

FACHDIDAKTISCHE KONZEPTE

2025, Nikolaus Albrecht

Skript: <http://www.sigmadelta.at/>

Content:

1_Modalitäten

2_Fachdidaktik Grundlagen

Die ersten vier Grundbausteine

2-1) Learning = Development of Long-Term Memory

2-2) "We learn what we think about"

2-3) "Being Busy and Learning are not the same thing"

2-4) "What we think depends on what we know"

Die nächsten vier Grundbausteine

2-5) Lernprodukte und Lernen

Didaktischer Kommentar

- Gruppenarbeit

2-6) Fehlvorstellungen / Misconceptions

2-7) Cognitive Load & Learning

2-8) Vertrautheitsgefühl ist oftmals irreführend

Didaktische Kommentare

- Daily Review
- Deliberate Practice / Overlearning
- Retrieval Practice / Flashcards / Spaced Learning / Interleaving / Desirable Difficulties

3_Mathematik und Ergänzung Naturwissenschaften / Chemie

3-1_Dezimalzahlen

3-1-1_Lehrplan

3-1-2_Diagnosefragen

Didaktische Kommentare

- **Front Loading (Adam Boxer)**
- **Means of Participations (Craig Barton)**
 - **Cold Call**
 - **Voting Systems**
 - **Mini Whiteboards**
 - **Partner Talk**

3-1-3_Review (Dezimalzahlen)

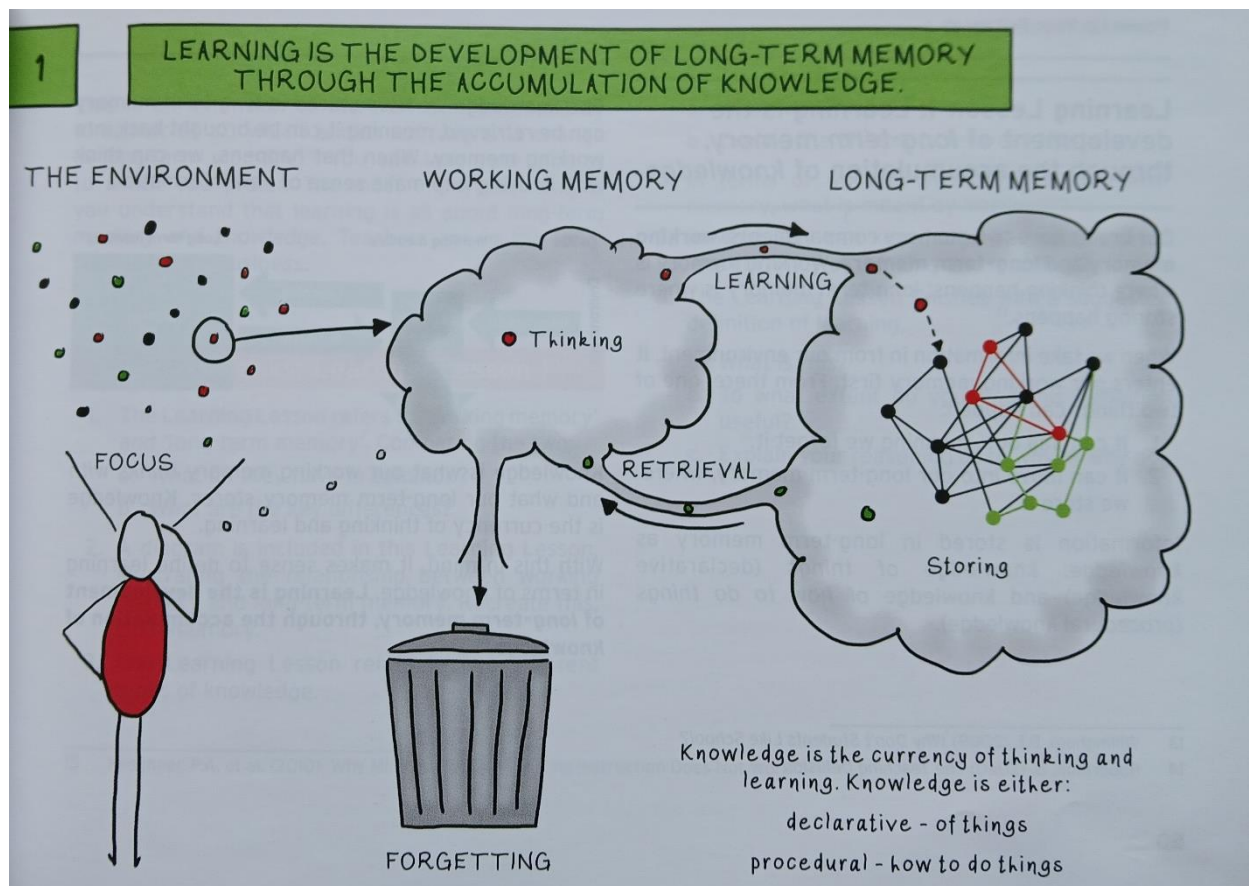
3-1-4_Ressourcen

2_Fachdidaktik Grundlagen

2-1_Lernen & Lang-Zeit-Gedächtnis

Robertson, B.

„Learning is the development of long-term memory, through the accumulation of knowledge.”



Quelle: Robertson, B. "Power up your pedagogy"

2_Fachdidaktik Grundlagen

2-2_Gelernt wird, worüber man (intensiv) nachdenkt

Robertson, B.

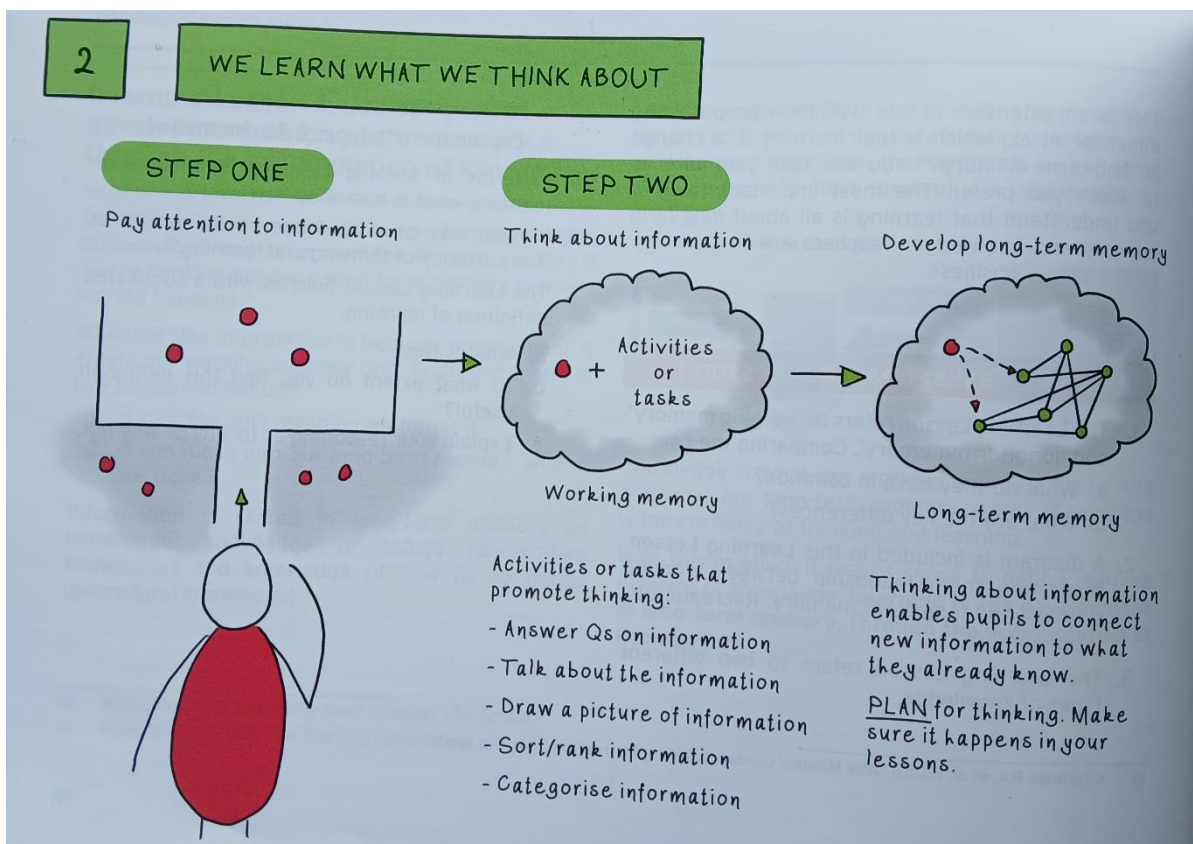
„Nothing can enter long-term memory unless it has first entered working memory.”

Willingham, D. T.

“Memory is the residue of thought.”

Robertson, B.

„Plan for thinking: Just because students look at information that appears briefly on a slide, listen to something their teacher says, or read something in a textbook, it doesn't mean they will learn anything.”



Quelle: Robertson, B. "Power up your pedagogy"

2_Fachdidaktik Grundlagen

2-3_Geschäftig oder beschäftigt zu sein ist nicht dasselbe wie Lernen

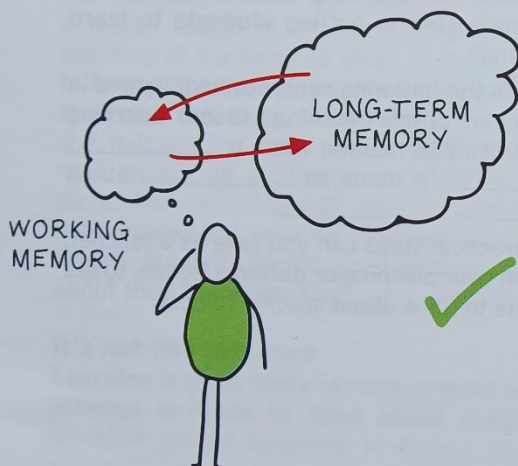
Robertson, B.

„Nothing can enter long-term memory unless it has first entered working memory.”

3

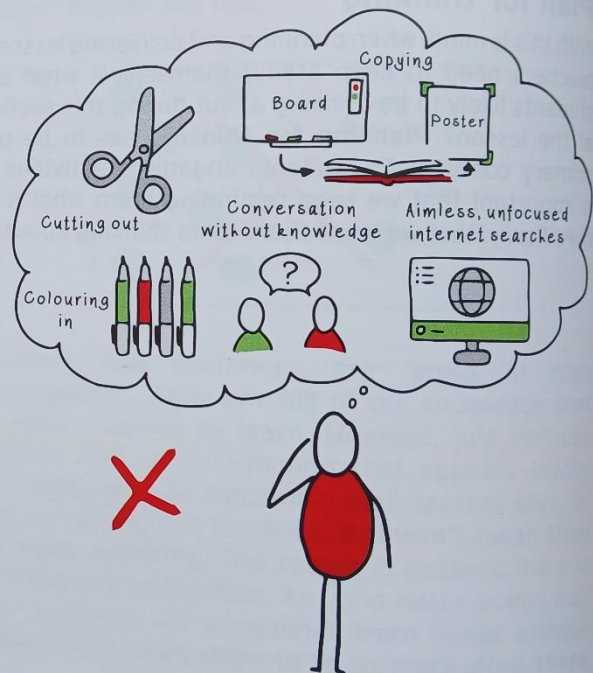
BEING BUSY AND LEARNING ARE NOT THE SAME THING

Learning happens when new information is added to LONG-TERM MEMORY or when information in LONG-TERM MEMORY is retrieved.



Teachers should plan for students to think about the information they want them to learn.

WORKING MEMORY



'Being busy activities' can engage students & they might enjoy them, but the students are not thinking about the information they should be learning. Instead, their attention is on the activity.

2_Fachdidaktik Grundlagen

2-4_Worüber wir nachdenken hängt primär davon ab, was wir wissen

Willingham, D. T.

„Understanding is remembering in disguise.”

Kirschner, P.

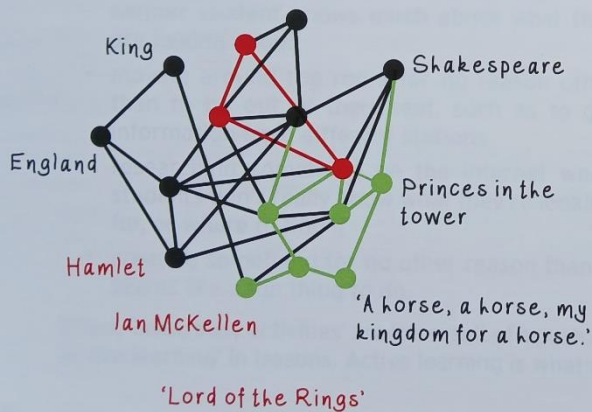
„What they see will be determined by what they already know.”

William D.

„The purpose of the curriculum is to build up the content of long-term memory so that when students are asked to think, they are able to think in more powerful ways.”

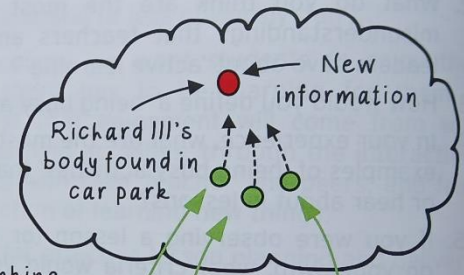
What is a schema?

A schema is a knowledge construct. It is made up of all your knowledge linked with that subject - both direct & less obvious connections.

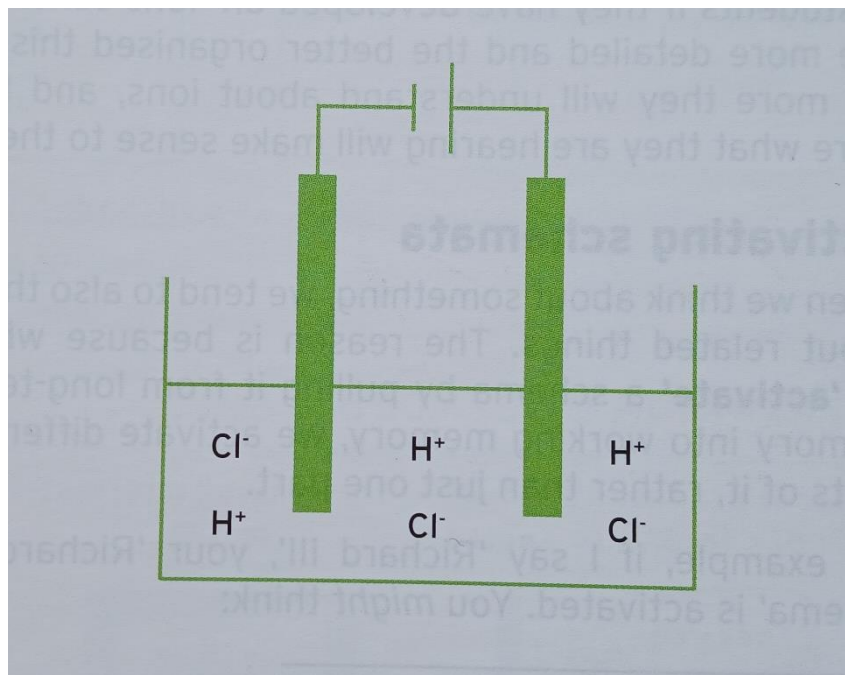
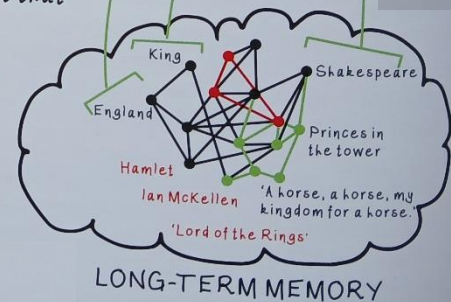
Richard III Schema

How does thinking use schemata?

WORKING MEMORY



During thinking, schemata are activated & pulled through to the working memory to support that thinking.



2_Fachdidaktik Grundlagen

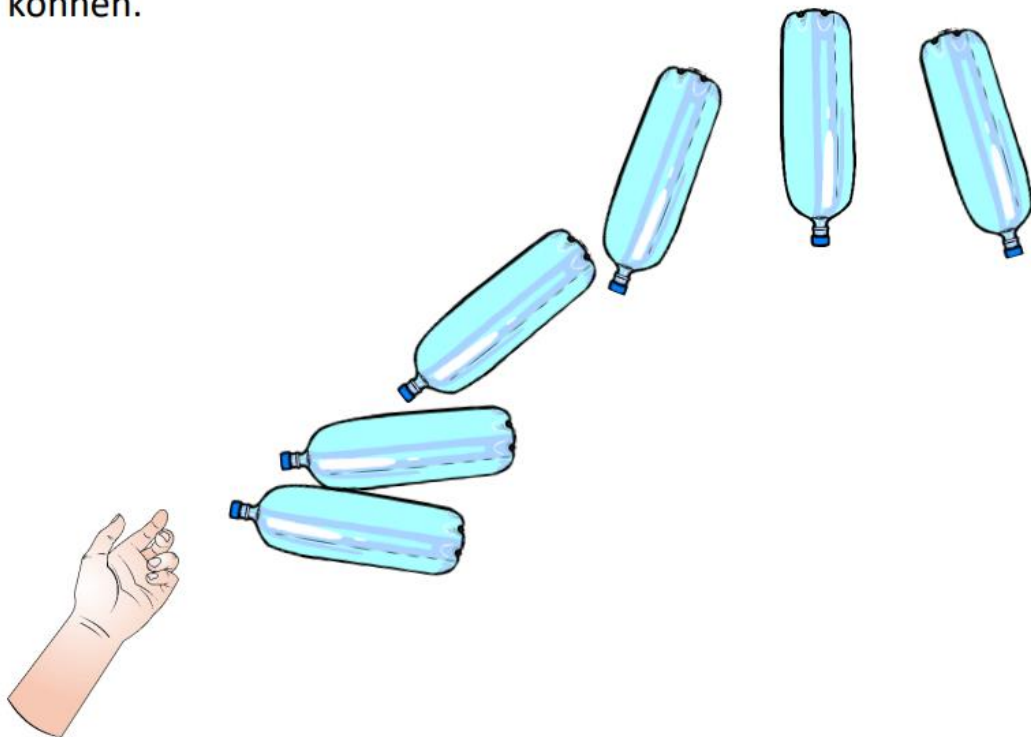
2-5_Ein „Lernprodukt“ muss nicht notwendigerweise Aufschluss auf das tatsächliche Lernen geben

Beispiel aus der Mathematik: „Bottle Flipping“ ...

... und anschließend (als Hausübung) **einen Bericht** darüber verfassen.

Bottle Flipping ...

... um die Gesetze der Wahrscheinlichkeit besser verstehen zu können.



Allerdings: Der Teufel steckt im Detail ...

Oder mit Theodor Fontane: „Der Zauber steckt immer im Detail.“

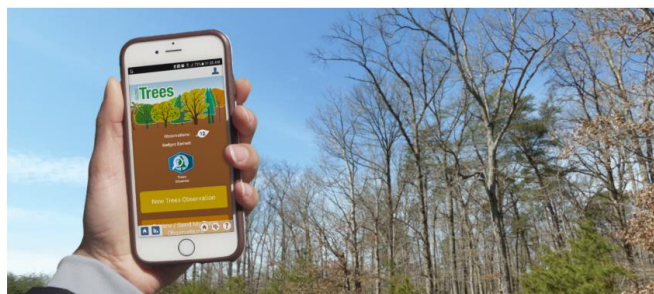
Beispiel aus der Geometrie / „GlobeObserver“

<https://observer.globe.gov/>

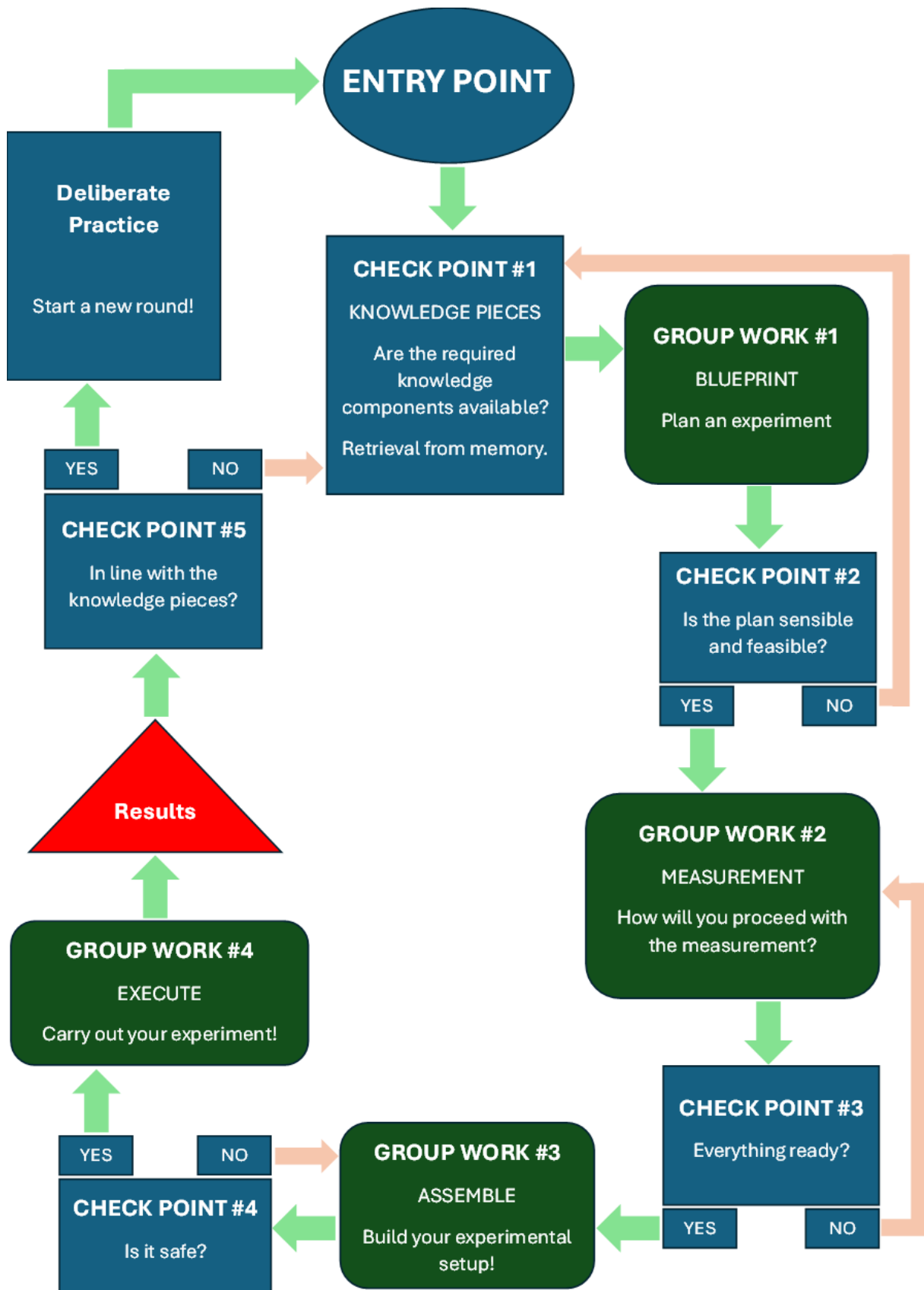
The screenshot shows the GLOBE Observer website. The header features the 'THE GLOBE PROGRAM' logo and 'GLOBE Observer' with a magnifying glass icon. Navigation links include 'Get the App', 'Do GLOBE Observer', 'Lead a Program', 'Get Data', 'News, Events, and People', 'Publications', 'About', and 'Search'. A 'GLOBE Eclipse Science Results' banner is displayed over a map of the United States, which is populated with numerous blue and grey circular markers representing observation locations. The banner text reads: 'GLOBE Eclipse Science Results', 'Learn about some of the science results from your data collected during the April 2024 total solar eclipse!', and 'Read more >'. A right-pointing arrow is visible on the right side of the banner.



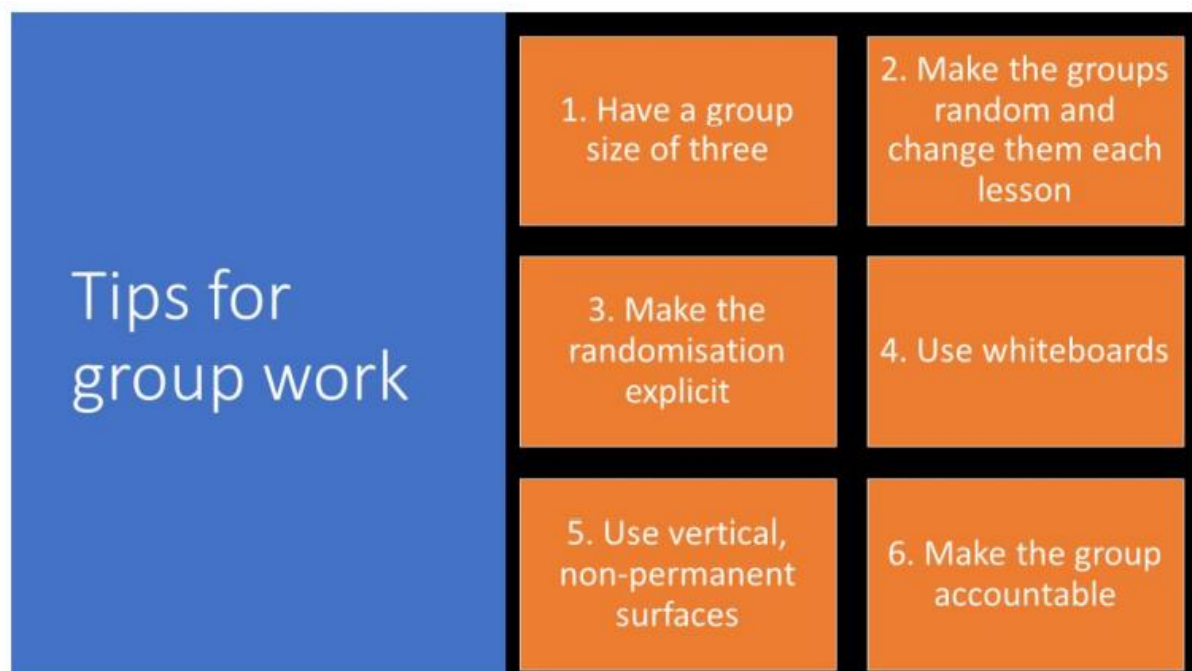
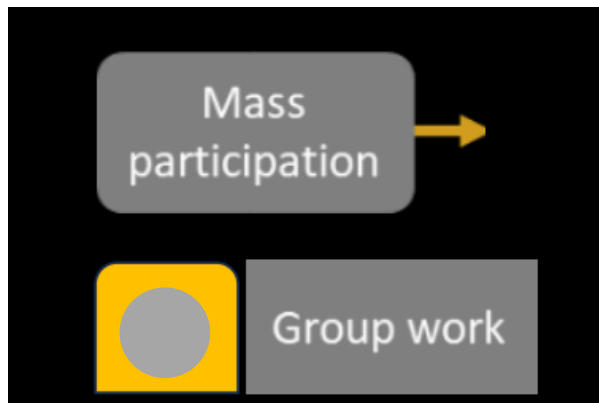
What is GLOBE Trees?

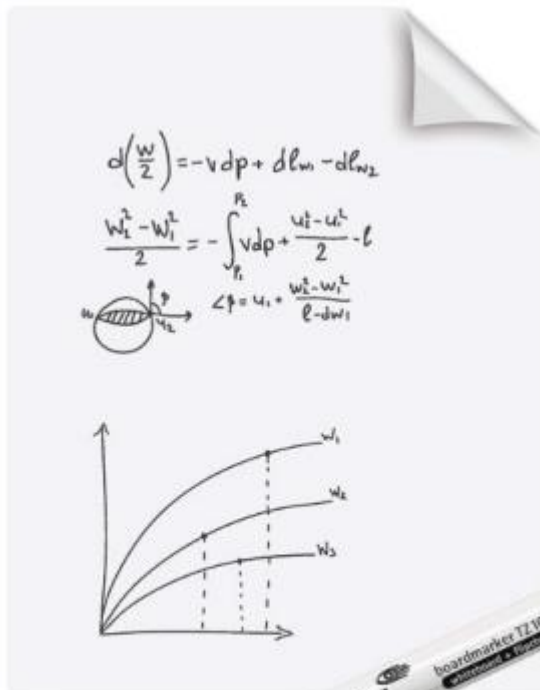


GLOBE Trees is an app-based tool that will help you estimate tree height. Once you have [downloaded the GLOBE Observer app](#) and created an account, the Trees tool will guide you through the observation process. Required steps include selecting a tree and using your device to measure the angle from the bottom to the top of the tree, walking to the tree and counting your steps (to determine the distance) and reporting on surface conditions. The app will use that information to calculate an estimate of the tree's height. Optional steps are taking a photograph of the tree and measuring the circumference of the tree. Even a basic observation without optional elements is valuable!



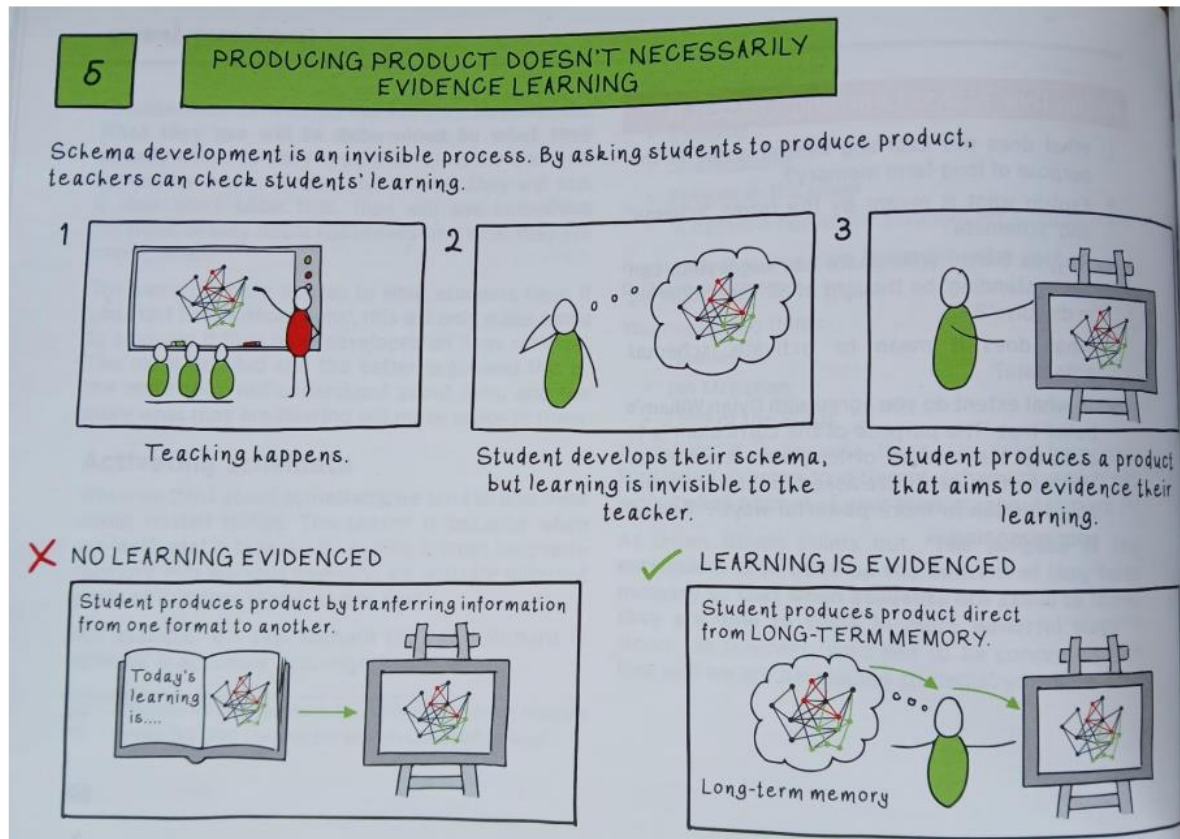
Didaktischer Kommentar





Lernprodukt: Poster erstellen

If students were allowed to refer to their notes while making their poster, either individually or in groups, **this isn't evidence of anyone's learning.**

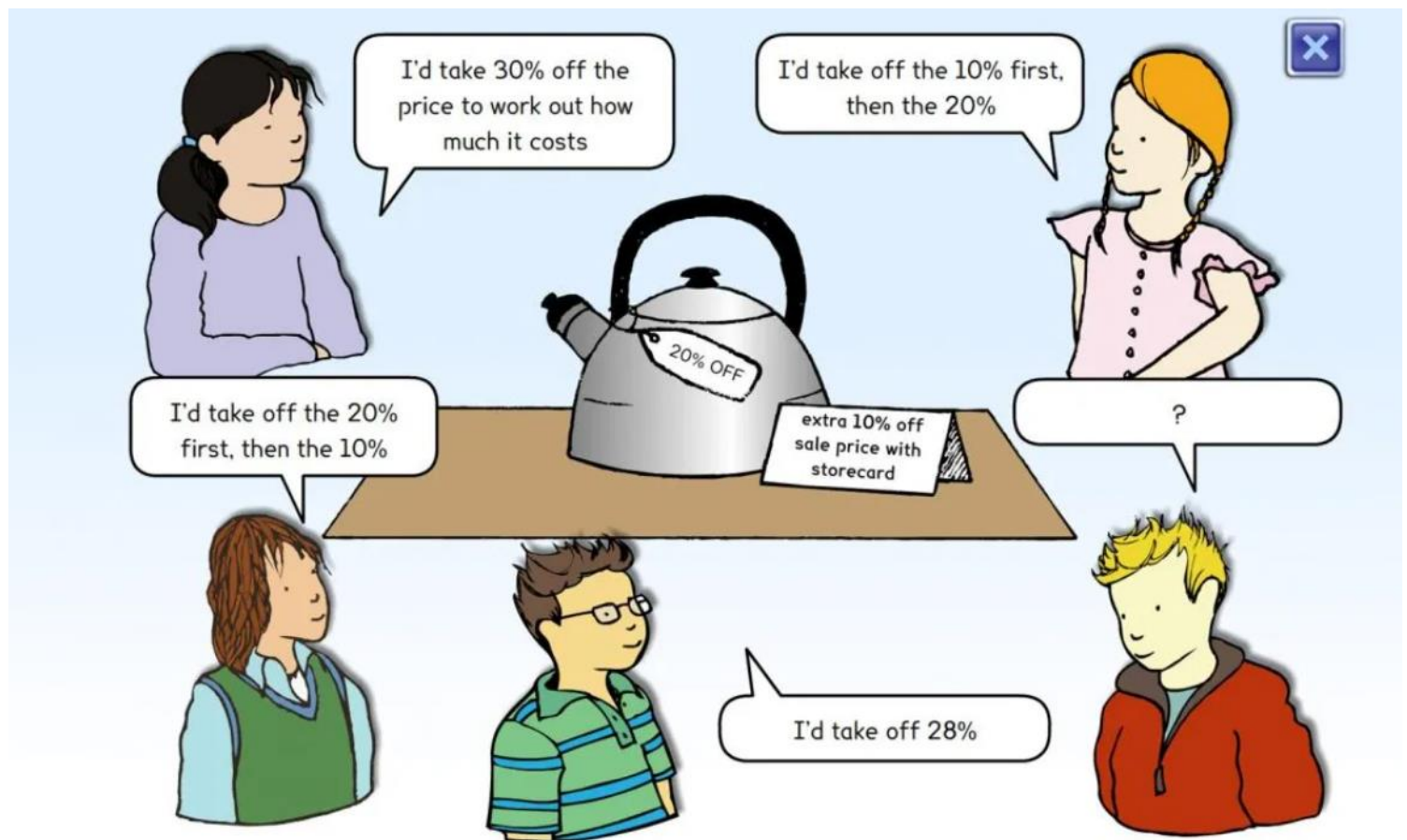


2_Fachdidaktik Grundlagen

2-6_Fehlvorstellungen / Misconceptions

Beispiel aus der Mathematik:

(Spotlight „Assessment“: Concept Cartoons)



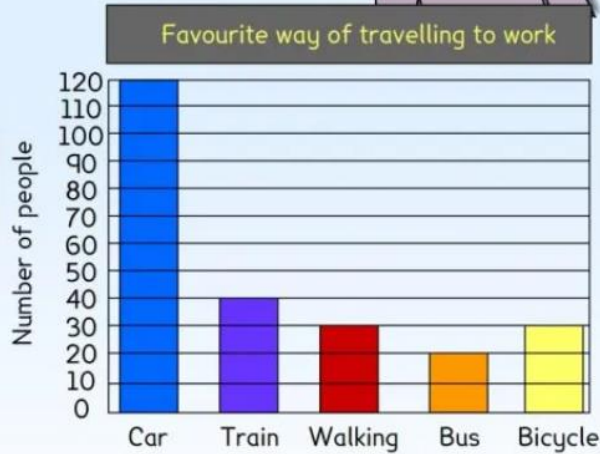


The chart shows that the car is the most popular way of travelling to work

It depends on who you asked and where you asked them



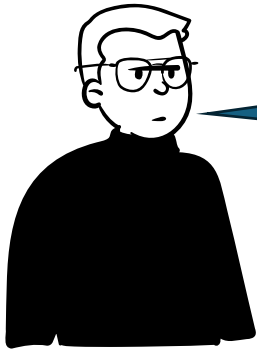
It might depend on the time of day or the time of year



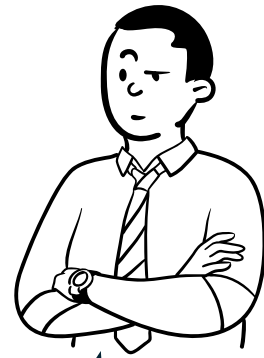
I think we don't have enough information to be certain

?



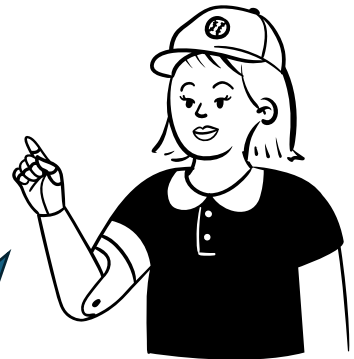


When we divide numbers, they always get smaller!



When we divide by some numbers, they get bigger!

If we divide by zero, we will always get zero.



Nothing changes if we divide by 1

6

WE ARE FULL OF MISCONCEPTIONS

Misconceptions occur when students try to make sense of new information but don't have the prerequisite knowledge to do so accurately.

This is what's happening to the student's schema...

Prior sense-making



Misconception = adding clothes increases heat.



Misconception + new learning



Misconception = heat has been added with cover.



Explanation ✓



A logical explanation is required to overcome & replace malformed schema.



2_Fachdidaktik Grundlagen

2-7_ Cognitive Load & Learning

7

COGNITIVE LOAD CONTROLS THINKING & LEARNING

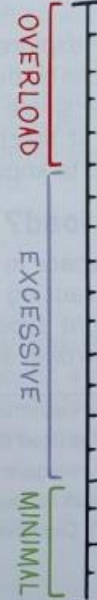
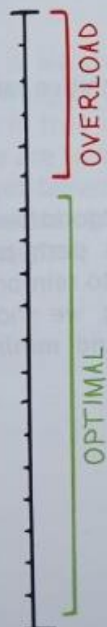
Thinking takes place in the WORKING MEMORY, which has limited space to think and can only hold information for a limited period of time.

COGNITIVE LOAD THEORY explores these limits and how to overcome them.

Intrinsic load

Natural, unavoidable load caused by thinking about anything.

Intrinsic load should be **OPTIMISED** - enough so that thinking is desirably difficult, but not so much we reach overload.



Extraneous load

Unnecessary, avoidable load associated with how information is presented.

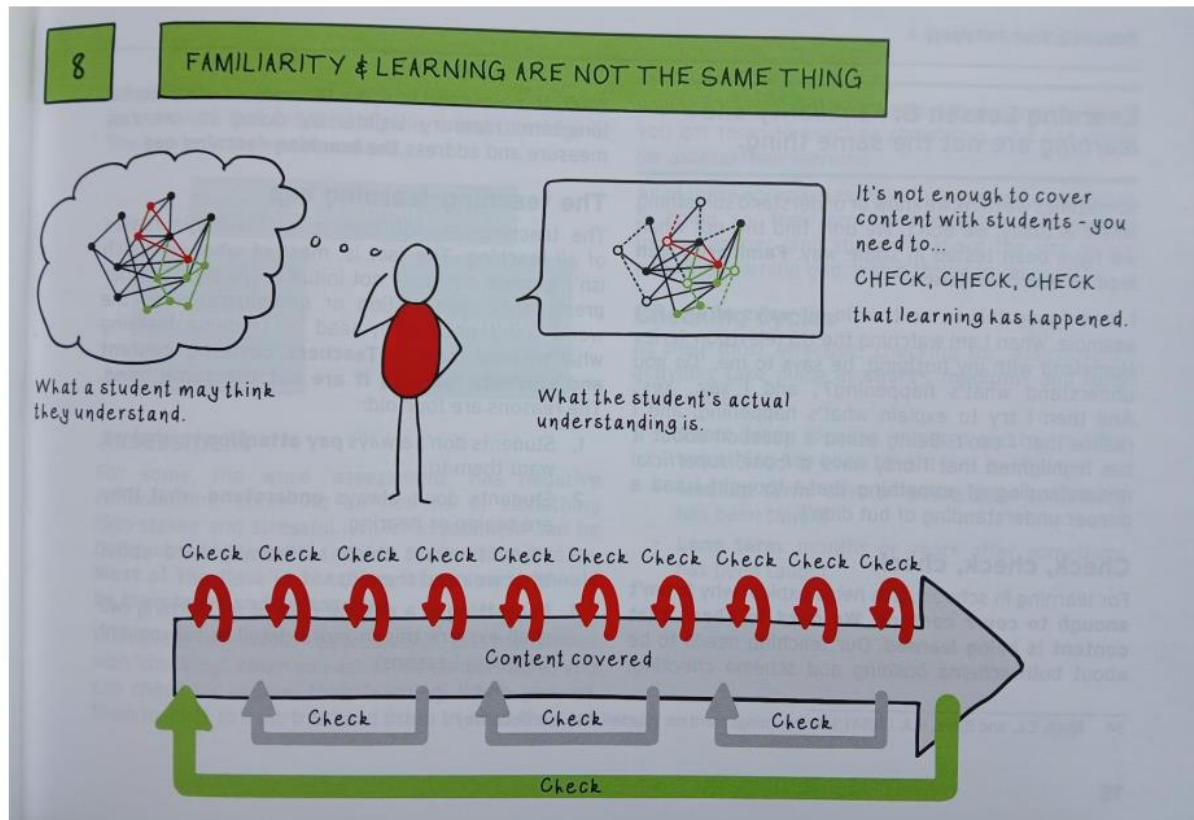
Extraneous load does not lead to learning so should be **MINIMISED**.

Strip back slides and explanations, reduce noise/visual distractions.



2_Fachdidaktik Grundlagen

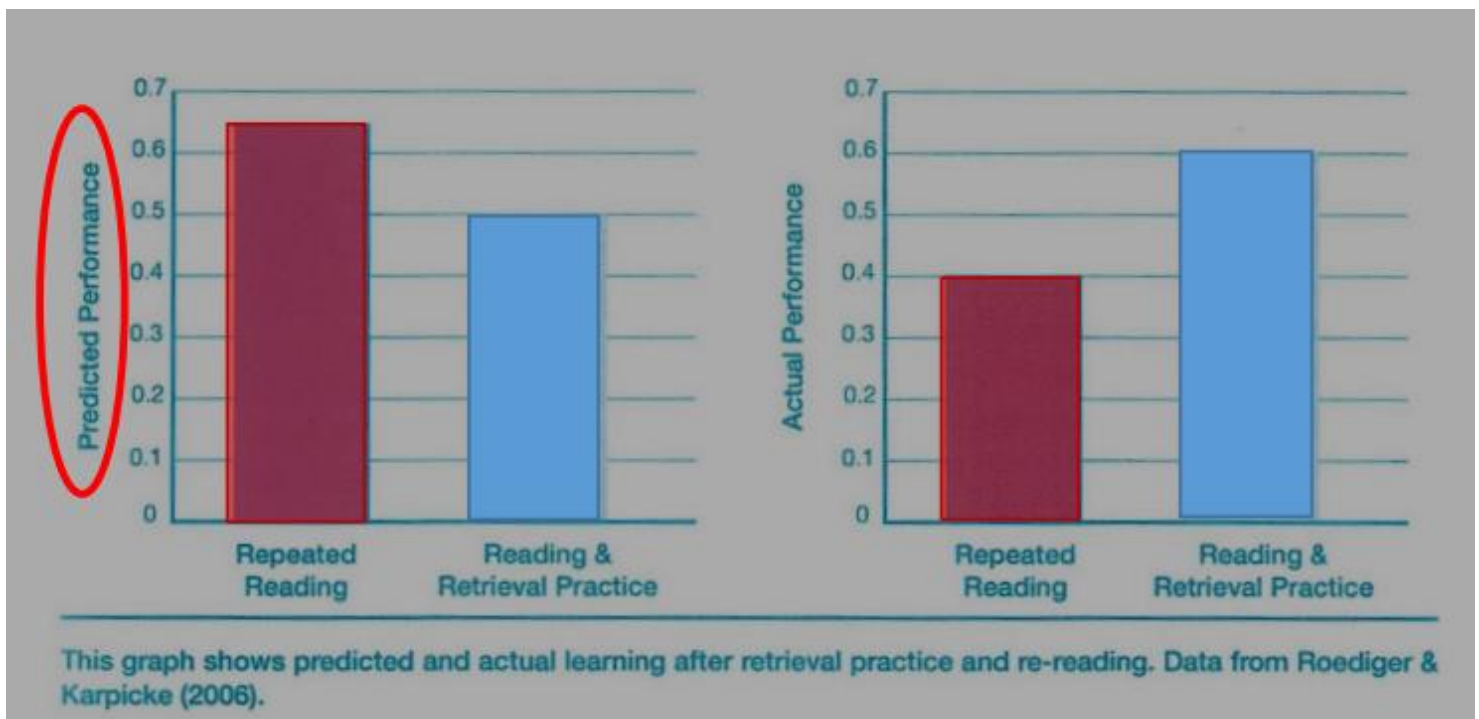
2-8_ Vertrautheitsgefühl ist oftmals irreführend



Die SchülerInnen werden die Überlegenheit der Retrieval Practice **leugnen** (siehe nachfolgende Graphik: von den SchülerInnen vorhergesagte Testperformance und die tatsächliche Testperformance).

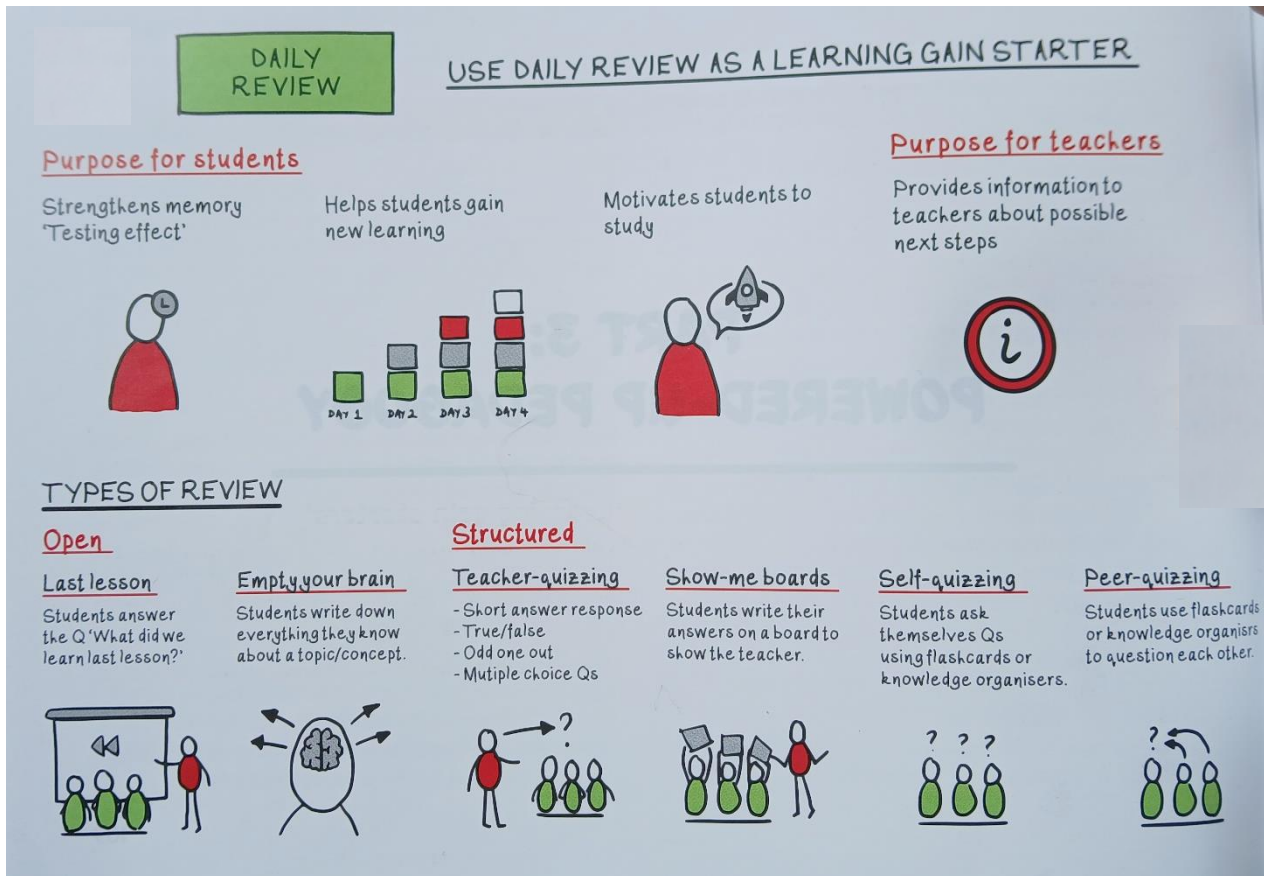
SchülerInnen werden stets behaupten, dass sich das wiederholte Durchlesen (Re-reading) ihrer Unterlagen auszahlt. Das erneute Durchlesen der Unterlagen flößt ihnen Vertrautheit mit dem Material ein – Retrieval Practice hingegen zeigt auf, wie langsam sie tatsächlich voran kommen.

Der Wirklichkeit kann man sich allerdings nicht gänzlich entziehen (... enttäuschte Gesichter bei der Rückgabe der Schularbeit).



Didaktischer Kommentar

Daily Review



Didaktischer Kommentar

Deliberate Practice / Overlearning

<https://cirl.etoncollege.com/dont-just-learn-emoverlearn-em/>

Don't just learn, overlearn

<https://www.scientificamerican.com/article/the-power-of-overlearning/>

FEBRUARY 28, 2017 | 4 MIN READ

The Power of Overlearning

It can help to work on something you already know how to do

BY VICTORIA SAYO TURNER

[More research ...](#)

<https://www.teachingsprints.com/research-hub>

Research Hub

Use these research resources to search for and evaluate evidence-informed teaching and learning approaches to guide your Teaching Sprints.

Numeracy / Mathematics

Toolkits and practice guides based on evidence-informed approaches to mathematics instruction.

3_Mathematik

3-1_Dezimalzahlen

3-1-1_Lehrplan

1

Die Schülerinnen und Schüler können

- natürliche Zahlen sowie nichtnegative Dezimal- und Bruchzahlen interpretieren, darstellen und vergleichen,

2

- nichtnegative Dezimal- und Bruchzahlen sowie ganze Zahlen interpretieren, darstellen und vergleichen,

3

- grafisches Darstellen von Zahlen als Punkte am Zahlenstrahl und Ablesen von Zahlen; Lesen großer Zahlen

4

- Wechseln zwischen Bruch- und Dezimaldarstellung in einfachen Fällen (zB $0,6 = \frac{6}{10} = \frac{3}{5}$; $1,25 = \frac{5}{4}$; $\frac{47}{100} = 0,47$)

5

- Vergleichen und Ordnen natürlicher Zahlen sowie nichtnegativer Dezimal- und Bruchzahlen

6

- Wechseln zwischen Bruch- und Dezimaldarstellung auch bei Zahlen mit einfacher periodischer Dezimaldarstellung (zB $\frac{2}{3} = 0,666 \dots$; $\frac{1}{9} = 0,111 \dots$)

7

- Wechseln zwischen Bruch- bzw. Dezimaldarstellung und Prozentdarstellung (zB $\frac{3}{4} = 75 \%$; $5 \% = 0,05$)

8

- Geldbeträge werden mehrnamig und ab der Schulstufe auch in Kommastreibweise mit zwei Nachkommastellen notiert.

3-1-2_Diagnosefragen

I= Eedi



What is the width of each of the intervals on the number line?



A

$$\frac{3}{5}$$

B

$$\frac{1}{3}$$

C

$$\frac{1}{2}$$

D

$$\frac{2}{3}$$

Didaktischer Kommentar

- “Front loading” (Adam Boxer)
- “Means of participation” (Craig Barton)
 - Cold Call (Doug Lemov)
 - Voting Systems
 - Mini Whiteboards (Craig Barton)
 - Partner Talk

Adam Boxer:

Front-load the means of participation

Set 1	Set 2
• What is the formula to calculate speed? • Write it on your mini-whiteboards	• We are going to do this next bit in silence • (wait) • Get your mini-whiteboards • (wait) • Remember, silence for this • (wait) • On your mini-whiteboards, write down the formula to calculate speed

Craig Barton:

The means of participation

1

Cold Call

(Teach like a Champion | Doug Lemov)



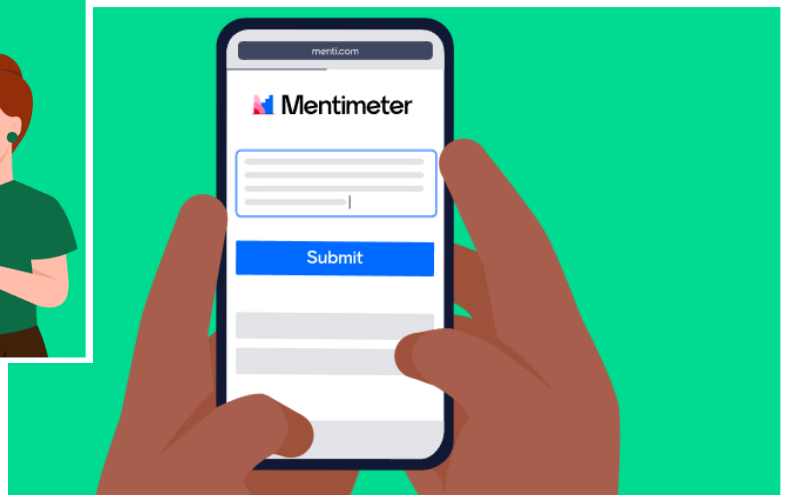
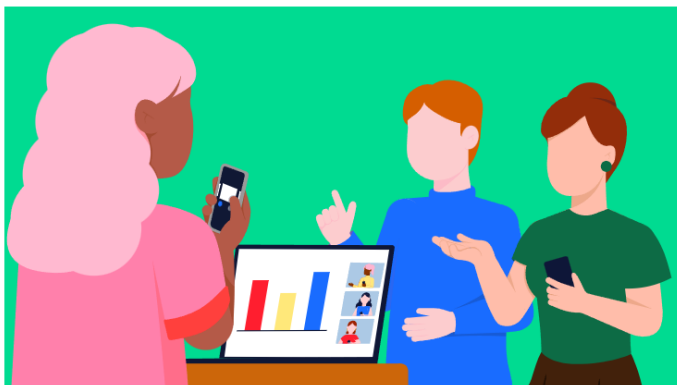


Interaktives Lernen

Lass alle Schülerinnen und Schüler aktiv an ihrem eigenen Lernprozess mitarbeiten.

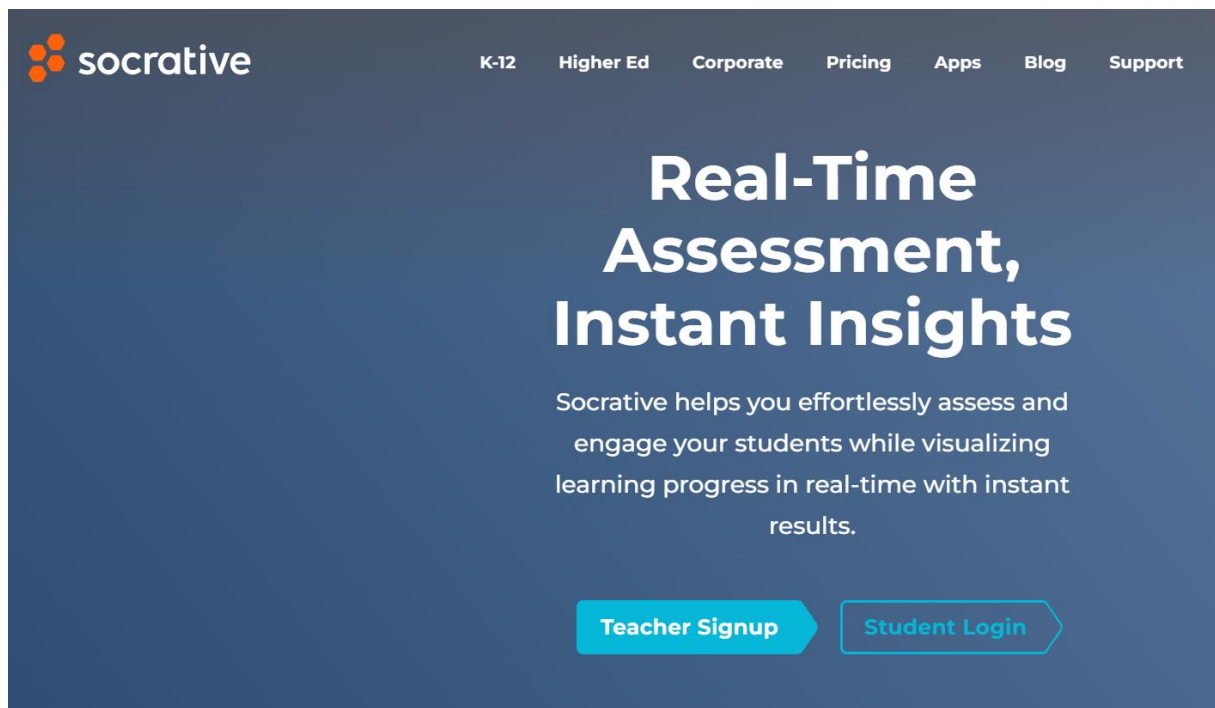
Bereite deine nächste Unterrichtsstunde vor

Ja, die Registrierung ist kostenlos



Viele Plattformen ...

1. **Slido** – Great for live polling, Q&A, and quizzes, often used in corporate and educational settings.
2. **Kahoot!** – Primarily a quiz-based platform, but it also allows polls and surveys.
3. **Poll Everywhere** – Offers live audience polling, word clouds, and Q&A sessions.
4. **Vevox** – A real-time engagement platform with polling, quizzes, and surveys.
5. **Wooclap** – An interactive tool with live polls, quizzes, and brainstorming features.
6. **AhaSlides** – A presentation tool with live audience participation, including polls and Q&A.
7. **Pigeonhole Live** – Focuses on Q&A and live polling, often used for conferences and meetings.
8. **TurningPoint** – A classroom and corporate tool for interactive polling and assessments.
9. **ClassPoint** – A PowerPoint add-in for interactive quizzes and audience engagement.
10. **Hypersay** – Allows interactive slides with polls, quizzes, and audience feedback.



The image shows the homepage of the Socrative website. At the top left is the Socrative logo, consisting of four orange dots arranged in a square pattern followed by the word "socrative" in white lowercase letters. To the right of the logo is a navigation menu with links: "K-12", "Higher Ed", "Corporate", "Pricing", "Apps", "Blog", and "Support". The main heading is "Real-Time Assessment, Instant Insights" in large white text. Below this is a paragraph: "Socrative helps you effortlessly assess and engage your students while visualizing learning progress in real-time with instant results." At the bottom are two buttons: "Teacher Signup" and "Student Login", both in white text on a teal background.

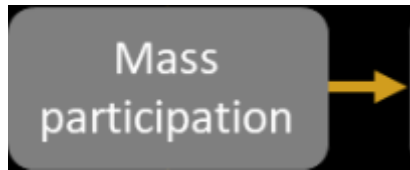
socrative

K-12 Higher Ed Corporate Pricing Apps Blog Support

Real-Time Assessment, Instant Insights

Socrative helps you effortlessly assess and engage your students while visualizing learning progress in real-time with instant results.

[Teacher Signup](#) [Student Login](#)



Craig Barton

<https://tipsforteachers.co.uk/mini-whiteboards-top-5/>



Listen to the audio on [Spotify](#) or [Apple Podcasts](#)

The five tips are:

1. Consider getting A3 mini-whiteboards
2. Make use of both sides of the mini-whiteboard
3. Control the flow of information
4. Question students who show you a blank board
5. Use mini-whiteboards to help check book work

White Board

Dry Erase 21x30cm Double Sided Mini
Whiteboard with 16 Pens and 16 Erasers
Durable Portable for Classroom, Home
and Office



Mass
participation



4

Partner talk

1. Give students enough time to think individually first

2. Ask students to write down their answer/key points

3. Use mini-whiteboards to support Partner Talk

4. State who talks first in advance

5. Give a conversation prompt

6. Announce when it is time to switch speaker

7. Ensure students have something to discuss

8. Reinforce the importance of listening

9. Reinforce the idea of rehearsal

10. Better too short than too long

11. Be careful not to get in the way

12. Combine Partner Talk with Cold Call

13. Use Partner Talk following a check for understanding

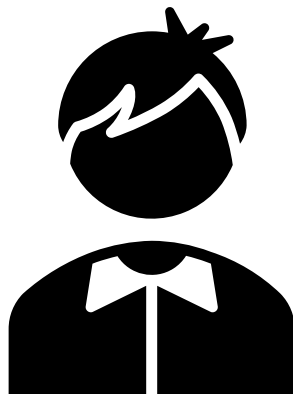
14. Ask questions to find the best paired discussions to share

15. Consider using the 4-2 approach for longer tasks

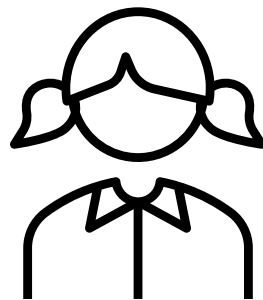
Back to first DQaDay:

Can you explain what mistake each of these students has made?

I think the answer is A because you just do the 3 at one end divided by the 5 at the other to split the line up



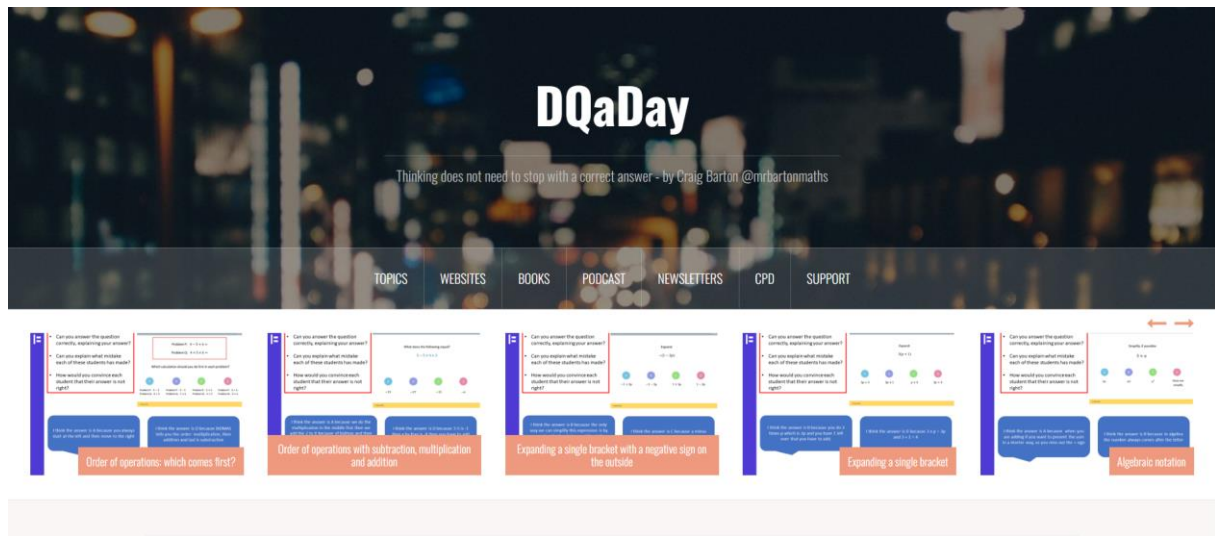
I think the answer is B because there are 3 dashes between 3 and 5 which gives us the denominator for the answer. As it has only highlighted one dash the answer becomes $1/3$.



How would you convince each student that their answer is not right?

DQaDay Website (Craig Barton)

<https://www.dqaday.com/>



Back to Decimal Numbers:

... and some more Diagnostic Questions

Q1

How should you say this
number?

0.34

A

Thirty four

B

Zero point thirty four

C

Zero point three four

D

Zero thirty four

How should you say this number?

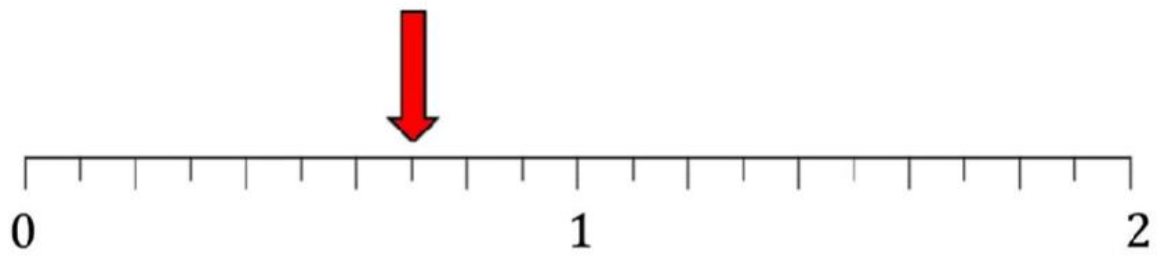
0.34

- A** Thirty four
- B** Zero point thirty four
- C** Zero point three four
- D** Zero thirty four

A	B	C	D
2 %	30 %	62 %	7 %

Q2

What number is the arrow pointing to?



A

7.0

B

0.8

C

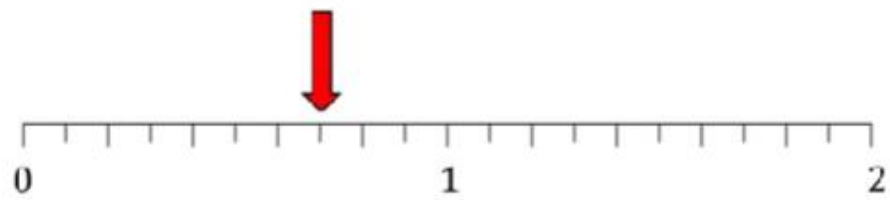
7

D

0.7



What number is the arrow pointing to?



A

7.0

B

0.8

C

7

D

0.7

© Eedi 2018

A

B

C

D

4 %

5 %

5 %

85 %

Q3

Tom and Katie are arguing about numbers.

Tom says $5.1 < 5.10$

Katie says $5.1 > 5.01$

Who is correct?

A

Only
Tom

B

Only
Katie

C

Both Tom
and Katie

D

Neither is
correct



Tom and Katie are arguing about numbers.

Tom says $5.1 < 5.10$

Katie says $5.1 > 5.01$

Who is correct?



Only
Tom



Only
Katie



Both Tom
and Katie

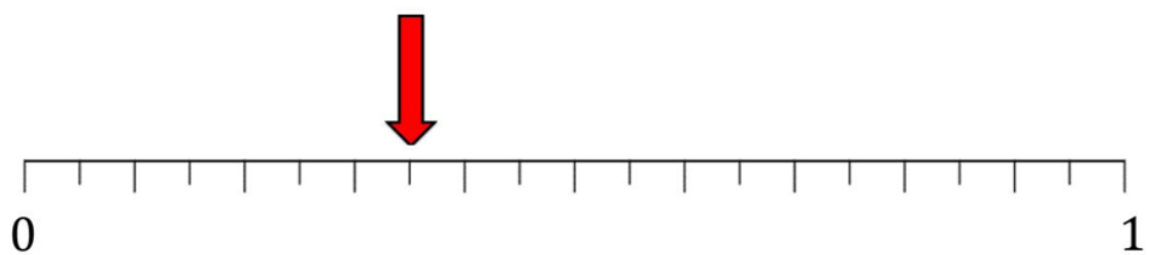


Neither is
correct

A**B****C****D****10 %****70 %****11 %****9 %**

Q4

What number is the arrow pointing to?



A

0.14

B

0.07

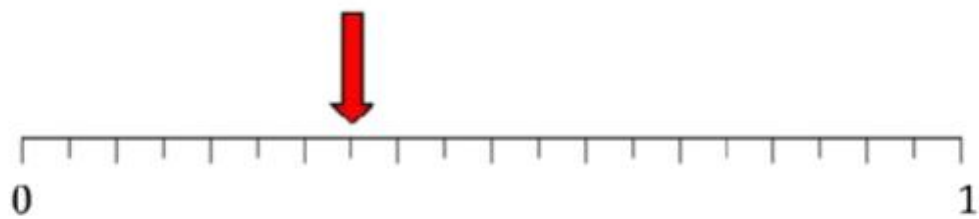
C

0.35

D

0.7

What number is the arrow pointing to?



0.14



0.07



0.35



0.7

© Eedi 2018

A

B

C

D

6 %

23 %

48 %

24 %

Q5

Which is the smallest number in this list?

A

0.83

B

0.803

C

0.8038

D

3.083

Which is the smallest number in this list?

A

0.83

B

0.803

C

0.8038

D

3.083

A

19 %

B

50 %

C

19 %

D

12 %

Q6

Which number is the greatest?

A

5

B

5.2

C

5.079

D

5.0001



Which number is the greatest?

A

5

B

5.2

C

5.079

D

5.0001

A

16 %

B

68 %

C

9 %

D

6 %

Q7

Put these numbers in order, starting with the smallest:

0.4 -0.35 0.45 -0.3 0.355

A 0.3 0.35 0.355 0.4 0.45

B -0.35 -0.3 0.355 0.4 0.45

C -0.3 -0.35 0.355 0.4 0.45

D -0.3 0.4 -0.35 0.45 0.355



Put these numbers in order, starting with the smallest:

0.4 -0.35 0.45 -0.3 0.355

- A 0.3 0.35 0.355 0.4 0.45
- B -0.35 -0.3 0.355 0.4 0.45
- C -0.3 -0.35 0.355 0.4 0.45
- D -0.3 0.4 -0.35 0.45 0.355

A

6 %

B

58 %

C

27 %

D

9 %

3-1-3_ Review (Dezimalzahlen)

R

Which is the smallest number in this list?

A

0.83

B

0.803

C

0.8038

D

3.083

Schemes Construction ... / Hook the word to ... History

The expression "**to decimate something**" comes from the **Latin word *decimare***, which means "**to take a tenth.**" It originally referred to a **punishment used in the Roman army**: when a group of soldiers mutinied or showed cowardice, one in every ten men was **executed by lot**—a brutal form of discipline meant to restore order and morale.

Here's a quick breakdown:

- **Latin root:** *decimus* = "tenth"
- **Verb:** *decimare* = "to take or kill one in ten"
- **Historical use:** Roman military punishment
- **Modern use:** Now it means **to destroy a large part of something**—though it originally meant destroying **only 10%**.

So, over time, the meaning shifted from a very specific (and numerically precise) punishment to a more general expression of widespread destruction, like "The town was decimated by the hurricane."

Detect some misconceptions ...



Words matter ...



5,35

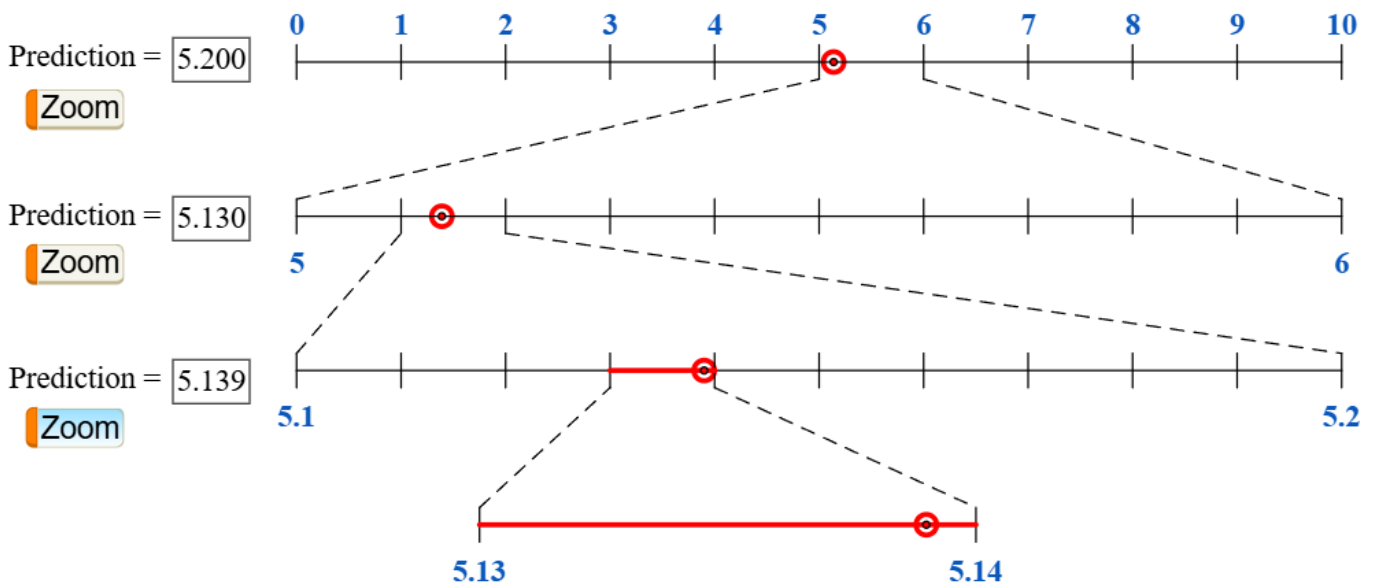
3,6

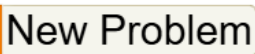
2,09

... more (visualization) ...

<https://www.sineofthetimes.org/2018/zoom/>

What is the location of the red point?
Make predictions and keep zooming in.







Reset

◀ 3 ▶

Deliberate Practice

https://donsteward.blogspot.com/2017/05/zoom.html?utm_source=podia&utm_medium=iframely

Fertige Übungsblätter ...



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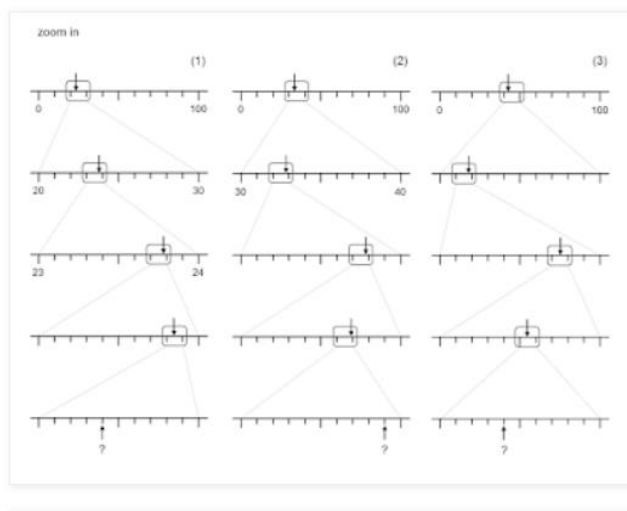
Monday, 22 May 2017

zoom

- place value, zooming in
- reversing the question
- generalising
- harder generalising

a [powerpoint](#), kind of illustrating the zooming in and with the resources below

a far better, animated [zoom](#) from Daniel Scher



Pages

- [Blogs Home](#)
- [Don Steward's maths education resources](#)
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topics

- [3D coordinates](#) (1)
- [3D geometry](#) (8)
- [a add b squared](#) (7)
- [add/subtract simple](#) (6)
- [addition](#) (9)
- [addition simple](#) (17)
- [algebra](#) (9)
- [algebra misconceptions](#) (2)
- [algebraic fractions](#) (3)
- [angle bisector](#) (5)
- [angle proof](#) (10)
- [angles](#) (16)
- [angles in a triangle proof](#) (1)
- [angles in polygons](#) (38)
- [angles in quadrilaterals](#) (8)

Push the limits ...

https://donsteward.blogspot.com/2015/12/decimal-scales.html?utm_source=podia&utm_medium=iframe

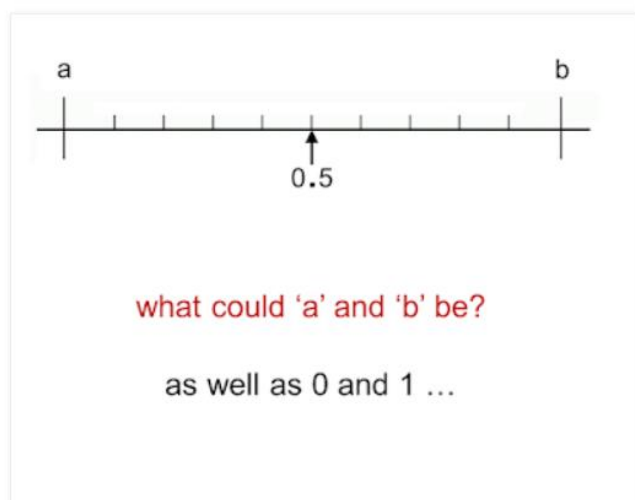


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Thursday, 24 December 2015

decimal scales

an example of how reversing a question can be more interesting
leading, ideally, to generalising



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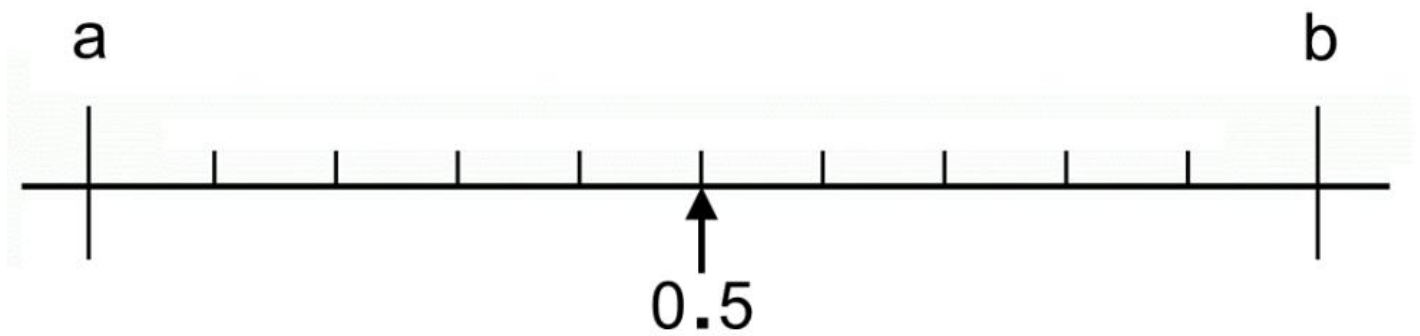
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- [algebra misconceptions](#) (2)
- [algebraic fractions](#) (3)

Push **yourself** ...



what could 'a' and 'b' be?

as well as 0 and 1 ...

Overlearning

https://donsteward.blogspot.com/2013/12/nearest-to.html?utm_source=podia&utm_medium=iframe

median
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mathematics teaching 10 ~ 16

Tuesday, 3 December 2013

nearest to

closest

(1) use all four digits and a decimal point to create a number as close to 15 as you can

5
1 8 4

(2) use all four digits and a decimal point to create a number as close to 25 as you can

5
4 2 1

(3) use all four digits and a decimal point to create a number as close to 5 as you can

9
5 0 4

(4) use all four digits and a decimal point to create a number as close to 125 as you can

6
1 3 2

(5) use all four digits and a decimal point to create a number as close to 3.2 as you can

8
3 2 1

(6) use all four digits and a decimal point to create a number as close to 3.488 as you can

5
3 2 4

Pages

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- [Don Steward's rough notes](#)

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- [add/subtract simple](#) (6)
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- [algebra](#) (9)

closest

(1)

use all four digits and a decimal point to create a number as close to 15 as you can

5
1 8 4

(2)

5
4 2 1
use all four digits and a decimal point to create a number as close to 25 as you can

(3)

use all four digits and a decimal point to create a number as close to 5 as you can

9
5 0 4

(4)

use all four digits and a decimal point to create a number as close to 125 as you can

6
1 3 2

(5)

8
3 2 1
use all four digits and a decimal point to create a number as close to 3.2 as you can

(6)

use all four digits and a decimal point to create a number as close to 3.488 as you can

5
3 2 4

Übung, Übung, ...

https://startingpointsmaths.com/2020/09/07/fraction-and-decimal-equivalents/?utm_source=podia&utm_medium=iframe

Fraction and Decimal Equivalents

Fraction and Decimal Equivalents

startingpointsmaths.com

Example 1

Write the decimal as a sum of fractions.

$$0.24 = \frac{2}{10} + \frac{4}{100}$$

Example 2

Write the sum of fractions as a decimal

$$\frac{4}{10} + \frac{7}{100} + \frac{2}{1000} = 0.472$$

1 Write the decimals as a sum of fractions.

- | | | | |
|-----------|-----------|-----------|-----------|
| (a) 0.1 | (b) 0.01 | (c) 0.6 | (d) 0.07 |
| (e) 0.12 | (f) 0.31 | (g) 0.60 | (h) 0.001 |
| (i) 0.143 | (j) 0.301 | (k) 1.437 | (l) 7.057 |

2 Write the sum of fractions as a decimal.

- | | | | |
|---|--|--|--|
| (a) $\frac{3}{10}$ | (b) $\frac{7}{100}$ | (c) $\frac{1}{10} + \frac{3}{100}$ | (d) $\frac{3}{10} + \frac{8}{100}$ |
| (e) $\frac{7}{10} + \frac{9}{100}$ | (f) $2 + \frac{5}{10} + \frac{8}{100}$ | (g) $3 + \frac{1}{10} + \frac{4}{100}$ | (h) $\frac{1}{1000}$ |
| (i) $\frac{1}{10} + \frac{2}{100} + \frac{3}{1000}$ | (j) $\frac{7}{10} + \frac{3}{1000}$ | (k) $\frac{3}{100} + \frac{7}{1000}$ | (l) $13 + \frac{9}{10} + \frac{7}{100} + \frac{5}{1000}$ |

3 For each diagram express the shaded region, as a sum of fractions and as a decimal.

Example

$$\frac{4}{10} + \frac{2}{100} = \frac{42}{100} = 0.42$$

- (a) (b)

[Download PDF Here](#)

This task is focused on linking decimal place value with fraction meaning. Questions 3 and 4 play an important role. They are designed to convey why, for instance $\frac{4}{10} + \frac{3}{100}$ is the same as $\frac{43}{100}$.

Credit: @chrismcgrane84

Übung, Übung, Übung ...

https://www.tes.com/teaching-resource/place-value-with-decimals-12420353?utm_source=podia&utm_medium=iframe

InternationalResourcesEducation JobsSchools directoryNewsCoursesStoreTes for schoolsLog inRegister for free

Place Value with Decimals

Subject: Mathematics Age range: 11-14 Resource type: Worksheet/Activity

£0.00

5.00 ★★★★★ | 1 review

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Save for later

Last updated
19 October 2020

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File previews

Place Value and Decimals 1						
Handwritten No.	Tens	Ones	Tenths	Hundredths	Thousandths	As a decimal
5	6					607.302
a	4	5	3	7	2	
b	4		5	3	7	2
c	4	5	3	7	2	
d	4	5	3	7		
e	4	5	3	7		453.728
f	4		5	3	7	
g		4	5			45.057
h		4	5		3	
i						6.05
j	4				5	0.045

DOCX, 48.76 KB

Place Value and Decimals 1						
Handwritten No.	Tens	Ones	Tenths	Hundredths	Thousandths	As a decimal
5	6					607.302
a		4	5	3	7	2
b	4		5	3	7	2
c	4	5	3	7	2	
d	4	5	3	7		
e	4	5	3	7		453.728
f	4		5	3	7	
g		4	5			45.057
h		4	5		3	
i						6.05
j	4				5	0.045

PDF, 135.14 KB

Three activities to deepen understanding of decimal place value. Partly based on tasks in Heylings books from the 1980s.

<https://www.tes.com/teaching-resources/shop/mrsmorgan1>