Arttu Mykkänen

YOUNG CHILDREN’S SUCCESS IN LEARNING SITUATIONS

ACTIONS, VIEWS AND APPRAISALS IN LEARNING CONTEXTS
ARTTU MYKKÄNEN

YOUNG CHILDREN’S SUCCESS IN LEARNING SITUATIONS
Actions, views and appraisals in learning contexts

Academic dissertation to be presented with the assent of the Doctoral Training Committee of Human Sciences of the University of Oulu for public defence in Kuusamonsali (YB210), Linnanmaa, on 29 April 2016, at 12 noon

UNIVERSITY OF OULU, OULU 2016
Abstract

This study investigates young children’s views of successful learning situations in their classroom activities and factors that contribute to their achievement in those situations. It is investigated how self-regulated learning is supported in these situations and how children appraise support as part of their success.

The study consists of three different data sets that are reported in three empirical articles. The first empirical study investigated resilience displayed by young children in dyadic task performance. The second empirical study investigated views and appraisals that primary school children give to their success in classroom learning activities and how self-regulated learning is supported in the classrooms. The third empirical study investigated how primary school children appraise the reasons for their peers’ successes in learning situations. The data collection methods include video observations, stimulated recall interviews and photo elicitation interviews.

The results of this dissertation indicated that success in learning activities results from individual and external factors. Among the individual assets that children bring to learning situations, the support that children receive from their teachers and peers were crucial for successful achievement. This study showed that, in general, the children’s self-regulated learning was supported in the classroom, especially through the support from a teacher and non-threatening evaluation. Children described their success through concrete actions that they took in the situations, such as the ability to accomplish the particular tasks or doing academic activities in order to achieve the task. The methodological findings indicate that it is possible to develop child-centred participatory methods in learning research. Results of this study contribute to the discussion of how successful learning experiences and self-regulated learning can be supported in the first years of primary school.

Keywords: ability, child-centred methods, self-regulated learning, successful learning situations, young children
Tiivistelmä

Tässä väitöstitelikukussa tarkastellaan pienten lasten onnistumisen kokemuksia ja niiden syitä aidoissa oppimistilanteissa. Tavoitteena on selvittää, kuinka itsesäätiöistä oppimista tuetaan ja kuinka lapset näkevät saamansa tuen auttavan heitä onnistumaan.


Asiakas: alakoululäiskät lapset, itsesäätiöinen oppiminen, kyvykkyyys, lapsilähtöiset tutkimusmenetelmät, onnistuneet oppimistilanteet
Acknowledgements

This dissertation would not have been possible without the help, encouragement and feedback that I have received during the process. First and foremost, I would like to address my deepest gratitude to my supervisor Professor Sanna Järvelä. She has been my primary influence on when it comes to scientific work and being an academic. She had enough courage to involve a novice student to do dissertation and ever since she has given all the possible help and support to make this dissertation happen. Thousand thanks to you Sanna! My sincere gratitude goes to Professor Marold Wosnitza. I feel privileged to have you as the official opponent at the public defence of my dissertation. I am very grateful for the reviewers of the dissertation, Professor Julianne C. Turner and Professor Anna-Maija Poikkeus, for their constructive and supportive feedback which helped me to finalize my dissertation. I would also like to thank Professor Nancy Perry for inviting me to her research team and being such a knowledgeable collaborator since.

I have had the privilege of doing research as a part of the marvellous Learning and Educational Technology Research Unit. It is such a pleasure to work with colleagues who are really talented in what they do but who are also such a good laugh. With an exceptionally good sense of humour and a preference for mediocre filter coffee, this group of people make you feel good every day you come to the office. Thank you for every comment, idea, revision, thought, insight and advice that you have given me. Especially I would like to thank Elina Määttä, with whom we have shared the ups and downs of the research work. I would also like to express my gratitude to Jonna Malmberg and Hanna Järvenoja for encouragement and revision comments to all of my articles and to this final dissertation. I want to thank Ernesto Panadero for academic support and for introducing me the thrill of skiing. I would like to thank Anu Alanko and Kristiina Kurki for the first comments to this dissertation in the pre-examination seminar. I would like to give thanks to Markus Vainionpää and Elisa Mainio who were an irreplaceable help in the data collection of the AGENTS-project. I want to thank every child and teacher who participated in the data collections of this dissertation. I want to acknowledge Eeva-Liisa Kronqvist for engaging me with the research in the first place. Also, I would like to thank Pekka Mertala for the company in early childhood education studies and further in the academia.

This study would not have been possible without financial support from the Academy of Finland, the FinEd network, the Finnish Cultural Foundation, the Oulu
University Scholarship Foundation, and the Faculty of Education. I express my gratitude to all of these agencies.

However, life is not all about research and during these years I have had the privilege to be surrounded with the best group of friends you could hope for. I would like to thank Jäysterit for the upright attitude towards life and the endless hockey anecdotes, which remind me not to take myself or life too seriously. These gentlemen – Väyys, Kimmo, Annala, Estola, Rasse, Henze, Super-Taneli, Onni, Teppo, Johan, Rahikainen and Pinosto – deserve an enormous thanks. You smart. You loyal. I appreciate that.

I also want to thank my family for their support: my mom for convincing me that I can actually finish this dissertation and my dad for convincing me on the importance of going to high school. Without you and your insistence on the value for education I would not be here. I would like to thank my sister Anni, for the countless times she has reminded me to finish my dissertation, and my lovely niece Emma, who brings joy to our lives every time she visits. Finally, I would like to thank the most important person in my life, my beloved Tiina, who has endured my whining and bad mood that the work with the dissertation has caused. You make every day enjoyable.

Oulu, February 2016

Arttu Mykkänen
This doctoral thesis is based on the following publications, which are referred throughout the text by their Roman numerals:


Table of contents

Abstract
Tiivistelmä
Acknowledgements
List of original publications
Table of contents
1 Introduction
2 Theoretical framework
  2.1 Self-regulated learning and young children
  2.2 Self-regulated learning in classrooms
  2.3 Views of academic abilities and success – Individual and comparative notions
3 Methodological considerations
  3.1 Child-centred (participatory) methods
  3.2 Video observation research
  3.3 Interviews
    3.3.1 Stimulated recall interview
    3.3.2 Photo elicitation interview
4 Aims of the study
5 Methods of the study
  5.1 Participants, context and research design
    5.1.1 Project I
    5.1.2 Project II
  5.2 Data analysis
    5.2.1 Analysis of video recordings
    5.2.2 Analysis of interviews
  5.3 Evaluation of the research
  5.4 Evaluation of ethical issues
6 An overview of the articles
  6.1 Article I: Trajectories of resilience during dyadic task performance among children six to seven years of age
  6.2 Article II: Finnish students’ reasons for their achievement in classroom activities: focus on features that support self-regulated learning
  6.3 Article III: “What makes her succeed?” Children making interpretations of their peers’ success in learning situations
7 Main findings

7.1 Factors that support young children towards success in a learning situations ........................................................................................................59

7.2 Self-regulated learning and the support for self-regulated learning as a factor for success ........................................................................... 60

7.3 Young children’s reasons for individual and peers’ success in learning activities .......................................................................................... 61

7.4 Child-centred research methods that combine different data sources to understand children’s successful situations in learning situations ........................................63

8 Discussion

8.1 Main findings ........................................................................................................65

8.2 Final remarks .......................................................................................................67

References ..............................................................................................................69

Original publications ..........................................................................................79
1 Introduction

Every learner needs successful experiences in learning activities. A successful learner is able to recognize the reasons for success in learning situations and to evaluate how well he or she has managed to perform the task (Destan & Roebers 2015). A successful learner understands the reasons that lead to achievement in a learning situation and is capable of monitoring and controlling the learning process when obstacles are being confronted. Thus, a successful learner is self-regulated (Boekaerts & Corno 2005, Zimmerman 1995).

In order to make successful self-regulated learners (SRL), the environment needs to be favourable for regulatory assets to develop. The experiences that a young learner gains in the classroom are affected by the individual mindset towards learning, but also by the reactions and feedback that the child receives from the environment (Dweck 2006). Throughout the academic path, starting from the first grades of primary school, the social environment, such as teachers, parents and peers, has an effect on learning results and motivation for learning (Harinen et al. 2015). For example, what kind of behavior a teacher expects and how the self-regulation of learning is supported by facilitating opportunities to develop skills for regulating learning has an effect on how a particular child (or a learner) sees him or herself as a learner. Additionally, the feedback that is received from peers and parents has an effect on how the child reflects their performance in the classroom. The crucial thing is, thus, how the environment supports young children to succeed in a learning task and to regulate the learning process and how the learner him/herself views and reacts to successes or failures in the learning tasks. This dissertation approaches these issues by investigating young children’s views of a successful learning situation in their classroom activities and factors that contribute to their achievement during those situations.

The current curriculum reform in Finland (Finnish National Board of Education 2015a) emphasizes the need for developing the focus on supporting children’s learning skills. In the curriculum, ideas and concepts such as “learning to learn” have been listed as a one of the core sectors of the new curriculum and essential for developing skills for the 21st century (European Union 2006). In the curriculum reform plan, learning skills have been specified as, for example, critical thinking, problem solving, and the ability to reflect on and further develop one’s own learning skills. These cross-curricular skills are at the core of the SRL theory; skills that aid the student to adaptively alter the process of learning, if required by successful performance of a task (Perels et al. 2009). Among the above-mentioned
core skills, the focus in this dissertation is on how children reflect on their process of learning.

Simultaneously with the curriculum reform emphasizing learning skills, not only is there a trend for declining learning results in different domains, but there also seems to be a trend of increased negative affect towards schooling during primary school (Hautamäki et al. 2015). While a clear explanation is missing for these phenomena, it is suggested that the simultaneous decrease in attitudes towards school provides at least a partial explanation (Hautamäki et al. 2015). To alter this negative trend, there is a need for an investigation of the positive experiences in a school context that take place in everyday classroom situations (Kumpulainen et al. 2014). In essence, these successful experiences are the experiences on which children ground their views of what is required to succeed in the classroom. By focusing on what makes children succeed in school and how they themselves reason these successful events can offer knowledge for making practices that support success and academic achievement during the first years of primary school.

To approach the above-mentioned issues, the aim is to investigate young children’s experiences of success in their classroom activities and factors that contribute to their achievement during those situations. Therefore, the first objective is to explore the factors that support young children to succeed in learning situations. By exploring the antecedents of both the individual assets for succeeding in learning situations and the external antecedents of success, this study seeks to add to knowledge on what creates successful mastery experiences in the classroom. The main question that is addressed is how the environment helps the children to be successful in task performance and how they regulate their actions to be perseverant in the learning task. Thus, the first objective focuses on the concrete actions required from children and their environment for success in learning situations.

The second objective is to explore the support for SRL as a factor for success. It is studied how SRL is supported in the everyday classroom lesson and what kind of opportunities children have in lessons to be engaged in activities that support their SRL. Previous research has indicated guidelines on how SRL can be supported and studied in classrooms (Paris & Paris 2001, Perry 1998, Pino-Pasternak et al. 2014). In addition, this dissertation investigates whether children regard the support for SRL as part of their success. It is not yet clear whether young students regard support for SRL as a prerequisite for their achievement in classroom learning activities. Thus, this study focuses on how children explain the reasons for their
achievement and successes in classroom activities and whether these explanations are related to the practices that support SRL in their classroom.

The third objective is to investigate young children’s reasons for individual and peers’ success in learning activities. Children who view their learning through a method that is initiated by them, controlled by them, and that endures over time are better able to regulate their learning, as they see that learning is something that they can control and alter (Elder 2010, Zimmerman 2011). Given the importance of the appraisals of one’s own and peers’ learning, there has been little research on how young children explain their successful experiences in actual day-to-day learning situations (Wagener 2013a). In order to find ways of supporting young children’s views of the ability to do something they can regulate and alter (i.e. malleable incremental ability), additional knowledge is still needed on how they actually view abilities in real life situations, both their own and those of their peers. By investigating the above mentioned issues, the second and third objectives of this thesis focus on the views and appraisals for successful learning. Views refer how children view their success in learning to be affected by their abilities. Meanwhile appraisals refer to causes through which children explain their success in learning situations.

The fourth objective is to develop child-centred methodology that can be used to capture day-to-day actions in classrooms (Broström 2012, Dalli & Te One 2012). Methodologically this study will seek for novel approaches towards capturing children’s successful learning situations in classrooms. One of the principles during this research has been to gradually develop methodology where children are considered as co-researchers, active participants in data production and interpretation (Baker & Smith 2012, Clark & Moss 2001, Kumpulainen et al. 2014). To be specific, this means that Article I of this dissertation presents a video observation research that focuses on the researcher’s interpretation, a task performance situation and how the situation unfolds (Derry et al. 2010). Moving forward, Article II of this dissertation widens the scope of Article I by adding a stimulated recall interview that uses an actual classroom situation as a stimulus (Morgan 2007). Finally, in Article III of this dissertation, photo elicitation interviews were used to take advantage of participatory child-centred methods (Ali-Khan & Siry 2014, Epstein et al. 2006). This kind of methodology or methodological approach was developed to shift the focus of the study to those everyday situations that actually form the children’s beliefs about themselves as learners.
The findings of this research will provide information about how young children view the reasons for success in classroom activities, and how their SRL is supported in successful learning situations. Today’s children need experiences of success in order to strengthen their competence, motivation and beliefs about themselves as learners. By gaining knowledge about what instances children regard as successes in their everyday activities, it is possible to create practices that aid children to better notice their own strengths and to be able to evaluate them. Information acquired about children’s reasons for their success and how support for SRL related to those reasons will give us knowledge of how, for example, teachers could design support for SRL by also taking the children’s preferences into account.

This dissertation consists of two parts. In the first part, which concludes with a discussion of the main findings, the theoretical frameworks of young children’s views of successful learning situations and SRL are discussed. The second part consists of three articles published in international peer reviewed journals. These studies are the basis of this dissertation and they report the body of the empirical results of the dissertation.
2 Theoretical framework

In this chapter, the main theoretical tenets are introduced. The chapter includes an overview of the theory on SRL. The focus is especially on SRL during the first years of primary school and how it can be supported in classrooms. Different theoretical tenets for children’s views of abilities are also presented and the connections with the theory of SRL are clarified.

2.1 Self-regulated learning and young children

SRL refers to learning in which the student is actively regulating the cognitive, behavioural, and motivational aspects of learning (Zimmerman 2000). Students who engage in SRL tend to choose meaningful goals for their learning, plan, monitor, control and are also more perseverant when facing challenging tasks or setbacks during their learning (Zimmerman & Schunk 2011). There is no single dominant theory of self-regulated learning instead there are multiple models of SRL which share more or less the same features (Boekaerts & Corno 2005, Puustinen & Pulkkinen 2000). The different models differ in the complexity and somewhat with the terms that they use or emphasize; some placing more emphasis on the cognitive side of learning (Winne & Hadwin 1998) or some that emphasizes more, for example, the motivational and affective side of SRL (Zimmerman, 2011).

One thing that different models have in common is the cyclical nature of the learning process. Roughly, the different models have some kind of pre-performance phase in which the student is preparing for the task, then a phase where the actual task performance takes place and finally a phase where the student is reflecting and evaluating the learning task performance (Pulkkinen & Puustinen 2000, Zimmerman 2008). Zimmerman (2000) names these phases as a forethought phase, performance phase and self-reflection phase (see Figure 1).
Before engaging with the task, the student needs to evaluate their capabilities of doing the task, select strategies for doing the task and to set goals (Patrick et al. 2007). The learner activates motivational beliefs which include self-efficacy beliefs, outcome expectations, intrinsic interest and goal orientation. Additionally, students activate learning strategies as a preparation for the learning task. In the performance phase, the student is actively solving the learning task and executing the selected learning strategies and monitoring and controlling the learning performance. While performing the task, the student needs to monitor the effectiveness of their strategies and as the task unfolds, they need to control their actions when confronting obstacles in task performance (Cleary et al. 2012). Finally, after the task have been done, the self-reflection phase follows in which the student is making an evaluation and assessment of one’s own performance (Weiner 2000). When evaluating one’s own performance, students need to take into account the reasons that affected their performance. Questions, such as “why did I succeed” or “what was the reason that I failed”, occur when the student is evaluating him/herself against standards or goals (Zimmerman 2011). As a result of the reflection phase, the learner’s reflections on their task performance affect the following forethought phase, confirming the cyclical nature of self-regulation (Zimmerman 2000).

Children who are able to regulate themselves and their learning in the classroom tend to have better academic achievements (Blair & Razza 2007, Duckworth et al. 2014). This trend is noticed already in preschool and kindergarten aged children (Howse et al. 2010). However, there are different views of how capable young children are for regulating their learning. Veenman et al. (2006)
suggested that young children are developing the necessary metacognitive abilities at around the ages of 8–10 and the regulation of learning would not occur before that. However, this view has also been challenged in other studies (Wagener 2013a, Whitebread et al. 2007, 2009) that have observed self-regulatory behavior, such as metacognitive activities and monitoring behavior, already from a younger child’s actions. These researches indicate that the development of SRL skills emerge during childhood and there is no clear age or time when the self-regulation starts to take place (Whitebread et al. 2009). During the last few decades there has been an increasing interest in research about young children’s SRL and how it emerges at an individual level and in the classroom (Grau & Whitebread 2012, Howse et al. 2010, Perry 1998, Perry & VandeKamp 2000, Wagener 2013a, 2013b, Whitebread et al. 2005, 2009). It has been shown that SRL is not only a personal trait that students either possess or lack, but it can be supported and learned (Perry & VandeKamp 2000). In fact, young children in particular benefit from SRL training (Dighnath et al. 2008).

A meta-analysis by Dighnath et al. (2008) was conducted to investigate what kind of effects SRL interventions have in primary school classrooms. The results showed that at the primary school level, SRL promoting programs tend to be effective, especially when those programs are implemented in a regular classroom context, not as separate practices. Additionally, meta-analysis showed that SRL training programs have a positive effect on learning outcomes, strategy use, and motivation, even for primary school children. Among mathematics and cognitive and metacognitive strategies, great benefits can be gained in motivational outcomes which indicate that the motivation for learning can be supported in primary school. Not only do primary school students benefit from SRL instruction, but it seems that they benefit even more than older students from these interventions. This is probably because their academic habits are just developing and thus more flexible to modification with SRL interventions.

The creation of practices that support and prompt SRL should be one of the fundamental goals from the beginning of a child’s academic path (Whitebread et al. 2005). Even though the goal of the education would be on supporting children’s SRL skills, this is not to say that the SRL skills would develop by themselves. Support towards taking more responsibility for one’s own learning does not mean that the teacher could shift the responsibility for the learner. Research shows that the minimal guidance during instruction is not effective when it comes to learning gains and that the best result is acquired when the teacher actively scaffolds children’s learning skills (Kirschner et al. 2006). The advantage of supporting
children’s SRL during the beginning of their academic path is that during these first academic years, students form their attitudes towards learning, which are easier to change than when students have already developed disadvantageous views of themselves as learners (Dweck 2006).

2.2 Self-regulated learning in classrooms

It is not only the individual’s behaviour and beliefs that count towards successful learning, but the context (classroom, influence of teacher and peers etc.) needs to be taken into account. In a school context, an individual does not tackle the learning tasks in isolation. The classroom environment has been seen as one of the crucial factors concerning what opportunities children have for regulating their learning and how these opportunities are offered to them in classrooms (Gresalfi et al. 2009, Stefanou et al. 2004). Among the content knowledge that teachers need to deliver in the classroom, there is also a need to prompt children’s self-regulatory skills (Moos & Ringdal 2012, Perry & VandeKamp 2000). From an individual perspective, SRL is developed in the classroom indirectly through experience, directly through instruction, and elicited through practice (Paris & Paris 2001). For example, a child might indirectly notice that checking the correct math answers and making an evaluation of one’s own achievement does not take too much additional effort, but that it is highly beneficial for the outcomes of the learning task. Teachers in turn can provide explicit direct instructions to support SRL modelling or scaffolding to support students’ construction of domain specific knowledge or strategic processes (Meyer & Turner 2002, Perry et al. 2007, Turner & Patrick 2008). A teacher who supports students’ SRL uses scaffolds that engages children in meaningful work, refers children’s existing knowledge, encourages, supports the making of goals, asks questions, guides and suggests learning strategies, gives feedback and asks students to make self-evaluations (Butler 2002a, Whitebread 2012). While scaffolding and supporting young children’s SRL, it is also important that the teacher withdraws as soon as the child is able, for example, to select effective learning strategies. Finally, SRL is elicited through practice in situations that require regulation of learning. For example, if children are engaged with an open complex task, they are required to find out needed learning strategies and be able to monitor and control their task performance (Paris & Paris 2001).

Research has identified important qualities of classroom practices with the potential to support SRL. Perry and her colleagues (Perry 1998, Perry et al. 2007) have theorized that in primary school classrooms where SRL was supported,
children were engaged in meaningful tasks, they could make choices over activities and they had opportunities to control task challenges. Additionally, in high SRL environments, teachers use non-threatening evaluation when offering feedback to children and during a task performance, children can receive support from peers or from the teacher, if needed. Thus, SRL-supportive classrooms include complex tasks, choices, control over challenges, non-threatening evaluation, and the opportunity to receive support from peers or teacher (Perry & Rahim 2011).

Complex tasks present cognitively demanding activities that invite and provide opportunities for SRL (Pino-Pasternak et al. 2014). These tasks attending to multiple goals or dimensions, are meaningful for children, occur over extended periods of time, invite children to use cognitive and metacognitive processes, and enable the creation of diverse products (Perry 1998, Pino-Pasternak et al. 2014, Turner 1995). In contrast, in classrooms where SRL is not obvious, teachers usually engaged children in routine literature tasks that focused only on correcting spelling and punctuation errors in a sentence that the teacher wrote on the board, with the evaluation focusing on the noticing of mistakes (Perry 1998). Even if teachers would aim to design complex tasks, it often occurs that children in primary school in particular are engaged with rather simple and straightforward tasks (Wagener 2013b). Projects and problem-based or inquiry oriented tasks often provide opportunities for SRL to occur because of the many phases in which the pupil can actually engage in a regulatory activity. For example, Malmberg et al. (2013) scaffolded SRL among primary school children through a task that required children to use different strategic activities (e.g. making concept maps, linking information or making notes). It was found that in open ended tasks, children manage differently, especially when the learning situation is challenging for the child. In these challenging situations, the high achieving children monitor their strategy use more compared to low achieving children who use more surface level strategies.

Tasks designed with choices, such as, what and how to write, have also been shown to have the potential to support SRL (Nolen 2001, Stefanou et al. 2004, Turner 1995). However, it is not all the same which kind of choices are offered during the instruction. If the choices in the task performance are limited to really insignificant choices, such as selecting whether to use a green or blue pen, it is not a choice that would be beneficial in terms of self-regulation (Perry 1998). When children have choices on how to proceed in a task performance, it engages them in planning and monitoring their learning process. The choices that are offered are beneficial, for example in a group task where pupils need to regulate a different
aspect of the group performance in a task that does not have one single way to perform it or in which there has not been a previously decided learning product, and thus, there are many critical choices that actually matter as to the outcome (Grau & Whitebread 2012). Some choices enable children to control the degree of the challenge in a task that can positively influence the ability to achieve learning tasks. Controlling the challenge of the tasks is an opportunity to, for example, invest more effort in the task than is required, in order to make a better quality product. Nolen (2001) noticed that children who were empowered to choose the degree of challenge of a task, for example, what kind of material or sources they use during literacy tasks, are more likely to engage in the task.

The teachers’ use of non-threatening evaluation in their instructional practices creates a warm and understanding atmosphere in the classroom (Meyer & Turner 2002). By using non-threatening evaluation, a teacher emphasizes that learning is about personal progress and that children should view errors as opportunities to learn (Gresalfi et al. 2009). These kinds of evaluations are embedded in ongoing activities and emphasize both the product and a learning process. When non-threatening evaluation is used in the classroom, children may also become more aware of their strengths and challenges in a task completion. For example, in classrooms where teachers use instructional methods that emphasize mastery goals, understanding and effort children indicated less avoidance orientation due to the teacher’s focus on the process of learning, rather than on comparisons between children (Turner et al. 2002). Even though it is important to give feedback and encourage students, there is a controversy in receiving feedback. In a study by Burnett and Mandel (2010), it was found that a student may not want to be praised in front of their peers. Possible reasons for this are that some students might find public praise uncomfortable or even punishing. When giving feedback in the classroom, teachers should not assume that every student wants to be praised publicly. Regardless of whether the feedback is individual or public, another important issue is the tone in which the teacher refers to children’s abilities in feedback. If the teacher’s focus refers to the students’ ability (e.g. “You’re smart”) in feedback, it may hinder the child’s subsequent performance. That is, children who receive ability feedback are prone to attribute their subsequent failure to not being smart and have had a decline in performance after a failure. This indicates that only using ability feedback may have negative consequences, even though some children might prefer to have ability feedback (Cimpian et al. 2007, Mueller & Dweck 1998).
Finally, the possibility to give and receive support and help (from a teacher or from a peer) when needed is seen as a SRL promoting activity. In particular, practices that support adaptive help seeking, asking for help needed in order to learn independently, strengthens children’s self-regulation, if it is asked to learn independently and not just for the correct answer (Newman 2010). Children with more skills for adaptive help seeking are more capable of achievements when they confront difficulties in the task performance, since adaptive help seeking maintains their engagement to the task, even in the face of adversities. Help seeking, or getting support from the environment, is therefore an important SRL strategy (Marchant & Skinner 2007, Newman 2010). For children, their relationships with their teachers also affect their motivation towards seeking help. Teachers that create a warm and understanding classroom with an emphasis on children’s self-regulation promote children’s academic achievement and engagement (Turner et al. 2002). This is important, since children themselves regarded academic help-seeking as a very prominent strategy for learning and, especially, adults were considered as a primary source for help (Wagener 2013a). Among the support from the teacher, it is also important that students can have peer support to evaluate their proceeding. For example, students who have a hard time coming up with their own ideas for writing advance in developing their ideas when they are in a classroom where they have an opportunity to develop ideas through brainstorming with other students (Nolen 2007).

2.3 Views of academic abilities and success – Individual and comparative notions

This chapter introduces the theoretical starting points for and previous research on children’s views of their own and their peers’ abilities.

Views of one’s own academic abilities

A successful learner is one who holds positive yet realistic views of himself/herself as a learner (Destan & Roeberts 2015). Understanding the reasons for learning outcomes is crucial for the effective regulation of learning. Children who view their learning through a method that is initiated by them, controlled by them, and that endures over time are more able to regulate their learning because they see that learning is something that they can control and alter (Elder 2010, Zimmerman
In terms of SRL, the appraisals of one’s own successful learning situations are an essential part of the cyclical nature of SRL as presented in Figure 2.

For example, when a child is performing a writing task in a literacy lesson, he or she needs to first understand the task instructions and start performing the task according to the understanding that was made from the task. When performing the task, the child needs to monitor and control the performance with the instructions. After the task, the appraisals are made about the reasons for success or failure. Children need to figure out whether the success or failure was due to the actions that they took in the situation or was it because of some external factor, such as the receiving of help in the situation. In turn, these appraisals made about the success or failure in a learning task have an effect on the next time when the learner is tackling a similar kind of learning task (Schunk 1983). These explanations serve as a source of motivation when children view their personal outcomes (Zimmerman 2011) and also inform expectations of future success (Weiner 2001).

Figure 2 also shows that the context may or may not support SRL, which again has an effect on what kind of appraisals students make about their learning. The mindset that children have about themselves as a learner has an effect on how they
react to successes and failures in task performance (Heyman et al. 1995). The beliefs that a learner holds about him/herself as a learner either hinders or prompts the learner in succeeding in learning tasks. A mindset which allows children to view their intelligence as something that can be trained and developed is a crucial thing for children to achieve their potential (Dweck 2006). Children who believe that their minds and capabilities can be developed like a muscle, are more likely to persevere when facing difficulties during learning tasks (Yeger & Dweck 2012). To develop a growth mindset, children need successful experiences and appropriate feedback. It is not only what children do in order to achieve, but the feedback from the environment, for example, in a school context, that the teachers give after the success and failure that matters for the development of these views. There is evidence that when giving feedback, if teachers and caregivers focus on things that can be altered by the child, they can support the development of a mindset that focuses on failures constructively as opportunities for learning (Cimpian et al. 2007). In a study by Perry (1998), she followed the literacy classroom grade 2 and 3 and the impacts of different SRL supportive instructions. In the observations, she classified different classroom as high- and low SRL supportive. Among the other supportive aspects, one thing that was in common in the classrooms that were high SRL supportive was that the teachers in the classrooms emphasized positive feelings towards challenges and treated mistakes as opportunities to learn. In a retrospective interview, the students in high supportive classrooms showed a more mastery oriented approach towards learning and were willing to approach challenging tasks. The results are that SRL supportive strategies also have an effect on what kind of mindset pupils develop for themselves towards learning.

On what grounds do children explain successes in learning situations? Achievements and successes in classroom learning situations can be viewed through the lens of abilities and academic competences and especially, what young children think characterizes these assets, i.e. the skills that you need to succeed in academic tasks. Previous research has shown the importance of appraisals that children make about their performance and success in academics (Dweck 2006, Ramdass & Zimmerman 2008, Schunk 1983, Zimmerman 2011).

Research on children’s explanations of their achievement in the classroom has been previously tied to the discussion on how children become to understand cognitive abilities or intelligence in general. Previous studies have investigated how children assess academic abilities and the focus has often been placed on the development of these views, concentrating on perceptions of intelligence and ability (Kinlaw & Kurtz-Costes 2003, 2007), the relation of ability and effort
(Gipps & Tunstall 1998, Heyman et al. 2003) and explanations of academic abilities (Freedman-Doan et al. 2000, Kärkkäinen et al. 2008) at different age levels. As noted by Kinlaw and Kurtz-Costes (2003) in research concepts such as ability, competence, and intelligence in academic contexts are used in a relatively overlapping way. However, all of these concepts are studied in a school context as assets to achieve in school work. In this study, the framework of ability was used in order to have a perspective on how children view and appraise successful learning situations.

Nicholls (1978) showed that young children tend to conflate ability with the effort spent on the task. In the study, children were required to differentiate ability from effort in a model person being observed. One model person struggled with a task accomplishment before finally achieving it, and the other model person accomplished the task without any great problems. The younger the children were, the harder it was for them to see that the person accomplishing the task without problems was more capable. It was concluded that for younger children, “effort” meant the same as “ability” and that children see the relation between ability and effort (simply put, the more one needs to spend effort on a task, the less ability one has) around the age of 10–11.

From their early years, children are able to understand different features of ability. A study by Heyman et al. (2003) dealt with children’s reasoning about ability and effort. The results of three studies showed that pre-schoolers (n = 155, M = 4 years 10 months) already have an essential understanding about the nature of ability, i.e. “one who finds tasks easier is smarter”. Compared to primary school children (n = 40, M = 9 years 10 months), pre-school children used the information differently; they tended to interpret ability more through concrete actions and behaviour, such as effort. That is, young children tend to explain effort and ability through concrete actions – such as effort or specific competence – rather than having a general ability (Gipps & Tunstall 1998).

In addition to effort and competence, children use feedback from the environment as a sign of their achievement. In a study by Elder (2010), children from first and fourth/fifth grades (aged 6–7 and 10–11) were interviewed about the standards that they use to judge how well they succeed in academic tasks. It was found that the role of the teacher as an evaluator was emphasized, yet older children referred more to self-standards in the appraisals. Moreover, Gipps and Tunstall (1998) showed that the teacher’s role in success was seen through a given evaluation. Children noted that it was important that their teachers were “happy” or “proud” about their successes.
In a study of third and sixth grade children’s views of the malleability of their academic competence, Kärkkäinen et al. (2008) showed that the majority of the participating children responded that they could develop better in a domain that they were not so good in at the moment. Intrapersonal and normative ratings of the potential improvement of academic competences varied in different domains. Similar results were also found in a study by Freedman-Doan et al. (2000), where first, third and fifth graders were interviewed about their views if they could improve their achievement in different domains. It was found out that primary school children have optimistic views about their capabilities of improving their ability in a domain that they thought they weren’t so good at. To conclude, children’s view of their academic abilities seems to be affected both by the signs of their personal improvement and from the feedback that they get from the classroom, such as teacher evaluations and comparative information from peers (Elder 2010, Kärkkäinen et al. 2008).

It has been indicated that young children may be overconfident when appraising their own achievements (Metcalf & Finn 2012). However, there has also been an argumentation that the overconfidence might also work as a medium for children to approach novel tasks that they would not tackle if they would have highly accurate metacognitive appraisals about their performance (Destan & Roeberts 2015). That aside, the research has also indicated that adults are not always accurate when appraising their own performance and abilities, thus not only children are prone to make overestimations of themselves (Kruger & Dunning 1999).

Views of peers’ academic abilities

Besides the appraisals that children make about their own capabilities of achievements in academics tasks, the appraisals that they make about their peer’s abilities and achievements have been shown to have an effect on how they form their beliefs about themselves as learners (Schunk 1983). Acquiring information about the antecedents of a successful achievement by observing peers has been recognized as an important source of achievement standards in the classroom developing their ability to recognize their own level of achievement (Rubin et al. 1998, Wentzel 2005, Wheeler & Suls 2005). For developing SRL, children can receive clues concerning successful learning strategies from their peers’ success and through seeking help to acquire those strategies for themselves (Newman 2010). The importance of the observation of these vicarious experiences is emphasized in...
school contexts, where a comparison between different persons, such as peers, becomes an important means of self-evaluation (Altermatt et al. 2002, Dijkstra et al. 2008, Stipek & Tannat 1984). Social comparison can also be used when making self-evaluations. Through the development of self-efficacy, the comparison of the performance of another has an effect on one’s own self-evaluations, i.e. seeing a peer succeed when working with a challenging mathematics problem may convince others that they too can conquer such a challenge (Usher & Pajares 2008). Viewing and appraising the success of a friend in a learning task in turn might affect one’s own self-efficacy beliefs through a vicarious experience and thus, one might feel more efficacious in the face of a following similar kind of task (Schunk 2008).

As presented in a previous chapter, there is a line of research that has focused on how children appraise the abilities to achieve in academic tasks and for what actions and assets of an individual the ability is based (Kinlaw & Kurtz-Costes 2003). When talking about someone else’s abilities, young children tend to conflate ability with social factors and other non-cognitive abilities. In a study by Stipek and Tannat (1984), children aged 4 to 8 years of age were required to judge their own and their peers’ abilities. The study showed that the younger the child is, the more they emphasize the social aspects of ability. Kindergarteners (4 years of age) were more prone to relate salient social behaviour and sociability (such as “she is nice”) to their explanation of a peer’s smartness than children in the second and third grade of primary school (8 years of age). Similar results have been found in other studies, adding that younger children also thought that for someone who is smart, it is easier to make friends (Kurtz-Costes et al. 2005) and that being nice was related to academic ability (Heyman et al. 2003). That is, the sociability – child’s reference to another’s likeability, social behaviour or social status – has a greater importance in a child’s views of ability in the ages 4–6 and that over the course of the following years, children begin to change their view about ability to be more related to cognitive capacity (Burke & Williams 2009, Kurtz-Costes et al. 2005).

A study by Droege and Stipek (1993) asked children from kindergarten \( (n = 40) \), third \( (n = 20) \), and sixth \( (n = 20) \) grades to select a team member from their classroom for an academic contest and to give reasons for their choices. It was found that the children emphasized academic competence as a reason for the selection to a team in all age groups. In a similar study, Räty et al. (2002) organized an interview where children from pre-school \( (n = 21) \), first graders \( (n = 21) \), second graders \( (n = 18) \) third graders \( (n = 31) \) and fourth graders \( (n = 21) \) were required to choose a team from their classmates for a hypothetical competition in different
school subjects. The study revealed that the quality of work and comparison (comparing abilities to a classroom standard) was the most common reason for selecting someone for the team. They also found that children decreasingly explained social behaviour as a reason for success when they moved to primary school. These results suggest that children are aware of the level of their peers’ achievements from the beginning of elementary school and that they use this information to select the most capable (not the one that they are friends with) to work with them in academic tasks.

Schunk (1983) researched how information about the peers’ achievements in a task affected the child’s task performance. Children were divided into four different conditions, namely, comparative information, goals only, comparative information and goals, and control. It was found that students who were offered comparative information and supported with setting a proximal goal showed the highest scores in the division test. Setting a proximal goal also increased the perceived self-efficacy. The results suggest that children use comparative information for motivational purposes and that support for setting goals for performances is beneficial in terms of helping the student set proximal goals. Providing children with specific, proximal goals, along with social comparative information indicating that the goals represent the average attainment by other similar children, constitutes an effective means of fostering skills development and the perceived efficacy for solving problems.

The appraisals made in the classroom not only concern the children’s own achievement and performance. In a study by Wagener (2013a), young children’s SRL phases were observed in regular classroom activities. It was noted that the reflection phase did occur in the classrooms, but that it was often done through the comparison of other’s achievements. Additionally, it was shown that children were very aware of their peers’ achievement levels in the classroom. For comparing their work, children focused on quantitative issues, for example, comparing who got most tasks done in a certain time. The comparison of peers’ achievements even occurred in a classroom where the teacher did not use overt social comparison in his/her feedback, and thus they were not modelling that kind of behaviour through instruction. A simple and straightforward task offers a space for a quantitative comparison, where a more complex task that supports SRL and expands in a longer period of time would offer an opportunity for a different kind, perhaps more complex comparison (or no comparison at all) of achievements.

To conclude, the above-mentioned concepts, such as SRL and ability beliefs, have been studied over decades and stand on solid theoretical ground. In this
dissertation, the idea is to ground the study on these well-known concepts, and to expand the research to real classroom situations using new innovative methodology. Thus, this study focuses on successful learning situations that occur in everyday learning situations in the classroom and how children themselves view them. This dissertation also takes into account the contextual features that have an influence on those situations, such as the impact of teachers and peers. Regarding the importance of these successful everyday learning experiences for the development of self-efficacy and views of oneself as a learner (Dweck 2006; Zimmerman & Schunk 2008), among other things, this dissertation reaches the ordinary events that children experience daily. By gaining knowledge about which instances children see as successes in their everyday learning activities, it is possible to create practices that help children to better notice their strengths in those situations.
3 Methodological considerations

The research of and with young children in a classroom context poses challenges to methodology. Focusing on phenomena, such as successful learning situations and how SRL is supported in the classroom, augment the complexity of methodology. One of the four main aims of this study is to develop a new methodology for studying (and studying with) young children. In particular, new methodology that allows research in real time and real context are implemented. In studies of SRL, there have been recent attempts to make the research more contextualized and process oriented, i.e. research on SRL has made a shift from studying learning in laboratory settings to carrying out research in a real context and real classroom (Butler 2002b, Paris & Paris 2001). On the other hand, studies of ability related beliefs have a tradition of creating interview practices that use prompts and procedures that makes the participation easier for children to participate (Kinlaw & Kurtz-Costes 2003). This dissertation aims to approach child-centred participatory methods (Broström 2012, Dalli & Te One 2012, Kumpulainen et al. 2013) that invite children to express their views of success and learning (Morgan 2007, Smith et al. 2005) to grasp the everyday classroom learning activities.

In this dissertation, the emphasis is placed on qualitative methods, moreover, giving the emphasis to video-observation research (Derry et al. 2010), stimulated recall interviews (Morgan 2007) and to photo elicitation interviews (Epstein et al. 2006). A principle during this research has been to gradually develop methodology where children are considered as co-researchers who are active participants in data production and interpretation (Baker & Smith 2012, Clark & Moss 2001). With gradually, it is meant that in this dissertation and in the articles that it includes the methodological development is built on the experiences had in different articles. Shortly, this research began with non-obtrusive video observations shifting to a stimulated recall interview with a real event stimulus, and to end with a study that utilizes the data collection of playful participatory photo elicitation interviews. During the different data collections that were included in articles, there was a shift from research on children to research with and by children and the positioning of children as participants and as authentic co-researchers (Barker & Weller 2003, Callacher & Gallagher 2008). As well as when using any methodology, when implementing child-centred participatory methods, the researcher encounters challenges that need to be discussed. In this chapter, the sphere of the used methodology is given attention through discussions about the advantages and
disadvantages of every specific methodology. A more practical level explanation of the use of particular methods of this study is done in chapter 5.

3.1 Child-centred (participatory) methods

With a concept of child-centred methods, it is often referred to a wide range of studies that are used in order to invent more approachable research methods that are traditionally used with young children. Over the past few decades, there has been an ongoing discussion on child-centred research methods in social studies, including the fields of sociology, psychology, health studies, as well as education (Baker & Smith 2012, Barker & Weller 2003, Dalli & Te One 2012, Darbyshire 2005, Einarasdottir 2007, Elton & Charcraft 2012). A great deal of discussions about child-centred methods are derived from the discussion about the United Nations Convention on the Rights of the Child (1989). Scholars such as (Broström 2012, Clark 2005, Dockett et al. 2012) have argued that the methodology that is used and implemented in research with children should take into account the convention parts that emphasize children’s right to be heard and noted as active participants of their living environments.

The child-centred methods can be partly seen as a counter view for more traditional research methods that emphasis large scale measurements and assessments, and treating the participants (i.e. children) as mere objects of the study carrying the research on rather than with children. There has been a critical discussion about using quantitative methods (such as questionnaires) with young children (Barker & Weller 2003, Perry & Winne 2006, Whitebread et al. 2009). First of all, questionnaires require a high degree of literacy or verbal skills (Whitebread et al. 2009). Secondly, questionnaires are decontextualized, which requires a respondent to be able to generalize one’s own actions. Thirdly, even though questionnaires could be used with children with some adjustments (such as making it into a game like or by using smiley faces instead of numbers), there is a risk of being tokenistic, if it is used as the only source of information (Clark 2005, Einarasdottir 2007). Drawing on these notions, it is suggested that to add knowledge on how learning and regulation actually occurs in classroom, SRL and its motivational aspects could be studied within the context where learning takes place (Butler 2002b, Järvelä et al. 2012, Patrick & Middleton 2002). As Järvelä et al. (2012) argues, research needs to:
“examine relationships among actual actions and learners’ reflections, self-evaluations and contextual interpretations of learning activities”.

In this study, these demands are being approached with data that grasps children’s reflections in actual learning situations that have occurred in their classroom. In contrast, child-centred methodologies enable children to communicate through drawings, interviews, photographs, role play, guided tours by children, structured activities, such as plays organized by the researcher, stories or vignettes related to some real life events (Einarsdottir 2007). Using these kinds of methodologies engage children to not only be participants in the study, but to participate in research practices and data collection (Barker & Weller 2003, Gallacher & Gallagher 2008). Instead of just being the objects of the research, these kinds of procedures that invite participants of the study to contribute, for example, to the data collection is referred to as participatory methods (Broström 2012). Thus, it can be said that when using participatory research methods, the aim is to study with children (Gallacher & Gallagher 2008).

Commonly listed challenges when using child-centred methods can roughly be divided into having an informed consent, creating a relationship with the participants, the messiness of the data, and the protection of confidentiality (Dalli & Te One 2012, Einarsdottir 2007). The first challenge addresses the problemacy of collecting consent forms. The researcher needs to reflect upon who is able to decide whether a child can participate in the study or not (Dockett et al. 2012). They address that it is crucial that the voluntary consent for the participation in the study is received after the sufficient and appropriate information about the data is given to the participant. This should be, of course, a standard in any study however, the fact that the study is conducted with young children means that this issue needs thorough consideration. For example, there should be an option for offering assent and a subsequent dissent if the child doesn’t want to continue participation in the study (Dockett et al. 2012). The second challenge that the researcher confronts is how to create trust and a warm relationship with the participants. The researcher needs to aim towards a situation where the opinions and perspectives of the child are respected and listened to – nurturing the idea that the child has a view and knowledge that is unique. Researchers have also noted some issues concerning the messiness of the data collection with children. In an interview study by Dalli & Te One (2012), eight researchers that had used child-centred methodology in their studies reflected the challenges that they had confronted while implementing their studies. That is, the data collection often includes phases or procedures that are hard
for the researcher to control or to have an effect on (Gallacher & Gallagher 2008). The fourth issue deals with the confidentiality of the research. It can be said that this issue is paramount to any research and a part of any good research practice.

Child-centred methods have also been criticized because of the vagueness of the concept. As Cook and Hess (2007) states, in some researches, child-centred has indicated a child as being merely a respondent in an interview, where it can also refer to research in which children are seen as instigators of the research focus and participants in the process. This needs to be taken into account when describing some research method as being child-centred.

3.2 Video observation research

For understanding the actions and behaviour of young children, the video research has been acknowledged as a good medium of research, since it is not dependable on actions or skills (such as the ability to verbally express him/herself) of the participating child (Clark 2005, Whitebread et al. 2009). Among the traditional observation, the use of video observation research in an educational context is not a new idea (Derry et al. 2010). However, the use of videotaping as a method to collect research data is continuously growing, since the technology becomes more convenient and inexpensive all the time.

One very important feature that the video has when compared to more traditional methods of observation – such as paper and pencil observations – is that video recording can be viewed multiple times with several analysing frameworks (Derry et al. 2010). Researchers that use videos have a change to go back to the situation that is at the focus of the research and thus, make sure that their interpretations of the event or situation are correct. Videos are also really flexible when it comes to editing. The researcher can focus on some really minor detail that would not occur when the data collection was planned.

For studying SRL in young children, the observational methods have been applied (Perry 1998, Wagener 2013a, 2013b, Whitebread 2009). Wagener (2013a) used grounded theory to analyse young children’s SRL excerpts from classroom video observations. With narratives of the situation (cf. Article I, Article II), she was able to indicate how SRL actually took place in the classroom:

“Linda was calculating and reaching her results with a certain method of calculation (strategic action in the area of cognition), but she was not sure about this method (monitoring of cognition). She used the strategy of academic help-
seeking (strategic action in the areas of cognition and context) for monitoring purposes (monitoring of cognition) and, as she was addressing me purposefully, we can assume that she had even planned to do so in advance (planning and anticipation of cognition and context). Therewith, she got her results and her method was also checked and confirmed. Finally, she thought about what had happened and added to her metacognitive knowledge about the task in relation to her own abilities (reflection on knowledge).” (Wagener 2013a: 314).

This is to say that with an annotation of running records, there is a possibility to create an even more detailed excerpt about children’s SRL event in the classroom when compared to a paper and pencil observation. By a thorough and detailed analysis of observational or video data, the features SRL in the classroom can be traced from children’s behaviours. When the researcher is fine tuned for subtle cues that the different behaviours offer, such as inner speech and interactions with the peer, the analysis of different phases of SRL can be drawn, for example, from a single lesson (Wagener 2013b).

For example, for the use of interaction analysis, the video offers a great platform to focus on unexpected occurrences of interaction, or for creating a fine grained coding schema for events so detailed that they would be hard to grasp with pure observations in the classroom (Whitebread et al. 2009). However, the above mentioned issues also include the pitfalls of the video observation research. The fact that a video can be viewed multiple times from different perspectives can lead the researcher to being overwhelmed with all the details in the data.

### 3.3 Interviews

Interviews in their different forms are used relatively often as a methodology with young children (Einarsdottir 2007, Morgan 2007, Smith et al. 2005). In this chapter stimulated recall interview and photo elicitation interview methods are presented.

#### 3.3.1 Stimulated recall interview

Stimulated recall is an interview procedure in which a stimulus of an event or behaviour is replayed to individuals to help them recall what the situation was about or why they acted as they did (Lyle 2003). In stimulated recall interviews, a researcher aims at reaching the children’s own view about what happened in the situation. For seeking the children’s views and perspectives through reciprocal
dialogue, a stimulated recall interview offers an interview method that uses a concrete medium between the interviewer and the respondent. As Dempsey (2010) states:

“The technique of SRI brings informants a step closer to the moments in which they actually produce action. It gives them the chance to listen or view themselves in action, jog memories, and give answers of “I did,” instead of “I might have.””

In this kind of interview of children, it is important to listen children in dialogue to offer them an opportunity to be heard (Einarsdottir 2007). That is, as children are reflecting their lived experiences, the researcher must enhance the child’s abilities to explain with dialogue. By carrying out a stimulated recall interview where a video clip is offered in the interviews, the researcher has an opportunity to grasp the phenomenon comprehensively by engaging in a reflective dialogue with the child (Clark & Moss 2001).

One good example of how a stimulated recall interview could be used with young children in the domain of learning is a study conducted by Morgan (2007) where pre- and primary school (aged 3–7) students talked about their learning and thinking in their classroom activities. The researchers conducted video observations from lessons and, afterwards, edited short episodes to be used as stimulus in a stimulated recall interview. It was found that students were mainly focused on recalling the activity than discussing their learning or thinking and they were more focused on the affective side of their learning environment (how they or other students had felt). The study showed that even pre-schoolers were able to recall the situation when they could select the situation under discussion by themselves and, thus, gives a promising example of how this kind of procedure could be implemented with young students.

In a study by Wagener (2013a), children were interviewed about their SRL behaviour in actual classroom activities. It was found that in the interviews, children did not necessarily recognize or elaborate SRL strategies that they clearly did in the excerpt shown from the actual classroom situation. In that particular study, children were not stimulated with some material, such as video clips, and this might be one reason for their difficulties in recalling their actions in the situation. For recalling a complex thinking processes, it is hard for a young child to remember without a concrete stimulus (cf. Morgan 2007). This dissertation tackles this methodological deficiency by offering a concrete stimulus from the situation by video clips and in photo elicitation interviews by photographs taken by the student.
3.3.2 Photo elicitation interview

A photo elicitation interview is also a stimulated recall interview, but with an emphasis on the use of photographs as a stimulus material. If a stimulated recall interview offers a concrete stimulus for the interview, the photo elicitation adds a tangible perspective to the data gathering. The term photo elicitation interview has been used mainly in ethnographic and social studies research (Epstein et al. 2006). Photo-elicitation uses photographs to prompt the research participants’ interview responses with an aim of gaining more in depth responses from the participant. Thus, in essence, it is a variety of a stimulated recall interview, but in a photo elicitation interview, the focus is on visual stimulus and, especially, on photographs. As Harper (2002) states:

“Photo elicitation is based on the simple idea of inserting a photograph into a research interview. The difference between interviews using images and text, and interviews using words alone lies in the ways we respond to these two forms of symbolic representation.”

In this dissertation study, as part of a photo elicitation interview protocol, the participants were also asked to take part in the data collection. Pictorial data provides an opportunity for children to participate in data gathering and also the interpretation of data through interviews. This kind of participatory approach offers an advantage to interviews that utilize researcher made stimulus or prompts. For example, in research on academic achievements and abilities, methodological decisions have mainly relied on interview methods complemented by references to hypothetical vignettes (Gipps & Tunstall 1998), questionnaires (Elder 2010) or references to one’s own abilities (Freedman-Doan et al. 2000, Kärkkäinen et al. 2008). For increasing the concreteness of the interview, the photo elicitation method offers a concrete stimulus collected by the children, which helps children to reflect the actual situation and the reasons why they took the picture in the first place.

One central part of a photo elicitation interview is, of course, the photographs. The use of photography has been used more and more as part of child-centred methods (Ali-Khan & Siry 2014, Baker & Smith 2012, Bird et al. 2014, Kumpulainen et al. 2014). One significant reason for the increase in the use of photography as a method is the change in the availability of the mobile tool (such as cell phones) that enables the collection and treatment of the data quite easily. The good side of the photograph as a method is that taking photographs does not
require a written descriptions of events, and thus, also makes the photographs accessible for the children who are not yet able to produce written text (Cook & Hess 2007). Another strength of using photographs is that data collection does not require the researcher’s presence in the data collection environment, which makes it unobtrusive to the situations. When only participants are present in the situation, the researcher might get data (i.e. situations, events or experiences) that might not happen or occur when the researcher is present.

Photographs are also illustrations of experiences. Because of their representativeness, photographs always illustrate something beyond the actual photo. For example, for representing abstract things (success or justice) that would be hard for children to describe with words, the photograph works as a good representative medium for experience (Clark 2005, Cook & Hess 2007). What actually lies “behind” the photo is the actual situation and an event where the picture is taken from (Baker & Smith 2012, Kumpulainen et al. 2014). The picture itself does not present more than a picture, but by the right selection of words, the researcher may be able to “flesh” out the story or an event behind the mere visual illustration of photograph (Einarsdottir 2007). By adjusting the questions approached in the interview, the researcher can make the interview situation very reflective in a way that children are engaged to discuss the content of the picture, but also tell the “story” behind the actual picture (Baker & Smith 2012).
4 Aims of the study

This dissertation focuses on investigating young children’s SRL. The aim is to investigate young children’s views of success in their classroom activities and factors that contribute to their achievement during those situations. To enable the achievement of these aims, three different data sets were collected involving different kinds of learning activities. Each of the individual articles has its own specific research questions that are reported in the articles. In this dissertation, the general aims can be divided into two general objectives; one that is empirical and one that is methodological. The empirical aims are as follows:

1. To gain understanding about factors that support young children towards success in learning activities (see Article I, Article II, Article III).
2. To gain understanding about self-regulated learning and support for self-regulated learning as a factor for success (see Article II).
3. To gain understanding about young children’s reasons for individual and peers’ success in learning activities (see Article II, Article III).

The methodological aim is as follows:

4. To develop child-centred research methods that combine different data sources to understand children’s successful situations in learning activities (see Article II, Article III).
5 Methods of the study

The research approach in this dissertation combines the characteristics of researcher oriented data collection and child-centred (participatory) research methods. An overview of the methodologies used in the empirical studies is offered in Figure 3.

![Methods used in this dissertation.](image)

It can be stated that the visual research methods, mainly videos and photographs, have been important sources for collecting the data. In Article II and in Article III, interview methods were also implemented, making the data less dependent on video observation. For a more thorough discussion of the challenges of the methodology used, see Chapter 3.

5.1 Participants, context and research design

This dissertation consists of two different studies, which include three data sets. All of the three data sets have been collected in the context of the Finnish education system and some of the specific features of different grades are described here. In Finland, pre-primary school is a year-long half-day programme that is offered in childcare centres to every six-year-old before entering primary school, which begins when children turn seven. Starting from August 2015, pre-primary school has been compulsory for every child (Finnish National Board of Education 2015b). However, already before being compulsory, pre-primary school had reached a participation of over 96%. In pre-primary school, the emphasis is on academic preparation for the primary school and it guarantees equal opportunities for children
to learn and prepare for advanced education. Primary school, in turn, is a part of compulsory basic education. Basic education encompasses nine years and includes all pupils between 7 and 16 years. Basic education is divided into grades and organized as class instruction in grades 1–6 (primary school) and as subject-specific instruction in the upper grades 7–9. In grades 1–6, the pupils are mainly taught by one class teacher and in grades 7–9, mainly by specialized teachers for each subject (Eurydice 2015).

### 5.1.1 Project I

The participants of the Project I (see Article I) consisted of 40 Finnish pre-primary and primary school children (ages 6 to 7); 32 were boys, 8 were girls. Children were chosen from two pre-primary-school classrooms and from one primary-school classroom. Data was collected by videotaping dyads of children during a task completion exercise. Each dyad was filmed in a separate room outside the classroom context to help children to concentrate on the task. During the task, children worked in dyads, and each dyad was filmed separately from other dyads. Altogether 20 dyads were studied across these events.

Events lasted from slightly over four minutes to over 15 minutes, depending on how quickly children could solve the tasks. The dyadic task was to solve geometrical tasks that were challenging for children in that age range. Before the beginning of the dyadic task, one of the two children was invited in, and he or she completed a few tasks with the guidance of a researcher. The researcher would refer to the task as a “game” that the tutor child should first learn to play by himself or herself, and then teach it to another child. Before the second child entered the room, the researcher would give the child who had already performed the tasks instructions on how to teach the “game” to their partner. The instructions were the same every time. First, the researcher said, “Now you have to teach the other child how to play this game.” The next instruction was, “This means you have to teach your friend the game and help your friend if he or she does not understand what to do.” Therefore, the child who had already performed the task tutored the new child.

The instructional method described above was used to find different kinds of instructional varieties and to enrich interaction between peers. That is, the aim was not to give instructions that were too specific as to how the teaching should be done, but to make the researcher’s effect as minimal as possible to what comes to the teaching. This kind of design enables children to find their own style of giving instructions.
After being given instructions, another child was invited in, the researcher moved to the back of the camera and the video-recording started. Once the camera started, the researcher only intervened if the children were struggling with the task and not proceeding in the task performance, or if the tutor child did not begin the instruction. The tutor child was supposed to teach the whole task to another child, and help that child perform the task if necessary. The actual task performance went as follows: first, after the instruction, the child who was performing had to pick up correct geometrical forms from a variety of forms. The actual forms were wooden blocks of different colours and shapes. After choosing the right pieces, the child had to set them on a piece of paper in order to fill a form that was printed on that paper. The easiest tasks included two blocks; the hardest ones included four different blocks. When the performing child had completed a few tasks with the guidance of the tutor child, the researcher provided two to three tasks that the children had to perform in cooperation. The event for a particular dyad ended when the researcher did not offer any more tasks to the children.

5.1.2 Project II

The project II was comprised from two different data collections and data sets. These data collections were conducted in the same elementary school and, partly, with the same pupils. The first data collection (see Article II) started in spring 2011 and the second data collection (see Article III) continued the following autumn with modifications on procedures, based on our experiences in the first phase of the data collection.

The participants of the first data set (see Article II) were 24 pre-primary and primary school children in Finland (aged 6–8 years, M age = 7.37). These children were pupils of the same primary school (one classroom was mixed pre-primary and primary school grade 1 classroom), selected from four different classes, based on the teachers’ ratings of the children’s co-operative skills, empathy, impulsivity and disruptiveness (Junttila et al. 2006). However, high and low rated children were not compared in this particular study. From each class, six children were selected, resulting in a total of 12 girls and 12 boys being chosen for the study. Once the teachers had made their nominations, the children were asked whether they wanted to participate in the research, and both the children and their parents were asked to fill out consent forms. The anonymity of the participants was protected with pseudonyms for each child participating.
The data collection lasted seven weeks. The data collection aimed to record situations in which the followed child succeeded in a school related task. To capture these events, video observations were used in the classroom and further edited for the use of a stimulated recall interview. Selected students were videotaped in different lessons during typical school days, *i.e.* some particular activities were not done for the data collection. For every video observation, four researchers worked in pairs in the classrooms. Each researcher followed one or two previously selected students at a time during one or two lessons. The researchers positioned themselves so that they had a clear view for the student being followed, without being intrusive. Classroom settings and the topics of the lessons varied from maths and literature to art and religion; thus, specific topics or subjects were not a focus of our observations. After each videotaped lesson, the two researchers discussed and selected 1–2 video episodes that represented moments when the students being followed expressed an achievement. The purpose of the stimulus was to be an authentic document that reflected the individual child’s day-to-day activities and achievements in the classroom. The criteria for selecting the episode were as follows: (1) engagement – the student is actively involved or working with the content towards a goal; (2) achievement – the student accomplishes the learning task. These episodes of achievement were related to regular classroom activities; for example, an achievement in math problem-solving or group work.

Stimulated recall interviews (*n* = 48) were conducted on the same day as the video observations, so that the episode under discussion would be fresh in the memory for the student. The video episodes were used as a stimulus in interviews, as content for students to reflect on aspects of their achievement and competence. The interviews were semi-structured and aimed to encourage as much dialogue as possible between the student and the researcher. At the beginning of the interview, the researcher explained how the interview would proceed; that the interview would start by watching the selected video episode on the computer and then some questions would follow regarding the situation. In addition to this, the researcher emphasized that there was not a “correct” answer to any question, but that the researcher would like to hear what the student really thinks. The interview questions addressed different aspects of the students’ classroom activities and contextual factors. In order to get the student to reflect on his or her responses more thoroughly, the researcher asked the student to elaborate after every answer (see Article II for the questions). If the student said that he or she had succeeded, the researcher asked for an elaboration on why the student thought that he or she had
succeeded. After the interview, the student was thanked for their help and escorted back to his or her classroom.

The participants of the second data collection (see Article III) were first-, second- and third-grade children ($n = 17$, aged 7–9 years, $M_{\text{age}} = 7.9$, 10 girls). The participants were the same children that had been selected for the first data set of project II, but because this data collection was conducted at the end of the calendar year, the participants had moved one grade up. During the data collection procedure, seven participants dropped out from the study. First, four students were not included due to inconvenient classroom changes. During the actual data collection procedure three more student wanted to quit data collection, because they were unwilling to continue to participate in it, thus resulting in the above-mentioned seventeen participants.

This data collection was built on the first data collection with some adjustment to the procedure. In this data collection, we aimed to approach the same successful situations as in the first data collection, but by using the participatory approach in methodology. Namely, our idea was to shift the selection of successful situations from the researchers to the participating children. The aim was to create stimulus material for the interview that would be collected by the children and, thus, the children would be more aware of the context and the reasons for success since they have themselves had chosen to take a picture of some particular event.

Data collection lasted for eight weeks. The data collection procedure was organized as a “detective course” in which the participants were asked to act as success detectives in their classrooms. The aim was to create a playful activity and a context to the data collection in order to engage participants to take part in the data collection. Three introductory meetings were organized in a separate room in the school facilities to give an instruction to the participants about the course.

In the first meeting, the researchers introduced the idea of “detectives of success” to the children. Through an open discussion about the meaning and appearance of success, the researchers and children oriented themselves to the upcoming detective task. For example, children were asked whether they had seen a successful situation during that particular day and what it had looked like, i.e. of what situation would they have taken a picture on that day if they would have had a camera.

In the second meeting, the detective equipment was introduced to the children. Devices equipped with cameras (iPod Touch®) were provided, so the children could take pictures of their classroom activities. Additionally, the detective’s photo logs were offered to keep track of those pictures that were taken. The photo log was a
simple notebook so that the children would remember the context of different photos in the subsequent interviews. In the photo logs, children could mark basic information about every picture, for example, the date, time and what happened in the situation.

In the third meeting, the children practiced using the camera devices for taking photos and videos. In this last meeting before starting to take pictures in classrooms, researchers discussed the general rules of behaviour the detectives needed to remember while doing their work: 1) the detective work is not allowed to disturb the classroom; 2) they are not allowed to take pictures of someone who doesn’t want to be photographed. Every introductory meeting lasted approximately twenty minutes.

After the last meeting, the children began their “detective work” in the classrooms, namely the data collection started. Basically, children were given the camera devices and they were free to take pictures in their classrooms, as long as they followed the general rules given in the introductory meetings. They could carry the camera during the lessons and breaks as they wanted, but the teachers took the camera devices back at the end of the school day for overnight storage.

Interviews were conducted weekly. In each interview, the child and the interviewer together chose the pictures and videos they wanted to discuss. That is, the researcher and the child viewed all the pictures that the child had taken during the week and the researcher asked a child to briefly explain what all the pictures were about. After going through all the pictures, the researcher asked about what picture the child would particularly want to discuss. After a picture was selected, the researcher started with the set of questions. The aim of the interviews was to get an idea of the children’s views of success by directing the interview questions towards the themes of the research. A list of questions can be found in the original article.

The children were encouraged to answer anything that came into their minds, and they were reminded that there were no right or wrong answers. Regardless of the predefined interview questions, the interviewers aimed to make the interviews as “discussion-like” as possible by using additional “Why?” questions to get children to reflect more on their responses. On average, each interview lasted around ten minutes.
5.2 Data analysis

The data collection in all three studies employed qualitative research methods (Denzin & Lincoln 2000). Throughout the whole study, the qualitative data analysis was used in order to understand both interaction processes that aid children to success in their learning activities and to understand how they interpret the reasons for their and their peers’ successes. In particular, content analysis (Neuendorf 2002) was implemented in the research. The analysis of the interview and observational data combined theory and data driven coding categories and practices. For example, in Article II, the categories rose from the data, whereas in Article III, the coding categories from previous studies were used to categorize the data. That is, the units of analysis were chosen based on the type of data and specific research questions in each empirical data. The QSR NVivo 8, 9, and 10 computer programs were used in the analysis of different articles. Software was used namely for handling and coding the video, interview and pictorial data. More detailed descriptions of the methods and data analyses are provided in the original articles.

5.2.1 Analysis of video recordings

Video recordings were used in Article I and in Article II as a method. Article I used video recordings as the only source of data, whereas in Article II, the video recordings were used in order to make observations in the classroom activities and then triangulate that data with the interview data.

In Article I, the recordings were used to capture the essential features of interaction of researcher/child and child/child dyads during a geometrical task performance. The analysis of the interaction focused on how the trajectory of a child’s resilience was unfolding when performing the task. For the analysis, a coding scheme with operational definitions for each of the coding categories (Whitebread et al. 2009) was created by adapting the theoretical guidelines of resilience, as outlined by Luthar et al. (2000), for instance. The coding scheme was based on the idea that resilience was built on three categories: the individual capacities of a child, external support and the occurrence of one or more risk factors. The main aim of this kind of analysis was to identify and recognize the actions that children displayed to effectively solve the task, also focusing on the identification of factors that hindered task performance. That is, in this study, resilience was seen as a process of protective factors that promote, and risk factors that hinder a child’s ability to perform a task successfully. For coding this process, each dyad of children
formed an event (Derry et al. 2010) that was observed and coded separately from other events. Coding of the events focused on both individual actions and actions displayed through interaction. For example, behaviours such as asking for help or being perseverant in a task performance, were coded as protective factors. Based on this coding, the researcher produced detailed descriptive excerpts from the events (Goldman & McDermott 2007) to illustrate the process of a task performance. Article I includes a more detailed description of coding and the coding scheme.

In Article II, the video recordings were used for two different purposes. First, for collecting video observation data from the classroom activities, and second, to create video clips from classroom situations where the child under observation was succeeding in a task. The actual analysis of video data focused on how classroom practices support young children’s SRL. A coding scheme that has previously been used for classroom observations (Perry 1998, Perry & Rahim 2011) was adapted for the purposes of analysing the video recordings. That is, a similar kind of observation coding was done than in the classroom, but by using video data from the classroom. A running records of events and interactions were made. The scheme for making the running records included running annotations of time; actions of the student, the teacher, or other students; the situation in general and other notions. Based on the running records, excerpts from the data were sorted into conceptual categories. More details of the actual coding and all the categories can be found in the original article.

5.2.2 Analysis of interviews

In this study, the interviews were a very central methodology. Interviews were used namely in the Articles II and Article III. In these studies, stimulated recall - and photo elicitation interviews were used. In both of the articles, interviews aimed to be as much like a discussion, in order to make the child feel at ease and that the views of the child were heard and respected. To underpin the discussion like atmosphere, the researcher tried to make the child reflect upon their answers and views by making additional “why” questions and emphasizing that there is no right or wrong answers to our questions (Porter 2009). Cleary and Zimmerman (2004) states that retrospective unstructured interviews are useful for investigating how aware students really are about what do they do during learning tasks. In this kind of interview, students can describe the strategies that they used during the task
performance. This suggests that retrospective interviews, like stimulated recall interviews, would also be suitable for studying the reasons for successes.

Article II utilizes stimulated recall interviews as a method (Lyn 2003). The stimulus materials were video clips that were edited from the corpus of video observation material, and thus, the interview data were collected in order to complement the video observation data. The analysis of the interviews utilized content analysis that were done in order to grasp children’s views about their successful situations in their classroom activities and how they perceived the support for SRL in their classroom. The guideline for this content analysis was to indicate and identify segments of discussion in the interview that would indicate a section where the child was describing the reasons for his/her success in the classroom. Phrases and larger discussions which are recognized to have similar meanings are coded into categories to uncover the variety of different answers.

Article III utilized photo elicitation interviews (Epstein et al. 2006). The photos for the interviews were collected by the participants through the “detective course” described in chapter 5.1.2. The analysis of the interview focused on identifying children’s views of the reasons for their success. The researchers read the interviews multiple times and identified parts of discussions where the student was discussing a reason(s) for his/her success in the activity. For coding the open-ended answers, categories were not used in an exclusive manner, which means that if the student gave multiple reasons for success in the interview, each of these references was individually coded. In the analysis, the responses of the children were categorized by using theory driven content analysis. That is, the analysis of the interviews, similarly than in Article II, used content analysis that aimed to indicate and find lines of discussion in the interviews that would indicate a section where the child was describing reasons for success. However, the focus was on how do children explain their peers’ successes in situations that the participants have selected and photographed. The photographs that children took in Article III were also analysed. With researcher led content analysis (Baker & Smith 2012), the pictures were coded into general categories that were further divided into subcategories. Categories were formed to purposefully represent the different situations and themes that the children photographed during their detective course. The procedure for analysing the photographs was carried out as follows. The two main researchers of this study performed the coding through an iterative process of discussion and agreement about the categories. The photographs were described using the basic question ‘What can be seen in the picture?’ and dividing these
notions into smaller categories based on the most salient feature of the photo (e.g. Who is in the picture, What the school subject is, Whether it is a product.).

5.3 Evaluation of the research

The empirical studies (see Article I, Article II, Article III) of this dissertation include three somewhat diverse data sets that need to be evaluated. The reliability indicates the extent to which the study and its results can be reproduced with a similar methodology (Golafšhani 2003). The evaluation of the reliability of qualitative research often starts by evaluating whether the ways of working in the research are transparent. That is, when doing the analysis and reporting it, the researcher should be as transparent as possible about the reasoning and thinking of the research (Creswell 1998). To ensure the replicability of the research, the reader should be able to gain an idea of how the researcher ended up at the interpretations that were made from the data (Golafshani 2003). In the empirical studies (see Article I, Article II, Article III), this has been taken into account when creating coding schemes. The coding schemes have been presented with operational definitions of coding categories to clarify how the actual coding was done for the data.

As an observational method, compared to paper and pencil observation, video records produces data that can be re-examined multiple times (Jordan & Henderson 1995, Whitebread et al. 2009). This helps with the reliability coding which is one way to increase the reliability of qualitative research. Inter-coder reliability coding is a way to determine to what extent the coding of research data is repeatable. That is, two independent coders analyse the data to see whether two different researchers can arrive at the same interpretation about the data (Neuendorf 2002: 141). In Article II, reliability coding was conducted on the interview and video observation data. Inter-coder reliability coding was carried out on 50% of the interview data (18 interviews). Two interdependent coders reached a sufficient kappa value (κ = .70). Additional inter-coder reliability coding was performed on the video data. Twelve out of 28 videotaped lessons were coded by two interdependent coders reaching a sufficient kappa value (κ = .65). In Article III, reliability coding was conducted on the interview data. To confirm the inter-coder agreement of the coding for categories, two interdependent coders classified 14 interviews, which was 50% of the selected interviews. An agreement of (κ = 0.754) was reached which can be considered as an acceptable agreement. Depending on the study, kappa values
ranging from .40 to .70 can be considered fair to good, and kappa above .70 or .80 can be considered excellent (Neuendorf 2002: 142–143).

The validity of the research indicates how or whether the interpretations made are supported by the data and are related to previous results (Peräkylä 2011). That is, does the researcher study what he/she claims to be studying? For example, does the method that is chosen for the research really study (or measure) the phenomena that the researcher claims it does (Golafshani 2003, Neuendorf 2002)? The researcher needs to offer grounds for reasoning in order to clarify how the interpretations were made. In this dissertation, the validity of the interpretations was illustrated by offering examples from the data. In Article I, descriptive examples were used to illustrate the criteria used in the coding. In Article II, several illustrative examples (including a detailed case example) from the interviews were offered in order to express the coding for different categories. In Article III, descriptive examples were presented to ground the coding of the data. By offering multiple examples from the analysis and for grounding the results, the researcher has tried to make the reasoning as understandable as possible. Thus, the readers of the articles can make their own judgments about how accurate the interpretations are. When offering detailed examples or excerpts from the data – for example, from an interview – the researcher has aimed not to make the examples anecdotal, which might decrease the validity of the study (Silverman 2011: 20). Instead, the selected examples are representative of typical answers and, moreover, give the reader an idea of the correctness of the coding.

Triangulation of data has been suggested as one way to test the validity of qualitative data (Golafshani 2003). In Articles II and III, the different data sources were combined to triangulate data. In Article II, video analysis was combined with interview data to see how SRL was supported in the classrooms and how children viewed the support for SRL as a part of their success in learning situations. In Article III photograph data was triangulated with the photo elicitation interview to ensure that the researcher interpreted the situations in the pictures similarly to the child who had taken the picture. Previous studies have indicated that there is a problem in a study that uses photographing with children, if the children’s photographs are only interpreted by adults (Baker & Smith 2012, Bird et al. 2014, Darbyshire 2005). If only the researchers interpret the photographs, how well can they be expected to interpret the actual situation that the picture was taken in? In other words, without contextual knowledge about the situation, or about the reasons for taking a picture, the researcher is unaware of the meanings that a child could reflect through the picture.
One of the advantages of the interview methods used in Articles II and III was that the children were not required to express their views using generalisations; rather, they were allowed to describe the actual events in the classroom. When children can discuss their views through a stimulus (e.g. a video clip or photograph), they can be more elaborative compared to products or vignettes decided on in advance (Heyman 2009, Morgan 2007). This would mean some particular situation that they have experienced by themselves or photographed by themselves.

5.4 Evaluation of ethical issues

The ethics of this study followed the guidelines of the Finnish Advisory Board on Research Integrity (2012). When using a participatory method with children, the ethical considerations need to be addressed (Dalli & Te One 2012, Einarsdottir 2007). The informed consent, interaction, and protection of confidentiality is an important aspect of ethics when researching with children, but also in research in general (Einarsdottir 2007). These issues should be taken into account, regardless of whether the study utilize video observation (Derry et al. 2010) or different kind of interviews (Kvale 1996). Consents for the study were collected from children, parents and the school. Every child was informed that they can withdraw from the study if they wished so (Dockett et al. 2012). The design of the studies aimed not to be stressful to children and try to be more fun and playful than serious (Barker & Weller 2003). The issue of asking consent for research has also been problematized. The question is: who is able to decide whether a child should participate in a study (Dockett et al. 2012)? Simply from the child’s point of view, the question should always be whether or not to participate, especially having an emphasis that there is a possibility to withdraw from the study (Dalli & Te One 2012). The choice that children had was to make a decision whether they wanted to participate or not at the end. It needs to be noted that not all children wanted to participate and that they were allowed to drop out.

In the interviews, the relation between the researcher and the child, and interaction were attempted to be made as easy going as possible. The interviews aimed to be as discussion like as possible, emphasizing that there is no right or wrong answers and using elaborative questions to make the reflection easier for the child. Additionally, during the interviews, there should be phases where the researcher can engage the participants in discussions about whether they feel at ease with their task and are willing to continue (Porter 2009). This was taken into
account in the interviews as researchers tried to be sensitive to children’s possible anxiety towards the data collection.

For assuring the confidentiality of the procedure, throughout the data collection and analysis, the data were handled by using pseudonyms to protect every child’s identity. The paper-and-pencil answer sheets were stored according to the appropriate regulations. The sources of financing were reported in articles and in the acknowledgements of this dissertation.
6  An overview of the articles

The body of this dissertation constitutes three empirical articles. The specific aims of every empirical article and the responsibilities of the author are described in the Table 1. In the following overview, a brief overview of each empirical article is offered.

Table 1. Focus of the articles and responsibility of the author.

<table>
<thead>
<tr>
<th>Article</th>
<th>Aim</th>
<th>Author’s responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>To gain understanding about factors that support young children to succeed in learning activities.</td>
<td>1st author, responsible for data analysis and theoretical grounding.</td>
</tr>
<tr>
<td>II</td>
<td>To gain understanding about young children’s views for individual success in learning activities, self-regulated learning and the support for self-regulated learning as a factor for success.</td>
<td>1st author, responsible for empirical data collection, data analysis and theoretical grounding.</td>
</tr>
<tr>
<td>III</td>
<td>To gain understanding about young children’s views for their peer’s success in learning activities.</td>
<td>1st author, responsible for empirical data collection, data analysis and theoretical grounding.</td>
</tr>
</tbody>
</table>

6.1  Article I: Trajectories of resilience during dyadic task performance among children six to seven years of age

This study investigated resilience displayed by young children in dyadic task performance situations. Data were collected by videotaping children (aged six to seven years; N = 40) during a geometrical task performance. Results described ways in which children confronted the challenges during task performance, and the order in which the situations often occurred. Additionally, the results show that resilience in learning situations and in peer interaction is based in many respects on supportive relationships with adults and peers and on the children’s own abilities to efficiently solve problems.
6.2 Article II: Finnish students’ reasons for their achievement in classroom activities: focus on features that support self-regulated learning

This study investigated views and appraisals that primary school children give to their success in classroom learning activities. The aim was to find out both how children explain factors that contribute to their success in classroom learning activities and whether these factors of success are related to support of SRL in classroom. Over seven weeks, 24 primary school children were videotaped during their typical classroom activities. 59 hours of video observations were made in classrooms to capture moments when children succeeded in learning tasks. From the complete set of video observations, 62 episodes were edited and used in stimulated recall interviews in which children were asked to assess the reasons they related to their achievement in learning situations. Data driven content analysis were used to analyse the open ended interview data. The video observation data were analysed in order to find out how SRL was supported in classrooms. The results showed that children describe achievement through the actions that they took in situations, such as being able to accomplish the task. Thus the reasons given for their achievement dealt with the ability to accomplish the tasks or doing academic activities in order to achieve the task. Furthermore, the children recognized such classroom activities that support SRL, acknowledging their contribution to their achievement, mostly through the support that they received from their teachers and peers.

6.3 Article III: “What makes her succeed?” Children making interpretations of their peers’ success in learning situations

This study investigated how young children explain the factors of their peers’ successes in learning situations. Previous studies have shown the importance of social comparison in the development of children’s belief in themselves as learners. How these comparisons are made in naturally occurring situations needs to be clarified. This study investigated how children view and appraise factors that lead to their peers’ successes in classroom learning activities. Seventeen primary school children participated in a “detective course”, in which they needed to capture moments of success using a mobile camera device. The pictures were used for photo elicitation interviews (n = 28), in order to find out children’s views of the reasons for their peers’ successes in learning situations. Pictorial data (n = 361)
were coded with data-driven categories to see what kind of situations children considered successful. The results show that the reasons given for peers’ successes dealt with situation specific information, such as the mastery and quality of performance. However, only few references to social reasons for success, such as sociability and comparison, were found. Findings indicate that children rely on situational and contextual information more than comparison between the achievements of their classmates.
7 Main findings

This chapter describes the main findings of this dissertation. The results are arranged according to the research aims that were introduced in chapter 4.

7.1 Factors that support young children towards success in a learning situations

In Article I, Article II and Article III, the features that support young children to succeed in the classroom were viewed from three different perspectives. In Article I, the reasons for a successful task performance were observed from the interactions and behaviours of an individual in dyadic geometrical task. In Article II and Article III, the reasons for success were scrutinized from stimulated recall interviews and photo elicitation interviews that were based on video clips and photographs from actual successful learning situations that took place in classrooms.

The results of Article I showed the importance of the abilities the children brought to their circumstances. In order to succeed in a relatively challenging task performance, children needed to work on a task persistently and find a way to solve the geometrical tasks through trial and error. For instance, the ability to concentrate on the task was noted to be crucial for successful task performance. The study also showed various ways in which children adapted and regulated their activities in task performance. For example, when the children confronted setbacks, they asked for additional help or sought active support from a peer, which is an effective regulation strategy (Newman 2000). These results were also reflected in Articles II and III when children labelled reasons for their own and peers’ success. For example, children’s views emphasized the ability to do the task and the quality of performance as factors for success. That is, children thought that for success, they must be able to do the task at the required level, and preferably at a high standard.

In Article I, this kind of trust in one’s own abilities to accomplish a task was noted when children expressed self-efficacy to do the tasks by verbal utterances (also spontaneously) during task performance. A belief in one’s abilities to successfully perform specific tasks prompts one to try hard and be more engaged during a task performance (Zimmerman & Cleary 2006). Children who tend to feel competent about their abilities also choose more difficult tasks, which have a positive influence on their task performance (Smiley & Dweck 1994).

In Articles I and II, the importance of others in the classroom was recognized. Article I emphasized the importance of support from an adult for a successful task
performance and in Article II, children stated that support from peers and teachers was the most salient support for SRL in classrooms. These results underline the suggestion that good relationships with adults and peers are beneficial for successful learning. This notion is supported by Johnson (2008) and Masten (2001), who emphasized that resilience and perseverance in learning is built on everyday protective factors that occur in children’s lives. Good relationships with caring adults like teachers, and with peers, are the most robust source of perseverance in learning situations (Reeve & Jang 2006). In Article II, it was found that support from the teacher and non-threatening evaluations during the lessons were apparent in almost every lesson. If children see that their opinion is valued in the classroom and that the atmosphere in the classroom is not prone to pointing out children’s errors in learning, they may be more encouraged to try challenging tasks and persevere in the face of failure (Gresalfi et al. 2009, Perry 1998, Turner et al. 2002).

If both the individual assets and the supportive environment are crucial for successful learning, then how do these factors intertwine in the task performance? In Article I, the trajectories of a successful task performance showed the reciprocity that an individual and a supportive environment create to achieve in a task. In a typical trajectory of a successful learning situation, actions followed a cyclical process where setbacks and protective interventions were taking turns. Consequently, this kind of experience of setbacks and bouncing back from setbacks occurred in the events. Thus, regulating activities during the learning task is important and essential, even in the pre- and primary school children’s learning (Dignath et al. 2008, Whitebread et al. 2009).

7.2 Self-regulated learning and the support for self-regulated learning as a factor for success

The second aim of this dissertation focused on exploring the support for SRL in classrooms. Additionally, it was studied whether the children view the support for SRL as one of the reasons leading to success in their classroom activities. These topics were mainly explored in Article II. The results in Article II showed that in general, SRL was supported in the classroom. The analysis of the video observation data indicated that support for SRL occurred in all the classrooms studied during the lessons. Notably, the support given by a teacher and non-threatening evaluation used during the lessons were apparent in nearly every lesson, making the atmosphere in classroom warm and understanding (Gresalfi et al. 2009, Turner et al. 2002). The teacher did structure the lessons in such a way that they would be
available for help if needed. Every teacher that participated in this study used evaluation strategies that were non-threatening, such as offering students possibilities for self-evaluation of their progress and in the case of a failure, they engaged in reasoning about strategies to correct the occurred difficulties. That is, they used failures or the misunderstanding of a child as opportunities to learn. The other aspects of SRL support were also apparent in the classroom instructions. Most of the tasks that the teachers gave to the students were complex in nature; the children could use different materials and the tasks had some features that were open-ended, thus allowing the children to decide on their own way of executing the task (Turner 1995). However, it must be noted that even though the tasks were complex in nature, they were rather short-term tasks that have been noticed to characterize early primary school tasks (Perry et al. 2004, Wagener 2013a).

In the interviews, the features recognized by the children were ones that are the most salient part of the task performance. Support from a teacher and from peers, as well as the level of interest in the task, were the supports that children referenced as having an effect on their achievement. This result was encouraging, since the teacher’s behaviour in classrooms affects how children can adaptively seek help (Marchant & Skinner 2007, Newman 2010, Perry & VandeKamp 2000). Thus, it seems that the children’s view of their success seems to be affected both by the signs of their personal behaviour and by the feedback they get in the classroom, such as teacher evaluations (Read & Hurford 2010). In the studies by Gipps and Tunstall (1998) and Elder (2010), it was seen that the teacher’s role in success was seen through given evaluation or support. Children noted that it was important that their teacher was “happy” or “proud” about their achievement. Article II and Article III showed that the role of the teacher (and peers) was seen in terms of help rather than the evaluation of an achievement. One possible reason why children favoured more salient SRL supports in their explanations (e.g. teacher support) could be that those features are easier to observe from video episodes than, for example, control over a challenge.

7.3 Young children’s reasons for individual and peers’ success in learning activities

The third aim of this dissertation was to scrutinize the views and appraisals that young children give to their own and their peers’ successes. Differently from the first aim, the third aim focuses on establishing to which individual assets young children appraise their own and their peers’ successes. Articles II and III suggested
that children describe achievement through the actions that they took in the situations. The reasons given for children’s achievement dealt with situation specific information, such as the ability to accomplish particular tasks (with good quality) or doing academic activities in order to achieve the task. The effort to do a task and ability were often explained through concrete actions during the activity, rather than having a general ability (Gipps & Tunstall 1998, Heyman et al. 2003).

In Article II, the task difficulty (or task easiness) was also mentioned as a reason for achievement. On the one hand, this might be a reason for young children’s high optimism towards their own abilities (Destan & Roebers 2015), or on the other hand, in this study, it was because researchers selected too simple episodes to be used in the interview. This result raised a question of whether “easy” is an inherent feature of tasks or if children experience ease or difficulty in relation to the knowledge and skill they have in relation to the task. It is argued that the ease or difficulty of a task is about a dynamic relationship between a person and the task. The attributional theory states that the easiness of a task is seen as an external uncontrollable feature of the task (Weiner 2000). However, a task that is easy for one child is not necessarily easy in general; it could also be that task easiness is a reference to a person’s ability to perform the task easily.

In Article III, it is notable that comparison or social relationships were not emphasized as a reason for achievement in learning situations (cf. Stipek & Tannat 1984). Social context and its influence on the support for SRL is essential in young children’s classrooms. Even if children are solving academic tasks by themselves in the classroom, it involves social interaction. They are aware of each other’s behaviours and achievements and compare their peers’ achievements and actions (knowing which tasks their peer is doing, who is a task ahead or behind) to their own (Wagener 2013a). It can be said that learning in a classroom is always social, and social interaction constitutes the learning processes as it unfolds (Wagener 2013a). Even though the majority of the pictures taken were of a peer’s success, the coding of “comparison” was minor. The lack of comparison seems to contradict another study (Räty et al. 2002), which found that comparison was the most used reason for selecting a peer for the same team and the second most used category for selecting a peer to the team in theoretical subjects (reading & mathematics). The contradiction of the findings in this study with the aforementioned studies may be that the team selection task might raise more comparative reasoning, i.e. choosing someone for the team because they are better than the rest of the class, whereas in this dissertation, success in a task may be explained with more context-specific reasons, such as mastery.
7.4 Child-centred research methods that combine different data sources to understand children's successful situations in learning situations

Methodological choices in this dissertation study have been guided by the idea of using and developing child-centred research methods to study young children’s successful situations in classroom activities. Especially in Articles II and III, we have explored the possibility of activating children to participate in the data collection and interpretation of data by using stimulated recall and photo elicitation interview methods. However, the methodological decisions and results in Article I helped us to develop more child-centred methods than just video observations in Article II and in Article III.

The studies (see Article II and Article III) that utilized child-centred methods prospered to implement two data collections with an approach that invites children to express their own views about the studied topic (Broström 2012, Dalli & Te One 2012). This dissertation gives some encouraging results and ideas for future development about the use of child-centred and participatory methods in learning research. Firstly, a gradual development of these methods was seen as a necessary part of the data collection. This is to say, both data collections had their weaknesses and strengths that further guided the development of methodology. In Article I, it was noticed that to get a broader picture of what constitutes success in the classroom, some adaptations need to be made. The aim was to keep the video observation, but to triangulate it with an added stimulated recall interview. By triangulating the video data with a stimulated recall interview, it was possible to show concrete excerpts from the classroom and add children’s views to data by interviewing them. When using video data as a stimulus material in interviews, there is still a possibility to code the observation data as such. This has the advantage that the researcher can have the researcher’s view and the child’s view on a situation and then arrive at conclusions by triangulating these views. However, in Article II, we noticed that even though children engaged in discussion about the situations in the classroom, there was a doubt about how well the researchers’ view about successful situations reflected the one that children would have selected, i.e. if the researcher’s interpretation of a situation was similar to the one that the child was making (Bird et al. 2014). For Article III, this issue was developed by making adjustments to the situation selection procedures. Where the researchers had made the decisions about which situations would be selected for the interview in Article II, the selection of events in Article III was handed over to the participating children.
By designing a playful data collection where children were required to capture the situations of success during their classroom activities, the doubts about the different views of the researcher and children were avoided. That is, the children could choose the pictures by themselves about situations that were successful in their own opinion rather than an adult’s opinion.

Based on this development of the interview protocol, some advancements were made. One of the advantages in the interview methods used in both Article II and Article III was that the children were not required to express their views using generalisations, but rather, they were allowed to describe the actual events in the classroom (Whitebread et al. 2009). When children can represent their thoughts of a certain action with a picture, they can be more elaborative compared to previously decided products or stimuli (Wagener 2013a). When describing their peers’ success, children are better aware of the daily achievements and ability level of the peer, compared to a short description of a character in a vignette.
8 Discussion

The purpose of this chapter is to discuss the findings and methodological considerations of this dissertation and to reflect on the practical implications that the results might indicate. Additionally, future research needs and interests will be discussed.

8.1 Main findings

One of the things that young children get to know in the first years of primary school is how to appraise one’s achievement in successful learning situations. These experiences are also affected by the contextual social factors that contribute to those situations (Perry 1998, Wagener 2013a). Findings of this dissertation provided information about how success is viewed in classroom activities, how SRL is supported in the classrooms and how these supports are seen to contribute to successful learning situations. This information is important, since knowing in more detail what aspects of SRL children think are an important part of their success at school can make an important contribution to the field.

Today’s children need experiences of success in order to increase their competence, beliefs of self-efficacy and motivation (Kumpulainen et al. 2014, Dweck 2006). This study showed that children viewed their successes in learning situations through the actions they took in the situations. In other words, they explained that the reasons for success were something they could alter or control by themselves, such as accomplishing particular tasks (with good quality) or doing academic activities to complete a particular task. The effort and ability to do a task was explained in terms of concrete actions during the activity, rather than having a general ability (Gipps & Tunstall 1998, Heyman et al. 2003). Similarly, when photographing their peers’ successes, children did not use comparisons of ability to explain their peers’ success. These results raise the question to what extent these answers and views are explained by developmental issues (age of the participants). Previous research has shown that young children have fundamental knowledge about what ability is all about, but they assess it in terms of concrete behaviour (Heyman, Gee, and Giles 2003), and that reasoning about abilities differentiates during the first years of elementary school (Kinlaw & Kurtz-Costes 2003). Whether the findings of this study were influenced by the age of the participants or by the fact that they were interviewed using stimuli from concrete situations with which they had personal experiences needs further research. However, these explanations
essentially serve as a source of motivation when children view their personal outcomes (Zimmerman 2011) and also inform expectations of future success (Weiner 2001), as these appraisals made about success in a learning task have an effect the next time when the learner is tackling a similar kind of learning task (Schunk 1983). Children who view their learning in terms of a method that is initiated and controlled by them are better able to regulate their learning, because they see that learning is something they can control and alter (Dweck 2006, Elder 2010, Zimmerman 2011).

By gaining knowledge about what instances children see as successes in their everyday learning activities, it is possible to create practices that aid children to better notice their strengths and develop productive attributional beliefs about their learning (Butler 2002a). The current development of the new curriculum for basic education in Finland includes the idea of making learning and thinking skills a part of the national curriculum (Finnish National Board of Education 2015a). In the curriculum reform plan, these learning skills have been specified as skills like these: critical thinking, problem solving, and the ability to reflect on and further develop one’s own learning skills. The core question now is how to find the ways to implement these goals in the teaching practices. The results of this dissertation introduce one way in which teachers could elicit children’s views from their learning in the classroom and, thus, create a concrete practice to prompt children to reflect on and develop further their learning. Article III showed that in the first years of elementary school, children are able to select situations of success in their everyday classroom learning activities and to make appraisals of them. Through these discussions the teacher would gain information on what children in their classroom think about their own learning and make visible their actions in learning situations for further elaboration. However, it must be noted that using photo elicitation as part of classroom practice, the activity as such and organizing it is laborious for the teacher. Engagement in thorough discussions with all the students throughout the academic year would require lots of resources from the already overworked teachers. An interesting topic for future research would be to create a pedagogical practice based on the photo elicitation protocol to see whether it could work in the classroom.

This research shows the role of peers, as well as adults, as part of the learning environment, and their resources should be taken better into account in pedagogical planning. Previous research has indicated how SRL can be supported and studied in classrooms (Paris & Paris 2001, Perry 1998, Perry & VandeKamp 2000). However, in this study, it was also investigated whether children regard the support
for SRL as a part of their success. Information acquired about children’s reasons for their success, and how support for SRL relates to these reasons, will give us knowledge of how, for example, teachers could design the support for SRL by also taking into account the children’s preferences. The monitoring of the learning process and reflections on it merge in the day-to-day classroom learning activities (Wagener 2013a). In an ongoing task performance, no clear distinction can be made when a child is monitoring the performance and when he/she is reflecting on and evaluating it. This raises thoughts regarding pedagogical practices, as it is suggested that teacher could put an explicit emphasis on evaluations of performance that take place after the task performance has been carried out (Wagener 2013a).

The limitations of the study need to be acknowledged. First of all, the sample sizes were quite small in all the studies. This was due to the procedure of data gathering, and this should be taken into account when interpreting the results (Neuendorf 2002). However, even though this study does not address representative sampling that could be generalized to a population, it offers descriptive and suggestive results. Another limitation of the study is the “messiness” of the data, which is typical of child-centred methods (Dalli & Te One 2012). Messiness of the data often refers to the fact that the data collection included phases or procedures that are hard for a researcher to control or to have an effect on. In this study, for example, the photo elicitation study was instructed by the researcher, but the actual data collection (the photographs) was in the hands of the participating children. However, if the researcher aims to approach situations that children have selected by themselves, the researcher needs to deal with the fact that he/she cannot be in charge of the data collection as it unfolds in the classroom.

8.2 Final remarks

To conclude, there is room for further research on how children view their successes in their classroom. Learning environments are changing and the emphasis of what or which skills are seen as valuable in modern education is changing as well (Finnish National Board of Education 2015a). Teachers in (near) future schools can develop instructions that focus more clearly and explicitly on supporting SRL in the early education classroom (Moos & Ringdal 2011). There is a need to invent more effective ways and practices to prompt SRL at the beginning of every child’s academic path. Some of these ways have already been researched and presented in
In future research on young children’s SRL, more emphasis could be placed on how to make SRL supports, such as choices and control over challenges, more recognisable and explicit for children. This study gave promising results for making use of interview protocols that utilize real life stimuli as a basis for the interview. However, these interview methods should be developed further (Wagener 2013a). Interviews are needed that grasp more strictly the different phases of the regulation of learning and different supports for SRL. The longitudinal aspects should also be taken into account. In this study, we focused on very detailed excerpts from actual learning situations, which can be mentioned as an advantage of this research. However, SRL is best supported and prompted when it is part of everyday classroom pedagogy (Dignath et al. 2008, Paris & Paris 2001). It would thus be useful to conduct a study that scrutinizes the used classroom practices and their relation to students’ SRL skills throughout the academic year, and especially one that takes into account children’s appraisals of their own achievements. By taking children’s views of SRL into account, the research could broaden the knowledge of early years SRL in a child-centred way.

A student who is regulating his/her own learning can be seen as an ideal student. For the regulation to succeed well, one must be able to spot the successes and errors in learning tasks. This dissertation has been shedding light on those moments and perceptions of success that children encounter every day. That is, on a daily basis, these minor or major successes and their appraisal constitute the way in which children see themselves as learners, and how they tackle new tasks and events based on these views. Having such an effect on how children see themselves as learners, it is reasonable to focus research on how to gain the most benefit from children’s successes as a means to improve their capabilities. This task can be done as it has been executed in this study – simply by asking the children.
References


75


Original publications


Articles I–III are reprinted with permission from Taylor and Francis publications.

Original publications are not included in the electronic version of the dissertation.
<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Author(s)</th>
<th>Year</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>148</td>
<td>Opettajien osaamisen ja opetuksen kehittäminen perusopetukseen valmistavassa opetuksessa</td>
<td>Salo, Raimo</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>149</td>
<td>Educational perspectives on recognition theory</td>
<td>Hanhela, Teemu</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>Development of methodology for assessing counseling interactions: developing the Counselor Response Observation System and assessing applicability of heart rate variability to the measurement of client emotions during verbal reporting</td>
<td>Rantanen, Antti</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>151</td>
<td>Affective and effective collaborative learning: process-oriented design studies in a teacher education context</td>
<td>Näykki, Pia</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>152</td>
<td>Educational perspectives on recognition theory</td>
<td>Mäki, Päivi</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>153</td>
<td>Changing literacy practices: a becoming of a new teacher agency</td>
<td>Räisänen, Sari</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>154</td>
<td>A moral responsibility or an extra burden?: a study on global education as part of Finnish basic education</td>
<td>Pudas, Anna-Kaisa</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>155</td>
<td>Setting young children up for success: approaching motivation through children's perceptions of their ability</td>
<td>Miäättä, Elina</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>156</td>
<td>Participation in and beyond liminalities: action research with unaccompanied asylum-seeking girls</td>
<td>Kaukko, Mervi</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>157</td>
<td>Fabricating the teacher as researcher: a genealogy of academic teacher education in Finland</td>
<td>Sitomianiemi-San, Johanna</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>Multiculturalism as a challenge in contemporary Finnish picturebooks: reimagining sociocultural categories</td>
<td>Pesonen, Jaana</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>159</td>
<td>How are you?: the narrative in-between spaces in young children's daily lives</td>
<td>Kinnunen, Susanna</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>Towards more ethical engagements in North-South education sector partnerships</td>
<td>Alasuu, Hanna</td>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>161</td>
<td>Oppimisen itsesäästelyn ilmeneminen ja kehittymisen tukeminen alakouluun oppimiskontextissa</td>
<td>Kontturi, Heikki</td>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>162</td>
<td>Listening to the voices of dementia: the therapist's teaching-learning process through co-construction of narrative and the triadic relationship with Alzheimer's disease sufferers</td>
<td>Watanabe, Ryoko</td>
<td>2016</td>
<td></td>
</tr>
</tbody>
</table>

**Book orders:**
Granum: Virtual book store
http://granum.uta.fi/granum/
Arttu Mykkänen

YOUNG CHILDREN’S SUCCESS IN LEARNING SITUATIONS

ACTIONS, VIEWS AND APPRAISALS IN LEARNING CONTEXTS