1. Description of the tool with background references

Working skills sentences are based on the Finnish National Core Curriculum for Basic Education 2014 and on the ideas from Hattie & Zier (2018) and Muncaster & Clarke (2018) about effective visible learning. According to the curriculum, developing pupils' working skills is one of the key objectives of basic education. The instruction supports the development of pupil's skills in working independently and together including planning, regulating and assessing one's own work, acting responsibly and trying one's best, and engaging in constructive interaction. These are important components in learning thinking skills. Thinking and learning to learn is one of the six transversal competences in the curriculum.

In this tool the working skills sentences are divided into two groups: 1) working under teacher's instruction and together with other pupils (in pairs and in groups) and 2) working independently.

The pupils are guided in reflecting on their progress of their plans and in assessing their work and the factors that affected it. Assessment on working skills is part of the whole assessment in subjects. The theory behind the assessment in the curriculum is based on the Bloom's Taxonomy.

The topics for the skills in the tool are from the curriculum and the actual sentences are based on the literature about effective visible learning (Hattie & Ziere, Muncaster & Clarke). They concretize to the pupils which skills are important to practice on the path of becoming a better thinker. They are also a good visual reminder for the teacher and teacher trainees to take these skills as aims and reflect on them systematically in the class.

References
Perusopetuksen opetussuunnitelman perusteet 2014
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Hattie, J., & Zierer, K. (2018). 10 Mindframes for Visible Learning, Teaching for Success
Muncaster, K., & Clarke. S. (2018). Thinking Classrooms, Metacognition lessons for primary schools

2. Guidelines for implementing the Working skills sentences

This tool helps the teacher, teacher trainee and the pupils to assess the working skills in a concrete manner. These working skills are good to keep present in the classroom when we want to develop thinking skills. Active practice of these skills will help to build an environment which gives more room for thinking. The pupils need to understand that it is important for them to try to improve their working skills which then allow them to become better thinkers. Working together helps them to voice their opinions and ideas out and build understanding on learning issues while listening to each other. The sentences are concrete enough for a pupil to understand. They describe an action what the pupil does. The sentences work as diagnostic and formative assessment tool for the pupils and for the teacher. The clarify the content of working skills for the teacher trainees.

The working skill sentences are brought into the class for example on the wall as separate sentences. The blue sentences refer to the working together skills and the **black sentences** refer to **working independently skills**. When they are visibly present in the class, it is easier to use them as a diagnostic or a formative tool during the lesson. When the pupils can see them in the class, it makes them an important part of learning. We can only assess things which we can describe clearly and name. By assessing something we express that it is important.
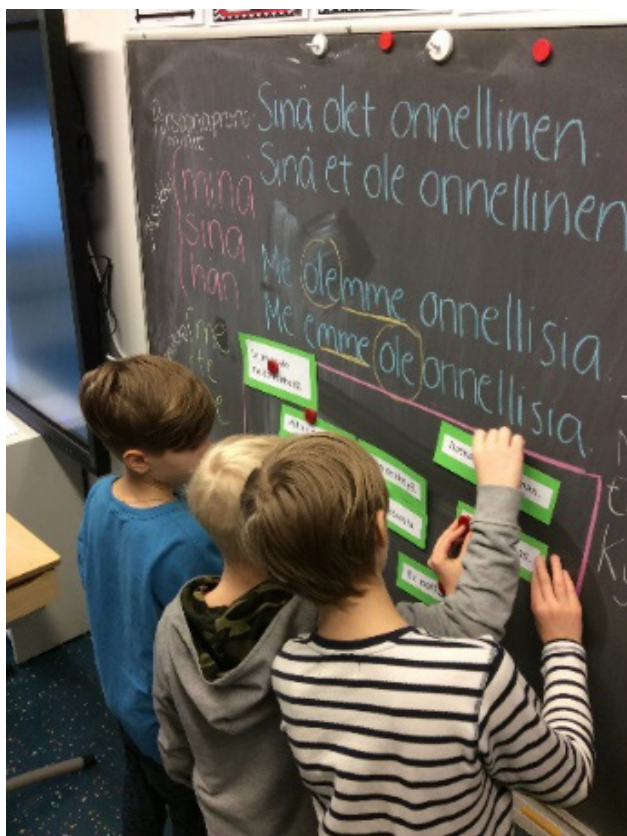
3. Use under the teacher instruction

The teacher can choose skills for the class to practice for a certain period of time. The sentences referring to the skills can be taken separately from the rest of the sentences and be placed in a place where they are visible for the whole class.

The whole class can take part in discussion where they reflect on the work during the lesson and explain when and how the skill was practiced during the lesson. When a set of sentences is placed on the board, the pupils can go and mark the skill they have practiced the most during the lesson. This is a quick way of a formative assessment of these working skills. When the skills and their meaning in the work process are being explained by the pupils, they talk about their learning process. When the pupils can talk about these skills, they understand better that learning is also about learning the language of learning. Learning to think involves practical activities in collaboration with the peers.

It is also possible to look at the whole set of sentences in the end of the lesson and find the skills that were practiced the most during the lesson. It is a quick way to process what happened and make visible with concrete explanations on what happened. The pupils learn to talk about learning. There is only a small step forward to start talking about thinking. What were the good questions? How did we find the solution? What was difficult? How did we work together to find the solution?

4. Use by a group

Group work can be challenging. It takes time to learn to work collaboratively. The aims need to be very concrete.

A group can set aims in working skills and assess their success in the end of a task. Assessing is easy when there is a collection of sentences to choose from. The group will monitor their work and assess together their strenghts and weaknesses.

The group's aims can also be put on the board in the beginning of the lesson. The teacher can give feedback on the aims during the lesson under the aims so that the group can see them. The feedback can be documented and the group can try to improve their work next time.

5. Individual use

The pupils can name the working skill they need to practice and write it in a cloud.

The pupils can assess their use of the skill during a set time. They can keep a record by adding a date and a mark on the scale. The mark can be sticker or a little visual symbol.

My aim

I use this skill.	I sometimes use this skill.	I need practice in using this skill.

One cloud is for one aim. The pupil can follow how the use of the skill has developed. It is important to open up the meaning of the skill in the learning process with the pupil.