



## 1. Description of the tool with background references

A great deal has been written about the importance of how teachers use questions in the classroom, when and how they use open and closed questions, and what the effects these have on pupil thinking. In general, more open questions without a clear correct answer, will generate more classroom discussion and thinking on the part of the pupils. It is also clear that *how* questions are presented can encourage deeper thinking, for example by giving pupils waiting time before expecting an answer, and by asking certain types of follow-up questions (for example, ‘What do you mean by that?’ / What makes you say that?’ / Can you give us evidence for that?...), thereby encouraging pupil reasoning.

Good teacher questions are based here on Bloom’s taxonomy, where the aim is to raise the level of the questions from Lower Order Thinking Skills (LOTS) towards Higher Order Thinking Skills (HOTS), encompassing analyzing, applying and creating. The Question Starter Table is based particularly on applications of Bloom’s taxonomy.

In the learning process Bloom’s Taxonomy is used for checking and as a basis for the organizing of questions. Using questions as a routine for developing thinking skills is one way of bringing planning, quality and organization to the asking of questions and at the same time it is a way of developing thinking skills and learning. Making sure the vocabulary used in Bloom is understood and visible are also important when using goal-directed questions. In the same way it is important that pupils understand the content words used and displayed in the classroom. With the help of pre-planned questions it is also easy for the teacher to differentiate and to use cooperative learning methods. The practicing of making questions can be clearly linked to the content to be learned either through a text (factual or fictional) or by using a picture. Using visual prompts is often the easiest starting point for developing thinking routines for making questions. The visuals could be pictures, drawing from textbooks, or videos, for example.

References:

- Opetushallitus (2014:96): *The Finnish National Curriculum*. Next Print Oy, Helsinki 2016.  
 Tarrant, P. and Holt, D. (2016): *Metacognition in the Primary Classroom*. Abingdon: Routledge  
 Ron Ritchart, Mark Church, Karin Morrison (2011): *Making Thinking Visible*. Jossey-Bass  
 Pope, Gordon (2013). *Questioning Technique Pocketbook*. Alresford, UK: Teachers’ Pocketbooks  
 Wragg and Brown (2001). *Questioning in the Primary School*. Routledge Falmer.



## 2. Guidelines for implementing how to use questioning

The following features are common to lessons where questions are asked and made most effectively:

- The questions are planned, are often presented visually and are linked to the aims of the lesson.
- The content to be learned is broken down into manageable parts and learning is at the same time strengthened through questions.
- Learning includes directed practice, giving the pupils the chance to consolidate what they have learned, while also allowing the teacher to assess pupil understanding.
- Closed questions are used to check facts which are based on remembering and understanding.
- The aim is however to use open questions and at some point in the lesson these are mainly used.
- The order of questions asked is planned in such a way that the scope and understanding of the content grows as the questions progress. This can be seen clearly where pupils have been encouraged to answer questions which demand development to a higher level.
- The atmosphere in the classroom is such that the pupils feel safe and are therefore willing to take risks, make mistakes and be inventive in their answers. (Wragg and Brown, 2001)

The following steps for making questions are adapted to the levels of Bloom's taxonomy (Tarrant and Holt). Systematic progression through the steps expands and develops thinking skills.

1. Ask questions starting with 'why-what-how-where-when etc.'
2. Ask questions about content and listen to the answers before asking follow-up questions.
3. Ask relevant questions and series of questions. Give pupils the opportunity to choose to answer a particular question, if they can justify their choice.
4. Ask questions which are based on the answers to previous questions.
5. Ask more searching and open questions.
6. Define a problem and set questions for solving it.



### 3. Use as a teacher

Questions on a pictures can literally be made visible by using the Thinking Skills Poster. The poster and the clouds with questions of different levels can be placed on the poster, either for the teacher's own reference or to discuss with pupils – which question starters belong where on the levels on the poster and why? When pupils discuss the answers or write them in pairs they become more aware of what an open question is.

Question starters on the Bloom poster on the classroom wall:



The question starter poster can be displayed on the classroom wall with question starters according to Bloom's taxonomy. This helps the teacher to become conscious of the progression, order and quality of questions asked as well as acting as a reminder to aiming towards open questions.



## 4. Use as a student

Question starter poster as aid for pupil questions: Question starters on the classroom wall or board support the content being learned. The teacher clarifies the starters before the pupils begin making their questions

Question starters with given points according to their Bloom level: The question starters can be on the blackboard, or they can be collected from trays with different levels of questions in different trays, with the numbers of points for the levels clearly marked.

In the tray task points can be gathered from the questions made or from the answers to the questions. The pupils can be given for example the aim of collecting a certain number of points, and afterwards they can see how many managed to reach that number.

The aim is also that the next time the task is done, the pupils reach the same number of points with fewer questions, so that they are making / answering higher level questions.

Points can be given by the pupils themselves or partners can discuss their grading together.

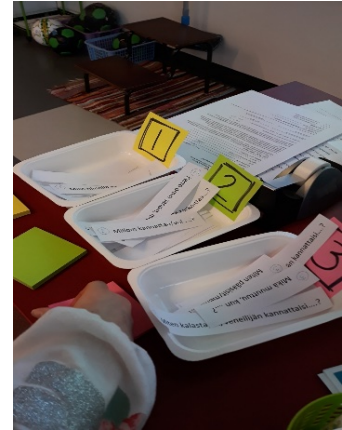
### Examples of pupils doing a task in pairs:

- One of the partners asks a question and the other answers it, for example on a post-it note, in their notebook or orally.
- Pairs can make questions together and rotating classroom stations can be used. Each pair can move round to another station in the classroom to answer another pair's questions.

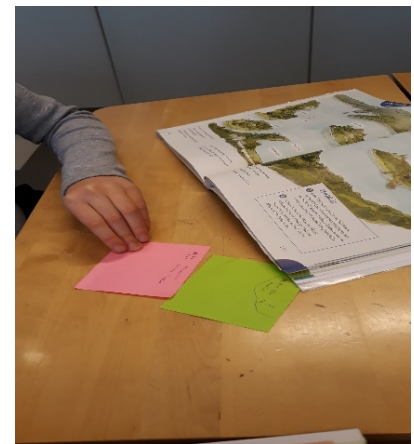




Question starters are in separate trays with points according to Bloom levels. Each partner collects a question starter from one tray and also a blank answer paper (here post it -label).



The pupils make questions for their partners. Different coloured answer papers show the different levels of the questions from remembering (1 p.) to understanding (2 p.) and to applying and assessing (3 p.)



Pupils answer their partners questions. They repeat the process several times.





The assessment form can be filled in by pupils after making or answering questions, and in this way pupils can see by if they have been able to make and answer more challenging questions by looking at how many points they got for fewer questions, and they can try to improve their own result. Pupils could have the assessment form either inside the front of their notebooks or taped inside the lid of their desks.

**ASSESSMENT TOOL: making questions**

**A: TOOL FOR LEARNER** (eg. inside subject book cover)

TASK	Individual/ with Partner (I/P)	Number of questions	Points for questions
eg. name of the story	1	5	1+1+2+2+2 8



**B: TOOL for teacher/ class/group**


Points for whole class

TASK	Individual/ with Partner (I/P)	1 p.	2 p.	3 p.	Total number of questions
eg. name of the story	1	15	8	3	26





### A student-filled assessment sheet



TEHTÄVÄ	Yksin/Parin kanssa	Kysymysten määrä	Kysymysten pisteet
Kaninhyppy (teksti)	Y	3	3 + 2 + 3 8
Kettu- kuorman kapponen	Y	7	3 + 3 + 3 + 3 + 3 + 3 + 3 21
Varis ja vesi kannu	Y	4	3 + 3 + 3 + 3 12