

# **DESIGNING AN INSTRUCTIONAL METHOD FOR DEVELOPING SELF-REGULATION SKILLS AT PRIMARY SCHOOLS**

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## SUMMARY

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The Dutch Education Council suggests that the primary school curriculum should at least provide a basis for students' self-development. Since teachers do not feel confident teaching self-regulation skills, this study examined which design best suits an instructional method for independently developing self-regulation skills for primary school children grade 7 (RQ1). Based on practical and theoretical analysis, the instructional method consisting of vlog-videos and practicing files is developed and tested in order to determine its effect on the trained skills (SQ 2.1), the self-regulation skills in general (SQ 2.2) and students' motivation towards learning in general (SQ 2.3). Quantitative data before and after the experiment was collected to indicate students' progress in self-regulation. Concluded can be that the degree of self-regulation and especially the skills *task-analysis*, *planning* and *perseverance* has increased. Unfortunately, the results showed that more is needed to motivate students for learning.

*Keywords:* 21st Century Skills – Self-Regulation – Vlogging – Primary School – Instructional Method

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## ACKNOWLEDGMENT

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I am very proud to present to you my master thesis. I started the master programme of "Educational Science and Technology" at the University of Twente with the aim of developing my educational design skills. My main goal was to develop a method for primary school children for a 21<sup>st</sup> century skill because there are little to none 21<sup>st</sup> century skills-materials available for schools. As you can see, I developed a instructional method for self-regulation which fully corresponds to my vision on education: learning by doing itself!

While working on my thesis I received a lot of support from my supervisors. At first, I would like to thank my first supervisor Hans van der Meij for sharing his knowledge with me. His enormous experience inspired me to develop myself in instructional design. I would also like to thank Henny Leemkuil for being my second supervisor.

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# 1 INTRODUCTION

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## 1.1 Problem statement

Nowadays, the society is changing from an industrial to a knowledge and network society in which new skills of people are expected. This inevitable development forces primary school systems to change current objectives, which nowadays focus on the core subjects maths, spelling and reading comprehension. Fortunately, the Dutch Education Council suggests that the curriculum should at least provide a basis for the future personal, social and professional functioning (Onderwijsraad, 2014).

In the Netherlands, the model which fits the plan of the Dutch Education Council is the model of the 21<sup>st</sup> century skills, which is developed by SLO and Kennisnet (2016). 21<sup>st</sup> century skills can be defined as 'generic skills which are linked to knowledge, understanding and attitudes that are necessary to function in and contribute to the future society' (Thijs, Fisser, & Van der Hoeven, 2014). One important 21<sup>st</sup> century skill, which is central in this study, is self-regulation. In this study, self-regulation is defined as a cyclical process that assist students in managing their thoughts and behaviors towards learning (Zumbrunn, Tadlock, & Roberts, 2011), consisting of the self-regulation skills goal setting, planning, strategy implementation, monitoring, self-evaluation and looking forward (Zimmerman, Bonner & Kovach, 1996). To become a self-regulated student, it is essential to practice these self-regulation skills as early as possible.

Here, primary schools have an important job to do. Thijs et al. (2014) state in their study that teachers have the intention to increase the role of the 21<sup>st</sup> century skills in their lessons, but the majority of teachers feel insufficient proficient with teaching these skills. In the last ten years, a lot of research is done about how to teach 21<sup>st</sup> century skills in order to help primary school teachers (e.g. Jacobson-Lundeberg, 2016). Unfortunately, students are still not capable with these skills. This growing problem is not entirely attributable to the teacher. There is, in recent years, a lot of work pressure on the teachers. In addition, little to none methods are available for teaching and/or practicing self-regulation skills.

In conclusion; there is a need to design an instructional method for developing self-regulation skills. The main criterion of the design is that students can independently practice with the skills without a teacher in the leading role. Two reasons for this main criterion: 1) Students should getting used to learn independently, as a part of self-regulation; 2) Teachers should be relieved from tasks by changing the nature of the methods.

## 1.2 Background of the study

Self-regulation can be seen as a cyclical process consisting of at least three learning phases. A lot of research about self-regulation led to a variety of self-regulation models, but in essence these models largely overlap.



Figure 1. Cycle of self-regulation according to Zimmerman et al. (1996).

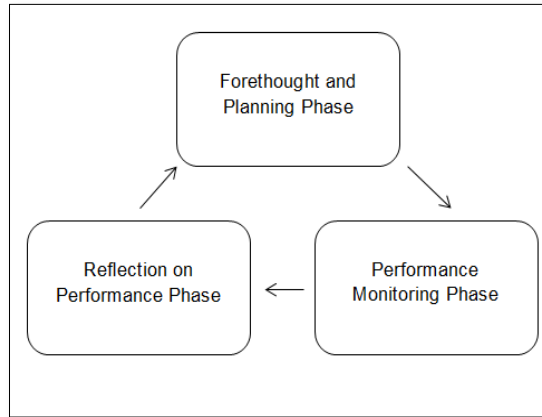


Figure 2. Phases of self-regulation according to Zumbrunn et al. (2011).

In this study, the model of Zimmerman et al. (1996) in Figure 1 and the model Zumbrunn et al. (2011) in Figure 2 are combined to create a complete model of self-regulation model including three phases: before, during and after the learning process. The skills goal setting, planning, strategy implementation, monitoring, self-evaluation and looking forward are included in these phases (see Figure 3).

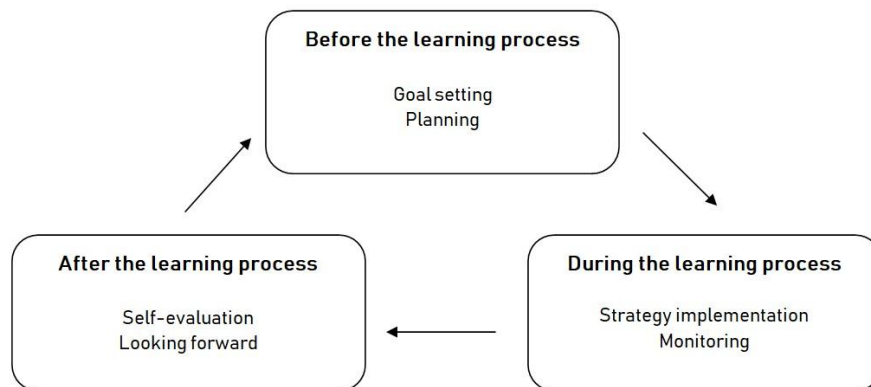


Figure 3. Model of self-regulation used in this study.

### Before the learning process

*Goal setting.* Prior to the learning process, self-regulated students set goals (Zimmerman et al., 1996). Goal setting can be defined as standards that regulate an individual's actions (Schunk, 2001). Encouraging students to set short-term goals for learning is an effective approach to help students

track their progress (Zimmerman, 2004). In general, a goal is clear when it is SMART (specific, measurable, reliable, attainable, relevant and timely) formulated (Muñoz & Jojoa, 2014). The disadvantage of the SMART formulation is the complexity for primary school students. Following Desoete (2008) only the aspects: specific (what), attainable (how) and timely (when) are needed to set a feasible goal, so these three aspects are used in this study.

*Planning.* Making a planning helps students achieving the goal (Zumbrunn et al., 2011). Planning is the process of thinking, consultation and developing ideas that leads to the production of plans (Hayes, 1997). In practice, a planning is a scheme a student creates in order to plan the school related- and non-school related tasks in a certain period of time.

### **During the learning process**

*Strategy implementation.* Students' basic task is learning by studying, in which they can choose from a large amount of learning strategies. A learning strategy is a consciously chosen process of activities to prepare for an anticipated test of memory (Schmeck, 1983). Schmeck et al. (1977) describe 4 key learning processes: 1) Deep Processing (cognitive operations such as organize information, search for meaning, critical evaluation, comparison and contrast) 2) Elaborative Processing (visualizing, summarizing, relating, encoding, and applying information); 3) Methodical Study (represents the use of systematic, traditional study techniques); 4) Fact Retention (memorize facts and storing of factual information). Students should be able to select the most fitting learning strategy to the (learning) task. A teacher or peer is essential in this part. They have to instruct the new strategies students can employ during the learning process.

*Monitoring.* During the learning process, self-regulated learners monitor their progress towards the task and frequently track the effectiveness of the chosen strategies. To self-monitor their progress, students should set their own goals, make a planning, and independently motivate their selves to reach personal goals, focus attention on the task, and use learning strategies to facilitate their understanding of material (Zimmerman, 2004). Also Perseverance tends to be associated with monitoring, it includes steadfastness on mastering skills or completing a task and having a commitment to learning (Claxton, 2002).

### **After the learning process**

*Self-evaluation.* In the last phase, self-regulated students reflect on the effectiveness of the chosen learning strategies and their performances. Reflection makes students aware of their strengths and weaknesses by looking back at their learning- and performance behavior (Stoeger & Ziegler, 2008). Self-evaluation is a process comprising self-judgments of present performance and self-reactions to



these judgments (Schunk, 1996). It help students to become actively aware of their strengths and weaknesses.

*Looking forward.* During this phase, students' future goals and planning will be influenced by the outcomes of the self-evaluation about the learning process. Step by step, students create a natural learning behavior by constantly performing the self-regulation skills of the cycle.

### **1.3 Research questions**

Two research questions are posed to guide the study. The first question is about the design of the instructional method, the other question is about the effectiveness of the instructional method. Sub-questions are formulated to specify the effectiveness of the instructional method. The first sub-question is used to check if the students developed the trained skills after the experiment. The second sub-question is used to determine if the instructional method also contribute to the development of self-regulation in general. The last sub-question is about the effect of students' motivation towards learning because the success of self-regulation is strongly dependent on motivational factors.

1. What is a good design for developing self-regulation skills among primary school students of grade 7?
2. To what extent does the design of the instructional method contribute to the development of self-regulation among primary school students of grade7?
  - 2.1 To what extent does the instructional method affect the development of the trained skills?
  - 2.2 To what extent does the instructional method affect the development of self-regulation skills in general?
  - 2.3 To what extent does the instructional method affect students' motivation towards learning in general?

### **1.4 Research model and research design**

The goal of this study is to design an instructional method for students from group 7 (9 to 12 years old) to independently learn self-regulation skills. This report is structured by the ADDIE model. This model is the generic process traditionally used to report instructional design research. The five phases: Analyze, Design, Development, Implementation, and Evaluation represent a clear guideline to design the instructional methods for self-regulation skills. After literature research in the design phase, guidelines have been drawn up to determine the design for the instruction method (RQ1). This study used an quasi-experimental design without a control group to evaluate how an instructional method

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for self-regulation affects students' development of the trained skills (SQ 2.1), of the self-regulation skills in general (SQ 2.2) and the motivation towards learning in general (SQ 2.3).

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## 2 ANALYZE

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### 2.1 Needs analysis

Education prepares students for a society that sets high standards. The labor market requires a mastery of skills to manage personal learning. The Dutch Education Council supports primary schools to position the 21st Century Skills in the curriculum (Onderwijsraad, 2014). Ultimately, it is up to teachers, school, department leaders, and boards to adjust the curriculum in a way that connects with social changes. Thijs et al. (2014) analyzed teachers' needs regarding the 21<sup>st</sup> century skills. Asking for teachers' willingness to pay attention to 21<sup>st</sup> century skills in the future, the majority wants to teach the skills in their lessons. Unfortunately, 91% of the teachers do not feel adequately equipped to teach the skills, they need more specific approaches and materials.

From these findings, it was necessary to examine if the teachers of grade 6, 7 and 8 of primary school 'De Schothorst' also experienced these struggles towards teaching 21<sup>st</sup> century skills. A short conversation with every teacher about applying 21<sup>st</sup> century skills in the class indicated that all the teachers already pay attention to learning strategies. Also, they were willing to spend more attention to goal setting and planning. Asking for possible approaches to enhance the level of self-regulation among the students, the preference is given to a teacher-independent approach in which there is a possibility for the teacher to be a supportive in providing tips and feedback. In addition, the teachers indicated that the method should be widely applicable, so it can be used for every course and every task.

#### Guidelines for the instructional method

The instructional method should:

- Be teacher-independent approach.
- Spend extra attention to the skills goal setting and planning.
- Include a supportive teaching role.
- Be applicable to several courses and tasks.

### 2.2 Target audience

Meta-cognitive skills and executive functions largely overlap with self-regulation skills because it all aim to help learners think about their own learning more explicitly (Groenewegen, van Deelen-Meeng, van Hoffen & Emans, 2014; Smidts, 2017). A lot of research is done about the development of meta-cognitive skills (Groenewegen et al., 2014; Rizzo, Steinhausen & Drechsler, 2010) and executive functions (Zelazo, Carlson & Kesek, 2008; Smidts, 2017) in childhood. Concluded can be that children from 8 years old are able to develop meta-cognitive skills as task analysis, goal setting, planning, monitoring, self-evaluation and reflection (Groenewegen et al., 2014), and executive functions as

planning, organization and self-regulation can be controlled from 9 years old (Smidts, 2017).

The age-category of the literature corresponds with the practice: In primary schools, students from grade 6 have to make homework-assignments or have to study for tests for the first time. Note that self-regulation skills are only effective during learning when the students received instruction about self-regulation (Labuhn, Zimmerman & Hasselhorn; 2010). However, certainly not all primary school students master these meta-cognitive skills yet (Perry, Philips, & Dowler, 2004). Concluding, self-regulation needs to be more stimulated at primary schools.

### **Guidelines for the instructional method**

The instructional method should:

- Be developed for the target audience 8 to 12 years old.

## **2.3 Analysis of competitive methods**

To get a better insight in what self-regulation methods include in their programs, a competition analysis primarily focused on the content has been carried out among the biggest Dutch publishers: Malmberg, Zwijsen, Thiememeulenhoff and Onlineklas. The information used for the analysis originates from the available sources on the internet and personal experience.

First of all, it was striking that there are no Dutch methods for 21st century skills for primary schools. Most Dutch publishers (for instance Malmberg and Zwijsen) include the skills as self-regulation as a part of method, often for subjects as world orientation. During the lesson, the teacher have to ask critical questions to guide students through the learning process by supporting them to set goals and make a strategic planning. This part is not fully included in the method, but only described as an option in the manual.

Thiememeulenhoff, a Dutch publisher, conducted a method for vocational education with a separate manual for teaching 21st century skills, including self-regulation. In each method, six learning phases are assumed: orientation, theory, processing, application, evaluation / reflection and testing. Within these six learning phases, the manual provides opportunities for implementation of the skills in each phase. The teacher is able to select the strategies which fit pupils' learning needs.

The only method for primary schools where self-regulation is fully included, is TopOndernemers (Uitgeverij Onlineklas). First the students have to pick an interesting card including theme related assignments. After selecting a topic, students have to work on a project with the help of a portfolio format. In this format students fill in their expectations of the assignments, what they hope to learn, what questions they encounter during the learning process, how they divide the tasks among the group members, how they plan the tasks during the period and afterwards some evaluation questions. This portfolio functions as a fundamental file which helps students by taking a closer look to the three phases: before, during and after the learning process.

### Guidelines for the instructional method

The instructional method should:

- Includes a guiding teacher role to help the students through the learning process.
- Be applicable to at least the world orientation courses.
- Include a fundamental file in which students can write down their progress of the learning process.
- Include the phases: before learning, during learning and after the learning process.
- Include at least the skills: goal setting & planning (task orientation), monitoring (processing), strategy implementation (application) and evaluation.

## 2.4 Learning objectives

To get better insight of the specific tasks, first the learning objectives are formulated based on the advisory curriculum of SLO (2016) of self-regulation skills in primary education (Appendix A). The learning objectives (Table 1) are divided in the three phases: before, during and after the learning process.

Table 1

*Learning objectives of the instructional method*

Phase	The students...
<b>Before:</b>	
Goal setting	Can indicate the importance of a task for themselves or for achieving a particular goal.
	Can estimate the difficulty of a task or the chance of success for itself from previous self-evaluation experiences.
	Can formulate realistic (learning) goals.
Planning	Can make a realistic planning to achieve the (learning) goals.
	Can estimate the duration of the performance of a specific learning task.
<b>During:</b>	
strategy implementation & monitoring	Know that there are different (learning) strategies and can determine which strategies fit the formulated (learning) goals.
	Can adjust strategies and / or goals depending on the situation and the results (intermediate) to self-adjust.
<b>After:</b>	
Self-evaluation & Looking forward	Can evaluate own performance in relation to the formulated (learning) goals.
	Can evaluate their own performance in relation to their own expectations.

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Can formulate personal points of improvement to enhance future learning processes.

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## 2.5 Task and content analysis

The task analysis has been carried out to get a better insight in the specific tasks the students have to perform in order to develop the self-regulation skills. From the learning objectives and the model of self-regulation (Figure 3), the specific tasks can be clarified. The tasks can be seen as steps students have to carry out or scaffolding questions which help students to evaluate the learning behavior during process.

The model of self-regulation (Figure 3) includes three learning phases and six self-regulation skills. Because of the complexity of the skills in the before phase and the demand of the teachers to spend more attention to goal setting and planning, the before phase is split into two lessons: one about goal setting and one about making a planning. So in total, there are three phases (before, during and after learning) and four lessons (goal setting, planning, strategy implementation & monitoring and self-evaluation & looking forward) included in the instructional method.

To formulate the specific tasks, scientific literature is used to get insight in the required steps. Each lesson contains at least three tasks for the student to carry out. When all tasks of a phase have been carried out, the learning objectives should be achievable. The tasks are formulated in the perspective of the student. Depending on the content of the task, the task is formulated in the imperative or in a question sentence. An overview of the tasks is given in Figure 4.

<b>1. Before the learning process - goal setting</b>
1.1 What do I want to achieve?
1.2 When do I want to achieve it?
1.3 How do I achieve it?
<b>2. Before the learning process - planning</b>
2.1 Think about which tasks you need to do.
2.2 Divide the task into small subtasks.
2.3 Consider how long each subtask takes.
2.4 Create a planning.
<b>3. During the learning process – strategy implementation &amp; monitoring</b>

3.1 Prepare yourself.
3.2 Keep motivating yourself.
3.3 Keep your attention.
3.4 Choose the best way to learn.
3.5 Ask for help.
<b>4. After the learning process – self-evaluation &amp; looking forward</b>
4.1 Did I achieve my goal?
4.2 What went well during the learning process?
4.3 What went less well during the learning process?
4.4 What can I do better next time?

Figure 4. Tasks of the instructional method.

### 1. Before the learning process – goal setting

The tasks of goal setting are based on the SMART principle (specific, measurable, reliable, attainable, relevant and timely) Muñoz & Jojoa (2014) described in their study. Unfortunately, this formula for goal setting is too complex for primary school students. Following Desoete (2008) only the aspects: Specific (what), Attainable (how) and Timely (when) are essential to set goals in primary school. Concluding, in the first phase, students learn the three steps of the what-when-how approach to set goals. The steps are formulated in question sentences to let the students actively think about their personal learning goals.

**1.1 What do I want to achieve?** First, students should create a clear idea about what they want to accomplish with their effort. An essential condition to complete a task well, is having a clear and realistic idea about what you want to achieve (Newman, 2012). In the method, the students here think about what they want to achieve, and formulate it as a result of their effort. *For example: I want to score a 7 on the history test.*

**1.2 When do I want to achieve it?** The goal is formulated clearly when it answers the question when students want to reach the goal. It makes students aware of the time frame in which the goal should be achieved. The answer to this question implies whether the goal should be achieved in the short term or in the longer term. Short-term goals are set over a period of a week or a day, and primarily focus on the result of the learning process. For example, the test score. Long-term goals are set over a period from a month to a year, and can often be divided into several short-term goals. Therefore, the most effective approach is to set more short

term goals and reflect on it (Schunk, 2001). In the method, the students here think about when the goal should be achieved, and formulate it as a time limit of the studying process. *For example: I want to achieve my goal before Friday next week.*

**1.3 How do I achieve it?** The feasibility of the goal will increase when the overall goal is divided into smaller subgoals (Hallenbeck & Fleming, 2011). Breaking goals into short-term, attainable subgoals help students to monitor the learning progress and to assess capabilities (Schunk, 2001). In the method, the students here divide the main goal into short actions and order them logically. *For example: I believe I will reach my goal when I first read the text and then summarize the text and mark specific keywords.*

## 2. Before the learning process – planning

Five steps for making a strategic planning are conducted help primary school students to get better insight in the learning process and to train the self-regulation skill. In the instructional method, a planning is used to arrange school related- and non-school related tasks in a certain period of time. The steps are formulated in the imperative because the students have to perform the steps in their own learning process.

**2.1 Think about which tasks you need to do.** Prior to making a planning, students have to think about the which tasks they have to perform this week (Desoete, 2008). For primary school students it can be school related tasks (for example: studying for the history test and making some homework) and non-school related tasks (for example: soccer training). These tasks form the base of the planning they need to create in the last step. In the method, the students here formulate all the tasks which need to be done in a certain period of time. *For example: I have to study for the history test and I need to buy a birthday present for my mother.*

**2.2 Divide the task into small subtasks.** Splitting the tasks into smaller activities makes the planning better to perform and increase the chance of successful completing the planning (Hallenbeck & Fleming, 2011). In the method, the students here formulate the short activities they need to carry out to achieve the goal. Note that the results of task 1.3 of goal setting can be used in this task. *For example: Studying for the history test can be divided into 1) reading the text; 2) summarizing the text; 3) marking the keywords.*

**2.3 Consider how long each subtask takes.** It is useful to estimate how long each subtask takes to adjust the planning to other daily activities (Schunk, 2001). When students make a planning for the first time, it can be hard to estimate the duration of each subtask. Experience will help students to get better insight of how much time is needed to perform a task. In the method,



the students here think about the duration of each task and write it down. *Example: 1) reading the text = 30 minutes; 2) summarizing the text = 2 hours; 3) marking keywords = 15 minutes.*

**2.4 Create a planning.** In the last step, all the tasks which should be carried out in a certain period of time can be written in a scheme. The information needed for creating the planning, is obtained during the previous steps. In the method, the students here have to write down all the (short) actions in a scheme that is structured per day. *For example: Monday – reading the text; Tuesday – summarizing the text part 1; Wednesday – summarizing the text part 2 and buying a birthday present; Thursday – marking the keywords; Friday – reading the summary.*

### 3. During the learning process – strategy implementation & monitoring

This phase provide five concrete tips about how to monitor their learning process. The tips can be seen as a checklist for students during the learning process, so there are no examples given. The tips are formulated in the imperative because students have to use is as a checklist.

**3.1 Prepare yourself.** A good start is half the work, so the actions prior to the learning process, including goal setting and planning, are shortly mentioned to emphasize the importance of good preparation. Even though it has been explained extensively to prepare prior to the learning process, it remains an essential condition for self-regulation. Since the phases in the instructional method also have to be used separately, it is briefly mentioned once more. In the method, the students here check if they are prepared well. If they are not, they can go back to the first phase: before learning.

**3.2 Keep motivating yourself.** Self-motivation requires learners to keep control over their learning (Boekaerts, 1996; Pintrich, 2004; Zimmerman, 2008). It occurs when a student independently uses one or more strategies to keep themselves on-track toward their own learning goal. Perseverance is needed to stay motivated and implies the commitment to learning. In the method, students here keep motivating themselves by thinking about why it is important to complete the task.

**3.3 Keep your attention.** Attention control is the ability to stay focused on the task. Ignoring or removing stimuli that may cause distractions positively affects the learning process (Zimmerman, 1990; Zimmerman, 2000). In the method, students here check if there are studying in a quiet place without their mobile phone.

**3.4 Choose the best way to learn.** Students should have the ability to implement multiple learning strategies. It is necessary to learn and practice new strategies because when students have a broader range of controlled strategies, students can pick the most fitting one (de Boer, Donker-Bergstra & Kostons, 2012). Therefore, close involvement of a teacher or a peer is

essential in this phase. In this method, the students here consider which learning strategy fits the best to the task. Several strategies are given and explained to select from.

**3.5 Ask for help.** Self-regulated students have the ability to ask for help from more experienced people. Self-regulated students do not try to fulfill every complex task on their own. They seek help from others when necessary, because they exactly know what and who they need in order to accomplish the task (Williams & Takaku, 2011). In the method, students here become aware of the added value of asking others for help.

#### 4. After the learning process – self-evaluation & looking forward

In the third phase, self-evaluating is central. Self-evaluation is a process comprising self-judgments of present performance and self-reactions to these judgments (Schunk, 1996). In this phase students learn how to evaluate the performance on the learning task and how to use these conclusions for future learning processes. Scaffolding questions guide students through the learning- and thinking process of the self-evaluation phase (Verenikina, 2008). During this phase, students have to think about and answer these four scaffolding questions:

**4.1 Did I achieve my goal?** Here students compare the result of the learning process (e.g. test, homework assignment) with the goal, that is set in the first phase. Self-regulated learners engage in self-evaluation when they compare progress against goals (Schunk, 2005). In the method, students here check if they achieve their goal which have been set in the first phase. *For example: I scored a six, while my goal was to score a 7 on the history test. I did not achieve my goal.*

**4.2 What went well during the learning process?** Self-regulated students are able to look back at personal learning behaviors and indicate which behaviors stimulated the learning process. Self-regulators form positive attributions during periods of self-reflection by attributing success to ability and effort (Pintrich, 2000; Schunk, 2001). In the method, students here formulate which learning behaviors stimulated the learning process. *For example: My preparation was good, because I have set a clear goal and I have made a planning. Also, I asked for help during the learning phase.*

**4.3 What went less well during the learning process?** Here students indicate which learning behaviors had a negative effect on the result of the learning process. Self-regulated learners uses difficulties during the learning process (e.g. ineffective strategies) as constructive criticism (Pintrich, 2000; Schunk, 2001). In the method, students here formulate which learning behaviors negatively influenced the learning process. *For example: I was distracted by my mobile phone so I did not have enough time for the summary.*

**4.4 What can I do better next time?** This last question is about looking forward to the future learning process and describing new learning goals. Students formulate new goals for the following learning process on the basis of the results of the three previous questions. Here the cycle of self-regulation starts again (Zumbrunn et al., 2011; Zimmerman et al., 1996). In the method, the students here formulate points of improvement regarding learning process. *For example: 1) removing stimuli as my mobile phone; 2) taking more time for the summary; 3) making a practicing test before the real test.*

#### **Guidelines for the instructional method**

The instructional method should:

- Include three phases (before, during and after learning) and four lessons (goal setting, planning, strategy implementation & monitoring and self-evaluation & looking forward).
- The 'before' phase about goal setting will include the following three steps: *What do I want to achieve?; When do I want to achieve it?; How do I achieve it?*
- The 'before' phase about planning will include the following four steps: *Think about which tasks you need to do; Divide the task into small subtasks; Consider how long each subtask takes; Create a planning.*
- The 'during' phase about monitoring will include the following five tips: *Prepare yourself; Keep motivating yourself; Keep your attention; Choose the best way to learn; Ask for help.*
- The 'after' phase about evaluation and looking forward will include the following four questions: *Did I achieve my goal?; What went well during the performance?; What went less well during the task performance?; What can I do better next time?*

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## 3 DESIGN

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### 3.1 Learning theory

Learning is a process which results in sustainable changes in knowledge, skills and the learning behavior (Dixon, 1994). The approach of the instruction method depends on the goal of the method: individually and independently acquiring knowledge and skills of self-regulation. The most fitting and inspiring learning theory is learning through observations. Observational learning occurs from watching, retaining, and replicating a behavior observed from a model (Bandura, 1976). Bandura suggest when students observe that a fellow-student perform a task well, they gain confidence in performing it themselves. Role models can support students in the learning process by modeling how to set specific goals, make a planning, choose and apply learning strategies, and reflect on personal learning behavior (Stoeger & Ziegler, 2008). A role model can be a teacher, but a peer from nearly the same age does have more impact on students' vision of learning. Peer-processes help develop the skills to regulate own work and the learning behavior (Boud, Cohen, & Sampson, 1999).

#### Guidelines for the instructional method

The instructional method should:

- Meet the condition of observational learning that students can learn from observing a role model.
- Include a role model who support students in their learning process by modeling the skills.
- Include a role model from nearly the same age of the students.

### 3.2 Video instruction

Videos proved to be an excellent medium of gaining knowledge and skills (Hoogerheide et al., 2012). Both videos for problem solving tasks (e.g. mathematics) and tasks related to meta-cognition (e.g. self-regulation) are effective for learning through videos. (van Gog & Rummel, 2010). The advantage of learning through videos is that it can be used flexibly whenever there is a need (e.g. at home and at school). Another advantage is the relieving effect for the teacher. The model in the video performs the task and can be repeated easily (Bergmann & Sams, 2012). Learning through videos is very suitable for the instructional method, because it meets the observational learning theory, and could function as a simulation that displays the steps visually and auditory.

Several studies have been done research to determine the design-conditions for learning through video instruction. Mayer (2014), a well-known researcher of multimedia learning, conducted principles about developing educational videos. The following principles are useful for this study: 1) Combination of words and pictures; 2) Highlighted key information; 3) Human voice in a

conversational style.

Specifying on information processing through video instruction, Van der Meij and Van der Meij (2013) discussed eight guidelines for video instruction. For this study, the following (sub-) guidelines are useful: 1) A spoken human voice for the narration; 2) Action and voice must be in synch; 3) Pace the video carefully; 4) Promote the goal; 5) Make task clear and simple; 6) Keep videos short; 7) Use highlighting to guide attention.

The last important principle in video instruction is adding a review at the end of the video. A review functions as a summary of all the keypoints, so it reminds the viewer what it takes to achieve the task completion (Van der Meij & Van der Meij, 2016).

### **Guidelines for the instructional method**

The instructional video should:

- Consist of at least videos to display the steps visually and auditory.
- Promote the goal of the video (Van der Meij & Van der Meij, 2013).
- Introduce tasks in advance and afterwards because of the limited capacity of working memory (van Gog & Rummel, 2010).
- Include a review at the end of the video functions as a summary of all the keypoints, so it reminds the student what it takes to achieve the task completion (Van der Meij & Van der Meij, 2016).
- Make tasks clear and simple (Van der Meij & Van der Meij, 2013).
- Highlight key information to guide attention (Mayer, 2014; Van der Meij & Van der Meij, 2013).
- Include that action and voice must be in synch (Van der Meij & Van der Meij, 2013).
- Prevent double information in one video shot. Students should focus on one aspect (Sweller, van Merriënboer, & Paas, 1998).
- Pace the video carefully, and keep the video short (Van der Meij & Van der Meij, 2013).
- Make use of a human voice in for the narration (Mayer, 2014; Van der Meij & Van der Meij, 2013).

### **3.3 Vlogs**

Nowadays, primary and secondary school students daily watch vlogs at online channels like YouTube. Vlogs are video collections that serve both as an audiovisual life documentary, and as a vehicle for communication and interaction on the internet (Biel & Gatica-Perez, 2010, pp.211). The vlogs primary and secondary school students often look at, are made by boys and girls of almost the same age as the viewers, in which they demonstrate and tell about their daily activities.

Vlogs are by definition not intended to be educational but the structure of telling and

demonstrating is very suitable for educational videos (Snelson, 2013). At YouTube, there are more and more variations on vlogs. In 'how-to' videos vloggers demonstrate at a step-by-step base how to create or solve something (e.g. recipes, fitness workouts, math problems). This vlog structure is suitable for educational purposes.

### **Guidelines for the instructional method**

The instructional video should:

- Be filmed in 'how-to' vlog-style.

### **3.3.1 Competitive vlog analysis**

In order to determine how vlogs should be designed, eight existing vlogs were reviewed. The vlogs were selected based on popularity, target group, and genre. These selected vlogs were all Dutch spoken and created by Dutch people. This was a selection criterion because all these vlogs can potentially be viewed by the selected target group and because the target group consists of 8 to 10 year olds, who (primarily) speak Dutch. An overview of the analyzed vlogs, is given in Appendix B.

Every vlog is judged based on seven constructs: personality, structure, content, narration, on-screen text, design and camera position. These seven constructs are conducted from scientific studies about multimedia learning and instructional videos (Mayer, 2014; Kleinhenz & Parker, 2017). A table including definitions and examples of the constructs is adjusted in Appendix C. While watching these eight vlogs the characteristics, aspects, similarities and differences of vlogs were written down. From these noted details, a questionnaire consisting of 29 items that are scored on a 5-point Likert scale with values ranging from 1 (strongly disagree) to 5 (strongly agree), was developed that was used to determine which guidelines a vlog must fulfill. After scoring, a summary of all the results is made (Appendix D).

There can be concluded that all the assessed vloggers speak informally to their viewers and adjust the language to the target group. The three vlogs with the highest number of views (EnzoKnol, Beautygloss, Bibi) score high on all points of personality and narration, ends with a message to the viewer, content is in line with the target group and the vlog is often filmed by the vlogger itself. Also, the background music is running when the vlogger is not talking. Many vlogs use a fixed structure in the videos. The most structures consist of an introduction by mentioning the aim of the video, a body with the main content and a closure where the vlogger summarizes the content and ends with a personal message to the viewer. On-screen text is not presented by all the vlogs, but it is presented in the educational vlog of Phalentine and the vlog of EnzoKnol. Accordingly, from researchers' experience and literature (Mayer, 2014) it points out that on-screen text has an added value to the quality of the vlog.

### **Guidelines for the instructional method**

The instructional video should:

- Be structured as follows: 1) an introduction including a title screen, the aim of the video and preview of the content ; 2) a body including the main content; 3) a closure including a short summary of the content and a final message to the viewers.
- Include background music that is running during the entire video, especially when the vlogger is not talking.
- Include on-screen text to highlight key information.

### **3.3.2 Need analysis vlogs**

From the competitive vlog analyses, there was no clarity about what age and gender the students prefer. Unfortunately, little to no research has been done about what gender is more effective or do students prefer. About age, Boud et al. (1999 ) state that the peer (vlogger) should be from the same age or a bit older than the mean age of the target group. However, students do have a strong and decisive opinion about what type of vlogger they prefer.

In order to indicate students' needs and preferences regarding the layout, age and gender a questionnaire was conducted (Appendix E). The questionnaire has been taken in grade 7 of OBS Drienermarke (N=18). The researcher introduced the questionnaire shortly by mentioning the aim of the questionnaire: getting insights of students' preferences of regarding vlogs. Students were asked to give their preference for the gender of the vlogger (question 2 and 4), age of the vlogger (question 3 and 5) and colors used in the design of the vlog (question 6). In 10 minutes, all students finished the questionnaire. The questionnaire has been taken in grade 7 of OBS Drienermarke (N=18). The researcher introduced the questionnaire shortly by mentioning the aim of the questionnaire: getting insights of students' preferences of regarding vlogs. In 10 minutes, all students finished the questionnaire. The questionnaire has been filled in by 63.2% boys, 36.8% girls. From the results it can be concluded that 73.7% of the respondents watch vlogs frequently. From these respondents, 26.6% prefer a male vlogger in educational vlogs, 10.5% prefer a female vlogger in educational vlogs and 57.9% is neutral. The majority (47.4 %) prefer a vlogger aged 12 to 18 years old. With regard to the colors of the design, 21.1% prefer green, 52.6% prefer blue, 15.8 % prefer yellow and none of the students prefer orange. Note that these results do not influence the quality of the vlogs, but gives information about students' preferences regarding layout, age and gender. By adapting the vlog to these results, the students will be more motivated to watch the vlogs because of its design.

### **Guidelines for the instructional method**

The instructional video should:

- Include a male or female role model between the 12 and 18 years old.

- Have a blue design.

### 3.4 Worked examples

Worked examples in videos provide step-by-step explanations of specific procedural problems (Atkinson, Derry, Renkl, & Wortham, 2000). In the videos, a peer demonstrates through meaningful cases how to solve a problem or how to apply specific steps. Research shows that students who receive worked examples make fewer mistakes and need less teacher assistance (Sweller & Cooper, 1985; Carroll, 1994). Therefore, using worked examples in the instructional method should be effective for students' learning process.

Unfortunately, few to none research is done about the influence of worked examples on meta-cognitive tasks. However, lots of research is done about the effectiveness of worked example videos for problem solving subjects as mathematics (Atkinson et al., 2000; Crippen & Earl, 2004; Loomes, Shafarenko, & Loomes, 2002; Kay & Edwards, 2012). In this study, a peer of nearly the same age as the viewers demonstrates in a step by step fashion how to master specific self-regulation skills.

#### Guidelines for the instructional method

The instructional video should:

- Include a role model who provide step-by-step explanations about the self-regulation skills.
- Be a combination of vlogging and worked examples.

### 3.5 Practice files

Besides observing specific tasks from the worked example instruction videos, students need to apply the self-regulation skills in a meaningful context because the opportunity for practice after video instructions significantly improved user performance compared to a non-practice control condition (Ertelt, 2007). Therefore, practicing files are conducted to give the students the opportunity to directly apply the observed skills in a real context.

The advantage of using practicing files in the instructional method is that assignments which were adequately challenging and interesting, achieve success by developing self-regulation skills and motivation towards learning (Ramdass & Zimmerman, 2011). For optimal learning, a meaningful context is required (Ormrod, 2013). No case is as meaningful as the personal learning context at that moment. Therefore the steps, tips and scaffolding questions from the video, which guide students through the learning- and thinking process (Verenikina, 2008), are also displayed on the practicing file. Now, the students can write down personal answers and adjust the self-regulation skills to the personal learning context.



### Guidelines for the instructional method

The instructional method should:

- Consist of practicing files corresponding to the content of each lesson. The steps/tips/scaffolding questions which are instructed in the video are also displayed on the practicing files where students think about and write down personal learning problems and behaviors.
- Include practicing files which are applicable in every learning situation.

### 3.6 Motivational design

Creating a method for developing self-regulation skills on an independent base for students who cannot yet learn independently, is a huge challenge. The non-self-regulated students should show interest in the method by only its design and the aim of the method: becoming a self-conscious learner to enhance the personal learning behavior to subsequently improve learning outcomes. Since young students from grade 7 are not yet very interested in learning strategies and learning outcomes, the design must be motivating enough to start with the self-regulation method. Therefore, the base of the method is a vlog: a medium which is very popular among young students. In the vlogs a peer-student will tell about the difficulties they encounter while learning, give learning tips to the viewers and demonstrate how to apply these tips in real life. Besides the attractive medium, students' commitment to learn have to be encouraged by other motivational factors from the design. Keller (2014) conducted an ARCS model of motivational design which contains four steps for promoting and sustaining motivation in the learning process.

- 1) **Attention.** Using surprises or uncertainties to gain students' interest and attention. Methods for grabbing students' attention are: active participation, variability, humor, incongruity and conflict, specific examples, inquiry questions.
- 2) **Relevance.** Establish relevance to motivate students for the task. Useful strategies to include relevance in the design are: Emphasize the added value, the present worth and the future usefulness, and model its importance.
- 3) **Confidence.** Students need to have the feeling that they can succeed. The motivation will decrease if the objection is not achievable. Also, students need to experience small steps of growth during the learning process. At last, students should feel some degree of control over their learning process. They should have the faith that after putting effort, success can be achieved.
- 4) **Satisfaction.** Learning should be satisfying for students, because it keeps students motivated to learn. Satisfying from a sense of achievement or just as entertainment.

**Guidelines for the instructional method**

The instructional method should:

- Meet the ARCS conditions of motivational design conducted by Keller (2014).

**3.7 Design for developing self-regulation skills**

As a conclusion of the design phase and an answer to the first research question: *What is a good design for developing self-regulation skills among primary school students of grade 7?*, an overview of the structure of the instructional method is displayed below (Table 2). The instructional method











includes three phases, within videos () and practicing files (). In each video, a vlogger instruct how to reach the video-goal by giving worked examples. After watching each video, student have to make a one paper practicing file to adjust the new skills in a personal and meaningful learning context.

Table 2

*Structure of the instructional method for self-regulation skills.*

Phase 1 Before: Goal setting and planning	Phase 2 During: Monitoring	Phase 3 After: Evaluation & looking forward
 <b>Goal setting</b> <ul style="list-style-type: none"> <li>- Step-by-step instruction</li> <li>- Worked examples</li> </ul>	 <b>Strategy implementation &amp; Monitoring</b> <ul style="list-style-type: none"> <li>- Step-by-step instruction</li> <li>- Worked examples</li> </ul>	 <b>Evaluation &amp; looking forward</b> <ul style="list-style-type: none"> <li>- Step-by-step instruction</li> <li>- Worked examples</li> </ul>
 <b>Planning</b> <ul style="list-style-type: none"> <li>- Step-by-step instruction</li> <li>- Worked Examples</li> </ul>		
 <b>Goal setting</b> <ul style="list-style-type: none"> <li>- Steps/tips/ scaffolding questions</li> </ul>	 <b>Strategy implementation &amp; Monitoring</b> <ul style="list-style-type: none"> <li>- Steps/tips/ scaffolding questions</li> </ul>	 <b>Self-evaluation &amp; looking forward</b> <ul style="list-style-type: none"> <li>- Steps/tips/ scaffolding questions</li> </ul>
 <b>Planning</b> <ul style="list-style-type: none"> <li>- Steps/tips/ scaffolding questions</li> </ul>		

## 4 DEVELOPMENT

### 4.1 Transcription of the video

As a result from the analyze and design phase, the instructional video is constructed based on the task analysis and the guidelines of the design. A 15 years old girl is chosen to instruct the videos. The preference was to get a 15 years old boy, but it was not available. Since the score of the need analysis of the vlog turns out that 57.9 % was neutral to the volgger's gender, a girl was also a good option. The structure was decided from the results of the competitive vlog analysis in combination with the video instruction guidelines. The structure of the all the videos is as follows:

**1. Title page.** The video begins with a short introduction consisting of video recordings of the vlogger when she is learning and background music. In every video these video-shots are the same, the background music varies in every video. The introduction ends with the title of the video (Figure 5).

**2. Introduction.** The vlogger is filmed from the front and greets the viewers. *Example: 'Hello, welcome to this video about goal setting'.*

**3. Structure.** The structure of the instructional videos is presented (before, during, after learning) to let the viewers orientate themselves at what phase they are, with regard to the entire learning process (Figure 6). A voice over supports the animated shots. *Example: 'The videos show you what to do before, during and after the learning process. This video is about goal setting, that happens prior to learning.'*

**4. Worked Example.** The vlogger demonstrates that she takes the practicing file, which is needed to start with the lesson (Figure 7). *Example: 'I take my practicing file and a pen. Now I am ready to set goals!'*

**5. Problem.** The vlogger introduces the topic by mentioning a recognizable issue to get viewers involved with the content of the video (Figure 8). *Example: 'Do you recognize the sad feeling*



Figure 5. Screenshots of the title page.



Figure 6. Screenshot of the structure.



Figure 7. Screenshot of the worked example.



Figure 8. Screenshot of the problem.

towards learning?’

**6. Solution.** The vlogger gives the solvation to the recognizable issue earlier mentioned to emphasize the importance of the topic. *Example: ‘I can make sense for learning when I set a goal. I want to get a good grade. So I am motivated to start learning.’*

**7. Definition.** The vlogger explains keyconcepts as ‘goal setting’. Note that not every video include the definition part in this stage of the video, it depends on the subject. *Example: ‘Goal setting helps students with completing their schoolwork. It indicates for what reason they need to show some effort.’*

**8. Goal.** The goal describes the specific video content. In other words: what students should have learned after watching the video. *Example: ‘In this video, I teach you how to set goals in three simple steps.’*

**9. Preview video content.** Prior to the main content of the video, all the tasks are mentioned and displayed step by step (Figure 9). *Example: ‘Step 1. What do I want to achieve? Step 2. When do I want to achieve it? Step 3. How do I achieve it?’*

**10. Task.** Here the learning content begins. The video is divided into a few tasks. These tasks are actions the viewers have to carry out of over think to reach the overall goal of the video (Figure 10). *Example: ‘Task 1. What do I want to achieve.’*

**11. Tracking.** The interim appointment of the just performed tasks and a looking forward about what to do next. *Example: ‘I already know what I want to achieve. But when do I want to achieve it?’*

**12. Worked Example.** The vlogger models how she performs the task in her personal learning context (Figure 11). *Example: ‘My personal goal is to score a 7 on the history test. I write this goal on the practicing file.’*



Figure 9. Screenshot of the preview video content.



Figure 10. Screenshot of the task.

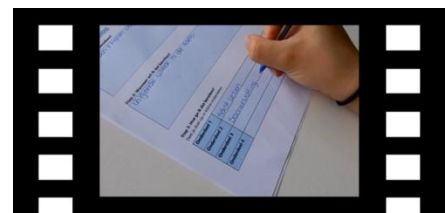


Figure 11. Screenshot of the worked example.



Figure 12. Screenshot of the review.

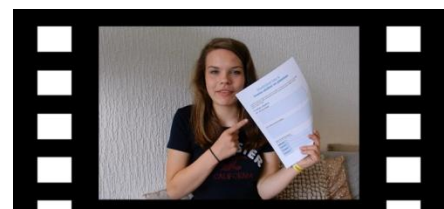


Figure 13. Screenshot of the closure.

**13. Review.** After explaining all the tasks, a short summary about the offered tasks is given (Figure 12).  
*Example: ‘In three steps you just learned how to set a goal: Step 1. What do I want to achieve? Step 2. When do I want to achieve it? Step 3. How do I achieve it?’*

**14. Preview next video.** The vlogger gives a short introduction about the content of the following video. *Example: ‘In the next video, I will show you how to make a planning.’*

**15. Closure.** The vlogger ends the video by thanking the viewers for watching and referring to the practicing file (Figure 13). *Example: ‘Now, you can fill in the practicing sheet by yourself. Thanks for watching, and I see you by the next video about planning. Bye!’*

Note that the components task, tracking and worked example are repeated several times during the video, depending on the number of tasks. Some examples were given from the first video goal setting. In a Appendix F, transcriptions of the vlogs are given.

## 4.2 Practicing files

Practicing files are constructed for students to practice the specific tasks explained in the video, in students’ personal learning contexts. Students fill in the practicing file directly after watching the corresponding video. Therefore, the exercises on the practicing file correspond with the tasks in the video. Practicing file *goal setting* consist of three exercises, *planning* four exercises, *strategy implementation & monitoring* of five exercises and *self-evaluation & looking forward* of four exercises. These exercises varies in form, sometimes the pupil have to fill in a scheme and sometimes the pupil have to write down for example the learning goal. The questions are generally formulated that every student can fill in the answer matching with their own goal. The practicing files are presented in Appendix G.

### Werkblad Doelen stellen

Je hebt het filmpje over doelen stellen bekeken. Voordat je begint met leren of huiswerk maken vul je dit blad in. Maak onderstaande opdrachten om jouw eigen doel te stellen.

**Stap 1: Wat wil ik bereiken?**

**Stap 2: Wanneer wil ik dat bereiken?**

**Stap 3: Hoe ga ik dat bereiken?**  
Deel je doel op in kleine onderdelen. Bijvoorbeeld: 1. Lezen; 2. Samenvatting maken

<b>Onderdeel 1</b>	
<b>Onderdeel 2</b>	
<b>Onderdeel 3</b>	
<b>Onderdeel 4</b>	

Figure 14. Practicing file: Goal setting

### **4.3 Pilot test**

In total three versions of the instructional method (including video's and practicing files) were designed, tested and adjusted. In this section, the pilot testing phase is explained in detail.

#### **4.3.1 Participants**

The participants of the pilot tests were in total six pupils of grade 7 from KBS de Schothorst in Hengelo (school year 2016-2017). In advance, the researcher determined that the participants should consist of both a boy and a girl, because the instructional method should be attractive to both. Furthermore, the boys and girls were chosen at random. In the pilot test of the first version, an 11-years old girl and a 10-years old boy participated. The participants of the second version were a 10-years old girl and an 11-years old boy. At last, the third version is tested by a 10-years old girl and a 10-years old boy.

#### **4.3.2 Instruments**

In order to test the usability of the instructional methods, a semi-structured interview based on the E's of usability testing: Effectiveness, Efficiency, Engagement and Error tolerant (Quesenbery, 2004) is conducted (See Appendix H). The E of Easy to learn (the degree of effectiveness in a certain time) is not included in the interview because it overlaps with Effectiveness in combination with Efficiency. The four used constructs of usability testing (Quesenbery, 2004) are operationalized and specific examples are given in Appendix I. In order to increase validity of the semi-structured interview, each construct is measured at least three times. The students had to answer with 'yes', 'no' or 'sometimes' but were allowed to explain answers when necessary. When there was need for further explanation to prevent misunderstandings, the researcher was able to ask for clarification. At the last part of the interview, the researcher asked each student to give their opinion about the design, what did they find attractive and which part of the video was experienced as boring or annoying. .




#### **4.3.3 Procedure**

During the development of the videos, each version is tested by two pupils of grade 7 of KBS de Schothorst. The pupils were instructed to first watch the video and subsequently oral answer some questions about the usability of the video. Then the students were asked to fill in the practicing file to subsequently rate the usability of the worksheet by answering interview questions. The answers were noted and recorded by the researcher. Afterwards, the answers were carefully analyzed by making a scheme of the results. A summary of the main results is shown in Table 4 and 5. Note that all the three versions were tested on usability, so including the final version. The first and second version are revised to design the final version.

#### **4.3.4 Results**

The main results of the two pilot tests are described in the tables below. The main comments are divided into strengths and points of improvement.

Table 4  
*Results of pilottest – instructional videos*


 <b>Video version 1</b>	
<ul style="list-style-type: none"> <li>✔ Content is in line with the interests of the target group.</li> <li>✔ Target group can identify itself with the vlogger.</li> </ul>	<ul style="list-style-type: none"> <li>✘ Basic animations: only text, no moving images and text.</li> <li>✘ Messy transitions between shots by editing two different shots of the same perspective in a row.</li> <li>✘ Only shots of the vlogger when she is on screen and talking to the viewers. No voice-over.</li> <li>✘ Tedious review: every task appears one by one, this takes too much time.</li> </ul>
 <b>Video version 2</b>	
<b>Adjustments of the previous version</b>	
<ul style="list-style-type: none"> <li>✔ Animations made with professional editor software: the text is in motion.</li> <li>✔ Transitions between shots have been improved. No more shots from the same perspective in a row.</li> <li>✔ Voice-over shots are added to let the viewer focus more on the worked examples.</li> <li>✔ All tasks in review are immediately visible, a voice over mentions the tasks.</li> </ul>	<ul style="list-style-type: none"> <li>✘ The vlogger did not refer to the practicing file.</li> <li>✘ It is not attractive to the viewer to hear every video the same background music.</li> </ul>
 <b>Video version 3</b>	
<b>Adjustments of the previous version</b>	
<ul style="list-style-type: none"> <li>✔ In every video, the vlogger refers to the practicing file.</li> <li>✔ Every video varies in background music.</li> </ul>	

From these results can be concluded that the major adjustments were in the design of the video. The developments were mainly in the video editing part and the transitions between the shots. In addition, there was a need among the students to see the connection with the practicing file in more detail. At least, nothing has changed in the structure of the video.


Table 5

*Results of the practicing files of the pilot test*


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 <b>Practicing file version 1</b>	
<input checked="" type="checkbox"/> Clear assignments	<input checked="" type="checkbox"/> Unattractive design
<input checked="" type="checkbox"/> Video supports the worksheet	<input checked="" type="checkbox"/> No examples available on the practicing file.

---

 <b>Practicing file version 2</b>	
<b>Adjustments of the previous version</b>	
<input checked="" type="checkbox"/> Design is more attractive.	
<input checked="" type="checkbox"/> Examples available on the practicing file.	

---

In conclusion, in total two versions were needed to conduct the final design of the practicing file. The major limitation of the first version was the unattractive design. Besides, students indicated that they needed to see the worked examples from the instructional video again because they felt insufficient confident to answer the questions. In the second version of the practicing file, exactly the same examples from the video were added. The students directly recognized the examples and did not have the intention to replay the video.



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## 5 IMPLEMENTATION & EVALUATION

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### 5.1 Goal of the implementation

The purpose of the study is to design an instructional method which helps students of grade 7 to independently develop self-regulation skills. Three sub-questions were formulated to indicate to what extent the instructional method contribute to students' development of:

#### SQ 2.1 Trained skills.

The instructional method is aimed to instruct students how to apply self-regulation skills in personal learning processes. During the experiment, the six self-regulation skills: *goal setting, planning, strategy implementation, monitoring, self-evaluation* and *looking forward* were trained. After the experiment, the extent to which the students have developed the six trained skills was examined.

#### SQ 2.2 Self-regulation skills in general.

Besides the development of the six trained skills, it is essential to indicate students' progression of self-regulation in general. According to the questionnaire of Van de velde, Van Keer and Rosseel (2013) self-regulation can be divided into fifteen subtopics (*task analysis, planning, superficial learning strategies, profound learning strategies, perseverance, monitoring, motivational strategies, self-evaluation (product-evaluation), self-evaluation (process-evaluation), external regulation, introjected regulation, identified regulation, internal regulation, self-efficacy regulation, self-efficacy motivation*) which largely overlap with the trained self-regulation skills. The answer to this question determines if the instructional method also contribute to the development of self-regulation in general.

#### SQ 2.3 Motivation towards learning.

An additional item of the instruments is the effect of the instructional method on students' motivation towards learning in general. The component motivation is implemented in the design (motivational design) because the success of self-regulation is strongly dependent on motivational factors. Independently training self-regulation skills is a huge challenge, may the motivational design affects students' motivation towards learning in general. Students' motivation can be measured by the nine subtopics: *motivational strategies, self-evaluation (product-evaluation), self-evaluation (process-evaluation), external regulation, introjected regulation, identified regulation, internal regulation, self-efficacy regulation, self-efficacy motivation* (Van de velde, Van Keer & Rosseel, 2013).

## 5.2 Participants

In this study, 14 students of grade 7 of KBS de Schothorst were involved in order to test the effect of the instructional method towards the trained skills (SQ 2.1), the self-regulation skills in general (SQ 2.2) and the motivation towards learning in general (SQ 2.3). The group consists of 8 boys and 6 girls with an average age of 9,7 years old. Note that All the questionnaires were taken anonymously but numbered. This means that the results are not linked to one specific student, but a development curve can be created based on the number of the questionnaire.

## 5.3 Instrumentation

### 5.3.1 Trained skills (SQ 2.1)

First, to determine to what extent students have developed the trained self-regulation skills, a questionnaire is developed for to compare students' results before and after the experiment. The questionnaire is specially conducted for this study to conform to the skills of the instructional method. The questionnaire is tested to two independent students of 9 years old. The pilot test showed that the questions were set at the right level. Nothing had to be changed in terms of content and construction of the test.

Before participating the experiment, the students need to fill in the questionnaire, which asks the student to rate their personal learning behavior before, during and after the previous learning process. The questionnaire of the pre-test implies students' level of applying the skills before the experiment. It could be that students already apply certain skills. With help of this test, students' initial level is determined. After the experiment, the students fill in which skills they have applied during the previous learning phase. The differences between the two tests can be seen as the effect of the instructional method.

An example of a question is: *Before I start learning, I figure out what grade I would like to achieve.*

The students had to answer 16 questions in a five-point Likert scale to indicate how often they apply self-regulation skills before, during and after learning. The options to answer are: 'never', 'rarely', 'sometimes', 'almost always', 'always'. In order to test the reliability of the items of the questionnaire, the Cronbach's Alfa is calculated for each subscale. The Cronbach's Alfa for the items of the before, during and after learning phase are respectively 0.868, 0.711 and 0.936 which states that no item need to be removed from the questionnaire.

A conscious decision was made for using a questionnaire as instrument to reach the goal of comparing the scores before and after the experiment. Students filled in a reflection-questionnaire about how they prepared their previous learning process because self-regulation is about thought-processes and managing meta-cognition to optimize the learning process. An observation has been considered, but it is hard to judge a process which is driven by thoughts and which is spread over

several days. In addition, the scores of a questionnaire can be easily compared in order to determine the effect towards the trained skills.

### 5.3.2 Self-regulation skills (SQ 2.2)

In order to test to what extent the instructional method supports the degree of self-regulation, an already existing questionnaire named 'CP-SRLI' (Vandeveldde, Van Keer, & Rosseel, 2013) is used before and after the experiment to determine the effect of the instructional method towards students level of self-regulation in general (Appendix J). Self-regulation is divided into fifteen subtopics, see Appendix K for the overview of the questions per subtopic. An example of a question of the subtopic *task analysis* is: *Before I start learning, I asked myself: What is this topic about? What do I already know about the topic?*

The students had to answer 76 questions in a five-point Likert scale to indicate how often something is done ('never', 'rarely', 'sometimes', 'almost always', 'always'), or that they agree with a statement ('strongly disagree', 'disagree', 'I do not know', 'I agree', 'strongly agree'). The outcomes of the pre- and post-test show the effect of the instructional method towards the degree of self-regulation. The Cronbach's Alfa is calculated to determine whether the items may form one scale. Below, a table of the Alfa's per subscale are given. Note that the underlined scores means that one item is deleted.

Table 6

*Cronbach's Alfa per subscale – Self-regulation skills*

Subtopic	Cronbach's Alfa	Subtopic	Cronbach's Alfa
Task analysis	0.789	Self-evaluation – process	0.848
Planning	0.662	External regulation	<u>0.959</u>
Superficial learning strategies	<u>0.740</u>	Introjected regulation	<u>0.834</u>
Profound learning strategies	0.693	Identified regulation	0.902
Perseverance	<u>0.686</u>	Internal regulation	<u>0.905</u>
Monitoring	<u>0.833</u>	Self-efficacy regulation	0.690
Motivational strategies	0.761	Self-efficacy motivation	0.771
Self-evaluation – product	0.666		

In addition, when the Alfa is calculated for the learning phases before (including goal setting and planning), during (including superficial learning strategies, profound learning strategies, perseverance, monitoring, motivational strategies) and after learning (including self-evaluation – product and self-evaluation – process), the score is respectively 0.787, 0.878 and 0.730 which states that no item needs to be removed. Overall conclusion, no item is deleted for this test.

### 5.3.3 Motivation towards learning (SQ 2.3)

This last research question is about to what extent the motivation towards self-regulation and independent learning is being influenced by the instructional method. The degree of motivation is measured by the questionnaire of Vandevelde, Van Keer and Rosseel (2013), see Appendix J. Note that the CP-SRLI' questionnaire of Vandevelde, Van Keer, & Rosseel (2013) is used to measure both self-regulation (SQ 2.2) and motivation (SQ 2.3). From the questionnaire, only nine subtopics (*motivational strategies, self-evaluation (product-evaluation), self-evaluation (process-evaluation), external regulation, introjected regulation, identified regulation, internal regulation, self-efficacy regulation, self-efficacy motivation*) are used investigate students' motivation towards applying self-regulation skills. An example of a question of the subtopic motivational strategies is: *I say to myself: 'When I'm done with my schoolwork, I'm going to do something nice'.*

The students had to answer 39 questions in a five-point Likert scale to indicate how often something is done ('never', 'rarely', 'sometimes', 'almost always', 'always'), or that they agree with a statement ( 'strongly disagree', 'disagree', 'I do not know', 'I agree', 'strongly agree'). The outcomes of the pre- and post-test show the effect of the instructional method towards students' degree of motivation towards learning in general. The Cronbach's Alfa is calculated to determine whether the items may form one scale. From this reliability analysis, the Cronbach's Alfa of the motivation-related items is 0.861 which states that no item need to be removed from the questionnaire. In addition, in Table 6 the Cronbach's alfa per subscale is displayed, which implies that no item needs to be removed.

## 5.4 Procedure

As described earlier, the last version of the video and the practicing files were tested on its usability by a semi-structured interview. This version is used for the experiment.

Prior to the experiment, the pre-tests of the trained skills and self-regulation (including motivation) were taken in order to determine students' initial level. The researcher introduced the questionnaires shortly by mentioning its subject and instructing how to answer. The students were told that they have to reflect on their previous learning process, in their case: the preparation for the biology test.

One day later, the teacher told the students that they had to prepare for the history test for Friday next week. Subsequently, the researcher began with the experiment by explaining the goal and the concept of the instructional method. Thereafter, the researcher showed the first video about goal setting to the students. After the video the students received the corresponding practicing file which they had to fill in their own free time at school or at home.

Two days later, the researcher came to school. She checked if every student fulfill the tasks

and gave students the possibility to ask questions before starting the next video about planning. Then the researcher introduced and showed the video about planning. In the class, the students immediately filled in the practicing file. The researcher was available to answer specific questions about making a planning. When all the students completed the planning, they have completed the first phase

At the same day, the researcher explained that the students now are ready to start studying for the test, and showed the third video about strategy implementation and monitoring. The practicing file had to be filled in at home during the learning process, with the aim to create the best possible learning environment and adjust the learning tips during the learning process. The students got more than one week to study for the history test.

Nine days later, after finishing the history test receiving the grade, the researcher came to school and gave a short explanation about the last phase: evaluating and looking forward, and showed the last video. The students directly filled in the last practicing file and the new personal learning goals were shortly discussed in class.

After completing the final phase, the students had to fill in the post-tests about the trained skills and self-regulation (including motivation). The students were told that they had to reflect on the previous learning process of preparing the history test.

### **5.5 Data analysis**

The question about to what extent the design of the instructional method contribute to the development of self-regulation among primary school students of grade 7, produced quantitative data.

First, Paired Samples T-tests are used to determine whether the instructional method affects students' development of trained skills (SQ 2.1), self-regulation (SQ 2.2) and motivation (SQ 2.3). When comparing the results of the pre- and post-tests, one-sided tests were used because it is supposed that the instructional method contributes to knowledge about the skills.

Second, the correlation coefficient is calculated to see if two subtopics correlate and therefore have coherence. The subtopics of the trained skills questionnaire and the self-regulation tests are compared with a one-sided test.

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## 6 RESULTS

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### 6.1 Results

#### 6.1.1 Trained skills (SQ 2.1)

##### Paired Samples T-test

In order to test if the instructional method affects students' development of the trained skills, a Paired Samples T-test is used. Expected is that the students scored higher on the post-test than on the pre-test.

Table 7

*Trained skills - mean and SD*

Pre-test	Mean	SD	Post test	Mean	SD
1. Overall test	3.130	0.726	1. Overall test	3.746	0.840
2. Before learning	2.553	0.727	2. Before learning	3.330	1.016
3. During learning	4.357	0.705	3. During learning	4.500	0.635
4. After learning	3.054	1.119	4. After learning	3.821	1.269

Based on the comparison of the mean-scores (Table 7) can be determined that every post-test variable scored higher than the pre-test variable. The results of the pre- and post-tests of the overall questionnaire (1), before phase (2), during phase (3) and the after phase (4) are compared to determine whether the difference is significant (see Table 9 - Appendix N). Only the post-test variables of the overall questionnaire (1) and the before phase (2) are significantly higher than the pre-test variables: the p-value is smaller than the significance level  $\alpha$  ( $0.001 < 0.05$ ) for the overall questionnaire-variable and ( $0.004 < 0.05$ ) for the before phase-variable.

#### 6.1.2 Self-regulation skills (SQ 2.2)

##### Paired Samples T-test

In order to test if the instructional method positively contributes to the development of all the self-regulation skills of Vandeveld, Van Keer and Rosseel (2013), a Paired Samples T-test is used. The expectation is that the instructional method affects at least the subtopics: *task analysis, planning, superficial learning strategies, profound learning strategies, perseverance, monitoring, motivational strategies, self-evaluation (product) and self-evaluation (process)* because these skills are implemented in the instructional method. The mean scores of all the pre- and post-tests are displayed in Table 8.

Table 8

*Self-regulation skills - mean and SD*

Pre-test	Mean	SD	Post test	Mean	SD
Overall test	3.468	0.352	Overall test	3.667	0.495
Task analysis	2.857	0.762	Task analysis	3.271	1.060
Planning	2.940	0.390	Planning	3.571	0.721
Superficial l.s.	3.179	0.608	Superficial l.s.	3.518	0.817
Profound l.s.	2.960	0.653	Profound l.s.	2.929	0.675
Perseverance	4.060	0.565	Perseverance	4.357	0.466
Monitoring	3.174	0.737	Monitoring	3.449	0.735
Motivational strat.	0.691	0.839	Motivational strat.	4.012	0.833
Self-evaluation prod.	4.120	0.818	Self-evaluation prod.	4.333	0.740
Self-evaluation proc.	3.143	1.180	Self-evaluation proc.	3.518	0.880
Ex. regulation	4.500	0.566	Ex. regulation	4.381	0.895
In. regulation	3.714	0.968	In. regulation	3.810	1.051
Intro.regulation	2.964	0.603	Intro.regulation	2.750	0.148
Iden. regulation	4.571	0.558	Iden. regulation	4.607	0.561
Self.ef.regulation	3.304	0.454	Self.ef.regulation	3.500	0.635
Self.ef.motivation	4.357	0.424	Self.ef.motivation	4.268	0.724

The mean score of the overall pre-test is 3.468 (SD=0.352) and the mean score of the overall post-test is 3.667 (SD=0.495), which indicates that the instructional method affects the students' degree of self-regulation (Table 8). Furthermore, from the Paired Samples T-test (Table 10 – Appendix N) can be determined that the p-value is smaller than the significance level  $\alpha$  ( $0.021 < 0.05$ ), so it can be stated that there is a statistical evidence that the instructional method influenced the students' degree of self-regulation in general.

From the implemented skills, which were expected to make a significant difference, can be stated that the skills: *task analysis* (0.012), *planning* (0.05), *superficial learning strategies* (0.030), and *perseverance* (0.012), are significantly improved after the experiment.

### Correlation

The corresponding subtopics of the self-regulation questionnaire and the trained skills questionnaire are compared in order to determine its correlation. Expected is that the correlations of the pre-tests are weaker than the correlations of the post-tests. In Table 11 (Appendix N) the correlated subtopics and its scores are displayed.

The correlation coefficients are calculated to state whether the subtopics are related to each other. The subtopics *task analysis*, *planning* and *self-evaluation process* confirm the expectation. Unfortunately, all the scores are below 0.7, so no relation between the subtopics can be determined. In addition, there is no significant evidence because the p-values are all bigger than the significance level  $\alpha$  (0.05). However, the subtopic *planning* scored the highest with ( $r=0.440$ ,  $p= 0.058$ ).

### **6.1.3 Motivation towards learning (SQ 2.3)**

#### **Paired Samples T-test**

In order to indicate whether the instructional method contributes to a higher motivation towards learning, a Paired Samples T-test is used. Expected is that the instructional method affects students' degree of motivation towards learning in general. The results are displayed in Table 12 (Appendix N).

The mean score of the pre-test is 3.774 (SD=0.337) and the mean score of the post-test is 3.848 (SD=0.442), which indicates that the motivation towards learning had increased a little. Unfortunately, the Paired Samples T-test shows that there is no significant difference between the pre- and post-test, because the p-value is bigger than the significance level  $\alpha$  ( $0.375 > 0.05$ ). In addition, every single construct is tested and only the subtopic *motivational strategies* is significantly improved with respect to the pre-test. Its p-value of 0.028 is smaller than the significance level  $\alpha = 0.05$ .



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## 7 CONCLUSION & DISCUSSION

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### 7.1 Conclusion

The purpose of this study was to design an instructional method for developing self-regulation skills for primary school children. The reason for the study was that the Dutch Education Council suggests that the primary school curriculum should at least provide a basis for the future personal, social and professional functioning, for example by implementing 21<sup>st</sup> century skills such as self-regulation (Onderwijsraad, 2014). The problem was that teachers did not feel confident teaching these skills (Thijs et al., 2014), with the result that students did not become proficient with the 21<sup>st</sup> century skills. This report contributed to the solution of this problem by providing an instructional method for developing self-regulation skills among primary school children of 8-12 years old.

This report is structured by ADDIE which involves that first an analysis was needed to determine the needs from the theoretical and the practical perspective. The main criterion of the design was that students can independently practice with the skills without a teacher in the leading role. In terms of content, the instructional method should consist of three learning phases (before, during and after learning) and four lessons consisting of the skills: goal setting, planning, strategy implementation & monitoring, and self-evaluation & looking forward (Zumbrunn et al., 2011; Zimmerman et al., 1996).

Subsequently, in the design-phase, several guidelines regarding the design of the instructional method were given, which directly answered the first research question: *What is a good design for developing self-regulation skills among primary school students of grade 7?* The most important guidelines which answered RQ1 were: The instructional method should include 1) video instructions including worked examples (Mayer, 2014, Van der Meij & Van der Meij, 2016; Atkinson et al., 2000); 2) a vlogger as a role model of nearly the same age of the students (Snelson, 2013); 3) practicing files to apply the skills in personal learning situations (Ertelt, 2007; Ramdass & Zimmerman, 2011).

Thereafter, during the development and implementation phase, the instructional method is developed and tested three times before the experiment began. The students were tested before and after the experiment to indicate the effect of the instructional method towards the trained skills (SQ2.1), self-regulation in general (SQ2.2) and students' motivation towards learning (SQ 2.3). From these tests can be concluded that:

Students showed improvement in the trained skills (overall questionnaire), and especially in the before phase. This can be explained by the fact that the before phase contains two videos and two practicing files, and the other two phases only includes one video and one practicing file. Also, the tasks of the before phase were performed in real life by making a planning and setting a goal after observing the instruction of the vlogger. The structure of observational learning (Bandura, 1976)

which implies watching, retaining, and replicating a behavior observed from a model, is applied in this instructional method, and from the results proved to be a successful learning strategy.

The instructional method positively contributes to students' degree of self-regulation in general. In addition of all the self-regulation skills, the instructional method has the greatest effect on the subtopics *task analysis*, *planning*, *superficial learning strategies*, *perseverance* and *monitoring*. An explanation is that these skills are implemented in the instructional method (perseverance is applied in the during learning phase: *Keep motivating yourself* and *Keep your attention*), so students developed these skills during the experimental phase of this study.

Both in the trained skills questionnaire and in the self-regulation questionnaire, students showed no progress in the after learning phase. This can be explained because the answers to the questions of the practicing file of the after learning phase could not be converted to a new learning process. In the other two phases, these answers could be applied immediately. Applying the skills in own learning processes supports the learning outcomes, when this link is missing, students do not develop the skills efficiently (Cho & Cho, 2013).

The significant evidence for the improvement of the subtopic *motivational strategies* can be explained by looking at the applied motivational design. Unfortunately, the overall score of the motivation towards learning does not increase. This can be explained because the instruction method does not focus on motivation in relation to learning. However, it was interesting to know whether a method focused on mastering learning skills influences the motivation towards learning in general. The results show that more is needed to motivate students for learning.

## 7.2 Limitations

The first limitation of the study was that the students filled in their own answers regarding the level of self-regulation. You may wonder whether the result is reliable. However, this was a deliberate decision because self-regulation is about thinking processes that no one else can judge.

In addition, it would be better when the students should perform the skills instead of reflecting on their learning behaviors during the learning process. Since the results should be comparable, the decision is made to use a questionnaire to determine the actions of the students.

Furthermore, the respondents consists of 14 students of grade 7. Half of the original group did not get the parental approval to participate the study, which was very regrettable. After considering if two groups may participate the study, it was more preferred to ensure that all the participants get the same instruction.

In addition, the questionnaires existed of a large amount of questions (respectively 16, 76 and 39) which could led to tiredness among the students. This fatigue could have led to reduced concentration at the expense of the effectiveness of the instruction method.

At least, the students saw the videos of the instructional method just one time and in the classroom. In real life, a student can replay the video as much as they need to understand the content. Furthermore, the students will look more focused to the video when they are in their own learning environment.

### **7.3 Implications for practice**

This study provided information about the effect of an instruction method towards the degree of self-regulation. The vision of the instructional method is inspired on the observational learning theory of Bandura (1976) and consists of vlog-videos and practicing files. During the research procedure, it has been noticed that little to none scientific research is done to vlogs as instructional videos and the effect of vlogs on students' learning outcomes.

Furthermore, more research is needed to determine how to increase students' motivation towards learning with help of an instructional method for self-regulation.

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## APPENDICES

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### Appendix A

Zelfregulering	De leerling...
<i><b>VOORAF</b></i>	
<b>Oriënteren</b>	<p>Kan een taak in verband brengen met eerdere ervaringen.</p> <p>Kan aangeven wat het belang van een taak is voor zichzelf of voor het bereiken van een bepaald doel.</p> <p>Kan de moeilijkheidsgraad van een taak of de kans op succes voor zichzelf inschatten.</p>
<b>Doelen stellen</b>	Kan realistische (leer)doelen formuleren
<b>Strategisch plannen</b>	<p>Kan een realistische planning opstellen om de geformuleerde (leer)doelen te bereiken</p> <p>Weet dat er verschillende (leer)strategieën zijn en kan bepalen welke strategieën passen bij de geformuleerde (leer)doelen</p> <p>Kan de (leer)omgeving structureren zodat deze het uitvoeren van de (leer)taak optimaliseert.</p>
<i><b>TIJDENS</b></i>	
<b>Zelfcontrole</b>	Kan afhankelijk van de situatie en tussenresultaten (leer)strategieën en/of doelen aanpassen om zichzelf bij te sturen.
<i><b>NA</b></i>	
<b>Zelfbeoordeling</b>	<p>Kan de eigen prestatie evalueren in relatie tot de geformuleerde (leer)doelen</p> <p>Kan de eigen aanpak toelichten en de eigen prestatie daarmee in verband brengen.</p> <p>Kan de eigen prestatie evalueren in relatie tot de eigen verwachtingen.</p> <p>Kan de eigen prestatie toeschrijven aan zichzelf en/of aan andere factoren.</p>

	Kan aangeven hoe de eigen prestatie invloed heeft op een vervolgtak.
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## Appendix B

### Vlog analysis – Overview analyzed vlogs

<b>Vlogger</b>	<b>Title</b>	<b>Target group</b>	<b>Genre</b>	<b>Views on 09-05-2017</b>	<b>Link</b>
<b>1</b> KnolPower (Enzo Knol)	BLIJF BIJ ME! - ENZOKNOL VLOG #77	Children (6 – 18) and young adults (< 25)	Reality vlog	3.705.153	<a href="https://www.youtube.com/watch?v=IPd93auXvLc&amp;t=400s">https://www.youtube.com/watch?v=IPd93auXvLc&amp;t=400s</a>
<b>2</b> Nino Wilkes	FAMILIE DAG -1 - NINOWILKES VLOG #430	Children (6 – 18) and young adults (< 25)	Reality vlog	68.623	<a href="https://www.youtube.com/watch?v=rifL-KO09U&amp;t=574s">https://www.youtube.com/watch?v=rifL-KO09U&amp;t=574s</a>
<b>3</b> De Langeyoutuber (Anne van Hees)	Boeken pimpen - Back to school	High school students	Education – Tutuorial (how- to)	67	<a href="https://www.youtube.com/watch?v=wjQvbnCI5D8">https://www.youtube.com/watch?v=wjQvbnCI5D8</a>
<b>4</b> Phalentine (Valentine)	DIY Toetsweek & school life hacks	High school students	Education - Tutorial (how- to)	9.128	<a href="https://www.youtube.com/watch?v=Sbt9VWcDDfU">https://www.youtube.com/watch?v=Sbt9VWcDDfU</a>
<b>5</b> Beautygloss (Mascha Feokistova)	How to ♥ Haar wassen   Beautygloss	Girls (10 – 30)	Beauty – Tutorial (how- to)	336.965	<a href="https://www.youtube.com/watch?v=sXSkRcLLTSk">https://www.youtube.com/watch?v=sXSkRcLLTSk</a>
<b>6</b> Shane Kluivert	KOKEN MET SHANE – AFLEVERING 9 #PASTAMETGA MBA'S	Children (6 – 18)	Cooking – Tutorial (how- to)	51.786	<a href="https://www.youtube.com/watch?v=MChvo_eZUBI&amp;t=3s">https://www.youtube.com/watch?v=MChvo_eZUBI&amp;t=3s</a>
<b>7</b> BiBi Breijman	DIY – Zelf Stenen Cactussen maken / knutselen voor je kamer (Nederlands)	Children (6 – 18) and young adults (< 25)	Creativity – Tutorial (how- to)	79.873	<a href="https://www.youtube.com/watch?v=a1ZoyU9GzME">https://www.youtube.com/watch?v=a1ZoyU9GzME</a>
<b>8</b> Beautygirls X (Sophie Hagedoorn)	~GIVEAWAY OPEN~	Children (6 – 18)	Shopping – Give away	141	<a href="https://www.youtube.com/watch?v=zBPv-ICrZKE">https://www.youtube.com/watch?v=zBPv-ICrZKE</a>



## Appendix C

### Vlog analysis – Definitions

<b>Construct</b>	<b>Definition</b>	<b>Examples</b>
<b><i>Personality</i></b>	A set of consistent characteristics and tendencies that can express the similarities and difference among individuals (David & Stanley, 1989)	<p><i>Good example</i> The vlogger shows a confidence appearance in the video.</p> <p><i>Bad example</i> The vlogger shows little expression while talking.</p>
<b><i>Structure</i></b>	The order of elements in the video.	<p><i>Good example</i> The vlogger starts with an introductory talk to introduce the topic to the viewers.</p> <p><i>Bad example</i> The video consist of incoherent elements.</p>
<b><i>Content</i></b>	Information the vlogger share with the viewers with the aim of enjoyment or teaching.	<p><i>Good example</i> The content of the vlog is in line with the interests or needs of the target group.</p> <p><i>Bad Example</i> The content of the vlog does not meet viewers' interests or needs.</p>
<b><i>Narration</i></b>	The way of telling, think of word choice and intonation.	<p><i>Good example</i> The vlogger speaks informal to the viewers.</p> <p><i>Bad example</i> The vlogger uses language which is not adjusted to the level of the viewers.</p>
<b><i>On-screen text</i></b>	Typed or written text which is displayed in the video in order to highlight spoken text.	<p><i>Good example</i> The vlog contains text providing additional information.</p> <p><i>Bad example</i> The vlog does not contain on-screen text.</p>

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<b><i>Design</i></b>	All the added features (edits) of the vlog excluded the vlogger him/herself.	<b><i>Good example</i></b> The vlog contains animated transitions to clarify the purpose of the video. <b><i>Bad example</i></b> The vlog does not contain background music.
<b><i>Camera position</i></b>	The perspective of the camera (from vlogger perspective or viewer perspective).	<b><i>Good example</i></b> The camera position is in line with the content of the vlog. <b><i>Bad example</i></b> The camera position is illogical with the purpose of the video.

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## Appendix D

## Vlog analysis – Summary of results

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
<b>Personality: The vlogger...</b>					
... has a confident appearance				1 (12.5)	7 (87.5)
... speaks enthusiastic				2 (25.0)	6 (75.0)
... uses facial expression			1 (12.5)	3 (37.5)	4 (50.0)
... uses body language (e.g. hand gestures)				1 (12.5)	5 (62.5)
... ensures recognizability (own identity)			1 (12.5)	4 (50.0)	3 (37.5)
<b>Structure: The vlog...</b>					
... starts with a recognizable intro (unique for this vlogger)	2 (25.0)			1 (12.5)	5 (62.5)
... contains a short introduction with preview of the content of the vlog	4 (50.0)			1 (12.5)	3 (37.5)
... has a clear structure (introduction, body, closure)		1 (12.5)	1 (12.5)	3 (37.5)	3 (37.5)
... ends with a message to the viewers (e.g. thanking for watching and asking for likes, etc.)					8 (100.0)
... ends with looking forward to the next video				4 (50.0)	4 (50.0)
<b>Content: The vlog...</b>					
... is line with target group					8 (100.0)
... indicates the goal (e.g. today I'll show you how to make ...)	2 (25.0)			2 (25.0)	4 (50.0)
... is in line with current affairs			8 (100.0)		
... encourages viewers to take action (call to action)		2 (25.0)	1 (12.5)	2 (25.0)	3 (37.5)
<b>Narration: The vlogger...</b>					
... speaks informally to the viewers					8 (100.0)
... adjusts language to audience					8 (100.0)
... is well audible				2 (25.0)	6 (75.0)
... uses an alternating voice (loud/soft, high/low)			1 (12.5)	3 (37.5)	4 (50.0)
... uses alternating volume and intonation			1 (12.5)	3 (37.5)	4 (50.0)
... adapts speaking rate to target group				3 (37.5)	5 (62.5)
<b>On-screen text: The vlog...</b>					
... contains the title of the vlog	8 (100.0)				
... contains text providing additional information (e.g. tips, step 1, watch out...)	5 (62.5)		1 (12.5)	1 (12.5)	1 (12.5)
<b>Design: The vlog...</b>					
... contains animated transitions	7 (87.5)				1 (12.5)
... contains stickers (e.g. emoticons)	6 (75.0)			1 (12.5)	1 (12.5)
... contains background music (e.g. during fast forwards)	1 (12.5)	1 (12.5)		2 (25.0)	4 (50.0)
<b>Camera position: The vlog...</b>					
... is filmed from different (alternate) perspectives				3 (37.5)	5 (62.5)
... is continuously filmed by the vlogger itself	4 (50.0)		1 (12.5)	1 (12.5)	2 (25.0)
... is in line with the content of the vlog (context corresponds with content)				2 (25.0)	6 (75.0)
... is continuously in the frame			2 (25.0)	3 (37.5)	3 (37.5)

## Appendix E

### Needs analysis – Questionnaire

## Vragenlijst: vlogs

Deze vragenlijst gaat over **leerzame vlogs**. Lees de vraag en **kruis** het antwoord aan dat het beste bij jou past.

Geslacht:

- Jongen
- Meisje

Leeftijd:

- 7 jaar
- 8 jaar
- 9 jaar
- 10 jaar



**Vraag 1. Kijk je naar vlogs?**

- Ja
- Nee

*Als je antwoord 'nee' is, ga verder naar vraag 6.*

**Vraag 2. Ik kijk het liefst naar...**

- Een mannelijke vlogger (jongen)
- Een vrouwelijke vlogger (meisje)
- Het maakt me niet uit

**Vraag 3. Ik kijk het liefst naar...**

- Vloggers met een leeftijd tussen 6 en 12 jaar
- Vloggers met een leeftijd tussen 12 en 18 jaar
- Vloggers ouder dan 18 jaar

**Vraag 4. Wanneer ik iets moet leren van een vlog, krijg ik het liefst uitleg van...**

- Een man/jongen
- Een vrouw/meisje
- Het maakt me niet uit

**Vraag 5. Wanneer ik iets moet leren van een vlog, krijg ik het liefst uitleg van...**

- Iemand met een leeftijd tussen 6 en 12 jaar
- Iemand met een leeftijd tussen 12 en 18 jaar
- Iemand ouder dan 18 jaar



**Vraag 6. Welke kleuren in een vlog spreken jou het meeste aan?**

*Let niet op de vlogger en de achtergrond, het gaat alleen om de kleuren.*

- o Groen



- o Blauw



- o Oranje



- o Geel



## Appendix F

## Transcripts of the vlogs

## Before learning – Video 1: Goal Setting

Sentence	Meaning	Screen
	Title page	<ul style="list-style-type: none"> <li>- Intro music: <i>lil kleine ft. boef – krantenwijk</i></li> <li>- Shots of the vlogger while she is learning</li> <li>- Animated title screen</li> </ul> <p><i>Les 1 doelen stellen</i></p>
Hallo, welkom bij deze video.	Introduction	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Waving while saying 'Hallo'</li> </ul>
Ik leer je in vier video's hoe je zelfstandig kunt leren.	Structure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
De video's laten zien wat je moet doen voor, tijdens en na het leren. In deze video leer ik je hoe ik een doel stel. Dat moet <i>voor</i> het leren.	Structure	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text:</li> </ul> <p><i>Voor – Tijdens – Na</i></p> <p><i>Doelen stellen</i></p>
Het werkblad helpt me bij het stellen van mijn doel.	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Showing the corresponding worksheet</li> </ul>
Ken je dat? Heb je net zoals ik geen zin om te leren voor een toets.	Problem	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik kan zin maken als ik een doel heb! Ik wil een goed cijfer halen. Dus het lukt mij toch om te beginnen met leren.	Solution	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Een doel stellen helpt bij je schoolwerk. Dan weet je hoe belangrijk het is om goed te leren.	Definition	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik leer je in drie stappen hoe je een doel moet stellen.	Goal	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Stap 1. Wat wil ik bereiken? Stap 2. Wanneer wil ik dat bereiken? Stap 3. Hoe ga ik dat bereiken?	Preview video content	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text:</li> </ul> <p><i>Stap 1. Wat wil ik bereiken?</i></p> <p><i>Stap 2. Wanneer wil ik dat bereiken?</i></p> <p><i>Stap 3. Hoe ga ik dat bereiken?</i></p>
Nu gaan we beginnen met stap 1. Wat wil ik bereiken?	Task	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Animated screen including text:</li> </ul> <p><i>Stap 1. Wat wil ik bereiken?</i></p>
Voordat ik aan mijn schoolwerk begin, bedenk ik wat ik wilt bereiken. Dit schrijf ik op het	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Pointing at the corresponding worksheet</li> </ul>

werkblad.		
Mijn doel is om een 7 te halen voor geschiedenis-toets. Dit schrijf ik op mijn werkblad.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Stap 2. Wanneer wil ik dat bereiken?	Task	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Stap 2. Wanneer wil ik dat bereiken?</i></li> </ul>
Ik weet al wat ik wil bereiken. Maar voor wanneer wil ik dat bereiken?	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Volgende week heb ik de geschiedenis toets. Dit schrijf ik op mijn werkblad.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Stap 3. Hoe ga ik dat bereiken?	Task	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Stap 3. Hoe ga ik dat bereiken?</i></li> </ul>
Ik weet al wanneer ik mijn doel wil halen. Een doel haal ik niet in één keer. Daarom verdeel ik mijn doel in kleine onderdelen.	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Dit schrijf ik op het werkblad. Één: ik lees de tekst. Twee: ik schrijf een samenvatting. Drie: ik leer de samenvatting en markeer de begrippen. En vier: ik laat mezelf overhoren.	Worked Example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Je hebt geleerd hoe je in drie stappen een doel kunt stellen. Stap 1. Wat wil ik bereiken? Stap 2. Wanneer wil ik dat bereiken? Stap 3. Hoe ga ik dat bereiken?	Review	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Stap 1. Wat wil ik bereiken?</i> <i>Stap 2. Wanneer wil ik dat bereiken?</i> <i>Stap 3. Hoe ga ik dat bereiken?</i></li> </ul>
In de volgende video leer ik zien hoe ik een planning maak.	Preview next video	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Nu kun je zelf het werkblad maken. Bedankt voor het kijken! Ik zie je bij de volgende video: Plannen. Doe!	Closure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Waving while saying 'Doe!'</li> </ul>

**Before learning – Video 2: Planning**

Sentence	Meaning	Screen
	Title page	<ul style="list-style-type: none"> <li>- Intro music: <i>Kygo – Here to you</i></li> <li>- Shots of the vlogger while she is learning</li> <li>- Animated title screen</li> </ul> <p><a href="#">Les 1 Planning maken</a></p>
Hoi! Welkom bij deze video over plannen	Introduction	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Waving while saying 'Hoi'</li> </ul>
In vier video's leer ik je hoe je zelfstandig kunt leren.	Structure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
De video's laten zien wat je moet doen voor, tijdens en na het leren. In deze video leer ik je hoe ik een planning maak. Dat moet <i>voor</i> het leren.	Structure	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Voor – Tijdens – Na</i> <i>Doelen stellen</i></li> </ul>
Je hebt het vast ook wel eens meegemaakt. Ik moet nog een cadeautje halen voor mijn moeder. En ik moet ook nog leren voor geschiedenis.	Problem	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Als ik een goede planning maak, lukt het mij om alles af te krijgen.	Solution	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Een planning is een schema met de taken die je moet doen. In het schema lees je af welke taken je wanneer gaat uitvoeren.	Definition	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the scheme</li> </ul>
Dit werkblad helpt me bij het maken van mijn planning.	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
In deze video leer je hoe ik een planning maak in vier stappen.	Goal	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Stap 1. Bedenk welke taken je moet doen. Stap 2. Verdeel de taken in kleine onderdelen Stap 3. Bedenk hoe lang elk onderdeel duurt Stap 4. Maak een planning.	Preview video content	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Stap 1. Bedenk welke taken je moet doen.</i> <i>Stap 2. Verdeel de taken in kleine onderdelen</i> <i>Stap 3. Bedenk hoe lang elk onderdeel duurt</i> <i>Stap 4. Maak een planning.</i></li> </ul>
Eerst leg ik stap 1 voor je uit. Bedenk welke taken je moet doen.	Task	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text:</li> </ul>

		<i>Stap 1. Bedenk welke taken je moet doen</i>
Voordat ik aan mijn schoolwerk begin, bedenk ik welke taken ik moet doen. Dit kunnen taken voor school zijn. Maar dit kunnen ook andere taken zijn.	Tracking	- Vlogger talks while sitting behind the desk
Ik schrijf op het werkblad wat ik deze week moet doen.	Worked example	- Voice over - Filling in the worksheet
Stap 2. Verdeel de taken in kleine onderdelen.	Task	- Voice over - Animated screen including text: <i>Stap 2. Verdeel de taken in kleine onderdelen</i>
Ik weet al wat ik moet doen deze week. Nu ga ik de taken verdelen in kleine onderdelen. Mijn eerste taak is: geschiedenis leren.	Tracking	- Vlogger talks while sitting behind the desk
Dit deel ik op in 4 kleine onderdelen. Één: de tekst lezen. Twee: een samenvatting schrijven. Drie: de samenvatting markeren en leren. Vier: mezelf laten overhoren. Deze verdeling schrijf ik op het werkblad	Worked example	- Voice over - Filling in the worksheet
Stap 3. Bedenk hoelang elk onderdeel duurt	Task	- Voice over - Animated screen including text: <i>Stap 3. Bedenk hoe lang elk onderdeel duurt</i>
Ik heb de taken al verdeeld in kleine onderdelen. Nu bedenk ik hoeveel tijd ik nodig heb per onderdeel.	Tracking	- Vlogger talks while sitting behind the desk
Ik schrijf de tijd achter de taken op het werkblad. Voor de hele tekst lezen heb ik een kwartier nodig. Samenvatten vind ik nog moeilijk. Dus daarvoor heb ik wel twee uur nodig. Voor de samenvatting markeren en leren heb ik 1,5 uur nodig. Overhoren duurt een half uurtje.	Worked example	- Voice over - Shot of filling in the worksheet
Stap 4. Maak een planning.	Task	- Voice over - Animated screen including text: <i>Stap 4. Maak een planning</i>
Ik weet al precies hoeveel tijd elk onderdeel duurt. Nu begin ik met mijn planning.	Tracking	- Vlogger talks while sitting behind the desk

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Ik kijk terug naar het schema van stap 2. Daar staat alle informatie die ik nodig heb om een planning te maken. Daarna vul ik het schema van stap 4 in. Ik schrijf naast elke dag wat ik wanneer ga doen.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Ik heb je geleerd hoe je in vier stappen een planning maakt. Alle stappen nog één keer op een rijtje.	Review	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
<p>Stap 1. Bedenk welke taken je moet doen.</p> <p>Stap 2. Verdeel de taken in kleine onderdelen.</p> <p>Stap 3. Bedenk hoe lang elk onderdeel duurt.</p> <p>Stap 4. Maak een planning.</p>	Review	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <ul style="list-style-type: none"> <li><i>Stap 1. Bedenk welke taken je moet doen.</i></li> <li><i>Stap 2. Verdeel de taken in kleine onderdelen</i></li> <li><i>Stap 3. Bedenk hoe lang elk onderdeel duurt</i></li> <li><i>Stap 4. Maak een planning.</i></li> </ul> </li> </ul>
Je kunt nu het werkblad zelf maken. In de volgende video geef ik leertips voor tijdens het leren.	Preview of the next video	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Bedankt voor het kijken! Ik zie je bij de volgende video! Doe!	Closure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk.</li> </ul>

**During Learning – Video 3: Strategy implementation & monitoring**

Sentence	Meaning	Screen
	Title page	<ul style="list-style-type: none"> <li>- Intro music: <i>Calvin Harris - Feels</i></li> <li>- Shots of the vlogger while she is learning</li> <li>- Animated title screen</li> </ul> <p><a href="#">Les 2 – Leertips</a></p>
Hoi! Welkom bij deze video.	Introduction	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Waving while saying 'Hoi'</li> </ul>
In vier video's leer ik je hoe je zelfstandig kunt leren. De video's laten zien wat je moet doen voor, tijdens en na het leren. In deze video geef ik je leertips. De tips gebruik je <i>tijdens</i> het leren.	Structure	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text</li> </ul> <p><i>Voor – Tijdens – Na</i></p> <p><i>Leertips</i></p>
Heb jij dat ook wel eens? Je moet leren voor een toets. Maar je weet niet hoe je het aan moet pakken?	Problem	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Met deze vijf tips moet het zeker lukken!	Solution & Goal	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Tip 1. Bereid je goed voor. Tip 2. Blijf jezelf motiveren. Tip 3. Houd je aandacht erbij. Tip 4. Kies juiste manier om te leren. Tip 5. Vraag gerust om hulp!	Preview video content	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text:</li> </ul> <p><i>Tip 1. Bereid je goed voor.</i></p> <p><i>Tip 2. Blijf jezelf motiveren.</i></p> <p><i>Tip 3. Houd je aandacht erbij.</i></p> <p><i>Tip 4. Kies juiste manier om te leren.</i></p> <p><i>Tip 5. Vraag gerust om hulp!</i></p>
Het werkblad helpt je bij het toepassen van de tips.	Worked Example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the workheet</li> </ul>
Nu leg ik de tips stap voor stap uit.	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
<b>Tip 1. Bereid je goed voor.</b>	<b>Task</b>	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text:</li> </ul> <p><i>Tip 1. Bereid je goed voor</i></p>
Voordat ik begin met mijn schoolwerk, bereid ik me goed voor. Dit doe ik door eerst een doel te stellen en daarna een planning te maken.	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik stel een doel met de wat-wanneer-hoe-	Worked	<ul style="list-style-type: none"> <li>- Voice over</li> </ul>

stappen. In de video over doelen stellen leg ik in drie stappen uit hoe dit moet.	Example	<ul style="list-style-type: none"> <li>- Filling in the worksheet</li> <li>- Shots of the previous video: goal setting</li> </ul>
Een planning bestaat uit een schema. Daarin schrijf ik de taken die ik moet doen. Zo kan ik precies aflezen wanneer ik de taken ga uitvoeren.	Worked Example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
<b>Tip 2. Blijf jezelf motiveren.</b>	<b>Task</b>	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Tip 2. Blijf jezelf motiveren</i></li> </ul>
Jezelf motiveren is zorgen dat je zin hebt om te leren. Dus maak het leren zo leuk mogelijk!	Definition	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik krijg zin om te leren als ik een doel heb. Ik wil graag een 7 halen voor geschiedenis. Met hoge cijfers op mijn rapport hoop ik naar de havo te gaan. Daar wil ik graag hard voor werken!	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
<b>Tip 3. Houd je aandacht erbij.</b>	<b>Task</b>	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Tip 3. Houd je aandacht erbij</i></li> </ul>
Dat betekent dat je je niet moet laten afleiden. Blijf je concentreren op je schoolwerk.	Definition	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik kan me goed concentreren in een stille ruimte. Ik werk kamer het liefst op mijn kamer.	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik leg mijn mobiel ook weg. Mijn mobiel leidt mij af. Zo duurt het leren veel langer.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Looking at the mobile phone</li> </ul>
<b>Tip 4. Kies de juiste manier om te leren.</b>	<b>Task</b>	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Tip 4. Kies de juiste manier om te leren</i></li> </ul>
Ik heb me al goed voorbereid. Nu ga ik echt beginnen met leren. Er zijn veel manieren om te leren. Welke manier de beste is, ligt eraan wat ik moet leren.	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Ik moet een hoofdstuk geschiedenis kennen voor de toets. Ik kies ervoor om een samenvatting te maken. En daarna alle begrippen te markeren.	Worked Example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Making a summary</li> </ul>
Over twee weken moet ik Engelse woordjes kennen. Ik schrijf eerst alle woorden op. Ik	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Writing English words</li> </ul>



weet dan hoe ik de woorden moet schrijven. Daarna overhoor ik mijzelf tot ik alles ken.		
<b>Tip 5. Vraag gerust om hulp.</b>	<b>Task</b>	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Tip 5. Vraag gerust om hulp</i></li> </ul>
Tijdens het leren kom ik vaak moeilijkheden tegen. Eerst probeer ik het zelf. Als het me echt niet lukt, vraag ik om hulp. Ik vraag dan klasgenoten, ouders of leerkrachten of ze me op weg willen helpen. De volgende keer kan ik het dan zelf!	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
In deze video heb ik je 5 tips gegeven voor het leren. De tips nog één keer op een rijtje.	Review	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Tip 1. Een goede voorbereiding. Tip 2. Blijf jezelf motiveren. Tip 3. Houd je aandacht erbij. Tip 4. Kies juiste manier om te leren. Tip 5. Vraag gerust om hulp.	Review	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text: <i>Tip 1. Een goede voorbereiding</i> <i>Tip 2. Blijf jezelf motiveren</i> <i>Tip 3. Houd je aandacht erbij</i> <i>Tip 4. Kies juiste manier om te leren</i> <i>Tip 5. Vraag gerust om hulp</i></li> </ul>
Je kunt nu het werkblad zelf maken. Bedankt voor het kijken!	Closure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
In de volgende video leer ik je wat je moet doen <u>na</u> het leren. Tot dan!	Preview next video	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>

**After learning – Self-evaluation & looking forward**

Sentence	Meaning	Example
	Title page	<ul style="list-style-type: none"> <li>- Intro music: <i>Calvin Harris - Feels</i></li> <li>- Shots of the vlogger while she is learning</li> <li>- Animated title screen</li> </ul> <p><a href="#">Les 2 – Leertips</a></p>
Hoi! Welkom bij de laatste video!	Introduction	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> <li>- Waving while saying 'Hoi'</li> </ul>
In de vorige video's heb ik je geleerd wat je moet doen voor en tijdens het leren. In deze video leer ik je wat je moet doen na het leren.	Structure & Goal	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text</li> </ul> <p><i>Voor – Tijdens – Na</i></p> <p><i>Terugblikken en vooruit kijken</i></p>
Je kent het vast. Je bent klaar met leren want je hebt je cijfer terug gekregen. Je denkt dat je klaar bent met het vak. Dat klopt niet.	Problem	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Het is belangrijk om terug te kijken naar je leergedrag. Daar kun je veel van leren!	Solution	<ul style="list-style-type: none"> <li>- Voice over</li> </ul>
Ik geef je vier hulpvragen die helpen bij het terugkijken naar je leergedrag.	Preview video content	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
1. Heb ik mijn doel behaald? 2. Wat ging goed tijdens het leren? 3. Wat ging minder goed tijdens het leren? 4. Wat ga ik de volgende keer anders doen?	Preview video content	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text</li> </ul> <p><i>1. Heb ik mijn doel behaald?</i></p> <p><i>2. Wat ging goed tijdens het leren?</i></p> <p><i>3. Wat ging minder goed tijdens het leren?</i></p> <p><i>4. Wat ga ik de volgende keer anders doen?</i></p>
Deze hulpvragen staan ook op het werkblad. Ik pak het werkblad en een pen erbij. Zo laat ik je stap voor stap zien hoe ik het doe!	Worked Example	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
<b>Hulpvraag 1. Heb ik mijn doel behaald?</b>	Task	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Animated screen including text</li> </ul> <p><i>Hulpvraag 1. Heb ik mijn doel behaald?</i></p>
Voor het beantwoorden van deze vraag, pak ik mijn doel erbij.	Tracking	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
Mijn doel was: ik wil een 7 of voor geschiedenis halen volgende week. Dit vul ik	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>

in op het werkblad.		
Daarna vergelijk ik mijn cijfer met het doel. Mijn cijfer is een 6. Dus ik heb helaas mijn doel niet behaald.	Worked example	- Vlogger talks while sitting behind the desk
<b>Hulpvraag 2: Wat ging goed tijdens het leren?</b>	<b>Task</b>	- Voice over - Animated screen including text <i>Hulpvraag 2. Wat ging goed tijdens het leren?</i>
Ik weet al dat ik mijn doel niet gehaald heb. Maar ik ga terugkijken naar wat ik wél goed heb gedaan tijdens het leren.	Tracking	- Vlogger talks while sitting behind the desk
Mijn voorbereiding was goed. Ik heb een duidelijk doel gesteld en een planning gemaakt. Dit schrijf ik op mijn werkblad	Worked example	- Vlogger talks while sitting behind the desk
Ik heb op tijd om hulp gevraagd. Ik wist niet zo goed hoe ik moest leren. Dus heb mijn zus gevraagd. Zij gaf mij de tip om een samenvatting te maken.	Worked example	- Vlogger talks while sitting behind the desk
Nu vul ik het werkblad in.	Worked Example	- Voice over - Filling in the worksheet.
<b>Hulpvraag 3: Wat ging er minder goed tijdens het leren?</b>	<b>Task</b>	- Voice over - Animated screen including tekst <i>Hulpvraag 3. Wat ging goed tijdens het leren?</i>
Ik heb al ingevuld wat goed ging tijdens het leren. Nu bedenk ik wat er minder goed ging. Daar kan ik juist van leren!	Tracking	- Vlogger talks while sitting behind the desk
Ik was snel afgeleid door mijn mobieltje. Ik kreeg veel berichtjes. Dus ik vond het moeilijk om hem weg te leggen.	Worked example	- Voice over - Looking at the mobile phone - Filling in the workheet
De samenvatting ging ook minder goed. Ik had er te weinig tijd dus ik heb het afgeraffeld. Dit schrijf ik op het werkblad.	Worked example	- Vlogger talks while sitting behind the desk - Filling in the worksheet
<b>Hulpvraag 4: Wat ga ik de volgende keer anders doen?</b>	<b>Task</b>	- Voice over - Animated screen including tekst <i>Hulpvraag 4. Wat ging goed tijdens het leren?</i>
Bij de volgende toets wil ik wel een 7 halen!	Tracking	- Vlogger talks while sitting behind the desk

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Deze drie dingen ga ik de volgende keer beter doen.		
Als ik de volgende keer moet leren voor een toets, leg ik mijn mobieltje echt weg!	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
De volgende keer maak ik weer een samenvatting. Maar dan neem ik er meer tijd voor.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Als laatste ga ik de volgende keer de oefentoets maken. Andere klasgenoten hebben dat ook gedaan. Zij wisten precies wat ze van de toets konden verwachten.	Worked example	<ul style="list-style-type: none"> <li>- Voice over</li> <li>- Filling in the worksheet</li> </ul>
Tot slot de hulpvragen nog één keer op een rijtje!	Review	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>
<ol style="list-style-type: none"> <li>1. Heb ik mijn doel behaald?</li> <li>2. Wat ging goed tijdens het leren?</li> <li>3. Wat ging minder goed tijdens het leren?</li> <li>4. Wat ga ik de volgende keer anders doen?</li> </ol>		<ul style="list-style-type: none"> <li>- Voicc over</li> <li>- Animated screen including text</li> </ul> <p style="margin-left: 20px;"><i>1. Heb ik mijn doel behaald?</i></p> <p style="margin-left: 20px;"><i>2. Wat ging goed tijdens het leren?</i></p> <p style="margin-left: 20px;"><i>3. Wat ging minder goed tijdens het leren?</i></p> <p style="margin-left: 20px;"><i>4. Wat ga ik de volgende keer anders doen?</i></p>
Je kunt nu het zelf werkblad maken. Bedankt voor het kijken! Ik hoop dat je er veel van hebt geleerd! Doe!	Closure	<ul style="list-style-type: none"> <li>- Vlogger talks while sitting behind the desk</li> </ul>

## Appendix G

### Practicing file

# Werkblad Doelen stellen

Je hebt het filmpje over doelen stellen bekeken. Voordat je begint met leren of huiswerk maken vul je dit blad in. Maak onderstaande opdrachten om jouw eigen doel te stellen.

#### Stap 1: Wat wil ik bereiken?

#### Stap 2: Wanneer wil ik dat bereiken?

#### Stap 3: Hoe ga ik dat bereiken?

Deel je doel op in kleine onderdelen. Bijvoorbeeld: 1. Lezen; 2. Samenvatting maken

Onderdeel 1	
Onderdeel 2	
Onderdeel 3	
Onderdeel 4	

# Werkblad

## Planning maken





Je hebt het filmpje over het maken van een planning bekeken. Voordat je begint met leren of huiswerk maken vul je dit blad in. Maak onderstaande opdrachten om jouw eigen planning te maken

### Stap 1: Bedenk welke taken je moet doen

<b>Taak 1</b>	
<b>Taak 2</b>	
<b>Taak 3</b>	
<b>Taak 4</b>	

### Stap 2: Verdeel de taken in kleine onderdelen



Schrijf de verdeling op in de vakken onder 'Onderdeel'. Kijk naar het voorbeeld.

Grote taak	Klein onderdeel		Klein onderdeel		Klein onderdeel		Klein onderdeel	
<b>Taak 1</b>								
<b>Taak 2</b>								
<b>Taak 3</b>								
<b>Taak 4</b>								

### Stap 3: Bedenk hoelang een onderdeel duurt

Schrijf de tijd achter elk klein onderdeel in het schema hierboven.

**Stap 4: Maak een planning**

<i>Dag</i>				
<b>Maandag</b>				
<b>Dinsdag</b>				
<b>Woensdag</b>				
<b>Donderdag</b>				
<b>Vrijdag</b>				
<b>Zaterdag</b>				
<b>Zondag</b>				

# Werkblad Leertips

Je hebt het filmpje over leertips tijdens het leren bekeken. Tijdens jouw eigen leer- of schoolwerk vul je dit blad in.

## **Tip 1: Een goede voorbereiding!**

*Pak je planning erbij, en schrijf hieronder je doel*

## **Tip 2: Blijf jezelf motiveren!**

*Bedenk wat je wilt bereiken met het leren / huiswerk, schrijf het hieronder op!*

Ik leer omdat ...

## **Tip 3: Houd je aandacht erbij!**

*Zorg dat je in de juiste leeromgeving zit. Kruis de juiste antwoorden aan.*

*Heb je ergens nee geantwoord? Verander je omgeving dan!*

	Ja	Nee
Stille ruimte		
Opgeruimd bureau		
Geen mobieltje		



**Tip 4: Kies de juiste manier om te leren!**

*Deze manieren helpen goed bij het leren! Kies de manier die bij jou past. Kleur het rondje in.  
Heb je zelf een andere manier? Vul het schema dan aan!*

Tekst leren	Woordjes leren
<input type="radio"/> Samenvatting maken	<input type="radio"/> Woordjes opschrijven tot dat je ze foutloos kan schrijven
<input type="radio"/> Begrippen markeren	<input type="radio"/> Oefensites
<input type="radio"/> Overhoren	<input type="radio"/> Overhoren
<input type="radio"/> Oefentoets maken	<input type="radio"/> Liedje of rijmpje maken van de woorden
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

**Tip 5: Vraag gerust om hulp!**

*Loop je ergens anders tegen aan? Schrijf je problemen op en vraag ze aan anderen!  
Schrijf de leertips van anderen hieronder op, en bewaar ze goed!*

Problemen	Tips van anderen

# Werkblad

## Evalueren en vooruit blikken

Je hebt het filmpje over evalueren en vooruitblikken bekeken. Als je de toets hebt gemaakt of de opdrachten hebt ingeleverd, beantwoord je de onderstaande vragen.

### Hulpvraag 1: Heb ik mijn doel gehaald?

*Welk doel heb je vooraf gesteld?*

--

Heb je je doel gehaald?   **Ja**   **Nee**

### Hulpvraag 2: Wat ging goed?

--

### Hulpvraag 3: Wat ging minder goed?

--

### Hulpvraag 4: Wat ga ik de volgende keer beter doen?

--

## Appendix H

### Usability test – Semi-structured interview

#### Questions semi-structured interview – Video: Goal setting

##### Effectiveness

1. Na de video te hebben bekeken, weet je dan welke stappen je moet nemen om een doel te stellen? [EFFECT-VID-GOAL-1]
2. Weet je hoe je een doel moet stellen met de informatie uit de video? [EFFECT-VID-GOAL-2]
3. Met behulp van de stappen uit de video, weet je dan hoe je een doel moet stellen. [EFFECT-VID-GOAL-3]

##### Efficient

4. Na één keer de video te hebben bekeken, weet je dan welke stappen je moet zetten om een doel te stellen? [EFFI-VID-GOAL-1]
5. Om de video te begrijpen, is één keer bekijken van de video dan genoeg? [EFFI-VID-GOAL-2]
6. Denk je dat je een doel kunt stellen als je de video één keer heb bekeken? [EFFI-VID-GOAL-3]

##### Engaging

7. Vind je de video interessant? [ENG-VID-GOAL-1]
8. Heb je de video helemaal afgekeken? [ENG-VID-GOAL-2]
9. Heb je zin om, na het bekijken van de video, met het werkblad aan de slag te gaan? [ENG-VID-GOAL-3]

##### Error tolerant

10. Begrijp je alle stappen van de video? [ERROR-VID-GOAL-1]
11. Zijn de stappen duidelijk uitgelegd? [ERROR-VID-GOAL-2]
12. Denk je dat je door de voorbeelden van de vlogger, zelf een doel kunt stellen? [ERROR-VID-GOAL-3]

##### Opinion (open question)

13. Wat vind je interessant aan de video? [OP-VID-GOAL-1]
14. Welk stuk vind je saai in de video? [OP-VID-GOAL-2]
15. Wat kan beter aan de video? [OP-VID-GOAL-3]

**Questions semi-structured interview – Video: Planning**

**Effectiveness**

1. Na de video te hebben bekeken, weet je dan welke stappen je moet nemen om een planning te maken? [EFFECT-VID-PLAN-1]
2. Weet je hoe je een planning moet maken met de informatie uit de video? [EFFECT-VID-PLAN-2]
3. Met behulp van de stappen uit de video, weet je dan hoe je een planning moet maken? [EFFECT-VID-PLAN-3]

**Efficient**

4. Na één keer de video te hebben bekeken, weet je dan welke stappen je moet zetten om een planning te maken? [EFFI-VID-PLAN-1]
5. Om de video te begrijpen, is één keer bekijken van de video dan genoeg? [EFFI-VID-PLAN-2]
6. Denk je dat je een planning kunt maken als je de video één keer heb bekeken? [EFFI-VID-PLAN-3]

**Engaging**

7. Vind je de video interessant? [ENG-VID-PLAN-1]
8. Heb je de video helemaal afgekeken? [ENG-VID-PLAN-2]
9. Heb je zin om, na het bekijken van de video, met het werkblad aan de slag te gaan? [ENG-VID-PLAN-3]

**Error tolerant**

10. Begrijp je alle stappen van de video? [ERROR-VID-PLAN-1]
11. Zijn de stappen duidelijk uitgelegd? [ERROR-VID-PLAN-2]
12. Denk je dat je door de voorbeelden van de vlogger, zelf een planning kunt maken? [ERROR-VID-PLAN-3]

**Opinion (open question)**

13. Wat vind je interessant aan de video? [OP-VID-PLAN-1]
14. Welk stuk vind je saai in de video? [OP-VID-PLAN-2]
15. Wat kan beter aan de video? [OP-VID-PLAN-3]

**Questions semi-structured interview – Video: Monitoring**

**Effectiveness**

1. Na de video te hebben bekeken, weet je dan welke tips helpen tijdens het leren? [EFFECT-VID-MON-1]
2. Weet je wat je moet doen tijdens het leren met de informatie uit de video? [EFFECT-VID-MON-2]
3. Met behulp van de tips uit de video, weet je dan hoe je het beste kunt leren? [EFFECT-VID-MON- 3]

**Efficient**

4. Na één keer de video te hebben bekeken, weet je dan hoe je de tips moet toepassen tijdens het leren? [EFFI-VID- MON -1]
5. Om de video te begrijpen, is één keer bekijken van de video dan genoeg? [EFFI-VID-MON-2]
6. Denk je dat je de tips kunt toepassen als je de video één keer heb bekeken? [EFFI-VID-MON-3]

**Engaging**

7. Vind je de video interessant? [ENG-VID-MON-1]
8. Heb je de video helemaal afgekeken? [ENG-VID-MON-2]
9. Heb je zin om, na het bekijken van de video, met het werkblad aan de slag te gaan? [ENG-VID-MON-3]

**Error tolerant**

10. Begrijp je alle tips uit de video? [ERROR-VID-MON-1]
11. Zijn de leertips duidelijk uitgelegd? [ERROR-VID-MON-2]
12. Denk je dat je door de voorbeelden van de vlogger, de tips kunt toepassen tijdens het leren? [ERROR-MON-STRAT-3]

**Opinion (open question)**

13. Wat vind je interessant aan de video? [OP-VID-MON-1]
14. Welk stuk vind je saai in de video? [OP-VID-MON-2]
15. Wat kan beter aan de video? [OP-VID-MON-3]

**Questions semi-structured interview – Video: Evaluation**

**Effectiveness**

1. Na de video te hebben bekeken, weet je dan welke hulpvragen helpen bij het terugblikken en vooruitkijken? [EFFECT-VID-EVA-1]
2. Weet je hoe terug moet kijken op je leergedrag met de informatie uit de video? [EFFECT-VID-EVA-2]
3. Met behulp van de stappen uit de video, weet je dan hoe je moet terugblikken op je leergedrag? [EFFECT-VID-EVA-3]

**Efficient**

4. Na één keer de video te hebben bekeken, weet je dan welke hulpvragen ik moet stellen om terug te blikken op mijn leergedrag? [EFFI-VID-EVA-1]
5. Om de video te begrijpen, is één keer bekijken van de video dan genoeg? [EFFI-VID-EVA-2]
6. Denk je dat je de hulpvragen aan jezelf kunt stellen als je de video één keer heb bekeken? [EFFI-VID-EVA-3]

**Engaging**

7. Vind je de video interessant? [ENG-VID-EVA-1]
8. Heb je de video helemaal afgekeken? [ENG-VID-EVA-2]
9. Heb je zin om, na het bekijken van de video, met het werkblad aan de slag te gaan? [ENG-VID-EVA-3]

**Error tolerant**

10. Begrijp je alle stappen van de video? [ERROR-VID-EVA-1]
11. Zijn de stappen duidelijk uitgelegd? [ERROR-VID-EVA-2]
12. Denk je dat je door de voorbeelden van de vlogger, zelf kunt terugblikken op je leergedrag? [ERROR-VID-EVA-3]

**Opinion (open question)**

13. Wat vind je interessant aan de video? [OP-VID-EVA-1]
14. Welk stuk vind je saai in de video? [OP-VID-EVA-2]
15. Wat kan beter aan de video? [OP-VID-EVA-3]

**Questions semi-structured interview – Worksheet: Goal setting**

**Effectiveness**

1. Kan je na het bekijken van de video en het invullen van het werkblad zelf een doel stellen? [EFFECT-WS-GOAL-1]
2. Kan je na het invullen van het werkblad ook zelf een doel stellen zonder hulp van het werkblad? [EFFECT-WS-GOAL-2]
3. Snap je hoe je met behulp van het werkblad je eigen doel moet stellen? [EFFECT-WS-GOAL-3]

**Efficient**

4. Kan je je eigen doel stellen op het werkblad na de video één keer te hebben bekeken en de vraag op het werkblad één keer te hebben gelezen? [EFFI-WS-GOAL-1]
5. Is één keer doorlezen van de vraag voldoende om te begrijpen wat de opdracht is? [EFFI-WS-GOAL-2]
6. Weet je welke stappen je moet nemen om een doel te stellen na het werkblad één keer ingevuld te hebben? [EFFI-WS-GOAL-3]

**Engaging**

7. Vind je werkblad zinvol om in te vullen? [ENG-WS-GOAL-1]
8. Heb je de het hele werkblad ingevuld? [ENG-WS-GOAL-2]
9. Vond je het leerzaam om een doel te stellen volgens de stappen van het werkblad? [ENG-WS-GOAL-3]

**Error tolerant**

10. Heb je fouten gemaakt toen je je eigen doel moest stellen op het werkblad? [ERROR-WS-GOAL-1]
11. Zijn de opdrachten duidelijk uitgelegd op het werkblad? [ERROR-WS-GOAL-2]
12. Vond je het moeilijk om een doel te stellen volgens de stappen van het werkblad? [ERROR-WS-GOAL-3]

**Opinion (open question)**

13. Wat vind je interessant aan de opdrachten van het werkblad? [OP-WS-GOAL-1]
14. Wat vond je saai tijdens het invullen van het werkblad? [OP-WS-GOAL-2]
15. Wat kan beter aan het werkblad? [OP-WS-GOAL-3]

**Opinion (open question) Questions semi-structured interview – Worksheet: Planning**

**Effectiveness**

1. Kan je na het bekijken van de video en het invullen van het werkblad zelf een planning maken? [EFFECT-WS-PLAN-1]
2. Kan je na het invullen van het werkblad ook zelf een planning maken zonder hulp van het werkblad? [EFFECT-WS- PLAN-2]
3. Snap je hoe je met behulp van het werkblad je eigen planning kan maken? [EFFECT-WS- PLAN -3]

**Efficient**

4. Kan je je eigen planning maken op het werkblad na de video één keer te hebben bekeken en de vraag op het werkblad één keer te hebben gelezen? [EFFI-WS- PLAN -1]
5. Is één keer doorlezen van de vraag voldoende om te begrijpen wat de opdracht is? [EFFI-WS- PLAN -2]
6. Weet je welke stappen je moet nemen om een planning te maken na het werkblad één keer ingevuld te hebben? [EFFI-WS-PLAN-3]

**Engaging**

7. Vind je werkblad zinvol om in te vullen? [ENG-WS- PLAN -1]
8. Heb je de het hele werkblad ingevuld? [ENG-WS-G PLAN -2]
9. Vond je het leerzaam om een planning te maken volgens de stappen van het werkblad? [ENG-WS- PLAN -3]

**Error tolerant**

10. Heb je fouten gemaakt toen je je eigen planning moest maken op het werkblad? [ERROR-WS- PLAN-1]
11. Zijn de opdrachten duidelijk uitgelegd op het werkblad? [ERROR-WS- PLAN-2]
12. Vond je het moeilijk om een planning te maken volgens de stappen van het werkblad? [ERROR-WS- PLAN-3]

**Opinion (open question)**

13. Wat vind je interessant aan de opdrachten van het werkblad? [OP-WS-PLAN -1]
14. Wat vond je saai tijdens het invullen van het werkblad? [OP-WS-PLAN-2]
15. Wat kan beter aan het werkblad? [OP-WS-PLAN-3]



**Questions semi-structured interview – Worksheet: Monitoring**

**Effectiveness**

1. Kan je na het bekijken van de video en het invullen van het werkblad de tips toepassen tijdens het leren? [EFFECT-WS-MON-1]
2. Kan je na het invullen van het werkblad ook zelf de tips toepassen tijdens het leren zonder hulp van het werkblad? [EFFECT-WS-MON-2]
3. Snap je hoe je met behulp van het werkblad de tips kan toepassen tijdens het leren? [EFFECT-WS-MON-3]

**Efficient**

4. Begrijp je de vragen op het werkblad na de video één keer te hebben bekeken en de vraag op het werkblad één keer te hebben gelezen? [EFFI-WS-MON-1]
5. Is één keer doorlezen van de vraag voldoende om te begrijpen wat de opdracht is? [EFFI-WS-MON-2]
6. Weet je welke tips helpen tijdens het leren na het werkblad één keer ingevuld te hebben? [EFFI-WS-MON-3]

**Engaging**

7. Vind je werkblad zinvol om in te vullen? [ENG-WS-STRAT -1]
8. Heb je de het hele werkblad ingevuld? [ENG-WS-STRAT -2]
9. Vond je het leerzaam om de tips in te zetten volgens de opdrachten van het werkblad? [ENG-WS-STRAT-3]

**Error tolerant**

10. Heb je fouten gemaakt bij het invullen van het werkblad? [ERROR-WS-MON-1]
11. Zijn de opdrachten duidelijk uitgelegd op het werkblad? [ERROR-WS-MON-2]
12. Vond je het moeilijk om de vragen te beantwoorden op het werkblad? [ERROR-WS-MON-3]

**Opinion (open question)**

13. Wat vind je interessant aan de opdrachten van het werkblad? [OP-WS-MON-1]
14. Wat vond je saai tijdens het invullen van het werkblad? [OP-WS-MON-2]
15. Wat kan beter aan het werkblad? [OP-WS-MON-3]

**Questions semi-structured interview – Worksheet: Evaluation**

**Effectiveness**

1. Kan je na het bekijken van de video en het invullen van het werkblad terugblikken op je eigen leergedrag? [EFFECT-WS-EVA-1]
2. Kan je na het invullen van het werkblad ook terugblikken op je leergedrag zonder hulp van het werkblad? [EFFECT-WS-EVA-2]
3. Snap je hoe je met behulp van het werkblad kan terugblikken op je leergedrag?? [EFFECT-WS- EVA-3]

**Efficient**

4. Begrijp je de vragen op het werkblad na de video één keer te hebben bekeken en de vraag op het werkblad één keer te hebben gelezen? [EFFI-WS-EVA-1]
5. Is één keer doorlezen van de vraag voldoende om te begrijpen wat de opdracht is? [EFFI-WS-EVA-2]
6. Weet je welke hulpvragen je kunt stellen na het werkblad één keer ingevuld te hebben? [EFFI-WS-EVA-3]

**Engaging**

7. Vind je werkblad zinvol om in te vullen? [ENG-WS-EVA-1]
8. Heb je de het hele werkblad ingevuld? [ENG-WS-EVA-2]
9. Vond je het leerzaam om de hulpvragen op te schrijven om terug te kijken naar je leergedrag? [ENG-WS-EVA-3]

**Error tolerant**

10. Heb je fouten gemaakt bij het invullen van het werkblad? [ERROR-WS-EVA-1]
11. Zijn de opdrachten duidelijk uitgelegd op het werkblad? [ERROR-WS-EVA-2]
12. Vond je het moeilijk om de vragen te beantwoorden op het werkblad? [ERROR-WS-EVA-3]

**Opinion (open question)**

13. Wat vind je interessant aan de opdrachten van het werkblad? [OP-WS-STRAT-1]
14. Wat vond je saai tijdens het invullen van het werkblad? [OP-WS-STRAT-2]
15. Wat kan beter aan het werkblad? [OP-WS-STRAT-3]

## Appendix I

### Usability test – Operationalization

<b>Construct</b>	<b>Definition</b>	<b>Example</b>
<b>Effective</b>	It addresses whether the learning material is useful and helps users achieve their goals accurately.	<b>Video</b> Na de video te hebben bekeken, weet je dan welke stappen je moet nemen om een doel te stellen?
		<b>Worksheet</b> Kan je na het bekijken van de video en het invullen van het werkblad zelf een doel stellen?
<b>Efficient</b>	Efficiency is the speed (with accuracy) with which work can be done.	<b>Video</b> Na één keer de video te hebben bekeken, weet je dan welke stappen je moet zetten om een doel te stellen?
		<b>Worksheet</b> Is één keer doorlezen van de vraag voldoende om te begrijpen wat de opdracht is?
<b>Engaging</b>	It addresses how pleasant, satisfying, or interesting an interface is to use.	<b>Video</b> Heb je zin om, na het bekijken van de video, met het werkblad aan de slag te gaan?
		<b>Worksheet</b> Vond je het leerzaam om een doel te stellen volgens de stappen van het werkblad?
<b>Error tolerant</b>	Error tolerance involves how well the product prevents errors and helps users recover from any errors that do occur.	<b>Video</b> Begrijp je alle stappen van de video?
		<b>Worksheet</b> Heb je fouten gemaakt toen je je eigen doel moest stellen op het werkblad?

## Appendix J

### Self-regulation test - Questionnaire

Vragenlijst nummer:

## Vragenlijst leerlingen

Deze vragenlijst gaat over schoolwerk. Denk hierbij aan zelfstandig werken in de klas, leren voor een toets of huiswerk maken. Iedereen pakt dit anders aan, er is geen goed of fout. Het gaat erom hoe **JU** het doet!

### Leeftijd:

- 9
- 10
- 11
- 12

### Ik ben een:

- jongen
- meisje

- 
- **Omcirkel** het antwoord dat het beste bij jou past.
  - **Vraag** om hulp als je iets niet begrijpt.
  - **Verbeteren** doe je door een streep te halen door het foute antwoord en het goede antwoord



## Eerst even oefenen ...

**Voorbeeld 1**

Hoe vaak doe jij de volgende dingen? Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
1. Voor ik naar school kom, eet ik een boterham.	1	2	3	4	5
2. Tijdens de pauze speel ik met mijn vriendjes.	1	2	3	4	5
3. Na school ga ik onmiddellijk naar huis.	1	2	3	4	5

**Voorbeeld 2**

Wat vind jij? Geef aan of je voor elke vraag akkoord gaat. Omcirkel op elke lijn één getal.

	1. Helemaal niet mee eens	2. Niet mee eens	3. Weet ik niet	4. Mee eens	5. Helemaal mee eens
4. Ik kijk graag naar televisie.	1	2	3	4	5
5. Ik sta graag vroeg op.	1	2	3	4	5
6. Ik eet graag frietjes.	1	2	3	4	5
7. Ik kom graag naar school.	1	2	3	4	5

### Hier begint de vragenlijst!

Wat doe jij VOOR je aan jouw schoolwerk begint?

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
1. Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Waarover gaat het? Wat weet ik er al over?'.	1	2	3	4	5
2. Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Herken ik dit soort opdracht?'.	1	2	3	4	5
3. Als ik een opdracht moet doen die ik al eens gedaan heb, vraag ik me af: 'Hoe heb ik het toen gedaan? Was dat een goede manier?'.	1	2	3	4	5
4. Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Wat vind ik ervan (leuk, moeilijk, interessant, ...)?'.	1	2	3	4	5
5. Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Zal het mij lukken?'.	1	2	3	4	5
6. Ik begin gewoon aan mijn schoolwerk, zonder te plannen wanneer ik de verschillende taken ga doen.	1	2	3	4	5
7. Voor ik begin aan mijn schoolwerk, kijk ik wat ik eerst ga doen en wat ik daarna ga doen.	1	2	3	4	5
8. Als ik mijn schoolwerk moeilijk vind, maak ik er meer tijd voor.	1	2	3	4	5
9. Bij een grote taak of toets, begin ik pas de dag ervoor met leren. Ik ga niet elke dag een stukje leren.	1	2	3	4	5
10. Voor ik begin aan mijn schoolwerk, bepaal ik hoelang ik ermee bezig ga.	1	2	3	4	5
11. Voor ik begin aan mijn schoolwerk, denk ik na hoe ik te werk kan gaan en kies dan de beste manier.	1	2	3	4	5

### Wat doe je TIJDENS het maken van jouw schoolwerk?

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
12. Tijdens het leren lees ik alles opnieuw tot ik het ken.	1	2	3	4	5
13. Tijdens het leren schrijf ik alles opnieuw tot ik het ken.	1	2	3	4	5
14. Tijdens het leren leg ik mijn hand op de tekst en overhoor ik mijzelf.	1	2	3	4	5
15. Tijdens het leren lees ik alles maar één keer door. Dan weet ik het wel een beetje.	1	2	3	4	5
16. Tijdens het leren vertel ik de tekst na in mijn eigen woorden.	1	2	3	4	5
17. Tijdens het leren maak ik een samenvatting.	1	2	3	4	5
18. Ik zoek voorbeelden bij wat ik moet leren.	1	2	3	4	5
19. Ik ga zelf geen voorbeelden opzoeken bij wat ik moet leren. Dat staat allemaal wel in de tekst.	1	2	3	4	5
20. Tijdens het leren maak ik zelf vragen over de tekst. Daarna geef ik hier antwoord op.	1	2	3	4	5
21. Tijdens het leren maak ik een schema of een mind map (woordspin) van de tekst.	1	2	3	4	5
22. Tijdens het leren markeer ik de belangrijkste dingen uit de tekst.	1	2	3	4	5
23. Tijdens het leren kijk ik wat belangrijk en wat minder belangrijk is.	1	2	3	4	5
24. Tijdens het leren zoek ik naar de betekenis van moeilijke woorden.	1	2	3	4	5
25. Ook als ik liever andere dingen wil doen, begin ik aan mijn schoolwerk.	1	2	3	4	5
26. Als ik mijn schoolwerk moeilijk of saai vind, doe ik <b>niet</b> meer mijn best.	1	2	3	4	5

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
27. Als ik liever andere dingen wil doen, ga ik andere dingen doen en maak ik mijn schoolwerk <b>niet</b> af.	1	2	3	4	5
28. Ik hou vol totdat mijn schoolwerk af is.	1	2	3	4	5
29. Tijdens mijn schoolwerk werk ik aandachtig en laat ik mij niet afleiden.	1	2	3	4	5
30. Als ik afgeleid ben tijdens mijn schoolwerk lukt het mij <b>niet</b> om weer snel terug verder te werken.	1	2	3	4	5
31. Tijdens mijn schoolwerk vraag ik me af: 'Lukt het goed op deze manier?'.	1	2	3	4	5
32. Als ik merk dat iets niet lukt probeer ik het op een andere manier aan te pakken.	1	2	3	4	5
33. Tijdens mijn schoolwerk vraag ik me af: 'Begrijp ik nog alles?'.	1	2	3	4	5
34. Tijdens mijn schoolwerk vraag ik me af: 'Heb ik nog genoeg tijd?'.	1	2	3	4	5
35. Tijdens mijn schoolwerk kijk ik tussendoor wat ik gedaan heb en hoeveel ik nog moet doen.	1	2	3	4	5
36. Tijdens mijn schoolwerk heb ik geen planning die ik volg.	1	2	3	4	5
37. Tijdens mijn schoolwerk vraag ik me af: 'Wat vind ik moeilijk? Wat moet ik nog eens oefenen?'.	1	2	3	4	5
38. Tijdens mijn schoolwerk kan ik mezelf <b>niet</b> motiveren om verder te werken.	1	2	3	4	5
39. Als ik het niet meer leuk vind om mijn schoolwerk te maken, probeer ik er iets aan te doen.	1	2	3	4	5
40. Ik zeg tegen mezelf: 'Als ik klaar ben met mijn schoolwerk, ga ik iets leuks doen'.	1	2	3	4	5



	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
41. Tijdens mijn schoolwerk zeg ik tegen mijzelf: 'Nog even doorwerken, dan ben ik snel klaar'.	1	2	3	4	5
42. Tijdens mijn schoolwerk zeg ik tegen mezelf: : 'Ik kan dit!'.	1	2	3	4	5
43. Ik maak mijn schoolwerk omdat het belangrijk vind om alles goed te snappen.	1	2	3	4	5

Wat doe je NA het maken van jouw schoolwerk?

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
44. Na mijn schoolwerk wil ik graag weten welke fouten ik heb gemaakt, hier kan ik van leren.	1	2	3	4	5
45. Na mijn schoolwerk lever ik het direct in en hoor ik later wel of ik iets vergeten ben.	1	2	3	4	5
46. Na mijn schoolwerk controleer ik of ik alle opdrachten gemaakt heb voordat ik het inlever.	1	2	3	4	5
47. Na mijn schoolwerk vraag ik me af: 'Heb ik dit op een goede manier gedaan?'.	1	2	3	4	5
48. Na het leren van een toets vraag ik me af: 'Zal ik het de volgende keer op dezelfde manier doen of kies ik beter een andere manier?'.	1	2	3	4	5
49. Na de toets vraag ik mezelf: 'Is het goed gegaan?'.	1	2	3	4	5
50. Na mijn schoolwerk vraag ik me af: 'Wat vond ik ervan (leuk/moeilijk/saai/interessant, ...)?'.	1	2	3	4	5

**Waarom doe jij jouw best voor school?**

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

<b>Ik doe mijn best voor school ...</b>	1.Helemaal niet mee eens	2.Niet mee eens	3.Weet ik niet	4.Mee eens	5.Helemaal mee eens
51. omdat IK het belangrijk vind om alles goed te snappen.	1	2	3	4	5
52. omdat anderen (ouders, juf, meester, ...) me verplichten om dat te doen.	1	2	3	4	5
53. omdat anderen (ouders, juf, meester, ...) me dwingen om dat te doen.	1	2	3	4	5
54. omdat ik me schuldig zou voelen als ik niet mijn best zou doen.	1	2	3	4	5
55. omdat ik me zou schamen als ik niet mijn best zou doen.	1	2	3	4	5
56. omdat ik wil dat anderen (ouders, juf, meester, ...) denken dat ik slim ben.	1	2	3	4	5
57. omdat ik aan anderen (ouders, juf, meester, ...) wil laten zien dat ik een goede leerling ben.	1	2	3	4	5
58. omdat ik nieuwe dingen wil bijleren.	1	2	3	4	5
59. omdat ik dat belangrijk vind voor later.	1	2	3	4	5
60. omdat ik dat nuttig vind voor mezelf.	1	2	3	4	5
61. omdat ik dat zelf belangrijk vind.	1	2	3	4	5
62. omdat ik het boeiend vind.	1	2	3	4	5
63. omdat ik het leuk vind.	1	2	3	4	5
64. omdat ik dat heel graag doe.	1	2	3	4	5

**Waar ben jij goed in?**

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

<b>Ik ben goed in ...</b>	1.Helemaal niet mee eens	2.Niet mee eens	3.Weet ik niet	4.Mee eens	5.Helemaal mee eens
65. vooraf nadenken op welke manier ik schoolwerk of leerwerk ga aanpakken.	1	2	3	4	5
66. vooraf mijn schoolwerk of leerwerk plannen.	1	2	3	4	5
67. mezelf motiveren om aan mijn schoolwerk te beginnen.	1	2	3	4	5
68. mijn schoolwerk op tijd afmaken, ik vind het belangrijk om alles op tijd in te leveren.	1	2	3	4	5
69. mijn schoolwerk afmaken, ook al vind ik het saai of moeilijk.	1	2	3	4	5
70. aandachtig werken tijdens mijn schoolwerk.	1	2	3	4	5
71. snel opgeven tijdens het maken van mijn schoolwerk.	1	2	3	4	5
72. weten wat belangrijk en minder belangrijk is tijdens het leren.	1	2	3	4	5
73. een schema of mindmap (woordenspin) maken tijdens het leren.	1	2	3	4	5
74. alles zelf willen doen, ik vraag niet om hulp als ik het schoolwerk of leerwerk niet snap.	1	2	3	4	5
75. mijn schoolwerk zelf controleren, omdat ik wil weten wat ik nog niet goed snap.	1	2	3	4	5
76. volhouden tijdens het maken van mijn schoolwerk.	1	2	3	4	5

Je bent nu klaar met de eerste vragenlijst.

Bedankt voor je hulp!

## Appendix K

### Self-regulation test – Questions divided into subtopics

Code	Subtopic	Code	Subtopic
TK	Task analysis	SEPROC	Self-evaluation – process evaluation
PL	Planning	ER	External regulation
SLS	Superficial learning strategies	INR	Introjected regulation
PLS	Profound learning strategies	IDR	Identified regulation
PE	Perseverance	IR	Internal regulation
MT	Monitoring	SER	Self-efficacy regulation
MOTS	Motivational strategies	SEM	Self-efficacy motivation
SEPROD	Self-evaluation – product evaluation		

Nr.	Subtopic	Phase	Question
1.	TK	Before	Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Waarover gaat het? Wat weet ik er al over?'.
2.	TK	Before	Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Herken ik dit soort opdracht?'.
3.	TK	Before	Als ik een opdracht moet doen die ik al eens gedaan heb, vraag ik me af: 'Hoe heb ik het toen gedaan? Was dat een goede manier?'.
4.	TK	Before	Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Wat vind ik ervan (leuk, moeilijk, interessant, ...)'.
5.	TK	Before	Voor ik begin aan mijn schoolwerk, vraag ik me af: 'Zal het mij lukken?'.
6.	PL	Before	Ik begin gewoon aan mijn schoolwerk, zonder te plannen wanneer ik de verschillende taken ga doen.
7.	PL	Before	Voor ik begin aan mijn schoolwerk, kijk ik wat ik eerst ga doen en wat ik daarna ga doen.
8.	PL	Before	Als ik mijn schoolwerk moeilijk vind, maak ik er meer tijd voor.
9.	PL	Before	Bij een grote taak of toets, begin ik pas de dag ervoor met leren. Ik ga niet elke dag een stukje leren.
10.	PL	Before	Voor ik begin aan mijn schoolwerk, bepaal ik hoelang ik ermee bezig ga.
11.	PL	Before	Voor ik begin aan mijn schoolwerk, denk ik na hoe ik te werk kan gaan en kies dan de beste manier.
12.	SLS	During	Tijdens het leren lees ik alles opnieuw tot ik het ken.
13.	SLS	During	Tijdens het leren schrijf ik alles opnieuw tot ik het ken.
14.	SLS	During	Tijdens het leren leg ik mijn hand op de tekst en overhoor ik mijzelf.
15.	SLS	During	Tijdens het leren lees ik alles maar één keer door. Dan weet ik het wel een

beetje.			
16.	PLS	During	Tijdens het leren vertel ik de tekst na in mijn eigen woorden.
17.	PLS	During	Tijdens het leren maak ik een samenvatting.
18.	PLS	During	Ik zoek voorbeelden bij wat ik moet leren.
19.	PLS	During	<a href="#">Ik ga zelf geen voorbeelden opzoeken bij wat ik moet leren. Dat staat allemaal wel in de tekst.</a>
20.	PLS	During	Tijdens het leren maak ik zelf vragen over de tekst. Daarna geef ik hier antwoord op.
21.	PLS	During	Tijdens het leren maak ik een schema of een mindmap (woordspin) van de tekst.
22.	PLS	During	Tijdens het leren markeer ik de belangrijkste dingen uit de tekst.
23.	PLS	During	Tijdens het leren kijk ik wat belangrijk en wat minder belangrijk is.
24.	PLS	During	Tijdens het leren zoek ik naar de betekenis van moeilijke woorden.
25.	PE	During	Ook als ik liever andere dingen wil doen, begin ik aan mijn schoolwerk.
26.	PE	During	<a href="#">Als ik mijn schoolwerk moeilijk of saai vind, doe ik niet meer mijn best.</a>
27.	PE	During	<a href="#">Als ik liever andere dingen wil doen, ga ik andere dingen doen en maak ik mijn schoolwerk niet af.</a>
28.	PE	During	Ik hou vol totdat mijn schoolwerk af is.
29.	PE	During	Tijdens mijn schoolwerk werk ik aandachtig en laat ik mij niet afleiden.
30.	PE	During	<a href="#">Als ik afgeleid ben tijdens mijn schoolwerk lukt het mij niet om weer snel terug verder te werken.</a>
31.	MT	During	Tijdens mijn schoolwerk vraag ik me af: 'Lukt het goed op deze manier?'. [MT1]
32.	MT	During	Als ik merk dat iets niet lukt probeer ik het op een andere manier aan te pakken. [MT2]
33.	MT	During	Tijdens mijn schoolwerk vraag ik me af: 'Begrijp ik nog alles?'. [MT3]
34.	MT	During	Tijdens mijn schoolwerk vraag ik me af: 'Heb ik nog genoeg tijd?'. [MT4]
35.	MT	During	Tijdens mijn schoolwerk kijk ik tussendoor wat ik gedaan heb en hoeveel ik nog moet doen. [MT5]
36.	MT	During	<a href="#">Tijdens mijn schoolwerk heb ik geen planning die ik volg.</a> [MT6]
37.	MT	During	Tijdens mijn schoolwerk vraag ik me af: 'Wat vind ik moeilijk? Wat moet ik nog eens oefenen?'. [MT7]
38.	MOTS	During / Motivation	<a href="#">Tijdens mijn schoolwerk kan ik mezelf <b>niet</b> motiveren om verder te werken.</a>
39.	MOTS	During / Motivation	Als ik het niet meer leuk vind om mijn schoolwerk te maken, probeer ik er iets

			aan te doen.
40.	MOTS	During / Motivation	Ik zeg tegen mezelf: 'Als ik klaar ben met mijn schoolwerk, ga ik iets leuks doen'.
41.	MOTS	During / Motivation	Tijdens mijn schoolwerk zeg ik tegen mijzelf: 'Nog even doorwerken, dan ben ik snel klaar'.
42.	MOTS	During / Motivation	Tijdens mijn schoolwerk zeg ik tegen mezelf: 'Ik kan dit!'.
43.	MOTS	During / Motivation	Ik maak mijn schoolwerk omdat het belangrijk vind om alles goed te snappen.
44.	SEPROD	After	Na mijn schoolwerk wil ik graag weten welke fouten ik heb gemaakt, hier kan ik van leren.
45.	SEPROD	After	Na mijn schoolwerk lever ik het direct in en hoor later wel of ik iets vergeten ben.
46.	SEPROD	After	Na mijn schoolwerk controleer ik of ik alle opdrachten gemaakt heb voordat ik het inlever.
47.	SEPROC	After	Na mijn schoolwerk vraag ik me af: 'Heb ik dit op een goede manier gedaan?'.
48.	SEPROC	After	Na het leren van een toets vraag ik me af: 'Zal ik het de volgende keer op dezelfde manier doen of kies ik beter een andere manier?'.
49.	SEPROC	After	Na de toets vraag ik mezelf: 'Is het goed gegaan?'.
50.	SEPROC	After	Na mijn schoolwerk vraag ik me af: 'Wat vond ik ervan (leuk/moeilijk/saai/interessant, ...)?'.
51.	ER	Motivation	Ik doe mijn best voor school, omdat IK het belangrijk vind om alles goed te snappen.
52.	ER	Motivation	Ik doe mijn best voor school, omdat anderen (ouders, juf, meester, ...) me verplichten om dat te doen.
53.	ER	Motivation	Ik doe mijn best voor school, omdat anderen (ouders, juf, meester, ...) me dwingen om dat te doen.
54.	INR	Motivation	Ik doe mijn best voor school, omdat ik me schuldig zou voelen als ik niet mijn best zou doen.
55.	INR	Motivation	Ik doe mijn best voor school, omdat ik me zou schamen als ik niet mijn best zou doen.
56.	INR	Motivation	Ik doe mijn best voor school, omdat ik wil dat anderen (ouders, juf, meester, ...) denken dat ik slim ben.
57.	INR	Motivation	Ik doe mijn best voor school, omdat ik aan anderen (ouders, juf, meester, ...) wil laten zien dat ik een goede leerling ben.
58.	IDR	Motivation	Ik doe mijn best voor school, omdat ik nieuwe dingen wil bijleren.
59.	IDR	Motivation	Ik doe mijn best voor school, omdat ik dat belangrijk vind voor later.
60.	IDR	Motivation	Ik doe mijn best voor school, omdat ik dat nuttig vind voor mezelf.
61.	IDR	Motivation	Ik doe mijn best voor school, omdat ik dat zelf belangrijk vind.

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62.	IR	Motivation	Ik doe mijn best voor school, omdat ik het boeiend vind.
63.	IR	Motivation	Ik doe mijn best voor school, omdat ik het leuk vind.
64.	IR	Motivation	Ik doe mijn best voor school, omdat ik dat heel graag doe.
65.	SER	Motivation	In ben goed in vooraf nadenken op welke manier ik schoolwerk of leerwerk ga aanpakken.
66.	SER	Motivation	In ben goed in vooraf mijn schoolwerk of leerwerk plannen.
70.	SER	Motivation	In ben goed in aandachtig werken tijdens mijn schoolwerk.
71.	SER	Motivation	In ben goed in snel opgeven tijdens het maken van mijn schoolwerk.
72.	SER	Motivation	In ben goed in weten wat belangrijk en minder belangrijk is tijdens het leren.
73.	SER	Motivation	In ben goed in een schema of mindmap (woordenspin) maken tijdens het leren.
74.	SER	Motivation	In ben goed in alles zelf willen doen, ik vraag niet om hulp als ik het schoolwerk of leerwerk niet snap.
75.	SER	Motivation	Ik ben goed in mijn schoolwerk zelf controleren, omdat ik wil weten wat ik nog niet goed snap.
67.	SEM	Motivation	Ik ben goed in meteen te beginnen aan mijn schoolwerk, ik vind dat belangrijk!
68.	SEM	Motivation	Ik ben goed in mijn schoolwerk op tijd afmaken, ik vind het belangrijk om alles op tijd in te leveren.
69.	SEM	Motivation	Ik ben goed in mijn schoolwerk afmaken, ook al vind ik het saai of moeilijk.
76.	SEM	Motivation	Ik ben goed in volhouden tijdens het maken van mijn schoolwerk.

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## Appendix L

### Trained skills questionnaire – Questionnaire

Vragenlijst nummer:

## Vragenlijst leerlingen

Leeftijd

- 9
- 10
- 11
- 12

Ik ben een:

- jongen
- meisje



- **Omcirkel** het antwoord dat het beste bij jou past.
- **Vraag** om hulp als je iets niet begrijpt.
- **Verbeteren** doe je door een streep te halen door het foute antwoord en het goede antwoord te omcirkelen.
- **Beantwoord alle vragen.**

Pagina 1/3

## Opdracht

Over twee weken moet je een geschiedenisstoets maken, hoe bereid je je voor?

### ***Wat doe je voor het leren?***

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
1. Voordat ik ga leren, bedenk ik welk cijfer ik zou willen halen.	1	2	3	4	5
2. Voordat ik ga leren, schrijf ik op wat ik wil bereiken met het leren.	1	2	3	4	5
3. Voordat ik ga leren, stel ik een doel.	1	2	3	4	5
4. Voordat ik ga leren, weet ik hoe ik het beste uit mijzelf kan halen.	1	2	3	4	5
5. Voordat ik ga leren, weet ik in welke volgorde ik het aan ga pakken.	1	2	3	4	5
6. Voordat ik ga leren, kan ik inschatten hoelang ik over elk onderdeel (tekst lezen, samenvatten etc.) doe.	1	2	3	4	5
7. Voordat ik ga leren, bedenk ik wat ik op welke dag ga leren.	1	2	3	4	5
8. Voordat ik ga leren, maak ik een schema waarin ik schrijf wat ik wanneer ga leren.	1	2	3	4	5

### ***Wat doe je tijdens het leren?***

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
9. Tijdens het leren, zorg ik voor een rustige leeromgeving.	1	2	3	4	5
10. Tijdens het leren, wil ik niet afgeleid worden.	1	2	3	4	5
11. Tijdens het leren, leg ik mijn mobieltje weg.	1	2	3	4	5
12. Tijdens het leren, vraag ik om hulp als ik iets niet snap.	1	2	3	4	5

***Wat doe je na de toets?***

Geef voor elke vraag aan hoe vaak je dit doet. Omcirkel op elke lijn één getal.

	1. Nooit	2. Zelden	3. Soms	4. Vaak	5. Altijd
13. Na het leren, bedenk ik wat goed ging tijdens het leren.	1	2	3	4	5
14. Na het leren, bedenk ik wat minder goed ging tijdens het leren	1	2	3	4	5
15. Na het leren, bedenk ik wat ik de volgende keer beter kan doen.	1	2	3	4	5
16. Na het leren, schrijf ik op wat ik de volgende keer anders ga doen.	1	2	3	4	5

*Je bent klaar met de vragen! Bedankt voor je hulp!*

## Appendix M

### Trained skills questionnaire – Operationalization

<b>Code</b>	<b>Subtopic</b>
TK	Task analysis
PL	Planning
MT	Monitoring
SEPROC	Self-evaluation – process evaluation

<b>Nr.</b>	<b>Subtopic</b>	<b>Phase</b>	<b>Question</b>
1.	TK	Before	Voordat ik ga leren, bedenk ik welk cijfer ik zou willen halen.
2.	TK	Before	Voordat ik ga leren, schrijf ik op wat ik wil bereiken met het leren.
3.	TK	Before	Voordat ik ga leren, stel ik een doel.
4.	TK	Before	Voordat ik ga leren, weet ik hoe ik het beste uit mijzelf kan halen.
5.	PL	Before	Voordat ik ga leren, weet ik in welke volgorde ik het aan ga pakken.
6.	PL	Before	Voordat ik ga leren, kan ik inschatten hoelang ik over elk onderdeel (tekst lezen, samenvatten etc.) doe.
7.	PL	Before	Voordat ik ga leren, bedenk ik wat ik op welke dag ga leren.
8.	PL	Before	Voordat ik ga leren, maak ik een schema waarin ik schrijf wat ik wanneer ga leren.
9.	MT	During	Tijdens het leren, zorg ik voor een rustige leeromgeving.
10.	MT	During	Tijdens het leren, wil ik niet afgeleid worden.
11.	MT	During	Tijdens het leren, leg ik mijn mobieltje weg.
12.	MT	During	Tijdens het leren, vraag ik om hulp als ik iets niet snap.
13.	SEPROC	After	Na het leren, bedenk ik wat goed ging tijdens het leren.
14.	SEPROC	After	Na het leren, bedenk ik wat minder goed ging tijdens het leren
15.	SEPROC	After	Na het leren, bedenk ik wat ik de volgende keer beter kan doen.
16.	SEPROC	After	Na het leren, schrijf ik op wat ik de volgende keer anders ga doen.

## Appendix N

### Results Paired Samples T-test

Table 9

*Paired Samples T-test – Trained skills*

		Paired Differences					t	df	Sig. (1-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Total: Overall pre-test Total: Overall post-test	-,61607	,59184	,15818	-,89619	-,33595	-3,895	13	,001
Pair 2	Total: Before pre-test Total: Before post-test	-,77679	,90163	,24097	-1,20353	-,35004	-3,224	13	,004
Pair 3	Total: During pre-test Total: During post-test	-,14286	,38871	,10389	-,32684	,04112	-1,375	13	,096
Pair 4	Total: After pre-test Total: After post-test	-,76786	1,46256	,39089	-1,46009	-,07563	-1,964	13	,036

Table 710

*Paired Samples T-test – Self-regulation skills*

		Paired Differences					t	df	Sig. (1-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Total: Overall pre-test Total: Overall post-test	-,19925	,33094	,08845	-,35588	-,04261	-2,253	13	,021
Pair 2	Total: Task analysis pre-test Total: Task analysis post-test	-,41429	,60492	,16167	-,70060	-,12797	-2,562	13	,012
Pair 3	Total: Planning pre-test Total: Planning post-test	-,63095	,77399	,20686	-,99728	-,26462	-3,050	13	,005
Pair 4	Total: Superf.ls pre-test Total: Superf.ls post-test	-,33929	,61712	,16493	-,63137	-,04720	-2,057	13	,030
Pair 5	Total: Profound ls pre-test Total: Profound ls post-test	,03175	,55543	,14845	-,23114	,29463	,214	13	,417
Pair 6	Total: Perseverance pre-test Total: Perseverance post-test	-,29762	,43451	,11613	-,50327	-,09197	-2,563	13	,012

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Pair 7	Total: Monitoring pre-test								
	Total: Monitoring post-test	,27551	,71421	,19088	-,06253	,61355	1,443	13	,087
Pair 8	Total: Motiv. strat. pre-test	-,32143	,57164	,15278	-,59199	-,05087	-2,104	13	,028
	Total: Motiv. Strat. post-test								
Pair 9	Total: Selfev.product pre-test	-,21429	,96615	,25822	-,67157	,24300	-,830	13	,211
	Total: Selfev.product post-test								
Pair 10	Total: Selfev.process pre-test	-,37500	1,05041	,28073	-,87216	,12216	-1,336	13	,103
	Total: Selfev.process post-test								
Pair 11	Total: Ex. regulation pre-test	,11905	,59351	,15862	-,16186	,39996	,751	13	,233
	Total: Ex. Regulation post-test								
Pair 12	Total: In. regulation pre-test	-,09524	,54582	,14588	-,35358	,16310	-,653	13	,263
	Total: In. Regulation post-test								
Pair 13	Total: Intro.regulation pre-test	,21429	,67835	,18130	-,10678	,53535	1,182	13	,129
	Total: Intro.regulation post-test								
Pair 14	Total: Iden. regulation pre-test	-,03571	,30786	,08228	-,18143	,11000	-,434	13	,336
	Total: Iden. Regulation post-test								
Pair 15	Total: Self.ef.regulation pre-test	-,19643	,61181	,16351	-,48600	,09314	-1,201	13	,126
	Total: Self.ef.regulation post-test								
Pair 16	Total: Self.ef.motivation pre-test	,08929	,66222	,17698	-,22414	,40271	,504	13	,311
	Total:Self.ef.motivation post-test								

Table 11

*Correlation between the subtopics*

Subtopic Self-regulation	Subtopic Trained skills	Persons R	Sig (1- tailed)
Overall – Pretest	Overall – Pretest	.108	.357
Overall – Posttest	Overall – Posttest	-.005	.494
Task analysis – Pre-test	Task analysis – Pre-test	-.086	.385
Task analysis – Post-test	Task analysis – Post-test	-.384	.088
Planning – Pre-test	Planning – Pre-test	-.311	.140
Planning – Post-test	Planning – Post-test	.440	.058
Monitoring – Pre-test	Monitoring – Pre-test	-.319	.134
Monitoring – Post-test	Monitoring– Post-test	-.282	.164
Self- evaluation process – Pre-test	Self- evaluation process – Pre-test	-.035	.452
Self – evaluation process – Post-test	Self – evaluation process – Post-test	-.174	.276

Table 12  
*Paired Samples T-test – Motivational strategies*

		Paired Differences				t	df	Sig. (1-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Total: Motiv. strat. pre-test								
	Total: Motiv. Strat. post-test	-,32143	,57164	,15278	-,59199	-,05087	-2,104	13	,028
Pair 2	Total: Selfev.product pre-test								
	Total: Selfev.product post-test	-,21429	,96615	,25822	-,67157	,24300	-,830	13	,211
Pair 3	Total: Selfev.process pre-test								
	Total: Selfev.process post-test	-,37500	1,05041	,28073	-,87216	,12216	-1,336	13	,103
Pair 4	Total: Ex. regulation pre-test								
	Total: Ex. Regulation post-test	,11905	,59351	,15862	-,16186	,39996	,751	13	,233
Pair 5	Total: In. regulation pre-test								
	Total: In. Regulation post-test	-,09524	,54582	,14588	-,35358	,16310	-,653	13	,263
Pair 6	Total: Intro.regulation pre-test								
	Total: Intro.regulation post-test	,21429	,67835	,18130	-,10678	,53535	1,182	13	,129
Pair 7	Total: Iden. regulation pre-test								
	Total: Iden. Regulation post-test	-,03571	,30786	,08228	-,18143	,11000	-,434	13	,336
Pair 8	Total: Self.ef.regulation pre-test								
	Total: Self.ef.regulation post-test	-,19643	,61181	,16351	-,48600	,09314	-1,201	13	,126
Pair 9	Total: Self.ef.motivation pre-test								
	Total:Self.ef.motivation post-test	,08929	,66222	,17698	-,22414	,40271	,504	13	,311