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It’s not only about the teacher! A qualitative study into the role of school climate in primary schools’ implementation of self-regulated learning

Mona De Smul, Sofie Heirweg, Geert Devos and Hilde Van Keer

Department of Educational Studies, Ghent University, Ghent, Belgium

ABSTRACT

Teachers play a key role in the implementation of self-regulated learning (SRL). Nevertheless, research has found that SRL implementation in primary schools remains limited. This qualitative study investigates the role of school climate, the SRL implementation history, and the role of the principal school leader in the school-wide development of SRL implementation as an educational innovation. A comparative analysis between 2 successful and 2 less successful schools as to the implementation of SRL was carried out. Interviews were administered with 15 school members. The results reveal that successful SRL schools distinguish themselves by a shared vision, sufficient and focused opportunities for professional development, and regular collaboration and communication among colleagues resulting in a collective feeling of responsibility for SRL implementation. Moreover, this is influenced by the school's SRL development history and the supportive role of the school leader. The results underline the need for more school-wide interventions regarding SRL implementation.

ARTICLE HISTORY

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KEYWORDS

Self-regulated learning; primary education; school leadership; school climate

Introduction

In today’s 21st century society, the creation of knowledge increases exponentially. In this respect, the ability of students to respond flexibly and creatively to various changing contexts is of utter importance (James et al., 2007). Therefore, students need to learn to use learning strategies effectively, a practice that can be met through self-regulated learning (SRL) (Zimmerman & Schunk, 2001). SRL has gained attention because of its importance for lifelong learning (Costa Ferreira, Veiga Simão, & Lopes da Silva, 2015). Moreover, researchers agree that SRL is an important educational goal for students of all ages (e.g., Perry, 2013) in order to positively affect desired student learning outcomes (Dent & Koenka, 2016). In this respect, it is argued that students can already profit from effective SRL strategy instruction from primary school on (Donker, de Boer, Kostons, Dignath van Ewijk, & van der Werf, 2014).

The implementation of SRL in classrooms requires a redefinition of the role of the teacher as it involves giving students more control and responsibility for their own
learning (James & McCormick, 2009). This can be considered as a new way of thinking about learning and teaching, where the teacher takes on the role of a coach towards the students’ learning process (Bolhuis & Voeten, 2001). Hence, the process of SRL implementation can be considered as an example of an educational innovation in schools that needs to be encouraged by a supportive school climate (James et al., 2006). In this respect, principal school leadership can play a potential positive role in the facilitation of such a school climate and in the improvement of teacher performance, which in turn might promote student achievement (Day, Gu, & Sammons, 2016; Duby, 2006). However, it remains unclear how principal school leaders aid or hamper this process (Devos & Bouckenooghe, 2009).

Conceptual framework

SRL implementation

SRL refers to the “self-directive process by which learners transform their mental abilities into academic skills” (Zimmerman, 2002, p. 65). The concept of SRL has received a considerable amount of attention in educational psychology research (Boekaerts & Corno, 2005) and entails a considerable number of variables that influence learning (Panadero, 2017). However, the literature shows widespread agreement that SRL consists of three components: the cognitive, metacognitive, and motivational component (Panadero, 2017; Zimmerman & Schunk, 2001). Metacognition refers to skills that help students organize their own learning process such as planning, monitoring, and (self-)evaluation (e.g., Schraw, Crippen, & Hartley, 2006). Cognition refers to the use of learning strategies that help students process, use, and manipulate information more effectively, such as memorizing, rereading, and summarizing (Cornford, 2002). Finally, motivation deals with the emotions students encounter during the learning process that can affect this process positively or negatively, such as the willingness to initiate tasks and feelings of self-efficacy (Perry, 2013; Schraw et al., 2006). In Flanders (Belgium), SRL implementation in primary education is part of the national curriculum since 1997 through the cross-curricular targets “learning to learn”.

Unfortunately, not all students master SRL spontaneously (Boekaerts, 1997). Therefore, this should be fostered by teachers from primary school on (Dignath & Büttner, 2008). More specifically, the complexity and innovative nature of SRL implementation requires teachers to take on the role of a coach towards the students’ learning process (Bolhuis & Voeten, 2001). Teachers can do this in two broad ways. First, directly by teaching them a coherent repertoire of new information acquisition and reflection strategies (Paris & Paris, 2001). Second, teachers can also indirectly promote SRL by providing a powerful learning environment supportive for SRL that entails (a) the provision of complex and meaningful tasks, opportunities to (b) control challenge and provide choice to students, (c) differentiation, (d) student cooperation, and (e) the instalment of evaluation in the learning process (De Corte, Verschaffel, & Masui, 2004; Perry, 2013).

Notwithstanding the important role of the teacher in SRL implementation, studies have stressed that SRL implementation is not the sole responsibility of the individual teacher (Pedder, 2006; Peeters et al., 2014). SRL implementation requires a gradual and school-wide approach throughout the grades, also demanding professional learning from the
school as a learning organization (Muijs et al., 2014; Peeters et al., 2014). Unfortunately, SRL implementation in primary schools remains limited (Dignath, 2016). Therefore, it is important to gain more insight into what school-level characteristics might explain possible differences, as this topic remains largely unexplored. However, what is known is that a supportive school environment can buffer frequently mentioned barriers to SRL implementation, such as lack of time, work pressure, and student diversity (Vandevelde, Vandenbussche, & Van Keer, 2012). In what follows, we discuss important characteristics of the school climate that might contribute to a more supportive SRL environment.

**School climate supporting SRL implementation**

In the context of SRL implementation, not much is known about how the school climate can be supportive. Therefore, we draw from the research field that investigated the characteristics of a school climate that is supportive towards educational innovations. Devos and Bouckenooghe (2009) and James et al. (2007) highlight the following characteristics of a strong school climate for school innovation: (a) a unity in vision and relevant framework of policy, shared by all school members; (b) involving teachers in the school’s decision-making process; (c) formal and informal cooperation between teachers, which can also be referred to as the presence of professional learning communities (PLC’s) within schools; and finally (d) providing training opportunities in the form of professional development (PD). In what follows, we reflect on these characteristics in the context of SRL implementation as an educational innovation.

A shared SRL vision entails a clear sense of direction (James & McCormick, 2009), which is embedded in the school gradually across subjects and grades (Vandevelde et al., 2012). This is a key condition for school-wide SRL implementation for various reasons. First, a shared vision prevents that SRL practices in the school are unrelated and random because it shapes SRL initiatives in the same direction (James & McCormick, 2009). Second, the presence of an SRL vision increases discussion and collaboration among teachers (Peeters, 2015). Finally, this increased clarity about SRL practices and the fact that more dialogue and discussion is established, might explain why this shared SRL vision is found to be related to more SRL implementation in the classroom (Vandevelde et al., 2012). However, it should be taken into account that a shared vision requires teacher participating in the decision-making process (Pedder & MacBeath, 2008), which is another important prerequisite for increased discussion and collaboration among teachers (Peeters, 2015). Put differently, shared vision and participation in decision making are important conditions for SRL implementation because they foster dialogue and discussion. The establishment of dialogue and discussion, or the opportunity to share ideas as a community, is a key component in teacher learning (Shulman & Shulman, 2004). Research refers to this as the presence of a PLC, which strives to develop collaborative work cultures, where teachers can develop and learn, with the ultimate goal to teach students in the best possible way (DuFour, 2004; Lomos, 2012). More specifically, important characteristics of PLCs are (a) collective responsibility (i.e., shared responsibility among teachers to improve daily practice); (b) deprivatization of practice (i.e., teachers’ openly sharing each other’s teaching practice for feedback purposes); and (c) reflective dialogue (i.e., teachers communicating and discussing important educational issues) (Bryk, Camburn, & Louis, 1999; Lomos, 2012). In the context of SRL implementation, the establishment of PLCs working together as a team increases the
chance that SRL implementation will be more meaningful and long lasting (Perry, Brenner, & MacPherson, 2015). Finally, development of shared vision, establishment of participation in decision making, and PLC can be supported by effective professional development (PD). More recently, PD is evolving from a traditional approach (e.g., short fragmented workshops) to the understanding that teachers are not learning alone but in constant interaction with colleagues and school leaders (Muijs et al., 2014). In particular, PD on SRL has developed a growing interest in focusing on teachers and researchers working together (i.e., collective responsibility) towards reforming entire schools (Perry et al., 2015). According to literature, this PD should (a) consist of a focus on content knowledge; (b) allow opportunities for active learning; (c) show coherence with teachers’ beliefs and knowledge and the schools’ needs; (d) have a sufficient duration to allow in-depth discussion of content; and (e) include collective participation of teachers from the same school, grade, or subject (Desimone, 2009). In this respect, PD on SRL implementation with a focus on these characteristics has the potential to foster SRL implementation.

School leadership

School leaders have the responsibility to create a supportive school climate for teachers in view of reflecting on SRL implementation (James & McCormick, 2009). In this respect, it is important to (a) understand how and when the school leader was involved in the SRL implementation history and (b) how current school leadership enacts with SRL implementation. Being historically informed about the road that leads to a school’s current SRL implementation and the role of the school leader in that respect is very important to understand underlying incentives (Hargreaves & Goodson, 2006). SRL implementation is an educational innovation that takes considerable time to develop, calling for the collective engagement of all school members (Hilden & Pressley, 2007). Taking a retrospective perspective on SRL implementation is necessary as this gives more insight into why SRL implementation sustains in some schools and not in other schools (Hargreaves & Goodson, 2006). More concretely, changes in SRL classroom practice are preceded by changes in teachers’ knowledge, attitudes, and beliefs (Bakkenes, Vermunt, & Wubbels, 2010; Geijsel, Sleegers, van den Berg, & Kelchtermans, 2001), and a supportive school climate can accelerate this process (Hopkins, Stringfield, Harris, Stoll, & Mackay, 2014). Related to this, background characteristics of the school leader matter in the context of this retrospective approach. Is the school leader an experienced leader, selecting those leadership practices that a school needs in that particular moment of time (Day et al., 2016)? Or is the school leader unexperienced regarding the implementation of innovations? These aspects can certainly hinder or help a school in its progress towards SRL implementation. Theoretically, successful supportive school leadership cannot be grasped in a “one-size-fits-all” approach (Day et al., 2016; Devos & Bouckenooghe, 2009). Despite this, two models have frequently been put forward as leadership models resulting in success, namely, instructional and transformational leadership. While the latter emphasizes vision, with a focus on (re)designing the organization in order to improve the quality of teaching and learning through staff relations, the former is more about strong and goal-oriented leadership focused on curriculum and instruction with effective teaching and learning, preferably reflected in better student outcomes (Day
et al., 2016). However, research more recently concludes that successful implementation of innovations entails a leadership approach that is both instructional and transformational, where the school leader selects, clusters, integrates, and emphasizes those combinations of both instructional and transformational strategies that are needed at that certain time and for that specific purpose (Day et al., 2016).

**Purpose of the study**

Considerable research has tried to grasp the characteristics of successful implementation of innovations (e.g., Bryk et al., 1999). However, research about school climate fostering SRL implementation as an educational innovation in particular is scarce. Therefore, the current study investigated differences between successful and less successful schools regarding SRL implementation in order to understand how school climate, implementation history, and school leader characteristics can impact initiating and sustaining actual SRL implementation. In this respect, we compared the SRL practices of four case study schools, two schools with a high SRL implementation and two schools with a low SRL implementation. This study is innovative in the sense that little research, especially qualitative, has been conducted to study school differences regarding SRL implementation. Moreover, taking the SRL implementation history of the school into account is an understudied but much needed approach to better understand the strengths and pitfalls of each school in the implementation process. Therefore, an additional goal is to understand and identify the current stage of SRL development a school is in.

The following research questions are addressed:

1. To what extent do teachers implement SRL, and what are the differences between high and low SRL schools?
2. How does the school climate foster or hamper SRL implementation?
3. How is school leadership related to SRL implementation?
4. What is the role of the SRL implementation history in the actual realisation of SRL implementation?

**Method**

**Design**

A multiple case study design with purposeful sampling of extreme cases was carried out. Moreover, this study used a mixed-method research design since we combined both quantitative and qualitative research techniques into a single study (Johnson & Onwuegbuzie, 2004). This approach was opted for since we were interested in learning from successful cases regarding SRL implementation and at the same time in looking into troublesome examples to understand why things are not working out (Patton, 1990).

**School selection and data collection**

The present study is the qualitative follow up of a large cross-sectional survey on SRL implementation in primary schools. In this study, 44 Flemish (Belgian) schools were
invited to complete an online questionnaire about their SRL implementation. A total of 331 teachers from all grades completed the questionnaire. Permission was obtained using informed consent. The sample included 81.3% female and 18.7% male teachers. The average age was 38.7 years ($SD = 10.04$), ranging from 21 to 61 years. Teachers’ average educational experience was 16.4 years ($SD = 10.37$), ranging from 0 to 40 years. Only a small amount of questionnaires ($n = 7$) showed missing values (i.e., 1.9% of the gross total). Therefore, imputation was unnecessary. To assess SRL implementation in the questionnaire, we used the Self-Regulated Learning Inventory for Teachers (SRLIT; Lombaerts, Engels, & Athanasou, 2007). This scale measures teachers’ self-reported SRL implementation in the three phases of the learning process according to Zimmerman (2002), namely, the forethought phase, the performance control phase, and the self-reflection phase (exemplary item: “Students determine the order in which they complete their tasks”).

On the basis of the above-mentioned quantitative study, two groups of schools were selected: schools identified as strongly and coherently implementing SRL throughout primary school and schools with only limited or non-consistent emphasis on implementing SRL at school (i.e., aggregated scores of teachers who self-reported high/low SRL implementation). We first excluded schools wherein less than three teachers completed the questionnaire. Afterwards, aggregated mean scores on the scales measuring SRL implementation were calculated. For the intraclass correlations of a one-way analysis of variance (ICC), a cut-off score of .60 was used (Shrout & Fleiss, 1979). In this case, all the scales have an ICC above .60, which indicates that it is legitimate to speak of school characteristics. Afterwards, the schools were ranked, and we selected two schools from the highest average scores (first 25%) and two schools from the lowest average scores (last 25%). During this process, we also carefully selected schools based on contextual similarities in order to investigate whether school climate and/or principal school leadership, and not contextual background differences, could explain the evident quantitative differences in SRL implementation. In this respect, all selected schools are located in a small town with a mainly White and Dutch-speaking population of pupils. Table 1 showcases an overview of the case study schools.

We selected four case schools and contacted them via e-mail first and by telephone afterwards. All schools agreed to participate. We asked whether we could administrate semistructured interviews with the school leaders, two or three teachers from different grades, and optionally, if present, a SEN (i.e., special educational needs) coordinator or SEN teacher. The triangulation of different viewpoints of the school members helped to build a more objective and complete picture of the school. A total of 15 school members out of the four schools agreed to take part. Table 2 shows an overview of the demographic characteristics of the participants.

**Instrument and data analysis**

A semistructured interview protocol was developed for the purpose of this study. The interview focused on retrospective school trajectories, which go beyond school practice at one particular moment and allowed us to get a better insight into the school’s SRL implementation history. The interview started with a brief description of SRL using a bicycle metaphor by Lombaerts, De Backer, Engels, Van Braak, and Athanasou (2009) to
ensure that all teachers started with the same conception of SRL. The questions focused on several aspects of SRL implementation, vision, school leadership, collaboration processes, and PD (see Appendix 1).

Interviews lasted on average 1 hr each. All interviews took place on the same day in the school of the participants itself. This allowed us to get to know the school and its climate really thoroughly and gave us the opportunity to visit the classrooms and to screen all available SRL school documents.

All interviews were transcribed verbatim. This resulted in a total of 162 pages. A coding scheme was used to analyse the data (see Appendix 2). NVivo 11 was used to organize the data. Both within-case and cross-case analysis were executed (Miles & Huberman, 1994). First, each interview was categorised and coded thematically. These categories were mainly derived from existing SRL research on SRL, based on the conceptual framework described above: SRL implementation, school climate characteristics, and important

Table 1. Overview of the case study schools.

<table>
<thead>
<tr>
<th>High SRL implementation</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRL implementation&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>% at-risk students due to low socioeconomic and/or immigrant background</td>
<td>26.8%</td>
<td>24.2%</td>
</tr>
<tr>
<td>Number of primary teachers in school team</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>School network</td>
<td>Publicly financed school run by municipalities</td>
<td>Publicly financed school privately run</td>
</tr>
<tr>
<td>Alternative school</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participating school members</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low SRL implementation</th>
<th>School C</th>
<th>School D</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRL implementation</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>% at-risk students due to low socioeconomic and/or immigrant background</td>
<td>18.5%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Number of primary teachers in school team</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>School network</td>
<td>Publicly financed school run by municipalities</td>
<td>Publicly financed school privately run</td>
</tr>
<tr>
<td>Alternative school</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Participating school members</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: <sup>1</sup>The items of SRL implementation are measured with the Self-Regulated Learning Inventory for Teachers (SRLIT) (Lombaraerts, Engels, & Athanasou, 2007) on a 6-point Likert scale ranging from 0 (never) to 5 (always).

Table 2. Demographic characteristics of participants (n = 15).

<table>
<thead>
<tr>
<th>School</th>
<th>Position</th>
<th>Gender</th>
<th>Years of experience in current school</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>School leader</td>
<td>Male</td>
<td>2</td>
</tr>
<tr>
<td>School A</td>
<td>Teacher</td>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>School A</td>
<td>Teacher</td>
<td>Female</td>
<td>11</td>
</tr>
<tr>
<td>School A</td>
<td>SEN teacher</td>
<td>Female</td>
<td>15</td>
</tr>
<tr>
<td>School B</td>
<td>School leader</td>
<td>Male</td>
<td>26</td>
</tr>
<tr>
<td>School B</td>
<td>Teacher</td>
<td>Male</td>
<td>13</td>
</tr>
<tr>
<td>School B</td>
<td>Teacher</td>
<td>Female</td>
<td>11</td>
</tr>
<tr>
<td>School C</td>
<td>School leader</td>
<td>Female</td>
<td>2</td>
</tr>
<tr>
<td>School C</td>
<td>Teacher</td>
<td>Female</td>
<td>7</td>
</tr>
<tr>
<td>School C</td>
<td>Teacher</td>
<td>Female</td>
<td>4</td>
</tr>
<tr>
<td>School C</td>
<td>SEN coordinator</td>
<td>Female</td>
<td>3</td>
</tr>
<tr>
<td>School D</td>
<td>School leader</td>
<td>Female</td>
<td>17</td>
</tr>
<tr>
<td>School D</td>
<td>Teacher</td>
<td>Female</td>
<td>5</td>
</tr>
<tr>
<td>School D</td>
<td>Teacher</td>
<td>Female</td>
<td>6</td>
</tr>
<tr>
<td>School D</td>
<td>Teacher</td>
<td>Female</td>
<td>14</td>
</tr>
</tbody>
</table>
context variables (printed in bold in Appendix 2). Based on the data, each broad category was then broken down into subcategories during substantial reading and re-reading of the cases (these categories are the themes not printed in bold in Appendix 2). Cross-case analysis was performed where both cases representing the high SRL implementation schools were compared and contrasted to both cases representing the low SRL implementation schools.

All interviews were coded by the first author. A second coder (who was unfamiliar with the study) was trained to use the coding scheme and double coded 3 of the 15 interviews (20%). The intercoder reliability was .86, which is between the 80% to 90% range qualitative researchers agree upon (Saldaña, 2013).

Results

The present study selected four schools based on differences in SRL implementation. Schools A and B reported strong levels of SRL implementation, while Schools C and D reported low levels of SRL implementation. In further analysis, we will refer to these schools as “high SRL schools” and “low SRL schools”. Table 3 showcases an overview of the main study findings.

SRL implementation

In all schools, examples of stimulating different cognitive or metacognitive learning strategies in students were found. For example, in the low SRL schools, one teacher recently started using an existing educational method, named Cap’ten to encourage students to work out an ambitious project at their own level and pace (School C). Another teacher frequently used weekly planners in order to teach students how to plan (School D). In School B, a high SRL school, all students were given a list of assignments in the beginning of the week that they had to plan and finish independently by the end of the week, at their own pace. Examples of fostering motivational strategies were limited in all schools. Nevertheless, the nature of the strategies that were taught could not explain the differences in SRL implementation between high and low SRL schools. Rather, it was the way teachers applied strategies of SRL implementation that were agreed upon with the whole school team and developed consistently and coherently across grades, that was critical.

School climate characteristics

Vision

Substantial differences among schools were found when looking at the presence of a vision regarding SRL. In both School A and School B, a clear sense of direction was reflected in a well-known and shared SRL vision. In Flanders, all Flemish educational institutions are obliged to work towards a government-approved curriculum wherein target goals for all learning areas in education are set. However, these curricula also provide schools autonomy to include their own input and foci (Flemish Department of Education, 2014). School A started collectively using the SRL target goals in the government-prescribed curriculum and was working on shaping and refining the prescribed target goals to an SRL vision that reflected the pedagogical values of their school better: “The
### Table 3. Summary of the study findings.

<table>
<thead>
<tr>
<th></th>
<th>School A</th>
<th>School B</th>
<th>School C</th>
<th>School D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage of development</td>
<td>New SRL vision, continuing development</td>
<td>Embedded SRL vision, innovative school climate</td>
<td>No SRL vision, planned innovations</td>
<td>No SRL vision, no planned innovations</td>
</tr>
<tr>
<td>SRL implementation</td>
<td>Continuous development over all grades</td>
<td>Continuous development over all grades</td>
<td>Depending on individual teachers</td>
<td>Depending on individual teachers</td>
</tr>
<tr>
<td>SRL vision</td>
<td>Well known and shared</td>
<td>Well known and shared</td>
<td>No clear vision</td>
<td>No clear vision</td>
</tr>
<tr>
<td></td>
<td>Government-prescribed curriculum</td>
<td></td>
<td>Not shared</td>
<td>Not shared</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>Formalized teacher involvement in school decisions regarding SRL</td>
<td>Formalized teacher involvement in school decisions regarding SRL</td>
<td>Formalized teacher involvement in school decisions regarding SRL</td>
<td>Formalized teacher involvement in school decisions, but not regarding SRL</td>
</tr>
<tr>
<td></td>
<td>SRL working group with feedback to monthly staff meetings</td>
<td>Weekly staff meetings</td>
<td>Monthly staff meetings</td>
<td>Monthly staff meetings</td>
</tr>
<tr>
<td>Professional development</td>
<td>Focused on SRL Tool to ensure commonly agreed line in the school</td>
<td>Focused on SRL Tool to ensure commonly agreed line in the school</td>
<td>Not focused Dependency on individual teachers, with guiding from the school leader</td>
<td>Not focused Dependency on individual teachers</td>
</tr>
<tr>
<td></td>
<td>Obligatory commitment of the whole school team</td>
<td>Obligatory commitment of the whole school team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional learning community:</td>
<td>• Collective responsibility for SRL implementation</td>
<td>Strong sense of collective responsibility for SRL implementation</td>
<td>Moderate sense of collective responsibility for SRL implementation</td>
<td>Sense of individualism regarding SRL implementation</td>
</tr>
<tr>
<td></td>
<td>Few initiatives Reason: occurred at the beginning stage of SRL implementation, but not necessary anymore</td>
<td>Few initiatives Reason: mostly done with beginning teachers</td>
<td>Few initiatives Reason: mostly done with beginning teachers</td>
<td>Few initiatives Reason: resistance teaching team</td>
</tr>
<tr>
<td></td>
<td>• Deprivatization of practice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reflective dialogue (put in order of most to least discussed in their school)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School leadership</td>
<td>New school leader</td>
<td>Innovative school leader</td>
<td>New school leader</td>
<td>Hesitant school leader</td>
</tr>
</tbody>
</table>
structure [of the vision] is present, but I personally think that a personal school vision is yet to be established” (SEN teacher, School A). With the help of an innovative and enthusiastic school leader and with the involvement of the entire school team, School B was already a step further in the development of an SRL vision that reflected their values:

The vision is the result of a conference we organised ourselves. How will we tackle it [i.e., SRL]? What is the theoretical background? What will we do with this? […] What can we do in the classroom practice to promote SRL? (School leader, School B).

In School A, the vision reflects the following: “Giving children the chance to learn independently and be motivated to learn”, which is reflected in purposefully chosen practices throughout the grades such as the use of the same weekly planner for all pupils and reflecting with pupils on SRL targets. In the SRL vision of School B, great value is put on pupil involvement and motivation. This is reflected in practices such as agreed-on methods to differentiate (e.g., pupils in all classes are divided into three groups depending on their level for a certain subject, so they can work with or without additional help from the teacher depending on this) and a clear homework policy where independent work and planning is central.

Both School A and School B attached great importance to the continued development of their SRL vision as SRL-promoting activities occurred gradually across subjects and grades from the first grade to the sixth grade. For example, in School A all grades used a picture of a football goal on pupils’ desk to remind students of the importance of self-evaluation (“Did I reach my goal?”). In School B, students of all grades were expected to autonomously create a presentation for their fellow students on a topic of their own choice.

In contrast to the high SRL schools, School C and School D had no clear nor shared SRL vision. SRL implementation is considered to be the individual responsibility of the teacher: “I think every teacher does her own thing, there are no general agreements about who does what. Continuity? I don’t think there is” (Teacher, School D). In School C, there was no systematic approach regarding SRL implementation. A prescribed curriculum with targets regarding “learning to learn” was present in the form of a document, but not used and therefore not known by the teachers: “[about the curriculum] The teachers don’t know it. We did not work on SRL explicitly starting from that document yet. They have it as something to consult, but do not work on it systematically” (School leader, School C). In School D, one teacher asked the interviewer copies of the Flemish cross-curricular targets “learning to learn” that were brought to the interview, as she did not know them.

**Participation in decision making**

In all four schools, teachers felt involved when new decisions were made. There were staff meetings to talk about possible innovations in the school. With the exception of School D, SRL was regularly on the agenda. In School C, SRL development was still in its early stages, which explains the current lack of a shared SRL vision. Nevertheless, considerable effort had been made to set the stage for SRL development in the school by selecting an SRL coordinator and creating a working group.

With the exception of School B, all schools had monthly staff meetings. In School A and School C, a working group that specifically discussed the topic of SRL had additional
meetings. Nevertheless, these meetings did not take place on a recurring basis but in consultation with its members. In School B, staff meetings occurred weekly. The principal school leader even decided to end school days earlier for pupils so that the staff had more time to have these meetings.

**Professional development**

The way training opportunities were provided to teachers varied across schools. In School A and School B, a lot of PD for teachers was school based as the whole school team followed the same trainings. Also, the use of PD was embedded in a very focused way. In School A, it was important to the school leader that the staff of the school followed a commonly agreed line regarding the vision on SRL. Therefore, provided PD should fit this vision to avoid fragmentation: “We intentionally provide professional development on SRL or social sciences, which are the school’s foci for this year” (School leader, School A). Likewise, in School B, the school leader believed that PD is an important instrument to ensure that the school staff is on the same page. Therefore, the school team regularly attended the same training activities with the whole team. According to a teacher from School B, attending a training with the whole team “is very rich. We learned a lot and got a lot of tips. Everyone hears the same things at the same time. We also had a lot of fun, which is the most ideal scenario”.

In Schools C and D, teachers were free to attend any training or PD. In School C, the school leader tried to guide teachers to certain training opportunities but did not always get the desired outcome: “So I try to tell the teachers, if it’s hard, look for some professional development (…), but I hardly get any reaction, (…). There are always people saying: I don’t need it”. In School D, teachers got a document with a listing of all kinds of training opportunities, not specifically on a certain topic. Teachers chose according to their personal interests. The school leader was very positive about this:

> I think it’s a benefit that not all teachers learn and work more on the same topic. One teacher is better at this, the other at that. Because in the end, students always have another teacher each year, one with music as its strength, and another with mathematics as its strength.

**Professional learning community**

According to the data, the schools differed regarding PLC characteristics.

**Collective responsibility.** In Schools A and B, teachers stated that all school members of all grades felt collectively responsible for the implementation of SRL. On the contrary, in Schools C and D, teachers seemed to work more individually on SRL implementation: “I don’t know what they do in sixth grade. I do know that they work on ‘learning how to plan’ for homework, but in a different way than me. She works more with the school’s diary”(Teacher, School D). Nevertheless, in School C, SRL implementation was slightly more discussed and aligned among colleagues that teach in the higher grades.

**Deprivatization of practice.** Overall, initiatives regarding deprivatized practice were scarce in all schools. Only in School B, teachers sometimes opened their classroom doors to share ideas with other teachers. Time restrictions and practical feasibility were mentioned as important reasons why opening the classroom doors for colleagues is
hard to do. However, in School D, one teacher believed that the school members would show resistance if actions of deprivatized practice would occur on a more regular basis.

**Reflective dialogue.** According to the data, teachers in all schools regularly communicated with each other in an informal way. Regarding SRL specifically, these conversations were about teaching activities, sharing ideas and materials implementation, and PD. However, it was mainly in the high SRL schools that this dialogue regarding SRL implementation occurred in formal staff meetings at agreed times. For instance, in School B, the school leader organized regular conferences regarding important educational topics in which teachers reflect together on the implementation of the discussed issues. Contrarily, in School D, the topic was only formally addressed in staff meetings when this was accidentally mentioned or put forward. In School C, SRL implementation was put on the agenda for the following school year and therefore not present in the daily teacher conversations yet.

**School leadership**

Based on abovementioned results, the stage of SRL development can be situated on a continuum (see Figure 1). In the four case study schools, a different role of the school leader was present.

In the low SRL schools, all school members revealed that no SRL vision was present. Additionally, there was no history regarding SRL implementation. However, the role of the school leader in these schools was profoundly different. This is related to the future steps in the SRL development of the schools. In School D, teachers indicated that vision development regarding SRL was necessary while the school leader did not acknowledge this need. Yet, she felt that SRL is implicitly implemented in all grades. Regarding initiating SRL more, the school leader was very hesitant and not planning to change anything immediately: “You have to take things slow, you can tell them you’re the boss and it is going to go this way, this automatically leads to resistance” (School leader, School D). Contrary to School D, School C had a new school leader. Moreover, due to this switch and a bad inspection report for SRL implementation, some preliminary steps were being made by the new principal: “Our previous school leader communicated no vision whatsoever, some documents were copied but no one knew the content of these. Nobody knew why we did things the way we did. While our school leader now is really working on that” (Teacher, School C).

The high SRL schools were in different stages of SRL development. Similar to School C, School A had a new school leader and a negative inspection report on their execution of the cross-curricular targets “learning to learn”. Consequently, the school leader immediately decided to make SRL implementation a priority. In order to do this thoroughly, the

![Figure 1](image-url). Stages of SRL development and the role of the school leader.
school leader developed a monitoring system. Teachers had to document all the strategies about their SRL practices weekly. These documents then became the starting point for further vision development and explain why the staff was still looking to fine-tune their current vision. School B can be situated one stage further in this vision development, with a long history of SRL implementation. SRL implementation was inherently part of the climate and always a priority in the minds of both the principal school leader and the teachers. The school leader had a strong vision on education. He approached educational innovations systematically and brought these in line with the vision the school wanted to portray. Comparable to School B, his decisions entailed some obligations which collided with teachers’ habits at first. However, he believed that you cannot realize change without some resistance at first. In the end, people would come around when they see the value of it.

Discussion and conclusion

The aim of the present study was to identify differences between two high and two low SRL schools in primary education. Interviews with 15 school members revealed that school conditions such as a shared vision, PD, collaboration and communication among colleagues, and the history of the school regarding SRL implementation are especially important in this respect. Moreover, the findings confirm that the school leader plays an essential role in establishing this. This is in line with previous findings from James and colleagues (2007) suggesting that the most important prerequisite for SRL implementation is building a climate that creates the structures needed that make SRL implementation “a way of thinking and being” in the whole school, not an individual responsibility.

First, it was found that all teachers mentioned some nice examples of how they stimulate the use of different SRL strategies in pupils. This is somewhat surprising considering the large quantitative differences regarding self-reported SRL implementation. However, this can be explained by the fact that SRL is considered an umbrella learning principle so that teachers could at least find some examples of how they do promote this (Lombaerts, Engels, & Vanderfaeille, 2007; Panadero, 2017). Overall, compared to fostering cognitive and metacognitive strategies, examples of fostering motivational strategies were limited in all schools. This might be due to the fact that teachers do not immediately think about motivational strategies when considering SRL.

Second, this study found that SRL implementation is largely supported by a school environment where partnership, communication, collaboration, and participation in the form of establishment of a shared vision and a strong PLC takes a central stance. To be more concrete, high SRL schools distinguish themselves by: (a) a shared and well-known SRL vision that consistently develops over all grades; (b) the embedding of PD for teachers in a focused way; (c) teachers reflecting more about the way SRL is implemented in school, both formally and informally; and (d) all teachers feeling collectively responsible for SRL implementation. Moreover, these conditions are all connected to each other, as the presence of one can more easily result in the occurrence of another (see Figure 2). In particular, this study confirms previous research stating that school members formally discussing and reflecting on SRL collaboratively is an important prerequisite for a shared SRL vision (Pedder & MacBeath, 2008; Peeters, 2015). For educational practice, this implies that the establishment of formal structures, such as
weekly staff meetings, is an important first step in facilitating more dialogue among colleagues. In this respect, it is important that priority is given to conversations regarding vision development and the implementation of SRL, and in a lesser extent to practical issues, such as bus arrangements, student meals, and the distribution of supervisions at the student playground. The latter could be arranged more efficiently, for instance, using digital appointments where the staff is notified about these things. Furthermore, this study found that high SRL schools with an SRL vision present have a stronger sense of collective responsibility regarding SRL implementation and also discuss SRL practices more informally (e.g., in the teacher room or in between classes). School leaders in the high SRL schools believe this collective responsibility is strengthened by the PD initiatives teachers attend, which are SRL focused. In the end, these conditions strengthen each other and lead to more SRL implementation in class (Duby, 2006).

Third, in order to accurately develop the abovementioned school climate characteristics, this study stresses the importance of a school leader supportive of SRL implementation as an actor who influences the school climate (see Figure 2). It can be argued that less autonomy is given to the teachers in the high SRL schools. It might feel like this focused approach creates a tension between school leadership and characteristics such as active participation of teachers through reflective dialogue and the establishment

**Figure 2.** How school climate, SRL history, and principal school leadership are related to SRL implementation.
of a shared vision. However, we believe that in the high SRL schools, the school leaders carefully payed attention to leadership activities related to both instructional and transformational leadership (Day et al., 2016). On the one hand, leaders of the high SRL schools showcased instructional leadership by being very goal oriented. They knew in what direction they were heading regarding the school’s vision and had specific expectations for the students. Therefore, they only chose PD for teachers focused on what would complement that vision and in this way made sure all teachers were steering in the same direction together. On the other hand, the school leaders of the high SRL emphasized transformational leadership characteristics by also providing teachers with the necessary time to reflect about SRL implementation, in order to achieve a vision all staff members agree upon. For instance, School B formally established this by ending the school day for the pupils earlier, so more time can be devoted to meaningful teacher deliberation about pedagogical didactics. In the low SRL schools, school leadership probably still lacks the goal orientedness that stems from instructional leadership, creating a climate where teachers do feel content and heard, hence the reason why in all schools teachers feel like they can participate in the decision-making process. However, without a focused goal, these schools are not yet steering into a shared direction. This is especially the case in School D. In summary, it is recommended for educational practice that school leaders pay attention to transformational and instructional leadership strategies that are important for SRL implementation and flexibly combine and apply those strategies according to the development of SRL implementation (Day et al., 2016).

Finally, the present study illustrates the relevance of a school’s history to understand the current teaching practice. We have found that School B, which is most advanced in the implementation of SRL, originally initiated this innovative practice through the school leader who had a strong vision on SRL from the start of the cross-curricular targets “learning to learn” in 1997. School A does not have that long history and started after a negative inspection report on SRL practice. It is clear that external impulses can also stimulate innovation in schools, as long as the school leader supports this innovation in the long term, so that school processes like reflective dialogue and professional development systematically focus on this change in teaching practice. In School C, there was also a negative inspection report on SRL practice, but this initially did not change the school’s teaching practice. This changed after a new school leader came into place, who started to pay attention to the systematic implementation of SRL in the school. Our analysis shows the importance of the succession of different school leaders in a school’s history for the way in which an innovation, in this case SRL, is implemented and how it can contribute or hamper the institutionalization of the innovation. This historical perspective is an added value to the research on school improvement, and should be considered in future research.

The present study has several limitations, which should be considered for future research. A first limitation is related to the case study design. Here, the small sample size implies that our findings cannot be generalized to all primary schools, neither to schools of other educational levels. In order to get a more complete picture, future research should investigate a larger amount of schools from different educational levels. However, we would still recommend the mixed-method design. From the quantitative data, we distinguished two high and two low SRL schools. However, it is only due to deeper qualitative analysis that nuances were added to the story of each school as we
learnt that differences were more context specific and dependent on their former implementation history.

Second, the case study selection is based on the assessment SRL implementation using the SRLIT (Lombaerts, Engels, & Athanasou, 2007), which is measured from the perspective of the teachers. This has two drawbacks. First, there might be a gap between what teachers say they do in the classroom and what they actually do. Therefore, complementary observations to gain insights into actual classroom practice could be very useful and advisable to include in future research. Second, the voice of the school leaders, who can provide a different perspective on SRL implementation in school practice, is absent. However, as teachers apply SRL implementation in various different ways, it is more likely that the variation is captured better in teacher reports (Supovitz, Sirinides, & May, 2010). Nevertheless, it would be interesting if future studies involve the voice of the school leader more profoundly and potentially contrast this with the voice of the teachers. Furthermore, regarding the characteristics of the schools in the case study selection (see Table 1), two important differences need to be addressed. First, it appears that both high SRL schools are characterized by a small school size, while the low SRL schools are slightly larger. This is an advantage for the high SRL schools, as small school size would facilitate communication and collaboration among teachers, which is beneficial for the implementation of educational innovations such as SRL (Boyd, 1992; Bryk et al., 1999). Therefore, we should acknowledge that this context factor attributed to a smoother SRL implementation in the high SRL schools. It would have been interesting to study the differences between high and low SRL schools with the same school size. Unfortunately, our initial dataset did not consist of small low SRL schools that were willing to participate in this study. Second, regarding the percentage of at-risk students, higher percentages are found in the high SRL schools. On the basis of this, we could hypothesize that more at-risk students would mean that the schools need to be more innovative and coherent in their approaches to pedagogic innovation. However, it is found that, when faced with a lot of at-risk students and students with different socioeconomic and/or immigrant backgrounds in the school, teachers are less likely to implement SRL (Vandevelde et al., 2012). For instance, language challenges might complicate SRL implementation and teachers sometimes question the advantage of SRL for students with learning disabilities (Peeters, De Backer, Kindekens, Triquet, & Lombaerts, 2016). Therefore, we argue that more research is needed to further investigate the impact of at-risk students on SRL implementation.

Third, the focus on SRL implementation does not provide a complete picture of the role of the school leader in the broader context of implementing educational innovations. For instance, with the help of the new school leader, School C was very successful in implementing a new vision on evaluation together with a new evaluation system. However, regarding SRL implementation, a coherent policy and clear vision had yet to be established. So, despite School C being a low SRL school at the specific time of the interviews, the school had a strong leader, willing to implement an SRL vision step by step. Fourth, this study was restricted in time. It would be interesting to conduct a follow-up study to investigate whether schools evolved in their SRL implementation, such as School C, which had these intentions. As we learnt, SRL development is a long-term process. It might be possible that, one year later, this school can already be considered a strong SRL school.
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Notes on contributors

Mona De Smul, PhD, is a doctoral researcher at the Department of Educational Studies, Ghent University (Belgium). Her research focus is on the school-wide implementation of self-regulated learning in primary education.

Soﬁe Heirweg is a doctoral researcher at the Department of Educational Studies, Ghent University (Belgium). Her research focus is on self-regulated learning of upper primary school children.

Geert Devos, PhD, is professor at the Department of Educational Studies, Ghent University (Belgium). He leads the research centre Bellon, which studies educational policy and leadership in schools.

Hilde Van Keer, PhD, is professor at the Department of Educational Studies, Ghent University (Belgium). Her main research interests include innovative teaching methods in education, self-regulated learning, and language didactics.

ORCID

Mona De Smul http://orcid.org/0000-0002-0880-3620
Soﬁe Heirweg http://orcid.org/0000-0002-1536-4857
Hilde Van Keer http://orcid.org/0000-0002-9819-4864

References


Boyd, V. (1992). School context: Bridge or barrier to change. Austin, TX: Southwest Educational Development Laboratory.


Appendix 1. Semistructured interviews

A. Semistructured interview (teacher questions)

0. General introduction

We would like to gain some insights into the way self-regulated learning is implemented in your school. First, we will talk about you as a teacher and your practice. Second, we would like to focus on the role of SRL implementation in the school.

Before this interview, we would like you to read our understanding of self-regulated learning using the following bicycle metaphor and the curricular targets “learning to learn” that resemble the practice self-regulated learning.

(These descriptions are present during the interview and can be read again if desired.)

1. Background information

a. What is your function in this school?

b. How long have you been in this function?

c. How many years have you worked at this school?

d. What schooling degree do you have?

e. Could you describe the context and the population of students present at this school?

2. Classroom practice

a. Explain how self-regulated learning is implemented in your classroom practice.

   i. Can you give concrete examples on how this is done?

   ii. Can you give concrete examples of how you stimulate the cognitive, metacognitive, and motivational component of self-regulated learning?

   iii. Do you explicitly or implicitly teach strategy instruction?

   iv. Describe the environment of your classroom and how this aids self-regulated learning with concrete examples (e.g., group work, activation of prior knowledge, stimulating active learning, evaluation practices).

b. How is self-regulated learning evaluated in your classroom practice?

c. How do you work with individual differences among students regarding self-regulated learning?

3. School leadership, policy, and vision


   i. Is it important?

   ii. Is it a priority at your school? Why?

   iii. If it is not a priority: What is currently the priority of this school regarding teaching and instruction?

b. Explain in what way your school leader does or does not support the implementation of self-regulated learning in your school.

c. Can you describe the current school vision regarding self-regulated learning?

   i. If yes: Can you explain with concrete examples how this is manifested in your school?

   ii. If no: Do you think self-regulated learning should be implemented in the school’s vision? How would you do this?
d. Does your school leader give concrete feedback regarding how you implement self-regulated learning (e.g., classroom visits)? If not: Do you feel the need to and how would you like to see this change?

e. Do your colleagues give concrete feedback regarding how you implement self-regulated learning (e.g., classroom visits)? If not: Do you feel the need to and how would you like to see this change?

f. Can you describe how professional development is implemented in order to stimulate the development of self-regulated learning? If not available: What kind(s) of professional development would you embed in the school?

4. Challenges and difficulties
   a. What challenges still remain regarding the implementation of self-regulated learning?
   b. What obstacles hinder you to implement self-regulated learning in the classroom and/or at the school level?
      i. Obstacles related to colleagues?
      ii. Obstacles related to students?
      iii. Obstacles related to parents?
   c. What is your future vision regarding self-regulated learning?
   d. Do you feel resistance regarding the implementation of self-regulated learning? If not: Can you explain why your team is so motivated to work on self-regulated learning?

5. Implementation history
   a. When did your school start implementing the “learning to learn” targets?
   b. What were the first initiatives regarding self-regulated learning in this school? Who was involved?
   c. What was the main reason to start the implementation of self-regulated learning in your school? Do these reasons still apply?
   d. What initiatives did not survive? For what reasons?
   e. Is there anything else you would like to add?

B. Semistructured interview (school leader questions)

0. General introduction

We would like to gain some insights into the way self-regulated learning is implemented in your school. First, we will talk about you as a school leader. Second, we would like to focus on the role of SRL implementation in the school.

Before this interview, we would like you to read our understanding of self-regulated learning using the following bicycle metaphor and the curricular targets “learning to learn” that resemble the practice self-regulated learning.

(These descriptions are present during the interview and can be read again if desired.)

1. Background information
   a. For how many years have you been a school leader?
   b. How many years have you worked at this school?
   c. Have you had any other functions?
   d. What schooling degree do you have?
   e. Could you describe the context and the population of students present at this school?

2. School leadership, policy, and vision
      i. Is it important?
      ii. Is it a priority at your school? Why?
      iii. If it is not a priority: What is currently the priority of this school regarding teaching and instruction?
   b. Describe your role as a school leader regarding the implementation of self-regulated learning.
   c. Can you describe the current school vision regarding self-regulated learning?
1. Questions
   a. If yes: Can you explain with concrete examples how this is manifested in your school?
   b. If no: Do you think self-regulated learning should be implemented in the school’s vision? How would you do this?

d. Explain your role as a school leader in supporting the implementation of self-regulated learning in your school.
   i. What concrete initiatives regarding self-regulated learning are currently present in your school? What concrete materials are used? Which grades are involved?
   ii. Do you give concrete feedback regarding how you implement self-regulated learning (e.g., classroom visits)?
   iii. Can you describe how professional development and resources are employed in order to stimulate the development of self-regulated learning? If not present: Which resources would you like to address?
   iv. Do you believe there is a stronger need for more professional development regarding self-regulated learning? Do you believe teachers are willing to attend professional development regarding self-regulated learning?
   v. Is self-regulated learning a regular topic at formal and informal meetings? How often take these place? How do you stimulate conversation regarding self-regulated learning?
   vi. How is the implementation of self-regulated learning evaluated at the school level?

3. Challenges and difficulties
   a. What challenges still remain regarding the implementation of self-regulated learning?
   b. What obstacles hinder you to implement self-regulated learning in the classroom and/or at the school level?
      i. Obstacles related to colleagues?
      ii. Obstacles related to students?
      iii. Obstacles related to parents?
   c. What is your future vision regarding self-regulated learning?
   d. Do you feel resistance regarding the implementation of self-regulated learning? If not: Can you explain why your team is so motivated to work on self-regulated learning?
   e. Describe how you manage to anchor and institutionalize innovations (such as self-regulated learning) in your school? How do you cater to possible resistance regarding teachers?

4. Implementation history
   a. When did your school start implementing the “learning to learn” targets?
   b. What were the first initiatives regarding self-regulated learning in this school? Who was involved?
   c. What was the main reason to start the implementation of self-regulated learning in your school? Do these reasons still apply?
   d. What initiatives did not survive? For what reasons?
   e. Is there anything else you would like to add?

Appendix 2. Coding scheme

<table>
<thead>
<tr>
<th>Code</th>
<th>Code description</th>
<th>Quote example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background information</td>
<td>Background information: age, function, experience, educational background, etc.</td>
<td>/</td>
</tr>
<tr>
<td>School context</td>
<td>Information about the school context (i.e., student population, geography, etc.)</td>
<td></td>
</tr>
<tr>
<td>School climate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRL vision</td>
<td>Does the school have a clear/shared SRL vision that entails a gradualness and</td>
<td>The structure [of the vision] is present, but I personally think that a</td>
</tr>
<tr>
<td></td>
<td>continuity of SRL implementation across different subjects and grades?</td>
<td>personal school vision is yet to be established.</td>
</tr>
</tbody>
</table>

(Continued)
Continued.

<table>
<thead>
<tr>
<th>Code</th>
<th>Code description</th>
<th>Quote example</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRL policy</td>
<td>Does the school have a clear/shared SRL policy document?</td>
<td>I think every teacher does her own, there are no general agreements about who does what, and continuity? I don't think there is.</td>
</tr>
<tr>
<td>Priorities</td>
<td>What are the current school priorities regarding teaching and instruction?</td>
<td>As mentioned, last year we worked on social sciences and we made clear agreements, and this year we have worked on implementing it.</td>
</tr>
<tr>
<td>Future plans</td>
<td>In which direction is the school going regarding SRL implementation?</td>
<td>I expect to see more cooperative methods that the pupils themselves indicate what they want to learn.</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>Do innovations that are introduced in the school last and why is this?</td>
<td>Because we talk about everything, in the breaks there is a lot of discussion about what happens in the classroom or the problems that are going on with students.</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>Do the teachers feel involved in the decision-making process of important school matters (e.g., innovations)?</td>
<td>Yes, always, if there is a working group meeting, we make sure that one teacher of each grade is present.</td>
</tr>
<tr>
<td>Professional development</td>
<td>The way the school embeds PD for SRL implementation.</td>
<td>We intentionally provide professional development on SRL or physics, which are the school’s focus for this year. So I try to tell the teachers, if it’s hard, look for some professional development (…), but I hardly get any reaction (…) There are always people telling: It’s not necessary for me.</td>
</tr>
<tr>
<td>PD on SRL</td>
<td>The way the school embeds PD for SRL implementation.</td>
<td></td>
</tr>
<tr>
<td>PD in general</td>
<td>The way the school embeds PD in general.</td>
<td></td>
</tr>
<tr>
<td>Expectations towards PD</td>
<td>Expectations school members have towards PD.</td>
<td>An ideal in-service training is very concrete. That teachers can go back to their classroom with materials and say: “That was fun and I want to try this out now”.</td>
</tr>
<tr>
<td>Teacher collaborations (PLC)</td>
<td>How (frequently) teachers have informal collaborations with their colleagues.</td>
<td>We have a very open culture, we talk a lot with each other, we all have a very close relationship with each other and we share a lot. We have a workgroup, and all workgroup meetings are discussed at staff meetings.</td>
</tr>
<tr>
<td>Working together with colleagues (informal)</td>
<td>How (frequently) formal collaborations in the school are organized.</td>
<td>We have a workgroup, and all workgroup meetings are discussed at staff meetings. Yes, in the past we attended each other’s classes, and we also attended a specific class about learning to learn.</td>
</tr>
<tr>
<td>(Organisation of) formal collaborations</td>
<td>How (frequently) classroom doors are opened for observations and teacher learning.</td>
<td>We have a workgroup, and all workgroup meetings are discussed at staff meetings. Yes, in the past we attended each other’s classes, and we also attended a specific class about learning to learn.</td>
</tr>
<tr>
<td>Deprivatisation of practice</td>
<td>How (frequently) classroom doors are opened for observations and teacher learning.</td>
<td>We have a workgroup, and all workgroup meetings are discussed at staff meetings. Yes, in the past we attended each other’s classes, and we also attended a specific class about learning to learn.</td>
</tr>
<tr>
<td>Context variables</td>
<td>What does the school leader do to stimulate SRL implementation in the school and in classroom practice?</td>
<td>You have to take things slow, you can tell them you’re the boss and it is going to go this way, this leads automatically to resistance. Yes, I try to do that [giving feedback], I’m a fan of Hattie myself so I always try to explain to my teachers what really matters, what really affects the learning of the children.</td>
</tr>
<tr>
<td>School leadership</td>
<td>Providing feedback</td>
<td>Does the school leader provide specific feedback to teachers about their (SRL) classroom practice? In 2006 we actually started with SRL implementation, then we has a large-scale conference at our school and a smaller school.</td>
</tr>
<tr>
<td>Equipping and encouraging teachers to implement SRL</td>
<td>History of SRL implementation</td>
<td>Information about how, when (and if) the school started implementing SRL. In 2006 we actually started with SRL implementation, then we has a large-scale conference at our school and a smaller school.</td>
</tr>
<tr>
<td>Implementation of SRL</td>
<td>Obstacles and difficulties</td>
<td>What obstacles or difficulties does the school encounter regarding SRL implementation? Especially that it is still something new, that is the biggest stumbling block for me at the moment.</td>
</tr>
</tbody>
</table>
Continued.

<table>
<thead>
<tr>
<th>Code</th>
<th>Code description</th>
<th>Quote example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classroom practice and direct instruction:</strong></td>
<td>Examples of learning activities to teach cognitive learning strategies.</td>
<td>For instance, reading comprehension and studying and teaching learning strategies is very important to us.</td>
</tr>
<tr>
<td><strong>Cognitive learning strategies</strong></td>
<td>Examples of learning activities to teach metacognitive learning strategies.</td>
<td>We work very goal oriented. So the pupils know beforehand: This is what the lesson is about and this is our goal, this is what we want to achieve in the end. Then there is a moment of reflection.</td>
</tr>
<tr>
<td><strong>Metacognitive learning strategies</strong></td>
<td>Examples of learning activities to teach motivational learning strategies.</td>
<td>I have a box with Smurfs and if the pupils worked hard or if they have been good all day, they can take a Smurf that can stand on their desk for the rest of the day.</td>
</tr>
<tr>
<td><strong>Motivational learning strategies</strong></td>
<td>Examples of learning activities that are more general and/or not directly associated with SRL.</td>
<td>So for example, there has been an anti-bullying campaign.</td>
</tr>
<tr>
<td><strong>Other didactic learning strategies</strong></td>
<td>Examples of learning activities that are more general and/or not directly associated with SRL.</td>
<td>Not always, sometimes but not always. There are also assignments where I simply say “just try!” without explanation and then look at the problems they encounter.</td>
</tr>
<tr>
<td><strong>Explicit instruction</strong></td>
<td>Do teacher explicitly teach SRL strategies?</td>
<td>Not always, sometimes but not always. There are also assignments where I simply say “just try!” without explanation and then look at the problems they encounter.</td>
</tr>
<tr>
<td><strong>Powerful learning environment:</strong></td>
<td>Do teachers give open, authentic, complex tasks?</td>
<td>For example, we used to show a forest on the smart board and indicated everything. Now we actually go and pupils have to identify and determine everything. Then you see pupils who have other talents who flourish.</td>
</tr>
<tr>
<td><strong>Complex tasks</strong></td>
<td>Do teachers provide choice to students?</td>
<td>Last year pupils were allowed to choose. But with this class, it’s not possible because their social skills are not quite right.</td>
</tr>
<tr>
<td><strong>Providing choice</strong></td>
<td>Are tasks adapted to the level of the students?</td>
<td>Of course I differentiate in quantity. When you know some pupils are a bit faster and others are a bit slower. In that way.</td>
</tr>
<tr>
<td><strong>Differentiation</strong></td>
<td>Do students get the chance to work together?</td>
<td>Yes, of course, but it depends on the activity. I try to do this with the pupils every day. That should not always be in groups of four or six. But a lot of the time they do partner work or work with team leaders.</td>
</tr>
<tr>
<td><strong>Student collaborations</strong></td>
<td>How are students evaluated on their use of SRL strategies?</td>
<td>For example for the week goals, it is described in their evaluation report if the goal is achieved or not. The goal now is about planning and organizing lessons and tasks, if I notice that it was not ready in time, I will write it all down.</td>
</tr>
<tr>
<td><strong>Evaluation SRL</strong></td>
<td>How are students evaluated in general?</td>
<td>The fifth and sixth grades are the only grades where they have to learn for tests for a theme or a project. In the other grades it is just learning and checking off when they know it, but no tests.</td>
</tr>
<tr>
<td><strong>Evaluation (general)</strong></td>
<td>Does the school evaluate the school-wide implementation of SRL?</td>
<td>All the grades make an overall evaluation about what has been done during the past school year in a team meeting. But SRL has not yet been addressed there.</td>
</tr>
</tbody>
</table>