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Using self-assessment to enhance self-regulated learning – an intervention study in a Finnish lower secondary school

Highlights

- The emphasised use of self-assessment enhances students' perceptions of self-regulated learning.

- The level of reflection in ninth graders' self-assessments is low.

- More attention to supporting reflection and learning to learn is required.

Abstract

The aim of this intervention study was to explore how the emphasised use of self-assessment in Swedish language classes affects ninth graders' perceptions of self-regulated learning and their self-assessments in Finland. The dataset includes the survey responses of 36 students and their written self-assessments. The results suggest that the quality of the self-assessments increased during the intervention, although the level of reflection was still superficial. The students exhibited more positive perceptions of their skills in self-regulated learning at the end of the intervention. The results indicate that incorporating self-assessment into teaching boosts students' perceptions of self-regulated learning and enhances the quality of their self-assessments. Swedish language teachers should consider the extent to which they use self-assessment in courses and whether their practices could be adjusted to promote reflection and self-regulated learning.

Keywords: self-regulated learning, self-assessment, teaching of Swedish

1   Introduction

The purpose of this intervention study was to explore whether the emphasised use of self-assessment in Swedish classes in the ninth grade enhances students' perceptions of self-regulated learning (SRL) and students' written self-assessments. Put differently, the perceptions and the self-assessments were explored from the perspective of learning Swedish as a second language. Self-assessment is a key component of SRL (Hosseini & Nimehchisalem 2021), and self-assessment is a formative assessment practice that basic education (grades 1–9) teachers in Finland are expected to use (FNAE 2014). SRL is a key aspect of learning in Finland as the national curriculum for basic education in Finland (FNAE 2014) accentuates the importance of SRL. At the end of basic education, students are expected to develop their skills in learning to learn, lifelong learning, problem solving, and SRL (FNAE 2014).

A study by Mäkipää (2021) examined students' and teachers' perceptions of self-assessment and teacher feedback in enhancing SRL in general upper secondary education. Otherwise, the relationship between SRL and foreign language teaching and particularly learning Swedish has not been mapped. However, to some extent the role of SRL has been considered in Finnish studies on novel forms of language teaching such as language portfolios (e.g. Kohonen & Korhonen 2007), classroom tandem pedagogy (e.g. Hansell et al. 2013) or distance learning (e.g. Kotilainen 2015). Moreover, Theobald's (2021) meta-analysis showed that SRL training programs foster university students' motivation, SRL strategies and academic performance. However, from teachers' perspectives, it is still unclear how they can stimulate students' SRL effectively (Dignath & Veenman 2020). To map how teachers can enhance SRL, more research is needed in heterogeneous student groups (Dignath & Veenman 2020). Because effective learners are self-regulated (Butler & Winne 1995) and metacogni-

tive processes of SRL correlate notably with academic performance (Dent & Koenka 2016), it is essential to explore SRL. Therefore, we conducted an intervention study to examine the relationship between self-assessment and SRL. We sought answers to two research questions in this paper: (1) How does the emphasised use of self-assessment enhance ninth graders' perceptions of SRL? (2) How does the emphasised use of self-assessment enhance ninth graders' self-assessments?

2   Theoretical background

2.1   Self-regulated learning

According to Hadvin et al. (2018), SRL means that students take metacognitive control of conditions related to emotions, motivation, behaviour, and cognition. They simultaneously plan for actions as well as monitor and evaluate their progress (Hadvin et al. 2018). In essence, SRL refers to working systematically to attain learning goals through sustaining and activating affects and cognitions (Schunk & Greene 2018). After careful evaluation and monitoring, self-regulated learners are cognizant of their motivation, beliefs, and knowledge (Butler & Winne 1995). Self-regulated learners use an array of strategies to attain their goals (Theobald 2021) and are committed to attaining the goals (Zimmerman 1989). In short, self-regulated learners are active and have control over their learning (Zimmerman 1998) as they modify and generate their actions, feelings, and thoughts (Andrade 2010). Self-regulated learners are also proficient users of self-assessment and peer assessment (Nicol & Macfarlane-Dick 2006).

Several models of SRL have been proposed. Although they underscore various components of SRL, scholars acknowledge that SRL involves monitoring and controlling motivation, cognition, behaviour and the environment (Efklides 2011). In other words, becoming a self-regulated learner is not attained solely by personal processes, as students are also affected by environmental and behavioural factors reciprocally (Zimmerman 1989). Therefore, teachers' role in solidifying SRL is indispensable (Norrena 2019). For example, if teachers plan collaborative learning tasks that require student responsibility and provide optimal challenge, teachers can activate SRL (Järvelä et al. 2016). As SRL is related to motivation and therefore is not necessarily a static feature in each student, teachers can also encourage students to use motivational learning strategies and to regulate emotions (Oxford 2017). When planning instruction of strategies, teachers should consider the context and its affordances in order to stimulate engagement (Oxford 2017). This also accentuates the need for context-specific research concerning SRL.

If designed accordingly, SRL interventions can accelerate learning (Panadero 2017). Jansen and colleagues' (2019) meta-analysis indicated that SRL interventions

foster students' achievement and engagement, although the effect sizes were smaller when compared to previous meta-analyses. When planning intervention studies in secondary education, models focusing on metacognitive theories promote learning more compared with primary education (Dignath & Büttner 2008), such as the model proposed by Efklides (2011). Her MASRL model (The Metacognitive and Affective Model of SRL) includes two levels: the Person level and the Task x Person level. The Person level involves traits and characteristics formed in prior learning occasions, such as volitional, affective, motivational, metacognitive and cognitive characteristics. These traits affect decisions on engagement with tasks and are considered to be top-down self-regulation. At the Task x Person level (bottom-up), students process the task. The basic functions of this level are cognition, metacognition, affect, and regulation of affect and effort (Efklides 2011).

2.2   Self-assessment

In SRL, the key catalyst is feedback (Butler & Winne 1995), and the feedback can be provided by a teacher, a peer or the student (Nicol & Macfarlane-Dick 2006). Self-assessment refers to "a descriptive and evaluative act carried out by the student concerning his or her own work and academic abilities" (Brown & Harris 2013: 368). This definition emphasises both performance and development (Hosseini & Nimehchisalem 2021). Self-assessment promotes autonomy and focuses on the process (learning) instead of the product (results) (Dickinson 1987). If used efficiently, self-assessment practices boost learning (Brown & Harris 2013; Li & Zhang 2021) and SRL (Brown & Harris 2013; Nicol & Macfarlane-Dick 2006).

Self-assessment and SRL can be considered to be complementary processes that can improve students' achievement (Andrade 2010). To assist learning with self-assessment, students need a clear rubric and training in how to use the rubric and the criteria (Li & Zhang 2021). Moreover, in her meta-analysis of 76 empirical studies on student self-assessment, Andrade (2019) highlights that self-assessment is most beneficial, in terms of both achievement and self-regulated learning, when it is used formatively and is supported by training. However, Finnish research suggests that training on self-assessment and guidance on using the criteria is inadequate in foreign language teaching (Mäkipää 2021).

In foreign language teaching, the ability to assess one's learning and performance is indispensable (Dickinson 1987). Many recent studies (e.g. Jamrus & Razali 2019; Qasem 2020; Jin 2021) indicate that language learners' self-assessment can successfully develop students' second language learning ability. However, professional training and valid assessment tools are necessary for helping students effectively use self-assessment as an SRL method (Jin 2021).

3 Methodology

3.1 Participants

The participants of this study were 36 ninth graders from two classes in Finland. They were a convenience sample and were studying Swedish as a B1 language. The classes had 39 students but three did not participate in the study. In terms of gender, 19 students were boys, 14 students were girls, and three were non-binary. Thirteen students were 14 years old, and 23 students were 15 years old. The students' previous course grades are displayed in Table 1.

TABLE 1:   Students' previous Swedish grades.

Grade	Number of students
6 = fair	2
7 = satisfactory	5
8 = good	5
9 = very good	11
10 = excellent	9
do not remember	4

Note: students in Finnish lower secondary schools are graded from four (fail) to ten (excellent).

As displayed in Table 1, most students' previous Swedish grades were higher than average students' grades in general. Only seven students had grades lower than eight (good).

3.2 Context of the study

Since autumn 2022, the compulsory education in Finland consists of nine years of basic education (grades 1 to 9) and three years of upper secondary or vocational education. In addition, there is pre-primary education for one year, from age six to seven, which has been compulsory since 2015 (see FNAE 2021).

The distribution of lesson hours in basic education totals to a minimum of 224 lesson hours, meaning that the students average 24.9 lesson hours per school week. Studying compulsory languages comprises 24 lesson hours, of which 18 go to the advanced syllabus (A1 language), and six to the intermediate level syllabus (the B1 language).

There are no external examinations in basic education in Finland, as the grades in all school reports are based on teachers' assessments. The only external, high-stakes examination in the Finnish school system is the Matriculation Examination, which the upper secondary students take at the end of their studying (see e.g. Pollari, Salo & Koski 2018).

The students begin their A1 language studies in the first grade and the B1 language in the sixth grade at the latest. In addition, a student may select an optional third language (A2) that begins, at the latest, in the fifth year and an optional fourth language generally starting in the 8th grade of basic education. The compulsory language starting in the 6th grade is the second national language (either Finnish or Swedish) unless the student is already studying this as their A1 or A2 language. In basic education, the intermediate level syllabus in Swedish (B1-Swedish) usually stars in the sixth grade and comprises six lesson hours in four academic years, two of them in grade 6 and four divided between grades 7–9.

3.3   Content of the intervention

The intervention was conducted in autumn 2021 with two groups of ninth graders (n=36). The students had 12 Swedish lessons, 75 minutes each, and self-assessment issues were touched upon either in the form of tasks, exercises, homework or discussions in each lesson (see Appendix 1).

In lesson 1, the students filled in a self-assessment grid which consisted of can-do statements based on the criteria for the final assessment in basic education. They also set the goals for their Swedish lessons for the autumn. In lesson 2, the students answered the self-assessment survey for the first time. In lesson 3, the class discussed self-assessment skills, i.e., what self-assessment is, how and why it is undertaken and how the students can benefit from it when they are studying. After this introduction to the theme of the intervention, the students were immediately to put the theory into practice by doing a self-assessment task after an oral exercise. As homework, the students were given a task in which they were to use the present perfect to describe what they had done in the past week. The students were supposed to record and upload the task on the group's learning platform before the next lesson. The homework task was accompanied by a self-assessment task in which the students were to assess their oral skills and reflect on their study habits.

The students were supposed to submit the homework tasks before lesson 4. Only 20 students out of 36 did that in time, 13 students handed in the tasks late and three did not submit the tasks at all. Nevertheless, the students discussed the tasks in pairs or small groups, followed by a brief discussion led by the teacher. In general, the students regarded them as meaningful. In lesson 5, the teacher gave general oral feedback on how the students had managed both the oral task and the self-assessment task. In Lesson 6, the students did an oral task in which they interviewed each

other in Swedish. The task was preceded by a brief introduction on what communication strategies could be used when executing the task. After the task, the teacher conducted a "thumb vote" on how the students succeeded in the task. About a third put their thumbs up, about a half wagged their thumbs up and down, and the rest put their thumbs down.

In lesson 7, the students did a mid-term assessment of the goals they had set at the beginning of the autumn term and updated them when necessary. After lesson 8, the students were given a read-aloud exercise as homework. They were to read aloud a text that they had previously listened to and studied as a reading comprehension exercise. The homework exercise was accompanied by a self-assessment task in which the students were to assess their oral skills and study habits (a modified version of the previous one, including assessment on the pronunciation of certain words in the text they were to read). The students were supposed to submit the homework tasks before lesson 9 (14/36 students submitted in time, 17/36 were late, and 5/36 did not submit it at all). Also, this time, the class discussed the tasks in pairs or groups, followed by a discussion led by the teacher, and once again, the students regarded the tasks as meaningful.

In lesson 10, the teacher gave general oral feedback on how the students had managed the oral task focusing on how pronunciation affects comprehensibility (the main assessment criterion) and how factors such as sentence stress affect it. In lesson 11, the students did an oral alias task, preceded by a brief introduction to production strategies. Thereafter the teacher conducted a thumb vote on how the students succeeded in the task. About one fifth of the students put their thumbs up, about 60 per cent wagged their thumbs up and down, and one fifth put their thumbs down. In lesson 12, the students answered the self-assessment survey for the second time.

The intervention was based on rigorous research (Dignath & Büttner 2008; Efklides 2011; Nicol & MacFarlane-Dick 2006; Panadero 2017). According to Dignath and Büttner (2008), SRL interventions are more successful if group work is implemented with older students, such as secondary students, who were the target group of our intervention. Metacognitive reflection is also a key issue in SRL interventions, and reflection was present in our research design (Panadero 2017). The teacher also provided feedback on students' self-assessments and tasks, which is recommended by Nicol & MacFarlane-Dick (2006). Strategy use was also practised diversely (Dignath & Büttner 2008). For ethical reasons, no control group was used in this study. According to the guidelines of the national core curriculum (FNAE 2014), self-assessment practices are a focal aspect of every subject, and they should be incorporated into all teaching. Therefore, using a control group without self-assessments would contradict the requirements of the curriculum and the Basic Education Act.

All the students participated voluntarily and anonymously in this intervention. The students signed a written consent form and received a privacy notice prior to

starting the intervention. Research permission was sought from the headmaster to conduct research at the school.

3.4   Data analysis

The data used in this study comprised students' survey responses (n=36, n=30) and written self-assessments (n=30, n=26), both conducted twice. However, it should be noted that not all students answered the survey or handed in the self-assessments twice, which affects the interpretation of the results. Due to the small number of participants, the non-parametric Mann-Whitney U test was used to compare students' survey responses. The survey included 25 items about SRL (Norrena 2019), and these items had specifically been designed for lower secondary students. However, some of the wordings were altered slightly. The items were divided into five groups: planning, working, choices, assessment, and environment (Norrena 2019). The students responded on a scale from one (I completely disagree) to five (I completely agree). As the number of participants was low, factor analysis was not suitable. Instead, the items were explored one-by-one. However, Cronbach's alpha was used to ensure the reliability of the analysis. The alpha values were as follows: planning ($\alpha = .81$), working ($\alpha = .77$), choices ($\alpha = .80$), assessment ($\alpha = .81$), and environment ($\alpha = .63$). The values were fairly high except for environment.

In terms of the students' self-assessments, deductive content analysis with the SOLO (Structure of the observed learning outcome) taxonomy (Biggs & Tang 2011) was used. The taxonomy encompasses five levels: prestructural, unistructural, multistructural, relational, and extended abstract. These levels are described in Table 2.

TABLE 2:   Five levels of the SOLO taxonomy (Biggs & Tang 2011).

Level	Description
prestructural	misses the point, lacks knowledge or understanding
unistructural	is able to mention one issue
multistructural	is able to mention several issues but misses greater connections
relational	is able to integrate concepts, shows understanding
extended abstract	is able to reflect and hypothesise, goes beyond the task

As described in Table 2, at the lowest level, students are not able to perform the task and might try to cover that by using tautology, but gradually, students acquire a more detailed understanding and skills for reflection (Biggs & Tang 2011). The SOLO taxonomy can be regarded as being a hierarchy aimed at increasing knowledge

(unistructural – multistructural) and to deepen understanding (relational – extended abstract) (Biggs & Tang 2011). The minimum age groups for the base stage for the higher levels are 13–15 years (relational) and 16+ years (extended abstract) (Biggs & Collis 1982). It was to be expected that few students from our intervention would reach the extended abstract level, whereas the relational level should be attainable for everyone, as the participants were about 14–15-year-old students.

The self-assessments were assessed using the levels of the SOLO taxonomy. The first author assessed the levels independently, after which the analysis was discussed and confirmed with the second author. The students answered the same questions twice: (1) "Which issues are easy for you in speaking Swedish?", and (2) "Which issues are difficult for you in speaking Swedish?" Students' oral proficiency was chosen for the self-assessment because the national core curriculum emphasises oral proficiency (FNAE 2014). Even though the use of oral exercises is prevalent in foreign language teaching in Finland, students are rarely given adequate support and the exercises are fairly often insufficiently intertwined with overall objectives of communicative language proficiency (Bovellan 2020; Hildén et al. 2014). Thirty students handed in the self-assessment at the beginning of the intervention, and 26 at the end of it. According to the teacher who oversaw the intervention, the students who did not hand in the self-assessments have difficulties in submitting course work and often fail to meet deadlines. This needs to be considered in the interpretation of the results as they might be slightly different if the weaker students had submitted the assignments on time.

4   Results

First, the students' responses to the online survey are shown (RQ 1). Second, the students' self-assessments at the SOLO taxonomy levels are discussed (RQ 2).

4.1   Students' perceptions of self-regulated learning

Using the Mann-Whitney U test, the students' perceptions of SRL were explored. The results are displayed in the five groups employed by Norrena (2019). The means of the responses were primarily higher at the end of the intervention (21 items, 84%), but most of them were not statistically significant. Only statistically significant differences have been reported here.

4.1.1 Planning
The students' perceptions of planning their work are illustrated in Table 3.

TABLE 3:   Students' perceptions of planning their work.

	first responses		second responses	
	M	S.D.	M	S.D.
1. The expression "well begun is half done" describes how I work.	3.39	1.05	3.16	1.07
2. I choose a specific tactic or a strategy for doing tasks.	3.11	1.17	3.64	1.04
3. When I start to do a task, I ponder what went wrong previously or at what I succeeded, based on which I plan my work.	3.00	1.12	3.44	1.04
4. When I start to do a task, I ponder what challenges I might encounter and how I can overcome them.	3.03	1.21	3.44	1.23
5. I plan my work before starting to do tasks (in the lesson).	2.81	1.06	2.92	1.00

Note: M = mean, S.D. = standard deviation

As Table 3 illustrates, the students mostly pondered their strategy use, challenges, and accomplishments when they were doing tasks. Nevertheless, the actual planning of working seemed to be incomplete. The difference in the fourth item was almost statistically significant (p = .064).

4.1.2 Working
The students' perceptions of working are illustrated in Table 4.

TABLE 4: Students' perceptions of their work.

	first responses		second responses	
	M	S.D.	M	S.D.
1. I focus on the tasks instead of doing something else.	3.47	1.21	3.72	0.98
2. I try to start working as quickly as possible and then try to react accordingly.	3.50	1.08	3.84	1.07
3. In group work, I take the initiative instead of just doing what I am asked to do.	3.47	1.14	4.04	0.98
4. I make use of group members' contributions and strengths.	3.78	0.90	4.20	0.71
5. When I am doing more comprehensive tasks, I stop for a moment to ponder what the goal was.	3.11	0.95	3.72	0.89

As Table 4 highlights, most students had an active role in group work, and they used peers' strengths to deepen learning and working. The students also pondered the goals of tasks and were able to focus on the tasks. Statistically significant differences were detected in the third item, $U(N_{beginning}=36, N_{end}=30,) = 322.00$, $z = -1.997$, $p = .047$), and in the fifth item $U(N_{beginning}=36, N_{end}=30,) = 293.500$, $z = -2.430$, $p = .014$). The effect sizes ($\eta2$ = partial eta squared) were medium (.07 and .10, respectively). The fourth item was near the cut-off value of a statistically significant difference ($p = .066$).

4.1.3 Making choices
The students' perceptions of making choices are illustrated in Table 5.

TABLE 5: Students' perceptions of making choices.

	first responses		second responses	
	M	S.D.	M	S.D.
1. I can name another perspective from which I could do the task.	3.78	0.87	3.52	0.77
2. I am intrinsically motivated to do tasks.	3.06	1.19	3.16	0.94

	first responses		second responses	
	M	S.D.	M	S.D.
3. I try various work methods to find the most suitable way to learn.	3.56	0.97	3.84	0.85
4. I want to improve myself during the tasks instead of merely trying to finish the work quickly.	3.36	1.20	3.72	0.84
5. I try various learning tools to find the most suitable one for the situation.	3.22	1.10	3.52	1.05

As shown in Table 5, the students were able to name perspectives and work methods to accommodate learning. They were also interested in developing their skills. In terms of motivation, the students were somewhat intrinsically motivated to learn.

4.1.4 Assessment
The students' perceptions of assessment are illustrated in Table 6.

TABLE 6:   Students' perceptions of assessment.

	first responses		second responses	
	M	S.D.	M	S.D.
1. After the task, I usually think about what surprised me or what new things I learned.	3.03	1.00	3.40	0.96
2. After the task, I reserve time for pondering how I succeeded.	2.61	1.05	2.80	1.12
3. I ask others to provide me with feedback on my work.	2.47	1.32	2.24	1.17
4. After the task, I separate the things at which I succeeded and the things that I could have done better.	3.03	1.03	3.32	1.11
5. After the task, I ponder whether my goal was challenging enough.	3.11	1.06	3.36	0.76

Table 6 shows that the students mostly pondered their actions and progress after undertaking the tasks. They also considered the goals. However, the students did not opt for peer feedback, and they did not reserve time for pondering how they had succeeded after the task.

4.1.5 Learning environment

The students' perceptions of the learning environment are illustrated in Table 7.

TABLE 7:   Students' perceptions of the learning environment.

	first responses		second responses	
	M	S.D.	M	S.D.
1. We decide the rules for our working principles together.	4.03	0.65	4.00	0.87
2. I ponder how the environment affects my working.	3.11	1.17	3.36	1.04
3. The atmosphere when I am working is usually confidential and safe: I feel good.	3.69	1.09	4.16	1.03
4. I know from where and how I can get help during a task.	4.03	0.88	4.44	0.77
5. I usually have peaceful working conditions.	3.72	1.06	3.80	1.08

As Table 7 depicts, the environment seemed to support student' SRL. The students pondered the effects of the environment on learning, and they received support from the learning environment. The environment also seemed to promote peaceful working conditions. The differences in the third (p = .076) and fourth (p=.057) items were close to being statistically significant.

4.2   Students' self-assessments

Using the SOLO taxonomy, deductive content analysis was used to analyse the students' self-assessments concerning the second research question. The students' levels are displayed in Table 8.

TABLE 8:   The levels of students' self-assessments.

Unchallenging issues in speaking Swedish

level	at the beginning (n=30)	at the end (n=26)
prestructural	12	4
unistructural	18	22

Challenging issues in speaking Swedish

level	at the beginning (n=30)	at the end (n=26)
prestructural	7	-
unistructural	14	16
multistructural	9	10

As displayed in Table 8, most students were at the unistructural level regarding un-challenging issues. All the students at the prestructural level answered that they did not know what was unchallenging for them. At the unistructural level, most students found pronunciation, short words, and familiar words to be unchallenging for them in speaking Swedish. Furthermore, the number of students at the prestructural level was lower at the end of the intervention, and the number of students at the unistructural level increased.

In terms of challenging issues, most students were at the unistructural level. At the prestructural level, the students were unable to pinpoint difficult issues in speaking Swedish. At the unistructural and multistructural levels, most students considered pronunciation, long words, and difficult words to be challenging for them. Grammatical issues (e.g. word order and word inflection) were mentioned by a few students. Furthermore, none of the students were at the prestructural level at the end of the intervention, and the number of students at the unistructural and multistructural levels increased.

When comparing unchallenging and challenging issues in speaking Swedish, it is apparent that the students were able to list more issues that were challenging for them. Moreover, pronunciation was one of the most common responses in both unchallenging and challenging issues.

5   Discussion

In the Finnish context, this is the first study focusing on SRL and self-assessment in learning Swedish at the lower secondary level. This is also the first intervention study set in Finland that focuses on second language learning and SRL. Therefore, this study enhances our knowledge of SRL by detailing how the emphasised use of self-assessment contributes to fostering SRL in the context of second language learning. Regarding the first research question, the quantitative results show encouraging results: over 80% of the means increased towards the end of the intervention. To paraphrase, the intervention affected students' perceptions of SRL positively although the intervention was short. However, the number of statistically significant differences was low. Previous research has emphasised that SRL interventions are more successful if group work (Dignath & Büttner 2008) and metacognitive reflection (Panadero 2017) are implemented in the intervention. Our results concur with those recommendations.

The intervention affected students' perceptions of working the most. After the intervention, the students were more active in group work and pondered the goals while working. However, the results also indicate some challenges in fostering SRL. The means of the assessment items were lower than the means of the other items. In particular, it seems that students do not seek peer feedback or reserve time after the task for pondering on it. These results are not surprising as formative assessment practices in foreign language teaching in Finland are not common (Mäkipää 2021). In essence, the results suggest that more attention needs to be paid to enhancing peer feedback practices and reflection after the task.

The second research question focused on students' written self-assessments. As evidenced by the results, the quality of students' self-assessments improved during the intervention. At the end of it, the students were able to pinpoint more challenging and unchallenging issues in speaking Swedish than at the beginning. This result confirms the recommendation in the literature that instruction from the teacher is vital in practising self-assessment (Andrade 2019; Li & Zhang 2021). Put differently, instruction availed many students as a way to attain a higher level in the SOLO taxonomy. Considering that self-assessment promotes SRL (Brown & Harris 2013; Nicol & Macfarlane-Dick 2006) and that SRL interventions are conducive to learning and achievement (Jansen et al. 2019; Panadero 2017), we argue that our intervention supported the students' SRL. This is evident in both the quantitative and the qualitative results. The results are fairly encouraging, as it was not possible to provide the students with enough opportunities to automate strategy use and practice using the strategies (Dignath & Büttner 2008) the intervention being as brief as this. However, SRL skills develop gradually, and thus, they need to be practised accordingly. Nevertheless, it is not yet known how teachers can accelerate SRL efficiently (Dignath & Veenman 2020). This study indicates that emphasising the use of self-assessments could be one solution to that conundrum.

One feature of this study that raises serious questions is the fairly large number of students who did not submit the survey responses (n=6, only the second time) or hand in the written self-assessments (n=6, n=10) and those who decided not to participate in the study at all (n=3). In addition, several students handed in the two homework assignments late (n=13, n=17) or not at all (n=3, n=5). Partly, the results can be explained by the tight schedule of the intervention and the fact that the group had a two-month break in their Swedish lessons directly after the intervention, and therefore had no regular contact with their teacher. However, more importantly, the students in question lacked the motivation not only to study Swedish, but also for school in general.

As motivation is an extremely important, if not the most important prerequisite of learning (Salmela-Aro 2018; Järvenoja et al. 2018), it also affects SRL. As motivation and learning are intertwined, it is of utmost importance to enhance students' motivation throughout their school years. In their theory of self-determination, Deci et al. (1991) proposed that motivation is enhanced efficiently by giving the students autonomy to decide upon and plan their work. On the other hand, the weaker students in this study seemed to have a fixed mindset of their possibilities to learn new issues, which is characterised by a tendency to avoid challenges and effort as well as ignore useful negative feedback (see Dweck 2006). Therefore, we suggest that teachers critically analyse the tasks they use and contemplate whether the tasks enhance every student's SRL, language learning, and motivation. From a wider perspective, examining the learning goals of education should be a primary concern for all stakeholders. More attention should be paid to shifting the focus on reflection and analytic skills as well as support for students.

6   Conclusions

The following conclusions can be drawn, based on the results. First, we argue that Swedish teachers should consider teaching self-assessment skills more explicitly. In Finnish upper secondary schools, not all language teachers teach self-assessment skills (Mäkipää 2021). As the ability to self-assess is propitious to language learning (Jamrus & Razali 2019; Qasem 2020; Jin 2021), Swedish teachers should consider the extent and amount of time they devote to self-assessment. Teaching explicitly how to self-assess would contribute to both language learning and SRL.

Second, the students were not able to attain the relational level. In other words, the students were not able to reflect on their learning profoundly. To attain that level, students are expected to be 13–15 years old (Biggs & Collis 1982). All the students were in this age group, which is why the result was unanticipated. This suggests that the students did not internalise the core meaning of self-assessment. In other words, when Swedish teachers teach self-assessment skills, they should give more weight

to the actual content of the self-assessment. By providing individual and instructive feedback on students' self-assessments, teachers might help students actualise how they can diversify and develop their self-assessment practices.

Third, the analysis of the self-assessments showed that the students regard pronunciation as challenging, whereas grammatical issues were mentioned by only a few students. The pronunciation of long and unfamiliar words especially seems to cause problems, and some students also said that it is difficult to achieve correct intonation. The results suggest that more time should be allotted to practising oral skills in the classroom which is also entailed in the national core curriculum (FNAE 2014).

One of the major limitations of this study is its design, as the intervention was conducted at one school, and the participants were a convenience sample. The number of students was not high, and not all the students answered the survey or handed in the self-assessments twice. Moreover, this study focused on Swedish lessons and disregarded how teachers in other subjects use self-assessment and whether that usage has provoked any effects on students' perceptions in Swedish courses. Moreover, caution needs to be applied while interpreting the results because most of the differences were not statistically significant.

Given that SRL in foreign language teaching is an unmapped research field in Finland, more research is required to elucidate how language teachers can solidify SRL. Carefully planned intervention studies with a higher number of participants could illuminate how students become self-regulated over time, and which practices enhance SRL the most. Most of the students also had good or excellent grades in Swedish courses, which means that future studies should explore students with low course grades. Subsequent studies also need to explore peer assessment and whether the emphasised use of peer assessment promotes SRL.

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Appendix 1:

Intervention process

Lesson number	Self-assessment related activity for the students
1	self-assessment grid consisting of can do-statements goal setting for Swedish lessons for the autumn
2	self-assessment survey (1st time)
3	pair/group and class discussion on self-assessment skills self-assessment task after an oral exercise homework: oral task using present perfect on what they had done in the past week + self-assessment task on oral skills and study habits
4	pair/group and class discussion on the homework tasks
5	general oral feedback from the teacher
6	oral task in which they interviewed each other in Swedish, preceded by a discussion on communication strategies thumb voting on how the students succeeded in the task
7	mid-term assessment and possible update of goals
8	homework: a read-aloud exercise (a text they had previously listened to and studied as a reading comprehension exercise) + self-assessment task on oral skills
9	pair/group and class discussion on the homework tasks
10	general oral feedback from the teacher
11	oral alias task preceded by a discussion on production strategies thumb voting on how the students succeeded in the task
12	self-assessment survey (2nd time)