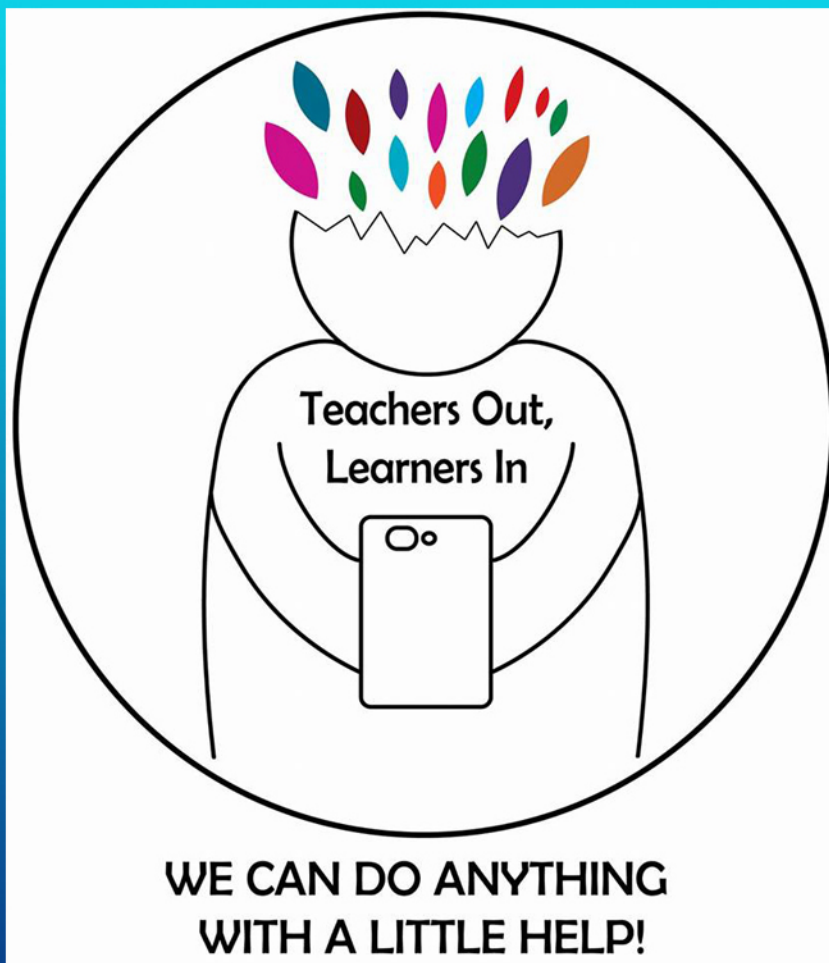




TEACHERS OUT, LEARNERS IN

2016-1-TR01-KA219-034485_2

2016-2018

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Erasmus+ Programme
of the European Union



**WE CAN DO ANYTHING
WITH A LITTLE HELP!**



**TEACHERS OUT
LEARNERS IN**



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Description of the project

In recent years, there have been constant and rapid changes in the field of education as well as in many other fields. One of those changes in the field of education is that conventional teaching-learning techniques and methods have been superseded by student centered teaching-learning approach which promotes 21st century skills as well as basic and high level competences. As a result of those changes most of older teaching&learning techniques and methods became outdated and they failed to motivate students and call students' attention during lessons. In addition, teachers', students', even parents' role in teaching and learning has changed, too. However, most of teachers and students are not aware of this situation. So, they still keep teaching and learning through conventional methodologies.

Also, today's students spend almost all of their out of school time with ICT tools or on virtual social networks. So, conventional teaching methodologies and classroom environments are not appealing for them.

On the other hand, The Organization for Economic Co-operation and Development (OECD) released an education report, in 2015, based on test scores of students aged 15 in maths and science. The report was based on the most comprehensive ever global education research in 76 countries. According to that report, we (Turkey) ranked 41st, our project partners Estonia ranked 7th, Portugal ranked 30th, Italy ranked 28th and Romania ranked 44th among the 76 participating countries. Unfortunately, the report clearly showed the project partners' (Romania, Turkey, Italy and Portugal) poor performance in the maths and science test.

In conjunction with this result, our project partners also cannot get the expected results from natural science as well as from social science. In addition, today's students do not like studying, doing homework and most of them are lack of basic skills such as sense of responsibility, problem solving, entrepreneurship, creativity, collaboration, analytical thinking, critical thinking, finding and evaluating knowledge, communication, learning to learn, lifelong learning, higher order skills, researching and so on. On the other hand, today's students use technology only for entertainment rather than for self-improvement. However, digital media is full of rich learning resources and practical learning softwares and applications. They all imply that there is something wrong with the way we teach maths and science, as well as with the way we teach literacy.

All of the above mentioned shortcomings led us to act and revise the methodology, tools and resources we use in teaching. That is why this project partnership has been built up.

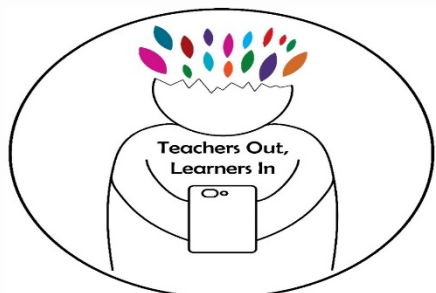
To cope with those mentioned shortcomings we aim at:

- 1- improving our teachers' basic and professional competences as stated in Europe 2020 Strategy.
 - 2- improving our teachers' knowledge of innovative and interactive teaching and learning techniques and methods as well as their digital competences to be able to:
 - appeal to today's students during classes
 - make lessons more engaging and fruitful for students
 - improve the quality, productivity and efficiency of the lessons
 - motivate students to perform better in maths, science and other school subjects
 - to improve students'and teachers' high-level basic and transversal competences in a life long learning perspective
 - to make teaching-learning activities more alluring.
 - 3- creating a more appealing, effective and innovative class environment which caters for the youth of the digital age.
 - 4- raise awareness of teachers, students and parents' against their new roles as stakeholders of teaching and learning process through seminars, meetings or workshops.
 - 5- organizing meetings, seminars or workshops to introduce teachers, students, parents and other stakeholders with Student Centered Teaching Approach and other techniques and methods which promote active learning, to introduce websites which offers free online education such as Khan Academy, Dyned, EBA etc., to introduce web 2.0 tools and 21st century skills
- To accomplish this project, transnational collaboration which covers countries from different education systems will be invaluable in terms of exchanging of good practices on student centered teaching-learning method implementation as well as on other innovative methods and techniques. Because, our project partners have similar problems and shortcomings. Thus, this partnership will contribute a lot to get rid of above mentioned common problems and shortcomings of the project partners.

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Student Centered Education Estonia



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Erasmus+

Student Centered Education (SCE)

Methods in teaching where the **responsibility** for the learning path **is on the student**, not on the teacher.





"I think it's an exaggeration, but that there's a lot of truth in saying that when you go to school, the trauma is that you must stop learning and you must now accept being taught."

— Seymour Papert

“who does the work is who does the learning.”

The results of recent neuroscience, biology and cognitive psychology studies about how individuals learn can be summarized as

“who does the work is who does the learning.”

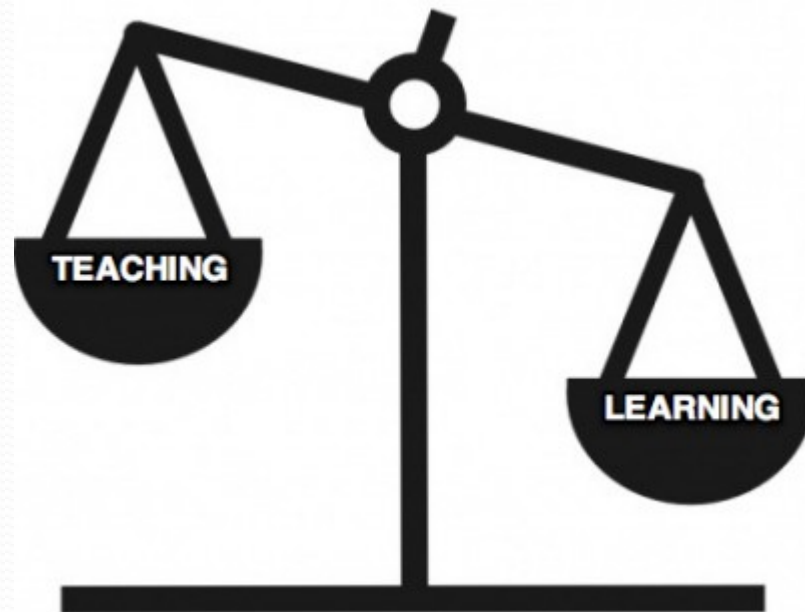
This means that the students need more than being a passive listener to learn effectively.

Basic principles of SCE by McDonough (2012)

1. Students are included in decisions regarding what and how they will learn and how they are assessed.
2. All students' unique backgrounds, interests, abilities and experiences are valued and respected.
3. Each student is treated as a partner in teaching and learning process.

The AIM

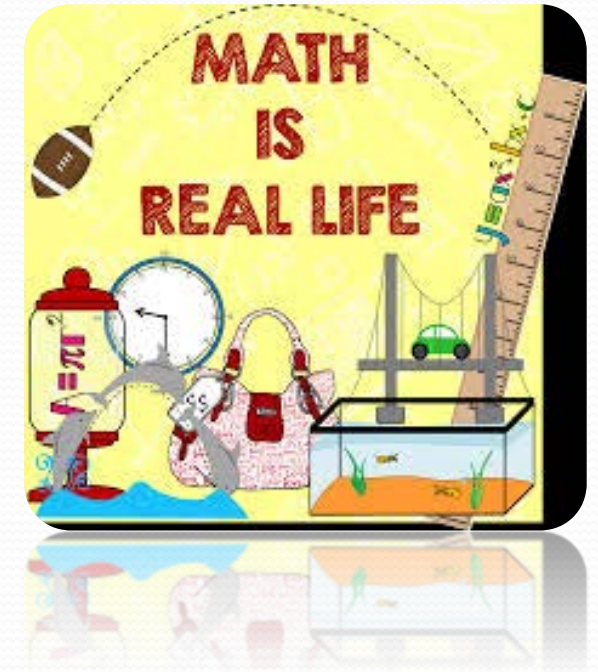
... is to develop learner **autonomy** and **independence** which means that the student is responsible for one's own learning.



Important keyword - *a real life*

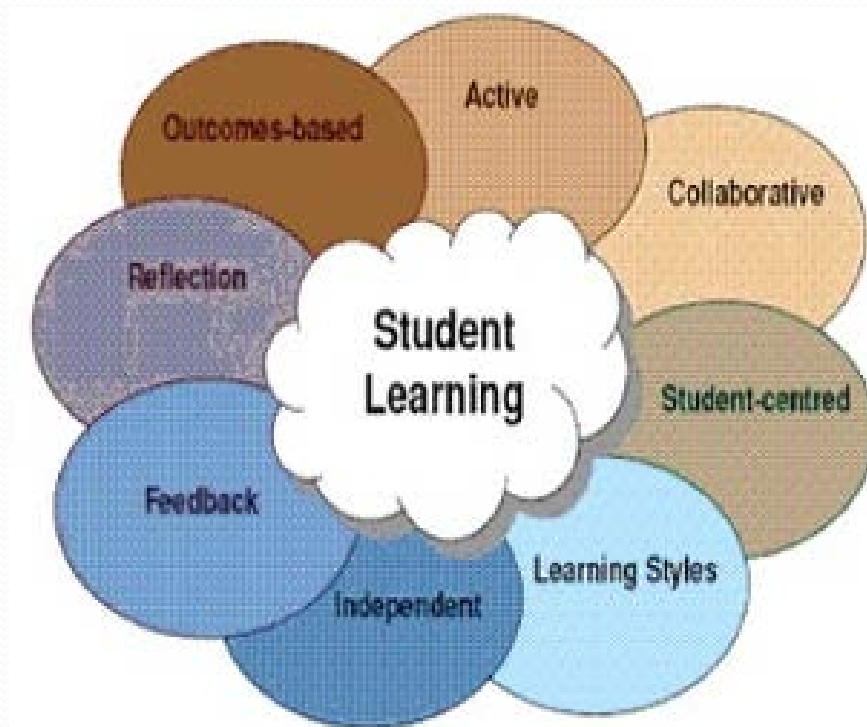
Children and teens have the same need for curriculum to be presented in a context that's meaningful to them. They need to understand how their existing talents fit and how they can confidently apply the skills in a meaningful way to their lives outside of school.

Using real-world relationships where possible in lessons for a deeper experience, let students apply the skills in ways that support or enhance their current "real world."



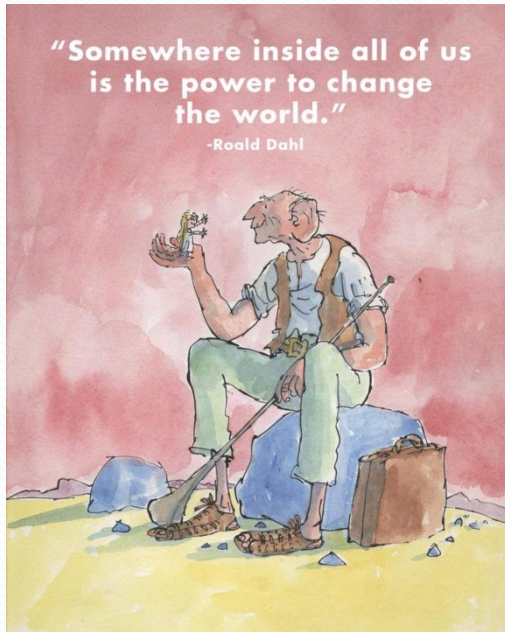
The FOCUS

... is on skills and practices that enable **lifelong learning** and **independent problem solving** by:



- active learning
- co-operative learning
- inductive teaching and learning

The strategy: “What do you want to explore?”



What is learned involves students choosing the focus of content. Let their interests drive the content that teaches skills and concepts. For example, when learning how to write persuasively, some students may want to deconstruct commercials, product reviews, op-eds, and/or social issue points of view.

Starting with a brainstorm of what they like to do, and dialog together to match their interests with the skills and concepts would give the best results.

The LEARNERS role

... is to **construct meaning** from new information and prior experience using the help of the teacher, peers, family, books, the Internet, etc.

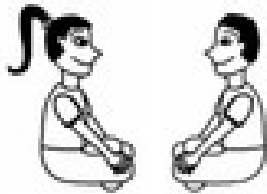


Think - Pair - Share



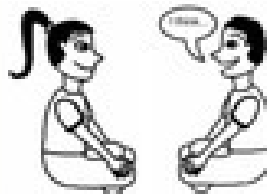
Think

Quietly think about how you will answer the question.



Pair

Sit crisscross applesauce.
Face your partner.



Share

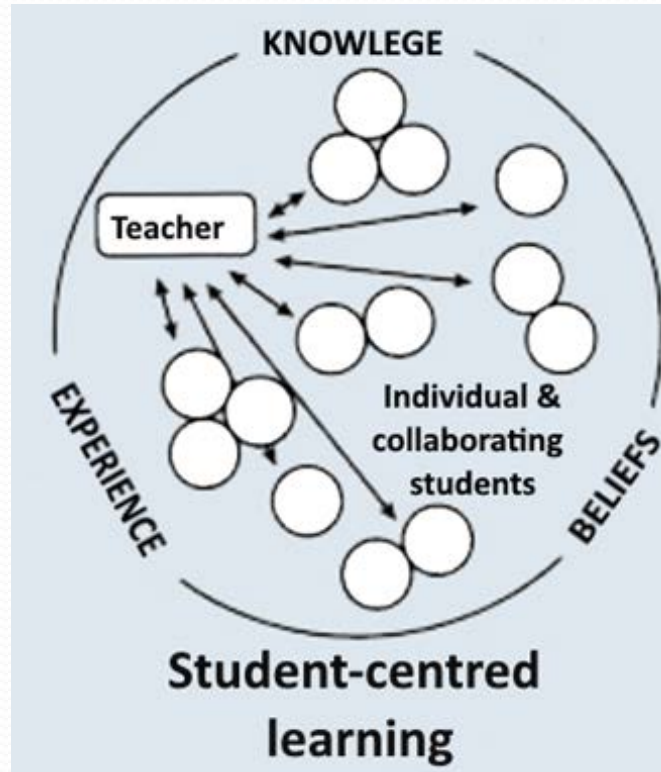
Share your thinking with your partner. Only 1 person talks at a time.

Think-Pair-Share

This method focuses on the belief that students learn best when working with and learning from their peers.

The TEACHERS role

... is to **coach** and **facilitate** student learning and overall comprehension.



Let's cooperate!

Student-centered classrooms include students in planning, implementation, and assessments. Involving the learners in these decisions will place more work on them, which can be a good thing. Teachers must become comfortable with changing their leadership style from directive to consultative from "Do as I say" to "Based on your needs, let's co-develop and implement a plan of action."



Evaluation

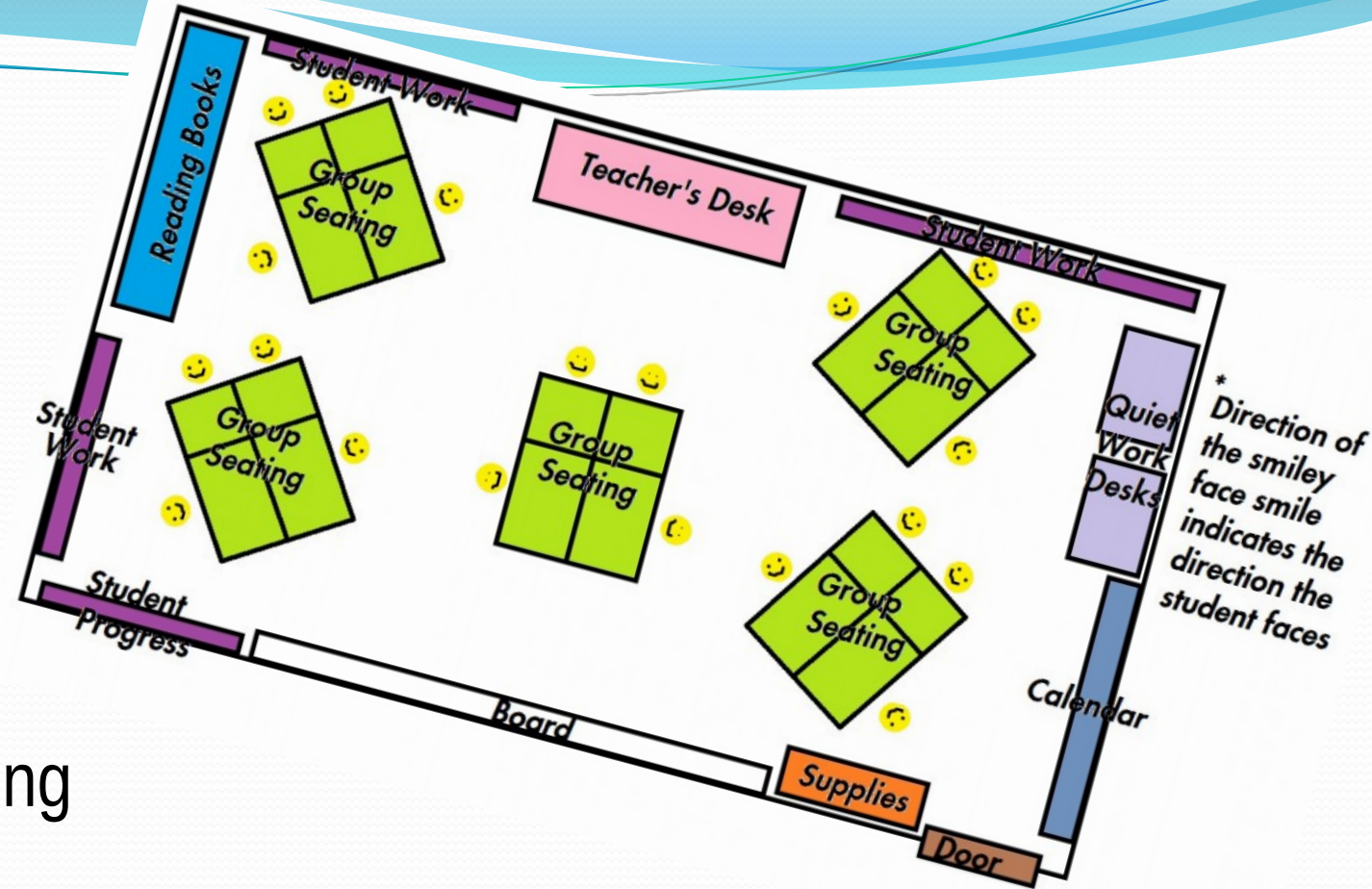
- The assessment should be formative with constructive feedback.

peer assessment self-assessment

- Students should be encouraged to justify their answers.
- Authentic assessment is used throughout.
- What to assess?
 - projects;
 - portfolios;
 - participation, etc.

Advantages

- strengthens student motivation
- promotes peer communication
- reduces disruptive behavior
- builds student-teacher relations
- promotes discovery / active learning



Disadvantages

- problem of misconception
- learning in alternative ways
- lack of team skills
- problem of instruction
- noisy and chaotic classrooms



Why choose student-centered education?

- The substance can be chosen and the activities arranged in line with the learners.
- Training is provided in thinking process, management and how to face various situations.
- Learners are enabled to think critically.
 - Both learners and teachers may learn together.
 - Individuals can learn at all times and in all places and use the knowledge they have gained.

A STUDENT-LED CLASSROOM

is one in which
students make
decisions and choices
throughout the day

WITHOUT

consulting the teacher.

Learner-centered teaching encourages..

***... students to reflect on what they
are learning and how they are learning it.***

Learner-centered teachers include assignment components in which students reflect, analyze and critique what they are learning and how they are learning it.

The goal is to make students aware of themselves as learners and to make learning skills something students want to develop.

Learner-centered teaching motivates..

...students by giving them some control over learning processes

Learner-centered teachers search out ethically responsible ways to share power with students. They might give students some choice about which assignments they complete. They might make classroom policies something students can discuss.

They might let students set assignment deadlines within a given time window. They might ask students to help create assessment criteria.

Learner-centered teaching encourages collaboration

It sees classrooms (online or face-to-face) as communities of learners.

Learner-centered teachers recognize, and research consistently confirms, that students can learn from and with each other.

Certainly the teacher has the expertise and an obligation to share it, but teachers can learn from students as well.

Learner-centered teachers see learning individually and collectively as the most important goal of any educational experience.

**Tell me, and I'll forget.
Show me, and I'll remember.
Involve me, and I'll learn.**

- Chinese proverb

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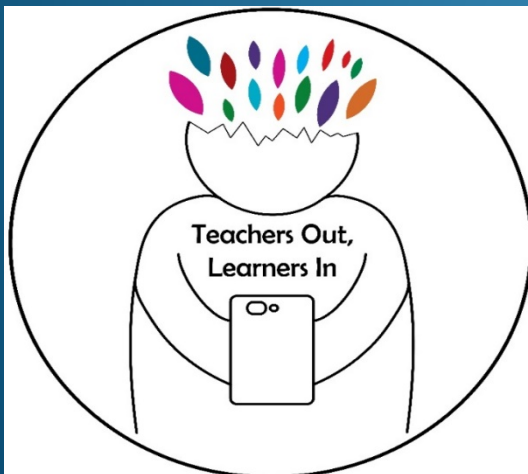
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WEB 2.0 TOOLS

ITALY



WE CAN DO ANYTHING
WITH A LITTLE HELP!

WHAT ARE WEB 2.0 TOOLS?

- Web 2.0 Tools are online software programs that allow users to do a number of different things. They can be used to teach curriculum content, store data, create/edit video, edit photos, collaborate and so much more. These programs are often free and are used by teachers, students, and sometimes parents, both in and out of the classroom, on a pretty regular basis.

WHAT ARE WEB 2.0 TOOLS?

- New digital tools (mobile phones, tablets, apps and websites) and the content which you can access on them are driving many of the changes in education right now. They help teachers with continuing professional development (CPD) and are useful to create lessons or projects that really support the specific needs of learners. Therefore, teachers should think about what they need and then look for a tool that can help, rather than letting the tool determine what they do in class or what they do to develop as a teacher.

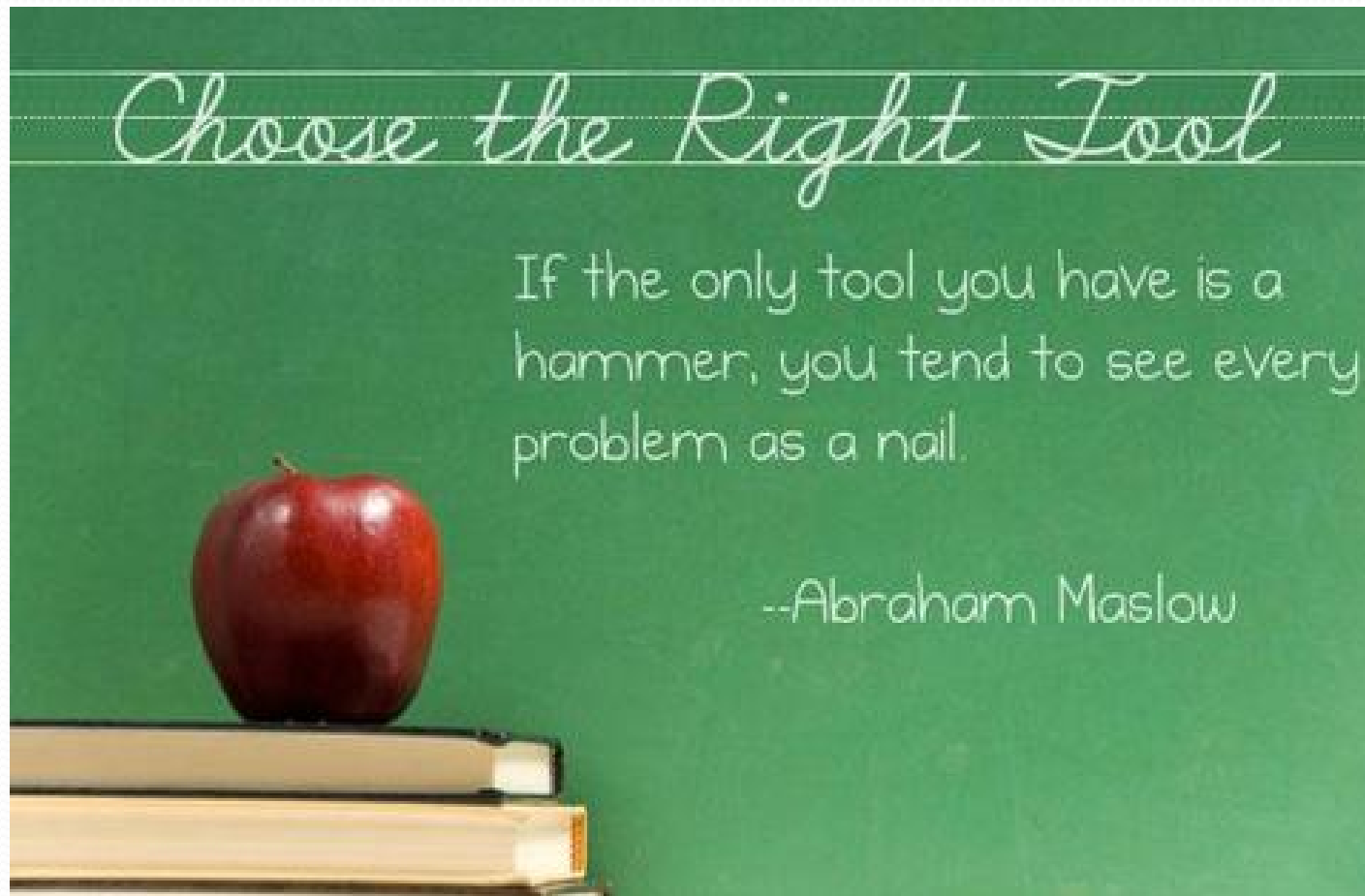
WHY SHOULD WE USE WEB 2.0 TOOLS?

- As educators, the use of Web 2.0 tools is transforming our work, and more specifically the way we support students in the classroom. As schools bring more technology into their classrooms, teachers will in turn strive to put more technology in their students' hands. That is, if they are prepared to do so.
- The use of Web 2.0 Tools to support instruction is vital. How we use these tools is going to make a critical difference in how we measure our students success and how they are supported to meet 21st century skill sets.

WHY SHOULD WE USE WEB 2.0 TOOLS?

- You might ask, “What’s the benefit of using Web 2.0 tools in teaching and learning?”. Because Web 2.0 tools allow users to collaborate to generate/upload content, it is an excellent means to engage learners and help foster a community of learning in your course. For instance, you can ask students to create a glossary by taking turns to define concepts using their own words on a wiki page in CourseWeb. At the end of the semester, your students would have created a glossary in a “language” they understand. Another example is using a mind mapping tool like [Popplet](#) to help students brainstorm ideas asynchronously, meaning they do not need to contribute ideas at the same time (synchronously). Students in a group can create a mind map on one space by adding their own ideas or commenting on group mates’ ideas at different times without meeting each other face-by-face. If necessary, students can even add multimedia files into their mind map to make it more comprehensible. In the end, each group can have its mind map that is ready for sharing and feedback due to the convenient setup by those Web 2.0 tools.

HOW TO CHOOSE THE RIGHT TOOL?



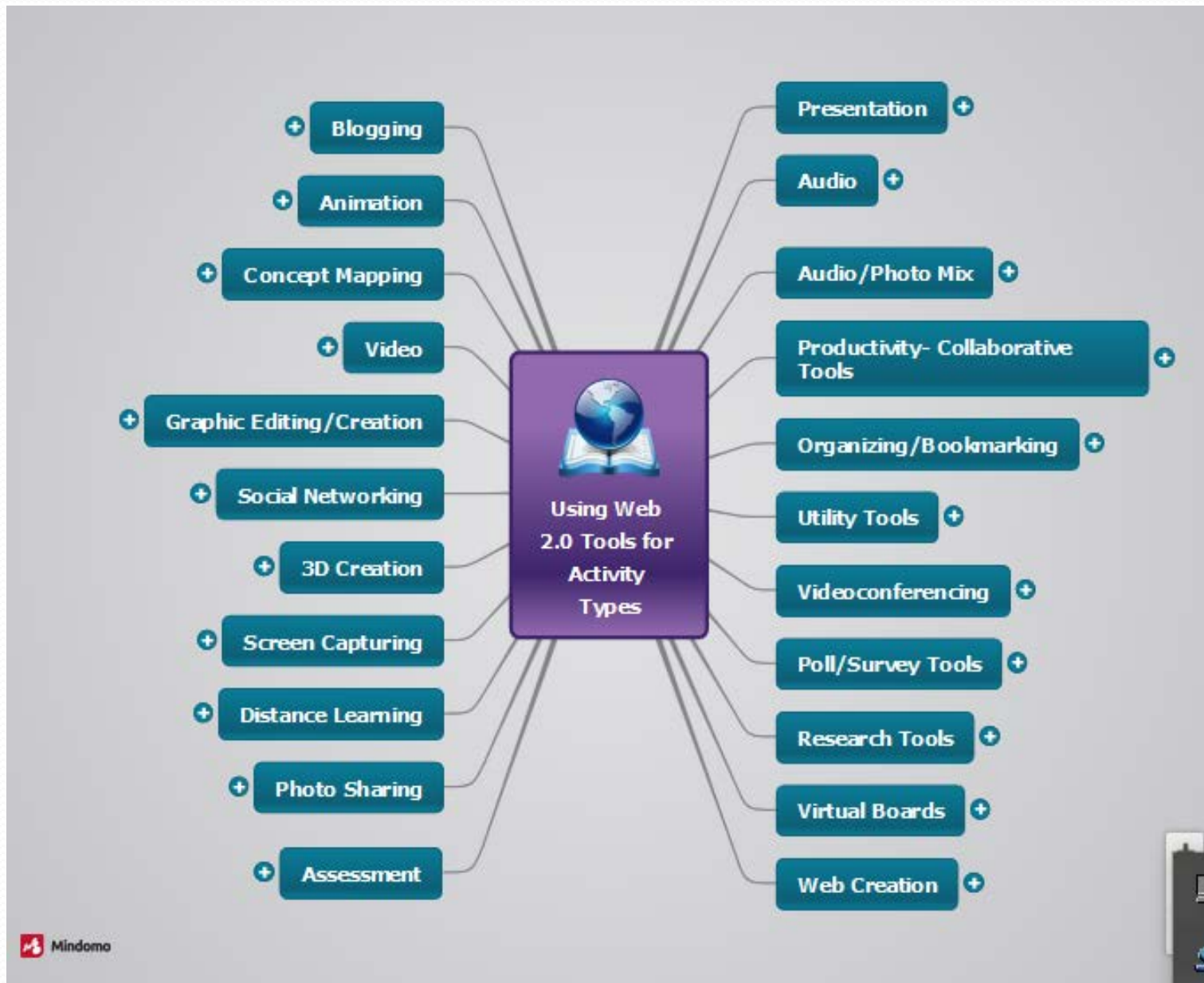
HOW TO CHOOSE THE RIGHT TOOL?

- There are many Web 2.0 tools available, and most of them are free or have free versions. Consequently, choosing the appropriate ones might be challenging. The following pyramid might be a helpful guide, as it looks at available Web 2.0 tools from the perspective of the Bloom's Taxonomy . The applicable Web 2.0 tools that support instruction are inserted to each learning domain, although one tool might be applicable to multiple domains. It is important to note that sound instructional design strategies should be in place in order to decide which tool can be used to support learning objectives.



We can find the right tool according to many criteria,
for instance **task**, **product**, **cognitive level**, **learning style** and so on.

Here is what you can do with web 2.0 tools:



What do you want to do? There's a tech tool for that!

If you want to:	Use
Create a robust online course to house resources /quizzing	Moodle Edmodo
Give digital quizzes so you can disaggregate data to drive instruction	Moodle Edmodo Google Forms
Quick Check Comprehension or Collect Opinions	Poll Everywhere Padlet
Take notes while researching and gather new course resources	Evernote Scribe Flashcard Machine
Show students a visual syllabus and/or collection of resources	Mindmeister Blendspace Smore ScoopIt Wix
Provide digital instruction that students "move" through information (text and visuals)	Prezi* Mixbook Calameo Wix Blendspace Mindmeister PowToons Visual.ly* Easel.ly Piktochart
Provide instruction with VISUAL DATA (could be reading practice)	ThingLink* Visual.ly*
Screen Capture to provide instruction or show steps (video or annotate picture)	Jing Skitch
Show students real places in history, literature, science	Google Earth (Lit Trips)* Google Maps
Leave students voice instructions or information (think visual podcast):	Voki Yodio
Modify pictures for Vocab Digital Storytelling, Write Captions, create Category Collages, etc	HaikuDeck PicMonkey AddText PicFont PiZap
Support students with online reading	Readable (removes clutter) RoboVoice (text to speech)
Give students and parents info or reminders via text	Remind 101

If you want students to:	Have Them Use
Discuss content in writing (perhaps as a prelude to verbal Socratic discussion)	Twitter Today'sMeet Chatzy GoogleDocs
Gather research data (surveying)	Google Forms Survey Monkey Wufoo
Collaborate and Study beyond the classroom	Dabbleboard WizeHive ThinkBinder Google Drive
Take notes while researching content material	Evernote Scribe Flashcard Machine
Brainstorm (maybe even pretest/posttest) what they know about a topic	Mindmeister Google Docs SpiderScribe RealtimeBoard
Show what they know....	Prezi Mixbook Calameo Wix Blendspace Mindmeister PowToons ZohoShow HaikuDeck
Make data and topics easy to understand for a variety of audiences	Visual.ly Easel.ly Piktochart
Explain steps, identify problems, or annotate online text or website	Jing Skitch Scribe
Think critically with maps, timelines (Best routes, etc)	Google Maps Timetoast
Summarize or Develop concise answers (like a book review)	Voki GoAnimate Blabberize Google Voice
Think critically about pictures - Picture Vocab, Digital Storytelling, Write Captions, create Category Collages, etc	HaikuDeck PicMonkey AddText PicFont PiZap
Curate and/or comment on resource collections (pics, videos, text)	Blendspace Scoopit Pearltrees Storify Pinterest Paper.li
Set Goals and Track Progress	Goalmigo Achievr

* = Public content shared online that may fit your classroom/content needs

HOW CAN WE CLASSIFY THEM?

- There are lots of possible classifications, but we have decided to keep it simple, therefore our analysis comes down to the three categories that in our opinion are the most useful for both teachers and learners: tools presentation and graphics, learning/teaching tools, assessment tools.

THESE ARE THE MOST USEFUL

Tools presentation and graphics:

- PhotoPeach
- Thinglink
- Adobe Spark
- Biteable
- Prezi
- Wordclouds
- Zoho Docs



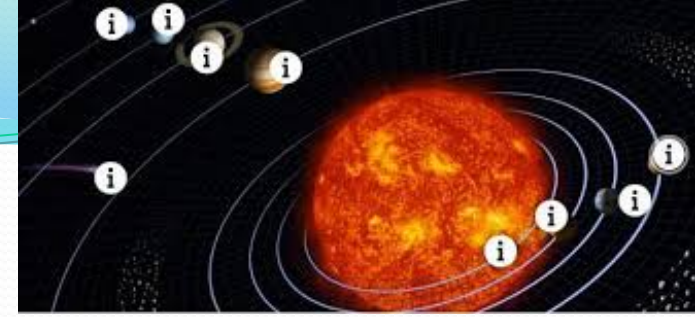
PhotoPeach



- Our idea is to help you tell better stories online using photos.
- With PhotoPeach you can create a rich slideshow in seconds to engage your students. According to your purpose you can use background music, captions, and comments so you can elaborate on your story further. It's great for collaborative group work.
- By using the “quiz” feature you can even create an interactive slideshow with multiple choice questions on any or all slides.



Thinglink

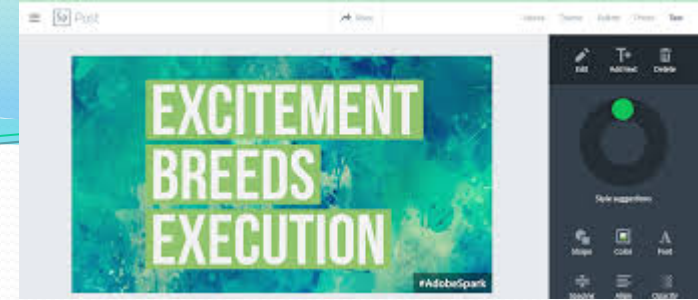


- It is an interactive image tool that provides users with the ability to turn any image into a multimedia launcher.
- Users can create multiple "hot spots" on specific parts of an image and turn the image into a multimedia launcher.
- You can embed video, record audio with the click of a button and a free SoundCloud account, or link to any website.



Adobe Spark

Adobe Spark



- It creates impactful social graphics, web stories and animated videos.
- Your text, photo or video instantly come to life with fluid elegant motion. We call it a GLIDESHOW.



Biteable



- Biteable is the world's simplest video maker. It is done completely online in a matter of minutes. You can add your own music, themes, images, and templates. By adding animations it helps attract students attention effectively. Biteable can be used by both teachers and students.
- **How to use biteable.com?**
- Visit www.biteable.com
- You can signup for free
- Then click on “create new video”



Prezi



- Prezi is web-based presentation software, whose interactive nature makes it a popular classroom tool. Its freedom of movement enables “conversational presenting,” a presentation style in which presentations follow the flow of dialogue, instead of vice-versa.
- Prezi’s The company has worked closely with the ConnectED initiative since its inauguration by President Barack Obama in 2013, providing free Prezi licenses to hundreds of thousands of Title 1 high school teachers across the nation.



WordClouds



- [Glogster](#) is a great creativity site whose tag line is “poster yourself”.
- A ‘glog’ is basically an online poster web page.
- Students can combine text, pictures, graphics, video, and audio to create an interactive online poster. They can click and drag items out of Glogster’s resources, choose their own backgrounds, pictures, text boxes, videos, web links, and more! [Glogster](#) has a very simple-to-use interface. The final glog can be hosted by [Glogster](#) or you can embed it into awiki, blog or class web site.

THESE ARE THE MOST USEFUL

Learning:

- **Timetoast**
- **Mindomo**
- **Crossword Labs**
- **Moodle**
- **Kahoot**
- **Quizlet**
- **Edmodo**
- **Animoto**
- **GeoGebra**
- **Khan Academy**

timetoast 48

Create timelines, share them on the web.

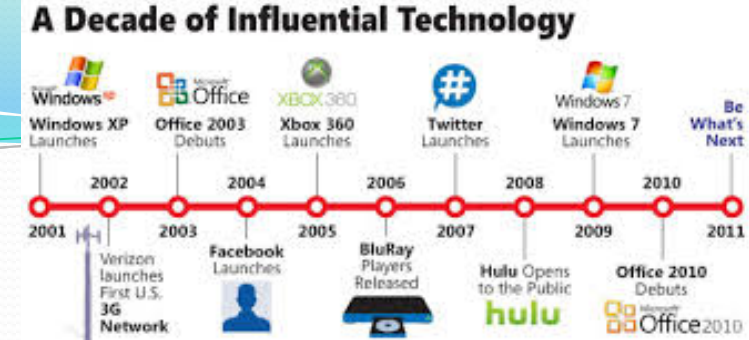
Timetoast is a great way to share your past, or even your future...

Creating a timeline takes minutes. It's as simple as can be.

Sign Up!
(yep, it's free!)



Timetoast



- It allows you to create dynamic projects, explore topics that lend themselves to a chronological presentation.
- You organize your presentation along a timeline based on dates and the elements you include are clickable, so that they can expand (including media in addition to text).
- There a lot of different sites, for example Tiki-Toki.com



Mindomo



- It is a useful mind mapping and idea management software, available in cloud and desktop versions.
- It is online collaborative mind mapping, concept mapping and outlining software for visualizing and organizing information.
- Watch out for its freemium version!

Input words and clues to generate a puzzle at crosswordlabs.com.



learn

wron

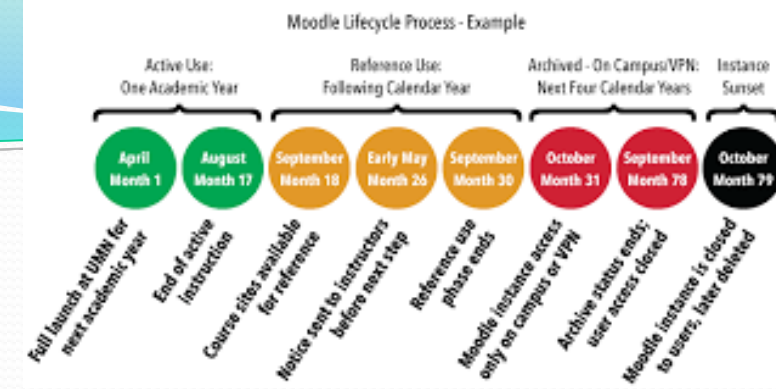
Crossword Labs

C	O	O		P	L	E	D		C	A	S	E		
B	R	I	M		S	A	R	A		O	R	C	A	S
E	E	L	S		E	S	A			N	E	H	R	I
A	D	E		J	U	S	T	B	E	C	A	U	S	E
T	O	R	N	A	D	O			M	U	S	S		
			A	M	O		C	B	E	R		S	A	O
M	A	G	M	A		D	O	O	R		M	I	L	D
A	S	H	E		M	I	S	S		A	N	T	E	
T	E	A	S		O	A	T	H		L	O	G	O	S
S	A	S		O	W	L	S		M	I	R			
		T	A	P	E			J	A	N	I	T	O	R
P	O	L	T	E	R	G	E	I	S	T		A	C	E
A	S	I	A	N		L	A	B	S		M	U	T	E
W	H	E	R	E		I	S	E	E		A	P	E	D
	A	R	I	D		B	E	D	S		J	E	T	

- It's the simplest way to build, print, share and solve cross word puzzles online.
- It's free, fast and easy.



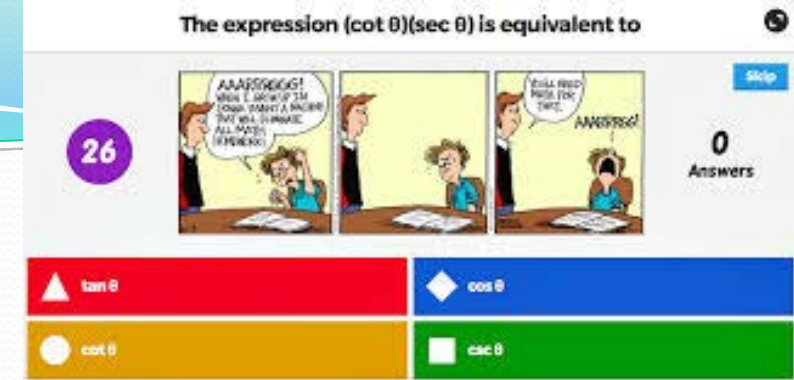
Moodle



- It is a learning platform designed to provide educators, administrators and learners with a single, robust , secure and integrated system to create personalised learning environments.
- The software can be downloaded. You can ask a knowledgeable Moodle partner to assist you.
- It is proven, trusted worldwide, easy to use, free, up to date, in your own language, flexible, highly customisable, scalable to any size and device.



Kahoot



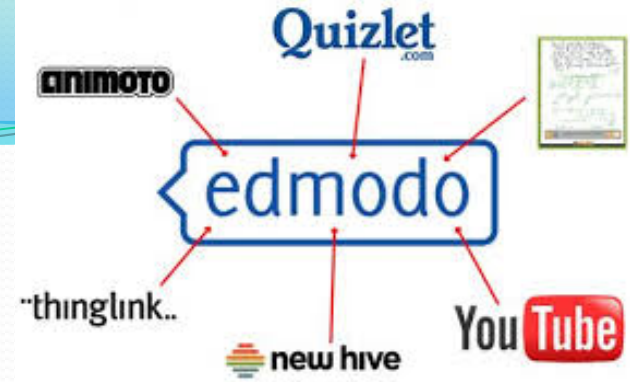
- It is also a student response system that teachers can use to create and deliver quizzes and surveys to students. Kahoot provides a learning environment that is ideal for engaging students for it incorporates the precepts of both game-based learning and inquiry-based learning.
- It allows teachers to create quizzes and surveys that include a wide variety of multimedia elements such as videos, pictures and text. Each quiz you create can be accessed by students across different devices. Also teachers have the possibility to create time-controlled quizzes. You can set a specific period of time for the answer of each question. In this way students are rewarded not only for the correct answer but also for their timeliness.



- You have a test in a few days. Quizlet creates a set with materials for you to work on. When they start it, they use machine learning to analyse millions of anonymous study sessions, then they combine data and techniques for cognitive science as the best way to study and retain information.
- You tell them what materials you need to master and when you need to know them by. They build you an adapted study plan.
- As the student studies, Quizlet recognizes patterns and adjusts the questions the students see to be easier or harder. Quizlet updates on the student's progress and sends study reminders.
- When you hit 100% you know you are ready.

edmodo

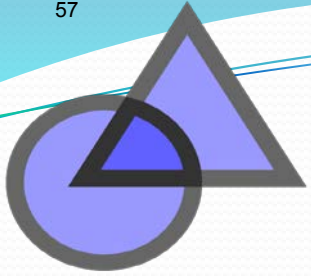
Edmodo



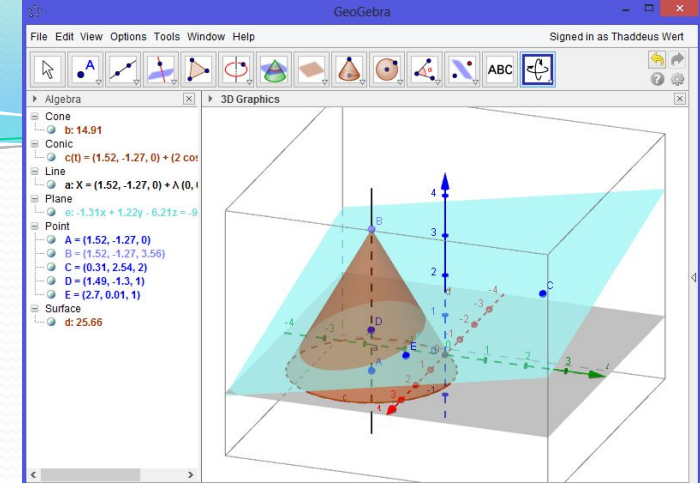
- To create a network, teachers will begin by creating an account. Teachers can do this by going to the website's homepage at: <http://www.edmodo.com>
- Next, students can join by going to the same website. In order to join, they will need to have a private access code provided by the teacher. The code will enable the student to access the main page for the classroom. Fortunately, students are not required to enter any personal information so the site is completely secure. Not only that, but students do not need to have an email account in order to set up an account.
- Teachers can then create subgroups which can eliminate cross posting. When the course is over, the teacher can close out the network. Later, the teacher can create a new network for the next course.

Edmodo: How does it work for the Millennials or digital natives?

- Edmodo's interface is very similar to Facebook, so students tend to feel comfortable using Edmodo because they are familiar with social networks. For those students who have never used a social networking site, they can learn quickly because it is very user friendly.
- Students have the ability to accomplish many things through Edmodo. For example, they can submit their homework and view their grades. In addition to this, students can contact their teacher directly to tell him/her that they won't be able to attend class or to ask a question. Also students can participate in online discussions similar to Twitter, which is another Web 2.0 tool that many students are familiar with.
- Most importantly, students can feel free to interact and collaborate in a safe environment. Their ideas, notes, and messages will be kept within their closed network, so students don't have to worry about unwanted attention, comments or feedback from strangers.
- Finally, students can enhance their learning outside of the regular classroom. With Edmodo, students have the capacity to work from their computers at home.



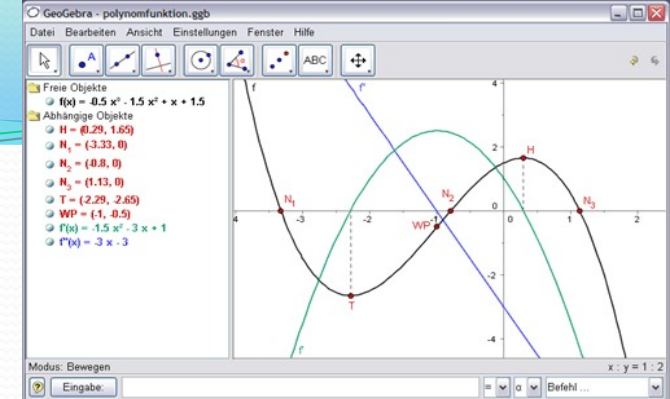
GeoGebra



- GeoGebra is an interactive mathematics software program for learning and teaching mathematics and science from primary school up to university level. Constructions can be made with points, vectors, segments, lines, polygons, conic sections, inequalities, implicit polynomials and functions. All of them can be changed dynamically afterwards.



GeoGebra



- Elements can be entered and modified directly via mouse and touch, or through the Input Bar.
- GeoGebra has the ability to use variables for numbers, vectors and points, find derivatives and integrals of functions and has a full complement of commands like Root or Extremum. Teachers and students can use GeoGebra to make conjectures and to understand how to prove geometric theorems.
- GeoGebra is available on multiple platforms with its desktop applications.



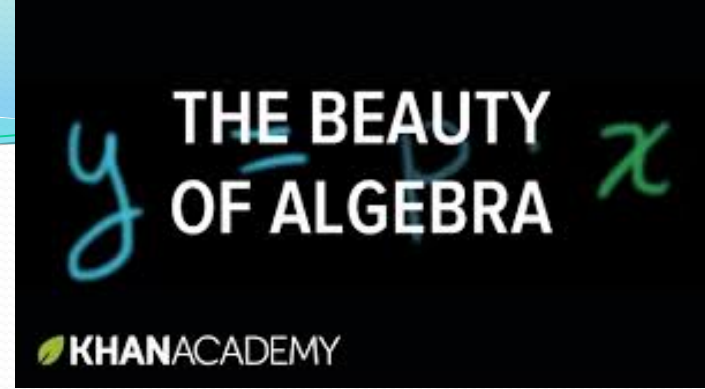
Khan Academy



- Khan Academy's website aims to provide a personalized learning experience, mainly built on the videos which are hosted on YouTube. The website is meant to be used as a supplement to its videos, because it includes other features such as progress tracking, practice exercises, teaching tools. The material can also be accessed through mobile applications.
- The videos show a recording of drawings on an electronic blackboard, which are similar to the style of a teacher giving a lecture. The narrator describes each drawing and how they relate to the material being taught. Nonprofit groups have distributed offline versions of the videos to rural areas in Asia, Latin America, and Africa. Videos range from all subjects covered in school and for all grades, Kindergarten to High School.



Khan Academy



- Khan Academy videos have been translated into many of the world's most popular languages, with many videos dubbed into the world's top spoken languages. There are close to 20,000 subtitle translations available. Khan Academy offers its platform in 5 languages: English (en), Spanish (es), Portuguese (pt), French (fr) and Bengali (bn).
- It also provides online courses for preparing for standardized tests.

ASSESSMENT

- Over the last couple of months, we have reviewed a wide variety of educational web tools to use to create digitally based quizzes. Below is a collection of some of the most popular quizzing tools we have covered. Be it a flipped, blended, virtual or even traditional classroom, the following tools will enable you to easily create interactive quizzes, questionnaires and polls to share with students in class.

THESE ARE THE MOST USEFUL

Assessment:

- Socrative
- HotPotatoes
- ProProfs
- Joomla
- Riddle
- Testmoz
- Edmodo



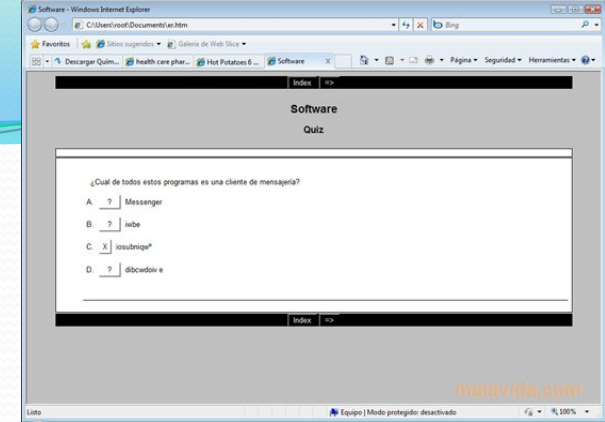
Socrative



- Socrative is your classroom app for fun, effective classroom engagement. No matter where or how you teach, Socrative allows you to instantly connect with students as learning happens.
- Quickly assess students with prepared activities or on-the-fly questions to get immediate insight into student understanding.
- Then use auto-populated results to determine the best instructional approach to most effectively drive learning.

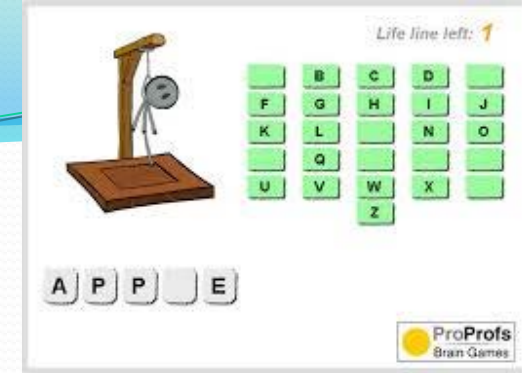


HotPotatoes



- The Hot Potatoes suite includes six applications, enabling you to create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the World Wide Web.
- Hot Potatoes is freeware, and you may use it for any purpose or project you like.
- It is not open-source.
- The Java version provides all the features found in the windows version, except: you can't upload to hotpotatoes.net and you can't export a SCORM object from Java Hot Potatoes.

ProProfs



- ProProfs Quiz Maker is the perfect software to create and deliver online exams and tests.
- Easily create online quizzes, secure tests and assessments for students or employees.
- Advanced options like free quiz templates, data security, automated grading and full integration with our LMS software makes it ideal for corporations, educational institutions and even users looking to create a course or quizzes just for fun.
- Using our e-learning software, you can even add survey or poll and gather feedback from learners.
- Receive detailed reports and statistics for your quizzes to analyze the performance of your learners. ProProfs Quiz Maker makes it easy to create quizzes anytime, anywhere!



Joomla



- Joomla is a free and open-source content management system (CMS) for publishing web content.
- It is built on a model-view-controller web application framework that can be used independently of the CMS.



Riddle

By Moving 1 Stick
Make the equation Proper

$$5 + 9 = 9$$

- Riddle is an excellent web tool for teachers.
- It allows to create their own PlayBuzz and BuzzFeed-style quizzes, lists, pools and more often in under a minute.
- Riddle's goal is to provide best-in-class tools that making creating interactive content simple, so you can concentrate on the content instead of worrying about the tools.

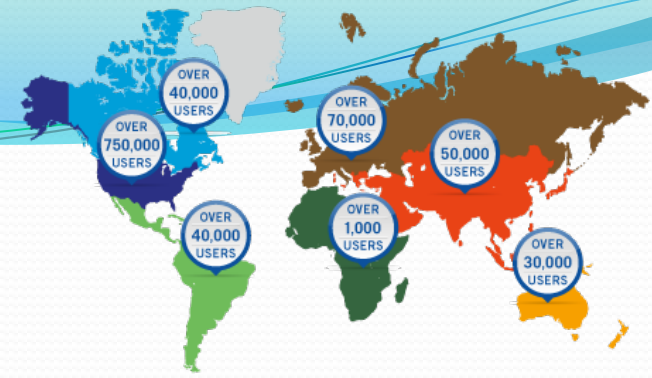
Testmoz



- Testmoz is a simple test generating application created by Matt Johnson, an undergraduate student at Washington State University, Vancouver.
- Testmoz is a test generator that sports 4 question types, automatic grading, a really simple interface and detailed reports.
- Testmoz is **free**, and does **not** require you (or your students) to register.
- You can build a fully functional test in about a minute.
- And for about \$20/year, you can unlock some potentially useful features.



Edmodo



- Edmodo is also a great resource for teachers and learners.
- Teachers have the ability to assign homework and share notes, links, and files. In addition to this, teachers can post alerts, reminders and share events.
- Through Edmodo, teachers can make connections with other educators with similar interests.

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Innovative & Interactive Teaching Methods Portugal



INNOVATIVE & INTERACTIVE TEACHING METHODS

*"I hear and I forget.
I see and I believe.
I do and I understand."* Confucius

*"Teachers are becoming
learning facilitators.*

*Their role is shifting from
'instructing' students, to
helping students 'construct'
their own learning."*

- The Student Creates the Teacher by Jason
Ellingson



What is Interactive Teaching?

The first thing to realize about interactive teaching is that it is NOT something new or mysterious. If you are a teacher and you ask questions in class, assign and check homework, or hold class or group discussions, then you already teach interactively. Basically then (in my book), interactive teaching is just giving students something to do, getting back what they have done, and then assimilating it yourself, so that you can decide what would be best to do next.

Interactive Teaching?

For example, even the most lucid and brilliant exposition of a subject by a teacher in a lecture, may result in limited learning if the students' brains do not do the necessary work to process it. There are several possible causes why students' learning may fall short of expectations in such a situation. They may,

- not understand a crucial concept partway into the lecture and so what follows is unintelligible,
- be missing prior information or not have a good understanding of what went before, so the conceptual structures on which the lecture is based are absent,
- lack the interest, motivation, or desire to expend the mental effort to follow the presentation, understand the arguments, make sense of the positions, and validate the inferences.

INNOVATIVE & INTERACTIVE TEACHING METHODS

“Numerous theorists have discussed the significance of personal interaction in learning and development. For example, L. S. Vygotsky, one of the influential scholars in the field of educational psychology, discussed this issue. The second law of Vygotsky’s cultural historical theory states that all higher psychological functions (e.g., ability to control your attention, ability to develop an organized knowledge base) begin as social activities.¹ Interactive instructional strategies address the need for students to be active in the learning process and to interact with others. Students can strengthen their knowledge about teaching by interacting with you (their course instructor) and with their classmates. Interactive instructional strategies provides opportunities for students to strengthen their observational skills, listening skills, communication skills, and interpersonal skills.”

INNOVATIVE & INTERACTIVE TEACHING METHODS

- One factor that will strongly influence student participation in class discussions is the classroom climate. Your goal as a teacher will be to foster a classroom climate in which students feel free to contribute and debate ideas. Students will be more likely to participate in class activities if they perceive the classroom environment as friendly rather than evaluative, and suggests allowing time during the first class meeting for students to introduce themselves, their interests, and backgrounds.² Arranging desks in a circle or semi-circle so that students can make eye contact with each other as they contribute to class discussions is also important. If you want more information about how to establish a positive classroom climate in your pedagogy course, consider some of the tips in the **Classroom Climate**.

Classroom Climate

- The classroom climate has a profound effect on students' learning. The teachers differ in their ability to develop professional but positive emotional relationships with students; you can develop relational competence to offer students a warm invitation to join the classroom community. This relationship will increase students' receptivity to and enjoyment of you, your course, and the subject matter, thus uniting you and your students to achieve course goals

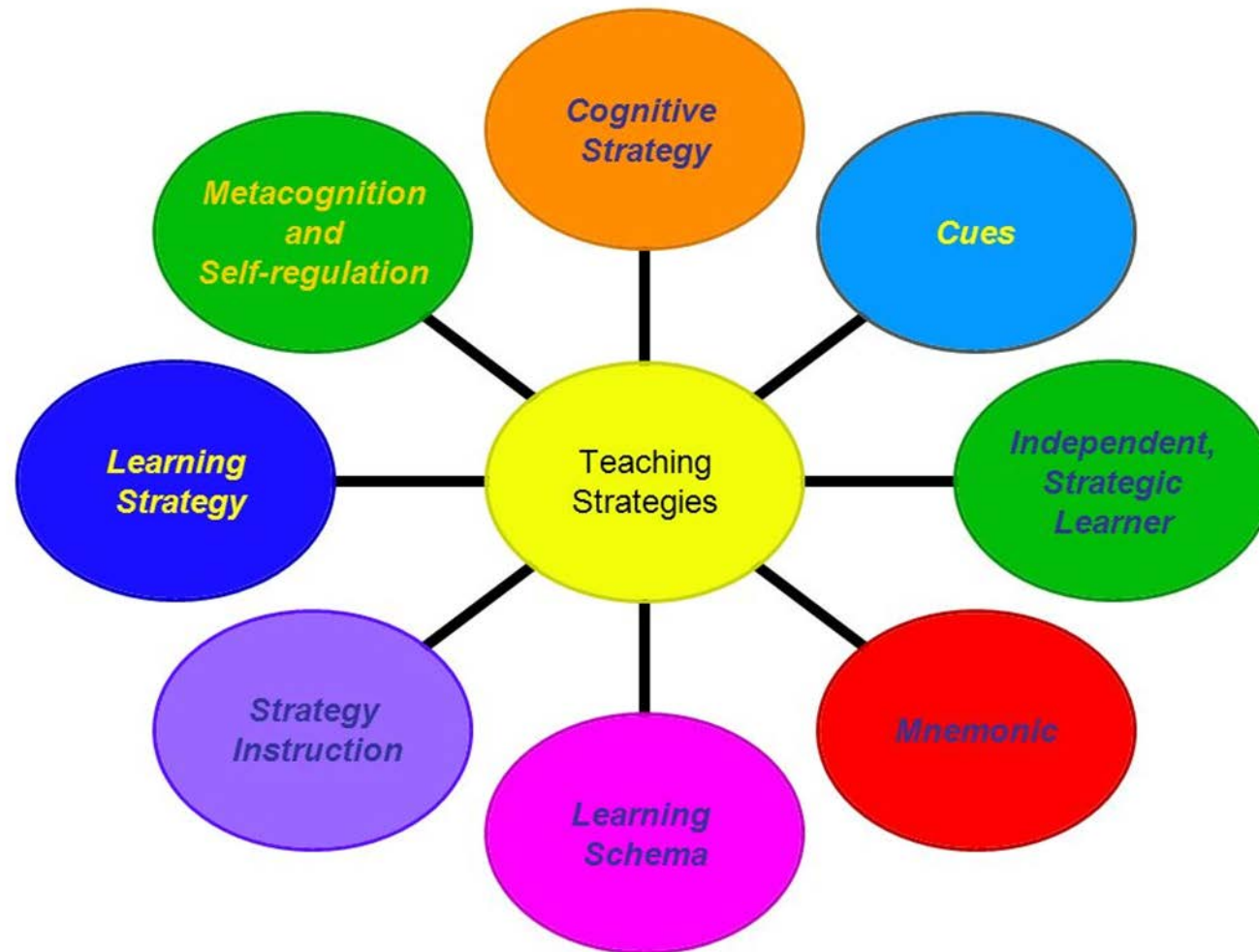


Skills for Modern Teachers

10 Skills for Modern Teachers



Teaching Strategies



10 Innovative Learning Strategies For Modern Pedagogy

1. Crossover Learning
2. Learning Through Argumentation
3. Incidental Learning
4. Context-Based Learning
5. Computational Thinking
6. Learning By Doing Science
7. Embodied Learning
8. Adaptive Teaching
9. Analytics Of Emotions
10. Stealth Assessment

Crossover Learning

Learning in informal settings, such as museums and after-school clubs, can link educational content with issues that matter to learners in their lives. These connections work in both directions. Learning in schools and colleges can be enriched by experiences from everyday life; informal learning can be deepened by adding questions and knowledge from the classroom. These connected experiences spark further interest and motivation to learn.

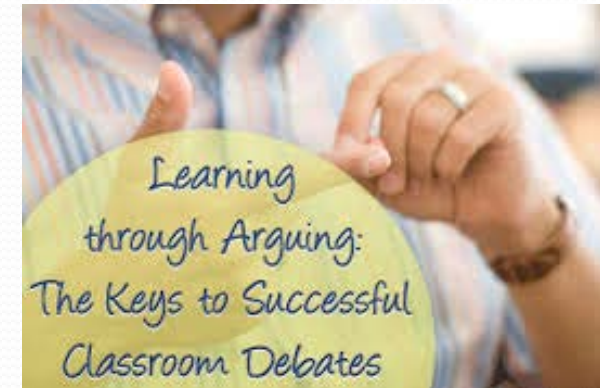
An effective method is for a teacher to propose and discuss a question in the classroom, then for learners to explore that question on a museum visit or field trip, collecting photos or notes as evidence, then share their findings back in the class to produce individual or group answers. These crossover learning experiences exploit the strengths of both environments and provide learners with authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings, the wider opportunity is to support learners in recording, linking, recalling and sharing their diverse learning events.

Crossover Learning

- An effective method is for a teacher to propose and discuss a question in the classroom, then for learners to explore that question on a museum visit or field trip, collecting photos or notes as evidence, then share their findings back in the class to produce individual or group answers. These crossover learning experiences exploit the strengths of both environments and provide learners with authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings, the wider opportunity is to support learners in recording, linking, recalling and sharing their diverse learning events.

Learning Through Argumentation

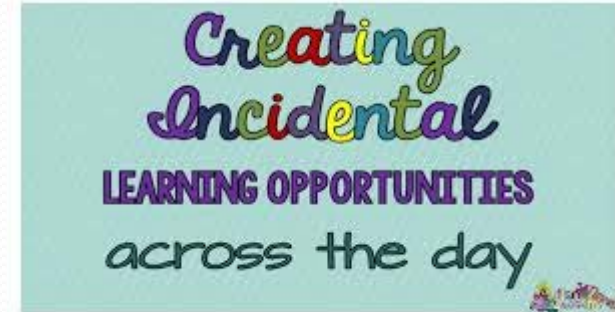
- Teachers can spark meaningful discussion in classrooms by encouraging students to ask open-ended questions, re-state remarks in more scientific language, and develop and use models to construct explanations. When students argue in scientific ways, they learn how to take turns, listen actively, respond constructively to others. Professional development can help teachers to learn these strategies and overcome challenges, such as how to share their intellectual expertise with students appropriately.



Incidental Learning

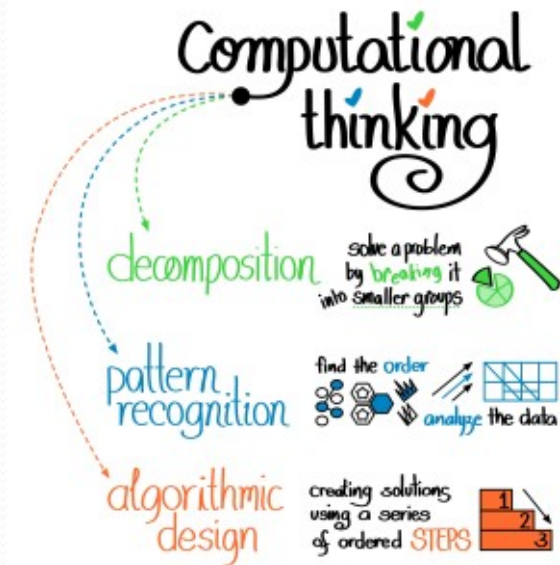
Incidental learning is unplanned or unintentional learning. It may occur while carrying out an activity that is seemingly unrelated to what is learned. Early research on this topic dealt with how people learn in their daily routines at their workplaces.

For many people, mobile devices have been integrated into their daily lives, providing many opportunities for technology-supported incidental learning. Unlike formal education, incidental learning is not led by a teacher, nor does it follow a structured curriculum, or result in formal certification. However, it may trigger self-reflection and this could be used to encourage learners to reconceive what could otherwise be isolated learning fragments as part of more coherent and longer term learning journeys.



Computational thinking

Computational thinking is a powerful approach to thinking and problem solving. It involves breaking large problems down into smaller ones (decomposition), recognizing how these relate to problems that have been solved in the past (pattern recognition), setting aside unimportant details (abstraction), identifying and developing the steps that will be necessary to reach a solution (algorithms) and refining these steps (debugging). Such computational thinking skills can be valuable in many aspects of life, ranging from writing a recipe to share a favorite.



Learning By Doing Science

Experiential learning is the process of learning through experience, and is more specifically defined as "learning through reflection on doing"

Hands-on learning is a form of experiential learning but does not necessarily involve students reflecting on their product. Experiential learning is distinct from rote or didactic learning, in which the learner plays a comparatively passive role.

It is related to but not synonymous with other forms of active learning such as action learning, adventure learning, free-choice learning, cooperative learning, service-learning, and situated learning.



Embodied Learning

Embodied learning involves self-awareness of the body interacting with a real or simulated world to support the learning process. When learning a new sport, Executive summary 5 physical movement is an obvious part of the learning process. In embodied learning, the aim is that mind and body work together so that physical feedback and actions reinforce the learning process.

For more general learning, the process of physical action provides a way to engage learners in feeling as they learn. Being more aware of how one's body interacts with the world can also support the development of a mindful approach to learning and well-being.



Adaptive Teaching

All learners are different. However, most educational presentations and materials are the same for all. This creates a learning problem, by putting a burden on the learner to figure out how to engage with the content. It means that some learners will be bored, others will be lost, and very few are likely to discover paths through the content that result in optimal learning. Adaptive teaching offers a solution to this problem. It uses data about a learner's previous and current learning to create a personalized path through educational content. Adaptive teaching systems recommend the best places to start new content and when to review old content. They also provide various tools for monitoring one's progress. They build on longstanding learning practices, such as textbook reading, and add a layer of computer-guided support. Data such as time spent reading and self-assessment scores can form a basis for guiding each learner through educational materials. Adaptive teaching can either be applied to classroom activities or in online environments where learners control their own pace of study.



Analytics Of Emotions

Automated methods of eye tracking and facial recognition can analyze how students learn, then respond differently to their emotional and cognitive states. Typical cognitive aspects of learning include whether students have answered a question and how they explain their knowledge. Non-cognitive aspects include whether a student is frustrated, confused, or distracted.

More generally, students have mindsets (such as seeing their brain as fixed or malleable), strategies (such as reflecting on learning, seeking help and planning how to learn), and qualities of engagement (such as tenacity) which deeply affect how they learn. For classroom teaching, a promising approach is to combine computer-based systems for cognitive tutoring with the expertise of human teachers in responding to students' emotions and dispositions, so that teaching can become more responsive to the whole learner.



Stealth Assessment

The automatic data collection that goes on in the background when students work with rich digital environments can be applied to unobtrusive, 'stealth', assessment of their learning processes. Stealth assessment borrows techniques from online role-playing games such as World of Warcraft, in which the system continually collects data about players' actions, making inferences about their goals and strategies in order to present appropriate new challenges. This idea of embedding assessment into a simulated learning environment is now being extended to schools, in topics such as science and history, as well as to adult education.

The claim is that stealth assessment can test hard-to-measure aspects of learning such as perseverance, creativity, and strategic thinking. It can also collect information about students' learning states and processes without asking them to stop and take an examination. In principle, stealth assessment techniques could provide teachers with continual data on how each learner is progressing.

Other Strategies

Planning

Quiz – 4-5 Rounds including Objective type and other types of questions

Role Play – Give a situation and ask students to enact to the situation provided

Case Analysis

Video/Movie Review -

https://www.youtube.com/watch?v=rS3Aq_2II-s

Tata Nano manufacturing plant

shifting from West Bengal to Gujarat



Organising

- Concept Map/Sketch – Event based on themes
- Case – Event Organising
- Brainstorming session linked to case
- Video and Audio reviews
- Jigsaw / Crossword



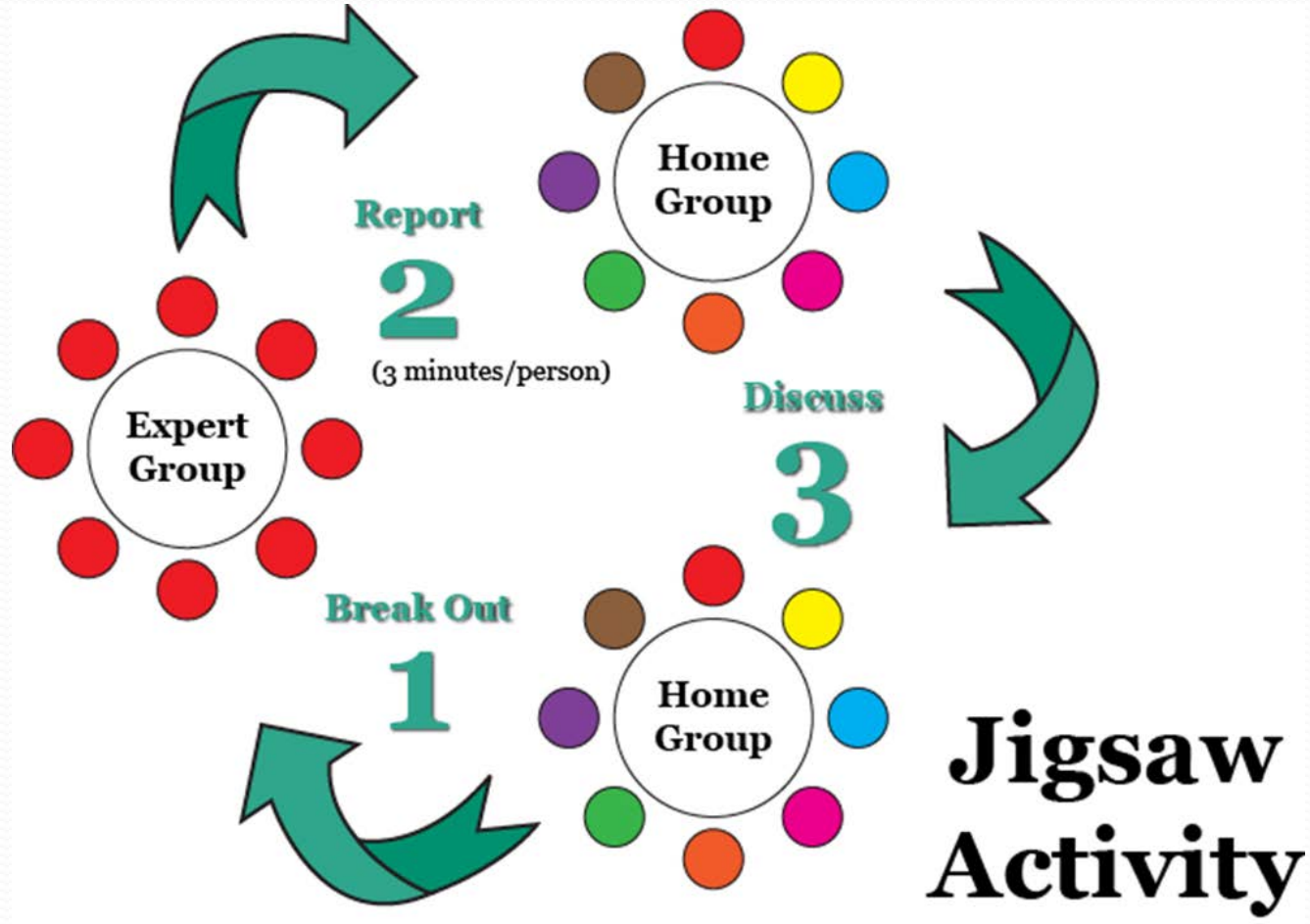
Staffing

- Role Play – Process of Staffing / recruiting
- Field Trip/Tour – Linked to Role Play, students will visit different industry sectors and collect information
- Collage
- Video/Audio reviews



Jigsaw

- Is a teaching technique invented by social psychologist Elliot Aronson in 1971.
- Students of a normal-sized class (26 to 33 students) are divided into competency groups of four to six students, each of which is given a list of subtopics to research.
- Individual members of each group then break off to work with the "experts" from other groups, researching a part of the material being studied, after which they return to their starting body in the role of instructor for their subcategory.
- The strategy is an efficient teaching method that encourages listening, engagement, interaction, peer teaching, and cooperation by giving each member of the group an essential part to play in the academic activity.
- Both individual and group accountability are built into the process.
- Jigsaws are a four-skills approach, integrating reading, speaking, listening and writing.



Core Thinking Skills



Other Methodologies

- Peer Education
- Webquest;
- Flipped Classroom

PEEr education

Peer education is a term widely used to describe a range of initiatives where young people from a similar age group, background, culture and/or social status educate and inform each other about a wide variety of issues.

- Leading actors of peer education methodology are:
- Students
- Peer Educators



PEEr education

Peer Education is a method in which students help others and learn by teaching.

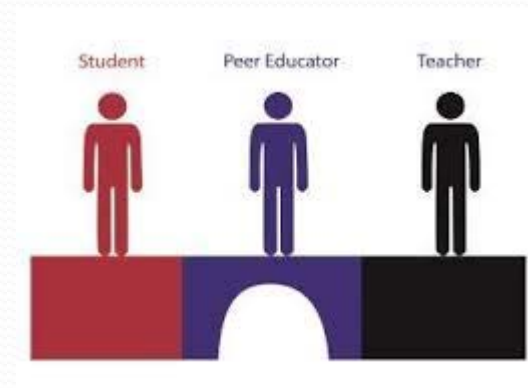
It is a process through which a talented student teaches another at the same educational level with the guidance of a teacher.



Who Can Be a Peer Educator?

An individual who has been trained, and is making deliberate efforts to motivate his/her peers to gain knowledge, skills and to change their attitudes, beliefs, and behaviors towards the desired change.

He/she has accepted and adopted the desired change and is therefore a role model to his/her peers



THE 5 ROLES OF A PEER EDUCATOR

There are five ways that peer educators can create change.

The five roles are:

- 1. Friend
- 2. Educator
- 3. Activist
- 4. Role Model
- 5. Team Member

Qualities of the peer Educator

- Willingness to volunteer
- A good role model
- A good communicator
- Good interpersonal skills, including listening skills
- Self-confidence
- Accepted and respected by their peers
- A non-judgmental attitude
- Enthusiastic
- Accessible by the peers

...

Tutoring	Focuses on academic learning, usually in schools e.g. paired reading
Be friending	Supporting and encouraging the creation of friendships between young people in order to help those who feel isolated and lonely
Listening & Counselling	Provision of one-to-one support by peers to young people under stress with problems or needing to talk
Mentoring	One-to-one relationship between young people providing support before someone is troubled or in difficulty i.e. pairing children coming from primary into secondary school with older pupils
Mediation	Aims to resolve disagreements and arguments between other young people and reduce conflict and victimisation

WEbquest

WebQuest:

- is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web.
- can be created using various programs, including a simple word processing document that includes links to websites
- can be a versatile tool for teaching students.
- can be used to introduce new knowledge, to deepen knowledge, or to allow students to test hypotheses as part of a final interaction with knowledge. The integration of computers and the Internet also increase students' competency with technology. By having specific task lists, students can stay on task. By having specific sources of information, students can focus on using resources to answer questions rather than vetting resources to use which is a different skill altogether.

In inclusive classrooms (classrooms that have students of varying exceptionalities interacting such as learning disabled, language impaired, or giftedness) tasks can be

differentiated to a skill level or

collaborative groups for the same level of task.



Webquest Structure

A WebQuest has 6 essential parts:

- Introduction;
- Task;
- Process;
- Resources;
- Evaluation;
- Conclusion.



Webquest Structure

- **Task-** The task is the formal description of what the students will produce in the WebQuest. The task should be meaningful and fun. Creating the task is the most difficult and creative part of developing a WebQuest.
- **Process-** The steps the students should take to accomplish the task. It is frequently profitable to reinforce the written process with some demonstrations
- **Resources** - The resources the students should use. Providing these helps focus the exercise on processing information rather than just locating it. Though the instructor may search for the online resources as a separate step, it is good to incorporate them as links within the process section where they will be needed rather than just including them as a long list elsewhere. Having off-line resources like visiting lecturers and sculptures can contribute greatly to the interest of the students.
- **Evaluation** - The way in which the students' performance will be evaluated. The standards should be fair, clear, consistent, and specific to the tasks set
- **Conclusion** - Time set aside for reflection and discussion of possible extensions

Flipped Classroom

Flipped classroom is an instructional strategy and a type of blended learning that reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom. It moves activities, including those that may have traditionally been considered homework, into the classroom. In a flipped classroom, students watch online lectures, collaborate in online discussions, or carry out research at home and engage in concepts in the classroom with the guidance of a mentor.



Flipped vs traditional

Flipped

Teacher instructs lesson at home
(video / podcast / book/ website)

Students work in class.

- Deeper understanding of concepts, applications, and connections to content are made.
- Students receive support as needed.

Traditional

Teacher instructs

Students take notes

Students follow guided instruction

Teacher gives assessment

Students have homework

Advantages of Flipped classroom

- **Students have more control**

In a flipped classroom, it is possible for students to have increased input and control over their own learning. By providing short lectures at home, students are given the freedom to learn at their own pace. Students may pause or rewind the lectures, write down questions they may have, and discuss them with their teachers and peers in class.

This also allows students who need more time to understand certain concepts to take their time reviewing the material without getting left behind, and receive immediate assistance from teachers and classmates. As a result, this can not only improves student achievement, but improves student behavior in class as well.

It promotes student-centered learning and collaboration

...

- **It promotes student-centered learning and collaboration**

Flipped classrooms allows class time be used to master skills through collaborative projects and discussions. This encourages students to teach and learn concepts from each other with the guidance of their teachers. By allowing students to partake in their own learning, they are able to own the knowledge they achieve, which in turn builds confidence. Furthermore, teachers are given the ability to identify errors in thinking or concept application, and are more available for one-on-one interaction.

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- **Lessons and content are more accessible (provided there is tech access)**

By making video lectures available at all times online, students who are forced to miss class due to illness, sports, vacations or emergencies, can catch up quickly. This also gives teachers more flexibility when they themselves are sick and also eliminates make-up assignments.

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- **It can be more efficient**

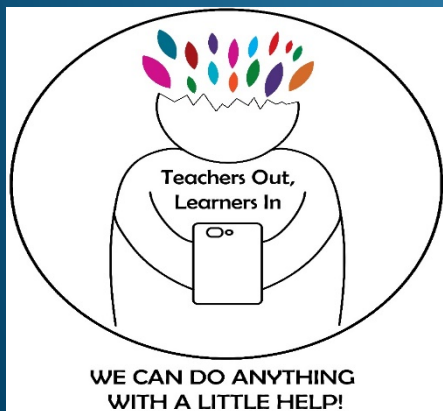
Done properly, in a flipped classroom, kids can have more time to be kids, whether that means more free time, or more academic practice.

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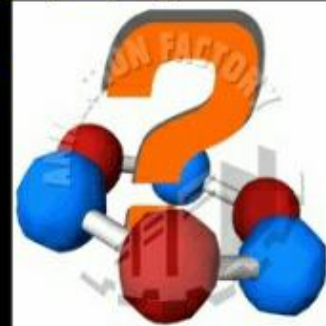
The 21st century skills

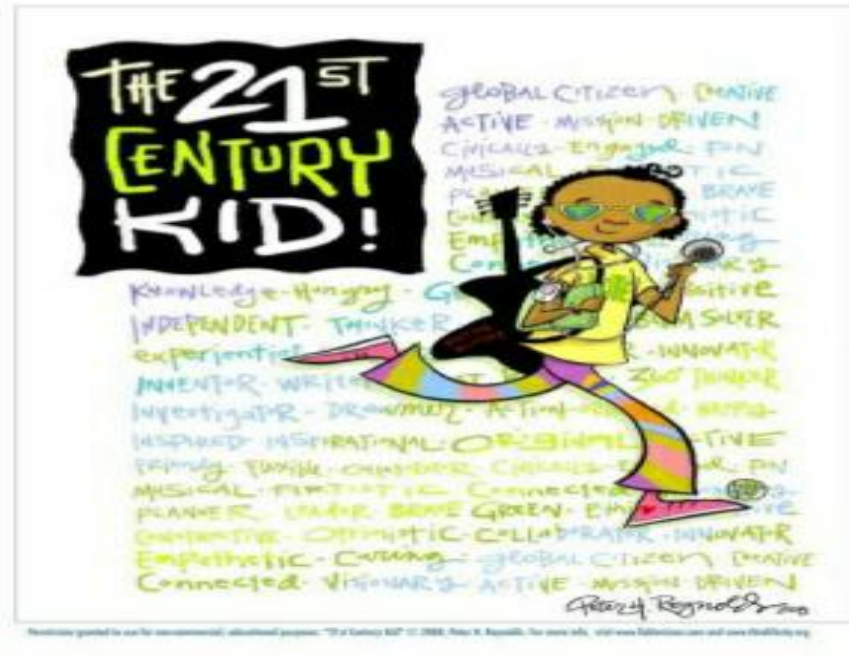
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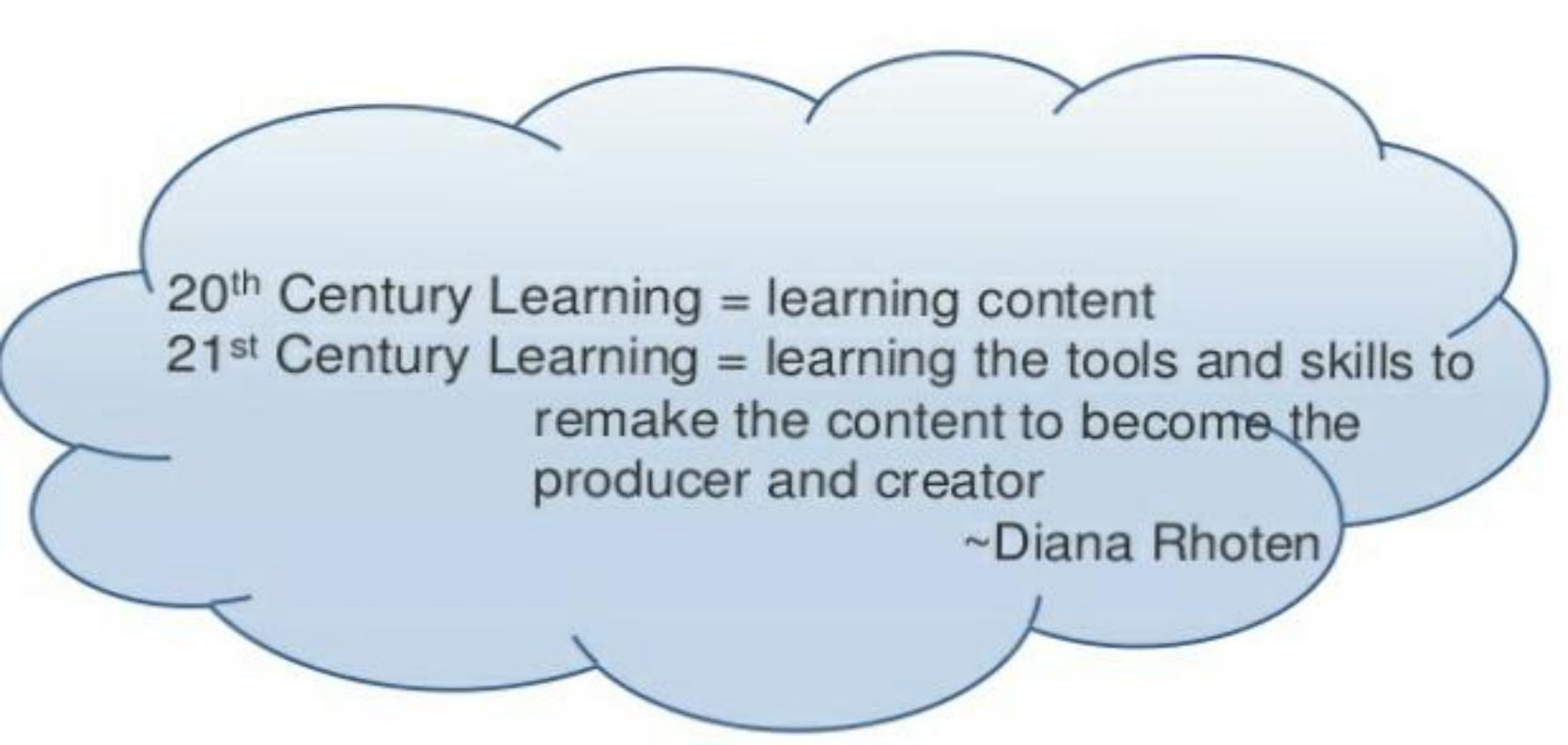
Erasmus+

What skills do you
need for the 21st
century





*The 21st
Century
Learner*



20th Century Learning = learning content

21st Century Learning = learning the tools and skills to
remake the content to become the
producer and creator

~Diana Rhoten



21st century teaching and learning must be based on the following broad skills:

1. Collaborative inquiry to solve real and relevant problems
2. Creativity and innovation
3. Critical thinking and problem-solving
4. Communication





Technology, then, is what supports and enables this kind of learning and engages students by:

1. Providing learning—anywhere, anytime
2. Supporting teacher innovation and capacity building
3. Enhancing equity of access through the use of personal devices and internet resources
4. Using social media to support inquiry and communication while building social responsibility and digital literacy
5. Strengthening connections with parents

Characteristics of a 21st Century Teacher

21st Century Educators are able to adapt

1. the curriculum and the requirements to teach to the curriculum in imaginative ways;
2. software and hardware designed for a business model into tools utilizable by a variety of age groups and abilities to a dynamic teaching experience.
3. teaching style to be inclusive of different modes of learning.

Characteristics of a 21st Century Teacher

The Adaptor

The 21st Century teacher, as a communicator, must be fluent in tools and technologies that enable communication and collaboration anywhere, anytime. They do not only know how to do communication, they also know how to facilitate, stimulate, control, moderate, and manage communication.

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The 21st Century teacher, as a learner, must

- be lifelong learners;
- continue to absorb experiences and knowledge;
- endeavor to stay current;
- change and learn as the horizons and landscape changes.

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The Learner

The 21st Century teacher, as a visionary, must have rich imagination to:

- see the potential in, grasp, and manipulate the emerging tools and web technologies;
- look at others' ideas and envisage how they would use these in their class;
- looks across the disciplines and through the curricula and make links that reinforce and value learning in other areas; and
- make other fields as leverage to reinforce their own teaching and the learning of their students

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The Learner

The Visionary

The 21st Century teacher, as a leader,

- leads by example by championing processes and modeling skills—walks the talk;
- is an advocator, early adopter—a maverick;
- set clear goals and objectives crucial to the success of a project

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The Learner

The Visionary

The Leader

The 21st Century teacher, as a model, should model

- the behaviors that they expect from their students—tolerance, acceptance, a wider view than just their curricula areas, global awareness, and reflection
- reflective practice by monitoring and evaluating their teaching via blogs, twitter and other medium where educators can look both inwards and outwards

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The Learner

The Visionary

The Leader

The Model

The 21st Century teacher, as a collaborator, must be able to

- leverage collaborative tools like LinkedIn, Ning, Blogger, Wikispaces, Bebo, MSN, MySpace, Slideshare, Pinterest, Instagram and Facebook to enhance and captivate our learners
- Share, contribute, adapt and invent using these collaborative tools

Characteristics of a 21st Century Teacher

The Adaptor

The Communicator

The Learner

The Visionary

The Leader

The Model

The Collaborator

The 21st Century teacher, as a risk taker, must

- have a vision of what s/he wants and what the technology can achieve to be able to identify goals and facilitate learning
- take risks and sometimes surrender to the students' knowledge and use the strengths of these digital natives to
 - ✓ understand and navigate products
 - ✓ have students teach each other

What must 21st century teachers do to develop critical thinking in students?

Open-Minded

**Engage in
Problem Solving**

**Analyze,
Reason,
and Evaluate**

Collaborate with Others

**Reflect on
Learning**

**Make
Real-World
Applications**

**Think Critically
and Creatively**

**Communicate
Clearly and
Accurately**

- Commitment
- Competence
- Creativity
- Compassion
- Character

CRITICAL THINKING SKILLS

- Critical thinking is that mode of thinking — about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it.

HOW DO WE HELP STUDENTS TO DEVELOP IT?

STEP 1: Question your assumptions

Example: Why do we feel the need to eat in the morning, even when we're not hungry? Why do we assume that we'll fail when we haven't even tried?

STEP 2: Don't take information on authority until you've investigated it yourself.

Example: Get in the habit of using your instinct to investigate questionable pieces of

STEP 3: Question Things

Example: How does ball lightning
work?

PROBLEM-SOLVING SKILLS

1. Model a useful problem-solving method.

Example: Show students by your example how to be patient and persistent and how to follow a structured method

2. Teach within a specific context

Example: Teach problem-solving skills in the context in which they will be used

3. Help students understand the problem

Example: Guide them in understanding what they have to know.

4. Ask questions and make suggestions

Example: How do you think.....works? I think it will work better if.....

COLLABORATIVE SKILLS

1. Teach collaboration skills

Example: Lead students when they are having group discussion.

2. Value diversity

Example: Mix students with different backgrounds in a group.

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PUBLIC-SPEAKING SKILLS

1. Ideas / content generation

Example: Give them guidance.

2. Structure

Example: Help them with the script.

3. Body language

Example: Correct them when they move around too much.

LEADERSHIP SKILLS

1. Self confidence

Example: Always give encouragement

2. Authenticity

Example: Not restricting students when they are involved in leading their friends.

3. Sense of humor

Example: Not telling students to be serious the whole time.

Some Quick Suggested TECHNOLOGY TOOLS

Provide crossword and word search puzzles for your students in order to address vocabulary or to introduce new topics in your lessons.

You may visit this site:

<http://puzzlemaker.school.discovery.com>

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