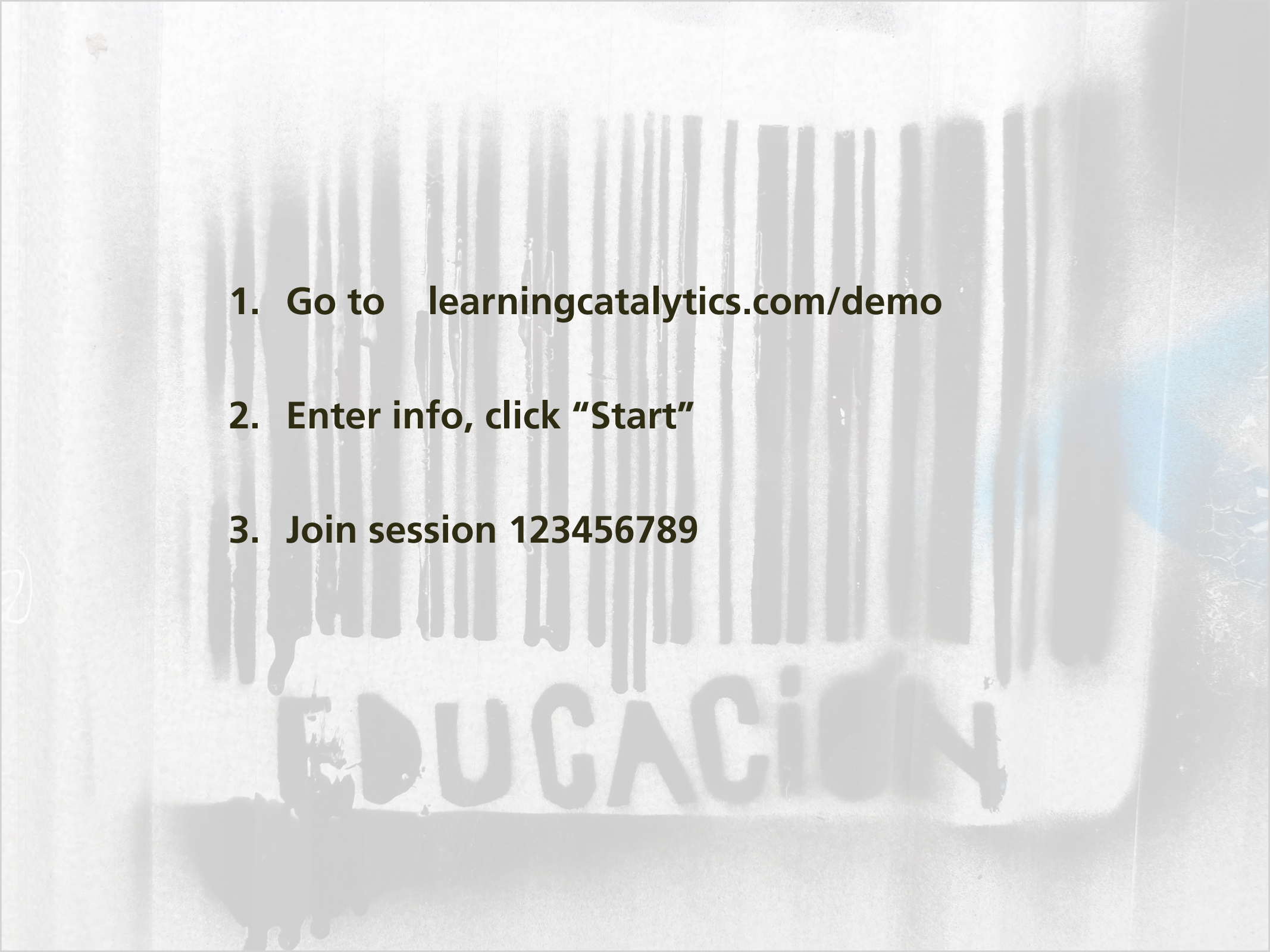


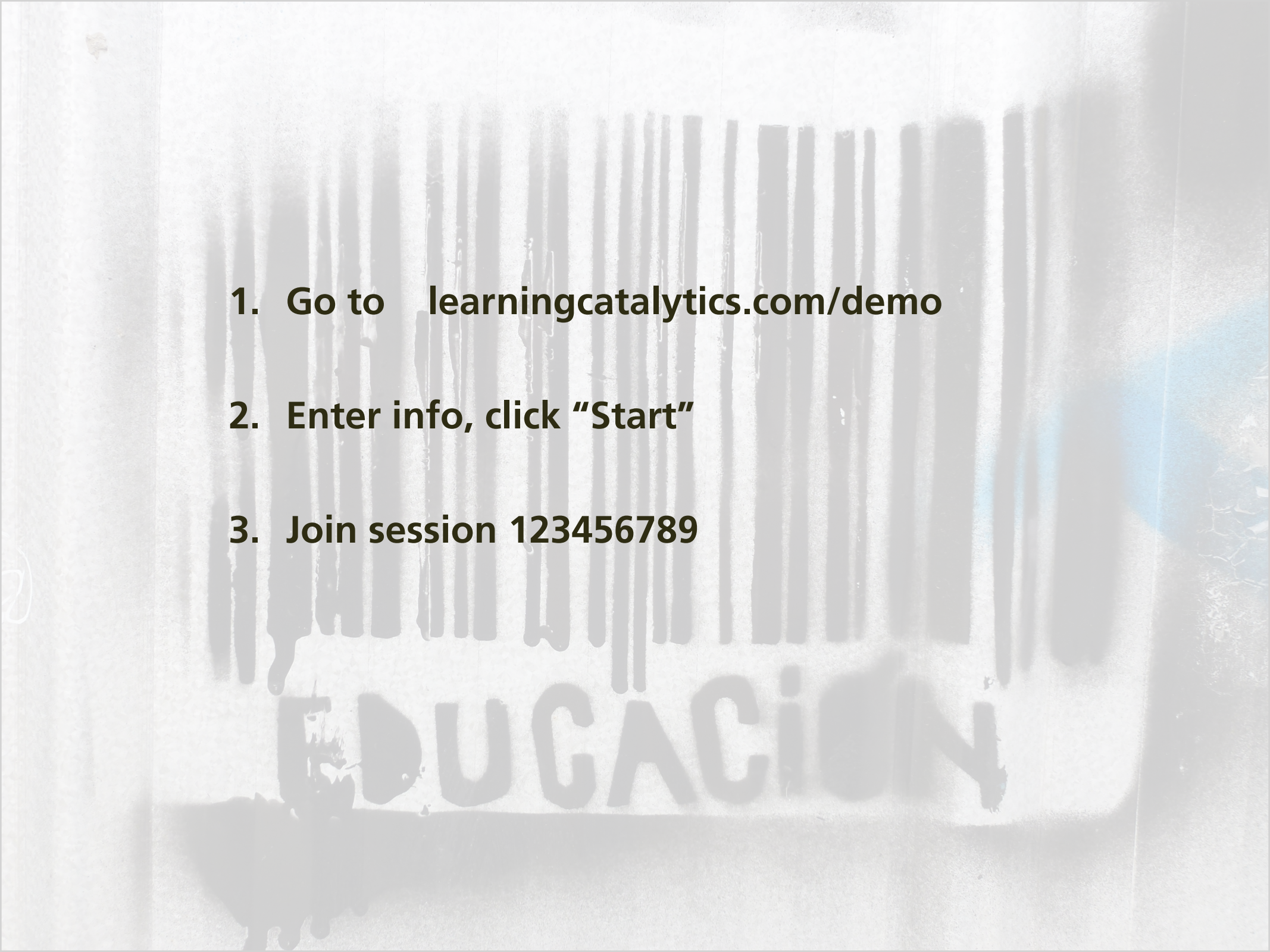
1. Go to learningcatalytics.com/demo
2. Enter info, click “Start”
3. Join session 123456789

Catalyzing learning with Learning Catalytics

Marquette University
5 May 2014

Catalyzing learning with Learning Catalytics

Marquette University
5 May 2014



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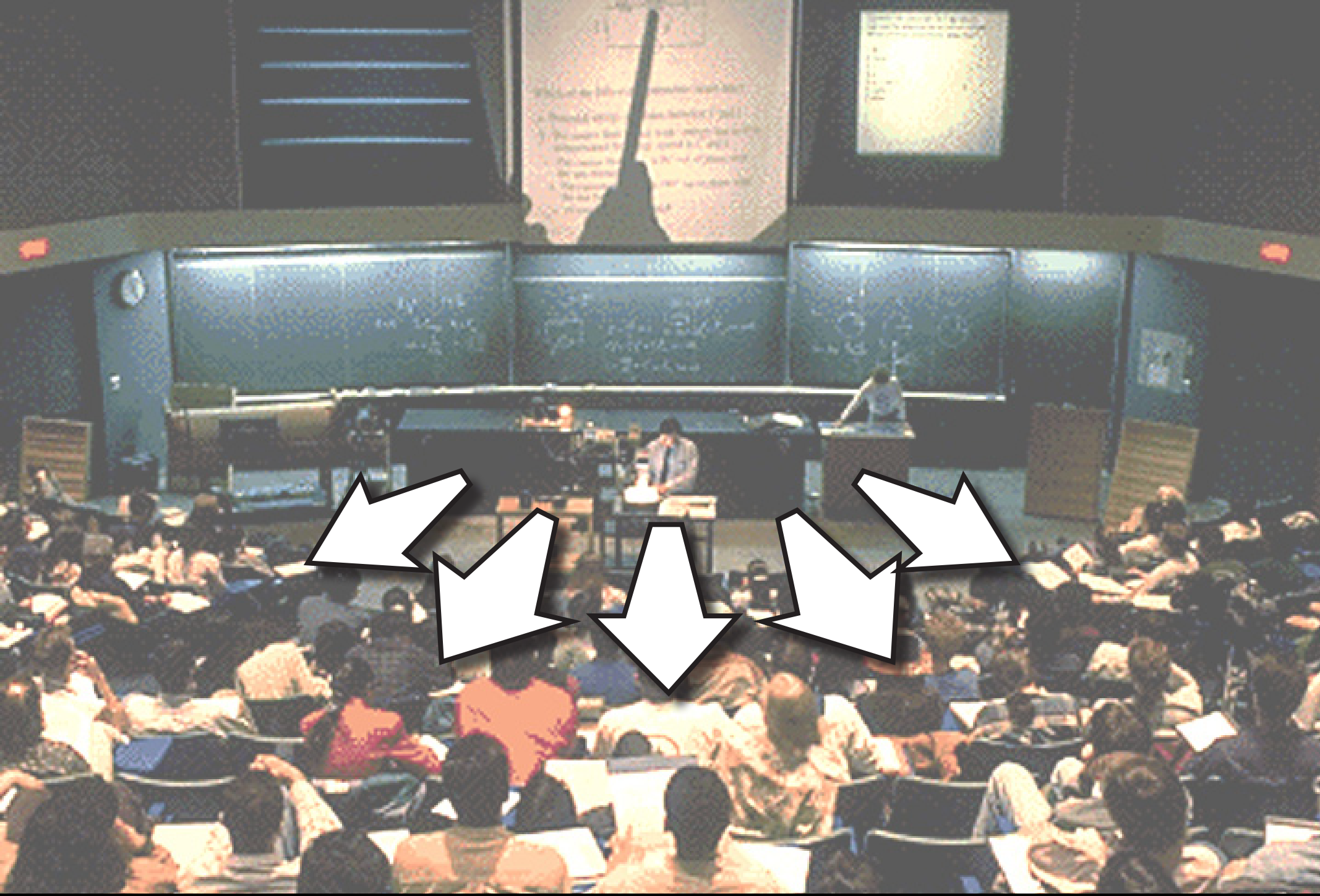
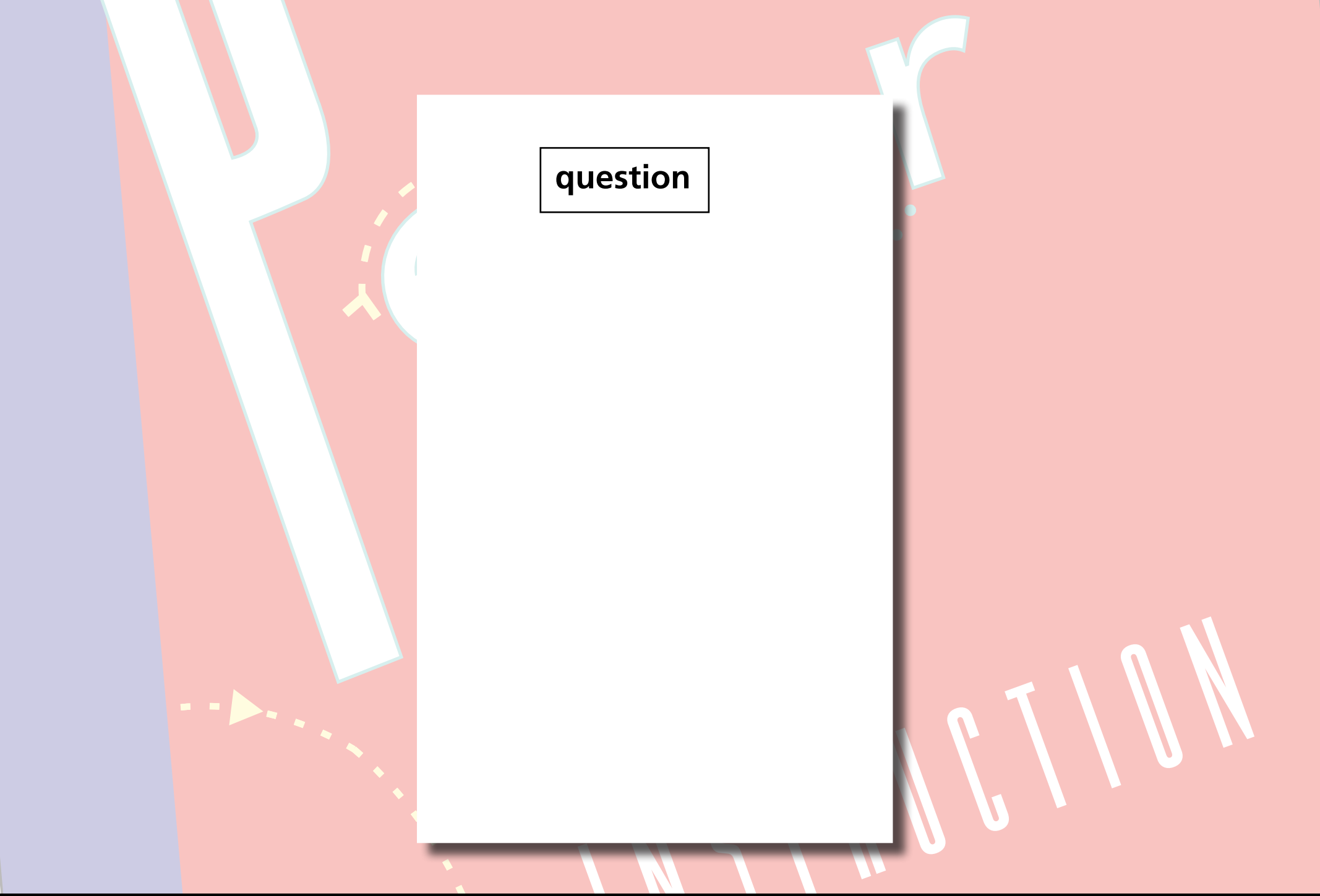
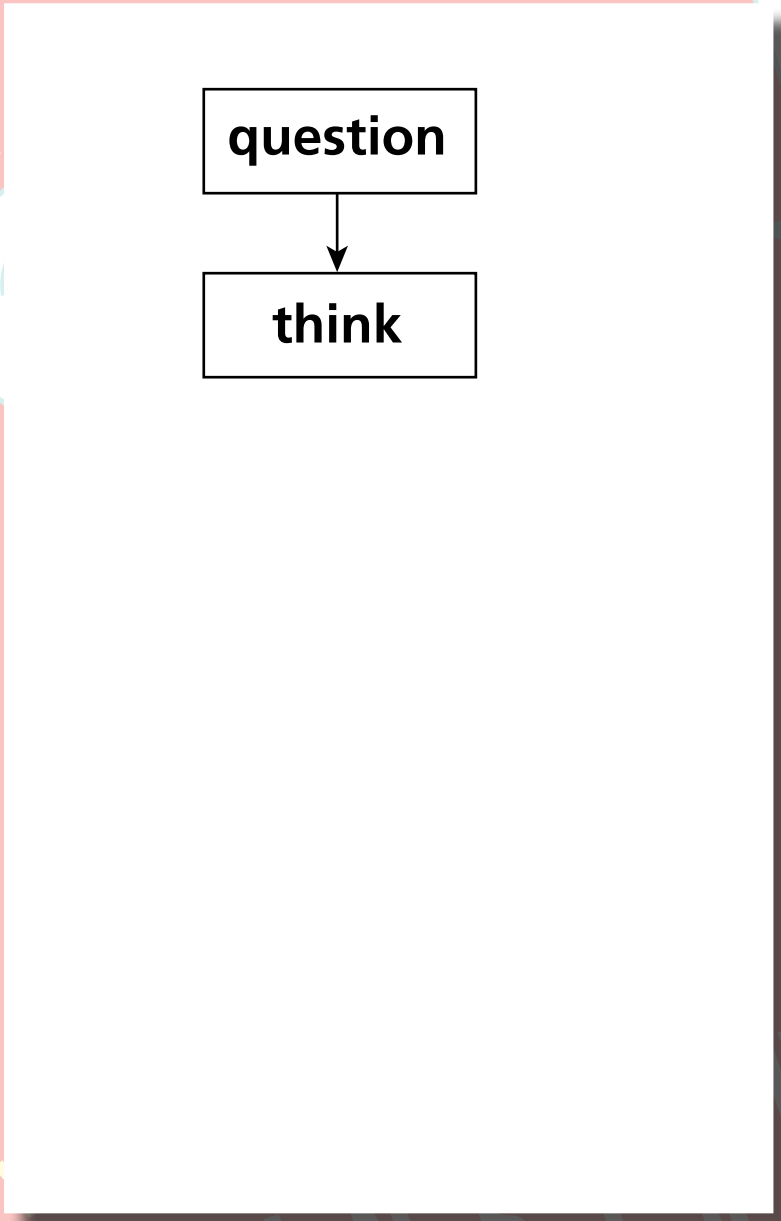


1 lecture



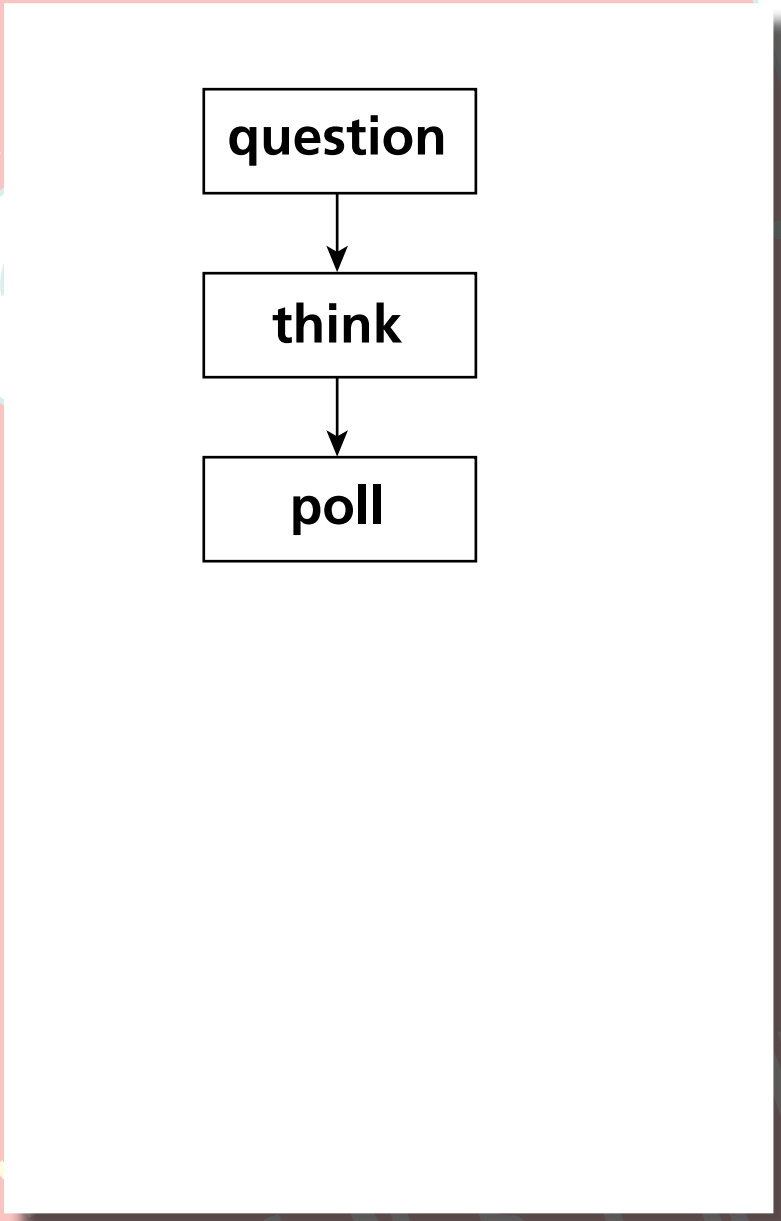
1 education

2 PI



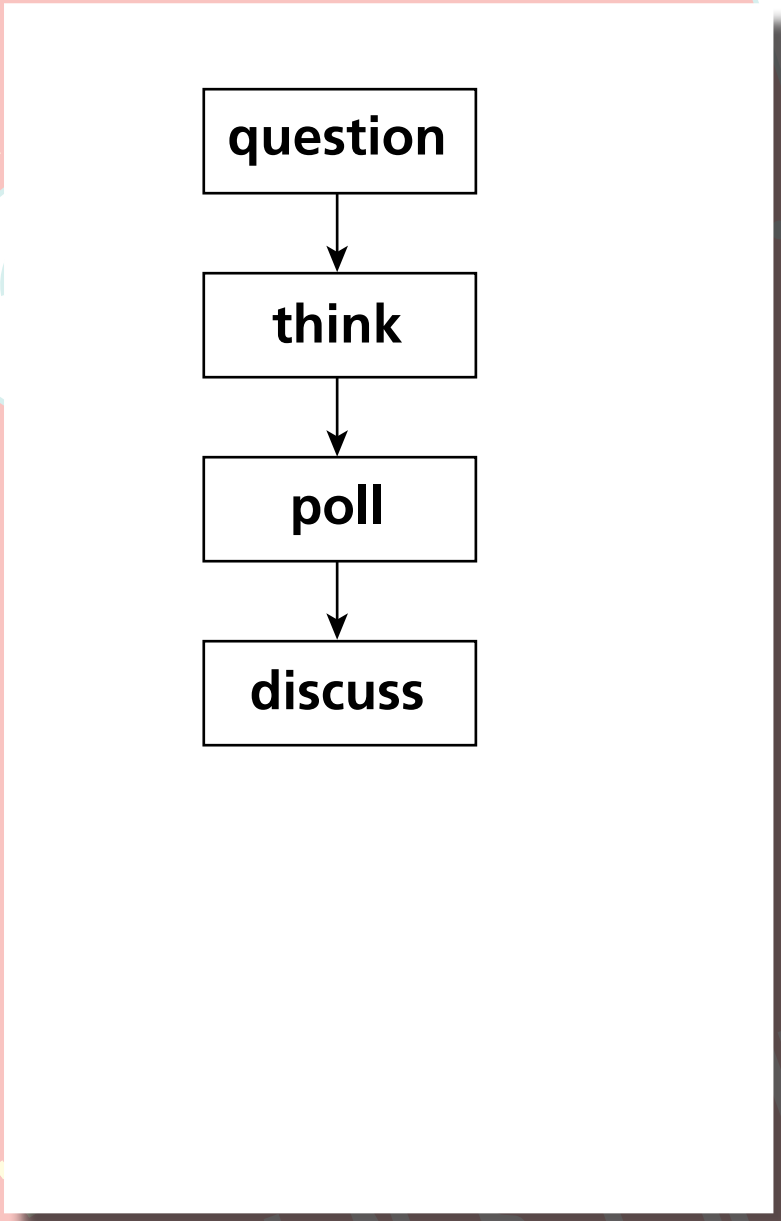
1 education

2 PI



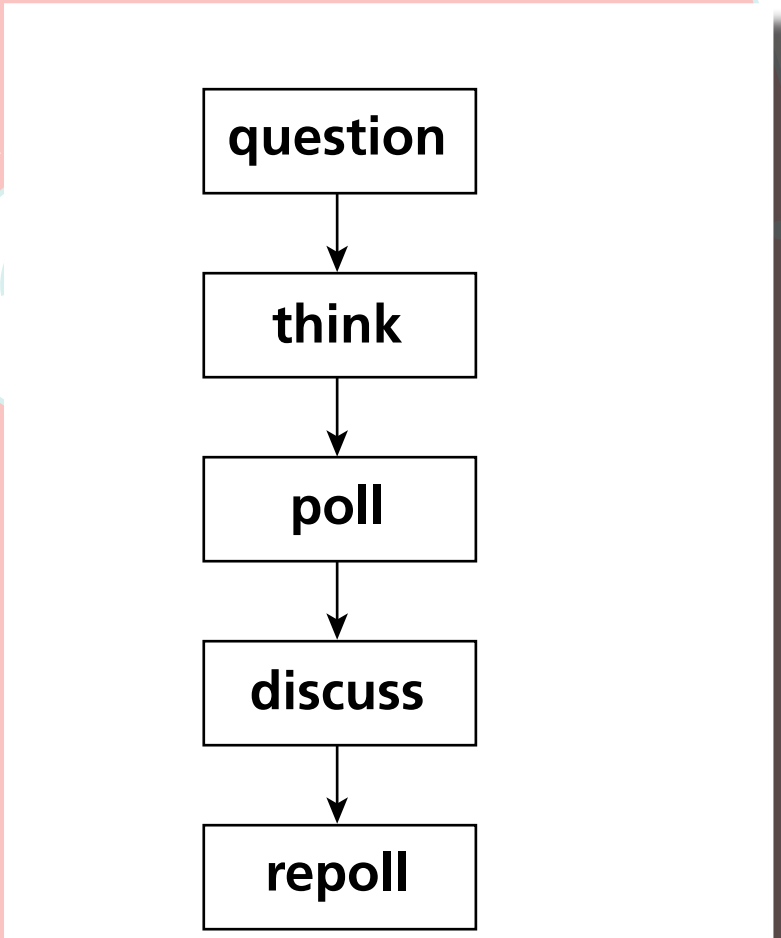
1 education

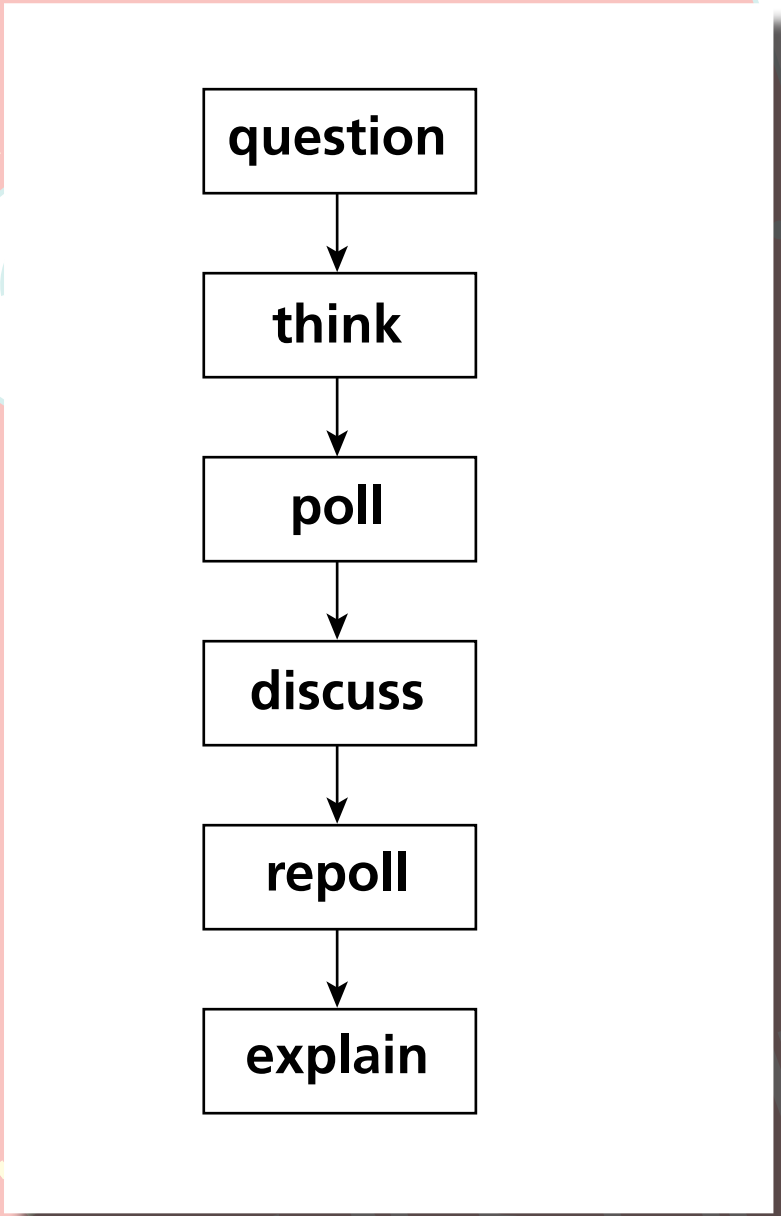
2 PI

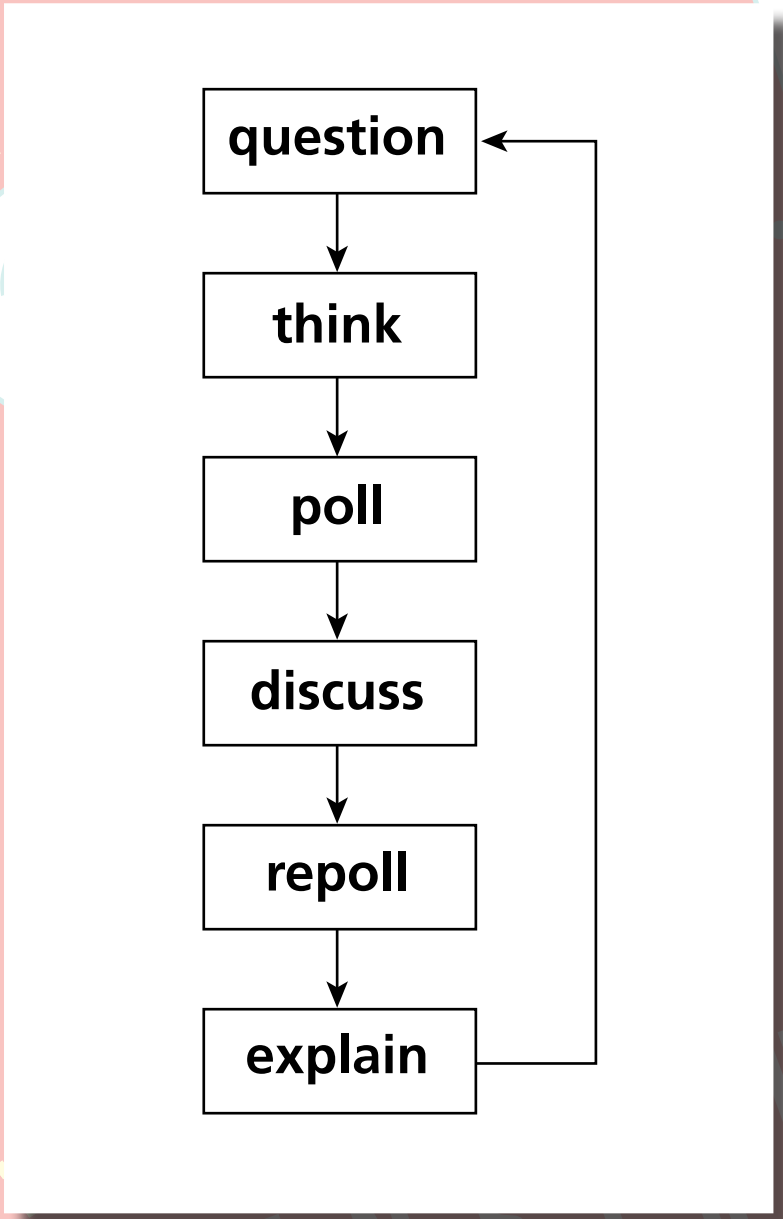


1 education

2 PI

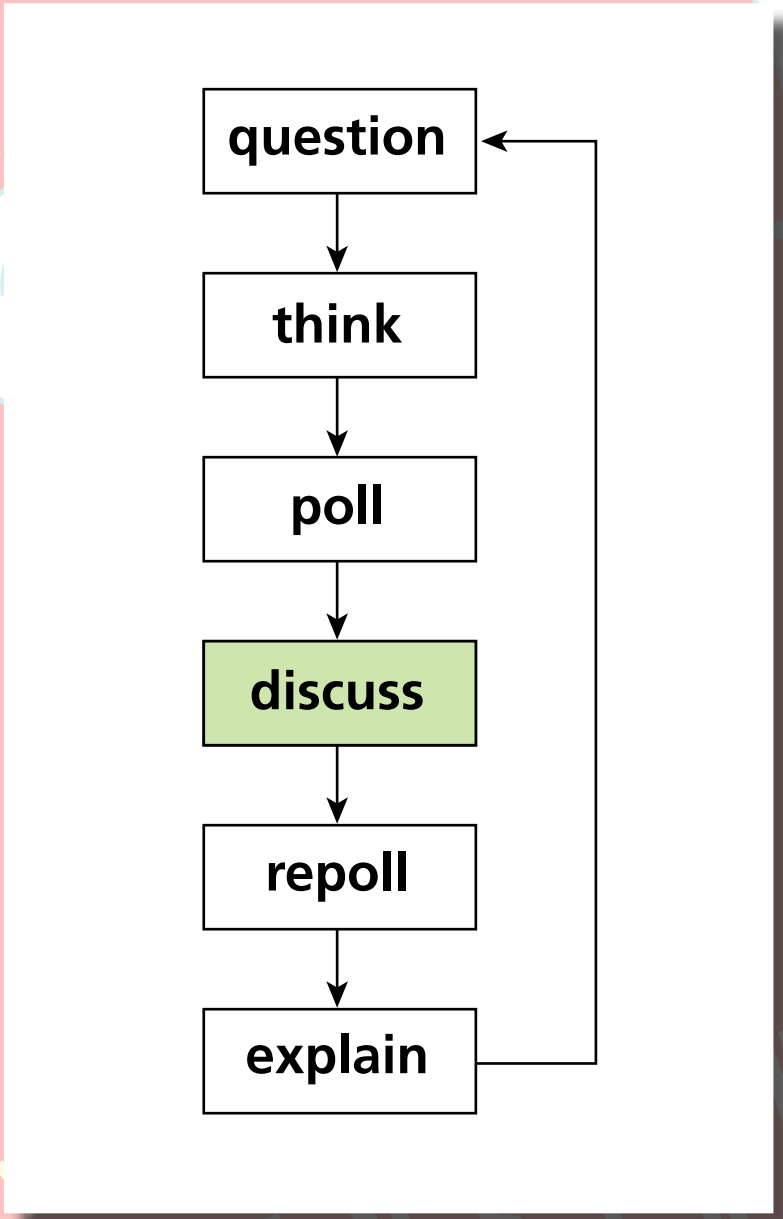

question
think
poll
discuss
repoll


question
think
poll
discuss
repoll
explain



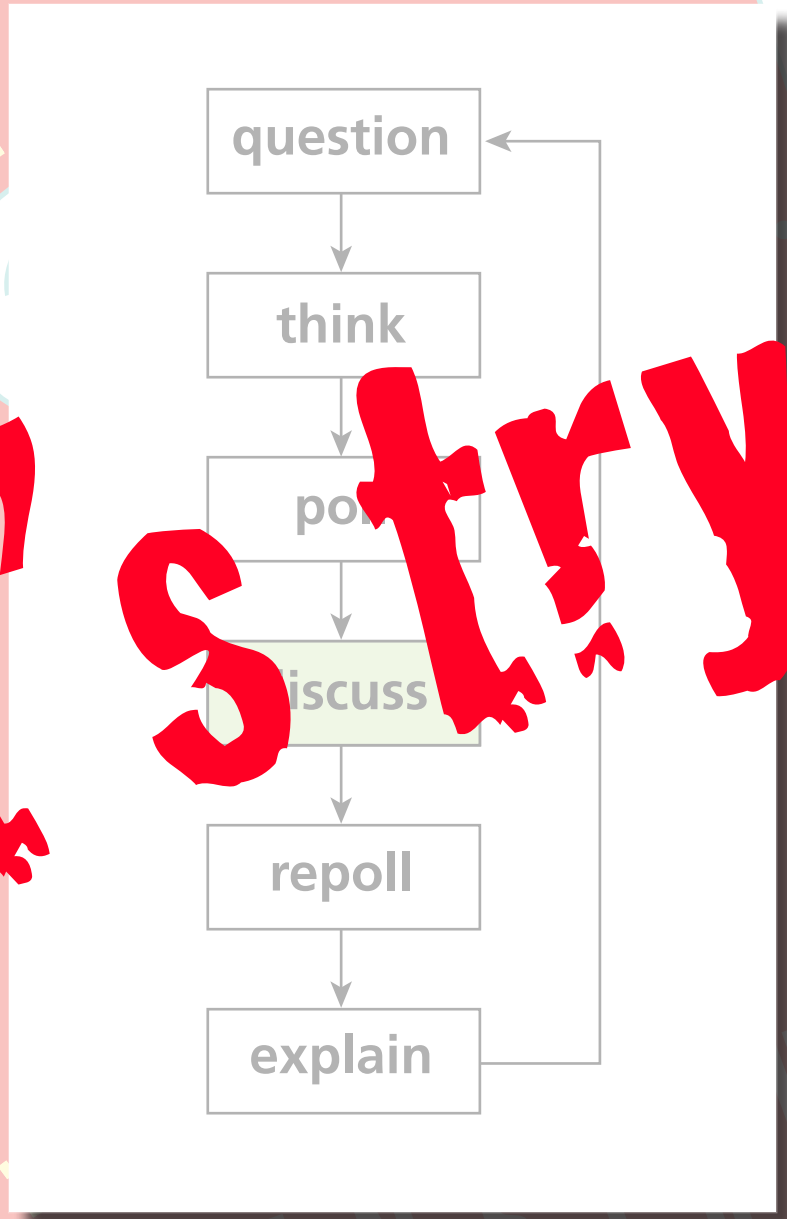
1 education

2 PI



1 education

2 PI



Let's try it!

1 education

2 PI

Archimedes' Principle

An object submerged either fully or partially in a fluid experiences an upward buoyant force the magnitude of which is equal to the magnitude of the force of gravity exerted on the fluid displaced by the object.

An object submerged either fully or partially in a fluid experiences an upward buoyant force the magnitude of which is equal to the magnitude of the force of gravity exerted on the fluid displaced by the object. The volume of displaced fluid is equal to the volume of the submerged portion of the object.

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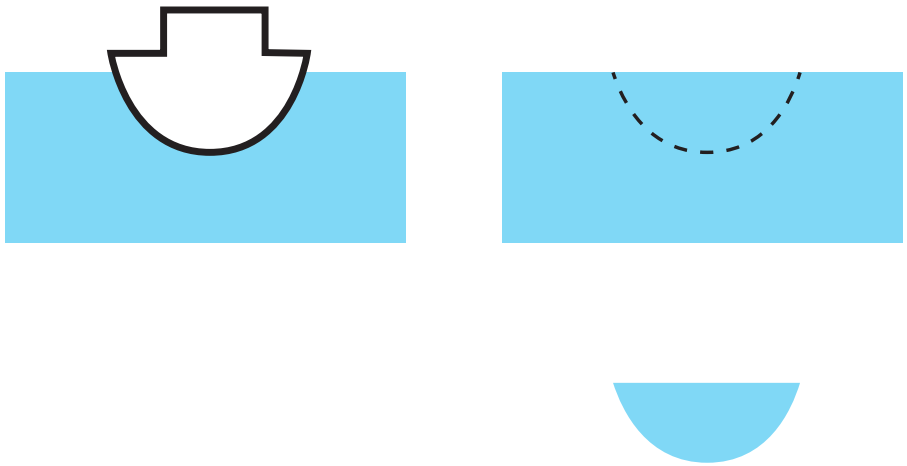
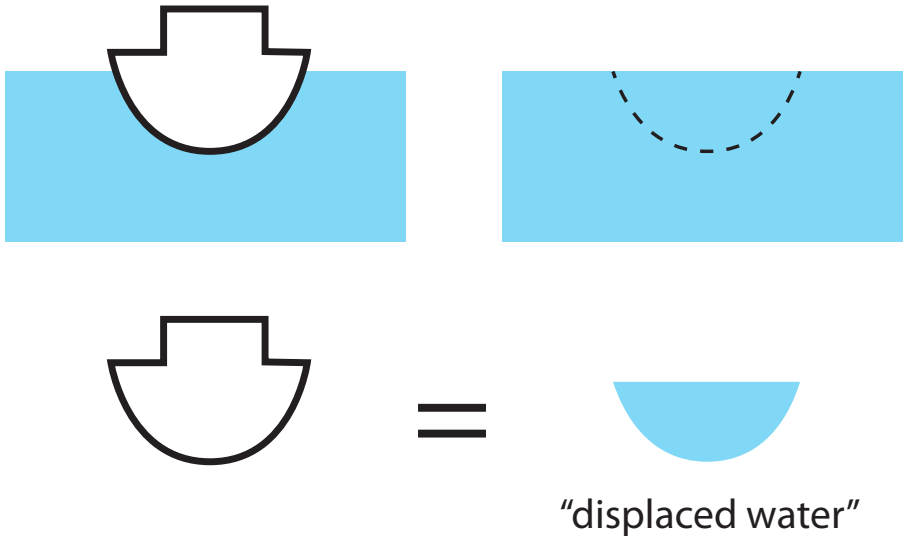


"displaced water"

An object submerged either fully or partially in a fluid experiences an upward buoyant force the magnitude of which is equal to the magnitude of the force of gravity exerted on the fluid displaced by the object. The volume of displaced fluid is equal to the volume of the submerged portion of the object.

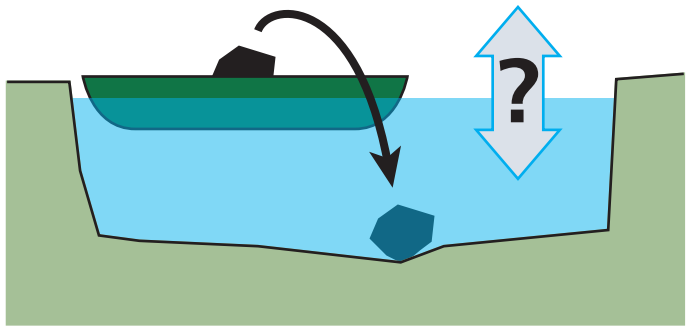


An object submerged either fully or partially in a fluid experiences an upward buoyant force the magnitude of which is equal to the magnitude of the force of gravity exerted on the fluid displaced by the object. The volume of displaced fluid is equal to the volume of the submerged portion of the object.

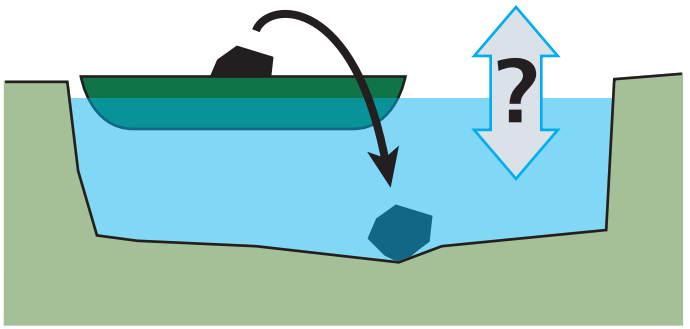
questions!

"displaced water"

A boat carrying a large boulder is floating on a small pond. The boulder is thrown overboard and sinks to the bottom of the pond.



A boat carrying a large boulder is floating on a small pond. The boulder is thrown overboard and sinks to the bottom of the pond.

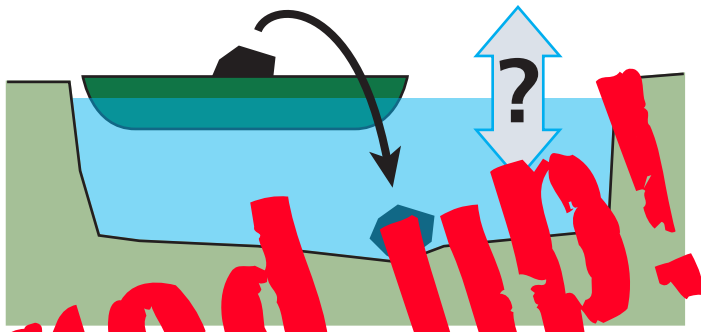


After the boulder sinks to the bottom of the pond, the level of the water in the pond is

1. higher than
2. the same as
3. lower than

it was when the boulder was in the boat.

A boat carrying a large boulder is floating on a small pond. The boulder is thrown overboard and sinks to the bottom of the pond.



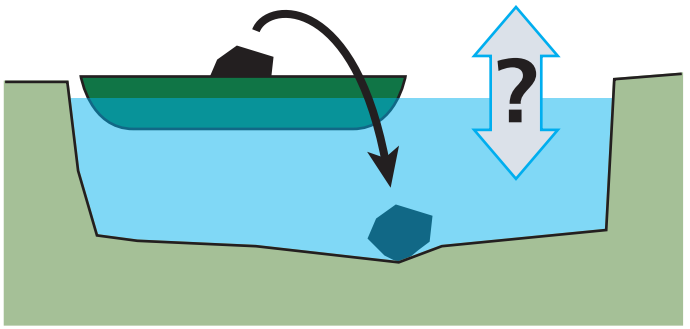
After the boulder sinks to the bottom of the pond, the level of the water in the pond is

1. higher than
2. the same as
3. lower than

it was when the boulder was in the boat.

you got all fired up!

A boat carrying a large boulder is floating on a small pond. The boulder is thrown overboard and sinks to the bottom of the pond.



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1. higher than
2. the same as
3. lower than

it was when the boulder was in the boat.

Before I tell you the answer…

1 lecture 2 PI 3 test

Before I tell you the answer, let's analyze what happened.

1 lecture 2 PI 3 test

Before I tell you the answer, let's analyze what happened.

You…

1 lecture 2 PI 3 test

Before I tell you the answer, let's analyze what happened.

You…

1. made a commitment

Before I tell you the answer, let's analyze what happened.

You…

1. made a commitment
2. externalized your answer

Before I tell you the answer, let's analyze what happened.

You…

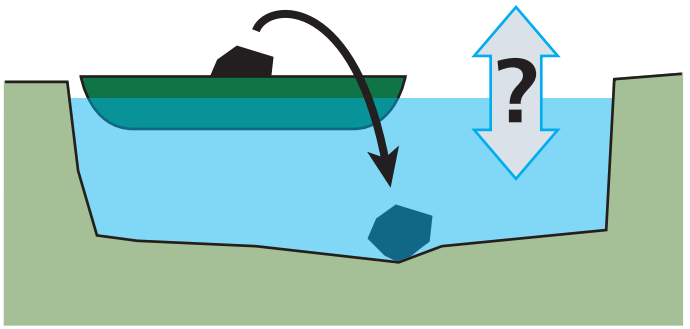
1. made a commitment
2. externalized your answer
3. moved from the answer/fact to reasoning

Before I tell you the answer, let's analyze what happened.

You…

1. made a commitment
2. externalized your answer
3. moved from the answer/fact to reasoning
4. became emotionally invested in the learning process

A boat carrying a large boulder is floating on a small pond. The boulder is thrown overboard and sinks to the bottom of the pond.



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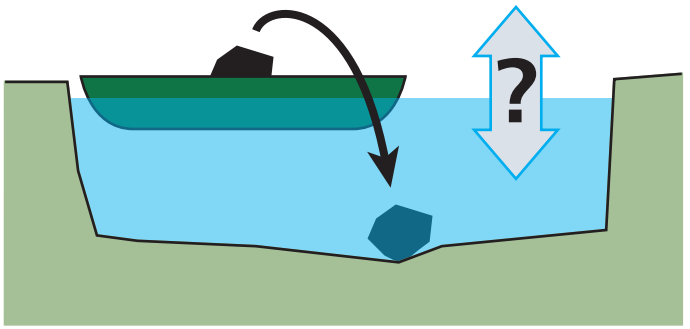

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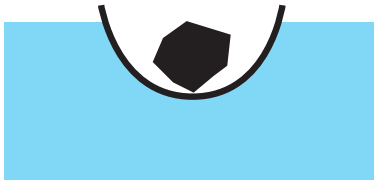
1. higher than
2. the same as
3. lower than ✔

it was when the boulder was in the boat.

remember: amount of displaced water

remember: amount of displaced water



remember: amount of displaced water

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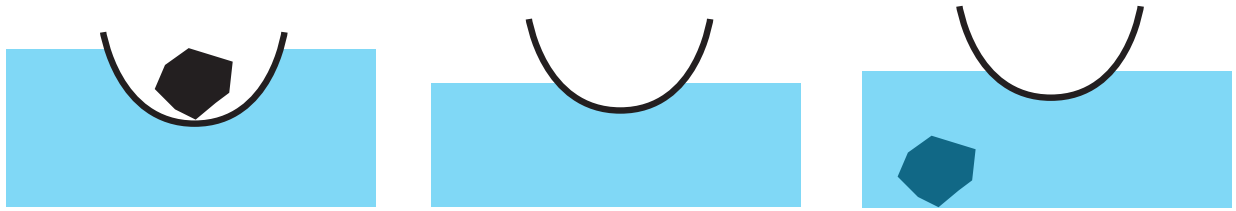

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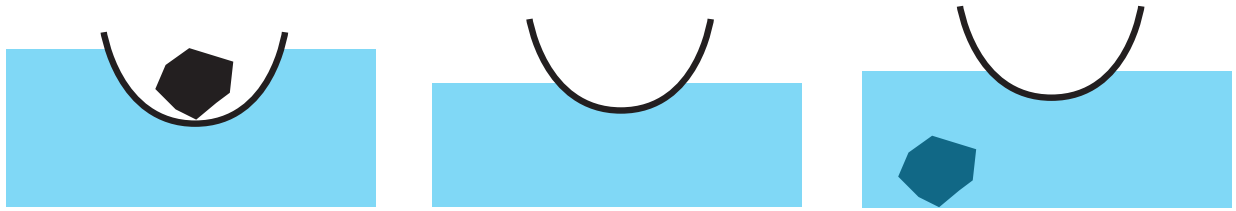
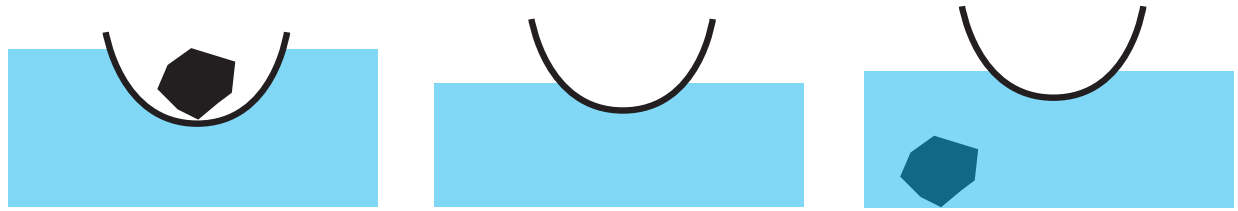


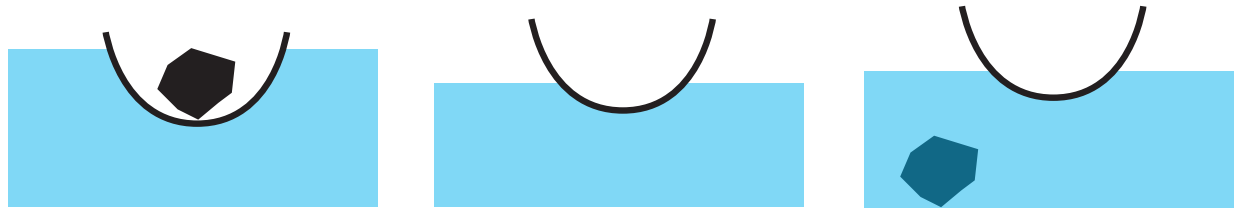
displaced
water

remember: amount of displaced water



displaced water = weight of rock

remember: amount of displaced water



displaced water = weight of rock

= volume of rock

remember: amount of displaced water

you won't forget this

feedback

1 lecture

2 PI

3 PI 2.0


1991
1 lecture
2 PI
3 PI 2.0

1 lecture

2 PI

3 PI 2.0

1 lecture 2 PI 3 PI 2.0

2008

1 lecture

2 PI

3 PI 2.0

1 lecture 2 PI 3 PI 2.0

How do I…

- design good questions?
- optimize the discussions?
- manage time?

1 lecture 2 PI 3 PI 2.0

learning | catalytics

1 lecture

2 PI

3 PI 2.0

Use intelligent algorithms and data analytics to…

- improve questioning
- manage discussions
- facilitate time management/flow

a. A 30-year fixed rate
b. A 15-year fixed rate mortgage at
c. A 30-year fixed rate mortgage at 12%
d. A 15-year fixed rate mortgage at 12%

2. The biggest factor that leads American companies to manufacture their products ov
India is:

a. Higher quality of craftsmanship
b. Lower labor costs
c. Decreased transportation costs
d. Effective legal systems

3. Which of the following correctly summarizes the accounting equation for a sole proprietorship?

a. Assets = Liabilities + Owners' equity
b. Liabilities = Assets + Owners' equity
c. Owner's equity = Assets + Liabilities
d. Revenue = Assets – Liabilities

4. In order to present a business plan to a group of potential investors, a businessperson would most likely use which

a. Powerpoint
b. Quickbooks
c. Peoplesoft
d. Excel

5. In order to start an online business, and individual would need all but which of the following:

business model

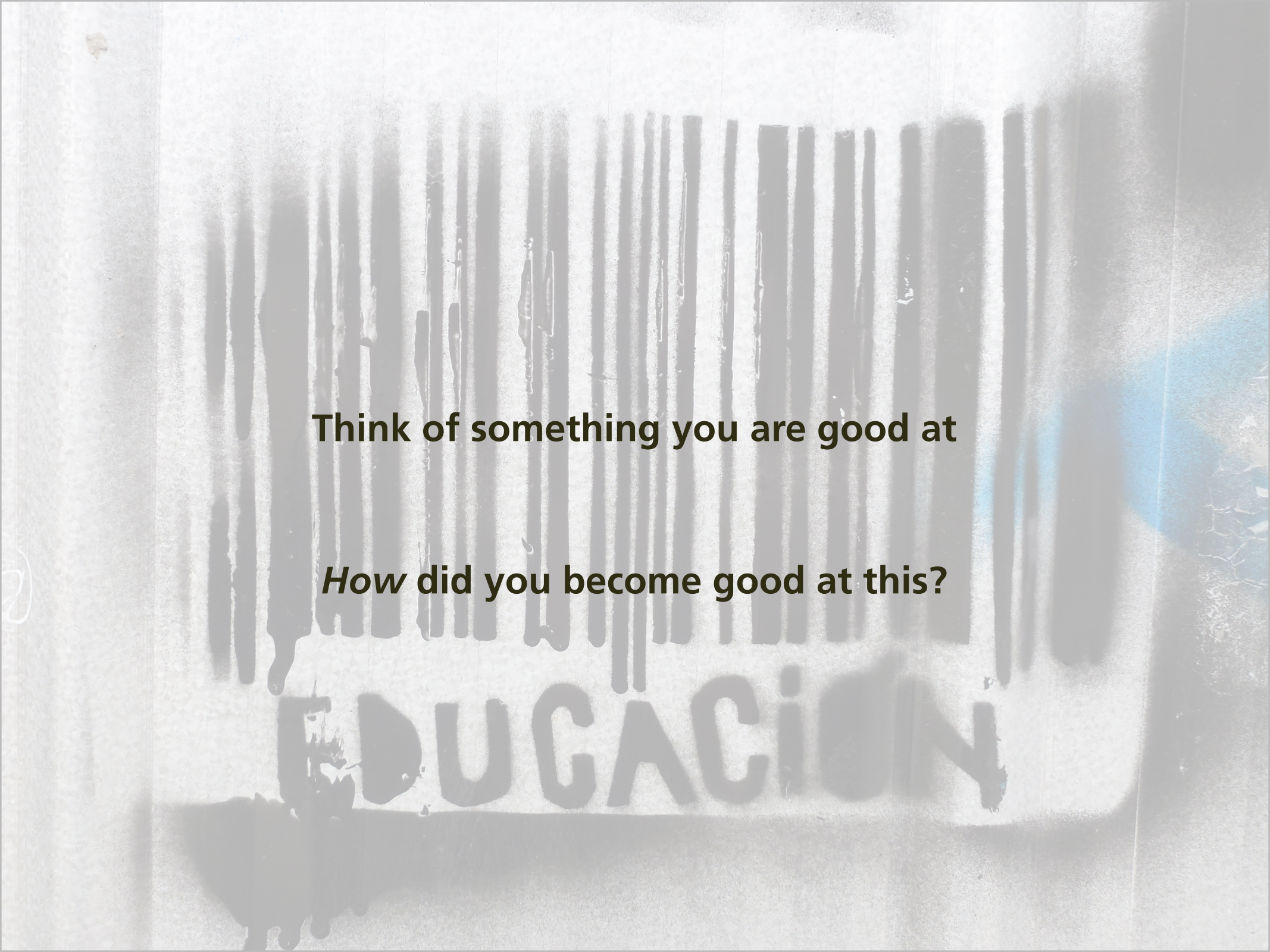
preciation?

extensible plug-in architecture for question types

1 lecture 2 PI 3 PI 2.0

Sample question types:

- direction
- expression
- long answer, short answer, word cloud (fill in text)
- multiple-choice, many-choice
- numerical (enter a number)
- ranking
- region (select point on image)
- sketch



Think of something you are good at

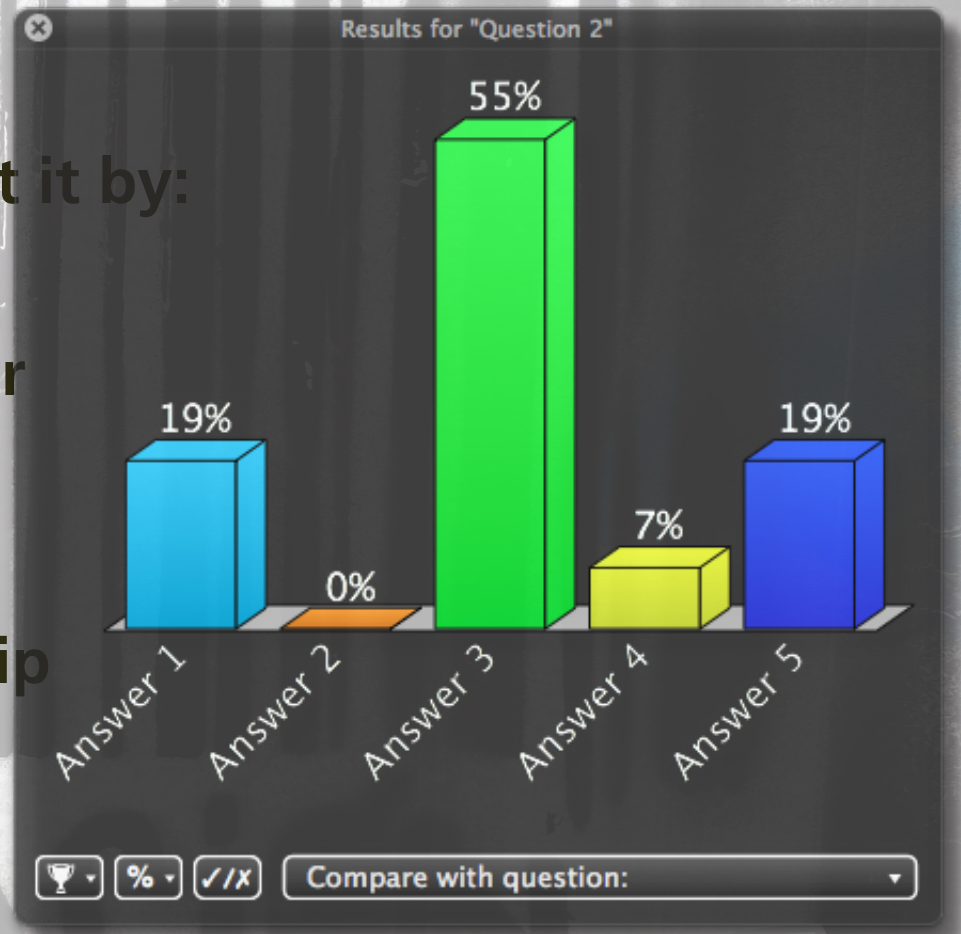
How did you become good at this?

Became good at it by:

1. trial and error
2. lectures
3. practicing
4. apprenticeship
5. other

Became good at it by:

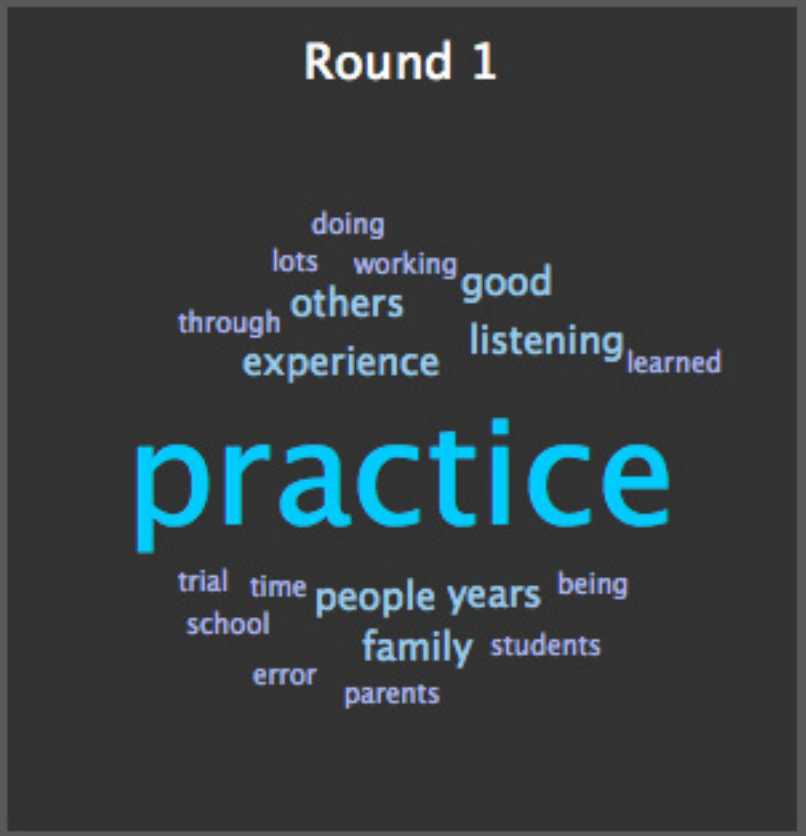
1. trial and error
2. lectures
3. practicing
4. apprenticeship
5. other




Carrier
10:24 PM
Logout
Leave
session 123456
Now describe in a couple of words how you became good at whatever it is you entered in the previous question.
Submit response

Class session: 123456

Now describe in a couple of words how you became good at whatever it is you entered in the previous question.



1 learningcatalytics.com/demo 2 enter info 3 ID 123456789

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4. directi… prevailing …tle. The image provides several clues about the direction of …n your screen.

Deliver Show all results

1 educa…

3 PI 2.0

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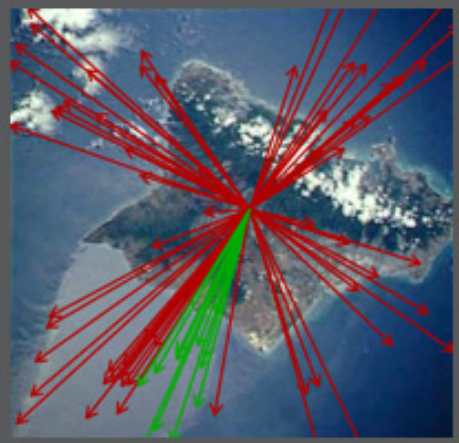
4. directi… prevailing …tle. The image provides several clues about the direction of …n your screen.

Deliver Show all results

Round 1

77 responses, 16% correct



17 get it now

3 still don't get it

1 educa…

3 PI 2.0

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optics i

current session: 766079 | 69 students

Back to all lectures | Stop session | Review results | Seat map | Show floating session ID | Edit | Delete

◀ Jump to ▼ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 ▶

4. direction Light enters horizontally into the combination of two perpendicular mirrors as shown below.

Deliver | Show all results

Indicate the direction of the incident light after it reflects off of both mirrors.

feedback & support

1 lecture 2 PI 3 PI 2.0

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optics i

current session: 766079 | 69 students

ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

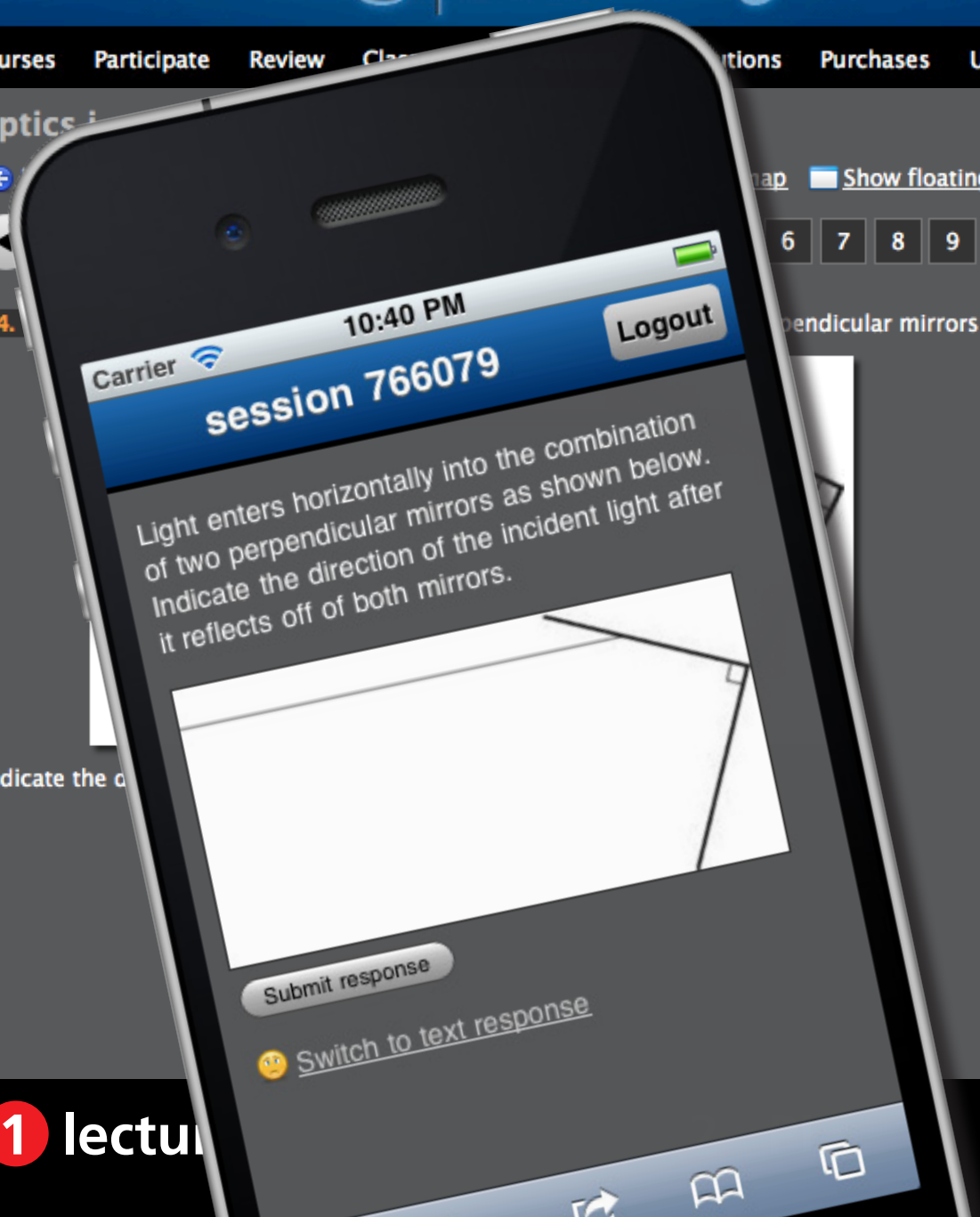
4.

endicular mirrors as shown below.

Deliver Show all results

Indicate the d

feedback & support



1 lectu

3 PI 2.0

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optics i

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6 7 8 9 10 11 12 13 14 15

4.

endicular mirrors as shown below.

Deliver Show all results

Indicate the d

feedback & support

1 lectu

3 PI 2.0

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optics i

current session: 766079 | 69 students

ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

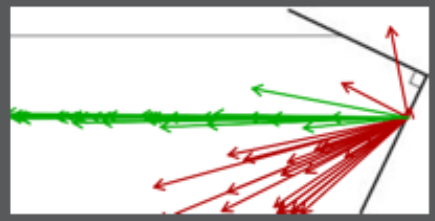
4.

endicular mirrors as shown below.

Deliver Show all results

Round 1

57 responses, 58% correct



Indicate the d

feedback & support

1 lectu

3 PI 2.0

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Courses Participate Review Cla tions Purchases Users Tour Help

optics i

current session: 766079 | 69 students

ap Show floating session ID Edit Delete

6 7 8 9 10 11 12 13 14 15

4.

endicular mirrors as shown below.

Deliver Show all results

Round 1

57 responses, 58% correct

Round 2

51 responses, 73% correct

8 get it now

0 still don't get it

Indicate the d

feedback & support

1 lectu

3 PI 2.0

If $2x - y = 4$, then $x =$

1 lecture 2 PI 3 PI 2.0

transformations of parabolas

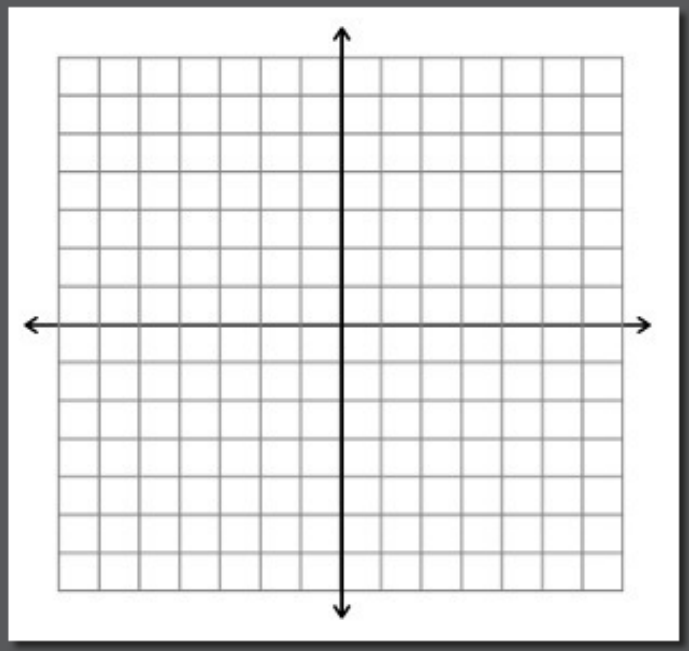
current session: 773885 | 9 students

Back to all lectures | Stop session | Review results | Show floating session ID | Edit | PDF | Delete

Jump to ▼ 1 2 3 4

4. sketch Sketch a graph of the function $f(x) = (x-3)^2 + 2$.

Stop delivery | Deliver again | Assign groups | Show all results



1 education 2 PI 3 PI 2.0

transformations of parabolas

current session: 773885 | 9 students

Back to all lectures | Stop session | Review results | Show floating session ID | Edit | PDF | Delete

Jump to ▼ 1 2 3 4

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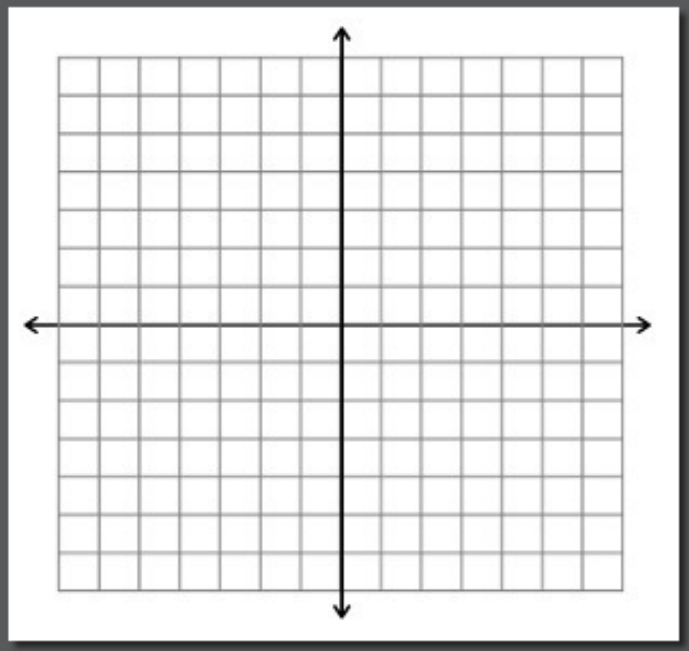
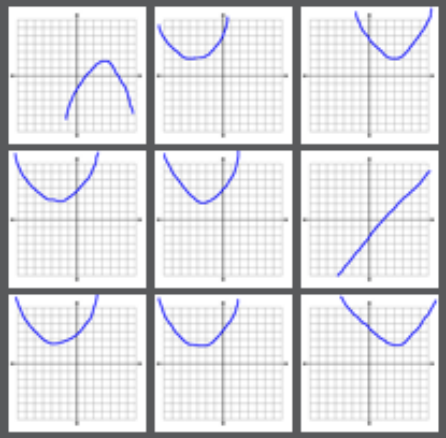
Stop delivery | Deliver again | Assign groups | Show all results

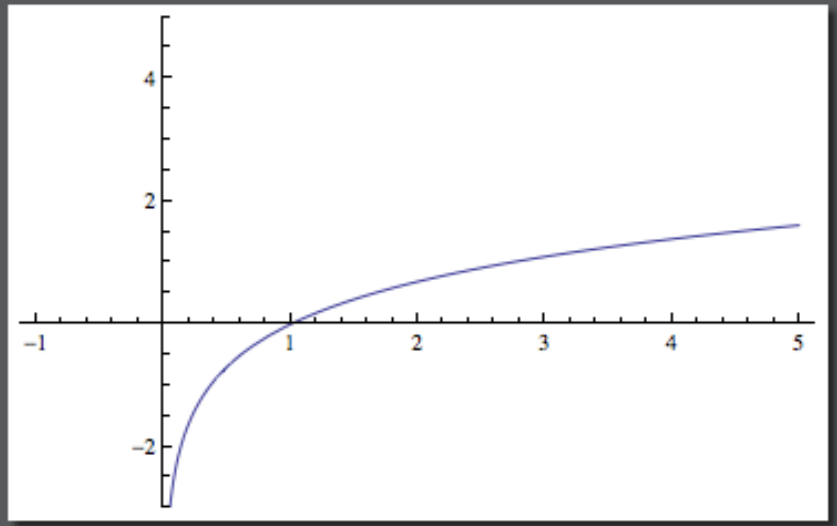


Round 1

9 responses



This is a graph of $f(x) = \ln x$. Sketch a graph of the derivative $f'(x)$.



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This is a graph of $f(x)$ =

1 education

3 PI 2.0

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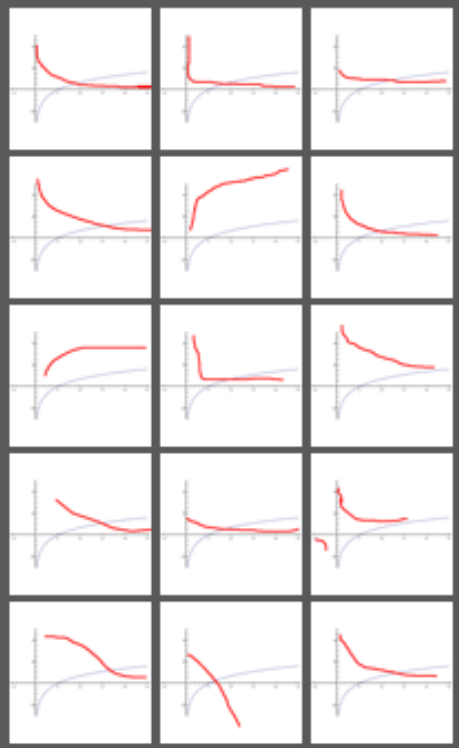
This is a graph of $f(x)$ =

Round 1

15 responses



6 get it now

0 still don't get it

1 education

3 PI 2.0

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1. highlighting What do you see as the most important part of this Shakespeare sonnet?

Stop delivery Deliver again Assign groups Show all results

For shame! deny that thou bear'st love to any,
Who for thyself art so unprovident.
Grant, if thou wilt, thou art beloved of many,
But that thou none lovest is most evident;
For thou art so possess'd with murderous hate
That 'gainst thyself thou stick'st not to conspire.
Seeking that beauteous roof to ruinate
Which to repair should be thy chief desire.
O, change thy thought, that I may change my mind!
Shall hate be fairer lodged than gentle love?
Be, as thy presence is, gracious and kind,
Or to thyself at least kind-hearted prove:
Make thee another self, for love of me,
That beauty still may live in thine or thee.

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1. highlighting … …is Shakespeare sonnet?

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Who for t…
Grant, if t…
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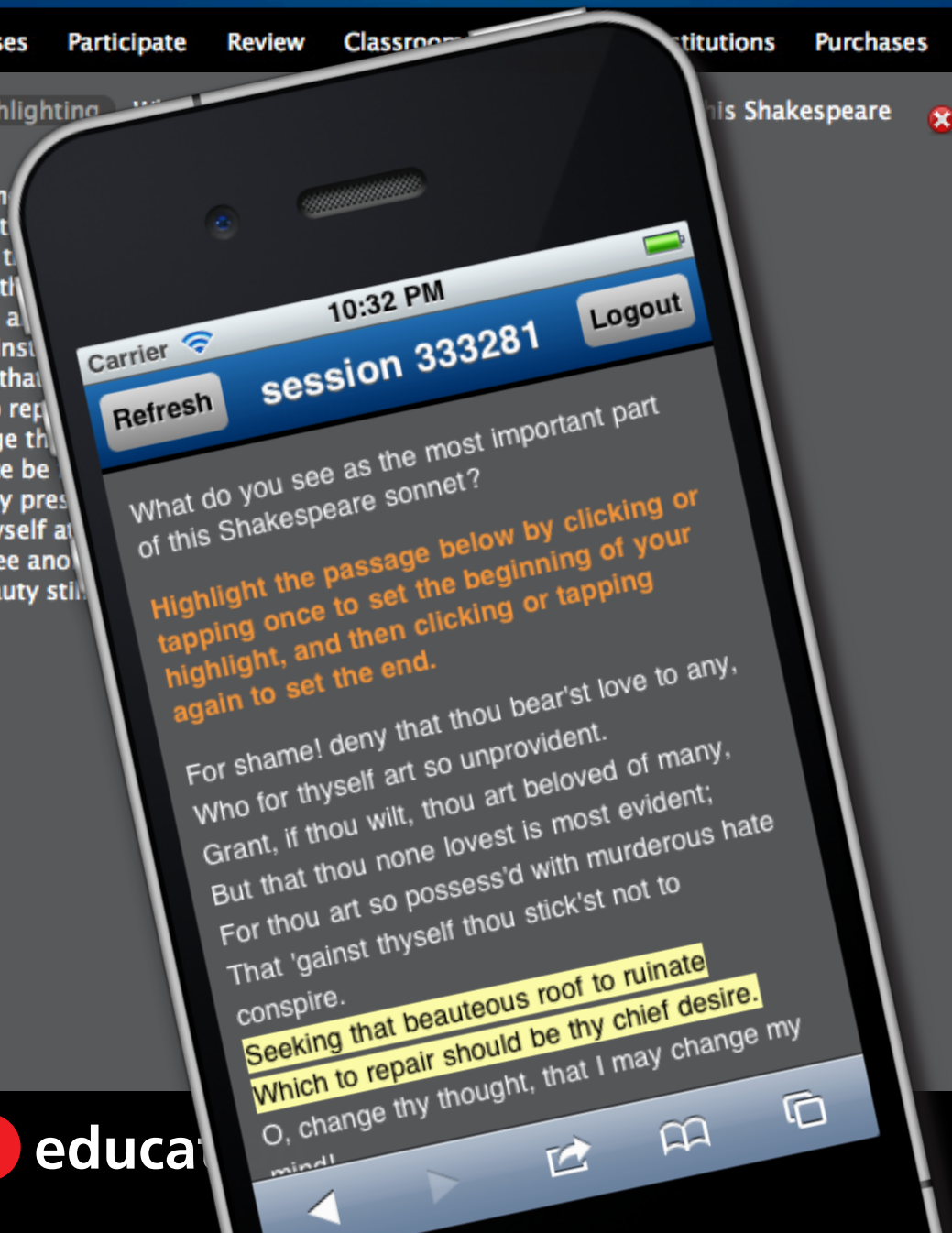

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Round 1
3 responses
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What do you see as the most important part of this Shakespeare sonnet?
Highlight the passage below by clicking or tapping once to set the beginning of your highlight, and then clicking or tapping again to set the end.
For shame! deny that thou bear'st love to any,
Who for thyself art so unprovident.
Grant, if thou wilt, thou art beloved of many,
But that thou none lovest is most evident;
For thou art so possess'd with murderous hate
That 'gainst thyself thou stick'st not to conspire.
Seeking that beauteous roof to ruinate
Which to repair should be thy chief desire.
O, change thy thought, that I may change my
1 educa
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Sample question types:

- direction
- expression
- long answer, short answer, word cloud (fill in text)
- multiple choice, multiple choice
- numerical (enter a number)
- ranking
- region (select point on image)
- sketch

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human interaction

1 lecture

2 PI

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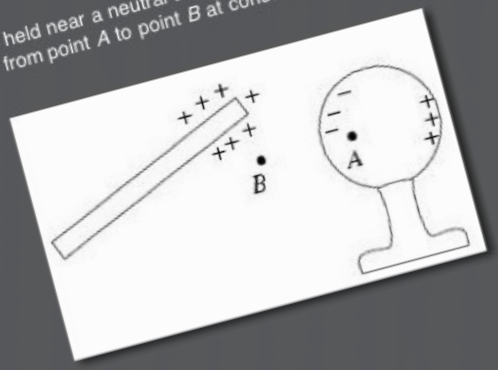
A positively charged rod is held near a neutral conducting sphere as illustrated below. A positively charged particle is moved from point *A* to point *B* at constant speed. The potential difference from *A* to *B* is



A. positive
B. zero
C. negative
D. depends on the path taken from *A* to *B*
cannot be determined without knowing more about the polarization induced in the sphere

Round 1
74 responses, 61% correct
A. 61%
B. 4%
C. 35%
D. 0%
E. 0%

Round 2
75 responses, 83% correct
A. 83%
B. 0%
C. 17%
D. 0%
E. 0%

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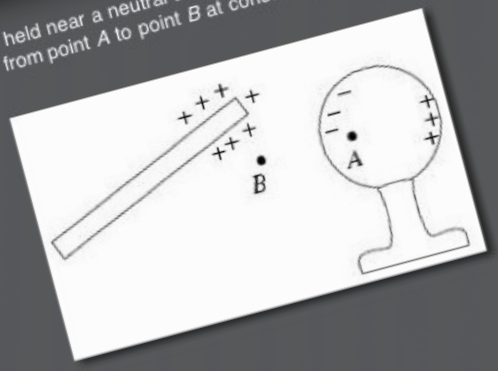

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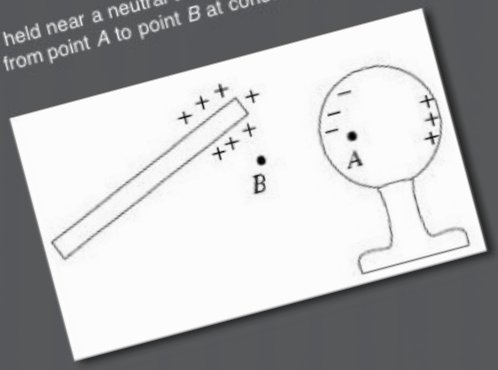

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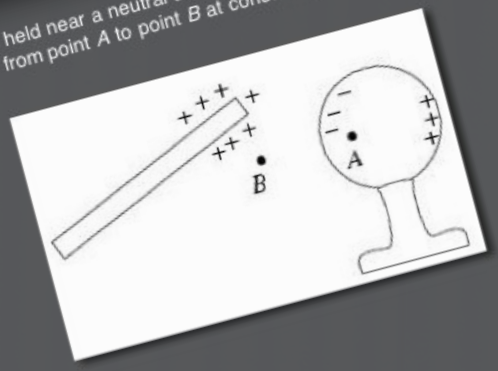

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let system manage pairing

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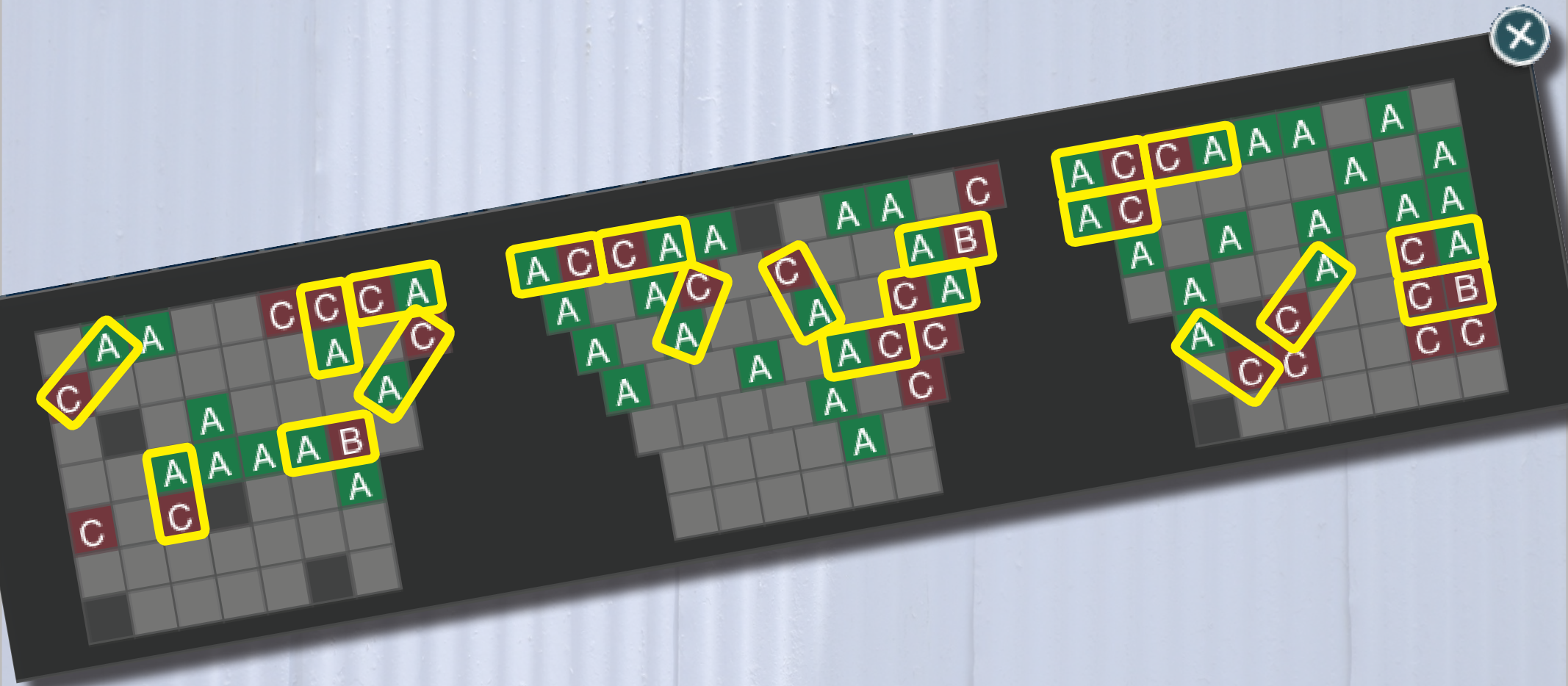

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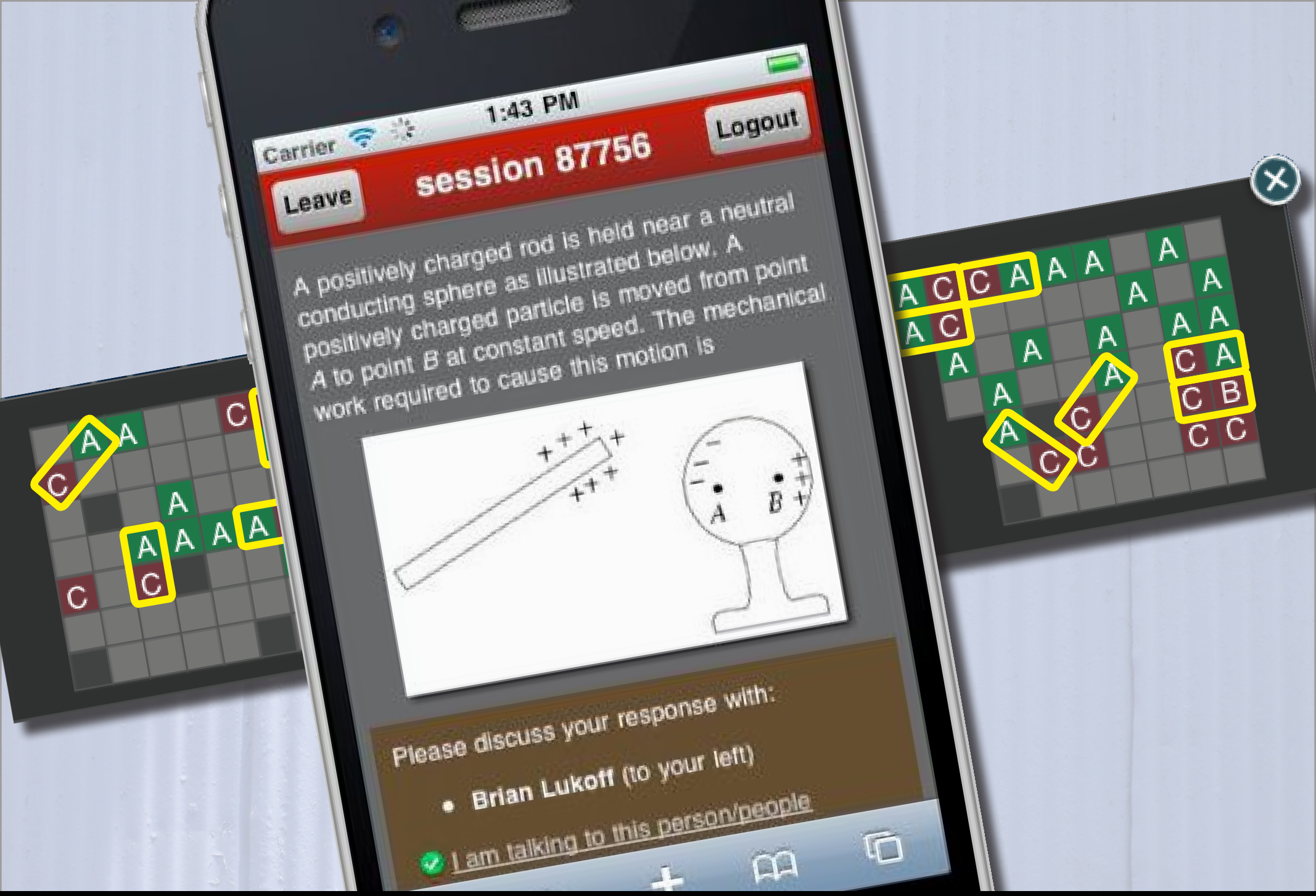

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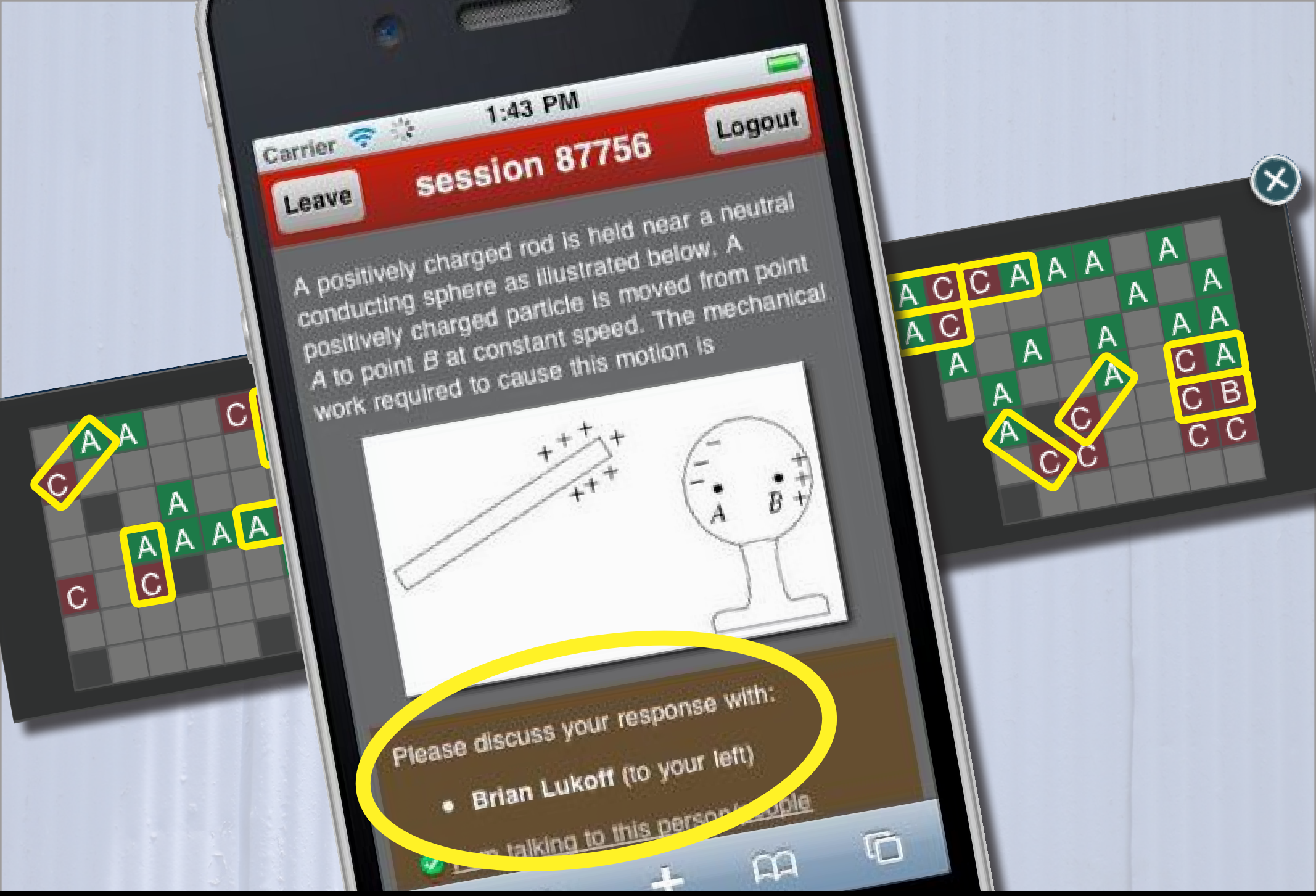

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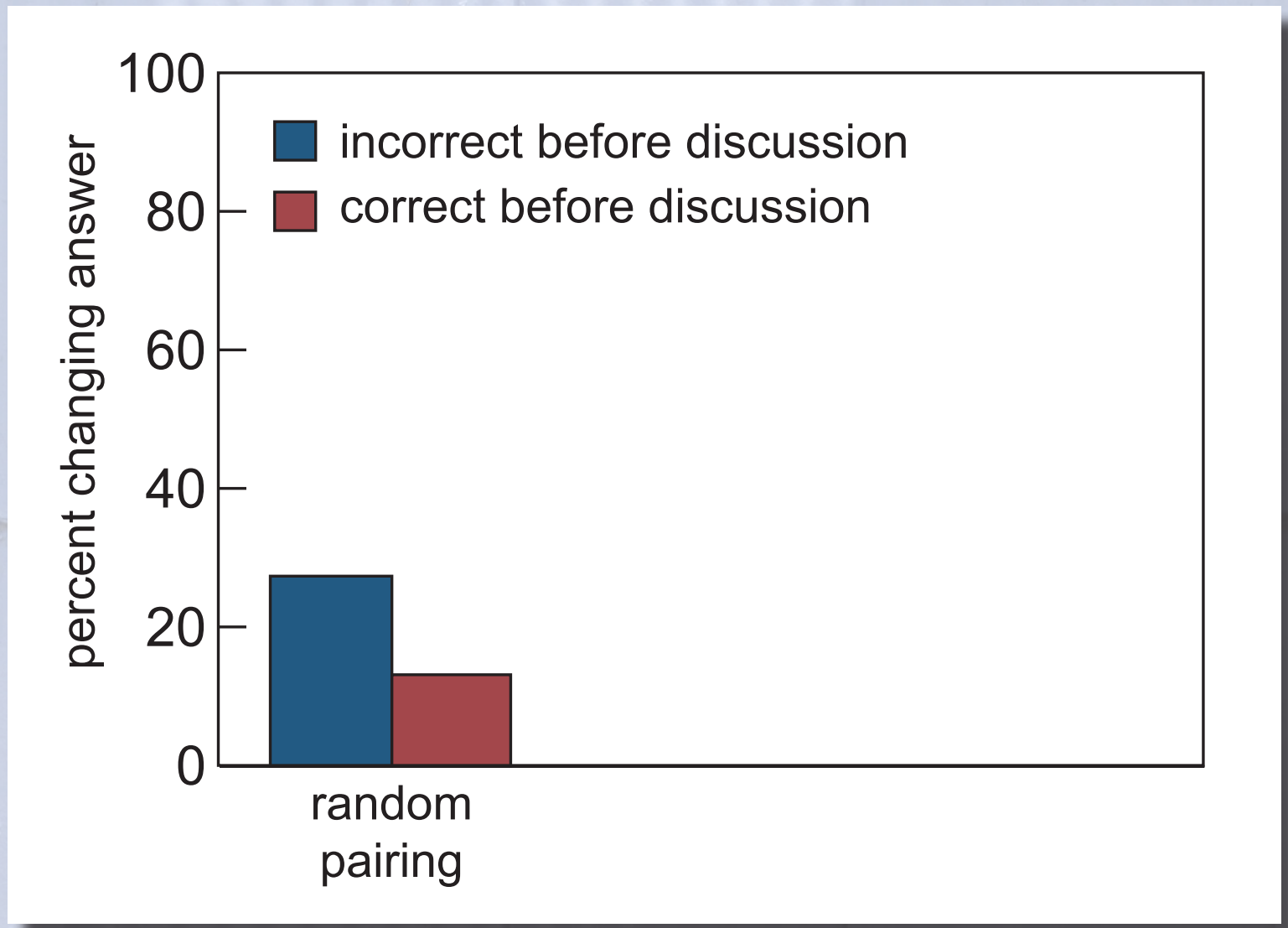

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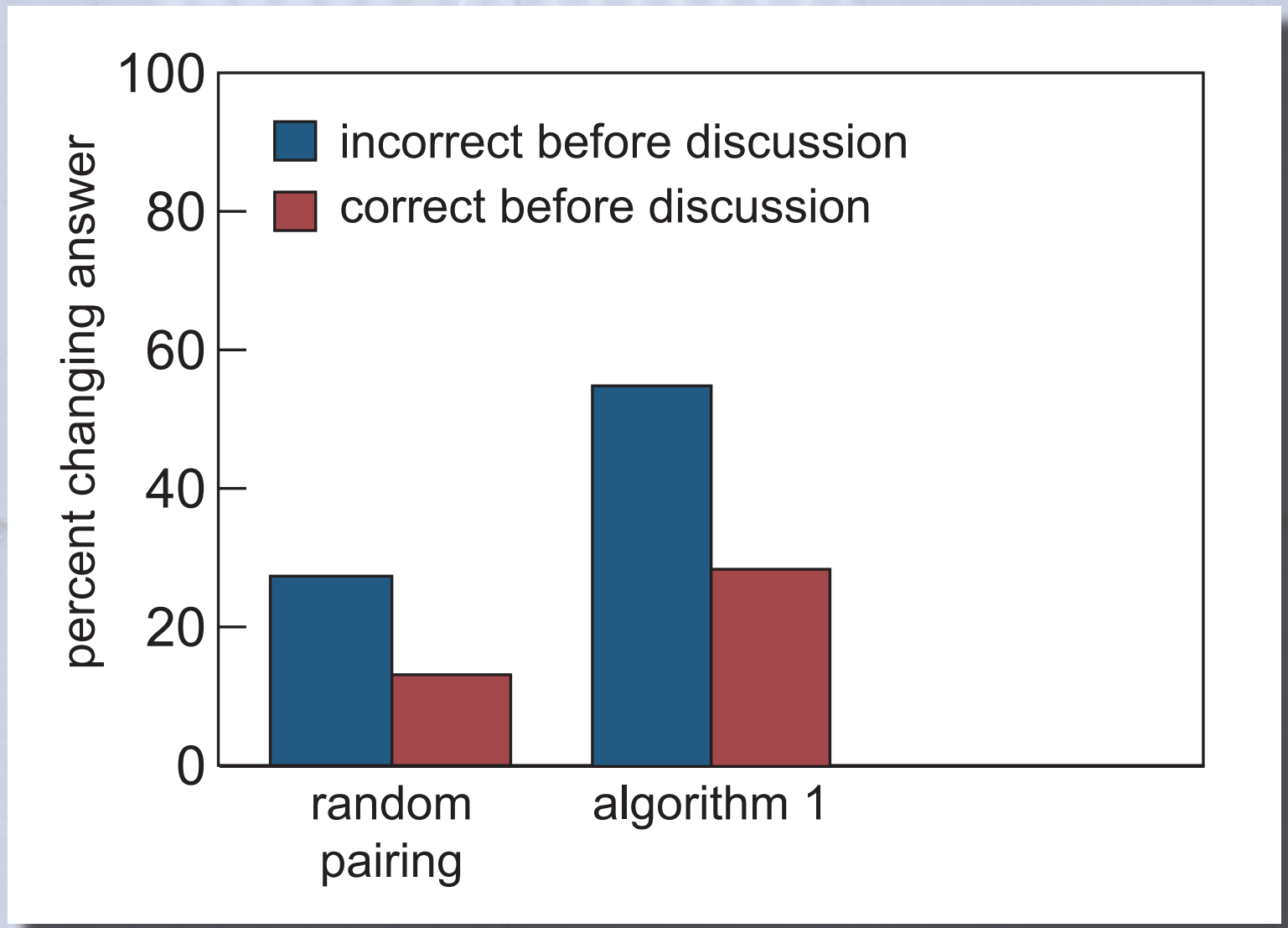

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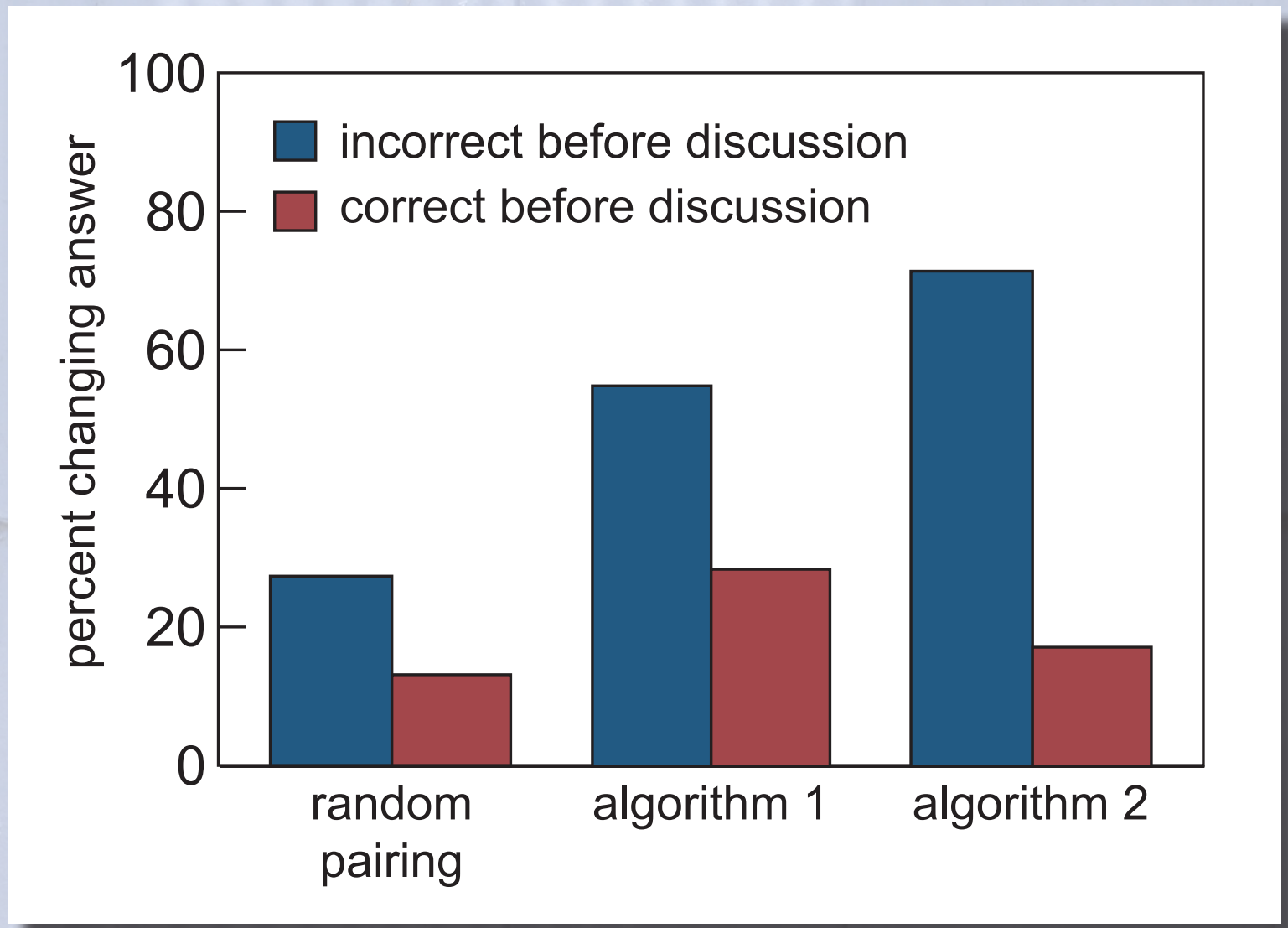

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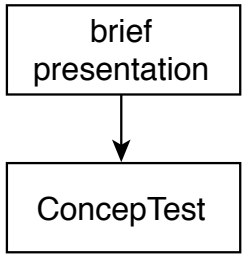
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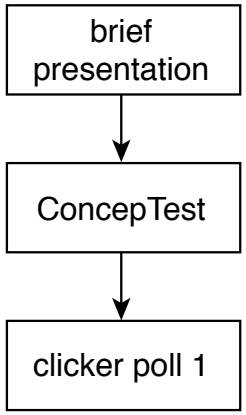
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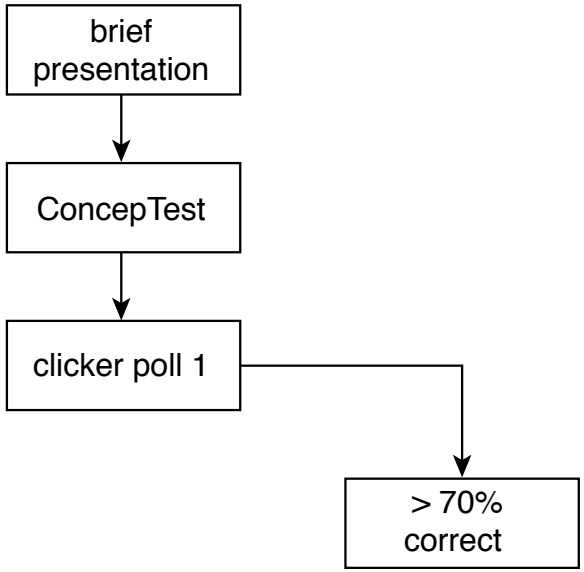
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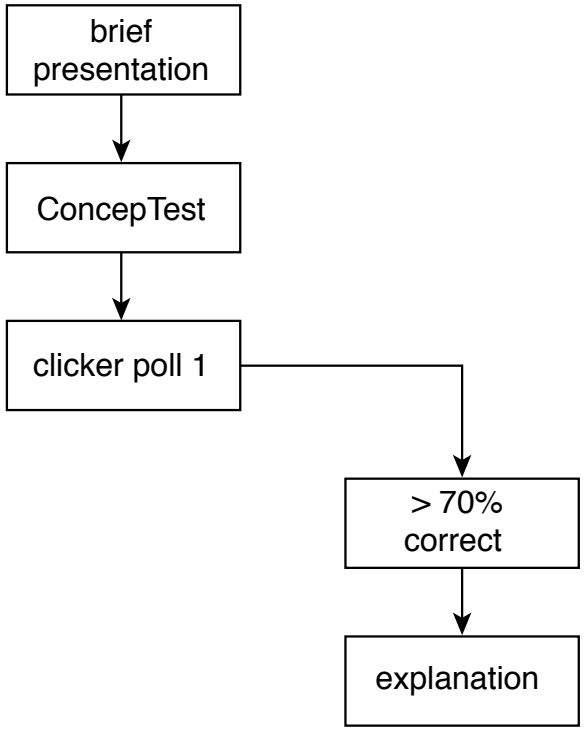
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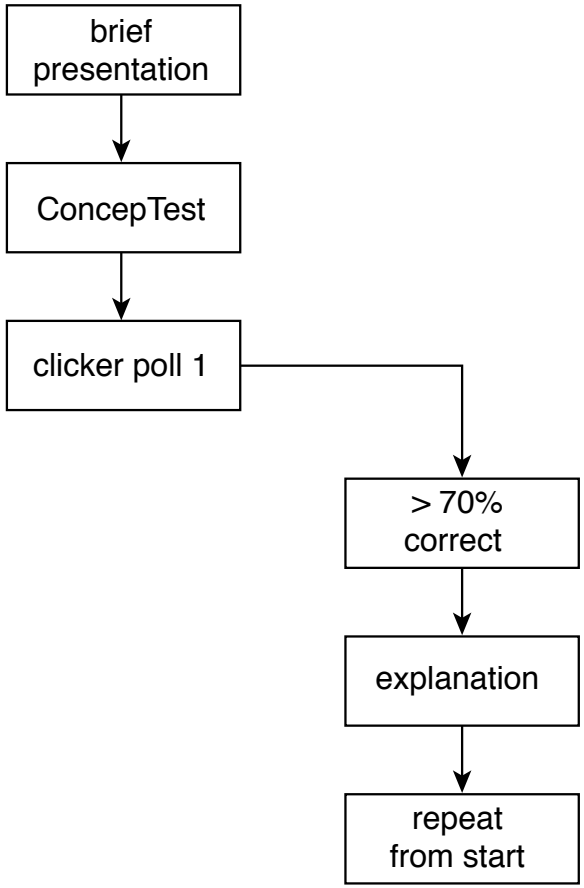
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explanation
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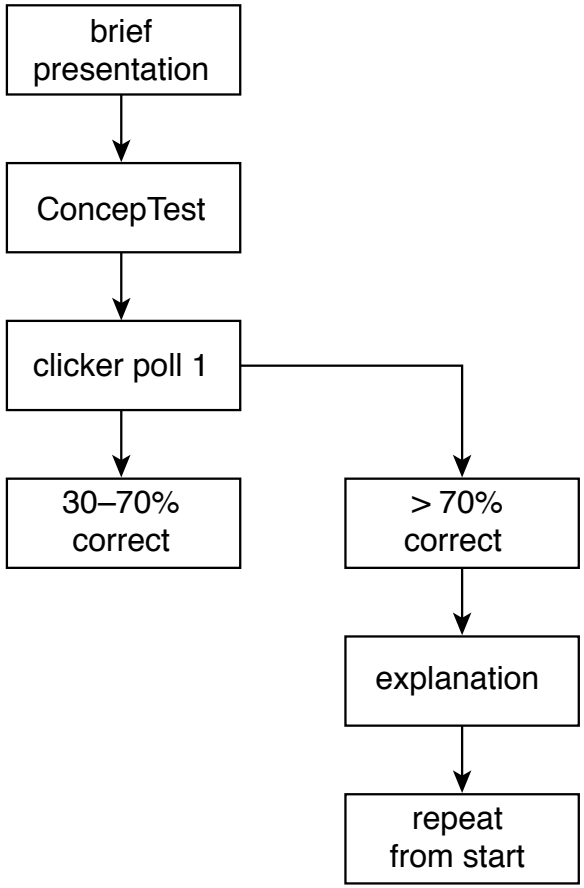
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> 70% correct
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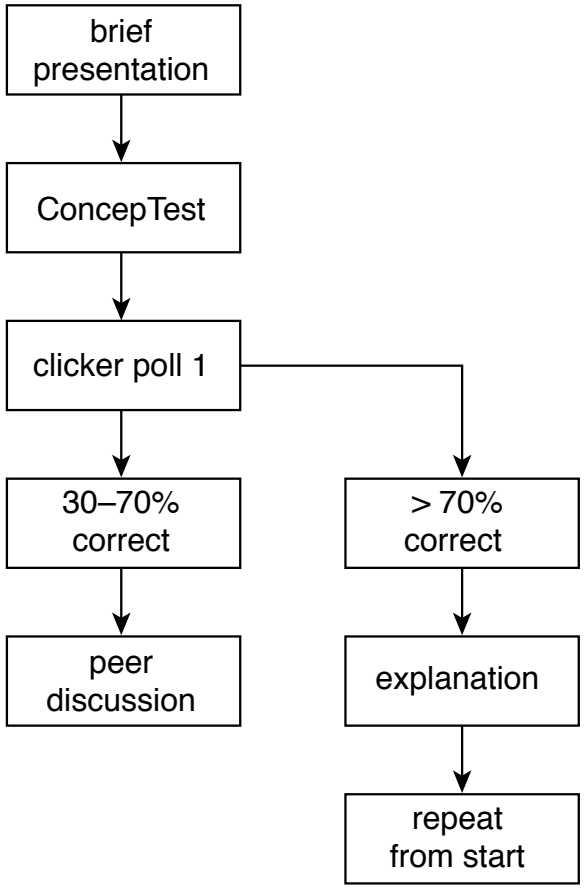
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peer discussion
> 70% correct
explanation
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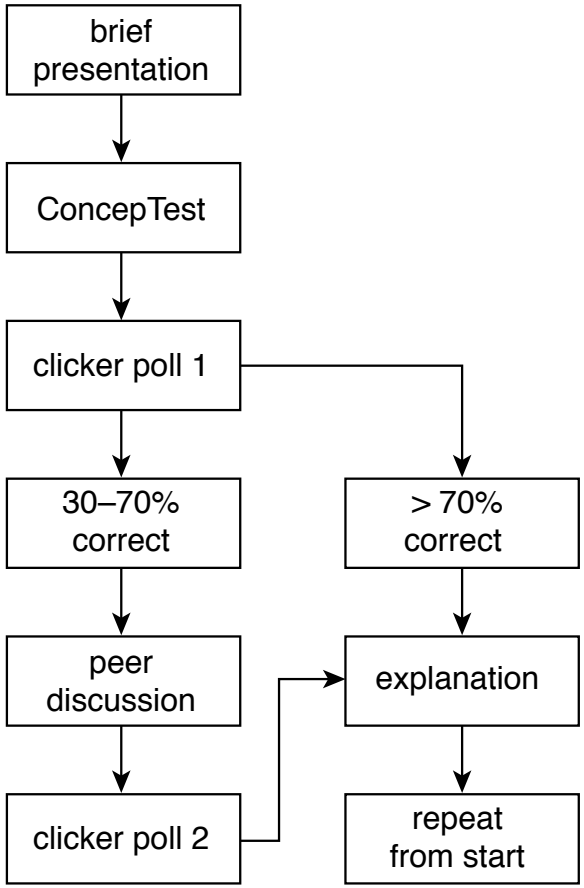
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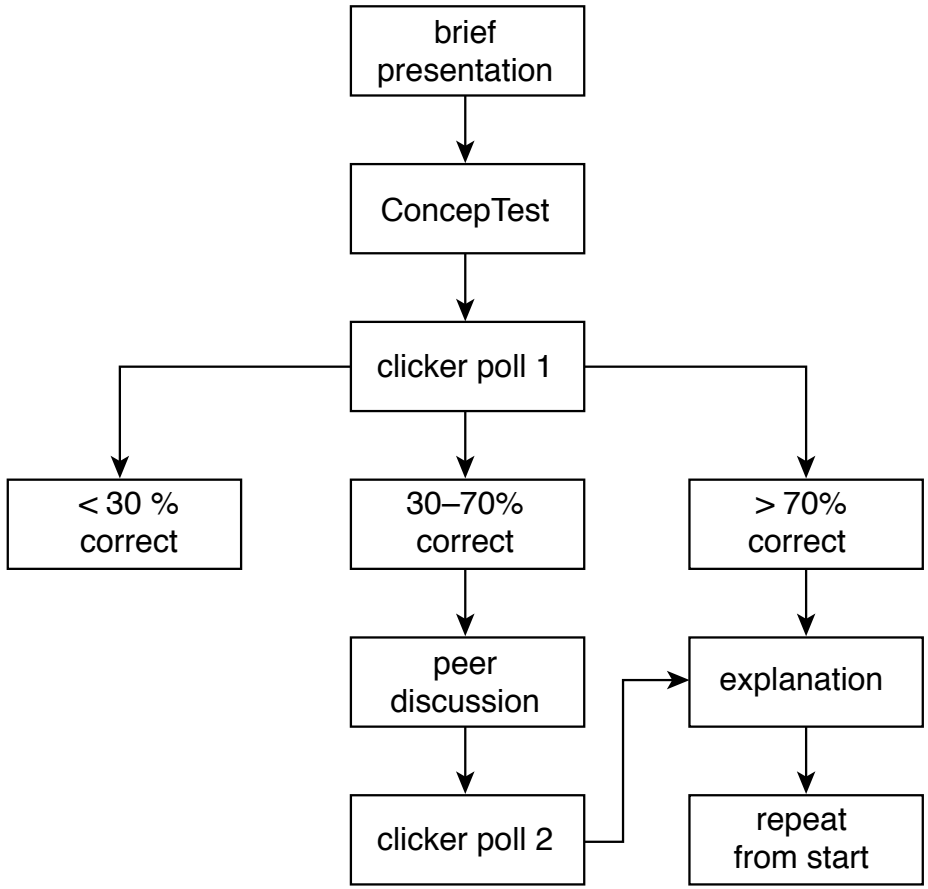
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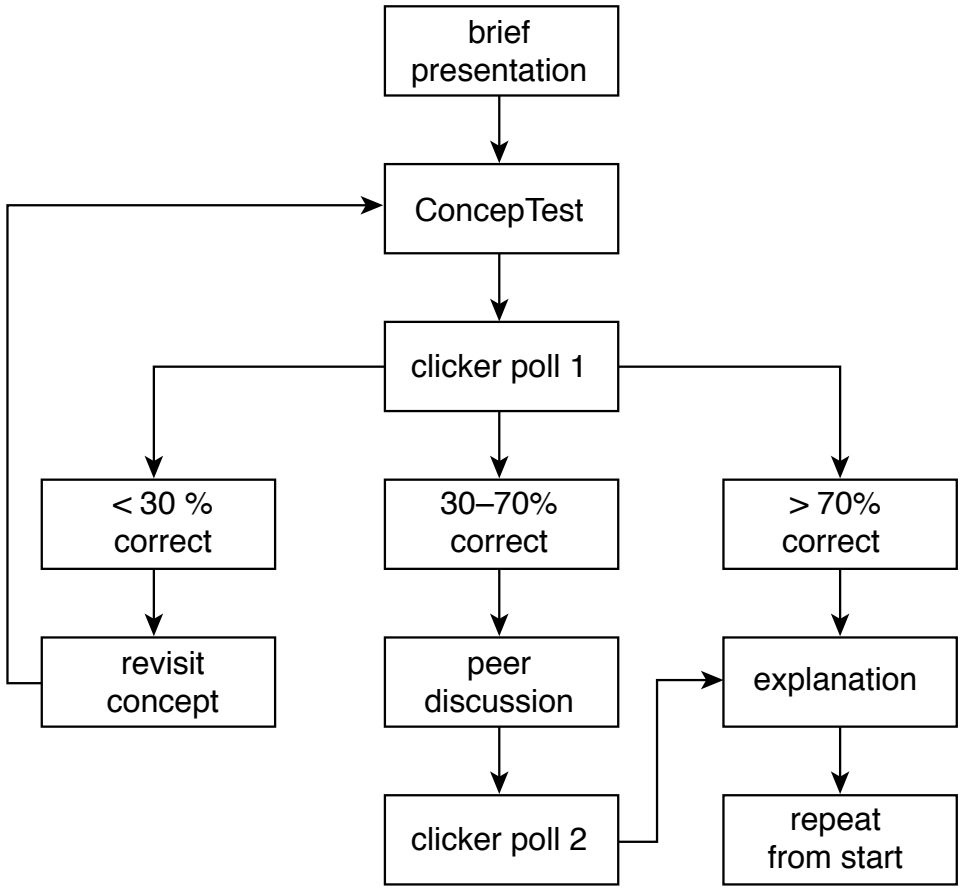
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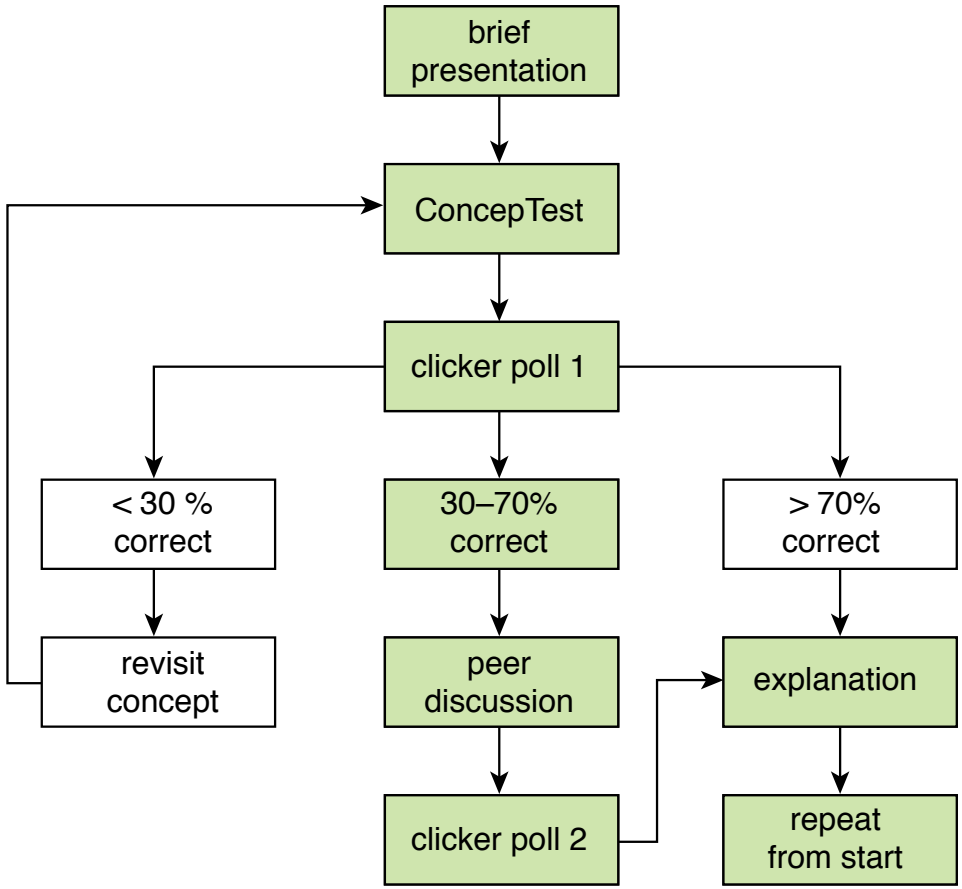
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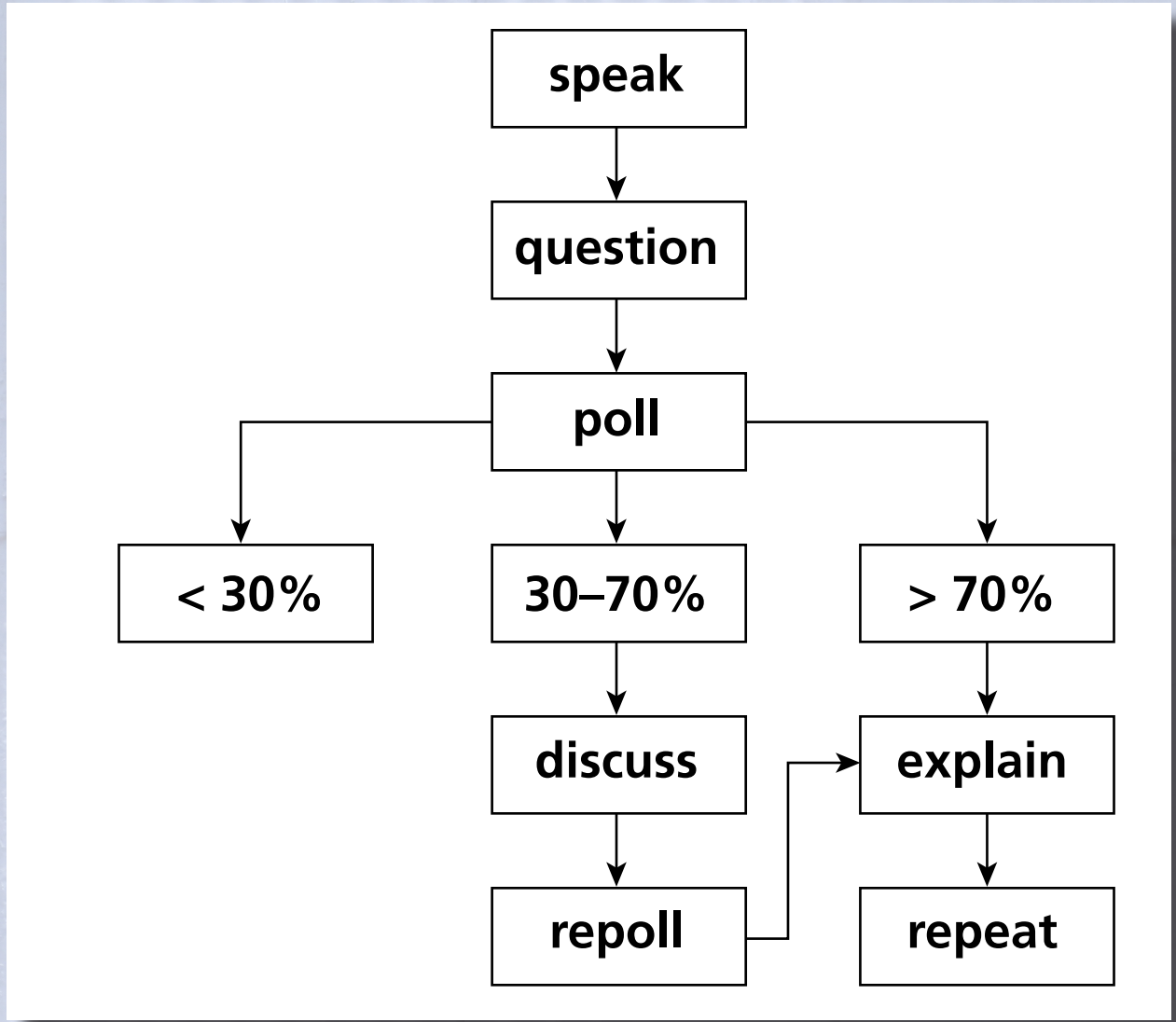

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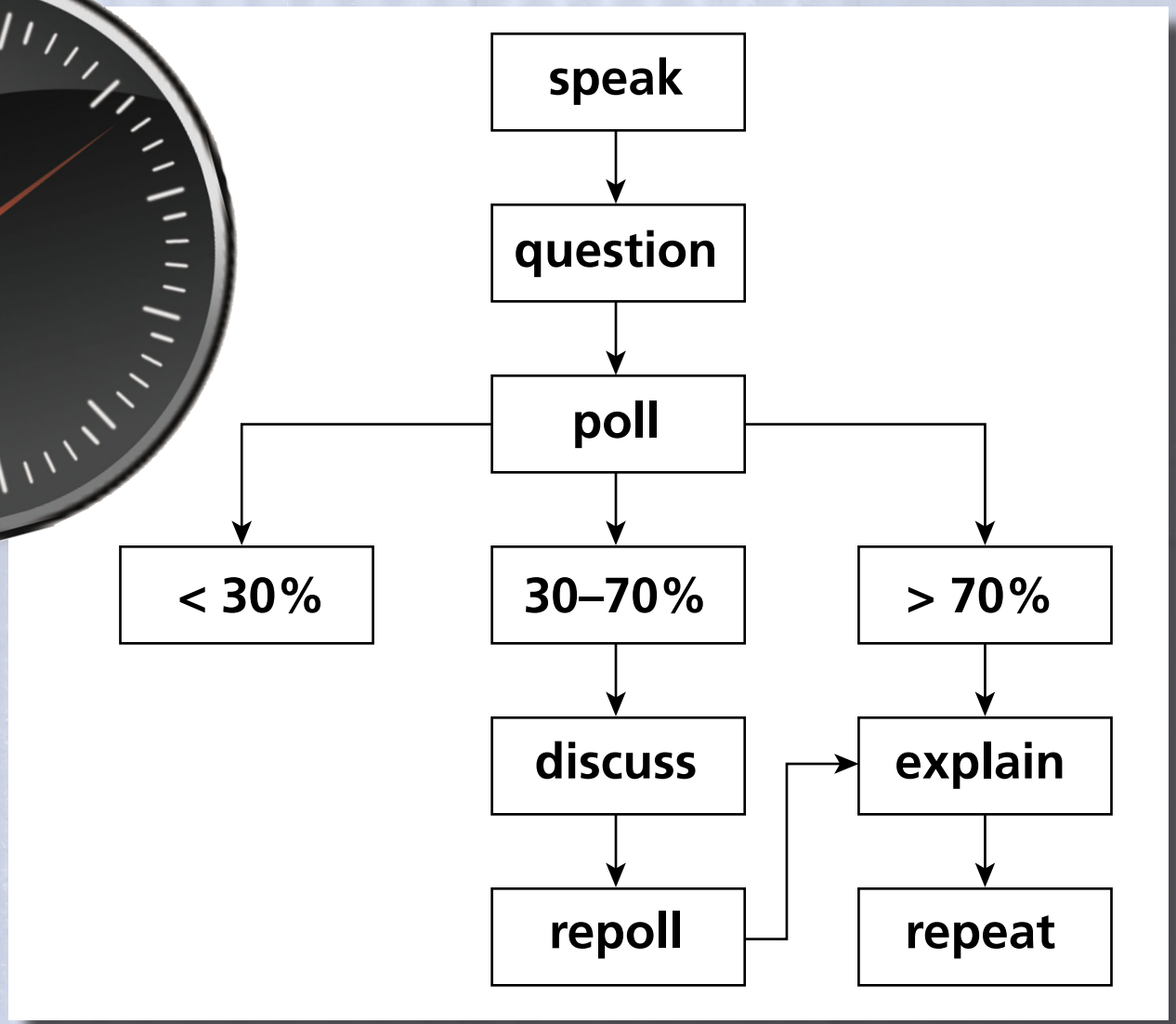

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- implement proven, researched pedagogy
- use consumer devices

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- implement proven, researched pedagogy
- use consumer devices
- avoid pitfalls of MC assessment

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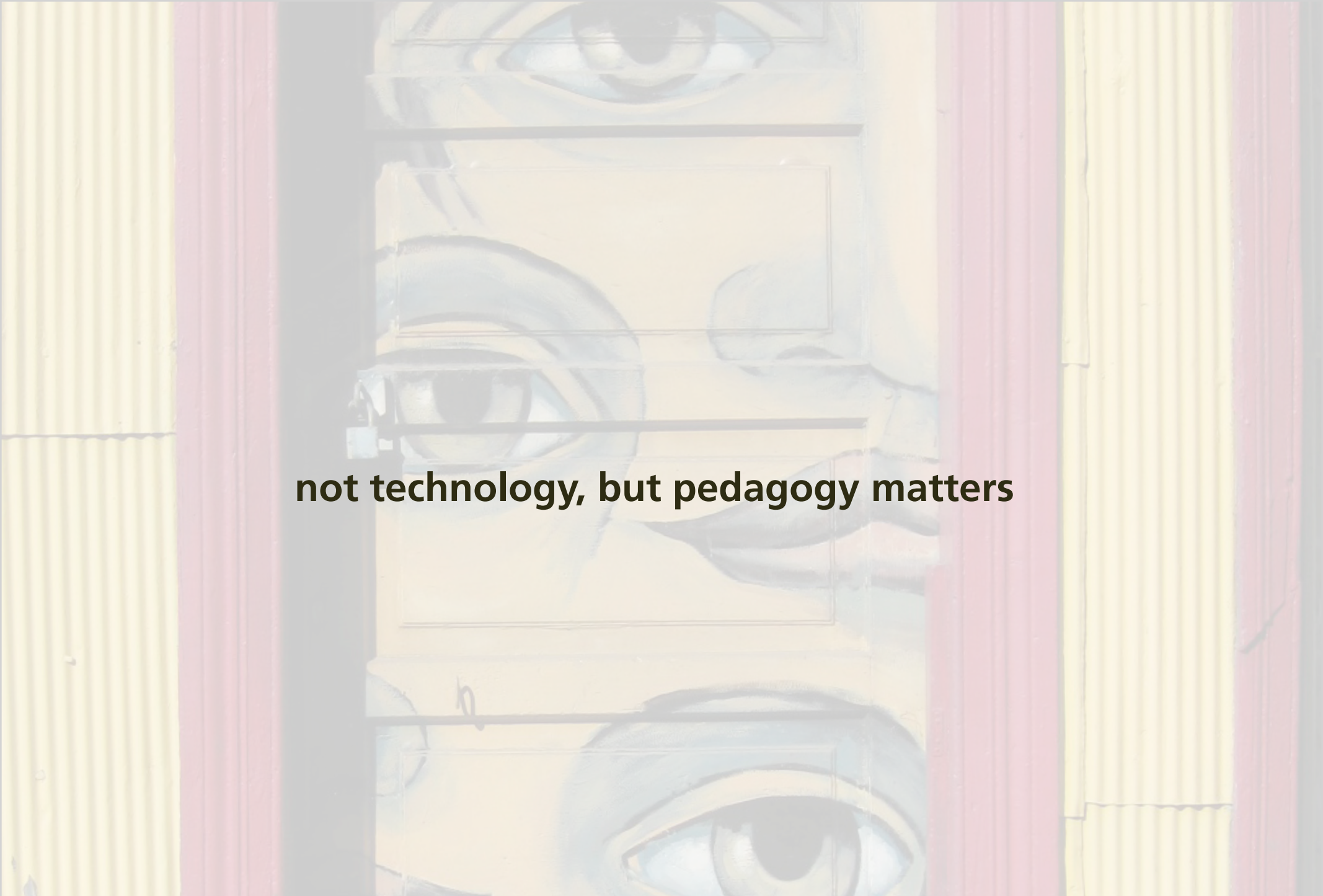
- implement proven, researched pedagogy
- use consumer devices
- avoid pitfalls of MC assessment
- create a smart classroom *anywhere*



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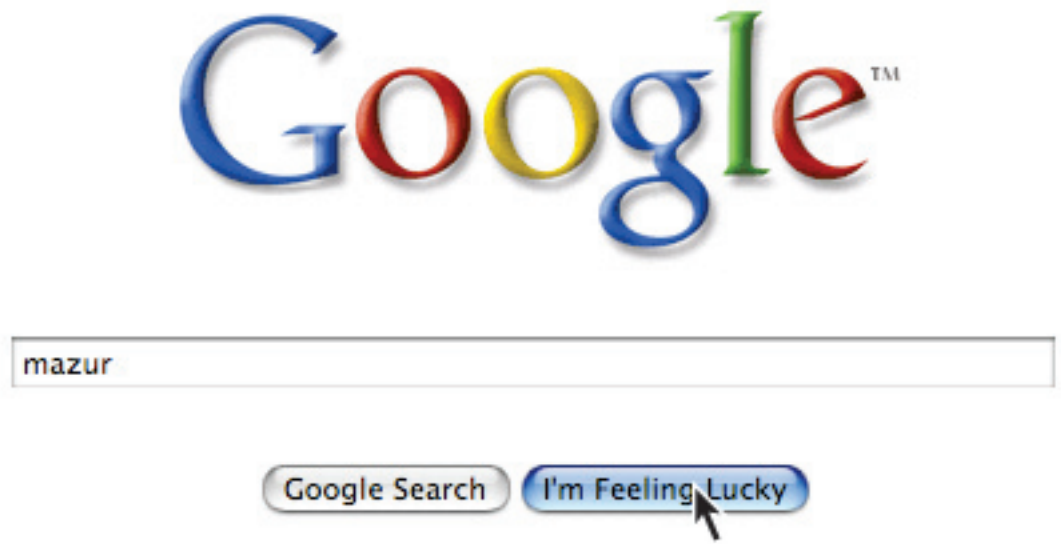
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