SLIDEshow
Showcasing Self-regulated Learning

IO2

SRL practice framework

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Authors

Valérie Thomas, Vrije Universiteit Brussel

Koen Lombaerts, Vrije Universiteit Brussel

Marika Koivuniemi, University of Oulu

Hanna Jarvenoja, University of Oulu

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Introduction

Scientific evidence reveals different effective ways to support student self-regulated learning (SRL). In order to facilitate the transfer of these effective SRL classroom practices, a practice framework entailing based on most recent evidence relating to effective SRL promotion strategies is developed. This document consists of a practice framework (including teacher competences and qualities) for teachers and teacher educators who wish to be successful in supporting their students' SRL. By linking the practice framework to the European Qualification Framework (EQF), SLIDEshow integrates scientific and policy materials for the benefit of practice. The EQF very strongly emphasises the attribute of independence in the acquisition and execution of competences. The eight levels of competence described in the EQF, starting at a completely dependent behaviour (i.e. dependencies on instruction and supervision) to complete independence and being a driver or innovator in the domain, can be a good fit for SRL, because of the self-management capacities that are intrinsic to it.

The SRL practice is innovative in the sense that it aims to support the integration of SRL by clearly outlining what competences are crucial for supporting students' SRL and how this connects to existing frameworks (the EQF). By framing SRL instruction within a broader context (EQF) familiar to many educational systems, we intend to support the integration of SRL instruction in a 'connected', structural manner. Teachers and schools face a myriad of challenges and proposed solutions/innovations, often quickly following each other and being implemented in rather isolated ways. Next, the SRL practice framework will be applicable for both teachers and teacher educators. The focus on teacher educators is considered innovative, as most programs focus on teachers mainly.

Finally, the SRL practice framework will be used as a common framework for the SLIDEshow project as a whole and will be used for evaluation purposes later on in the project. Also, the framework will inform the design of the objectives, content, and approach of the teacher

educator training (IO4). Finally, the framework will be used to analyse and identify the good practices concerning the integration of SRL in classroom practice (IO5).

This document is composed as following: first, a background for this document is given, secondly, a list of SRL instructional competences is given based on an extensive literature review. The competences are explored in depth. Thirdly, the SRL practice framework is integrated in the EQF, a practical approach is used, explaining the competences at the different levels of the EQF.

Background

Teacher competences and attributes

Describing, defining and assessing teachers' professional knowledge and competence at any career stage is not straightforward, but historically and culturally bound, subject to change and contestation. Therefore, competence statements, so as to recognize the complex, multifaceted nature of teaching, acknowledging the role of values, ought to be clear and not over-elaborated (Conway, Murphy, Rath, & Hall, 2009).

The past years, the Education Councils of the EU defined some priorities for improving Teacher Quality and Teacher Education. They stress the importance of the improvement of teacher competencies, as well as to promote professional values and attitudes. As stated in the report of the European Commission (2011) on teacher competences, a competence should be viewed as a holistic concept, the dynamic combination of knowledge, understanding and skills. Furthermore, a distinction between teaching competences and teacher competences can be useful (OECD, 2009), however both competences often overlap in the professional lives and experiences of teachers. *Teaching competences* is focused on teaching and the action in the classroom (Hagger & McIntyre, 2006). *Teacher competences* refers to competences on the levels of the individual, school, community, professional networks. Generally, it implies a wider view of teacher professionalism.

Self-regulated learning (SRL)

Self-regulated learning (SRL) includes conscious consideration monitoring and adaptation of cognitive, metacognitive, behavioural, motivational, and emotional/affective aspects of learning. Self-regulated learners can be defined as learners who set themselves goals, plan their actions to pursue these goals, monitor their learning, and finally evaluate their learning process (Zimmerman, 2000). In other words, the self-regulated learners take responsibility of their own learning process and possess the appropriate learning skills to do that accurately.

The process of SRL is cyclical, the result of the evaluation of the learning process impacts the following learning process (Dignath-Van Ewijk, 2016). In other words, self-regulatory students align their next learning assignments with previous experiences and thereby determine their strategy for approach. SRL is an umbrella concept under which a considerable number of variables that influence learning (e.g., self-efficacy, cognitive strategies) are studied within a comprehensive and holistic approach. Several authors studied SRL and also developed a model/theory of SRL (e.g., Zimmerman, 1989; 2000; 2013; Boekaerts, 1997; Pintrich, 2004; Winne & Hadwin, 1998; 2008).

One of the most cited models of SRL and the model that is used in the SLIDEshow project, is that of Zimmerman; A Socio-cognitive Perspective of SRL (e.g., Zimmerman, 1986; 1989; 2000; 2002). The model is structured in three phases: forethought, performance and self-reflection. The forethought phase consists of task analysis, goal setting, planning to reach these goals, and a number of motivational beliefs energies the process and influence the activation of learning strategies. In the performance phase, the students execute the task, while monitoring their progress, using certain learning and motivation strategies. In the self-reflection phase, students reflect on how they have performed the task and attribute their success or failure. These attributions impact self-reactions that in turn have an impact on how students approach future tasks.

However, students do not become self-regulated by themselves. They need modelling and support to become self-regulated learners (Zimmerman, 2002). Furthermore, research shows that self-regulatory processes can be taught and practised and can lead to increases in students' motivation and achievement (Schunk & Zimmerman, 1998). Bandura (1997) also acknowledged the social environment in which the development of SRL takes place and where meaningful interactions occur with more experienced partners (Bandura, 1997). Similarly, Martinez-Pons (2002) adopted a social-cognitive perspective on SRL assuming that

teachers can be essential role models and sources of inspiration for their children's use of self-regulatory skills.

Promotion of SRL

When looking at how teachers can foster SRL in students, several authors (e.g., Paris & Paris, 2001, Kistner, Rakoczy, & Otto, 2010) describe two different 'tracks': direct and indirect SRL promotion.

Teachers can promote self-regulated learning **directly** by teaching learning strategies and provide them with the knowledge and skills on how to self-regulate (Brown, Campione, & Day, 1981). Within the direct SRL promotion, teacher can provide students with *implicit* and *explicit* SRL instruction. A teacher can implicitly induce his students to show certain behaviour, for example by modelling the use of a strategy, without giving more information on the use of the learning strategy and the significance (Collins, Brown, & Holum, 1991). On the other hand, a teacher can explicitly tell his students to show a certain activity, for example by explaining a learning strategy and why this is useful. The students are given some information about the meaning and importance of that strategy.

Next, teachers can also promote SRL **indirectly**, by arranging the learning environment in a constructivist way so that students can and have to self-regulate their learning (e.g., by offering choices to students and providing them with situations in which they can take over responsibility for their learning) (Pressley, Harris & Marks 1992).

Literature have shown SRL is beneficial for several outcomes (e.g., student wellbeing (Kaplan & Maehr, 1999; Noble & Wyatt, 2008; Tavakolizadeh, Yadollahi & Poorshafeic, 2012), academic performance (Cleary & Zimmerman, 2004; Perry & Vandekamp, 2000; Zimmerman, 1990; 2002; Zimmerman & Schunk, 2001) etc.). Additionally, Boekaerts (1999) stated the importance of SRL support as an educational innovation that should play a central role in the teaching practice. However, research have found the instruction of SRL occurs only to a

limited extent (e.g., Dignath-van Ewijk, 2016; Lombaerts, Engels, & van Braak, 2009b). Correspondingly, similar to what Dignath-van Ewijk (2016) indicated, the question remains why teachers do not invest more in fostering students' SRL. Do they not believe in SRL, or do they not know how to support it? This leads us to the fact that there is a need for clear and usable SRL specific instructional competences for teachers.

1. SRL instructional competences

Scientific evidence reveals different effective ways to support students' SRL. In order to facilitate the transfer of these effective SRL classroom practices, a practice framework based on most recent evidence relating to effective SRL promotion strategies is created.

Based on the research of Peeters (2016), several factors on multiple levels associated with SRL promotion can be identified (Figure 1). Specifically, three levels are specified: (1) school, (2) teacher, (3) student level, with on each level factors related to SRL promotion. In this report, specific attention is paid to the teacher level, the school and student level is briefly discussed given the purpose of this document.
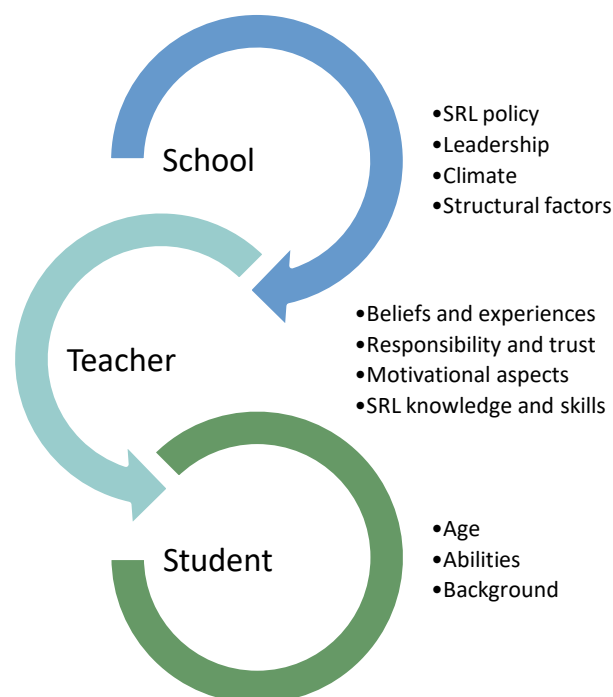

Figure 1: Overview of levels and related factors for SRL promotion.

Teachers

The following main teachers' attributes and competences come forward in SRL literature and play an important role in promoting SRL in the classroom.

Beliefs and previous experiences

The extent to which teachers believe in the suitability and desirability of SRL in primary education is considered important to the integration of SRL support in daily classroom practice (Errington, 2004; Ertmer, 2005; Sosu & Gray, 2012). Teachers expressing strong beliefs in the value of SRL for primary education were found more motivated to support students. This is in line with previous research that demonstrated how teacher epistemic beliefs drive instructional preferences and behaviour (Errington, 2004; Ertmer, 2005; Sosu & Gray, 2012) (see below). Beliefs are supposed to include value commitments, epistemological beliefs, subjective theories about learning, and goals.

Furthermore, previous and personal experiences with SRL and SRL support appeared to be an important indicator for increased levels of teacher attention to students' SRL (Peeters, De Backer, Kindekens, Jacquet, & Lombaerts, 2013a; Peeters, De Backer, Kindekens, Romero Reina, Buffel & Lombaerts, 2013b). Teachers' previous and current educational experiences are considered critical in their facilitation of students' self-regulatory skills. To a large extent, teachers' own educational trajectory, their professional classroom experiences, and involvements in previous educational innovation projects guide teachers' beliefs and are likely to influence innovation processes (Ertmer, 2005; Fullan, 2007). These experiences, both in and outside the classroom, feed teachers' emotions, beliefs and priorities and subsequently affect their instructional decisions (Frost, 2010).

Types of beliefs

The studies of Peeters and colleagues (Peeters et al., 2013a; Peeters, De Backer, Kindekens, Jacquet & Lombaerts, 2015) revealed that two types of beliefs were positively related with teachers' self-perceived SRL promotion: teachers' more *general constructivist beliefs* about

primary education, and teachers' task value beliefs, or *specific SRL beliefs* concerning the role of SRL in primary education (Peeters et al., 2013a; 2015).

However, studies remain unclear on what type of beliefs are most important (Dignath-van Ewijk & van der Werf, 2012; Peeters et al., 2013a). Peeters and colleagues (2013a; 2015) found teachers' constructivist beliefs were found most important. In contrast, Dignath-van Ewijk and van der Werf (2012) found teachers' SRL beliefs to be related with SRL promotion. Having a strong acknowledgment (task value beliefs regarding SRL) of the relevance, utility, and importance of SRL for students (Pintrich, 2000), motivates teachers to promote SRL. Strong task value beliefs may stimulate teachers to change their SRL-promotion knowledge and to engage in SRL promotion (Johnson & Sinatra, 2013; Wigfield, 1994). Moreover, some teachers explicitly described feeling responsible for actively supporting SRL, rather than merely believing in its usefulness. *High responsibility* feelings assist in enhancing teacher efforts, and in addressing scholastic, motivational as well as developmental needs of students (Lauermann, 2014). Recognizing the value of a task, in this case supporting students' SRL, is relevant as it may subsequently facilitate changes in conceptual knowledge and activate teachers' prior knowledge (Johnson & Sinatra, 2013). Fortunately, other studies disclose that teachers recognize and voice the benefits of SRL for students, confirming that most primary school teachers do acknowledge the value of SRL for primary education (Peeters et al., 2013b). In sum, in order to increase teachers' SRL promotion efforts, teachers need to display general constructivist beliefs as well as acknowledge the value of SRL for primary education.

General beliefs

Beliefs on fostering SRL could be influenced by more general beliefs on the nature of learning and knowing: **epistemological beliefs**. Epistemological beliefs refer to the assumptions an individual has about the origin, nature and structure of knowledge and knowing (Schraw, Crippen & Hartley, 2006). Hattie and Yates (2013) found a strong effect of teachers' epistemological beliefs (e.g., beliefs concerning learning effort and process) related to their conceptions of teaching and learning (e.g., constructivist conception; encouraging students

to think for answers themselves; learning means opportunities to explore, discuss and express ideas) (Ekinci, 2017). Results are sometimes unclear and other studies found the impact of epistemological beliefs on teaching competence to be mixed (e.g., Creemers et al., 2013; Shraw & Olafson, 2003; Sosu & Gray, 2012). Several studies on the association of teachers' epistemological beliefs and their instruction point into this direction as teachers' epistemological beliefs affect their pedagogical decisions (for an overview, see Schraw et al., 2006). Bell (2006) examined the effects of SRL and epistemological beliefs on academic achievement while holding constant the effects of self-efficacy and prior college academic achievement. He found students' prior academic achievement and their expectancy to be the only significant predictors for academic achievement. However, he argues that students' self-regulation, as well as their epistemological beliefs, probably influence students' expectancy, which in turn influences academic achievement.

Beliefs on SRL promotion

Studies of Lombaerts and colleagues (Lombaerts, Engels & Athanasou, 2007; Lombaerts, Engels, van Braak, & Athanasou, 2009a) with Flemish primary school teachers indicated that **teacher beliefs about SRL** in primary school is a significant predictor for teachers' self-reported recognition of SRL. These teacher beliefs were predicted significantly by beliefs about teacher-level influence on SRL (like e.g., beliefs on instructional pedagogy, and on innovations in teaching and learning), but not by beliefs about school context (e.g., beliefs on the stimulation of SRL by the school as an organization, collaboration of teachers as part of the school culture, or curriculum changes). Moreover, the study of Lombaerts and colleagues (2007; 2009a) also found that teachers are more positive towards the realization of a constructivist learning environment in general than towards the instruction of SRL strategies. When looking at how teachers can foster SRL in students, Paris and Paris (2001) described two different ways: directly and indirectly (a full explanation of these two tracks of SRL promotion is given above, on p. 10 'promotion of SRL'. Especially, indirect SRL promotion refers to arranging the learning environment in a constructivist way so that students can and have to self-regulate their learning (e.g., by offering choices to students and providing them

with situations in which they can take over responsibility for their learning) (Pressley, Harris, & Marks ,1992).

Responsibility and trust in students

An essential attribute to support SRL in the classroom lies in the willingness of teachers to give more **responsibility to students** and trust the students to use this autonomy and responsibility properly. In order to support SRL, a new form of class management is necessary, where the teachers are more of a facilitator instead of a knowledge conveyor (Lombaerts, Engels & Vanderfaeillie, 2007).

Many large-scale reform initiatives are in conflict with teachers' identity, even when teachers are eager supporters of the reform initiatives (Van Veen, Sleegers, & van de Ven, 2005). The study of Peeters, De Backer, Kindekens, Romero Reina, Buffel and Lombaerts (2013b) revealed that teachers have a preoccupation with classroom management and loss of control when introducing SRL classroom practices. According to Lewis (1999) this concern is especially apparent with teachers wanting to share more responsibility for learning with students.

Teachers' motivational aspects influencing SRL use

Both teachers' affective and motivational states and how teachers attribute their behaviour are important SRL promotion attributes.

Teachers' motivation

Teachers that feel good are more likely to experiment with SRL in their classroom (Peeters, De Backer, Kindekens, Romero Reina, Buffel & Lombaerts, 2013b). Teachers stress **affective states** such as the need to feel good and secure in experimenting with SRL promotion.

Another aspect of teachers' motivation is how they attribute their successes and failures, in other words, **teachers' attributional style**. Adaptive attributions help people adjust their approach by investing more effort or choosing more effective strategies. On the other hand, attributing failure to external forces (such as students' abilities) undermines successful adaptation, leads to procrastination, and increases feelings of helplessness and apathy

(Boekaerts, Pintrich, & Zeidner, 2005). Similarly, teachers who voiced being impeded by particular student characteristics were found to formulate excuses for potential failure even before attempting to support their students' SRL development. Proactively arranging and voicing circumstances that may explain failure is known as self-handicapping. This motivational strategy is found to be ineffective and results in decreased levels of effort (Higgins, Snyder & Berglas, 1990).

Teachers' self-efficacy

Another attribute that is important in teachers' stimulation of SRL is **teachers' feelings of competence**, in other words, their self-efficacy. When looking at motivational orientations, self-efficacy plays an important role in determining teacher behaviour (see e.g., Baumert & Kunter, 2006; Holzberger, Philipp, & Kunter, 2013). Self-efficacy beliefs represent a judgment of one's capabilities to reach a certain goal (Bandura, 1977). Dellinger, Bobbett, Olivier and Ellett (2008, p. 751) define teachers' self-efficacy as "teachers' individual beliefs about their own abilities to successful perform specific teaching and learning tasks within the context of their own classrooms". Four factors are supposed to determine a person's self-efficacy: (1) personal experience of success or failure whose interpretation is closely related to people's beliefs and values, (2) vicarious experience (also: modelling) which is influencing the knowledge of what is "right" and "wrong", (3) social persuasion in terms of encouragement or discouragement, as well as (4) the perception of physiological reactions (Bandura, 1977). These four factors also affect teachers' beliefs and knowledge which will, in turn, act as determinants for teachers' self-efficacy. These sources of efficacy beliefs are considered to provide the basis for one's task analysis and appraisal of one's personal competence.

Research has shown the relationship between self-efficacy and teacher behaviour (e.g., Guo, Piasta, Justice & Kaderavek, 2010; Holzberger et al., 2013; Tschannen-Moran & Hoy, 2001). Studies have found, for example, a significant relationship between teachers' self-efficacy and teacher beliefs towards instructional innovation (e.g., Ghaith & Yaghi, 1997; Guskey, 1988), instructional strategies (e.g., Tschannen-Moran & Johnson, 2011; Wertheim & Leyser, 2002; Swars, 2005), and an association with teachers' SRL promotion (Chatzistamatiou, Dermitzaki,

& Bagiatis, 2013, Peeters et al., 2015). Teachers' self-efficacy is also found to impact teachers' emotions, which is positively related to their satisfaction regarding their work (Skaalvik & Skaalvik; 2007; 2010) and students' learning (Dellinger et al., 2008; Skaalvik & Skaalvik, 2007; Tschannen-Moran, & Hoy, 1998).

SRL knowledge

Teachers' **SRL knowledge** is often closely linked to their classroom practice (e.g., Dignath-van Ewijk & van der Werf, 2012; Spruce & Bol, 2015). Awareness of both one's knowledge and limitations is crucial in deliberately instructing SRL and learning from ones failures (Loibl & Rummel, 2014; Zohar, 1999). Additionally, teachers need to know how to promote SRL and how to adjust instructional strategies reflective of situational demands.

Several studies found a lack of knowledge about SRL and a shortage of competencies to promote it as an important reason for low levels of SRL promotion (Peeters, De Backer, Kindekens, Romero Reina, Buffel, & Lombaerts, 2013b; Peeters, De Backer, Kindekens, Jacquet, & Lombaerts, 2015). Teachers referred to all three sorts of metacognitive awareness (Wilson & Bai, 2010) as they expressed their need for more declarative knowledge (knowledge about SRL development), procedural knowledge (knowledge about how to promote SRL), and conditional knowledge (knowing why and when to promote SRL with specific pupils or in specific situations). Hence, when supporting teachers to increase their SRL promotion efforts, attention should be paid to their (metacognitive) knowledge of SRL.

The study of Peeters and colleagues (2013) also revealed that teachers need to be able to self-regulate their own learning and teaching practice in order to efficiently model it. Teachers describe how they rely on their **own self-regulatory capacities** to effectively learn how to promote their students' SRL, especially in cases where school support is limited. Teachers who are successful in self-regulation may also be better equipped to deal with distractions and may find the necessary resources to succeed (Paris & Winograd, 2003). As personal goal

setting is considered an important pre-condition of SRL (Zimmerman, 2002), it is likely that teachers first need to incorporate SRL promotion into their personal teaching objectives.

SRL skills

Teachers' **own self-regulated learning skills** also have been found important in the integration of SRL promotion (Leat & Lin, 2003). Peeters and colleagues (Peeters, De Backer, Kindekens, Jacquet, & Lombaerts, 2013a; Peeters, De Backer, Kindekens, Jacquet, & Lombaerts, 2015) emphasized the value of self-regulation strategies for the teaching profession. The teaching profession was experienced as conducive to teacher self-regulation. For example, the repetitive character of education and high levels of job autonomy require or motivate teachers to self-regulate their teaching. Furthermore, due to the dynamic educational landscape and changing challenges, teachers are required to continue and self-regulate professional learning. Additionally, teachers also feel the need to self-regulate their motivation during their professional career; for example, by choosing strategies to increase their interest teachers try to self-direct their motivation (Wolters, Pintrich, & Karabenick, 2003).

Next to self-regulation of motivation (described above) during the professional career, teachers' own personal self-regulation when supporting their students' SRL is of great value. Firstly, personal self-regulation skills are necessary to model and verbally explain the use of SRL strategies. As like students, teachers who are successful in self-regulation may also be better equipped to deal with distractions and may find the necessary resources to succeed (Paris & Winograd, 2003). Students learn SRL from observing teachers' strategies (Zimmerman, 2002), and teachers need the necessary knowledge to make SRL more visible for students, and to explain the use and value of the strategies being modelled (Paris & Winograd, 2003).

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School

SRL policy

The integration of students' SRL stimulation within teaching practice cannot be seen as a 'stand-alone phenomenon' being restricted to the four walls of a classroom. If students are to be empowered, the same must be argued for teachers (Wehmeyer, Agran, & Hughes, 2000). It is essential to provide broader **support on school level** to deliberately create environments and structures in which teachers are encouraged to reflect on and take responsibility for teaching and learning (Butler, Lauscher, Jarvis-Selinger, & Beckingham, 2004; Van Eekelen, Boshuizen, & Vermunt, 2005). A shared and clear school vision on SRL is indispensable to SRL promotion. Developing a shared language and discourse can, for example, enhance SRL promotion in everyday practice, and facilitate teacher collaboration and mutual understanding (Fullan, 2007). Van Veen & Sleegers (2009) argued school visions on SRL need to be broad, because strict procedures decrease teacher flexibility. It is considered important to provide sufficient space for teachers to co- and self-regulate their way to implement SRL classroom practices and find strategies that fit within their personal preferences and expertise.

Leadership

Teachers necessitate the involvement of the **school principal** as the main person responsible for the introduction, monitoring and evaluation of SRL classroom practice. Furthermore, the school principal is expected to create supportive school mechanisms such as flexible schedules, teacher collaboration, professional development and a co-constructed school policy. Although principals can merely create conditions for cultural change, research confirms the important role of school principals in establishing successful schools (Darling-Hammond, Meyerson, Lapointe, & Orr, 2010; Moolenaar, Daly, & Sleegers, 2010).

Climate

Teachers need to feel motivated, emotionally secure and supported in their efforts to stimulate students' self-regulation. Different types of support systems are mentioned,

ranging from practical support such as Internet access, flexible classrooms and time schedules, and teaching material to interpersonal support by peers, school principal, SEN-teacher[1] and/or experts to more.

Innovation

An **innovative school climate** may increase teachers' willingness to change and experiment with more student-centred teaching practices. Moreover, examination of schools' innovation histories may uncover resistance to innovation or otherwise. Negative experiences with previous educational reform may have resulted in scepticism towards new implementation efforts regardless of the content of the reform program (Fullan, 2007) and may therefore impede the introduction of SRL promotion.

Teacher collaboration

Teacher collaboration is indicated as a powerful support system. Peers are considered valuable sources of knowledge. Especially hesitant teachers express that peers could support and assist them to promote SRL and encourage them to question and possibly adjust their own SRL related convictions. Schunk (2012), indeed, explains how learning through peer observations provides instructional information and enhances motivation as the discovery of similarities that enable teachers to apply the newly acquired information to their own classroom practice.

Structural factors

Structural factors, such as time pressure, curriculum load, teaching material, assessment and infrastructure, play a role in the actual support of SRL in the classroom. It is important to note, however, that removal of **infrastructural barriers** does not automatically result in changes in teachers' pedagogical approach. For example, although smaller class groups may simplify classroom management or student monitoring, teachers do not necessarily start planning and teaching differently (Harfitt, 2012).

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[1] Special educational needs (SEN) teacher

Students

Age

In the study of Peeters and colleagues (2013) it is indicated that teachers especially support SRL when teaching 11 and 12-year olds, since they feel the urge to promote SRL in order to prepare pupils for the transfer to secondary education. Consequently, many teachers report that SRL in their school is promoted mostly in the final years of primary education. However, research evidenced that SRL can already be promoted in kindergarten (Bryce & Whitebread, 2012; Perels, Merget-Kullmann, Wende, Schmitz, & Buchbinder,2009), some teachers doubt their students' SRL capacities and believed SRL could only be stimulated from 3rd or 4th grade onwards since 1st and 2nd grade children were believed to have too little self-regulation capabilities. The study of Kurki; Järvenoja, Järvelä & Mykkänen (2016) showed that the development of self-regulation is built through teachers' co-regulation already in early education. The analysis of teacher's co-regulation strategies showed that teachers combine various co-regulation strategies in their education in order to regulate children's emotions and behaviour.

Abilities

In the research literature, teachers reported to provide different amounts of SRL opportunities to students depending on their **perceived cognitive and self-regulatory abilities**. Considering the effect of SRL strategies on academic performance and motivation (Cleary & Platten, 2013; Dignath & Büttner, 2008), low achieving students are faced with a double disadvantage. While experiencing difficulties due to lower cognitive and self-regulatory abilities, teachers themselves also appear to offer them fewer opportunities to develop effective SRL strategies. At the same time, teachers may be unaware of high achieving students' actual SRL capacities. Indeed, SRL and cognitive capacities are not one and the same and even strong students can display ineffective strategy use (Housand & Reis, 2008). Hence, it is advised to closely consider and support the SRL skills of all students, regardless of their initial cognitive and self-regulatory abilities.

Background

Students' **socio-economic and ethnic background** is also found to interfere with teachers' level of SRL promotion. There are to possible ways to cope with different backgrounds. Children from low socio-economic backgrounds often lack the necessary parental support and stimuli for their SRL development at home. Teachers consider children's SRL development a collaborative responsibility of teachers and parents. These teachers do not promote students' SRL due the students' home situation, that impeded or discouraged the teachers efforts, a lack of initial self-regulatory skills and/or a shortage of parental support for SRL development. On the other hand, teachers in the study of Peeters and colleagues (2013b) described how the socio-economic background of their pupils encouraged them to engage even more in SRL promotion activities. When they were confronted with their pupils' everyday reality and found the necessary parental support several teachers described how the socio-economic background of their pupils encouraged them to engage even more in SRL promotion activities.

2. The European Qualifications Framework

The European Qualifications Framework (EQF) is a European reference framework to make qualifications more readable and understandable across different countries and systems. The concept of a European Qualifications Framework for lifelong learning (EQF) was developed within the "Education and Training 2010" work programme of the European Commission. The EQF can be considered as a meta-framework overarching the European countries national qualifications frameworks that can serve as a reference for educational qualifications as outcomes of lifelong learning. The EQF provides a comprehensive overview over qualifications in the European countries. The EQF stimulates lifelong learning by enclosing all levels of qualifications acquired in general, vocational as well as academic education and training. Furthermore, the validation of non-formal and informal learning is facilitated.

The EQF is characterised by eight reference levels (descriptors), which are the core of this framework, defined in terms of learning outcomes. These are defined in terms of knowledge (theoretical or factual), skills (cognitive or practical), and wider competences – personal and professional, such as: autonomy and responsibility, learning competences, communication and social competences. The EQF very strongly emphasises the attribute of independence in the acquisition and execution of competences. The outcomes are specified on an eight-level scale reflecting stages in a lifelong learning process (ranging from completely dependent behaviour (i.e. dependencies on instruction and supervision) to complete independence and being a driver or innovator in the domain). We believe that this is a good fit for SRL, because of the self-management capacities that are intrinsic to it.

In the table below the EQF is presented. For each type of learning outcome related to a certain level a description is given.

Table 1: EQF

	Knowledge	Skills	Responsibility and autonomy
Level 1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others
Level 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
Level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Source: European Parliament and Council (2008), Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning, 7

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Integration of SRL competences in EQF

In the following section, the above described competences and attributes will be linked to and discussed with the EQF. The aim is to provide teachers, schools, and teacher educators with a framework defining more clearly the teacher level factors enabling them to support their students' SRL. Moreover, the framework tries to provide policy with recommendations to train teachers and teacher educators. Furthermore, in accordance with SLIDEshow's teacher educator training (O4), both outputs (O2 and O4) can offer policy and teacher education institutions the practical materials and tools to implement the recommendations into practice.

Firstly, an overview of the integration of the SRL practice framework in the EQF is given (see table 2). The same structure is used as the EQF framework, noting each level with corresponding skills, knowledge and context. Secondly, the competences and attributes are explained in detail for each level.

Overview of SRL competences in EQF

Table 2: SRL practice framework integrated in EQF

	Knowledge/Skills (declarative and procedural knowledge)	Context/Autonomy/Responsibility (conditional knowledge)
Level 1	- Knows the concept of SRL and how it works - Knows the basics of stimulating SRL in practice - Can explain SRL to others (teachers, students, parents, school principal etc.)	- Does not feel competent enough to stimulate SRL with students - Is not ready to give more responsibility to students - Knows the basics to stimulate SRL in a stable, familiar, simple and well-structured context - The teaching practice does not reflect SRL practices
Level 2	- Knows the concept of SRL, how it works and procedures to support SRL - Knows procedures and methods to support SRL in practice - Apply SRL support to a very limited extent - Applies prescribed strategies to support SRL - Own SRL skills are very limited	- Supports SRL in a limited number of comparable, simple, familiar contexts - Limited amount of responsibility for student - Rather low beliefs in own self-efficacy for SRL
Level 3	- Knows SRL on a more abstract level - Knows different SRL promoting techniques and methods - Able to experiment with SRL promotion methods - Able to choose, combine and apply techniques and methods to support SRL - Own SRL skills are limited	- Able to support SRL in comparable contexts in which a number of factors change - Students get more responsibility during learning and can be seen as active participants - Techers' self-efficacy beliefs are higher which enables him/her to experiment with or try new things
Level 4	- Knows SRL in broad contexts - Knows a broad spectrum of SRL support methods and how to apply it with their students - Recognizes SRL in practice (students/other teachers…) - Able to support SRL in broad contexts - Can apply SRL skills to the own teaching practice(planning, self-evaluation etc.) - Evaluates and integrates different methods to support SRL with students	- Can support SRL in changing contexts - Can support SRL autonomously with some initiative - Gives responsibility for learning to students - Feels competent to share SRL practices with others (teachers, school principal, etc.) - Asks help from others – collaboration
Level 5	Comprehensive, specialized, factual and theoretical (e.g., conceptual frameworks) knowledge of SRL and SRL support	- Able to support SRL in a range of new, complex contexts (e.g., unknown students) - Students can function autonomously

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	- Awareness of gaps in their knowledge - Creative in supporting SRL - Able to transfer knowledge and apply procedures flexibly and inventively - Able to review own methods and those of others	- Teachers feel competent to support SRL - Teachers take responsibility for personal outcomes
Level 6	- Advanced knowledge of SRL, involving critical understanding of theories, principles, methods and techniques - Able to critically evaluate and combine knowledge and insights of SRL - Advanced SRL skills (highly self-regulating) - Able to demonstrate mastery and innovation in promoting SRL in class	- Can promote SRL in complex, specialized contexts - High beliefs of own efficacy for promoting SRL - Students get full responsibility - Takes responsibility for professional development of individuals and groups regarding SRL promotion
Level 7	- Highly specialized knowledge, research critical awareness of knowledge issues in a field and at the interface between different fields, (e.g., SRL, teaching, technology use) - Able to integrate and reformulate knowledge and insights from different areas applicable to SRL (e.g. problem-based learning). - Apply complex, new skills, linked to autonomous, standardized research - Able to critically evaluate and apply complex, advanced and innovative SRL methods and techniques - Specialized SRL skills in order to develop new knowledge and methods to support SRL and to integrate from different field in teaching (e.g., parental SRL support at home)	- Able to support SRL in unpredictive, complex, specialized contexts which require new strategic approaches - Teachers give students full responsibility - High beliefs of own efficacy for promoting SRL - Take responsibility for contributing to professional knowledge and practice and for reviewing the SRL support of a team
Level 8	- Knowledge at the most advanced frontier of SRL and the interface with between related fields (e.g., problem-based learning etc.) - Able to interpret and create new knowledge and skills through (practice-based) research - Design and execute projects which expand and redefine existing procedural knowledge, aimed at the development of new skills, methods, techniques, practices and materials. - Advanced and specialized skills set: - synthesis and evaluation, required to solve critical problems in research and innovation - extend and redefine existing knowledge of SRL and the teaching practice	- Able to support SRL in very complex contexts with far-reaching innovative implications - Responsibility for development of the teaching practice and scientific research with a highly critical attitude and steering capacity - Is self-confident and thoroughly evaluates him/herself - Professional integrity, committed to develop new ideas, methods and techniques at the forefront of SRL promotion (including research, e.g., practice-based research).

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SRL competences by level

In the following section the specific knowledge, skills and context linked to teachers' SRL promotion competences is explained for each level.

Throughout all levels, teachers' beliefs, previous experiences and their motivation for teaching are a constant factor of influence on the attributes of SRL promotion. Furthermore, also school and student factors are notable aspects influencing each level of the framework (see Figure 2).
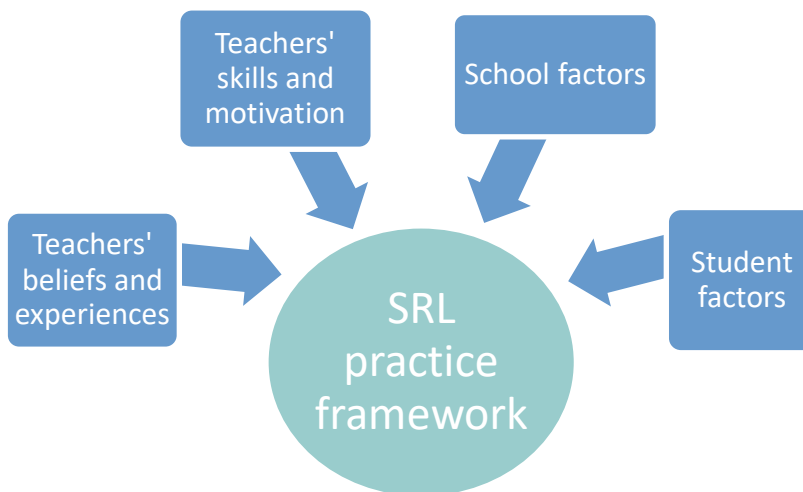

Figure 2: Factors of influence on the SRL practice framework

Level 1

The EQF mentions the basic knowledge of a person, in this case a teacher, achieving at level 1. Regarding the SRL practice framework, teachers at level 1 (see table 3) **know the concept of SRL,** they know what it means, the different phases (forethought, performance and self-reflection phase) and they can explain it to teachers, students and other school personnel.

They have a **basic knowledge of how to support SRL** with students, however, they do not know to implement is in practice or only know how to support it in a stable, well-known, simple environment. They do not have specific knowledge or skills to foster SRL with their

specific class. They do not pay (specific) attention to fostering SRL with their students and their teaching practice does not reflect SRL stimulation.

Teachers also does not feel really competent to stimulate SRL. Their own **self-efficacy beliefs** are still rather low. Additionally, also linked to teachers' self-efficacy beliefs and the above competences, the teacher is not fully ready to give more **responsibility to students** and trust them in taken up this responsibility and autonomy during learning.

Teachers at level 1 can be seen as **laggards** following Rogers (1971). Laggards are traditionalists and the last to adopt an innovation. They are fixated on the past, and all decisions must be made in terms of previous generations. Individual laggards mainly interact with other traditionalists (Rogers, 1971).

Table 3: SRL competences for level 1

	The level descriptors for level 1
Knowledge	• Knows the concept of SRL and how it works • Knows the basics of stimulating SRL in practice
Skills	• Can explain SRL to others (teachers, students, parents, school principal etc.)
Context	• Does not feel competent enough to stimulate SRL with students • Is not ready to give more responsibility to students • Knows the basics to stimulate SRL in a stable, familiar, simple and well-structured context • The teaching practice does not reflect SRL practices

Level 2

In general, teachers at level 2 (see table 4), know what SRL is and how to support it. Furthermore, they support it to a very limited extent.

More specifically, teachers at this level have a **more extensive knowledge of SRL** compared to teachers at level 1. Furthermore, they know **specific methods on how to support it**. They use this knowledge and apply it to a limited extent in their class. However, they only foster SRL in a **simple, familiar context**. They do also not expect much from the student and offer only restricted amount of responsibility to them.

Teachers at this level have only a **limited amount of SRL skills**. Nonetheless, these teachers feel competent to support SRL, but more specific knowledge on SRL support would increase these **self-efficacy l**evels.

Additionally, these teachers can be seen as part of the **late majority** (Rogers, 1971). The late majority are a sceptical group, adopting new ideas just after the average member of a social system. Their adoption may be borne out of necessity and in response to increasing social pressure. They are cautious about innovations and are reluctant to adopt until most others in their social system do. An innovation must definitely have the weight of system norms behind it to convince the late majority (Rogers, 1971).

Table 4: SRL competences for level 2

	The level descriptors for level 2
Knowledge	• Knows the concept of SRL and how it works in practice • Knows methods to support SRL in practice
Skills	• Apply SRL support to a very limited extent o Applies prescribed strategies to support SRL • Own SRL skills are limited
Context	• Supports SRL in a limited number of comparable, simple, familiar contexts • Limited amount of responsibility for student • Rather low beliefs in own self-efficacy for SRL

Level 3

At level 3 (see table 5), teachers know SRL and its **specific characteristics and key factors** and various methods to support it in practice. They know **different techniques/methods** to promote SRL and can apply it in diverse settings.

They are also able to **experiment with SRL promotion** techniques and are able to **choose, combine and apply methods** and techniques to support SRL. However, their own SRL skills are restricted.

Students in their class are **active participants** and receive a reasonable extent of responsibility for their learning. Teachers' self-efficacy to promote SRL is relatively high, in that sense, that the teacher dares to experiment with new methods.

Teachers at level 3 can be seen as part of the **early majority** category of Rogers (1971). Members of this early majority category will adopt new ideas just before the average member of a social system. They interact frequently with peers, but do not take lead positions. Their innovation-decision time is relatively longer than innovators and early adopters, since they deliberate some time before completely adopting a new idea (Rogers, 1971).

Table 5: SRL competences for level 3

	The level descriptors for level 3
Knowledge	- Knows SRL on a more abstract level - Knows different SRL promoting techniques and methods
Skills	- Able to experiment with SRL promotion methods - Able to choose, combine and apply techniques and methods to support SRL - Own SRL skills are limited
Context	Able to support SRL in comparable contexts in which a number of factors change

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	• Students get more responsibility during learning and can be seen as active participants • Techers' self-efficacy beliefs are higher which enables him/her to experiment with or try new things

Level 4

Level 4 (see table 6) reflects a **knowledge of SRL in broad contexts**. Moreover, the teacher knows a **broad spectrum of SRL support methods** and how to apply these with his/her students.

The teacher is able to **recognize SRL practices** in e.g., students and other teachers, also due to teachers' knowledge of SRL that becomes broader. He/she is also able **to evaluate and integrate different methods** to support SRL. The teacher also applies his/her own SRL skills to their teaching (e.g., make a plan, evaluate lessons …).

Additionally, the teacher is able to support SRL in **changing contexts** and the teacher gives students responsibility during learning. Furthermore, he/she feels competent of their SRL support knowledge and practices and is **capable to share** it with others.

As from this level, the teacher is also able to help other teachers in developing SRL practices and competences and can easily ask for help from others (e.g., teachers), which reflects a **collaborative approach** in teaching SRL support.

Following Rogers (1971), at this level a teacher can be seen as an **early adopter**. The early adopters are considered to be localists, versus the cosmopolite innovators. They provide advice and information sought by other adopters about an innovation. The early adopter is usually respected by his or her peers and has a reputation for successful and discrete use of new ideas (Rogers, 1971).

Table 6: SRL competences for level 4

	The level descriptors for level 4
Knowledge	• Knows SRL in broad contexts • Knows a broad spectrum of SRL support methods and how to apply it with their students
Skills	• Recognizes SRL in practice (students/other teachers…) • Able to support SRL in broad contexts o Can apply SRL skills to the own teaching practice(planning, self-evaluation etc.) • Evaluates and integrates different methods to support SRL with students
Context	• Can support SRL in changing contexts • Can support SRL autonomously with some initiative • Gives responsibility for learning to students • Feels competent to share SRL practices with others (teachers, school principal, etc.) o Asks help from others – collaboration

Level 5

Teachers at level 5 (see table 7) have a **comprehensive, specialised, factual and theoretical knowledge base of SRL** and are aware of what they don't know, or where to refine their knowledge and skills. They have **concrete** (e.g., SRL characterization), but also more **abstract knowledge** (e.g., conceptual SRL frameworks) of SRL.

In promoting SRL these teachers come up with **creative solutions**, they are able to **transfer** knowledge and apply techniques and methods **flexibly and inventively**.

Furthermore, linked to their own SRL skills, these teachers are able to **review** their own methods and techniques and those of others (e.g., other teachers). These teachers feel competent and take responsibility for their personal outcomes.

Additionally, there are able to support SRL in a range of **new, complex contexts** (e.g., with students they do not know). The student in their class get full responsibility and can learn autonomously.

The teachers at level 5 can also be seen as **early adopters** (Rogers, 1971; see above).

Table 7: SRL competences for level 5

	The level descriptors for level 5
Knowledge	• Comprehensive, specialized, factual and theoretical (e.g., conceptual frameworks) knowledge of SRL and SRL support • Awareness of gaps in their knowledge
Skills	• Creative in supporting SRL • Able to transfer knowledge and apply procedures flexibly and inventively • Able to review own methods and those of others
Context	• Able to support SRL in a range of new, complex contexts (e.g., unknown students) • Students can function autonomously • Teachers feel competent to support SRL • Teachers take responsibility for personal outcomes

Level 6

Continuing with level 6 (see table 8), where teachers have **advanced knowledge of SRL**, involving a **critical understanding** of theories, principals, methods and techniques. They are able to **evaluate and combine** their knowledge and insights of SRL to take it to a higher level. These teachers have an advanced set of skills, not only in being fully **self-regulating teachers**, but also by being able to **demonstrate mastery and innovation** in promoting SRL in the classroom.

Furthermore, these teachers are able to support SRL in **complex, specialized contexts** (e.g., different age groups). The students in their class are given trust and responsibility for learning.

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In addition, the teacher takes responsibility for **professional development** of individuals and groups of teachers. By guiding others, teachers at level 6 feel very competent to promote SRL and able to help others.

Additionally, as from this level the teacher can be seen as an **innovator** (Rogers, 1971). Innovators are eager to try new ideas. Innovators' interest in new ideas leads them out of a local circle of peers and into broader social relationships. Innovators have the ability to understand and apply complex technical knowledge. The innovator is also willing to accept the occasional setback when new ideas prove unsuccessful (Rogers, 1971).

Table 8: SRL competences for level 6

	The level descriptors for level 6
Knowledge	• Advanced knowledge of SRL, involving critical understanding of theories, principles, methods and techniques
Skills	• Able to critically evaluate and combine knowledge and insights of SRL • Advanced SRL skills (highly self-regulating) • Able to demonstrate mastery and innovation in promoting SRL in class
Context	• Can promote SRL in complex, specialized contexts • Students get full responsibility • High beliefs of own efficacy for promoting SRL • Takes responsibility for professional development of individuals and groups regarding SRL promotion

Level 7

Teachers at level 7 (see table 9) have a **highly, specialized, even research knowledge** on SRL and they show **critical awareness** of this knowledge in SRL and teaching in general.

These teachers are **self-regulated teachers** and able to **integrate and reformulate knowledge** and insights from different areas applicable to SRL (e.g., socially shared regulation of learning

(SSRL), technology enhanced learning etc.). They are able to apply **complex, new skills**, linked to autonomous research and are able to **critically evaluate and apply complex and advanced methods** and techniques to promote SRL.

These teachers are able to promote SRL in **unpredictable, complex, specialized settings**, that require **new strategic approaches** where they give their students full responsibility and autonomy for learning. These teachers are highly self-efficacious and take responsibility for contributing to **professional knowledge and practice of teams** and review SRL support methods and techniques of a team.

The teachers at this level can also be seen as **innovators** (Rogers, 1971; see above).

Table 9: SRL competences for level 7

	The level descriptors for level 7
Knowledge	• Highly specialized knowledge, research critical awareness of knowledge issues in a field and at the interface between different fields, (e.g., SRL, teaching, technology use)
Skills	• Able to integrate and reformulate knowledge and insights from different areas applicable to SRL (e.g. problem-based learning). • Apply complex, new skills, linked to autonomous, standardised research • Able to critically evaluate and apply complex, advanced and innovative SRL methods and techniques • Specialised SRL skills in order to develop new knowledge and methods to support SRL and to integrate from different field in teaching (e.g., parental SRL support at home)
Context	• Able to support SRL in unpredictive, complex, specialised contexts which require new strategic approaches • Teachers give students full responsibility • High beliefs of own efficacy for promoting SRL • Take responsibility for contributing to professional knowledge and practice and for reviewing the SRL support of a team

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Level 8

Teachers at the highest level, level 8 (see table 10), have an **advanced knowledge of SRL** and methods and techniques to support it in classrooms, they also have a **broad knowledge of other innovative teaching practices** and can relate SRL techniques to one another. Furthermore, they can **apply several techniques and methods in synergy**. These teachers are able to interpret and create new skills, knowledge, methods, techniques, practices and materials trough (practice-based) **research** and by designing and executing projects which **expand and redefines their existing procedural knowledge for SRL support**.

Their combination of research and taking initiatives provides them with an **advanced and specialized skills set**, able to synthesize and evaluate their methods and techniques, able to critically solve problems and extend and redefine their knowledge of SRL and the teaching practice as a whole.

Additionally, these teachers are able to support SRL in a series of **very complex contexts** with far-reaching innovative implications. They are very **self-confident** and evaluates him/herself and their used SRL promotion methods and techniques at all times. These teachers feel responsible for **development of the teaching practice** and scientific research with a highly critical attitude and steering capacity. In sum, these teachers are **innovators** at the highest level (Rogers, 1971; see above).

Table 10: SRL competences for level 8

	The level descriptors for level 8
Knowledge	• Knowledge at the most advanced frontier of SRL and the interface with between related fields (e.g., problem-based learning etc.)
Skills	• Able to interpret and create new knowledge and skills through (practice-based) research • Design and execute projects which expand and redefine existing procedural knowledge, aimed at the development of new skills, methods, techniques, practices and materials. • Advanced and specialized skills set:

	o synthesis and evaluation, required to solve problems in research and innovation o extend and redefine existing knowledge of SRL and the teaching practice
Context	• Able to support SRL in very complex contexts with far-reaching innovative implications • Responsibility for development of the teaching practice and scientific research with a highly critical attitude and steering capacity • Is self-confident and thoroughly evaluates him/herself • Professional integrity, committed to develop new ideas, methods and techniques at the forefront of SRL promotion (including research, e.g., practice-based research).

Conclusions

To conclude, this document contains an SRL practice framework entailing the most recent evidence relating to regarding effective ways to support student self-regulated learning (SRL). The SRL practice framework is composed of competences, qualities and attributes. Three main levels can be discerned: teacher, school and student level, all containing factors that have a significant impact on SRL promotion. Specifically on teacher level, research showed SRL promotion is affected by teachers' beliefs and previous experiences regarding SRL promotion and innovation in a broader sense, teachers' self-efficacy beliefs, their willingness and capability to give students responsibility for learning and trust students in using this autonomy, a good knowledge base of SRL and appropriate skills to for example model some SRL skills, a sufficient level of motivation to foster SRL in the teaching practice and being self-regulated learners themselves. However, the teacher does not work solo and is part of a bigger picture, the school. The school's policy on SRL and SRL promotion, the support of the school principal, the school climate regarding innovation and collaboration and other structural factors can affect teachers' SRL support initiatives. Next, also students' characteristics can have an influence, students' age, their cognitive and self-regulatory abilities and their background can play a part in teachers' SRL support practices.

Additionally, SLIDEshow has the intention to integrate scientific and policy materials to benefit practice, therefore, the SRL practice framework is linked to the EQF. The EQF is characterised by eight reference levels defined in terms of learning outcomes, i.e., knowledge, skills and wider competences. The SRL practice framework was integrated in the eight levels of competence described in the EQF. Conjoint the knowledge, skills and competences at all levels, teachers' beliefs, previous experiences and their motivation for teaching and the school and student factors are a constant factor of influence on the attributes of SRL promotion. The integration of the SRL practice framework in the EQF makes it possible for researchers, policy stakeholders, teacher educators and teachers themselves

to locate themselves within the framework. Additionally, it helps to evaluate what is going well and what aspects can be better.

At level 1, the teachers know the concept of SRL, but does not use it in their teaching practice. At level 2, the teacher knows what SRL entails and tries to support it in their class to a very limited extent. Teachers at level 3, knows what SRL entails on a more abstract level and they are able to foster SRL it in a limited way, for certain lessons and with familiar groups. At level 4, teachers know SRL in broad contexts and apply it for the majority of their teaching practice, however it mostly remains with the same method or technique, only some a little amount of imitative. Teachers at level 5 have a more specialised knowledge of SRL and SRL support and apply it in broad contexts, they also search (actively) for tips and methods for improvement. As from level 6, teachers have an advanced knowledge of SRL and can critically evaluate and combine their knowledge, they also have advanced SRL skills and can support it in complex, specialized contexts which require new strategic approaches. Teachers at level 7, similar with teachers at level 6, have a highly specialized knowledge and are able to integrate and reformulate knowledge and insights from different areas applicable to SRL (e.g. problem-based learning). They have also specialized SRL skills in order to develop new knowledge and methods to support SRL. And finally, teachers at level 8, the real innovators, are able to create own SRL techniques and methods, through a combination of research and initiative, promote SRL in a very broad range of (complex) settings and thoroughly evaluates the methods and techniques used.

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