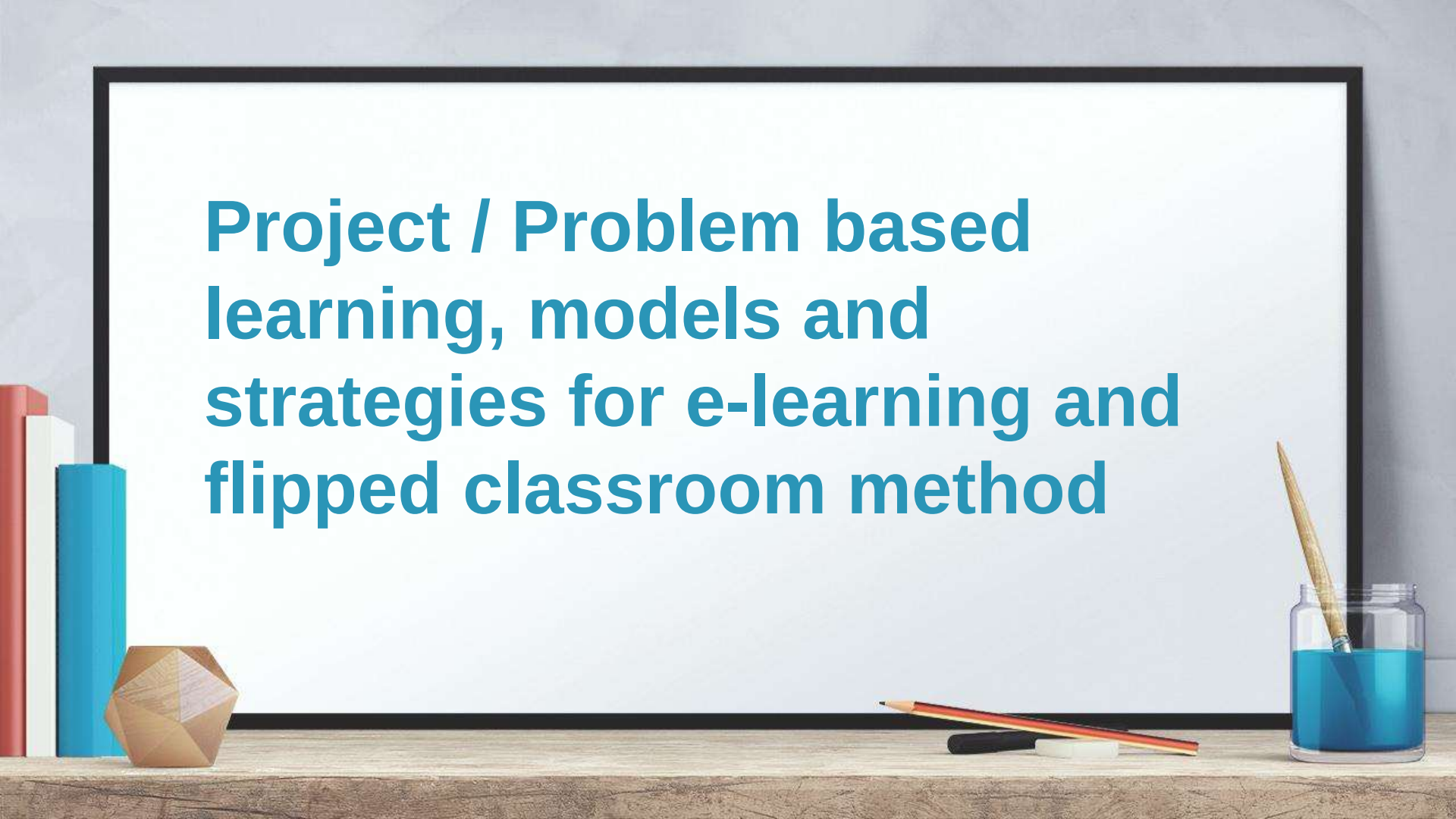
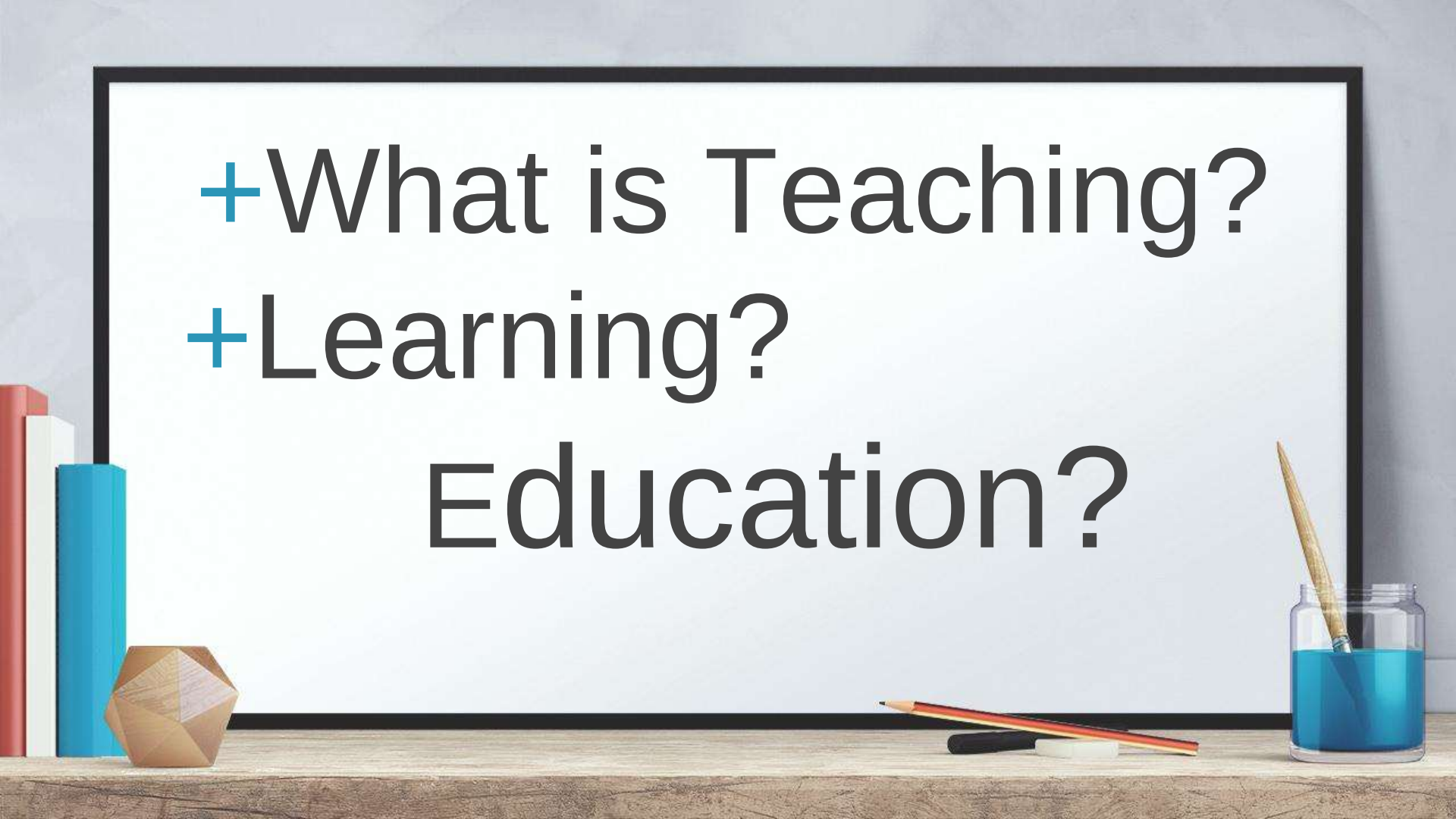
Project / Problem based learning, models and strategies for e-learning and flipped classroom method




“It's what we think we
know that keeps us
from learning.”
—Claude Bernard—


+What is Teaching?
+Learning?
Education?

The 'art' of

TEACHing...

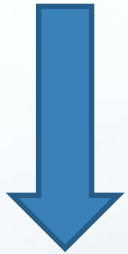
is the art of...

ASSISTing

DISCOVERY

Mark Van Doren

Learning= social, collaborative process (communication)



actively build knowledge

Students who work and share ideas with others are generally more motivated and display better academic performance than passive students (Beaudoin 2002; Swan 2002).

student engagement = participants interact + with materials and activities to achieve learning outcomes.

(This term has also been defined as students' involvement in their own learning process (Axelson and Flick 2010), or the time and effort students devote to learning activities (Kuh 2009).

Education :

ıntellectual process that results in changes in learners' perspective, understanding or cognitive structures= behaviour.

(analysing the material, relating it to previous knowledge or applying it to problem solving; in other words, using the knowledge to perform activities that can enhance learning/life?)

As if ……

Stop teaching as if we have the answers.

1. inquiry-based approach to learning, becoming vs design ways of engaging students with questions to which we ourselves do not know the answers.
2. In this way, students may contribute to both their own understanding and also to ours.

Stop rushing.

1. slow down the race to cover content.
2. Be creative to focus about :

- ✓ key conceptual understandings
- ✓ designing ways to demonstrate evidence
- ✓ applying these conceptual understandings.

Deep learning takes time.

Stop talking.

it would be good to figure out how……...

Listen more speak Less.

How much silence is there after learners poses a question?

In a classroom setting, what would happen if we reduced teacher talk by 50 percent and increased the pause time between question and response by 50 percent?


WHAT SHOULD
I DO?

What Should We Start Doing?

- Start looking for problems to solve, actions to take, and beauty to create.
- Start finding ways to engage students in understanding real-world problems,
- support them in solving those problems.
- Every student should experience the joy that comes with being a unique and positive force in the world.

Start teaching with new discoveries about the brain in mind.

If there is no emotion, there is no learning → positive emotions

sharing your passion, personal mission, and the questions and problems that are important to you.
Bring all this to your students. And have them bring theirs to you.

Start seeking out authentic, high-stakes audiences for student work.

students to spend many hours solving problems or creating things that are never shared beyond the teacher or the classroom.

Partner with businesses, organizations, and your larger community to showcase innovative work produced by your students.

What Should We Continue Doing?

Continue with your professional development, and model the growth mindset in action

- If we ourselves can't develop and model the 21st-century skills of collaboration, communication, and critical and creative thinking, how can we prepare students to master them?
- Regularly try new things in the classroom, and ask students for their feedback.
- Demonstrate that education is a lifelong process.

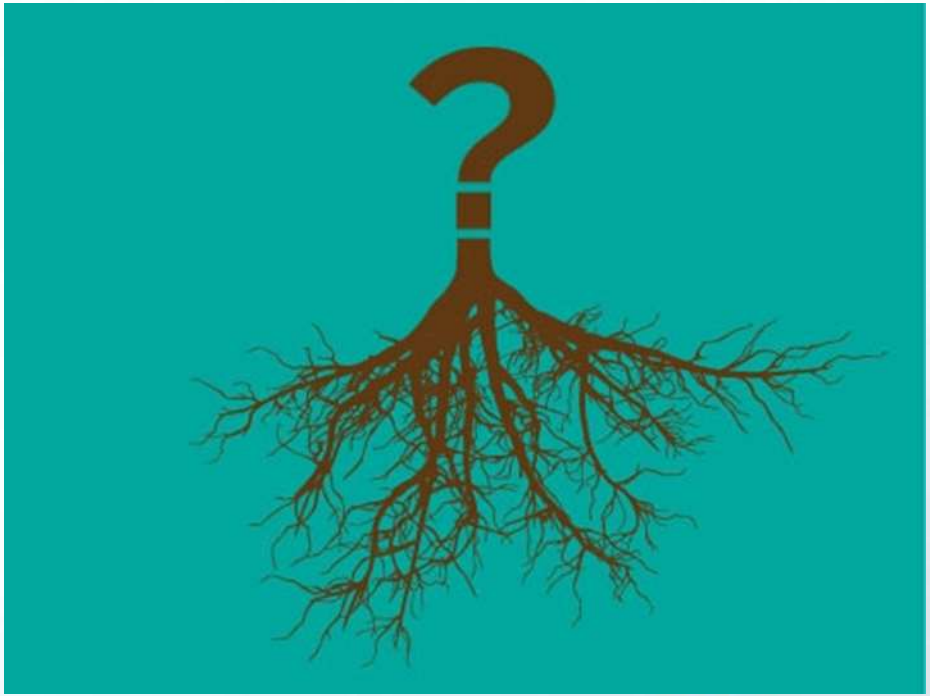
Continue to place our work with students in global contexts.

We share a common humanity, and that's worth finding ways to be mindful of our interdependence.
Foster the sense of connection that comes from seeing oneself as a part of a larger global community

Continue believing in the potential of every student.

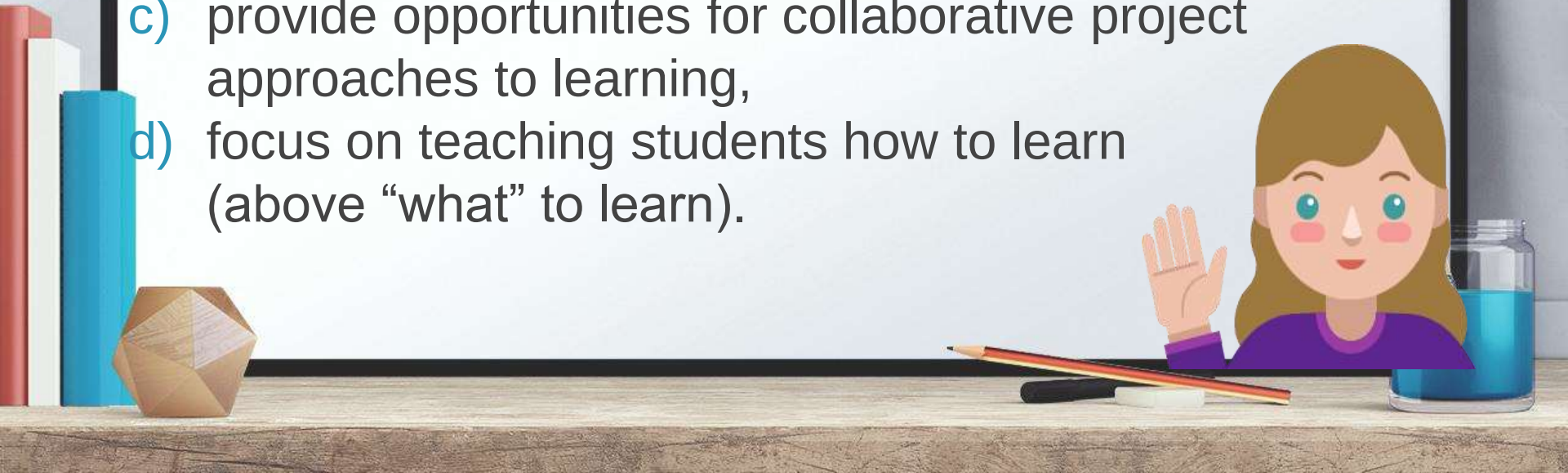
- ✓ Each student can make a positive difference, and each should understand the importance of investing in his or her own well-being along with the well-being of others.
- ✓ We cannot develop ourselves or contribute to the development of others if we live stressed, unbalanced lives.
- ✓ Introducing and modeling habits of mindfulness and doing what it takes to maintain well-being are critical for our very survival.

Now what….?



Best Practices for Implementing 21st Century Skills

a) focus on real-world problems and processes,
b) support inquiry-based learning experiences,
c) provide opportunities for collaborative project approaches to learning,
d) focus on teaching students how to learn (above “what” to learn).



Confucius

Aristotle

Socrates

+Confucius and Aristotle were early proponents of learning by doing.

+Socrates modeled how to learn through questioning, inquiry, and critical thinking

(all strategies that remain very relevant in today's PBL classrooms)

foster flexibility by enabling students to work independently, at their own pace and in their own time.

Interaction between peers can create meaningful learning experiences

(Anderson and Garrison 1998; Conole 2013; Salmon 2011)

Help relate new information to previous knowledge and facilitate problem solving

(Mayer 2002).

What is PBL?

Problem Based Learning is a student-centered teaching technique where students learn about a subject by exploring the topic in an unstructured way

Problem/ Project-based learning

+is a dynamic approach to teaching in which students explore real-world problems and challenges.

+ Active and engaged learning, students are inspired to obtain a deeper knowledge of the subjects they're studying.

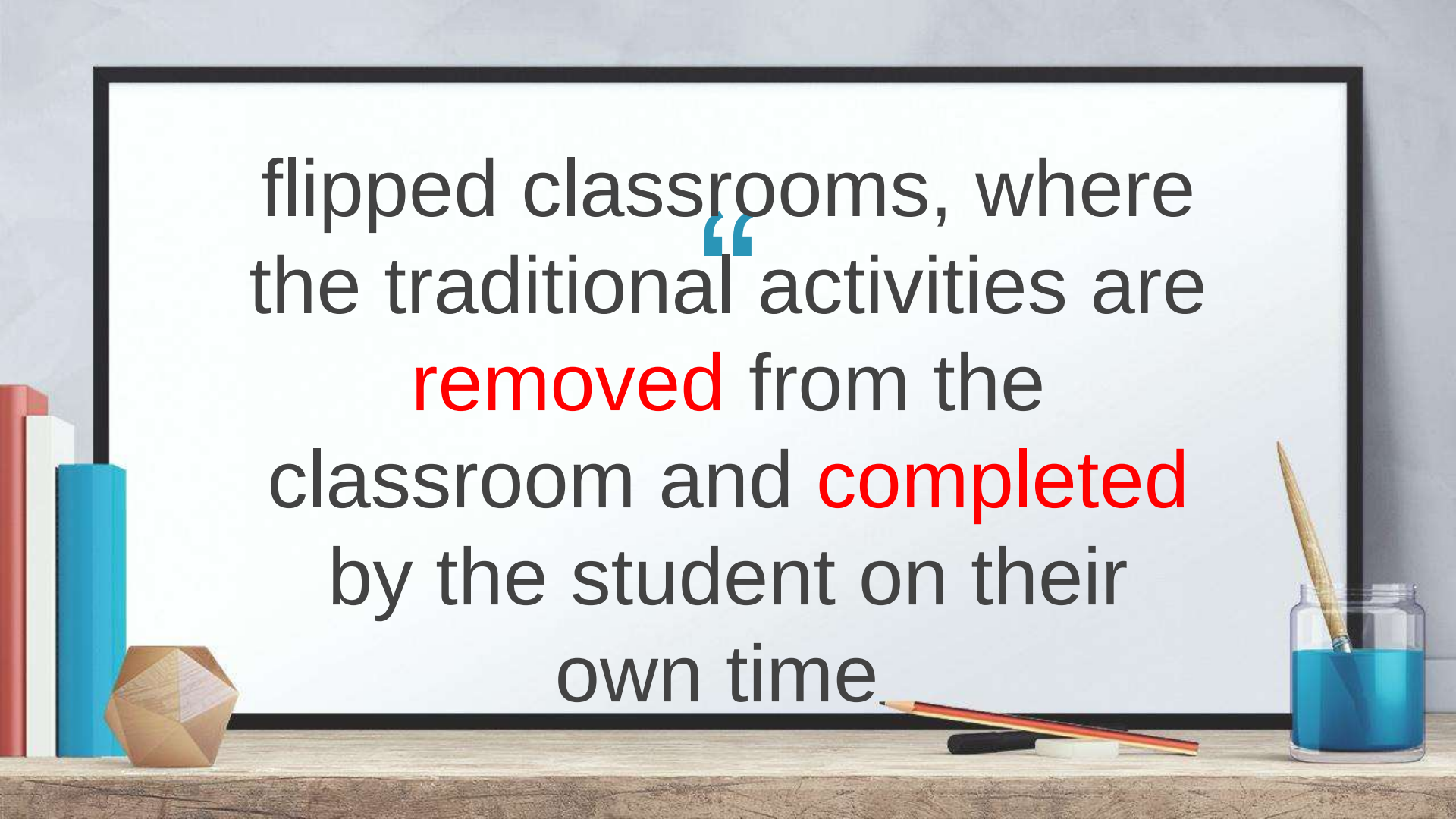
What is PBL?

+Did you know PBL students remember learned content for longer periods of time?

Did you know PBL students view themselves as better prepared in problem solving and perform better in tasks that emphasize understanding and application of knowledge?

problem based learning flips the instruction.

Instead of teaching the material and then requiring that the student apply the concepts, the problem is presented first and students learn the material by solving it.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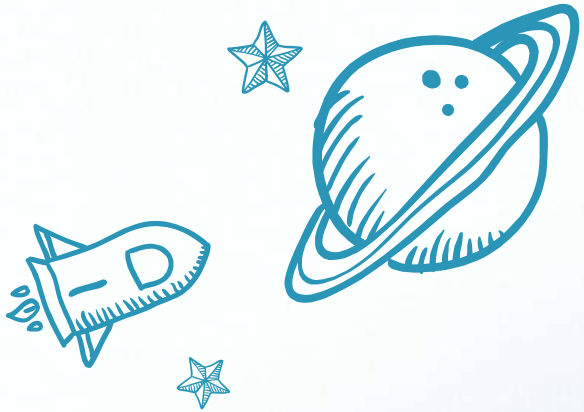
flipped classrooms, where the traditional activities are removed from the classroom and completed by the student on their own time

Great things about using problem based learning concepts

- flexibility they provide
- assignments can be short, or they can take several class periods
- can be completed individually or through group activities
- students will engage their critical thinking skills and learn to handle new concepts that are seated in a real-world scenario.



Problem vs. Project Based Learning

Outcome or result of the student's learning.

Problem based questions the outcome is typically focused on a real-life situation with an applicable result.

outcome or result of the student's learning.

Students are required to think about the best solution to a problem including ethical dilemmas and social repercussions


Teachers….

- preparation time
- how you will grade the outcome since there isn’t always a single right answer.
- changing the way you teach and not just changed the way your students consumed information.

Activities in your flipped classroom today:

Debate the Topic:

- Sort your students into a pro and against for the topic
- give them time to research to form their opinion.
- articulate their thoughts
- develop arguments to support their claims.
- On the spot speaking can drive problem solving skills and critical thinking, which improves information retention.

Activities in your flipped classroom today:

Student's Choice

-Create a poll

-determine what the next topic for class will be

-encourage students to vote.

The activities presented in the next class period should highlight the highest voted topic.

Activities in your flipped classroom today:

Create Your Own Questions

- ✓ “extend your knowledge”, or “apply your knowledge”
- ✓ require students to apply the knowledge they’ve learned
- ✓ Encourage your students to make an argument and support a position instead of just rehashing information from the chapter.


If you're doing something that's not working for you,
STOP
doing it.
If you're doing something that's working for you,
KEEP
doing it.
If there's something you think might work for you if you did it,
START
doing it and see what happens.

Thanks!

Any questions?


If the plan
doesn't work
change the plan,
not the goal.