and you have to guess ‘what is it’? You have to listen quietly. Listen quietly ‘what is it’.</td>
</tr>
<tr>
<td><strong>Teacher:</strong> Ok. Then put your hand up when you know the word in English. So listen and try to find out ‘what is it’.</td>
</tr>
<tr>
<td>Teacher clicks on the horn on the page and asks ‘what is it’. Most of pupils put up their hands and want to answer the question.</td>
</tr>
<tr>
<td>Teacher chooses Tony to answer.</td>
</tr>
<tr>
<td><strong>Tony:</strong> Bike.</td>
</tr>
<tr>
<td><strong>Teacher:</strong> That is right. It is a bike. Ok, next one.</td>
</tr>
<tr>
<td><strong>Teacher:</strong> What is it, Kelly?</td>
</tr>
<tr>
<td><strong>Kelly:</strong> Car.</td>
</tr>
<tr>
<td><strong>Teacher:</strong> A car. Yes, it could be a car, or what is the car that you can use but you have to pay. You have a driver to give him money to go somewhere if you do not own the car, for example. Tom.</td>
</tr>
<tr>
<td><strong>Tom:</strong> Taxi.</td>
</tr>
<tr>
<td><strong>Teacher:</strong> Yes, it could also be a taxi. That’s right. Taxi is easy to remember. It’s the same word as Finnish word. Ok, the next sound. Listen please.</td>
</tr>
</tbody>
</table>

During this activity, pupils needed to listen to the sound and judge which transportation it was. Hence, if some boys were noisy, teacher and other pupils would say ‘Shhh’ to hint them to be quiet. Moreover, the teacher gave pupils some clues in English which assisted them to think and decide what transportation it was (e.g. taxi). Finally, the interaction between the teacher and pupils was increased in the process. For example, when the picture and words ‘metro/underground’ were displayed on the Smartboard, the teacher explained it in Finnish, and then she also answered some pupils’ questions about metro and underground. In addition, the teacher asked pupil to make examples of which city had metro; since there was no metro in the city they were living now.
4.1.2 Text learning

There were two texts pupils studied during the classroom observation. Because the researchers did not design any activity for the text learning, the teacher taught in her own way and methods. There were three steps for the text learning.

First, ask and answer. The text pages were shown on the Smartboard. Teacher asked questions in English in terms of the picture and content they had learned before. Pupils who intended to answer it would raise their hands. The teacher called pupils’ name randomly no matter he put up the hand or not. After pupils answered the question, teacher would repeat the result again and explained some details in Finnish to aid pupils to understand the content well.

The following example was chosen from the video recording, which were a part of interaction between teacher and pupils in the first step of text learning (the teacher-pupil dialogue was recorded verbatim).

<table>
<thead>
<tr>
<th>22 April, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.30-09.55</td>
</tr>
</tbody>
</table>

Teacher: Ok, well done. Next we are going to take a look at the new text. Guys, listening please. Take a look at the new text.

Teacher: So where are they going? If you take a look at this picture, where are they going? Put up your hands up and give the answer. Jack, where are they going? Take a look at this picture, where are they going?

Jack: London.

Teacher: Hmm, they are going to London. Why are they going to London, Clare?

Clare: Talent show.

Teacher: That’s right. They are going for the Talent show. How do they travel to London, Tony?

Tony does not answer this question, but he asks a question in Finnish.

Teacher: Ah, ok. I am not sure which city or town they go (answer Tony’s question). How do they travel to London? Kelly.

Kelly: By train.

Teacher: That’s right, by train.
Second, listen to the text. After questions and answers, the teacher told pupils to take on their Reader (textbook) and turn to Page 50, since they were going to listen to what happened in the train. Before listening, the teacher went to each group to confirm every pupil had Reader, and reminded pupils who did not have Reader to take on the bookshelf. While listening, the teacher walked within groups to make sure pupils watched their Reader or Smartboard. The aim was to supervise pupils’ behavior in order to facilitate their self-regulation.

Third, and last, reading comprehension. The teacher asked some questions in English according to the materials heard just now. Because this was the new text, pupils could not understand some questions well in English. The teacher would ask one more time in Finnish if she found pupils were not clear about them. For every question, the teacher always repeated pupil’s response and made explanation in Finnish so as to help pupils to comprehend the text well and tend to work for the next tasks.

It was worth mentioning that the teacher did not ask pupil to read the text any more. They would go on to the next exercise directly after aforementioned steps.

4.1.3 Dialogue practice

The dialogue practice was divided into two forms: practice with Ipad and practice without Ipad. For the former, all of the tasks were designed by the researchers based on the teaching contents and got the teacher’s permission. For the latter, the tasks were the original tasks of Activity book and executed with paper or Smartboard. Both of two forms tasks were worked in pairs.

4.1.3.1 Practice with Ipad

There were several tasks with Ipad during the four lessons. Each time, pupils took Ipad into the classroom and put it on the extra desk. When the time was activity with Ipad, the teacher would ask pupils to take their Ipad and provided elaboration and instruction of the activity for them.

The following instance was chosen from video recording and field notes which was considered typical. This activity represented a common pattern of the dialogue practice with Ipad. The researchers used software to make a map and labeled some countries. When pupils chose any country, it would enter a different page that presented the transportation
and price about going to this country. The target of the activity was to practice the vocabulary about transportation and numbers with fixed syntactical structure (the teacher’s utterance is recorded verbatim).

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 April, 2013</td>
<td>21.47-22.40</td>
<td>Teacher: Ok, go to get your Ipad, please. Pupils run to the table and take their Ipad. The teacher presents the map they used in previous lesson on Smartboard. Teacher: Ok, do you remember this activity? How do you travel to Tormia? Then you choose Tormia to answer by bus or by car. How much does it cost? Sixty-six euros or thirty-two euros? Teacher: Now we are not going to Europe any more, but about the world. So go to this page.</td>
</tr>
<tr>
<td></td>
<td>22.41-23.17</td>
<td>The new map is shown on Smartboard, the teacher explains the map in Finnish and displays the link of the map on Smartboard.</td>
</tr>
<tr>
<td></td>
<td>23.18-26.09</td>
<td>The teacher goes to each group to check if pupils can enter into the map and provides help for individual pupil.</td>
</tr>
<tr>
<td></td>
<td>26.10-27.01</td>
<td>When confirming each pupil enters into the map, the teacher changes the page to the dialogue sentences on Smartboard. She reads the dialogue sentences and translates into Finnish. And she instructs pupils how to practice in pairs with Ipad in Finnish. Teacher: Ok, ask and answer with your pairs. The teacher divides pupils into pairs.</td>
</tr>
<tr>
<td></td>
<td>27.02-30.23</td>
<td>The teacher repeats ‘how do you travel’ and goes to each group to help pupils work together. For some pupils, she models how to use the map to make dialogue with Ipad. When pupil asks the question in Finnish, the teacher goes to the group and gives explicit instruction in Finnish. The teacher goes to some pairs and asks the questions shown on Smartboard and makes them to answer. The teacher walks among the group and reminds pupils to speak in English.</td>
</tr>
</tbody>
</table>
Through the observation, it revealed the teacher modeled how to do the dialogue with the old map used in previous lesson on Smartboard, which could have pupil to recall and would be easier to do the new task. Furthermore, the teacher examined if every pupil entered into the map could assist pupils to practice with Ipad smoothly.

However, some issues also appeared. The most common one was most of pupils, especially boys, did not watch Smartboard and listened to teacher’s exposition when getting Ipad. They always played games or did something else with Ipad. The same condition occurred in the duration of dialogue practice as well. Therefore, the typical scene observed in the classroom was that pairs made dialogue a few minutes, then if the pairs were boy and girl, the boy was playing Ipad, and the girl was sitting and gazing around alone with her Ipad on the desk. But if the pairs were two boys, they were playing Ipad individually. Even sometimes, the boys did not make dialogue with his partner; they would play with Ipad all the time. Although the teacher gave intervention when she found that situation, it could not prevent some pupils (especially boys) from playing with Ipad.

4.1.3.2 Practice without Ipad

There were some activities without Ipad in the classroom. These kinds of activities were derived from the Activity book. The teacher presented the dialogue sentences on Smartboard, and pupils practiced in pairs in the light of some items (e.g. items for travelling) they had got or contents in the Activity book.

Before pupils worked for the dialogue, the teacher displayed the example sentences on Smartboard, and read the sentences. If the sentences were hard for pupils to understand, the teacher would translate into Finnish. When the sentences involved the grammar knowledge, the teacher also elaborated in Finnish so that pupils could know well.

During pupils practiced in pairs, the teacher repeated the sentence pattern (e.g. Have you got, what else have you got in your suitcase?) and came to each group. She would listen to pupil’s dialogue and gave feedback to them (e.g. that is good, great). Beyond that, the teacher corrected pupils’ mistake, gave support to someone who was hard to speak accurately.

From the observation, it was found that pupils could not regulate their behaviors to practice with pairs in the whole procedure. Generally, the dialogue practice was about seven to ten minutes. But about five minutes later, most of pupils stopped practicing. Some
were speaking in Finnish with partner or neighbors; some were playing paper or watching around. If the teacher was instructing and interacting with individual pupils, she could not remind and intervene them, and they would not control the behaviors by themselves yet. Besides that, there was no segment for pupils to present their dialogue in the classroom. They were going to the next task directly.

4.1.4 Other tasks

The other tasks included individual task and group task. And those tasks were hatched up by researchers and then checked and endorsed by teacher. Actually, the individual task occupied the least part among all of the academic tasks. To some degree, there was only half part of one task can be defined as individual task. However, there were four group tasks, and Ipad was used in half tasks, not in the other half.

4.1.4.1 The individual task

This task used an application that was called ‘Popplet’ in Ipad. The pupils needed to choose one category of place (e.g. do sports, travelling, have fun) and made a mind map with the application. The teacher assigned pupils into different categories prior to the lesson. The target of the task was to make pupils practice the vocabulary about sights.

Because it was a new task that pupils had never experienced, the teacher elaborated on Smartboard in Finnish and some pupils asked the questions in the process. In order to help pupils understand it clearly, the teacher asked pupils to answer several questions after providing the information. Further, the teacher modeled how to use the application to make mind map and listed the pupils’ name in the various category on Smartboard. She also told pupils to seek help from Activity book which was a learning strategy transmitted to pupils. When pupils were busy with this task, the teacher went to each group as usual. She supplied instruction and intervention to anyone who was hard to perform the task smoothly. And she also answered pupils’ questions. Meanwhile, the teacher gave feedback when watching pupils’ outcome (e.g. yes, that is right, good).

Through the observation, it showed up: (1) the teacher spoke Finnish in most time of the task (e.g. introduction, elaboration, explanation, modeling, etc.). (2) The relevant information about this task was shown on Smartboard all the time. (3) The teacher used
questions to guide individual pupils to ponder and solve the problems. (4) The teacher did not warn pupils to watch Smartboard when they were playing Ipad.

4.1.4.2 The group task

The researchers designed a project task for the final lesson, which was to ask each group to make a poster about the knowledge they had learned in the previous five lessons and then presented the outcome in the classroom. The goal of the poster making was to help pupils review the knowledge and apply them in the actual condition. And the goal of the presentation was to give a chance for pupils to practice language output.

The following data came from the video recording and field notes. The groups needed to make a poster called ‘our trip to London’; it should contain four main things: the title, the items taken with them, means of transportation used, and the places they wanted to visit in London. Besides that, the groups could add other things related to the topic. The groups could use the materials they created during previous five lessons (e.g. items from the suitcase, Popplets, maps of a city, and so on). The researchers also prepared and printed out some materials for pupils (pictures of London sights, means of transportation, and items taken for trip). The groups decided the methods of poster making (e.g. glue the pictures, draw on the poster, write the English words, etc.). The duration of the work was about twenty minutes.

<table>
<thead>
<tr>
<th>6 May, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>02.43</td>
</tr>
<tr>
<td>Teacher: Today we are going to do a special project work.</td>
</tr>
<tr>
<td>Then the teacher gives one researcher a tip to talk about the work for pupils.</td>
</tr>
<tr>
<td>The researcher introduces how to make poster in Finnish including contents, materials, and other things.</td>
</tr>
<tr>
<td>03.50</td>
</tr>
<tr>
<td>The teacher presents the Finnish language information of poster making on Smartboard, and tells pupils the issues about poster in Finnish one more time.</td>
</tr>
<tr>
<td>The teacher gives a piece of big paper to each group and lets pupils know where they can get materials (on a desk).</td>
</tr>
<tr>
<td>Teacher: Ok, go on to get some pencils, color pens, items, and pictures what you need.</td>
</tr>
<tr>
<td>Teacher: You have 20 minutes.</td>
</tr>
<tr>
<td>07.39</td>
</tr>
<tr>
<td>The pupils go to the desk and take the materials (pictures, glues, color pencils, etc.).</td>
</tr>
</tbody>
</table>
The teacher goes to each group to give elaboration and answer pupils’ questions in Finnish. The teacher gives each group some suggestions and ideas in Finnish in order to favor pupils to design the poster.

Through asking pupils’ questions in Finnish, the teacher reminds pupils to recall the contents and knowledge they have already learned recently.

The teacher calls pupils’ attention to seek help from Activity book in Finnish.

*Teacher:* You have 5 minutes left/you have 2 minutes left.

31.20

It is the time to make presentation for each group. The teacher explains how to make it in Finnish.

31.45

The first group: there are three boys and one girl.

Tom points to the pictures with fingers and speaks in Finnish.

*Teacher:* In English, please.

*Teacher:* What else have you got?

Alice answers this question. (*I cannot hear clearly*)

*Teacher:* Tom, could you tell us about what places did you visit?

*Tom:* Castle, Big Ben, underground (Tom watches the poster and answers).

*Teacher:* Hmm. Can you tell us what you pack?

Tony and Alice answer in Finnish by turns.

*Teacher:* Ok, thank you. Well done (the teacher and pupils applaud).

33.51

The second group: there are two boys and one girl.

*Teacher:* Next group. Ok, let’s see it. Let’s start.

*Teacher:* Ok. Can you tell us your choice of places? What places do you visit in London?

*Kelly:* Big Ben, a castle (Kelly watches the poster and answers).

*Teacher:* What do you pack for your trip?

*Kelly:* I pack toothbrush, toothpaste, money, a pan for my dog.

Other pupils are interested in the pan for the dog. Kelly explains it with gesture in Finnish.

*Teacher:* What else have you pack?

Mike answers this question. (*I cannot hear clearly*)

*Teacher:* Ok. How do you travel to London?

*Mike:* Underground.

*Teacher:* You travel in London by underground. But how do you travel from here to London?

*Kelly:* By plane.
Teacher: By plane. Ok, excellent. Let’s give applause.
The teacher and pupils applaud.

The final group: there are two boys and two girls.
Teacher: Ok, next group. Let’s start with what places do you visit?
Two boys point to the poster with fingers and answer this question by turns. *(I cannot hear clearly)*
Teacher: Ah, Danny is going to make a home in London as well.
Teacher: Ok. What about yours, girls? What places do you visit in London?
Cindy: Big Ben.
Teacher: Hmm, Big Ben. What else? Have you visited other places?
Cindy answers this question. *(I cannot hear clearly)*
Teacher: How do you travel from here to London?
Cindy: By plane.
Teacher: And how do you travel in London?
Cindy: Underground.
Teacher: And what about you, boys?
Danny and Jack: Motor.
Teacher: What do you pack for your trip?
Jack answers this question. *(I cannot hear clearly)*
Teacher: Ok, girls, what have you got?
Cindy and Alice answer this question. *(I cannot hear clearly)*
Teacher: Ok, thank you. Let’s give applause.
The teacher and pupils applaud.

The observation revealed that (1) the teacher spoke Finnish most of the time during the project (e.g. elaboration, instruction, reminder, interaction with pupils, etc.). (2) The information about this project was shown on Smartboard all the time. (3) The teacher assisted pupils to recall the related contents and knowledge with questions. (4) The teacher told pupils the time for poster making, but she did not write the starting and ending time on whiteboard. She provided language notes near the ending time (e.g. you have 5 minutes left/you have 2 minutes left). (5) In the presentation, the teacher encouraged pupils to
speak in English. (6) Through asking questions to group, pupils knew what they should speak. (7) The teacher gave feedback to pupils in the process of project. (8) The teacher did not tell pupils to speak loudly; hence some pupils spoke so low that researchers could not hear clearly.

Through the transcription and description about classroom observation mentioned above, it was distinct that four types of academic tasks had different organizational structure, teaching methods, and meaningfulness for learning; and the teacher also had an effect on the execution of those academic tasks. However, the actual operations did not completely bring the expected result as planned. First of all, the pupils’ intrinsic interests in the academic tasks were not very high. Although the teacher introduced and analyzed the academic tasks in detail, she did not instruct pupils to value the attainment and utility of the academic tasks. Therefore, pupils could not get more enjoyment from the academic tasks. Then, when pupils were implementing the academic tasks, their attention were distracted sometimes, which means they could not control behaviors by themselves or obtain external help (e.g. the teacher, the peers) frequently. Lastly, the teacher did not provide opportunity for pupils to self-evaluate their performance, such as comparing dialogue practice with other groups through presentation. But it should be emphasized that the teacher directed pupils to seek help from textbook in the process of implementation, which was a helpful learning strategy for pupils to monitor their behaviors.

Thinking about the reasons mentioned above, besides the design of classroom instruction activities and the function of teacher, what else reasons affected pupils’ self-regulation of behaviors in the classroom would be addressed in the next section.

4.2 Multivariate data: self-report and learning diary

The self-report and learning diary were used to summarize and examine the other potential elements which influenced pupils’ behaviors in the classroom by analyzing (a) the contrast of pupils’ attitudes and viewpoints to some designated issues. (b) The pupils’ evaluation about the academic tasks implemented, teacher’s role, and peers’ interaction in the classroom. (c) The causes about variances of frequencies that came from pupils.
4.2.1 Self-report

The self-report, which included pre- and post- self-report, were able to take on the varieties of pupils’ thoughts and opinions through interventions designed in the classroom. The aim of the self-report was to answer questions like: Were teacher’s help, instruction, and elaboration significant for the pupils? Were the activities executed in the classroom interesting? Did the pupils enjoy working together with peers and work better in English lesson? In order to answer such questions, the self-report categorized the items into three aspects, calculated the means of every item depended on the data collected before and after classroom observation, and compared the means with a histogram.

Table 1. Category of the items used in the study

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher's role in the classroom</td>
<td>I can complete a task without help from the teacher. (Q8)</td>
</tr>
<tr>
<td></td>
<td>I want my teacher to give me specific instruction</td>
</tr>
<tr>
<td></td>
<td>about the task during the lesson. (Q9)</td>
</tr>
<tr>
<td></td>
<td>My teacher gives me feedback. (Q13)</td>
</tr>
<tr>
<td></td>
<td>The feedback I received from my teacher helps</td>
</tr>
<tr>
<td></td>
<td>me improve my learning. (Q14)</td>
</tr>
<tr>
<td>Academic tasks</td>
<td>I want to do as little as possible in English lesson.</td>
</tr>
<tr>
<td></td>
<td>(Q4)</td>
</tr>
<tr>
<td></td>
<td>I think the tasks we do in English lesson are interesting.</td>
</tr>
<tr>
<td></td>
<td>(Q10)</td>
</tr>
<tr>
<td>The peers’ influence</td>
<td>I want to help others in English lesson. (Q7)</td>
</tr>
<tr>
<td></td>
<td>I work better in group than alone. (Q11)</td>
</tr>
<tr>
<td></td>
<td>I enjoy working together with my classmates in English lesson. (Q12)</td>
</tr>
</tbody>
</table>

Note: Q=question. The questions in the Table 1 are a portion of the entire self-report.

Table 1 presents the category of the items which were classified. The categories at the left of the table indicated the measured factors in order to reflect what exactly affected pupils’ self-regulation of behaviors in the classroom. The items at the right of the table
indicated what questions were designed to ask pupils so as to obtain the helpful data for the study.

**Figure 3.** Contrast of the means between pre- and post-self-report

![Bar chart](chart.png)

Figure 3 presents the result about contradiction of means between pre- and post-self-report. The ideal situation was that the result of post-self-report should be higher than pre-self-report. But in fact, it revealed some frequencies that were different than expected: there were three means in post-self-report which were lower than in pre-self-report. The following section would illustrate concretely with respect to the categories in Table 1.

4.2.1.1 *The teacher’s role in the classroom*

Question 8, 9, 13, and 14 were able to explain the function of teacher from pupils’ points of view. Through the Figure 3, it showed the scales of Question 8, 9, and 13 achieved growth in post-self-report (+0.1), whereas, the scale of Question 14 was decreased in post-self-report (-0.1). From these four questions, it could find that Question 8 and 13 were the sentences which belonged to the statement of facts. Comparing the experience of front and back about the learning, the pupils declared that ‘I can complete a task without help from the teacher more than before’ and ‘My teacher gives me feedback more than before’. However, Question 9 and 14 were the sentences which belong to the emotion and assessment. Question 9 expressed what pupils expected the teacher to do in the classroom, and Question 14 was the assessment for the teacher’s behavior (e.g. feedback) from pupils’ angle. The scale of Question 9 was increased in the post-self-report. So it indicated the teacher gave more specific instruction about the tasks during the lessons. However, the scale of Question 14 was decreased in the post self-report; therefore, it indicated the pupils believed
the feedback gotten from teacher did not assist to promote their learning yet. The evaluation for teacher’s feedback was negative, but not positive.

4.2.1.2 Academic tasks implemented by pupils

Question 4 and 10 were able to explain how about the tasks executed in the classroom from pupils’ points of view. Through the Figure 3, it showed the scales of both questions were all fallen down in the post-self-report. Question 4 was reduced 0.08, and Question 10 was reduced 0.2. However, the scale of Question 4 in post-self-report was lower than pre-self-report proved that pupils wanted to do more activities in English lessons than before. It reflected pupils liked to carry out tasks in the classroom to a certain extent. Nevertheless, for the Question 10, the decline was a bad news indeed. The level of falling about this question was the highest among the whole data. It implied that the pupils’ evaluation of the tasks executed in the classroom was under rate. They did not think the tasks they had completed in the English lessons were interesting. Hence, it was a signal that some tasks designed by researchers (including me) did not acquire the desired effects in the classroom. And which kind of task brought about this condition should be checked and analyzed in the following section. But it was clear that some key points the researchers discussed during the process of tasks’ planning had not accord with pupils’ ways or habits of thinking on some level.

4.2.1.3 The peers’ influence

Question 7, 11, and 12 were able to explain how collaboration influenced pupils’ behaviors in the classroom and how they treated the learning relationship between peers. Through the Figure 3, it showed the scales of those questions were completely raised in the post-self-report. One of them, Question 12, rose 0.6 was the biggest increase among all the data. In addition to this, Question 7 and Question 11 rose 0.1 respectively. The Question 12 expressed the emotion of pupils to the collaboration. Through the result of Question 12, it did not only display pupils would like to work together with peers in the English lesson more than before, but also illustrated there were more collaborative activities and tasks (e.g. dialogue practice, group work) for pupils in the classroom. Some of those activities and tasks were designed by researchers (including me). Question 7 and Question 11 expressed the motivation of pupils to the collaboration. Through the results of Question 7 and Question 11, it presented there were two reasons why pupils liked collaborative learning in the classroom: one was they wanted to help other peers, since it could increase their recogni-
tion and self-efficacy in the process; the other one was they could work better in group than alone, would be easier for them to complete the tasks better, realize the target, and enhance their sense of achievement. All of the aforementioned reasons could affect the degree of self-regulation for pupils.

4.2.2 Learning diary

There were three items in the learning diary including: (1) the teacher is helping me to understand the task better. (2) I am learning something which is useful for me. (3) I understand the task better with the help of the group. It was clear that the learning diary also discussed pupils’ self-regulation about behaviors from teacher’s function, the academic tasks implemented, and peers’ interaction, which was similar to the self-report. But it was more inclined to evaluate those three aspects through the activities carried out in the six lessons. Pupils filled out the learning diary in the middle of each lesson, and all the collected data about learning diary would be analyzed combining with the video recording in the classroom. Through the analysis of data, it revealed pupils’ various assessment to items in each lesson and the causes about relevant situation. The analyzed results of the learning diary would be presented by the means and numbers of decreasing frequency of each item separately.

4.2.2.1 Results from learning diary: 3 items

Although it was significant to use the frequency of line charts to analyze and explain the reasons to the result based on the observation in the classroom, it should be necessary firstly to make a table to bring out the related data about each item in the learning diary from different angle which was helpful to be a standard for the following illustration.
Table 2. Means of each item in six lessons

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Item 1</th>
<th>Item 2</th>
<th>Item 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
<td>3.27-</td>
<td>3.18-</td>
<td>3.18-</td>
</tr>
<tr>
<td>Lesson 2</td>
<td>2.40-</td>
<td>3.00-</td>
<td>3.00-</td>
</tr>
<tr>
<td>Lesson 3</td>
<td>3.10-</td>
<td>3.10-</td>
<td>2.50-</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>3.82-</td>
<td>3.45-</td>
<td>3.18-</td>
</tr>
<tr>
<td>Lesson 5</td>
<td>3.64-</td>
<td>3.09-</td>
<td>3.18-</td>
</tr>
<tr>
<td>Lesson 6</td>
<td>3.73-</td>
<td>3.73-</td>
<td>3.36-</td>
</tr>
</tbody>
</table>

Note: There were ten pupils who participated the learning diary in Lesson 2 and Lesson 3 respectively. The absent pupil was different. Other lessons had the full pupils (the sum is 11) to participate.

Table 2 presents the means of each item in every lesson, which provided the rationale for me to choose the typical conditions to state the results of the analysis and explain the reasons. It was one of the better ways to achieve the original goal of the learning diary.

4.2.2.1.1 Item 1: the teacher is helping me to understand the task better

The Item 1 concerned pupils’ evaluation about teacher’s role in the classroom. The aim of this item was to measure the teacher’s action in each lesson from pupils’ viewpoints. From Table 2, it could be seen that the mean of Lesson 2 was 2.40, the lowest among the six lessons. But the mean of Lesson 4 was 3.82, the highest number. The next parts would describe reasons with regard to the above information through the video recording in Lesson 2 and Lesson 4.

Teacher observation:

There were four tasks in Lesson 2, including one vocabulary learning and three dialogue practices (one used Smartboard, one used Smartboard and Activity book, and one used Ipad). The first task was the dialogue practice. The teacher presented the dialogue sentences on Smartboard and read the examples for pupils. Then she explained the task and asked pupils to make dialogue practice in pairs in Finnish. In the process of pupils’ practice, the teacher repeated the dialogue sentences, walked to each group, listened to pupils’ dialogue, and provided feedbacks and elaborations.
The second task was vocabulary learning. The teacher said "close your book again. You are going to hear the sound and you have to guess ‘what is it’. You have to listen quietly. Listen quietly ‘what is it’. Ok, then put your hand up when you know the word in English. So listen and try to find out ‘what is it’." During this task, the teacher gave pupils some clues in English in order to help them speak out the word (e.g. taxi). Except for it, the teacher and pupils had interaction in Finnish when explaining the specific words (e.g. metro/underground).

The third task was also dialogue practice. The page of dialogue on Activity book was shown on Smartboard, and the teacher translated the sentences in Finnish firstly. Then pupils listened and repeated the sentences with the teacher. After that, the teacher elaborated the grammar existing in the sentences in Finnish and modeled how to make dialogue with the map on Activity book. When pupils spoke in pairs, she still walked in each group, reminded pupils to speak in English, corrected their mistakes, and gave help for someone who was not clear how to speak accurately.

The final task was dialogue practice with Ipad. After pupils got the Ipad under teacher’s permission, the teacher modeled how to enter this task on Smartboard. She went to each group to check if pupils entered the interface of the task in Ipad. When she affirmed every pupil had entered, she came back to the Smartboard and modeled how to use the interface to make practice step by step. She explained this task in Finnish one more time as well. While pupils made dialogue, the dialogue sentences were shown on Smartboard all the time. The teacher instructed some pupils how to practice this task and encouraged some pairs to speak in English.

Comparison with Lesson 2, there was only two tasks in Lesson 4 (since a test spent several minutes). One task was vocabulary learning, and the other one was individual task with Ipad. The first task was very simple. The teacher clicked words and phrases on Smartboard. Then the pupils listened and repeated them together, and made the translation in Finnish.

The second one was the task with Ipad. First of all, the teacher elaborated the task on Smartboard and gave pupils answer to their doubts. Then she helped pupils to understand this task better through asking a few of questions related to the task. Thirdly, the teacher modeled how to use the application on Ipad to work and displayed the relevant information of the task on Smartboard. She also told pupils to seek help from Activity
book which was a learning strategy transmitted to pupils. When pupils were working with the Ipad, the teacher went to each group to supply instruction and intervention to anyone who was hard to perform the activity smoothly, and answered pupils’ questions. She also gave feedback when watching pupils’ outcome (e.g. yes, that is right, good).

While the teacher found most of pupils have completed the task, she asked them to share the outcome with each other. She made examples in advance and showed the dialogue sentences on Smartboard (Ok, listen please. What places for sports have you got? What places for travelling have you got? I have got playground.). She went to the groups to practice dialogue with some pupils, gave feedback, and checked pupils’ practice as well. At the end, the teacher told pupils to share their products by email and presented email address on Smartboard.

Since this was the first time for pupils to use the application in Ipad to make exercise, the teacher spoke Finnish among the most time of the task, such as introduction, elaboration, explanation, modeling, instruction, and so on.

_Pupils observation:_

Through the classroom observation about Lesson 2, it demonstrated that most of pupils could regulate their behaviors and comprehend the tasks well in the first three tasks. But there were some problems in the final task that prevented pupils from understanding the task better.

Firstly, the great mass of pupils was playing Ipdas when the teacher explained the task on Smartboard. They bowed their heads and played with Ipdas, but did not watch the teacher and the information on Smartboard. Secondly, some pupils were hard to focus on their attention longer. Two or three boys were speaking sometimes during teacher’s illustration of the task. Finally, some pupils did not make dialogue with partners, but playing with others or only sitting. The teacher was busy to instruct pupils in other group, she did not come to intervene them.

However, there was still a task with Ipad in Lesson 4. But pupils could understand it better. The main reasons were: for one thing, the method of questions and answers was useful for pupils to understand the task. For another, pupils could seek help from Activity book and the teacher. Lastly, pupils had more time to implement one task than others else.
4.2.2.1.2 Item 2: I am learning something which is useful for me

The Item 2 involved the tasks implemented in the classroom. The aim of this item was to measure the tasks designed by researchers and the teacher from pupils’ points of view. From Table 2, it could be seen that the mean of Lesson 2 was 3.00, the lowest among the six lessons. However, the mean of Lesson 6 was 3.73, the highest number. The next parts would describe reasons with regard to the above information through the video recording in Lesson 2 and Lesson 6.

Teacher observation:

There were four tasks in Lesson 2, which were one vocabulary learning and three dialogue practices (one used Smartboard, one used Smartboard and Activity book, and one used Ipad). In Lesson 6, the unique task was poster making, which was a project work in groups. This kind of task was new for pupils. But the vocabulary learning and dialogue practice were the main tasks in the foreign language learning and appeared nearly in every lesson. From the observation in the classroom, it revealed that the teacher only introduced and instructed pupils how to carry out the tasks, no matter what types of tasks. She did not tell pupils how useful of the tasks and what they could obtain if they worked hard in these academic tasks. And there was no presentation after working dialogue practice in pairs.

Pupils observation:

Through the observation in the classroom, it showed some tasks, just like vocabulary learning and dialogue practice, were familiar to pupils. They needed to practice every day or even several times in one lesson. Although they executed these tasks under the instruction of the teacher, there were still some issues existing: one was some pupils could not work actively; they performed the tasks as a routine. The other one was some of them were difficult to work continuously; they distracted their mind away from the tasks easily, such as speaking with peers or refusing to practice any more.

4.2.2.1.3 Item 3: I understand the task better with the help of the group

The Item 3 was pupils’ evaluation about collaboration in the classroom. The aim of this item was to measure the peers’ interaction. From Table 2, it could be seen that the mean of Lesson 3 was 2.50, the lowest number among the six lessons. But the mean of Lesson 6 was 3.36, which was the highest order. The next parts would describe reasons with regard to the above information through the video recording in Lesson 3 and Lesson 6.
**Teacher observation:**

Through the classroom observation in Lesson 3 and Lesson 6, it could be seen that the teacher divided pupils into pairs, gave some pairs elaboration and support in Finnish, provided feedback for their works, and gave learning strategy (e.g. you can use the textbook if you want) and interventions when their collaboration is hard to carry on.

**Pupils observation:**

There were three tasks that pupils needed to complete for pairs in Lesson 3. The first one was word puzzle. The pupils needed to compare words by Finnish and English and complete the puzzle. After finishing this task, the pupils would work for the second task, the dialogue practice. In this task, they were asked to accomplish a dialogue with the disorder sentences. The last one was dialogue practice with Ipad. The pupils had a conversation exercise with the map in Ipad. This task was easy for them, since they had made the similar task in the previous lesson (Lesson 2).

From the observation in the classroom, the main problems occurred in the first two tasks. For one thing, some pupils did not work with the partner in the word puzzle. They were only sitting and nothing to do. The partner worked alone and did not ask them to work together. There was no interaction between them. Although the teacher gave intervention to individual pupils, it was still no effective. For another, some pairs were quiet and refused to make a dialogue. After the teacher told them to seek help from Activity book and encouraged them to speak, they were reluctant to practice several minutes and stopped once again.

Comparing with Lesson 3, pupils could work better within a group in Lesson 6. Since they had the same goal which was to complete a poster and make the presentation as a group, everyone had to make a contribution to that goal. In the process of poster making, they were working for the different role: writing, drawing, coloring, choosing pictures, and pasting. And even some pupils could discuss together in the duration of the working. Though some pupils were not to actively work for the poster, they also did something for the poster after the teacher’s encouragement and interventions (e.g. choose and paste pictures, write words).

To sum up the conditions about collaboration talked above, it brought out that if pupils could work smoothly and happily with the partners, regardless of one or more ma-
tes, they always considered their group was helpful for them to understand the tasks, and vice versa.

4.2.2.2 Results from linear trend analysis

Except for the table about means of each item in six lessons, it was also useful to perform a liner trend analyses (Figure 4) to present the number of each item’s decline trends by means of learning diary. It was able to improve the reliability and validity of the data.

**Figure 4.** Frequency of learning diary items

![Graph showing frequency of learning diary items](image)

Note: There were ten pupils participated the learning diary in Lesson 2 and Lesson 3 respectively, the absent pupil was different. Other lessons had the full pupils (the sum is 11) to participate.

4.2.2.2.1 Item 1: the teacher is helping me to understand the task better

The Figure 4 exposit the most numbers of decline is Lesson 2, 5, and 6, which is five times respectively. The mean of Lesson 2 in Item 1 was still the lowest number shown in Table 2, thus the result of analysis and the reason had already been described. The next part would describe the specific situation of Lesson 5 and 6.

*Teacher observation:*

There were three tasks in Lesson 5. The first one was text learning. The teacher gave pupils questions (e.g. I want to know what your favorite site in London. Let’s listen what happens in London when the Charps going to see different sights) before listening to the text. When pupils and the teacher finished the listening, the teacher asked the meaning of sentences shown on the final page of text, since it was a little difficult for pupils to understand. After one pupil translated the sentences in Finnish, she explained in Finnish once
again. Then the teacher made pupils to do the exercise in the Activity book, she checked if pupils completed the task and made reading comprehension by questions and answers.

The second task was to learn the place of prepositions (e.g. on, in, behind, etc.). The teacher asked the question (e.g. Where is Snowful now? Can you find Snowful) in terms of the pictures shown on Smartboard to inspire pupils to answer with the prepositions. She repeated pupils’ answer and explained the prepositions with gestures in Finnish. Apart from this, they read and translated more prepositions and phrases in the Activity book displayed on Smartboard, and the teacher also provided explanation in Finnish again.

The final task was a group work. The pupils needed to complete a map with the materials given by the teacher. The aim of this task was to apply the knowledge of prepositions and phrases they had learned in the second task. The teacher elaborated how to carry on the task in Finnish, and then went to each group to supply specific instruction and intervention. She checked the completed part of the map in the process of execution as well.

There was only one task in Lesson 6, which was poster making. First of all, the teacher presented the information about poster making on Smartboard and elaborated how to make poster and relevant issues (contents, materials, and so on) in Finnish. Meanwhile, she answered pupils’ questions about task. When assigning paper for poster, she told pupils where they could get materials and running minutes. In the process of working for the poster, the teacher provided instruction, suggestions, learning strategies, and support (answer pupils’ questions) for pupils as usual.

*Pupils observation:*

Through combining the classroom observation with pupils’ filling results of learning diary in Lesson 5 and 6, it revealed that: on the one hand, pupils were hard to regulate their behaviors by themselves. They could not watch and hear the introduction of tasks coming from the teacher carefully. They would look at the desk, played fingers or paper, or spoke with fellows nearby. And the teacher seldom gave intervention for those situations. On the other hand, some individual task required pupils to apply new knowledge they had learned just now (e.g. the third task in Lesson 5), but the teacher did not give them enough time to complete the task, which also influenced pupils’ understanding of the tasks.
4.2.2.2 Item 2: I am learning something which is useful for me

The Figure 4 exposit the most numbers of decline in Lesson 5, which is five times. However, the lowest number of mean in Item 2 was Lesson 2 shown in Table 2, and the result of analysis and the reason had been described. To guarantee the accuracy of analysis, it was necessary to describe the related issues about Lesson 5.

*Teacher observation:*

The new text, prepositions of places learning, and complete the map within group were the three main tasks in Lesson 5. For the observation in the classroom, the teacher used the normal way to teach the new knowledge to pupils, such as listening, questions and answers, reading, and explanation. She did not let pupils know how useful of the knowledge they were going to learn and when they could use those knowledge, but also not give intervention to some pupils who were difficult to focus their attention on the second task (prepositions and phrases learning).

*Pupils observation:*

Through the classroom observation, it brought out the key problem happened in the second task (prepositions and phrases learning) in Lesson 5. It presented that pupils were prone to distract attention away from this task, which meant they could not monitor their behaviors by themselves. Now and then, some boys were playing and talking with each other in the process of the task. Someone was not watching Smartboard but watching desks, and someone was doing exercise book. Beyond that, there were few pupils who repeated the sentences shown on Smartboard (maybe the sentences were a little difficult for them). Although the teacher gave intervention to pupils occasionally, the impact was not notable.

4.2.2.3 Item 3: I understand the task better with the help of the group

The Figure 4 exposit the most numbers of decline in Lesson 3, which is six times. This data is the same as Table 2; the lowest mean in Item 3 was also Lesson 3. Therefore, the description of the result and the reason could be found in the part of ‘Results from learning diary: 3 items’.

Through presenting the result of self-report and learning diary, it displayed some reasons which influenced pupils’ self-regulation of behaviors in the learning process. On
one hand, the pupils did not establish the goal before working the academic tasks which is based on the assessment criteria, since the teacher did not state any criteria before pupils’ implementation. Therefore, their outcome expectations were empty. On the other hand, owing to not getting any information about utility of the academic tasks, the pupils’ intrinsic motivation to perform the tasks was not enhanced on some levels, so that pupils could not focus attention and manage their efforts and behaviors during the implementation. However, the collaborative learning with peers assisted pupils to regulate their behaviors to some extent. Working with peers, the pupils could seek help with each other, maintain interests, improve self-efficacy beliefs, and accomplish the task better. It was clear that peers had some positive effects on pupils’ behavioral regulation in the classroom.
5 CONCLUSION AND DISCUSSION

The main aim of this study was to test the effects of three factors: teacher’s role, academic tasks, and peers’ influence, in promoting pupils’ self-regulation in the classroom. What was the contribution of the study in relation to this aim?

5.1 Effects of the teacher

The first research question in this study concerned the role of the teacher, and the hypothesis was the teacher can help pupils to regulate behaviors if they provide explicit explanation of the activities before pupils’ implementation, model some strategies about problem-solving, encourage them to practice learning tactics, and give feedback. Through the classroom observation, it can be concluded that the teacher provided clear explanation of the activities before pupils’ implementation, modeled how to execute the activities sometimes, listed the relevant information on Smartboard, provided interpretation for the specific contents, and gave instruction and intervention when pupils were working for the activities. However, no significant effect was found that the teacher’s function promoted pupils’ self-regulation of behaviors effectively in the classroom. The pupils’ attention was easily to distract no matter when teacher’s instruction or tasks’ implementation, and they were not capable to control their behaviors in the classroom.

It cannot be ignored that the teachers’ explanation, instruction, modeling, and feedback, which are the important components for pupils to self-control in the learning process. However, one of the most necessary and significant aspects is to teach pupils self-regulation in the authentic environment (Paris & Winograd, 1999). Providing pupils some knowledge and skills about how to self-regulate their learning can assist them to self-initiate behavioral and motivational activities so as to control learning process, since the lacking of knowledge and experience are the normal explanations for pupils’ poor self-regulation (Dignath, Buettner, & Langfeldt, 2008; Paris & Paris, 2001; Mason, Harris, & Grabam, 2011).

First of what, the teachers can instruct how to use self-regulation strategies explicitly or model the strategies in an implicit method in specific environment to help pupils understand the practical application of strategies and benefits of used strategy to motivate their application. The explanation and instruction of self-regulation strategies should in-
clude three aspects: cognitive, metacognitive, and motivational strategies. (Ewijk, Dickhäuser, & Büttner, 2013). Next, the teachers need construct proper learning environment for pupils to practice the application of strategies and experience the conditions of application. These opportunities are conducive to pupils’ automation of self-regulatory process (Ewijk et al., 2013). Finally, the teachers can direct pupils to have discussion and reflection based on the application of strategies, give them meaningful feedback, and help to explain success or failure correctly. The training of self-regulation strategies do not only allow pupils to know what they should behave in the classroom, but also have awareness of thinking their learning behaviors during executing in the performance. The teachers need link the strategies training to their regular teaching which is helpful to support pupils to transform the knowledge and strategies to their daily learning (Dignath et al., 2008).

For the sake of pupils’ practicing self-regulation knowledge and strategies effectively, systematic interventions including elaboration, problem solving strategies, and feedback, should be applied to raise pupils’ self-efficacy for learning (Dignath et al., 2008; Schunk & Ertmer, 2000). Elaboration can improve the understanding process through combining new knowledge and strategies with prior cognitive structure, which is capable to stimulate pupils’ memory about the monitoring process involved in the self-regulation and retain it more efficiently (Pintrich, 1999). Problem solving strategies, as a cognitive process, provide pupils chance to experience the application of self-regulation knowledge and strategies in a concrete problem so as to assist them to master strategies successfully. Feedback, gotten from the teachers, can make pupils analyze the learning outcome and factors that led to this result. It will foster pupils to draw a conclusion about how to improve their self-regulation in the learning process (Dignath et al., 2008).

5.2 Effects of the academic tasks

The second research question was the effects of academic tasks and the hypothesis was the academic tasks make pupils regulate behaviors if they are able to increase pupils’ interests and engagement in the learning process, enhance the learning motivation, and obtain progress and improvement. There were various types of academic tasks involved vocabulary learning, text learning, dialogue practice, and other tasks (individual task and group task). And the technological tool (e.g. Ipad) was also applied in the academic tasks (e.g. dialogue practice). However, some academic tasks did not stimulate pupils’ interests in tasks (e.g.
no cognition of the usefulness of the tasks, keep working in shorter time) and even cause pupils’ attention distraction, which made them have poor implementation in the learning process at times so that they were difficult to regulate behaviors in the classroom. One reason was the pupils were not instructed to value the attainment and utility of the academic tasks, so they could not get enjoyment from the academic tasks. The other one was they did not have opportunity to self-evaluate their performance based on goals or some criteria, thus their outcome expectation were empty. The reasons mentioned above influenced pupils’ self-regulation in the classroom.

When academic tasks are designed, they should be meaningful and relevant to pupils, as well as emphasize the influence of academic tasks on supporting pupils’ self-regulation (Alonso-Tapia & Heredia, 2008). There are some theories of constructivist learning which indicate that the characteristics of academic tasks are profitable to pupils’ self-regulation (Ewijk et al., 2013). First, the acquirement of knowledge is a process of knowledge construction. The pupils can build their knowledge through connecting new knowledge with prior knowledge which helps them to achieve internalization. Second, the social interaction is a key point to affect pupils’ knowledge construction. The communication with teachers or peers is able to foster discussion and argumentation about issues, which is beneficial for the deeper understanding of the knowledge. Third, the real life situation should be considered when academic tasks are designed. The problem, which has authentic and meaningful structure or has interrelating elements and multiple solutions, will stimulate pupils to facilitate the transfer of knowledge and strategies. Finally, pupils enable to self-direct cognitive activities when joining the active knowledge construction, and regulate their metacognition and behaviors in the process as well (Ewijk et al., 2013).

In addition, self-assessment should be included as a significant portion when academic tasks are designed. The aim of self-assessment is to guide pupils how to assess their own works in the process of task implementation so as to develop their self-regulation, which means self-assessment will impact every steps of the learning process cyclically, such as planning, execution, and evaluation (Panadero & Alonso-Tapia, 2013; Paris & Winograd, 1999). Therefore, the assessment criteria, as the elements added under the academic tasks, are going to have a positive effect on self-regulation. When the assessment criteria are explained to pupils at the beginning of the task, they will be clear about how their works are assessed and then increase the knowledge and comprehension about control. Meanwhile, it also enhances pupils’ interests in the academic task, select the adequate
strategies, and regulate motivation and effort, as they have set an adequate goal in terms of assessment criteria (Panadero & Alonso-Tapia, 2013).

5.3 Effects of the peers

The third research question dealt with the effects of peers, and the hypothesis was the peers impact pupils to regulate behaviors if they assist each other, raise self-efficacy, and complete the academic tasks better. There are some studies which indicate the importance of collaborative learning in improving pupils’ self-regulation (Paris & Winograd, 1999; Hadwin, Järvelä, & Miller, 2011; Järvelä, Hurme, & Järvenoja, 2011). How about the proof of this study provided from the result? The result showed that some dialogue practices, especially with the technological tool (e.g. Ipad), were hard for pupils (in particular boys) to regulate behaviors well, since they tended to play Ipad individually so as not to collaborate with partners efficiently. However, the pupils could get support from peers when carrying out some tasks, which were helpful for them to raise self-efficacy and regulate behaviors. Therefore, to some extent, peers influenced pupils’ self-regulation.

It is known that peers’ influence has a significant impact on pupils’ self-regulation. Peers may regulate each other through improving a regulatory procedure, strategies, and belief (Hadwin et al., 2011). When pupils are working with peers, they can interact immediately, guide task understanding, support task engagement, and improve self-regulatory skills. They do not only share their learning knowledge, beliefs, goals, and processes, but also co-construct to share planning, management, strategies, and assessment in the implementation of the academic task. It should be stressed that working with peers can facilitate pupils’ self-regulation such as strategies using, metacognition monitoring, emotion controlling, and information getting (Hadwin et al., 2011; Järvelä et al., 2011).

There are some interventions which can be applied in the collaborative learning process to assists pupils to foster self-regulation skills. One is to provide cognitive strategies about emotional and motivational control in collaboration, which is helpful for pupils to enhance the efforts, persist when facing challenges, and regulate their learning and engagement during working with peers (Rogat, Linnenbrink-Garcia, & Didonato, 2013). The other one is to instruct pupils about how to mediate planning, goal, monitoring or changing strategies and beliefs, such as elaborating the specific strategy to address the definite goal, explaining the reasonability of the plan, and so forth (Hadwin et al., 2011).
5.4 Implications and limitations

The results of this study have three implications: theoretical, practical, and methodological. From the theoretical perspective, the study extends research to pupils’ self-regulation of behaviors. It provides a schema of how to construct pupils’ self-regulation skills in the learning process through connecting teacher’s and peers’ roles to academic tasks and to pupils’ behaviors (Turner, 1995). These factors can influence pupils’ learning motivation and foster them to set appropriate goals, monitor efforts and emotions, evaluate performance and behaviors, etc. Therefore, their self-regulation skills will be promoted in the recursive learning process (Paris & Winograd, 1999).

From the practical perspective, this study indicates the relationship between daily teaching-learning process and pupils’ self-regulation. Teachers can use information of self-regulation to create meaningful academic tasks (individual tasks and collaborative tasks) so as to encourage pupils to use strategies, interaction, self-monitor, self-evaluation, and so on. Through some classroom interventions, such as explicit instruction and implicit modeling, to stimulate pupils’ metacognitive understanding and regulating tactics in order to help them engage in reflecting about their own learning and self-regulation periodically (Paris & Winograd, 1999).

From the methodological perspective, this study uses some tools which are helpful for empirical studies. The classroom observation puts up a reliable method to study behaviors and motivation in the classroom and relate them to significant cognitive elements. The self-report, involves pre- and post-, provides the opportunity to compare the results and thereby finds out the crucial elements of affecting self-regulation. The learning diary, as an effective instrument, can measure learning process in a period of time to increase the validity and reliability of data which is conducive to study about pupils’ self-regulation (Schmitz et al., 2011).

There are several limitations in this study. First of all, the number of pupils participating in the sample size was discrete, so the generalizability of the result was limited inevitably. Second, the study was not carried out in the original classroom setup. In order to record pupils’ behaviors with video cameras, the pupils were divided into three groups, and desks and chairs were placed differently from routine pattern. To a certain extent, it would have some impact on pupils’ behaviors. Third, not all pupils filled out the self-report and learning diary, so this study has missing data. Fourth, although the classroom was English,
the teacher and pupils also spoke Finnish sometimes. Thus I had to ask other researchers for help to translate relevant contents, and it might influence the reliability of analysis on some level. At last, there was no comparison between the designed classrooms and original classrooms. We only observed six lessons and most of academic tasks designed and arranged by researchers. It was necessary to observe a few original lessons to distinct pupils’ behaviors in different situations.

5.5 Future lines of research

There are some suggestions for the further research. One is how to directly teach pupils to obtain knowledge and metacognitive skills about behaviors control. For example, what they should behave when the teacher is speaking, why is significant to regulate behaviors in the classroom, what they need to act in the process of implementing, how to persist self-regulation in the classroom, and so forth. Those knowledge and skills help pupils to be clear about accurate behaviors they should act in the classroom so as to facilitate their awareness of self-regulation. The next is what elements affect pupils’ emotion to regulate behaviors and motivation in the individual and collaborative learning process. Researchers and educators should examine relevant reasons critically and find out the effective way to increase positive issues and decrease negative issues, which will be in favor of pupils’ self-regulation in the classroom. The third one is important for further research to understand how self-regulation develops in contexts, not only in the classroom, but other contexts outside the schools, for instance, families, play settings, public occasions, and so on (Pintrich, 1999).

In this study, the teacher and academic tasks were not found significant effects on pupils’ self-regulation in the classroom. Only the peers had some positive effects on pupils’ self-regulation. However, the prior studies indicated that the teachers themselves and academic tasks they designed had important roles in improving pupils’ self-regulation in the classroom (Paris & Paris, 2001; Moos & Ringdal, 2012; Randi & Corno, 2000; Husband & Reis, 2008; Perry & VandeKamp, 2000; Turner, 1995; Butler & Cartier, 2004). Therefore, the self-regulation studies should focus on how to teach self-regulation knowledge and skills in authentic teaching environment. The linking between knowledge and strategy training to the regular teaching process is conducive for pupils to transform the knowledge and skills to their daily learning. For the future research, the appropriate
pedagogical approaches are demanded to design which will be used in teaching pupils’ self-regulation knowledge and skills in the classroom.
6 EVALUATION

Validity and reliability are the issues which need to be considered in all of the studies. In the mixed methods research, validity is concerned with inference quality that comprises “the quantitative internal validity and the qualitative trustworthiness and credibility of interpretation” (Gelo, Braakmann, & Benetka, 2008, pp. 283). For the quantitative internal validity, it includes the validity of conclusions, the validity of theoretical construct used, and the validity of the cause-effect relationship among observed variables. For the qualitative trustworthiness and credibility of interpretation, it includes the validity of descriptions of events, the validity of representation about participants’ viewpoints, and the validity of explanation of causality (Gelo et al., 2008).

The other elements that determines the quality of research is reliability. In quantitative approach, the reliability refers to the extent to which a variable or more variables is consistent with what it is intended to measure (Ihantola & Kihn, 2011). According to Kerlinger (1964, as cited in Ihantola & Kihn, 2011), if measurement results are not reliable, it will be hard to test hypotheses and get conclusions about the relationships between variables. In qualitative approach, the reliability refers to “concurrence in the need of trustworthiness, accuracy, and dependability of the findings” (Lewis, 2009, pp.7). To ensure the reliability in qualitative research, it is necessary to examine the work with some criterions: correctly capture and represent the phenomenon under investigation, carefully document and demonstrate the researching procedure (e.g. data collection, analysis, and interpretation), and so on (Ihantola & Kihn, 2011).

In this study, the validity and reliability were strived through data collection, data analysis, and interpretation. Eleven pupils in Grade Four and their English teacher were selected for both quantitative and qualitative data collection. Since March, 2013, the four researchers and I worked in a team for the whole process of data collection. In the duration of self-report and learning diary design, we relied on the theories (self-regulation and collaborative learning) and supervisors’ clear instructions, described items explicitly, presented the questions in the proper order, and asked Finnish classmates for help about translation (from English to Finnish). Besides that, we discussed the issues about classroom observation together and contacted with the teacher in advance to confirm the relevant events (e.g. grouping, seating arrangements, video cameras’ settings, and so on). Meanwhile, we
also worked for the lesson plans. We focused on teaching contents and targets, stimulated the good ideas, made necessary modification, and kept in touch with the teacher all the time.

In the data collection, both self-report (pre- and post-) and learning diary were assigned as planned and filled out by pupils. During the classroom observation, we stayed in the classroom, wrote down the field notes, and provided necessary assistance if the academic tasks were designed by us. All of the six lessons were recorded by video cameras. In addition, a shared document about field notes in Google Drive was helpful for us to finalize the contents observed in the classroom. All the efforts insured the reliability and validity of the data collected in the classroom.

Through the data analysis, I made the transcription for each observational material objectively and actually according to the video recordings and field notes. The transcription included verbatim speech between teacher-pupil and pupil-pupil interaction, and individual pupil’s behavior and action. Moreover, I processed the data stemming from self-report and learning diary, and represented the results with tables and figures. Although the classroom was English lesson, the teacher and pupils would also speak Finnish in the procedure. So I had to ask other researchers for help to interpret the related contents and then described details in English during the analyzing process. Therefore, it would be a little deviation inevitably and had an influence on reliability and validity more or less.

During the data interpretation, the empirical findings of the study were illustrated on the basis of theories, the relationship between cause and effect was explained, the pupils’ points of view and behaviors were interpreted, and the conclusion was consistent with the result of data analysis. Both of the quantitative deductive inference and qualitative inductive inference were combined which was to get “more consistent and meaningful interpretation of the results” (Gelo et al., 2008, pp. 286).

Besides validity and reliability, the ethical issues were also taken into account in this study. First of all, the whole process of research was permitted by Master’s programme of Learning, Education and Technology and the elementary school. The five researchers (including me) were permitted to collect data in a four-grade class including eleven pupils and the English teacher, and we could analyze and use those data in the respective Master’s theses. Secondly, the English teacher understood the purpose of the research, and gave explanation to the pupils. Thirdly, all participants agreed to their participation (all of pu-
pills’ parents have already signed the consents when their kids started to learn in this school). Finally, all participants’ input (self-report, learning diary) and personal information (name, age) were used anonymously and treated confidentially.
REFERENCES


APPENDICES

Appendix A. Self-report (in English)

Appendix B. Self-report (in Finnish)

Appendix C. Learning diary (in English)

Appendix D. Learning diary (in Finnish)
### Appendix A. Self-report (in English)

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want to learn and speak English.</td>
<td></td>
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<td></td>
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<tr>
<td>I would study English, even if I wouldn’t have to.</td>
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</tr>
<tr>
<td>I want to obtain high grades in English.</td>
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<td></td>
<td></td>
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<tr>
<td>I want to do as little as possible in English lessons.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>What my classmates at school think of me is important to me.</td>
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<td></td>
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</tr>
<tr>
<td>I want my parents and teacher to be proud of how well I speak English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to help others in English lessons.</td>
<td></td>
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<tr>
<td>I can complete a task without help from the teacher.</td>
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<tr>
<td>I want my teacher to give me specific instruction about the tasks during the lessons.</td>
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<tr>
<td>I think the tasks we do in English lessons are interesting.</td>
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<tr>
<td>I work better in groups than alone.</td>
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<tr>
<td>I enjoy working together with my classmates in English lessons.</td>
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<tr>
<td>My teacher gives me feedback.</td>
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<tr>
<td>The feedback I receive from my teacher helps me improve my learning.</td>
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<tr>
<td>My grades on tests always show how much I learned.</td>
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<tr>
<td>My test grade is more important to me than the feedback I receive from the teacher.</td>
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<tr>
<td>English language homework is useful.</td>
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<tr>
<td>I learn a lot while doing English homework.</td>
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<tr>
<td>I delay doing homework until the last minute.</td>
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<tr>
<td>I would not do any English homework if I didn’t have to.</td>
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</tr>
</tbody>
</table>
Appendix B. Self-report (in Finnish)

<table>
<thead>
<tr>
<th>Kysymys</th>
<th>Täysin eri mieltä</th>
<th>Eri mieltä</th>
<th>Ei samaa eikä eri mieltä</th>
<th>Samma mieltä</th>
<th>Täysin samma mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haluan oppia ja puhua englantia.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Haluaisin opiskella englanti, vaikka en olisi tarvitse.</td>
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<tr>
<td>Haluan saada korkeat arvosanat.</td>
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</tr>
<tr>
<td>Haluan tehdä mahdollisimman vähän englannin oppitunteissa.</td>
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</tr>
<tr>
<td>Mitä minun luokkakaverit koulussa ajattelevat minusta on tärkeää minulle.</td>
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</tr>
<tr>
<td>Haluan, että vanhempani ja opettaja ovat ylpeä siitä, että puhun hyvin Englantia.</td>
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<tr>
<td>Haluan auttaa toisia englannin oppitunteissa.</td>
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</tr>
<tr>
<td>Voin suorittaa tehtävän ilman opettajan apua.</td>
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<tr>
<td>Haluan, että opettaja antaa minulle tarkat ohjeet tehtävistä tuntien aikana</td>
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<tr>
<td>Minun mielestäni englannin tuntien tehtävät ovat mielenkiintoisia.</td>
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<tr>
<td>Työskentelen paremmin ryhmissä kuin yksin.</td>
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</tr>
<tr>
<td>Nautin työskennellä yhdessä minun luokkatoverien kanssa englannin oppitunteissa.</td>
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<td></td>
</tr>
<tr>
<td>Opettaja antaa minulle palautetta.</td>
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</tr>
<tr>
<td>Palautte, joka saan minun opettajalta, auttaa minua parantamaan oppimista.</td>
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<td></td>
</tr>
<tr>
<td>Minun koe arvosanat aina näyttävät kuinka paljon olen oppinut.</td>
<td></td>
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</tr>
<tr>
<td>Minun koe arvosana on minulle tärkeämpää kuin palautetta, joka saan opettajalta.</td>
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<tr>
<td>Englannin kielen läksyt ovat hyödyllisiä.</td>
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<tr>
<td>Opin paljon, kun teen englannin kielen läksyjä.</td>
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<tr>
<td>En tee läksyjä kunnes viime hetkellä.</td>
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<tr>
<td>En tekisi mitään englannin kielen läksyjä jos ei olisi pakko.</td>
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</tbody>
</table>
## Appendix C. Learning diary (in English)

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The teacher is helping me to understand the task better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. I am learning something which is useful for me.</td>
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<tr>
<td>3. I understand the task better with the help of the group.</td>
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<tr>
<td>4. Using iPads is helping us work together</td>
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<tr>
<td>5. With an iPad I can choose my own way to work which I prefer</td>
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<tr>
<td>6. Using an iPad makes tasks more fun</td>
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<tr>
<td>7. Our group is looking for the same things during the collaboration</td>
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<tr>
<td>8. Sometimes we cannot understand each other.</td>
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<tr>
<td>9. I think I work better in this group than I would have done alone.</td>
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</tbody>
</table>

Note: the question 4-6 was not used in the final two classroom observation.
### Appendix D. Learning diary (in Finnish)

<table>
<thead>
<tr>
<th>Kysymys</th>
<th>Täysin eri mieltä</th>
<th>Eri mieltä</th>
<th>Ei samaa eikä eri mieltä</th>
<th>Samma mieltä</th>
<th>Täysin samma mieltä</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Opettaja auttaa minua ymmärtämään tehtävän paremmin tällä tunnilla</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Minä opin jotakin, joka on hyödyllinen minulle tällä tunnilla</td>
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<td></td>
</tr>
<tr>
<td>3. Ymmärrän tehtävän paremmin muiden luokkakaverien kanssa tällä tunnilla</td>
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<td></td>
</tr>
<tr>
<td>4. iPadit auttavat meidät toimimaan yhdessä tällä tunnilla</td>
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</tr>
<tr>
<td>5. iPadilla voin valita tavan miten työskentelen tällä tunnilla</td>
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</tr>
<tr>
<td>6. iPadin avulla työskentelystä tulee hauskeampaa tällä tunnilla</td>
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</tr>
<tr>
<td>7. Ryhmämme odottaa/toivoo samoja asioita ryhmätyöstä tällä tunnilla.</td>
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<tr>
<td>8. Ryhmässä joskus emme voi ymmärtää toisiemme tällä tunnilla</td>
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<td></td>
</tr>
<tr>
<td>9. Uskon, että työskentelen tässä ryhmässä kuin yksin tällä tunnilla</td>
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<td></td>
</tr>
</tbody>
</table>

Note: the question 4-6 was not used in the final two classroom observation.