

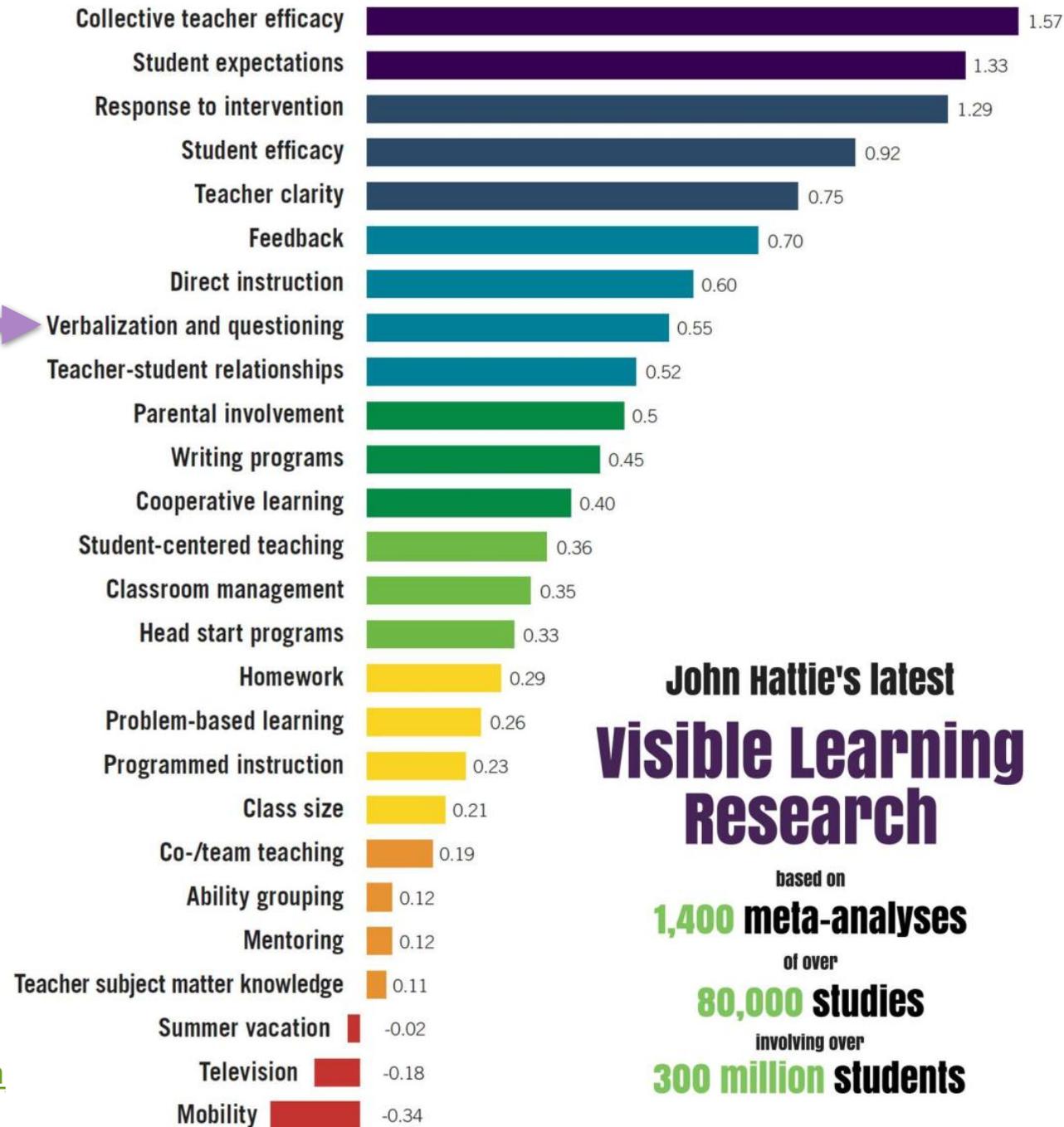


QUESTIONING STRATEGIES

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John Hattie's latest Visible Learning Research

based on
1,400 meta-analyses
of over
80,000 studies
involving over
300 million students

WHAT IS A QUESTION?

In a survey, participants were asked to read 10 scenarios based on a day in the life of a teacher called Sarah. They were asked to decide whether or not there is a question in each scenario.

Scenario 1: One of Sarah's colleagues is discussing with fellow teachers a lesson he has just given on countries of the world. During the discussion Sarah realizes that she doesn't know how many countries there are. Interested to know, she interjects saying 'how many countries are there'. Her colleagues respond with several different figures.

Was there a question in this scenario?

95% of survey participants said yes, there was a question

3% have said no

2% were unsure

<https://www.philosophersmag.com/essays/186-what-is-a-question>

WHAT IS A QUESTION?

Scenario 2: Sarah returns to her classroom and remembers that she has promised a friend who will be visiting that she will find out where the nearest butchers to her house is. Being a vegetarian she has no interest in this herself but nevertheless she types “local Edinburgh butchers” into Google and notes down the information.

Was there a question in this scenario?

72% of survey participants said yes

21% said no

7% were unsure

WHAT IS A QUESTION?

Scenario 3: Sarah is trying a new route home from work. Along the route she comes to the side of a busy, unfamiliar road with no pedestrian crossing. She looks both up and down the road before crossing to check if there are any vehicles coming and then proceeds to cross safely.

66% of survey participants said yes

28% said no

6% were unsure

WHAT IS A QUESTION?

“What is a question: a question is an information seeking act”

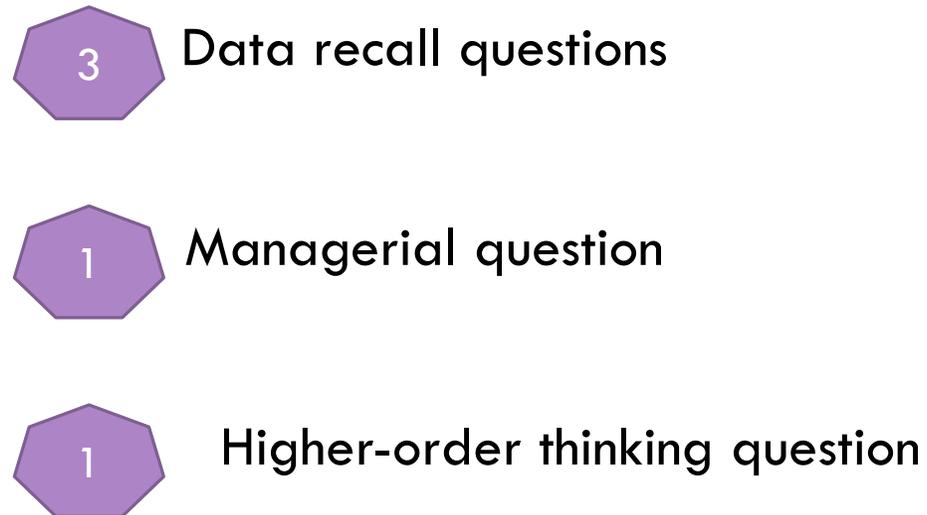
“Questioning is an important means of seeking out the information that we need in order to decide how to act”.

Watson, 2018

<https://www.philosophersmag.com/essays/186-what-is-a-question>

WHAT CONSUMES 80% OF CLASS TIME?

Some studies suggest that of every 5 questions asked in the classroom:



PURPOSES OF QUESTIONING

1. *Getting interest and attention.* “If you could go to the moon, what would be the first thing you would notice?”
2. *Diagnosing and checking.* “What is the meaning of the Latin word *via*?”
3. *Recalling specific facts or information.* “What are the names of the main characters in *The Adventures of Huckleberry Finn*?”
4. *Managing.* “Did you ask my permission?”
5. *Encouraging higher-level thought processes.* “Putting together all that we have learned, what household products exhibit characteristics associated with the element sodium?”
6. *Structuring and redirecting learning.* “Now that we have covered the narrative form, are we ready to go on to expository writing?”
7. *Allowing expression of affect.* “What did you like about *Charlotte’s Web*?”

TYPICAL PATTERN – RIGHT OR WRONG?

IRE/IRF pattern of classroom interaction

Initiation – Teacher: What's the capital city of Argentina?

Response – Student: Buenos Aires

Reaction/Evaluation/Feedback – Teacher: Yes, well done

Teacher: What does your grandfather do?

Student 1: Teacher.

Teacher: He's a teacher, good, what does your grandfather do?

Student 2: My grandfather dead.

Teacher: Good.

T: What time is it?

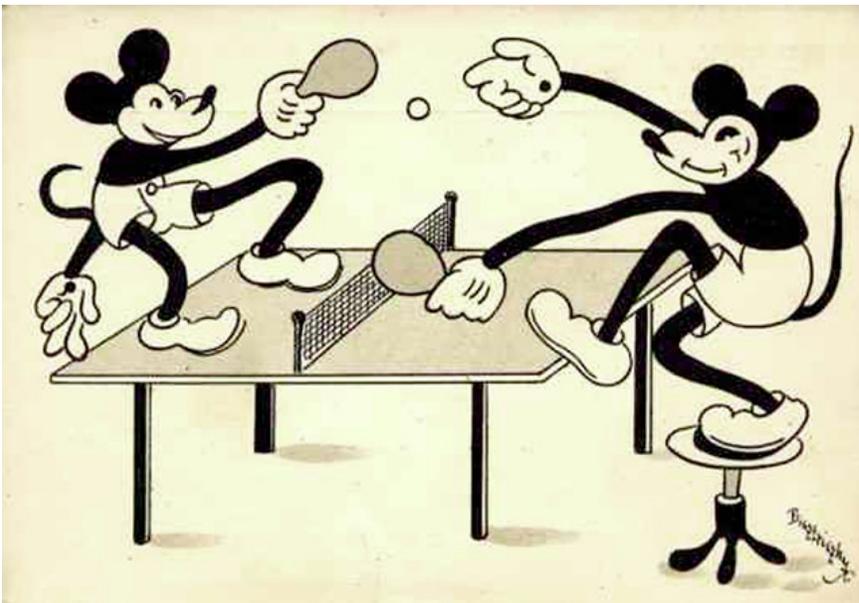
S: 2:30

T: Thank you

T: What time is it?

S: 2:30

T: Well-done



BETTER PATTERN - BASKETBALLING

“**Pose** = pose the question

Pause = pause for at least three seconds

Pounce = pounce on one student

Bounce= and then bounce that student’s response to another student (for evaluation, explanation, correction, etc.)”



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<https://www.youtube.com/watch?v=y8bHMd3PosM>

Kate was teaching a group of pre intermediate students the other day. She gave them these instructions and asked them a question afterwards:

Kate: 'I want all the students who are letter A to stand over here and all those who are letter B to stand over there. Then I want you to find a partner from the other group and talk to each other using the questionnaires and make notes on your partner's answers and then go back into your original group and tell each other about the answers you got. And then you should order them from the most to the least interesting.'

Kate: "OK? Do you understand?"

Students: [Silence]

Kate: "Do you understand?"

One student: "Yes" [very quietly]

WHAT'S WRONG WITH THESE QUESTIONS?

Is everything clear?

Do you understand?

Do you have any questions?

INSTEAD TRY THIS...

- ❖ 'No hands up' (except to ask a question)
 - ❖ Random selection of Ss
 - ❖ Allow volunteers after random selection
 - ❖ Pose question first, name last
- ❖ 'Hot Seat' questioning
- ❖ All-student response systems
 - ❖ ABCD cards
 - ❖ Mini white-boards
- ❖ Exit pass

INSTEAD TRY THIS...

HINGE QUESTIONS

must be diagnostic questions not discussion questions;

focus on troublesome knowledge—things that students are known to find difficult

Where is the verb in this sentence?

The dog ran across the road
A B C D



AND THIS ...

SHELL QUESTIONS



Wiliam, 2015, p. 128

Question shell	Example
How are ... and ... different?	<i>How are the home lives of Juro and Camila different?</i>
What are the strengths and weaknesses of ... ?	<i>What are the strengths and weaknesses of stone as a building material?</i>
What is the difference between ... and ... ?	<i>What is the difference between a fable and a parable?</i>
Explain why ...	<i>Explain why you cannot have a probability greater than one.</i>
What would happen if ... ?	<i>What would happen if there were no friction?</i>
Why is ... an example of ... ?	<i>Why is Romeo and Juliet a tragedy?</i>
Compare ... and ... in terms of ...	<i>Compare Malcolm X and Martin Luther King Jr. in terms of their views on integration.</i>
How are ... and ... similar?	<i>How are the governments of the United States and Canada similar?</i>
How would you explain ... to a student in the ... grade?	<i>How would you explain the idea of simile to a student in the third grade?</i>
What are the implications of ... for ... ?	<i>What are the implications of global warming for employment?</i>
How does ... affect ... ?	<i>How does temperature affect the rate of a chemical reaction?</i>
What is the strongest counterargument against ... ?	<i>What is the strongest counterargument against democracy as a political system?</i>

AND THIS...

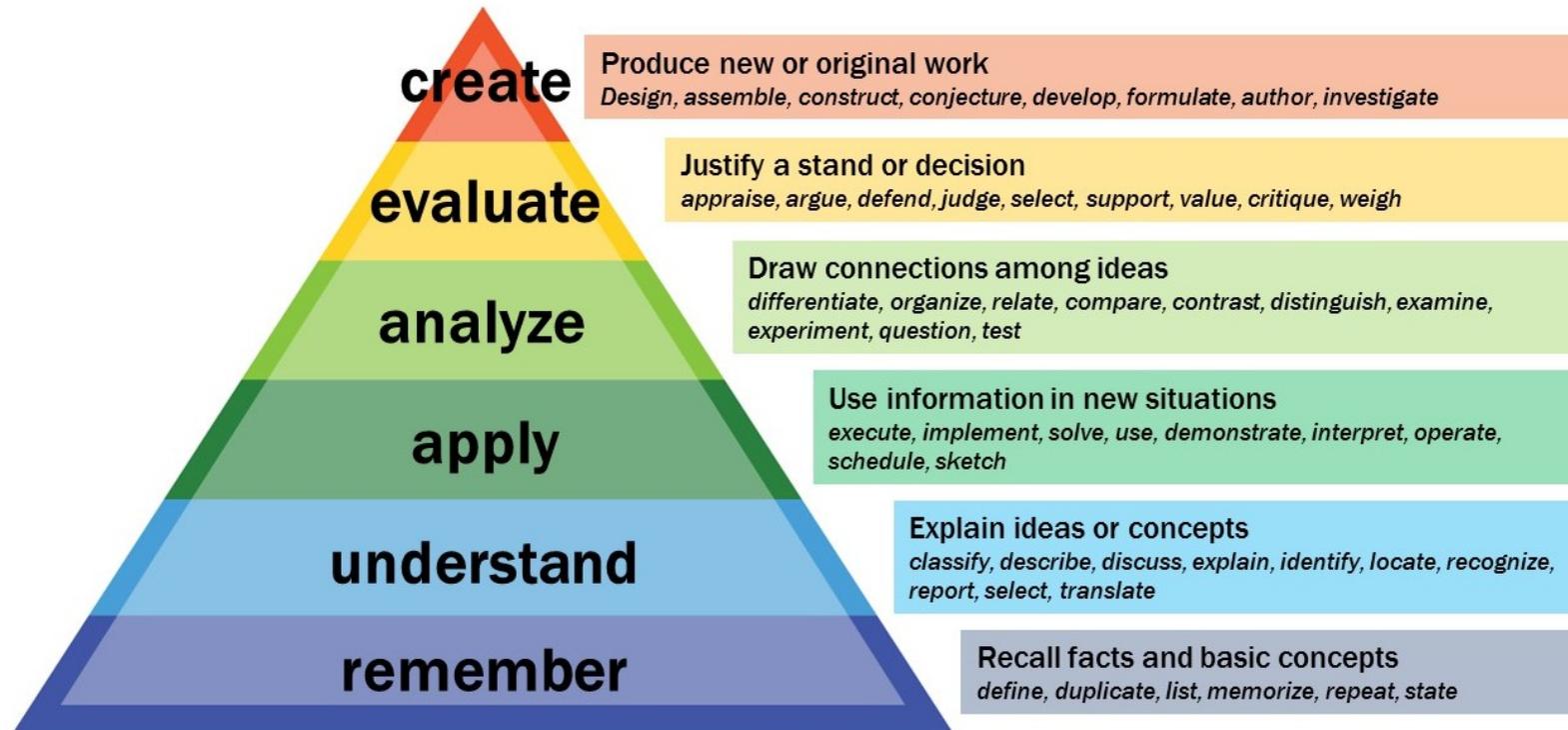
“ 1 hour students spend devising questions about what they have been learning with correct solutions is more effective than one hour spent completing practice tests”

Suggestions for How to Use Question Shells

- At the end of a lesson or period of work, ask the students to work independently using the question shells to generate two or three questions based on the material you covered. Then, either get the students to ask you the questions, or have them ask the class.
- At the end of a lesson or period of work, ask the students to work independently using the question shells to generate two or three questions based on the material covered. Next, in pairs or small groups, ask the students to engage in peer questioning, taking turns to pose the questions to their partner or group and answer each other's questions in a reciprocal manner.
- Get students to read a piece of relevant text. Then ask them to use the generic question shells to generate three or four thoughtful questions about the text.
- At the beginning of a topic, hand out the generic question shells, and ask the students to think of three or four thoughtful questions on this topic that they would like to know the answer to. Collect the questions, and make a poster of the best ten questions that you will attempt to answer during the course of the work.

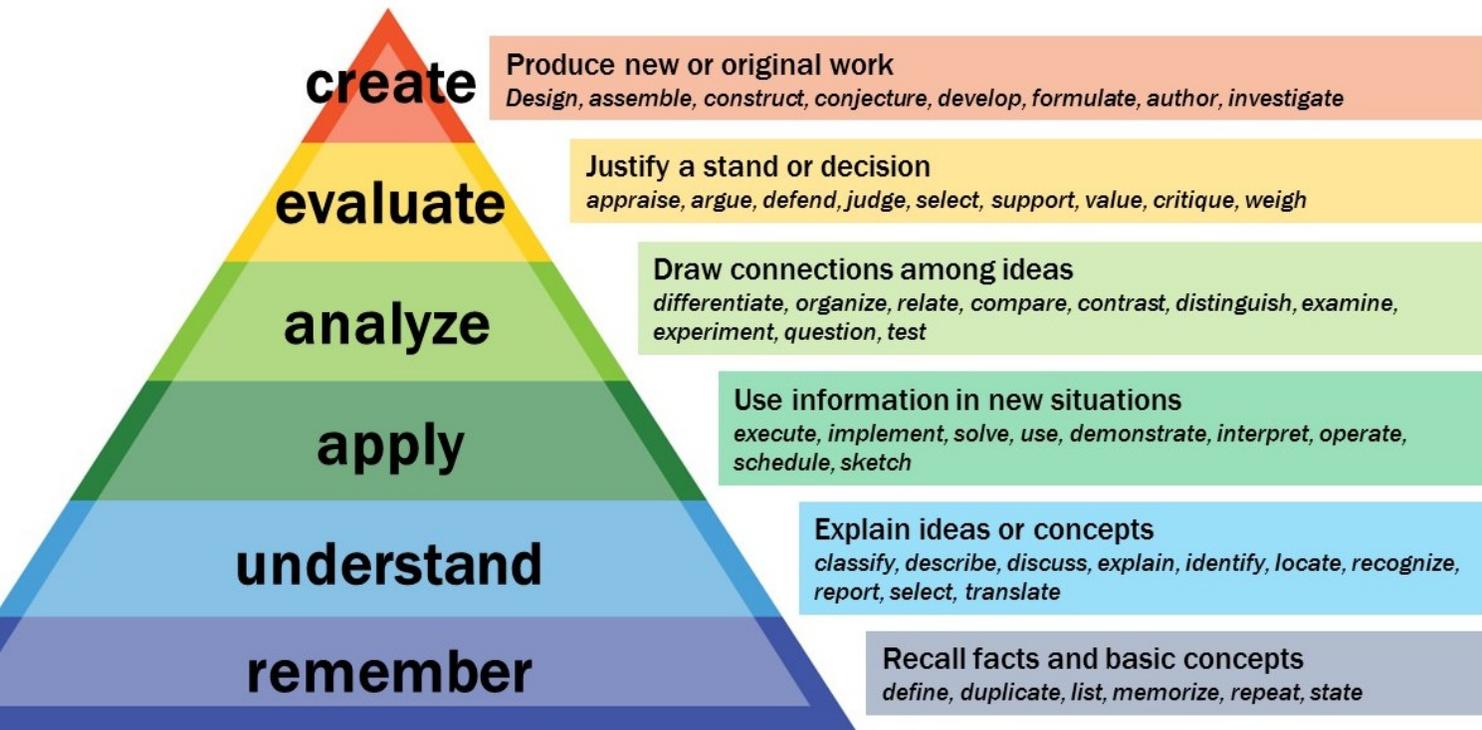
WHAT LEVEL OF QUESTIONS ARE USED?

Bloom's Taxonomy



WHAT LEVEL OF QUESTIONS ARE USED?

Bloom's Taxonomy



Given the following fragments of geometric shapes, which can be used to construct a triangle?

How can you make a triangle w/o a ruler?

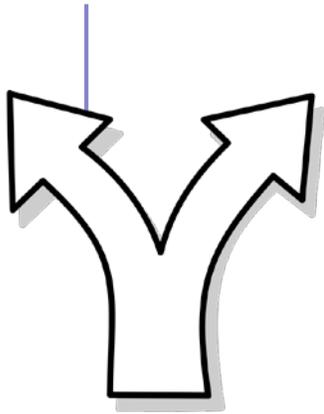
In which of the following do you see a triangle? Why? How can you differentiate it from other shapes?

Can you draw a triangle for me?

In your own words, what is triangle?

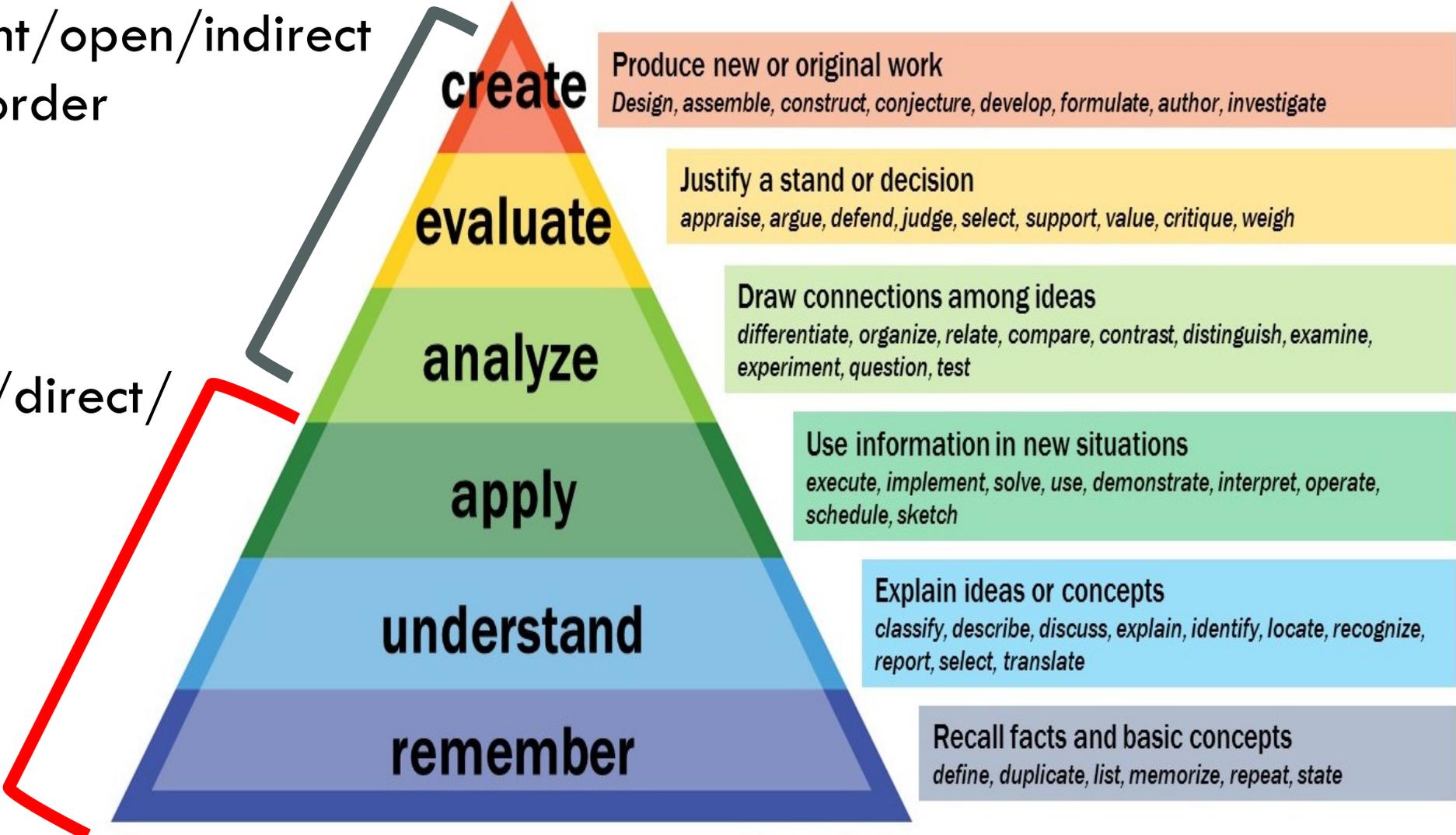
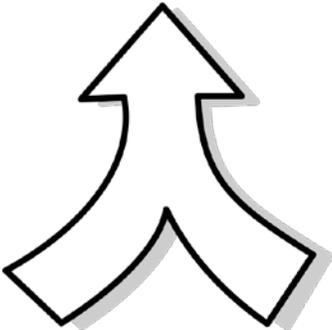
What is the definition of a triangle?

Bloom's Taxonomy



Divergent/open/indirect
Higher-order

Convergent/closed/direct/
Lower order



Francis Dakes

LITTLE RED RIDING HOOD



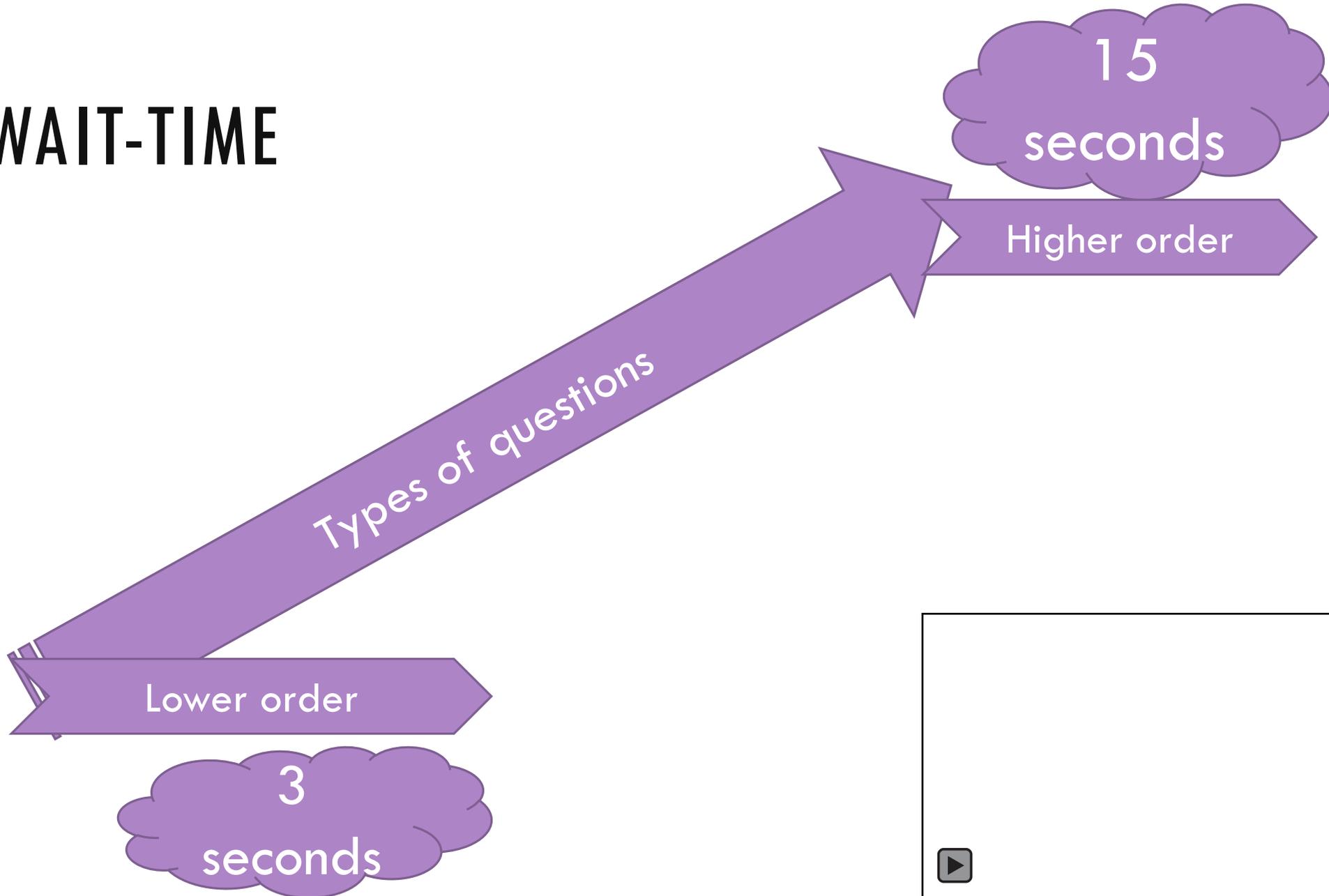
Father Tuck's
Little's
Pets
Series

Cognitive skill level	Processes	Prompts	Sample activities	Sample questions for the story of Little Red Riding Hood
Applying	Abstracting and reapplying to a different situation. Selecting and/or connecting information/ideas Implementing, changing	<i>illustrate, interpret, transfer, infer, change, complete</i>	Recast input as a different genre/medium, e.g. rewrite a newspaper article as a dialogue, or write a description of a photograph	<i>Tell the story of Little Red Riding Hood via a different medium/genre, e.g. social networking site, news media report, poem, dialogue.</i>
Understanding	Determining the meaning of written/audio/graphic communication, i.e. interpreting the message	<i>explain, paraphrase, summarise, exemplify, categorise, predict</i>	Re-tell or summarise input (in written, oral or graphic form)	<i>Summarise the story of Little Red Riding Hood.</i>
Remembering	Recalling data or information.	<i>tell, list, draw, locate, recite</i>	Make a list, timeline or fact chart Answer list of factual questions	<i>List what Little Red Riding Hood carried in her basket.</i>

Cognitive skill level	Processes	Prompts	Sample activities	Sample questions for the story of Little Red Riding Hood
Creating	Based on given information; reformulating, extending, building, planning, hypothesising, generating new patterns/structures	<i>create, compose, predict, design, devise, formulate, imagine, hypothesise</i>	Devise/perform role plays, advertisements, games or mazes using the input as a launching point Compose a sequel or prequel to the input –genre/media-switch e.g. written input transferred to aural/graphic output or newspaper article transferred to dialogue, poem, blog	<i>Compose a sequel or prequel to the story of Little Red Riding Hood choose to use a different medium/genre, e.g. social networking site, news media report, poem or dialogue, and/or a different cultural context</i>
Evaluating	Making/defending judgements and arguments based on evaluation of criteria Linking to own values/ideas Critiquing/reviewing	<i>judge, debate, justify, critique, review, argue</i>	Write a set of rules or conventions relating to conduct in a particular situation or context e.g. school rules, hospitality conventions in a specific culture Conduct a debate Write a critique or review	<i>What can you infer from the story of Little Red Riding Hood about conventions of behaviour in the culture in which the story is set? (For instance, it is not acceptable for animals to eat people – although the other way around is acceptable, as in some versions of the story Little Red Riding Hood's basket contained sausages.)</i>
Analysing	Separating information into its component parts to identify how the parts relate to each other and the overall structure Inferencing (and distinguishing between facts and inferences)	<i>compare, contrast, categorise, deconstruct</i>	Conduct a mini research project (design a survey, gather and analyse data)	<i>Design and conduct a survey, and analyse your findings from it, to investigate how your classmates/friends would react to each event in the story of Little Red Riding Hood (e.g. what would they do if confronted by a wolf?).</i>

Mishan and Timmins, 2016,
Material Development in
TESOL, pp. 105-106

WAIT-TIME



RESEARCH ON WAIT-TIME SHOWS THAT...

- it is common for teachers to allow one second (!) after the end of a question to allow students to begin their response
- teachers tend to leave less than a second of gap between the end of a student's response and the teacher beginning to respond to what the student had said

Wiliam, 2015; Borich, 2017

WHEN WAIT-TIME IS EXTENDED...

The following changes occur...

- Increase in the average length of student responses
- Increase in unsolicited but appropriate student responses
- Decrease in failures to respond
- Increase in statements that involved drawing inferences from evidence
- Increase in student-initiated questions

ASKING QUESTIONS

Ineffective ways to question, when...

- using complex, broad questions
- asking too many at once
- expecting only one single answer from the SS
- answering the question yourself
- using questions as a punishment
- using the same kind of questions all the time

Effective Questions...

- are clear and brief
- are purposeful
- cause thinking
- are well-sequenced
- are meaningful and thought-provoking
- give time for the SS to THINK
- build on SS' answers
- Provide data that inform teaching

HELPFUL RESOURCES

Borich, G. D. (2011). Effective teaching methods: Research-based practice. Upper Saddle River, N.J: Pearson Merrill/Prentice Hall.

By Dylan Wiliam on Questioning:

<https://soundcloud.com/teacher-acer/podcast-special-dylan-wiliam-on-effective-questioning-in-the-classroom>

<https://www.youtube.com/watch?v=y8bHMd3PosM>

<https://www.youtube.com/watch?v=Mh5SZZt207k>

<https://www.youtube.com/watch?v=jPo1fFQshUY>