Babeş-Bolyai University, Cluj-Napoca

Faculty of Psychology and Educational Sciences

Doctoral School Education, Reflection, Development

Long Abstract

The Contribution of 'Collective Reflective Learning from Success' Program to Pre-Service Teachers' Self- Regulated Learning

DOCTORAL COORDINATOR

Dr. Alina Felicia Roman

Student-doctorand

Doctoral student

Irit Mazor Cohen

CLUJ-NAPOCA, 2021

Table of Contents

List of Tables

List of Figures

Glossary of Abbreviations

PST   Pre-service teacher

PSTs   Pre-service teachers

CPD   Continued Professional Development

SRL   Self-Regulated Learning

LFS   Learning from Success

CRLfS   Collective Reflective Learning from Success

CK   Content Knowledge

PCK   Pedagogical content knowledge

TPACK   Technological Pedagogical and Content Knowledge

ACKNOWLEDGEMENTS

This thesis reached significant conclusions and recommendations with the support of a number of people whom I would like to thank.

Thanks to Professor Univ. Alina Felicia Roman, my doctoral coordinator for her pleasantness, patience, good advice, guidance and support.

Thanks to Professor Univ. D. Vasile Chiş for his belief in the importance of this research, his support and interest throughout the thesis and for his advice.

Thanks to Professor Univ. Dr. Muşata Bocoş for her theoretical and methodological direction.

Thanks to Mr. Dany Shenker and Mr. Avishai Tal who supported and recognized the importance of this research and were always available and accessible to me.

Thanks to Dr. Yehudit Od-Cohen for her professional and personal accompaniment throughout this journey, her direction, good advice with great patience, caring and believing in this research.

Thanks to my colleagues in the academic educational college for their encouragements, in-depth and clarifying conversations at different stages of the doctorate. Likewise, thanks to my students who gave their consent to participate in this research.

Thanks to my supportive and loving family and close friends who constantly motivated me with their more profound thoughts. Special thanks to my aunt Etty and finally, thanks to my dear daughters Shir and Ofek who continued to encourage and support me with great patience and understanding all the time.

This doctorate would not have happened or reached its end without your support and help.

Thank you very much.

ABSTRACT

This research examined the contribution of a 'collective reflective learning from success' (CRLfS) program to pre-service teachers (PSTs) to promote self-regulated learning (SRL) in primary schools at a teacher education college in Israel. The research importance is in developing metacognitive reflective processes among PSTs as adult learners, in learning about their teaching and in development to promote theirs and their students' SRL as a positive progressive approach, in humanistic subjects and language education.

The mixed methods research included twelve PSTs in their second year of primary teacher education studies in the qualitative research part. Research methods were document analysis and semi-structured interviews. Data were collected through an open-ended interview questions, lesson plans and reflective documents, and analyzed by categorical content analysis. Two groups participated in the quantitative research: PSTs who participated in the program and PSTs who did not. Data was collected a year and a half after program completion using self-efficacy in teaching and self-regulation in a learning context questionnaires that were analyzed statistically.

Research Findings showed that using a model for CRLfS contributed to the development of PSTs' SRL mostly as adult learners, and to developing their teaching that promotes SRL in humanistic subjects and language education. Additionally, the findings show that PSTs' level of self-efficacy in teaching increased during program implementation.

This research contribution to theoretical knowledge is the development of a model closing the existing knowledge gap in research literature. The research contributes to the theory of learning from success in teacher education, developing reflective thinking and SRL, integrating SRL pedagogy, and combining the three main pedagogies. The contribution to practical knowledge is changing teacher education policy in humanistic subjects and language education. Tools were provided to pedagogical instructors and PSTs participating in the program to maximize metacognitive and meta-emotional thinking processes during CRLfS and their application in a gradual circular development process developing self-efficacy in teaching and teaching promoting SRL, through a positive and progressive approach in teaching.

The current study presents a developmental, humanistic, positive, and progressive approach in PSTs' education, believing in teachers' professional development, harnessing the power of learning from successes to improve teaching in a supportive and positive atmosphere, nurturing individuals' and groups' existing powers and strengthening and integrating them to promote PSTs' SRL as learners and to develop their teaching to promote it.

Key words: self-efficacy , self-regulated learning, reflection, adult education, pre-service teacher education, learning from success.

INTRODUCTION

Pre-service teachers (PSTs) in preparation programs around the world usually learn from problems and difficulties in teaching guided by pedagogical instructors and experienced mentors. They rarely have systematic opportunities to learn from their successes, to promote self-regulated learning (SRL). They mostly learn first from their problems and then from their successes (Michalsky & Schechter, 2013). In addition, previous research findings indicated that PSTs have difficulties in SRL (Little, 2002; Randi, 2004; Perry, Hutchinson & Thauberger, 2008; Kramarski & Michalsky, 2009). The current research focused on the application of the 'Collective Reflective Learning from Success' (CRLfS) program during PSTs' preparation program oriented to promoting their SRL as adult learners and to develop teaching to promote SRL as teachers.

Motivation for Research

Over my years of teaching as a lecturer and pedagogical instructor at one of the colleges of education in Israel, I have been exposed to the low level of SRL among PSTs and their significant knowledge gaps in humanistic and language knowledge areas. I concluded it was necessary to promote PSTs and best qualify them to teach humanistic subjects and language education in primary schools during their preparation period.

As a result, the intervention program that I constructed consisted of profound understanding of their knowledge in these subjects as self-regulated adult learners and deepening comprehension of their pedagogical content knowledge (PCK) through systematic learning and activating metacognitive thinking about their teaching. Through a positive educational approach and belief in everyone's ability to progress and develop thanks to their previous knowledge, the CRLfS intervention program was chosen. It was built through a positive approach based on successes of colleagues, in a supportive and accepting atmosphere to improve and enhance their teaching in humanistic subjects and language education.

Research Aims and Questions

Main research aim:

- o To investigate the contribution of the 'Collective Reflective Learning from Success' program to pre-service teachers' self-regulated learning specifically in teaching humanistic subjects and language education in primary schools.

Main research question:

- o What is the contribution of 'Collective Reflective Learning from Success' program to pre-service teachers' self-regulated learning?

Subsidiary qualitative research questions:

1. What is the pre-service teachers' development during implementation of the program in defining content knowledge lesson goals of humanistic subjects and language education?
2. What is the pre-service teachers' development during the implementation of the program in implementing strategies for facilitating learning as pedagogical content knowledge of humanistic subjects and language education?

Subsidiary quantitative research questions:

3. What is the 'Collective Reflective Learning from Success' program's effect on pre-service teachers' level of self-efficacy in teaching?
4. What is the 'Collective Reflective Learning from Success' program's effect on pre-service teachers' self-regulated learning in humanistic subjects and language education teaching?

Research Context

There are twenty-six teacher education colleges in Israel .The Israeli public expects teacher education institutions to mold teachers with a clear professional identity and high-level performance skills. Although there is the knowledge to do so, there is no clear and stated policy (Kozminski & Klavir, 2010; Lamote & Engels, 2010).

Pre-service teacher education programs in Israel include practical experience in schools as well as academic courses and didactic lessons. They are guided by pedagogical instructors and experienced teachers as mentors (Darling-Hammond, 2017; Sperling, 2017). In the current era we have witnessed establishing and strengthening continued professional development (CPD) in implementing

"Academia-Classroom" pre-service teacher program and implementing "New Horizon" reform mainly in professional learning communities and communities of practice (Avidov-Ungar & Oshrat-Fink, 2016).

Specifically, preparation programs in areas of humanities subjects and language education in a knowledge sense emphasize the importance of developing thinking, various and overall language skills, focused and in-depth reading and expression, fostered throughout the years of PSTs' education (Darling-Hammond, 2017; Sperling, 2017). Israeli teacher education programs include language education studies identifying language knowledge gaps among PSTs and acknowledging the need to establish, deepen and expand their knowledge (Weinberger, 2015). Together with developing content knowledge (CK) in humanistic subjects during theoretical academic courses, connections are made between theory and practice, learning, and expanding PCK in didactic lessons accompanying PSTs' practical teaching experience. Furthermore, there is focus on collective reflective processes in groups as well as personal reflective processes after lesson teaching (Jaeger, 2013).

Significance of the Research

The importance of this study is associated with closing the knowledge gap by developing a model for collective reflective learning from teaching successes to develop PSTs' SRL as learners and develop it in their teaching to promote SRL among students. Likewise, the research contributes to knowledge in the field of teaching to promote SRL in humanistic subjects and language education. The research contributes to expanding knowledge of CRLfS in teacher education, to develop reflective thinking skills in education and SRL theories combined with SRL pedagogy integrating the three main SRL pedagogies to develop metacognitive thinking processes, and reflective learning and during PSTs education.

CHAPTER I: THEORETICAL FOUNDATION OF RESEARCH ENTITLED: THE CONTRIBUTION OF 'COLLECTIVE REFLECTIVE LEARNING FROM SUCCESS' PROGRAM TO PRE-SERVICE TEACHERS' SELF- REGULATED LEARNING - CONTEMPORARY TEACHER EDUCATION APPROACHES AND PROGRAMS

I.1 Contemporary Pre-Service Teacher Education Approaches and Programs around the World

Pre-service teacher education division pertains to the contribution to teachers' practice in two modalities. In narrow modality, their contribution pertains to what PSTs do, their acquired skills and competences. In contrast, in the broad modality their contribution refers to the way pre-service teachers think, make decisions, solve problems and more (Korhonen, Heikkinen, Kiviniemi, & Tynjälä, 2017).

I.1.1 Contemporary Trends and Features of Pre-Service Teacher Education Programs

Nowadays, many nations are convinced that teaching is one of the most important school-related factors in students' achievements. They believe that improving teachers' capability of teaching all students well can raise overall students' achievement levels (OECD, 2011, 2014; Darling-Hammond & Rothman, 2015; Darling-Hammond, 2017). Studies around the world show that teaching quality is a significant component in students' success in the education system. Teaching quality is expressed in the ability to engage in complex thinking and to learn and to construct knowledge in various areas (Darling-Hammond, 2017).

Darling-Hammond (2017) identified notable practices that ensure improvement in exemplary teacher education programs in practical teaching experience as a life-long professional career: recruiting quality candidates; linking theory and practice; using professional teaching standards focusing on learning and assessment of knowledge, skills and ways of assessment; conducting teacher performance assessments; establishing absorption models that support beginning teachers; support for professional development routinely with colleagues and from colleagues; building a broad professional competence that creates strategies for sharing broad research and good teaching (Darling-Hammond, 2017).

I.1.2 Contemporary Pre-Service Teacher Education Programs in Israel

Main trends that shaped pre-service teacher education in Israel are public committees and position paper reports over the years and the process of academization (Hoffman & Niederland, 2012; Sperling, 2017; Darling-Hammond, 2017). Numerous reports marked a clear trend of transition from a model of teachers' *'Batei Midrash'* (Seminars) to that of academic institutions (Hoffman & Niederland, 2012). In addition, the structure of teacher education programs and their suitability for appropriate and quality teacher preparation have engaged policymakers and researchers in Israel (Ben-Peretz, 2002; Council for Higher Education, 2006; Dror, 2008; Ariav, 2008, 2010; Ben-Peretz, Jankelevich & Yedaya-Paz, 2010).

Pre-service teacher education programs in twenty-six academic colleges of education in primary school education track studies in Israel consist of practical experience and academic studies guided by a pedagogical instructor and experienced teachers as mentors. The programs consist of theoretical education studies including general education, basic and enrichment including basic courses related to teaching, education, and personal development, as well as specializations that include specific professionalization courses in the subject matter and practical experience in teaching accompanied by didactic and workshop courses.

In the current era of constant reforms and permutations, we are witness to the role of teacher education colleges going through significant changes that have become more pronounced in recent years: implementation of the "Academia-Classroom" pre-service teacher education program in educational academic colleges and "New Horizon" reform in schools implemented in the primary education system, predominantly concerned with teachers' professional development (Ministry of Education, 2010). "Academia-Classroom" PSTs program has been implemented since 2015, led by the national director in charge of teaching employees in the Ministry of Education. The primary purpose of the program was to improve the preparation for teaching process, with an emphasis on practical experience, to make a transition to co-teaching in classrooms while creating fruitful sessions between PSTs and schoolteachers. (Mofet website academia-classroom, 2018).

I.2 Teacher Education and Continued Professional Development

Primary teacher education courses do not create coherent preparation for teaching and the subsequent process of developing professionally does not follow up, nor does it address the complexity of teaching and learning (Cochran-Smith, Feiman-Nemser, McIntyre & Demers 2008; Canrinus, Bergem, Klette, & Hammerness, 2015).

Professional development is the constant development of the teacher's professional knowledge and skills (Bolam 2002) and is expressed by teachers expanding their professional knowledge and deepening their insights into teaching and learning processes, developing new ways of teaching, and improving their skills (Darling-Hammond, 2005). Recently researchers argued that any activity that improves skills, expands knowledge or understanding of teachers and their effectiveness in schools is actually a professional development, even if it is only an exchange of opinions in a teachers' room. One of the common ways that has emerged from this approach is colleagues learning that is expressed, inter alia, in professional learning and practice communities (Avidov-Ungar & Oshrat-Fink, 2016).

I.2.1 The Importance of Teachers' Professional Development

Professional development allows people to cope with changes on an individual level, reinforces teachers' belief in their abilities and strengths to cope with frequent changes in the workplace and at an overall level, and reinforces the public's belief that professionals indeed develop professionally in that they are up-to-date with innovations and modifications (Middlewood, Parker & Beere, 2005).

The ultimate aim of teachers' professional development in schools is to improve the overall teaching-learning quality: personal connection to students, strengthening their motivation and day-to-day awareness of their obligation to students' progress. To reach this goal, teachers must be acknowledged as professionals and it is important to enable them to improve their knowledge and competences continuously (Day, 1999; Hargreaves & Goodson, 2006; Andrew, Ashby, Malderez, & Tomlinson, 2009; Fullan. & Hargreaves, 2013).

I.2.2 The Process of Teachers' Professional Development

Daily efforts are made to promote teachers' professional development especially orally. However, results are disappointing, especially when teachers return to their

classrooms. The main reason for this is that teacher education programs do not match the real needs of teachers in their day-to-day work (Dean, 1999; Sergiovanni, 2002; Fullan & Hargreaves, 2013).

Linear models characterize teachers' professional development from the 1970s - 1990s from a certain starting point, toward a peak point and finally to retirement. The perception of professional development changed in the late 1990s, as part of a change in the concept of teaching from a scientific-technical profession to a practical-reflective practice where student, teachers and the learning environment interact (Avidov-Ungar & Oshrat-Fink, 2016).

Avidov-Ungar and Oshrat-Fink (2016) noted that while many forms of teacher education are still based on the older models of linear professional development, there are two salient approaches that emphasize learners' empowerment through encouraging personal inward reflection on action of practice and the formation of a unique professional identity: (1) bottom-up professional development in learning community and a community of practice; (2) top-down processes, mainly through educational reforms (Avidov-Ungar & Oshrat-Fink, 2016).

I.2.3 Teacher Education and Continued Professional Development in Israel

Until a decade ago, initial teacher education courses in Israel did not produce coherent preparation and an ongoing professional development process thereafter. Professional development after preparation did not address the complexity of teaching and learning (Cochran-Smith, Feiman-Nemser, McIntyre & Demers 2008; Canrinus, Bergem, Klette, & Hammerness, 2015). It is but logical that stated Ministry of Education policy demanded that specificly pre-service teacher education preparation will be a product of intended and planned activity (Eyal, 2006). Hence, researchers have argued that teachers' professional development processes should be continuous and sequential, collaborative, a combination between content and technique, active learning and harmoniously matched to systemic policy (Birman, Desimone, Porter & Garet, 2000; Drakenberg, 2001), despite the difficulty to actually apply this in Israel systematically in education and teaching (Hisherik & Kfir, 2012).

I.3 Emphasis on Required Teachers' Knowledge in Pre-Service Teacher Preparation Programs

Nations with strong professional teaching ideals for teaching view teachers' knowledge in PST preparation programs around the world as an important profession with a knowledge base that teachers must master so that their students will have equal opportunities to learn (Darling-Hammond, 2017). Knowledge teachers need to learn and develop during pre-service teacher education programs relates to general knowledge and their specific subject matters, their contents and how they should be taught. They must acquire two types of knowledge and develop during their pre-service teacher preparation and throughout their career, the CK and the PCK (Shulman, 1986). Since the end of the 20th century, Technological, pedagogical and content knowledge (TPACK) research findings have shown that its foundations are affiliated to PCK teachers have together with a positive approach to integrating advanced technologies into their teaching (Oster-Levinz & Klieger, 2012).

I.4 Developing Pre-Service Teachers' Knowledge in Humanistic Subjects and Language Education Teaching

Disciplinary literacy, based on the assumption that in addition to specific subject matter knowledge, each subject has a unique discourse in its community of practice that uses acceptable language, texts and modes of communication was supported by studies' findings (Shanahan & Shanahan, 2012). Teaching-learning processes that promote fostering students' expressive skills are based on a major assumption underlying the design of the action plan that passive acquisition of expressive skills in cultural processes is insufficient, and that direct and focused teaching of skills in different learning frameworks is required. Most contemporary intervention programs deal with fostering expressive skills are motivated by a constructivist perception of learning and teaching (Ben Zvi & Haim, 2012).

Wetzel at el. (2018) emphasized the importance of personal practical knowledge construction tasking place among PSTs in teacher education programs. Practical knowledge contributes to understanding the curriculum and teachers' work in the classroom. Personal practical knowledge includes conscious or unconscious beliefs and situated knowledge that shapes practice in classrooms (Wetzel et al., 2018).

Weinberger (2015) maintained that one of the challenges facing policy makers at academic institutions in programs to train educational personnel in the 21st century is developing PSTs' reading, written and expressive skills with an emphasis on focus, coherence, employing proper and rich language for learning, teaching and research purposes (Weinberger, 2015).

The strengthening trend around the world is to develop prospective teachers' disciplinary knowledge through shared learning in teams, experiencing actual teaching and while carrying out active research about their work. Specifically, reference in the course of preparation to areas of humanities subjects and language education in a knowledge sense emphasizes the importance of developing thinking, various and overall language skills, focused and in-depth reading and expression, fostering throughout the years of pre-service teacher education (Darling-Hammond, 2017; Sperling, 2017).

CHAPTER II: THEORETICAL FOUNDATION OF RESEARCH ENTITLED: THE CONTRIBUTION OF 'COLLECTIVE REFLECTIVE LEARNING FROM SUCCESS' PROGRAM TO PRE-SERVICE TEACHERS' SELF- REGULATED LEARNING - THEORIES OF COLLECTIVE REFLECTIVE LEARNING AND SELF-REGULATED LEARNING

II.1 Collective Reflective Learning Theories

The roots of learning from success are found deep in positive psychology (Csíkszentmihályi, 2009; Seligman, 2012; Duckworth & Seligman, 2017) . However, the implementation of LFS only from PSTs' successes has not been applied yet.

II.1.1 Collective Reflective Learning in Education

PSTs are increasingly encouraged to support reflection as a collective process. The transition to PSTs' collaborative learning and peer discourse is expressed in the conceptualization of mentoring as a collegial learning of relationship between colleagues rather than a top-down, one-way hierarchical relationship (Anderson, 2006; Le Cornu & Ewing, 2008). Only recently has the importance attributed to CRL increased as well as that of integrative learning, both from problems and successes in teacher education programs (Michalsky & Schechter, 2013). Yet, in the course of the preparation program period, PSTs are encouraged and guided to collectively learn from problems and difficulties and then from successes, in order to learn from their teaching experiences (Schechter, Sykes & Rosenfeld, 2008; Schechter, 2010).

II.1.2 Collective Reflective Learning from Success in Education

CRLfS takes place in a planned, structured and systematic manner according to the five-step model which includes (Schechter, Sykes & Rosenfeld, 2008): Identification of a successful teaching event; Reconstruction of the event by re-enactment of the concrete actions that led to the successful outcomes; Identification of critical turning points in the course of the event; Conceptualization of practical principles of action based on successful activities; Identification of unresolved issues for future reflection.

The literature review revealed that most researchers attributed to the disadvantages of LFS and suggested that LFS often leads to actions that maintain the existing status quo, thus preventing risk-taking and using opportunities (Ellis, Mendel, & Nir, 2006). Without denying the validity of their claims, this attitude has not allowed them to

benefit from the wealth of learning opportunities within their own successful practices (Levitt & March, 1996).

Focusing on LFS can shed a positive light on learners' expertise that underlies their success and latency bound behind it, fostering a shared belief in teachers' ability to succeed in their tasks and learn from their experiences. Therefore, CRLfS enables practical wisdom that leads to long-term schoolteachers' successes to be articulated and converted into actionable knowledge (Schechter, Sykes & Rosenfeld, 2008; Schechter, 2010; Michalsky & Schechter, 2013; Schechter & Michalsky, 2014; Michalsky & Schechter, 2017).

Collective learning from success encourages and strengthens learners' competence to recognize and appreciate, respect, and even be amazed about the value of successes in their work and the successes and achievement of their students. (Schechter, Sykes & Rosenfeld, 2008). LFS increases and strengthens confidence, persistence, and resilience (Gino & Pisano, 2011), stimulates shared accommodation in the profession towards reaching common goals. After learning from a specific event that was successful, participants are more confident about their skills and achievements, are more motivated, self-satisfied, and have a sense of well-being (Schechter, Sykes & Rosenfeld, 2004, 2008).

In Israel, project of collective organizational LFS in education was launched in high schools (2002-2005) to leverage professional organizational development and change in schools and in its second stage, the project was implemented in primary schools (2005-2007). The findings indicated that participating schools and professional teacher teams developed significantly on the professional level as a learning organization, during the implementation of the project, but were not empirically and methodically researched (Sykes, Rosenfeld & Weiss, 2006; Weiss, Gavish, Rosenfeld, Ellenbogen- Frankovitz & Sykes, 2007; Gavish & Rosenfeld, 2008).

Rarely does LFS in teachers' preparation period occur intuitively and systematically. Very few studies refer to the advantages of integrating PSTs' collective reflective learning both from problematic and successful experiences, versus learning only from problematic ones. These studies have been conducted on integrative reflective learning from problems and successes in a systematic manner based on the five-step model. The studies revealed the effectiveness of pre-service teacher education and its

ability to create an efficient system of interpretation whereby PSTs can switch from problems to successes in their cognitive processes. Both are based on Michalsky and Schechter (2013) and Schechter & Michalsky (2014) integrative collective learning methods.

Schechter and Michalsky's (2014) research findings revealed improved performance on PCK (comprehending, designing, and teaching) and sense of self-efficacy (personal science teaching efficacy and science teaching outcome expectancy) of secondary school physics PSTs when integrating collective reflective learning from both problematic and successful experiences than when learning reflectively collectively solely from problematic ones. Their findings reinterpret the instructional framework of pre-service teacher education programs, maintaining that it is useful to integrate LFS and learning from problems to improve PSTs' teaching. Another finding indicated an improvement in physics PSTs' ability to promote SRL of science in secondary schools (Michalsky & Schechter, 2013).

II.2 Self-Regulated Learning Theories

The main SRL effective social learning theories to promote SRL that were implemented practically in primary schools are the socio-cognitive learning theory and the socio-cultural learning theory according to previous research. Dignath & Büttner (2008) found in their meta-analytical research on teacher education programs in SRL that the most effective characteristics of intervention programs for teaching young children are based on socio-cognitive theories, or on social learning theories in combination with metacognitive theories (Dignath & Büttner, 2008). In addition, Perry and her colleagues' impressive line of research studies focusing on teaching and learning SRL in classrooms contexts was based on the socio-cultural theory (Perry, VandeKamp, Mercer, & Carla, 2002; Perry & Rahim, 2011). Both social theories can nourish and contribute to **S**elf-**R**egulation **L**earning and **T**eaching.

II.2.1 Self -Regulated Learning: Socio-Cognitive Learning Theory

Zimmerman's (1989) conceptualized SRL in the initial theoretical model as a cyclic process that involves the self's link to thoughts, emotions and actions directed towards the attainment of personal goals. SRL is an integrative process between these cognitive, metacognitive, and motivational processes within organized learning

environments in specific teaching-learning contexts (Zimmerman, 1989, 2000; Pintrich, 2000; Boekaerts & Corno, 2005; Perry & Rahim, 2011).

The initial basic cyclic self-regulation model including Three phases (Zimmerman, 2000): Forethought process ; Performance control; Self-reflection. Numerous research findings by Schunk and Zimmerman (2007) support the application of models for reading in SRL, which most of them do not progress beyond the levels of self-control and self-regulation (Schunk & Zimmerman, 2007).

II.2.2 Self-Regulated Learning - Socio-Cultural Learning Theory

Vygotsky and other socio-culturists focus on teacher-student interaction, focused on the gradual process of appropriate instruction with student development in learning and cognitive skills, continuing with students' learning stages and development process (Vygotsky, 1962, 1978). Discourse in the *Zone of Proximal Development (ZPD)* is the main scaffolding to develop students' learning from the actual level to the proximal level in classroom contexts (Vygotsky, 1978; Nelson, 2007; Miller, 2011). According to Vygotsky's theory (1962, 1978), self-regulation in learning develops in gradual teaching stages in a process of direct teacher intervention, including construction of scaffolding suited to the student/s and its gradual removal by reduction (Hadwin, Wozney & Pontin, 2005; Hadwin & Oshige, 2011; Perry & Rahim, 2011; Winne, 2015, 2018).

Teaching to promote SRL is developing in gradual teaching stages, using scaffolding suited to the student including teacher-student discourse according to the 4-phases SRL model from socio-cultural theory developed by Winne & Hadwin (1998) and further developed by Winne and colleagues (Winne & Hadwin, 1998; Winne & Perry, 2000; Winne, 2001; Hadwin, Wozney & Pontin, 2005; Hadwin & Oshige, 2011; Perry & Rahim, 2011; Winne, 2011, 2015, 2018): Understanding the task and task definition; Goal setting and planning; Plan implementation of the task and employing strategies; Evaluation and metacognition assessments between the goal(s) and existing knowledge.

II.2.3 Self-Regulated Teaching Theories

Teaching while promoting SRL is linked to PSTs' SRL as adult learners (Kramarski & Michalsky, 2009; Moos & Ringdal, 2012) and as learners on their teaching

(Michalsky & Schechter, 2013). Research findings have shown that teachers themselves are non-self-regulated learners will find it difficult to develop SRL among their students (Knight, 2002; Gibbs, 2003; Crebert et al., 2004; Perry, Phillips, & Hutchinson, 2006; Butler, Schnellert, & Perry, 2017).

II.2.4 Pedagogical Approaches to Promoting Self-Regulated Learning

Three main pedagogical approaches to promoting SRL are (Dignath, Büttner & Langfeldt, 2008; Michalsky & Schechter, 2013; Anyichie & Butler , 2015): Advance presentation of key components and task conditions inducing SRL pedagogy; A gradual SRL process of transition pedagogy; Direct instruction of SRL strategies pedagogy; Fourth SRL pedagogy consisting of a synergistic integration of SRL socio-cognitive (Zimmerman, 1989, 2000, 2008) and socio-cultural theories (Winne & Hadwin, 1998; Hadwin., Wozney & Pontin, 2005; Hadwin & Oshige, 2011; Perry & Rahim, 2011) with SRL pedagogies identified in the literature (Dignath & Büttner, 2008; Michalsky & Schechter, 2013). This pedagogy was implemented during the program attributed to discourse as a major component in teaching to promote SRL (Mazor Cohen, 2018).

II.2.5 Conceptual Framework

This research focused on the contribution of the CRLfS program to developing PST's SRL as adult learners and their teaching to promote SRL. The research sought to examine how connections between collective reflective metacognitive processes activated and promoted SRL metacognitive processes within the CRLfS program.

Figure 1 below presents the concepts comprising the conceptual framework that underpinned this study.
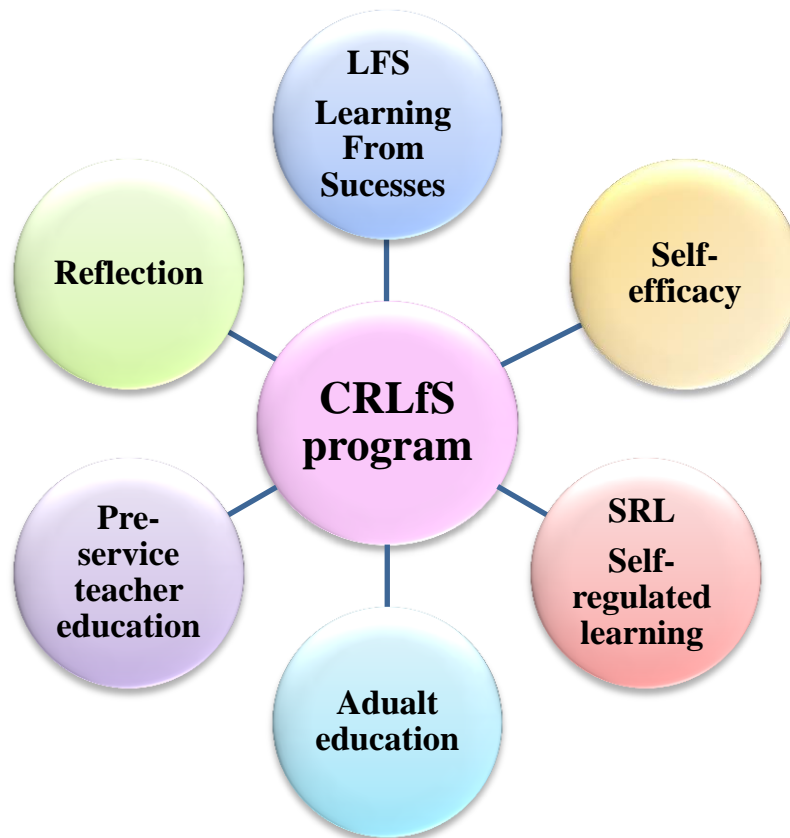
Figure 1: Conceptual framework

Pre-service teacher education – Teacher education theories refer to pre-service teacher academic learning and practical experience to prepare prospective teachers for their role as teachers. Most PSTs' preparation programs consist of one of two basic leading approaches: (1) neo-liberal approach that prepares to teach underprivileged student populations whom existing systems fail to reach (Sperling, 2017). (2) justice and equality approach that prepares PSTs to teach heterogeneous populations and develops awareness of the complexity of relationships between different strata in society and challenge foundations of inequality in society that are often covert (Cochran-Smith & Villegas, 2016). Pre-service teacher education programs around the world attribute great significance to comprehensive hands-on experience in schools alongside expert teacher education (Gardiner, 2011).

Adult education – Adult lifelong education theory explains how adults learn. This theory refers to any form of adult learning known by the term "andragogy" as equivalent to the children education term "pedagogy" (Knowles, Holton & Swanson, 2005).

Self-regulated learning (SRL) – A cyclical process that involves connecting "self" to the integration of cognitive, metacognitive and motivational processes within organized learning environments (Zimmerman, 2000; Perry & Rahim, 2011).

Learning from success (LFS) – Investigating earlier actions to reveal underlying wisdom that led to long-term successes for individuals and organizations (Schechter, Sykes & Rosenfeld, 2008; Schechter, 2010).

Self-efficacy – The concept refers to how people perceive their abilities to perform tasks leading to a specific outcome. This perception is derived from belief in their abilities to organize and carry out a task. This belief has practical expressions, in people's thoughts and emotions. People with a high sense of self-efficacy believe in their ability to successfully perform a task. People with a low sense of self-efficacy invest greater efforts to successfully perform a task, and their motivation to perform is lower. In light of difficulties and obstacles faced with performing tasks, their belief in their abilities to carry it out diminishes and even leads to failure (Bandura, 1997, 2012).

Reflection – Reflection in education is one of the most important processes occurring in retrospective introspective metacognitive thinking about teaching, looking at actions, occurrences or events that led to teaching in the past. (McClure, 2005). It requires a certain level of awareness that become enhanced through post reflection, reflection-in-action and reflection-on-action. Reflection-on-action is most frequently used in education (Schön, 1987; Jaeger, 2013). At its foundation, it is personal and subjective used mostly in writing (Dewey, 1933; Schön, 1987; Le Cornu & Ewing, 2008; Birenbaum, 2013). However, in recent decades collective reflection has become more common in teacher education programs as well, to develop teachers and PSTs' professional development in teaching (Jaeger, 2013).

CHAPTER III: RESEARCH METHODOLOGY AND APPROACH PERTAINING TO RESEARCH ENTITLED: THE CONTRIBUTION OF 'COLLECTIVE REFLECTIVE LEARNING FROM SUCCESS' PROGRAM TO PRE-SERVICE TEACHERS' SELF- REGULATED LEARNING

III.1 'Collective Reflective Learning from Success' Intervention Program

The 'Collective Reflective Learning from Success' (CRLfS) intervention program is an integrative program comprised of CRLfS in teaching together with SRL. The program's target population is PSTs during their preparation program period in educational colleges and universities all over the world, including Israel and Romania, who are experienced in teaching in primary school classes.

III.1.1 Program Aims

1. To develop an innovative pedagogy of 'Collective Reflective Learning from Success' program based on positive psychology's perception of life.
2. To apply the innovative pedagogy of 'Collective Reflective Learning from Success' in teaching and learning.
3. To develop PSTs as self-regulated learners.
4. To develop PSTs' teaching skills to promote SRL.

III.1.2 Program's Theoretical Rationale

Previous research has indicated that PSTs who are not self-regulated learners themselves will have difficulties developing their students' self-regulation in learning (Perry, Phillips, & Hutchinson, 2006; Perry, Hutchinson, & Thauberger, 2008; Lawanto et al., 2013; Butler, Schnellert, & Perry, 2017). Hence, an integration between CRLfS and SRL reflection based on positive psychology can contribute to a lifelong learning perception of SRL as well as to promoting PSTs as self-regulated learners.

III.1.3 Projected Results from Application of Collective Reflective Learning from Success Program

The projected results from the application of CRLfS in teaching are:

1. PSTs will develop and improve their ability to learn from their teaching from one lesson to another during a specific preparation program year.

2. The progress of PSTs will be reflected in their improved lesson plans, active teaching, and written reflection.

3. The development of PSTs will be reflected in their ability to apply the recommendations in light of the results from previous lessons to their teaching in subsequent lessons.

III.1.4 'Collective Reflective Learning from Success' Program Stages

Stage 1	Personal Reflection ＋ Collective Reflection
Stage 2	Optimal lesson planning
Stage 3	Demonstration of the CRLfS model
Stage 4	Study sessions of CRLfS in teaching with a pedagogical
Stage 5	Study sessions of CRLfS in teaching with colleagues and
Stage 6	Evaluation of the program
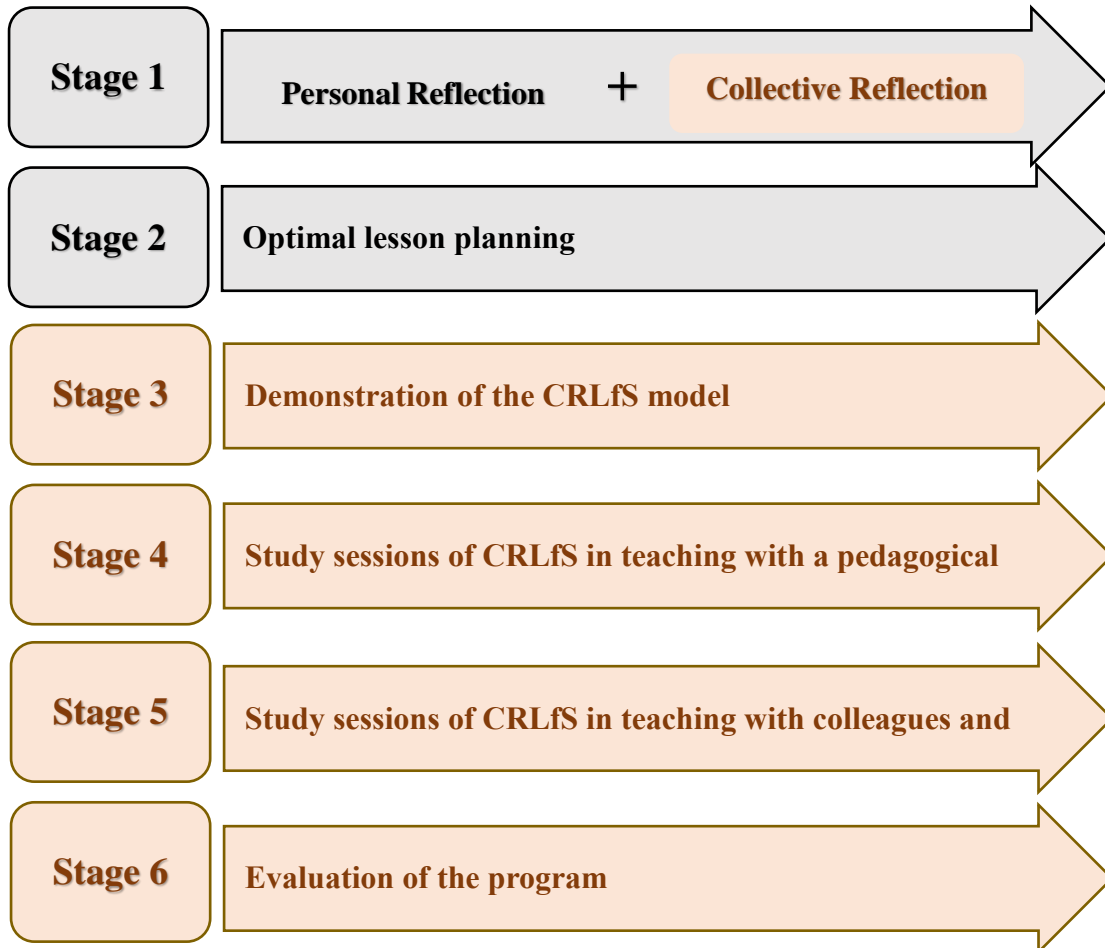
Figure 2: Stages of the CRLfS program

Stage 1 - Personal reflection and collective reflection – Personal written reflections after teaching are common in education. However, even though collective reflective learning after teaching has become widespread in education, it is less common. Usually, when it is applied in teachers' preparation programs, it is used instead of personal written reflections. In this program, collective reflective learning was added after teaching, whereas during learning, a spoken personal reflection took place, followed by written personal reflection.

Stage 2 - Optimal lesson planning – One main aim during each preparation program is to teach PSTs to develop optimal lesson planning in order to plan teaching according to content and skills in humanistic subjects language education , integrating linguistic texts and skills, different students learning needs, learning styles and intelligences. For the same reason, optimal lesson planning was addressed and essential in the current program as well.

Stage 3 – Demonstration of the CRLfS model - Study of the 'Collective Reflective Learning from Success' in teaching model integrated with SRL and demonstration of the CRLfS in humanistic subjects and language education, integrating narrative and expository texts.

Stage 4 – Study sessions of CRLfS in teaching, integrated with SRL in order to develop and advance PSTs' teaching, with a pedagogical instructor and colleagues.

Stage 5 – Study sessions of CRLfS in teaching, integrated with SRL in order to develop and advance PSTs' teaching, with colleagues, but without a pedagogical instructor.

Stage 6 - Evaluation of the program - Self-study of each PST's development in teaching during program application, in the specific preparation year. In addition, the researcher will conduct a comparative evaluation of the whole program's contribution to all.

The CRLfS sessions were:
Session 1-4: Personal reflection and personal reflection in teaching
Sessions 5-6: Collective reflection in teaching and in teachers' preparation programs.
Sessions 7-8: Optimal lesson planning
Session 9-10: On the level of teachers as learners, PSTs engaged in narrative texts integrated with SRL. They learned about their learning processes and on the level of practicing teachers, they learned about teaching that promotes learning as well.
Sessions 11-12: On the level of teachers as learners, PSTs engaged in expository texts integrated with SRL. They learned about their learning processes and on the level of practicing teachers they learned about teaching that promotes learning as well.

Session 13: Study of the CRLfS model in PSTs' teaching integrated with SRL – The model was combined with advancing PSTs as self-regulated learners.

Sessions 14: Study session focused on demonstrating CRLfS regarding one specific success of one PST, teaching in one specific lesson in class.

Sessions 15-21: 7 CRLfS in teaching study sessions with PSTs' teaching, with a pedagogical instructor and with colleagues.

Sessions 22-28 : 7 CRLfS in teaching study sessions with PSTs' teaching and colleagues, without pedagogical instructor.

III.1.5 'Collective Reflective Learning from Success' Model

Stage 1	Identification of a successful teaching event
Stage 2	**Participants' clarifying questions**
Stage 3	Reconstruction of the successful event
Stage 4	Identification of critical turning points
Stage 5	Conceptualization of the **processes** and the actions
Stage 6	Conceptualization of practical principles of the actions
Stage 7	Identification of unresolved issues for future reflection and

Figure 3: 'Collective Reflective Learning from Success' (CRLfS) Model

o The model of 'Collective Reflective Learning from Success' is an expansion of the five-step basic model constructed by Schechter, Sykes, & Rosenfeld (2008).

III.2 Research Paradigm: Mixed-Methods Research

Mixed methods research consists of both quantitative and qualitative research methods. Mixed methods research is applied when one method is not enough to answer the research questions according to research aims in order to address the research problem. More data is required to depict, explain, and elaborate on the preliminary database. Mixed methods research can be conducted in both directions from qualitative to quantitative research, data collection and analysis and vice versa (Creswell & Creswell, 2018). Specifically, in the data collection process priority is given to the integration of data at least in one stage of the research (Creswell & Creswell, 2018). The mixed-methods usage consists on Creswell and Plano (2018), following suggestion of dividing the most common mixed methods research design approaches in educational research are *Convergent parallel design and Explanatory sequential design* (Creswell & Creswell, 2018; Creswell & Plano, 2018).

III.3 Mixed-Methods Research Aims, Questions and Hypotheses

Research Aims and Questions

Main research aim: To investigate the contribution of the 'Collective Reflective Learning from Success' program to pre-service teachers' self-regulated learning specifically in teaching humanistic subjects and language education in primary schools.

Main research question: What is the contribution of 'Collective Reflective Learning from Success' program to pre-service teachers' self-regulated learning?

Subsidiary qualitative research questions:

5. What is the pre-service teachers' development during implementation of the program in defining content knowledge lesson goals of humanistic subjects and language education?
6. What is the pre-service teachers' development during the implementation of the program in implementing strategies for facilitating learning as pedagogical content knowledge of humanistic subjects and language education?

7. What is the 'Collective Reflective Learning from Success' program's effect on pre-service teachers' level of self-efficacy in teaching?

8. What is the 'Collective Reflective Learning from Success' program's effect on pre-service teachers' self-regulated learning in humanistic subjects and language education teaching?

Research Hypotheses

Hypothesis 1:

Higher level of self-efficacy in teaching will be found among PSTs participating in the CRLfS program than among those who did not participate in the program during their preparation period.

Hypothesis 2:

The self-regulated learning of pre-service teachers who participated in the CRLfS program in language education and in humanistic subjects teaching will be more developed than that of pre-service teachers who did not participate in the program during their teacher preparation period.

The independent variables: demographic variables and participation in the CRLfS program.

The dependent variables: the level of self-efficacy in teaching and the level of self-regulated learning.

III.4 Research Design

A mixed methods research was conducted in an *exploratory sequential design* approach. First Qualitative research was conducted and was followed by quantitate research. The research design is presented in Table 1.

Table 1: Research Design

Mixed methods research	Phase	Aims	Research Methods	Research Tools	Research Population	Data Analysis Method
Qualitative research	**1.Pre-Program implementation**	To investigate the PSTs' SRL in the beginning of the second year, before the CRLfS program was implemented.	semi-structured in-depth interviews	-An original interview guide	12 2nd year PSTs Primary school track	Content analysis
	2. The program implementation: stages 1-3	To expose the PSTs' SRL parallel to program first stages implementation before the beginning of the CRLfS sessions.	Document analysis	Written Reflections 1	12 2nd year PSTs Primary school track	Content analysis
	3.The program implementation: stages 4-5	To expose the PSTs' SRL parallel to program's final stages implementation of CRLfS sessions took place with colleagues and with /without pedagogical instructor**.**	Document analysis	Written Reflections 2	12 2nd year PSTs Primary school track	Content analysis
	4. Post- Program implementation	To investigate the contribution of CRLfS program to PSTs' SRL at the end of the second year, after the CRLfS program was completed.	semi-structured in-depth interviews	- An original interview guide	12 2nd year PSTs Primary school track	Content analysis
Quantitative research	**5. Post- Program implementation**	To evaluate the effect of CRLfS program on PSTs' level of self - efficacy and SRL a year and a half after the CRLfS program was completed.	Survey	- SE closed-ended questionnaire (Adapted from Friedman & Kass, 2000). - SRL in learning context closed-ended questionnaire (Adapted from Toering et al., 2012)	46 3rd and 4th year PSTs Primary school track participated in CRLfS program and 22 3rd and 4th year PSTs Primary school track who did not participated in the program. All in all 68 participants.	Statistics

III.4.2 Research Population

The qualitative research population in the study included a sample of twelve second year PSTs who experienced in teaching in primary school classes. They also participated in the quantitative part in their fourth year of preparation in 2019-2020.

Table 2: Research population profile

Participants	Age	Gender	Year of studies
P1	25	Female	10/2017- 6/2018 Second year and 2019-2020 fourth year.
P2	23		
P3	26		
P4	24		
P5	25		
P6	22		
P7	24		
P8	23		
P9	24		
P10	22		
P11	22		
P12	23		

The quantitative research population included 68 third and fourth year PSTs, 46 of whom had participated in the CRLfS program in their first or second year of primary school teacher education (research group) and 22 PSTs who did not participate in the CRLfS program in their first or second year of primary school teacher education (control group). All of the 68 PSTs practiced in teaching in primary school classes.

CHAPTER IV: FINDINGS PERTAINING TO RESEARCH ENTITLED: THE CONTRIBUTION OF 'COLLECTIVE REFLECTIVE LEARNING FROM SUCCESS' PROGRAM TO PRE-SERVICE TEACHERS' SELF- REGULATED LEARNING

IV.1 Categories

Six categories emerging from content analysis data pertaining to subsidiary research qualitative questions 1 and 2 and examples are presented in table 3.

Table 3: PSTs' quotes addressing categories 1-6

Category	Examples
Category 1: Expanding pre-service teachers' content knowledge in humanistic subjects as adult learner	"***Adult level knowledge:*** *Reading at adult level about the Knesset* (Israeli Parliament) …" (P8- Lesson plan: Israel studies - executive authority, 23.5.18)
Category 2: Adaptation of the content knowledge to students' learning level	"...***at adult level***…; *read about and explore each of the Seven Species*… ***Information sheets*** … ***Wheat***…[picture] *Appendix b:Seven Species identity card*" (P3 – lesson plan: Shavuot feast - Seven Species, 23.5.18)
Category 3:Adaptation of the language to students' learning level	"***Opening*** *- I will display many symbol...and ask: 'What do all the pictures we see on the board have* in *common?' ... According to the dictionary, a symbol is .... I will explain complex words in the anthem...*" (P1- Lesson plan: State of Israel symbols, 1.5.18)
Category 4:Defining content lesson goals	"***Lesson goals*** *-Learning about the Passover bowl and exploring the bowl's components.* ***Operational goals :*** … *Students will read excerpts about the components of the Passover Bowl. ...*" (P4- Lesson plan: *Passover bowl*, 20.3.18)
Category 5: Defining linguistic lesson goals	"...***Operative language goals:*** *Students will read and write on the ID card the source of the historical name of the Knesset.*" (P8- Lesson plan: Israel studies - executive authority, 23.5.18)
Category 6: Students' activation	"*According to ...What do the seven species mentioned in these verses indicate? ...we will divide into 7 groups; each group will receive an information sheet about the fruit it received and with the help of the information sheet students will build an identity card for the fruit.*" (Appendix A, B). (P3 – lesson plan: Shavuot feast - Seven Species, 23.5.18) "*I felt that the* ***students led us*** *to* ***general responsibility****. ...* ***felt very confident*** *in standing in front of the class.….The* ***students proudly shared*** *...about cases where they helped people in their immediate environment,* ***I encouraged*** *them... they* ***were enthusiastic*** *and wanted to try...*" (P2 – Reflection: Responsibility circles, 5.6.18

IV.2 Findings Pertaining to Subsidiary Research Question 1: What is the pre-service teachers' development during the implementation of the program in defining content knowledge lesson goals of humanistic subjects and language education?

The main findings pertaining to the first qualitative subsidiary research question are:

1. Progress in CK in lesson planning of PSTs as adult learners in teaching humanistic subjects.
2. Development in adapting CK to the general students' level of learning.
3. Development in defining and formulating content goals in humanistic subjects.
4. Slight development in linguistic education knowledge and in defining language goals.
5. Development in knowledge navigation from adult level to students' level to promote shared-regulated learning.

IV.3 Findings Pertaining to Subsidiary Research Question 2: What is pre-service teachers' development during the implementation of the program in implementing strategies for facilitating learning as pedagogical content knowledge of humanistic subjects and language education?

The main findings pertaining to the second qualitative subsidiary research question are:

1. Using cognitive strategies to construct CK.
2. Development in implementation of linguistic strategies.
3. Development in using discourse strategies.
4. Learning and linguistic strategies development to promote active learning.
5. Meta-emotional strategies development to promote active learning.
6. Using reflective strategies developing positive emotions towards self and proactive positive language of thinking.
7. Using reflective strategies developing future oriented reflective thinking.

IV.4 Findings Pertaining to Subsidiary Research Question 3: What is the CRLfS program's effect on pre-service teachers' level of self-efficacy in teaching? and Hypothesis 1

Hypothesis 1: Higher level of self-efficacy in teaching will be found among the PSTs participated in the CRLfS program than PSTs who did not participate in the program during their teacher education preparation period.

The findings relating to the third subsidiary research question assessing the differences between PSTs who participated in the CRLfS program group (intervention PSTs' group), and a control group of PSTs who did not participate in the program (control PSTs' group) with regard to self-efficacy in teaching factors.
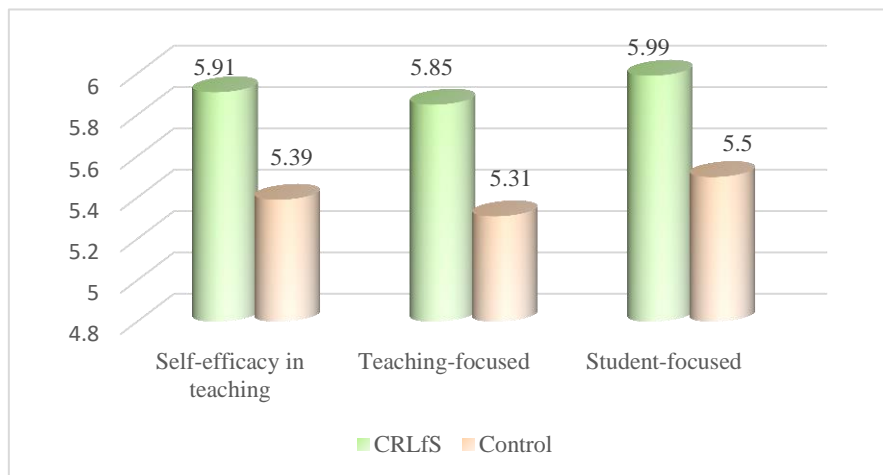
Figure 4: Differences between groups in level of self-efficacy in teaching

In order to assess the differences between the groups with regard to each level of self-efficacy in teaching item, a MANOVA test was conducted. Table 4 and Figure 5 present the findings.

Table 4: Differences between groups in level of self-efficacy in teaching questionnaire statements

Variable	CRLfS		Control		p
	M	SD	M	SD	
Setting high academic standards	5.24	1.10	4.52	0.87	.01
Showing confidence in class	5.86	1.03	5.67	1.02	.49
Creating a climate of acceptance	6.29	0.86	5.81	0.81	.04
Listening and reacting to students' needs	6.12	0.92	5.81	0.93	.21
Helping students study the materials clearly	6.00	0.96	5.71	0.84	.25
Being persistent with difficult students	6.17	0.85	6.05	0.97	.62
Setting high thinking goals for myself and my students	5.71	1.15	5.10	0.77	.03
Setting challenging content goals for myself and my students	5.60	1.04	5.00	0.84	.03
Taking responsibility for students' achievements	6.02	1.24	5.33	1.20	.04
Ability to give different types of feedback to different students	5.86	0.98	5.24	1.14	.03
Believing in each student's ability to study and make progress	6.69	0.60	6.38	0.97	.13
Increasing students' confidence in their ability to learn	6.33	0.98	5.95	1.02	.16
Using collaborative teaching methods	5.31	1.39	4.24	1.64	< .01
Perceiving pre-service teacher-student relationships as source of meaningful learning	6.60	0.83	6.29	0.72	.15
Encouraging students' autonomy in learning	5.88	0.94	5.33	1.06	.04
Using different teaching strategies at lesson planning level and when teaching a class, in order to prevent noise and interruptions	5.60	1.27	5.24	1.55	.33
Experiencing less stressful situations prior to class teaching	5.31	1.46	4.57	1.50	.06
Loving to teach	6.21	1.20	5.57	1.50	.07
Feeling safer teaching after reading and extending knowledge for teaching lessons	6.38	1.03	5.95	1.53	.19
Willing to deal with complex teaching situations	5.71	1.27	5.24	0.77	.12
Repeating successful learning processes, even when teaching different issues in other subjects- matters	6.12	0.99	5.57	1.16	.06
Feeling confident about teaching	5.40	1.11	5.05	0.80	.19
Being aware of the strengths and weaknesses in teaching style and referring to them in reflection after class	6.00	0.88	5.52	1.29	.09
Studying with friends from their successes in teaching in their classes	5.45	1.55	4.67	1.56	.06
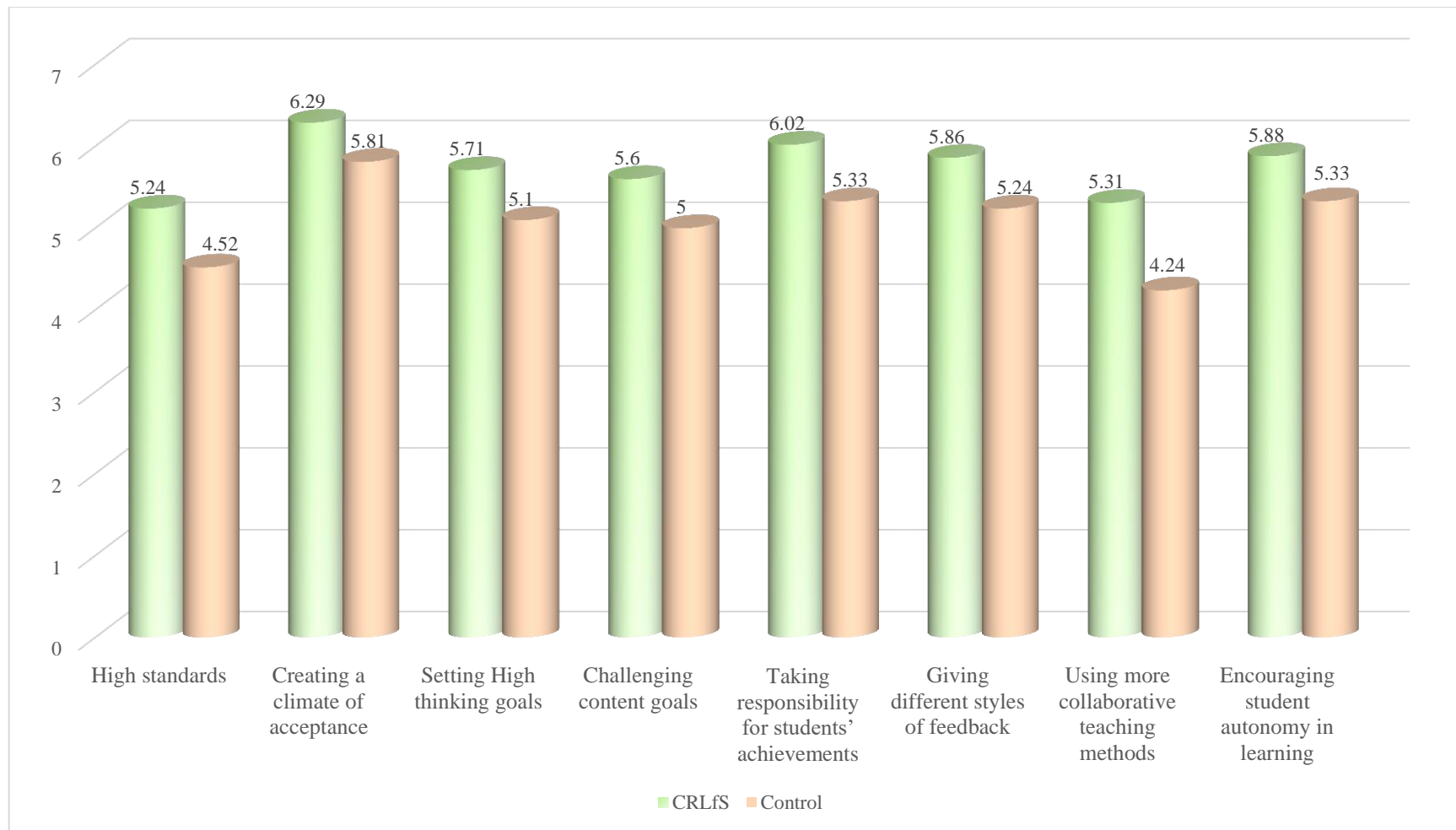
Figure 5: Differences between groups in level of self-efficacy in teaching questionnaire statements

As Table 6 and figure 5 show differences were found between the groups in the level of self-efficacy in teaching by items. According to the findings, hypothesis H1 was confirmed. The differences between groups found in the level of self-efficacy in teaching indicated that higher level of self-efficacy in teaching was found among PSTs' who had participated in the CRLfS program than those who had not participated in the program group during their teacher education in self-efficacy in teaching mean, teaching-focused factor and student-focused factor scores. In addition, the findings indicated specifically, a confirmation of H1 hypothesis in all the items, not just the general self-efficacy in teaching factor, but accordingly in each single component of it.

.

IV.5 Findings Pertaining to Subsidiary Research Question 4: What is the CRLfS program's effect on pre-service teachers' self-regulated learning in humanistic subjects and language education teaching? and Hypothesis 2

Hypothesis 2: SRL of PSTs participated in the CRLfS program, in humanistic subjects and language education teaching, will be more developed than SRL of PSTs who did not participate in the program during their teacher education.

Findings related to the fourth subsidiary research question assessed the differences between the two groups: intervention PSTs' group who participated in the CRLfS program and control PSTs' group who had not participated in the program with regard to the SRL factor with a t test independent sample.
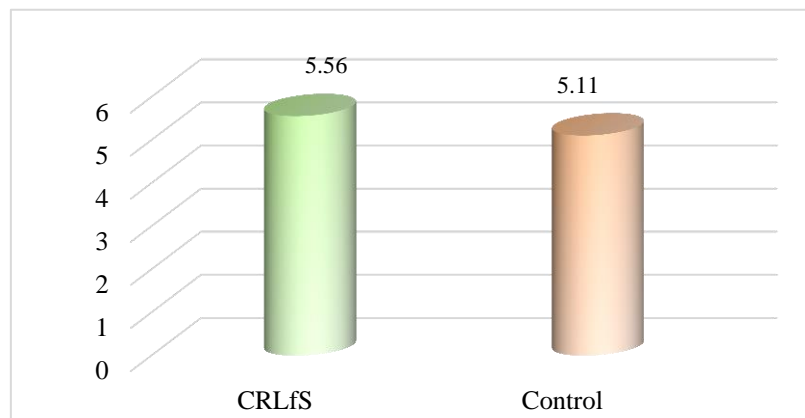
Figure 6: Differences between groups in self-regulated learning questionnaire

As figure 6 shows, differences between the groups were found in SRL.

Table 5: Differences between groups in self-regulated learning questionnaire statements

Variable	CRLfS		Control		p
	M	SD	M	SD	
Anticipating problems before teaching the lesson	5.06	1.19	4.70	1.08	.02
Planning how to achieve goals using operations and processes	5.36	1.15	5.15	0.93	.01
Exploring and extending self-knowledge by reading	5.92	1.08	5.55	1.28	.02
Trying to understand the purpose of learning before dealing with it	5.75	1.02	5.05	1.43	.08
Asking myself about students' learning needs while planning the lesson and before teaching	5.72	1.19	4.85	1.56	.09
Imagining the parts in the learning which I need to address	5.69	1.30	4.65	1.63	.11
Preparing carefully learning processes for the class	5.72	1.11	4.95	1.47	.08
Assessing the experience in order to learn from it	5.83	0.84	4.90	1.48	.14
Trying to think about the strengths and weaknesses in my teaching style	5.94	1.01	5.50	1.50	.03
Thinking how I can learn from my successes	6.14	0.96	5.10	1.25	.18
Thinking about past successes to acquire insights for the future	6.14	0.99	5.25	1.45	.12
Thinking that next time I will do things better	6.53	0.70	6.10	0.91	.07
Getting help from others in order to understand how to improve teaching	6.19	0.92	4.75	1.62	.25
Learning from others is the most effective way	5.47	1.34	4.50	1.28	.11
Discourse in class is mainly among students	4.58	1.44	3.90	1.12	.06
Discourse between teacher and students is collaborative	5.81	0.86	5.50	1.23	.02
Explaining and demonstrating in the discourse between teacher and students	5.19	1.53	5.05	1.10	< .01
Planning the questions I will ask in the lesson in advance	5.50	1.18	5.30	1.66	< .01
Discourse in class includes teachers' questions and students' answers	4.25	1.50	3.60	1.14	.01
Making sure students are learning actively in the lessons	6.28	0.88	5.85	1.04	.04

As Table 5 shows, differences between groups in SRL items.
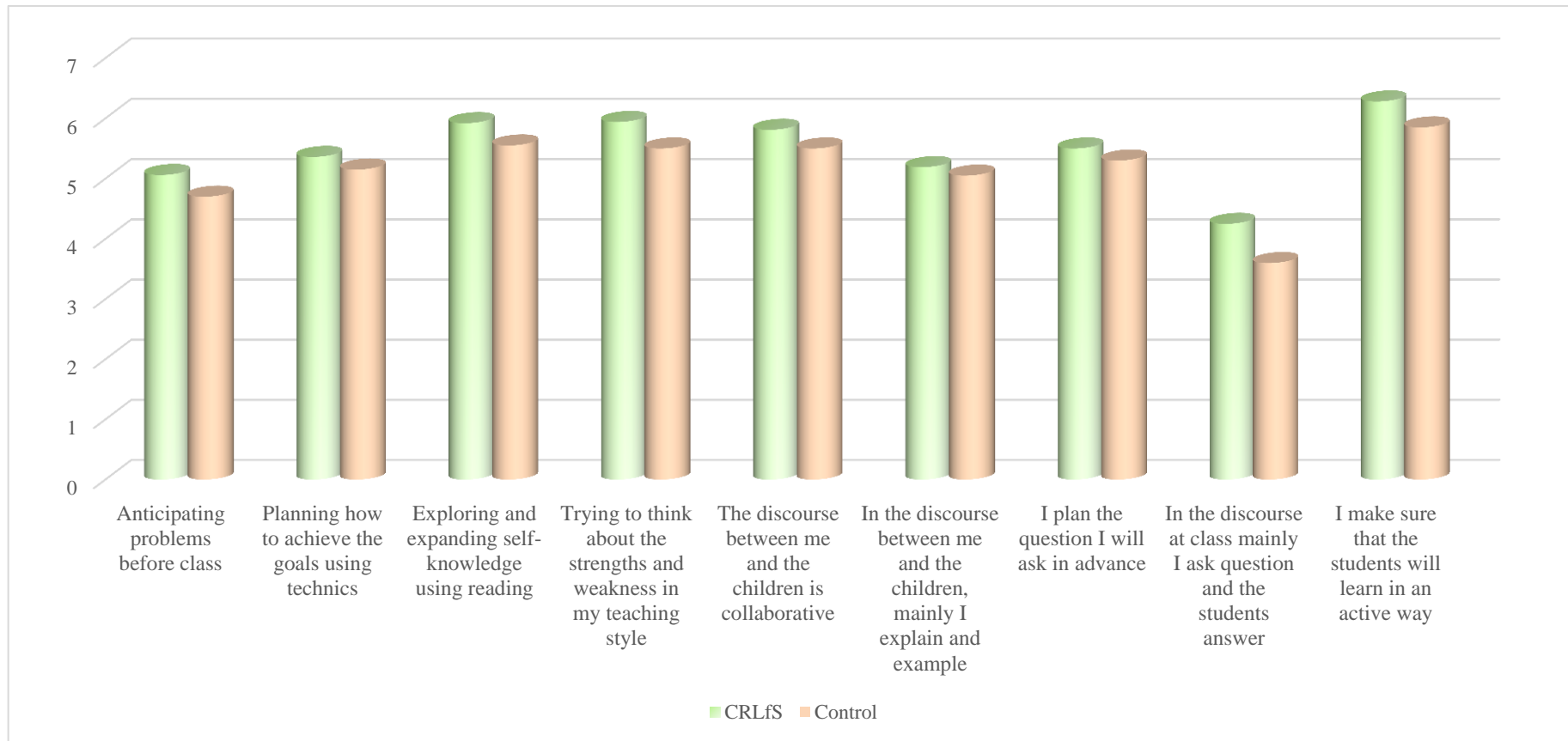
Figure 7: Differences between groups in self-regulated learning questionnaire statements

According to the findings, hypothesis H2 was confirmed. Differences between groups were found in PSTs' SRL. PSTs' self-regulated leaning in humanistic subjects and language education teaching was found to be higher and more developed in PSTs who had participated in the CRLfS program than PSTs in the control group who did not participated in the program during their teacher education.

In addition, the findings specifically confirmed the H2 hypothesis with higher scores in the following items in the self-regulated learning factor among PSTs who had participated in the CRLfS program compared to those in the control group including: anticipating problems before teaching, using operations and procedures to achieve lesson goals, exploring and extending self-knowledge using reading, trying to think about strengths and weakness in their teaching style, collaborative discourse in class, explaining and demonstrating in classroom discourse while the teacher asks and the students answer, planning questions they will ask in advance and make sure students learn actively.

CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS PERTAINING TO RESEARCH ENTITLED: THE CONTRIBUTION OF 'COLLECTIVE REFLECTIVE LEARNING FROM SUCCESS' PROGRAM TO PRE-SERVICE TEACHERS' SELF- REGULATED LEARNING

VI.2 Conceptual Conclusions

The evidence-based model of CRLfS to promote SRL instruction emerged from research conclusions presents CRLfS integrating positive psychology, learning from successes and collective reflective learning. It includes constructed and methodical discourse about learning from teaching successes that promote SRL integrating cognitive, metacognitive, and motivational processes in a circular motion. PSTs' participation and experience in collective reflective learning in gradual, processive and structured discourse, develops PSTs' self-regulation in learning both as learners and teachers.

The model presents the contribution of collective learning from teaching successes to developing their abilities to employ various appropriate types of regulation during discourse in their teaching to promote SRL. During collective learning there is a constructed and gradual transference from discourse regulated by a pedagogical instructor to PSTs discourse regulation according to the expanded learning from success model adapted to pre-service education preparation program to teach in primary schools. As a result of the constructed discourse of learning from successes in teaching, as shown in the model, parallel processes developed in PSTs' teaching, development in discourse competencies and in different types of regulation of PSTs in different parts of discourse and in their different roles of teachers as developers. In addition, the meta-cognitive processes that develop during this learning from the successes, PSTs' teaching skills develop to promote students' SRL, adapted use of different types of regulation during learning and gradual transformation from teachers' discourse ownership to students' owning discourse.

This is an interdisciplinary, humanistic, and holistic model. It is interdisciplinary in that it combines teaching, meta-thinking, meta-emotional, language skills and discourse competences through developing discourse during collective reflective learning from teaching successes sessions and integrating them into developing teaching promoting SRL by dismantling it in a manner enabling its application in any

humanistic or language knowledge subjects. Likewise, the model is humanist because it combines psychological and social aspects and referes to them. Their development also relates to everyone as an individual and in society. It refers to human beings as learning moral humanistic, social and language topics in humanistic knowledge subjects. Finally, this model is holistic in that it provides a look at the whole process summarizing the contribution of CRLfS to the development of teaching promoting SRL.

The model focuses on promoting SRL in teaching humanistic subjects and language education through implementation of the CRLfS program is presented in Figure 8.
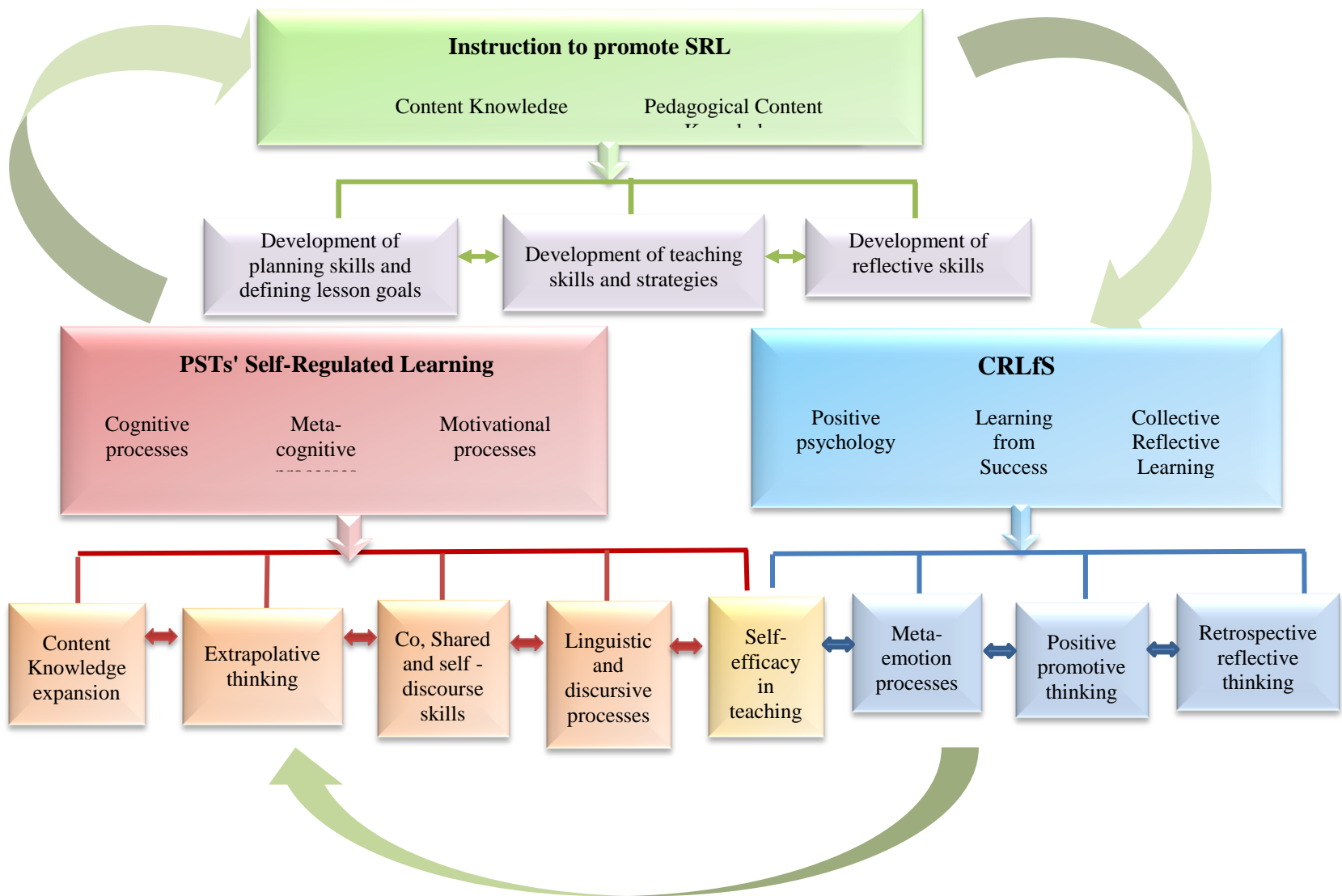
Figure 8: Model of CRLfS to promote SRL instruction

VI.3 Practical Implications and Recommendations

VI.3.1 Implications for Teacher Education Policy for Humanistic Subjects and Language Education

o According to the model proposed in this study, It is recommended that a teacher education preparation program be developed to promote self-regulated teaching including: promoting development of CK and PCK in humanistic subjects and language education in cognitive, metacognitive, meta-emotional, motivational, and language-discourse aspects.

o It is recommended expanding and developing knowledge in specific content areas in humanistic subjects to improve and deepen its teaching and to establish PSTs' sense of self-efficacy as adult learners and in their teaching.

o It is recommended continuing and even expanding language education study and language development in all teacher education programs for PSTs as learners.

o It is recommended developing metacognitive and meta-emotional thinking about humanistic and language content in teaching to promote SRL with reference to teaching and learning processes in lesson plan planning, actual teaching and after teaching.

VI.3.2 Implications for Teacher Educators and Pedagogical Instructors

o It is recommended raising the importance of constructing learning scaffoldings in the oral and written question asking process and by written structures and frameworks in order to promote content comprehension linguistic understanding, and language development. Likewise, raising the importance of gradual reference to learning stages through the development of shared discourse during didactic lesson and pedagogical instruction directed to promoting SRL.

o It is recommended integrating metacognitive and meta-emotional processes into PSTs' learning and teaching to promote SRL referencing to contents in subject matters' knowledge and language development to understand concepts linguistically, with reference to the four different language modalities and their links to contents.

o It is recommended deepening shared group reflective processes and at the same time personal processes adapted to each group member in lesson planning, in teaching and after teaching a lesson stages.

VI.5 Contribution to Theoretical and Practical Knowledge

VI.5.1 Contribution to Theoretical Knowledge

The research contributes to:
o Developing of CRLfS in teacher education on the basis of the powers and advantages of positive psychology (Seligman, 2012; Duckworth & Seligman, 2017).
o Developing reflective thinking skills and the importance of their reinforcement in teaching.
o Empowering self and shared-regulated processes in learning in social theories by integrating shared retrospective reflective thinking processes.
o Developing SRL processes by integrating personal extrapolated thinking processes in learning (Armstrong, 1984, 2001; Armstrong and Green, 2017).
o Strengthening collective reflective learning in education, (Lave & Wenger, 1991; Anderson, 2006; Le Cornu & Ewing, 2008; Jaeger, 2013).Contributing to integration between personal and shared reflection through shared discourse using various types of regulation, verbally expressing personal inner voices (Vygotsky, 1962, 1978) by thinking aloud (Ericsson, 2006; Greene & Azevedo, 2009).
o Reinforcing the advantages of learning from success and its application in the program proposed in the current study. Underpinning an understanding of the need to repeat in rapid loops of processes from metacognitive shared reflective learning of actions and processes performed in practice that led to success and their connection to theories during learning from successes to apply them practically in teaching and then again learn from them repetitively.
o Understanding that optimally learning from teaching successes occurs in ongoing, rapid, close to the field learning and teaching processes in adjacent loops in which gaps are reduced between theory and application. Time and again practical knowledge is raised and worded theoretically and theoretical knowledge is applied in a circular manner.

o Developing SRL theories integrating pedagogy for SRL to develop teaching to promote SRL as a fourth pedagogy (Mazor Cohen, 2018).

VI.5.2 Contribution to Practical Knowledge

o The model developed in this study provides pedagogical instructors and PTS colleagues with: tools to enable maximizing metacognitive and meta-emotional thinking processes during shared reflective learning from teaching successes. Likewise, it contributes to how these thinking processes are applied in practice in a circular and gradual process developing self-efficacy in teaching and teaching promoting SRL, integrating into PSTs' teaching from stage to stage in various PSTs' levels as learners and teachers. This learning increases a positive and progressive approach in teaching, in that PSTs are proactive teachers and their motivation to teach is driven by desire and essence of volition and ability of coping successfully with difficulties and challenges in teaching.

o The model developed in this study contributes to changing teacher education policy in the field of humanistic subjects and language education.

VI.6 Further Studies

o Further study to examine application of the program and its contribution in primary school education in other teacher education preparation courses in colleges and universities in Israel and worldwide across all teaching years sequence. Examining further the contribution of CRLfS to developing additional specific teaching skills.

o Further research in a specific humanistic subject to understand the differences and nuances required in teacher education qualification to teach in order to promote SRL referring to the differences between them in the CK.

o Continued studies of extrapolative thinking that develops after teaching during shared collective reflective learning from teaching successes promoting SRL, its application and expressions during teachers' education preparation at the level of teachers as adult learners.

REFERENCES

Anderson, B. (2006). Using the online course to promote self-regulated learning strategies in pre- service teachers. *Journal of Interactive Online Learning, 5*(2), 155-177.

Andrew, J. H., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education, 25*, 207-216.

Anyichie, A. C., & Butler, D. L. (2015, June). *The academic implications of supporting the development of self-regulated learning through modelling and scaffolding*. In Canadian Association of Educational Psychologists (CAEP) Symposium, Understanding and supporting Self-regulated learning. Presented during the annual meeting of Canadian Society for the Study of Education, Ottawa, ON.

Ariav, T. (2008). Teacher Education: Situation around the world and in Israel and future prospects. In: D. Kfir and T. Ariav (Eds.), *The crisis in teacher education: Reasons problems and possible solutions* (pp. 19 – 55). Jerusalem: HaKibbutz Hameuchad Publishing House and Van Leer Institute. (In Hebrew)

Armstrong, J. S. (1984). Forecasting by Extrapolation: Conclusions for twenty-five years of research. *Interfaces, 14*(6), 52-66. Retrieved from: http://repository.upenn.edu/marketing_papers/77

Armstrong, J. S. (Ed.) (2001). Extrapolation for time-series and cross-sectional Data. *Principles of Forecasting: Handbook for Research and Practitioners.* (pp. 217-243). Norwell, MA: Kluwer Academia Publication.

Armstrong, J. S., & Green, K. C. (2017). *Guidelines for Science: Evidence and Checklists*. Retrieved from http://repository.upenn.edu/marketing_papers/181

Avidov-Ungar O., & Oshrat-Fink, Y. (Eds.) (2016). A bird's eye view: Stories of teachers' professional development. Mofet Institution Press. (In Hebrew)

Bandura, A. (1997). Self-efficacy: *The exercise of control*. New York: Freeman.

Bandura, A. (2012). On the functional properties of perceived self-efficacy. *Journal of Management, 38*(1)*,* 9-44.

Ben Zvi, G., & Haim, L. (2012). *Developing and nurturing writing skills with different age groups. A Survey Required as Background for the Committee of Language and Literacy*. The National Israeli Science Academy. (In Hebrew) Retrieved from: http://education.academy.ac.il/

Ben-Peretz, M. (2002). Teacher Education in Israel over the course of Time? Report of committee for examining teacher education in Israel. *Dapim, 34,* 222-225. (In Hebrew)

Ben-Peretz, M., Yankekevitz, E., & Yedaya-Paz, Y. (2010). *Teacher education in Israel with the changes in times: Report of the committee for examining teacher education in Israel*. Jerusalem: ministry of Education (In Hebrew)

Birenbaum, M. (2013). Conditions that support formative assessment: Assessment for Learning (AfL) in teacher preparation programs. *Bimat Diyun, 51*, 6-12. (In Hebrew)

Birman, B. f., Desimone, L., Porter, A. C., & Garet, M. S. (2000). Designing professional development that works. *Educational Leadership, 57*(8), 28-33.

Boekaerts, M., & Corno, L. (2005). Self-regulation in the classroom: A perspective on assessment and intervention. *Applied Psychology: An International Review, 54*(2), 199–231.

Bolam, R. (2002). Professional development and professionalism. In T. Bush & L. Bell (Eds.), *The principles and practice of educational management* (103-118). London: Paul Chapman.

Buysse, V., Sparkman, K. L., & Wesley, P. W. (2003). Communities of practice: Connecting what we know with what we do. *Exceptional Children, 69*, 263–277.

Butler, D. L., Schnellert, L., & Perry, N. E. (2017). *Developing self- regulating learners*. New York, NY: Pearson.

Canrinus, E. T., Bergem, O. K., Klette, K., & Hammerness, K. (2015). Coherent teacher education programmes: Taking a student perspective. *Journal of Curriculum Studies, 49*(3), 1-21.

Cochran-Smith, M., Feiman-Nemser, S., McIntyre, D., & Demers, K. E. (2008). (Eds.), *Handbook of research on teacher education* (3rd ed.) (pp. 269-289). New York: Routledge.

Cochran-Smith, M., & Villegas, A. M. (2016). Research on teacher preparation: Charting the landscape of a sprawling field. In: H. D. Gitomer & A. C. Bell (Eds.), *Handbook of research on teaching* (5th ed.) (pp. 439-547). Washington, DC: American Educational Research Association.

Council for Higher Education, (2006). *Decision of the Council dated 21.11.2006 regarding Outline for teacher education in high education institutions in Israel - Ariav committee report*. Jerusalem: Ministry of Education. (In Hebrew)

Creswell, J. W., & Creswell, D.W. (2018). *Research design: qualitative, quantitative and Mix methods* (5rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano, C. V. (2018). *Designing and conducting mixed methods research* (3rd ed.)**.** Thousand Oaks, CA: Sage.

Csíkszentmihályi, M. (2009). The promise of positive psychology. *Psychological Topics, 18*(2), 203-211.

Darling-Hammond, L. (2005). Teaching as a profession: Lessons in teacher preparation and professional development. *Phi delta kappan, 87*(3), 237-240.

Darling-Hammond, L., & Rothman, R. (2015). *Teaching in the Flat World: Learning from High-performing Systems*. New York, NY: Teachers College Press.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education, 40*(3), 291-309.

Day, C. (1999). *Developing teachers: The challenges of lifelong learning.* London: Falmer Press.

Dewey, J. (1933). *How we think: A Restatement of the relation of reflective thinking to the educative process.* Lexington, MA: Heath and Company.

Dean, C. D. (1999, April). *Problem based learning in teacher education.* Paper presented at the annual meeting of the American Educational Research Association. Montreal, Canada.

Dignath, C., & Büttner, G. (2008). Components of fostering self-regulated learning among students: A meta-analysis on intervention studies at primary and secondary school level. *Metacognition & Learning, 3*, 231-264.

Dignath, C., Büttner, G., & Langfeldt, H. P. (2008). How can primary school students acquire self-regulated learning most efficiently? A meta-analysis on interventions that aim at fostering self-regulation. *Educational Research Review, 3*, 101-129.

Drakenberg, M. (2001). The professional development of teachers in Sweden. *European Journal of Teacher Education, 24*(2), 195-204.

Dror, Y. (2008). Policy for training teachers and educators in Israel: What can be learnt from past and present committees and position papers with regard to the future? In: D. Kfir and T. Ariav (Eds.), *The crisis in teacher education: Reasons problems and possible solutions* (pp. 56-92). Jerusalem: HaKibbutz Hameuchad Publishing House and Van Leer Institute. (In Hebrew)

Duckworth, A. L., & Seligman, M. E. P., (2017). The science and practice of self-control. *Perspectives on Psychological Science, 12*(5), 715-718.

Ellis, S., Mendel, R., & Nir, M. (2006). Learning from successful and failed experience: The moderating role of kind of after-event review. *Journal of Applied Psychology, 91*(3), 669-680.

Ericsson, K. A. (2006). Protocol analysis and expert thought: Concurrent verbalizations of thinking during experts' performance on representative tasks. In: *The Cambridge handbook of expertise and expert performance* (pp. 223–242). Cambridge, MA: Cambridge University Press.

Eyal, O. (2006). Contradicting Logics of Teacher Education. In: D. Inbar, (Ed.). *Toward educational revolution: Van Leer educational conference on Dovrat's report* (pp. 166-176). Jerusalem: HaKibbutz Hameuchad Publishing House and Van Leer Institute. (In Hebrew)

Friedman, I.A., & Kass, E. (2000). *Teacher efficacy: The concept and its measurement.* Jerusalem: The Henrietta Szold Institute.

Fullan, M., & Hargreaves, A. (2013). *Teacher development and educational change*. London: Routledge Falmer.

Gardiner, W. (2011). Mentoring in an Urban Teacher Residency: Mentors' Perceptions of Yearlong Placements. *New Educator, 7*(2), 153-171.

Gavish, T., & Rosenfeld, J. (2008). *Learning from Success in Elementary Education in Netanya 2005-2007*. Myers-JDC-Brookdale Institute and the Central District, Ministry of Education. (In Hebrew)

Gibbs, C. (2003). Explaining effective teaching: self-efficacy and thought control of action. *Journal of Educational Enquiry, 4*(2), 1-14.

Gino, F., & Pisano, G. (2011). Why leaders don't learn from success. *Harvard Business Review, 89*(4), 2-8.

Greene, J. A., & Azevedo, R. (2009). A macro-level analysis of SRL processes and their relations to the acquisition of a sophisticated mental model of a complex system. *Contemporary Educational Psychology 34,* 18–29.

Hadwin, A. F., & Oshige, M. (2011). Self-regulation, co-regulation, and socially shared regulation: Exploring perspectives of social in self-regulated learning theory. *Teachers College Record, 113*(2), 240–264.

Hadwin, A. F., Wozney, L., & Pontin, O. (2005). Scaffolding the appropriation of self-regulatory activity: A socio-cultural analysis of changes in teacher-student discourse about a graduate research portfolio. *Instructional Science, 33*, 413–450.

Hargreaves, A., & Goodson, I. (2006). Educational change over time? The sustainability and non-sustainability of three decades of secondary school change and continuity. *Educational Administration Quarterly, 42*(1), 3-41.

Hisherik, M., & Kfir, D. (2012). Teachers' life-long learning: implementation in practice and its contribution. In: L. Kozminski and R. Klavir (Eds.), *The Construction of Professional Identity: Processes of teacher education and professional development* (pp. 217- 241). Tel-Aviv: Mofet Institute Press. (In Hebrew)

Hoffman, A., & Niederland, D. (2012). The Autonomy of Academic Colleges of Education. In: L. Kozminski and R. Klavir (Eds.), *The construction of professional identity: processes of teacher education and professional development* (pp. 242- 274). Tel-Aviv: Mofet Institute press. (In Hebrew)

Jaeger, E. L.(2013). Teacher reflection: Supports, barriers, and results. *Issues in Teacher Education, 22*(1), 89-104.

Kfir, D., & Ariav, T. (Eds.) (2008). *The crisis in teacher education: Reasons problems and possible solutions* (pp. 19-55). Jerusalem: HaKibbutz Hameuchad Publishing House and Van Leer Institute. (In Hebrew)

Knight, P. (2002). A systemic approach to professional development: Learning as practice. *Teaching and Teacher Education, 18*, 229-241.

Knowles, M. S., Holton, I. E. F., & Swanson, R. A. (2005). The adult learner: The definitive classic in adult education and human resource development. (6th ed.). Burlington, USA: Elsevier.

Korhonen, H., Heikkinen, H. L. T., Kiviniemi, U., & Tynjälä, P. (2017). Student teachers' experiences of participating in mixed peer mentoring groups of in-service and preservice teachers in Finland. *Teaching and Teacher Education, 61*, 153-163.

Kozminski, L., & Klavir, R. (2010). Identity shaping of teachers and teachers' teachers in a changing reality. *Dapim, 49,* 11-42. (In Hebrew)

Kramarski, B., & Michalsky, T. (2009). Investigating preservice teachers' professional growth in self-regulated learning environments. *Journal of Educational Psychology, 101*(1), 161-175.

Lamote, C., & Engels, N. (2010). The development of student teachers' professional identity. *European Journal of Teacher Education, 33*(1), 3-18.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: University of Cambridge Press.

Lawanto, O., Butler, D. L., Cartier, S, Santoso, H., Lawanto, K., & Clark, D. (2013). An exploratory study of self-regulated learning strategies in a design project by students in grades 9-12. *Design and Technology Education. 18*(1), 44-57.

Le Cornu, R., & Ewing, R. (2008). Reconceptualizing professional experiences in preservice teacher education reconstructing the past to embrace the future. *Teaching and Teacher Education, 24*(7), 799-812.

Levitt, B., & March, J. (1996). Organizational learning. In: M. D. Cohen & L. S. Sproull (Eds.), *Organizational learning* (pp. 516-540). Thousand Oaks, CA: Sage.

Little, J. W. (2002). Locating learning in teachers' communities of practice: Opening up problems of analysis in records of everyday work. *Teaching and Teacher Education, 18*, 917-946.

Mazor Cohen, I. (2018). *SRL- theories or pedagogies*. Paper presented at the 5th ERD conference in Babeș-Bolyai University Cluj-Napoca, Romania, June, 2017.

McClure, P. (2005). Reflection on practice: Making practiced-based learning work. A resource commissioned by the Making Practice Based Learning Work project, *an educational development project funded through FDTL Phase 4 Project Number 174/02 and produced by staff from the University of Ulster*, 1-22.

Michalsky, T., & Schechter, C. (2013). Preservice teachers' self-regulated learning: Integrating learning from problems and learning from successes. *Teaching and Teacher Education, 30*(1), 60-73.

Michalsky, T., & Schechter, C. (2017) *Self-regulated learning: Conceptualization, contribution, and empirically based models for teaching and learning*. NSSE (National Society for the Study of Education) Yearbook Volume, Teachers College (TC), Columbia University, New York, U.S.

Middlewood, D., Parker, R., & Beere, J. (2005). *Creating a learning school.* London: Paul Chapman Publishing.

Ministry of Education (2010). *Teachers' professional development in the framework of "New Horizon" reform in the year 2010-11*. (In Hebrew)

Miller P. H. (2011). *Theories of developmental psychology* (5th ed.). Worth Publishers.

Mofet website academia-classroom, 2018 https://academia-kita.macam.ac.il/

Moos, D. C., & Ringdal, A. (2012). Self-regulated learning in the classroom: A literature review on the teacher's role. *Education Research International*, 15 pages.

Nelson, K. (2007). *Young minds in social worlds: Experience, meaning, and memory.* Cambridge, MA: Harvard University Press. No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).

OECD (Organization for Economic Cooperation and Development). 2011. Building a Teaching Profession: Lessons from around the World. Paris: OECD Publishing.

OECD (Organization for Economic Cooperation and Development). 2014.

Perry, N. E., Hutchinson, L., & Thauberger, C. (2008). Talking about teaching self-regulated learning: Scaffolding student teachers' development and use of practices that promote self-regulated learning. *International Journal of Educational Research, 47*(2)*, 97-108.

Perry, N. E., Phillips, L., & Hutchinson, L. (2006). Mentoring student teachers to support self-regulated learning. *The Elementary School Journal, 106,* 237-254.

Perry, N.E., & Rahim, A. (2011). Studying Self-Regulated Learning in Classrooms. In: B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp.122-136). Routledge Madison Avenue New York.

Perry, N. E., VandeKamp, K. O., Mercer, L. K., & Carla, J. N. (2002). Investigating teacher-student interactions that foster self-regulated learning. *Educational Psychologist, 37*, 5-15.

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In: M., Boekaerts & P. R., Pintrich (Eds.), *Handbook of self-regulation* (pp.13-39). San Diego, CA: Academic Press.

Randi, J. (2004). Teachers as self-regulated learners. *Teachers College Record, 106*(9), 1825-1853.

Schechter, C., Sykes, I., & Rosenfeld, J. (2004). Learning from success: A leverage for transforming schools into learning communities. *Planning and Changing, 35*(3 & 4), 154-168.

Schechter, C., Sykes, I., & Rosenfeld, J. (2008). Learning from success as leverage for school learning: lessons from a national program in Israel. *International Journal of Leadership in Education, 11*(3), 301-318.

Schechter, C. (2010). Learning from success as a leverage for professional learning community: Exploring a school improvement process. *Teachers College Record, 112*(1), 180-224.

Schechter, C., & Michalsky, T. (2014). Juggling our mindsets: Learning from success as a complementary instructional framework in teacher education. *Teachers College Record, 116*(2)*, 1-48.

Schön, D. A. (1987) *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Fransisco: Jossey Bass.

Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modelling. *Reading and Writing Quarterly, 23,* 7-25.

Seligman M. (2012). *Flourish*. North Sydney, Australia: William Heinemann.

Shanahan, T., & Shanahan, C. (2012). What is disciplinary literacy and why does it matter? *Topics in Language Disorders, 32*(1), 7-18.

Sergiovanni, T.J. (2002). *School management: theoretical and practical aspects*. Tel Aviv: Open University. (In Hebrew)

Shulman, L.S. (1986). Those who understand: Knowledge growth in teaching. *Educational Research, 15*, 4-14.

Sperling D. (2017). *Literature review of various programs of teacher education around the world.* Tel-Aviv: Mofet Institute Press. (In Hebrew)

Sykes, I., Rosenfeld, J. & Weiss, t. (2006). *Learning from Success as Leverage for School-wide Learning: A Pilot Program – 2002-2005. The First Method: Learning from Past Success - The Retrospective Method.* Jerusalem: Myers-JDC-Brookdale Institute. (In Hebrew)

Toering, T., Elferink-gemser, M., Jonker, L., van Heuvelen, M.J.G., & Visscher, C. (2012). Measuring self-regulation in a learning context: Reliability and Validity of the Self-Regulation of Learning Self-Report Scale (SRL-SRS). *International Journal of Sport and Exercise Psychology, 10*(1)*,* 1-15.

Vygotsky, L. (1962). *Thought and language.* Cambridge, MA: MIT Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Weinberger, J. (2015). Promoting educational-academic process in the faculty of education: nurturing reading and expression skills of pre-service teachers. *Hachinuch Usviv*o*, 37*, 45 – 65. (In Hebrew)

Weiss, T., Gavish, T., Rosenfeld, J., Ellenbogen- Frankovitz, S., & Sykes, I. (2007). *Learning from success as leverage for school-wide Learning: A pilot program 2002-2005. The second method: From a learning question to a Learning quest – The prospective method*. Jerusalem: Myers-JDC-Brookdale Institute. (In Hebrew)

Wetzel, M. M., Hoffman, J. V., Roach, A. K., & Russell, K.(2018). Practical knowledge and teacher reflection from a practice-based literacy teacher education program in the first years: A longitudinal study. *Teacher Education Quarterly, 45*(1), 87-111.

Winne, P. H., & Hadwin, A. F. (1998). Studying as self-regulated engagement in learning. In: D. Hacker, J. Dunlosky and A. Graesser (Eds.), *Metacognition in educational theory and practice* (pp. 277–304). Hillsdale, NJ: Lawrence Erlbaum.

Winne, P. H., & Perry, N. E. (2000). Measuring self-regulated learning. In: M. Boekaerts, P. Pintrich and M. Zeidner, (Eds.), *Handbook of self-regulation* (pp. 531–566). Academic Press: Orlando, FL.

Winne, P. h. (2001). Self-regulated learning viewed from models of information processing. In: B. Zimmerman and D. Schunk, (Eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (pp, 153-189). Erlbaum, Mahwah, NJ, USA, 2001.

Winne, P. H. (2011). A cognitive and metacognitive analysis of self-regulated learning. In: B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 15–32). New York, NY: Routledge.

Winne, P. H. (2015). What is the state of the art in self-, co- and socially shared regulation in CSCL? *Computers in Human Behavior, 52,* 628-631.

Winne, P. H. (2018). Theorizing and researching levels of processing in self-regulated learning. *British Journal of Educational Psychology, 88,* 9-20.

Zimmerman, B. J. (1989). A social-cognitive view of self-regulated learning. *Journal of Educational Psychology, 81*, 329–339.

Zimmerman, B. J. (1998). Developing self-fulfilling cycles of academic regulation: An analysis of exemplary instructional models. In: D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulated learning: From teaching to self-reflective practice* (pp. 1–19). New York: Guilford Press.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). Academic Press: San Diego, CA.

APPENDICES

Appendix1: Lesson Plan

Date: _____

Pre-service teacher:_____   **Pedagogical Instructor**:_____

Training teacher:_____   **Grade:**_____

Lesson Plan topic:_____

Navigating Knowledge, Adult Level Knowledge

Adult level knowledge:

Expanded knowledge of various concepts

Lesson goals:

Operational Aims - Class / Group Aims:

Operative language goals:

Operative content goals:

Main ideas and concepts:

Teaching Aids

Section	Time	Content – what I should say and do	Didactic considerations	Possible difficulties and solutions
Opening	5 minutes			
Lesson duration: new knowledge construction processes	30 minutes			
Lesson duration: new knowledge construction processes	30 minutes			
Lesson duration: new knowledge construction processes	30 minutes (Continued)			
Summary and reorganizing learned knowledge	15 minutes			

Appendix 2: Written Reflection

Reflection according to the following questions:

- o What worked in your lesson?

- o What did not work? Why?
- o What changes will you carry out to improve your lesson?
- o What teaching skills in your teaching advanced in your teaching in this lesson?
- o How have your teaching skills developed?

In addition, writing fee, unstructured written reflection, where PSTs write subjectively.

Appendix 3: Original Interviews Guide

The original interview guide to pre-program semi-structured in-depth interviews included the following questions:

- o Tell me a little about yourself
- o How did you experience practical teaching practice and didactic lesson in the past year?
- o Where did you undergo your practical teaching practice? What class? What school?
- o What experiences do you remember as constructive and important in your experience?
- o What is good teaching in your view? What is good learning in your opinion?
- o Describe one success etched in your memory during a specific lesson you learned or even analyzed with your training teacher and pedagogical instructor, colleagues? What helped you succeed? What are the components of success? How could you repeat or improve it?
- o Describe 3 of your strong points that are expressed in your teaching/in context of your work as a teacher. (If not successful in life in general)
- o Where do you think you need help? Reinforcement?
- o What can you help with? What can you contribute to your group colleagues?
- o Do you want to add anything/ is there something you would like to ask?

The original interview guide to post-program semi-structured in- depth interviews

included the following questions:

- o Tell me about your development and progress during the year: how do you see your development and progress in teaching during the year?
- o Describe 2-3 outstanding points of strength in your teaching?
- o What foci of strength in you teaching improved during the year? Where was the improvement?

- o What teaching skills did you develop during the year?
- o Describe 2-3 of the most significant foci of strength in your teaching?
- o How did CRLf|S contribute to your to your teaching?
- o What goals have you set yourself for next years with regard to your teaching? How are you preparing to cope with them or achieve them?
- o Do you want to add anything?

Appendix 4: Questionnaires

Hello Pre-Service Teacher,

It is important to me to write to you personally.

As part of my PhD research, I am asking you to answer the following short questionnaire. The total time required to fill it is less than ten minutes.

The questionnaire measures the attitudes of pre-service teachers regarding their work at school. You are asked to carefully read each statement and rate to what extent you have felt or thought as described in the past year. The questionnaire is anonymous, so your name is not required. I would appreciate it if you are careful about answering the demographic questions. Please state your teaching experience.

Thank you for your cooperation, understanding, and patience. The findings will encourage understanding of continuing education and improving teachers' practices to optimize their work and fulfill their potential.

If you have any questions, please feel free to email me. My e-mail address is:
mazoririt33@gmail.com

Thank you for your cooperation,

Irit Mazor Cohen

Questionnaire 1:[i] Self- efficacy in teaching

The following statements describe teachers' feelings and attitudes. Read every statement and rate the degree to which it is relevant to you on a scale of 1 (not at all) to 7 (absolutely).

	1 – Not at all	2	3	4	5	6	7 - Absolutely
1. I set high academic standards for my students	1	2	3	4	5	6	7
2. I show confidence in my classes	1	2	3	4	5	6	7
3. I create in my class a climate of acceptance	1	2	3	4	5	6	7
4. I listen and react for my students' needs	1	2	3	4	5	6	7
5. I help my students to study clearly the materials	1	2	3	4	5	6	7
6. I am willing to persistent with difficult students	1	2	3	4	5	6	7
7. I set to me and to my students challenging high thinking goals	1	2	3	4	5	6	7
8. I set to me and to my students challenging content goals	1	2	3	4	5	6	7
9. I take the responsibility for my students' achievements	1	2	3	4	5	6	7
10. I can give different types of feedback to different students	1	2	3	4	5	6	7
11. I believe in each student's ability to study and make progress	1	2	3	4	5	6	7
12. I increases student confidence in his/her ability to learn	1	2	3	4	5	6	7
13. I generally use collaborative teaching methods	1	2	3	4	5	6	7
14. I perceive the pre-service teachers' relationship as meaningful learning source	1	2	3	4	5	6	7
15. I encourage my students' autonomy in learning.	1	2	3	4	5	6	7
16. I use different teaching strategies when I prepare my lesson, and when I teach my class, in order to prevent noise and interruptions	1	2	3	4	5	6	7
17. I experience less stressful situations prior to class teaching	1	2	3	4	5	6	7
18. I love to teach	1	2	3	4	5	6	7
19. I feel safe teaching as I read and extend my knowledge for teaching lessons	1	2	3	4	5	6	7
20. I am willing to deal with complex teaching situations	1	2	3	4	5	6	7
21. I repeat successful learning process, even when I teach different issues in other subject-matters	1	2	3	4	5	6	7
22. I feel confident about my teaching	1	2	3	4	5	6	7
23. I am aware of strengths and weaknesses in my teaching style and refer to them in reflection after class	1	2	3	4	5	6	7
24. I study with friends from their successes in teaching in their classes	1	2	3	4	5	6	7

Questionnaire 2:[ii]Self- Regulated Learning Context

One can refer to teaching processes as learning from success. The statements describe the feelings and attitudes towards learning from success processes. Read every statement and mark the degree to which it is relevant to you on a scale of 1 (not at all) to 7 (absolutely).

	1 – Not at all	2	3	4	5	6	7 - Absolutely
1. Before class, I can predict problems and difficulties that might arise during the lesson, and prepare to deal with them	1	2	3	4	5	6	7
2. I plan how to achieve an aim by using operations and processes	1	2	3	4	5	6	7
3. I read, explore and extend my self-knowledge in the subjects I teach							
4. I try to understand the purpose of the learning before I try to deal with it	1	2	3	4	5	6	7
5. I ask myself questions about the things needed for the students' learning while I am planning the lesson and before I teach	1	2	3	4	5	6	7
6. I imagine the parts of learning with which I need to handle	1	2	3	4	5	6	7
7. I carefully prepare the learning process for the lesson	1	2	3	4	5	6	7
8. I assess the experience in order that I will learn from it	1	2	3	4	5	6	7
9. I try to think about strengths and weaknesses in my teaching style	1	2	3	4	5	6	7
10. I think how I can learn from my successes	1	2	3	4	5	6	7
11. I think about past successes in order to acquire insights for the future	1	2	3	4	5	6	7
12. I think how I can do things better the next time I do them	1	2	3	4	5	6	7
13. I get help from others in order to understand how I can teach better	1	2	3	4	5	6	7
14. In my opinion, learning from others is a better learning process than other ways	1	2	3	4	5	6	7
15. The discourse during the lesson is mainly among the children	1	2	3	4	5	6	7
16. The discourse during the lesson between me and the students is collaborative	1	2	3	4	5	6	7
17. In class discourse between myself and the students, I mainly explain and demonstrate	1	2	3	4	5	6	7
18. I plan in advance the questions that I will ask the children during the lesson	1	2	3	4	5	6	7
19. In the class discourse between myself and the students, I mainly ask questions and the students answer them	1	2	3	4	5	6	7
20. I make sure that students are learning actively in my lessons	1	2	3	4	5	6	7

Demographic information:

Sex: 1. Male   2. Female

Age: _____

Education:

- ☒ Third year at the bachelor degree, and in studding in teacher education preparation program in primary schools.
- ☒ Fourth year at the bachelor degree, and in studding in teacher education preparation program in primary schools.
- ☒ Did you participate during practicing in teaching in learning from successes sessions of CRLfS program? 1. Yes 2. No

---

[i] Based on Self-efficacy in teaching questionnaire of:

Friedman, I.A. & Kass, E. (2000). *Teacher efficacy: The concept and its measurement.* Jerusalem: The Henrietta Szold Institute.

[ii] Based on Self- regulation in a learning context of:

Toering, T., Elferink-gemser, M., Jonker, L.,van Heuvelen, M.J.G.,& Visscher, C. (2012).Measuring self-regulation in a learning context: Reliability and Validity of the Self-Regulation of Learning Self-Report Scale (SRL-SRS). *International Journal of Sport and Exercise Psychology, 10*(1), 1-15.