Name of the tool	Flipped Classroom
Origin or ownership of the method	The flipped classroom is a new pedagogical model which was created in 2004 by Jonathan Bergmann and Aaron Sams, two Chemistry teachers who worked together at Woodland Park High School in Woodland Park, Colorado.
Goals of the tool	Flipped classroom is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.
How the method corresponds to the common guiding principles of GRT	The GRT project aims at: • supporting teachers in establishing creative and innovative learning environments • improving students' involvement in classes, so to tackle the school drop-out phenomenon A flipped classroom is an instructional strategy and a type of blended learning, which aims to increase student engagement and learning by having students' complete readings at their home and work on live problem-solving during class time. 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 while engaging in concepts in the classroom with the guidance of a mentor. The flipped classroom intentionally shifts instruction to a learner-centered model in which time in the classroom is used to explore topics in greater depth and create meaningful learning opportunities while students are initially introduced to new topics outside of the classroom.
Preparation needed for implementation of the method	You are a teacher and you want to prepare a lesson based on the flipped classroom methodology. Here are some tips: • plan to spend time developing course content and in-class activities. • plan to experiment and iterate • engage teaching assistants • get to know your technology • spend a class session setting expectations • let students know what they stand to gain

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Materials needed	The following tools are listed from most basic to most sophisticated and can be used alone or in tandem to make flipped classrooms more engaging: • Google Drive • YouTube • Teachem • The Flipped Learning Network • Camtasia Studio • Edmodo or Schoology
Method description	Presentation, current event discussions, peer reviewing, project-based learning, and skill development or concept practice. Because these types of active learning allow for highly differentiated instruction, more time can be spent in class on A flipped classroom is an instructional strategy and a type of blended learning, which aims to increase student engagement and learning by having students' complete readings at their home and work on live problem-solving during class time. 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 while engaging in concepts in the classroom with the guidance of a mentor. In the traditional model of classroom instruction, the teacher is typically the central focus of a lesson and the primary disseminator of information during the class period. The teacher responds to questions while students defer directly to the teacher for guidance and feedback. In a classroom with a traditional style of instruction, individual lessons may be focused on an explanation of content using a lecture style. Student engagement in the traditional model may be limited to activities in which students work independently or in small groups on an application task designed by the teacher. Class discussions are typically centered on the teacher, who controls the flow of the conversation. Typically, this pattern of teaching also involves giving students the task of reading from a textbook or practicing a concept by working on a problem set, for example, outside school. The flipped classroom intentionally shifts instruction to a learner-centered model in which time in the classroom is used to explore topics in greater depth and create meaningful learning opportunities while students are initially introduced to new topics outside of the classroom. In a flipped classroom, content delivery may take a variety of forms. Often, video lessons prepared by the teacher or third parties are used to deliver content, although online collaborative discussions, digital research, and text readings may be

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	used. It has been claimed that the ideal length for the video lesson is eight to twelve minutes. Flipped classrooms also redefine in-class activities. In-class lessons accompanying flipped classrooms may include activity learning or more traditional homework problems, among other practices, to engage students in the content. Class activities vary but may include: using math manipulatives and emerging mathematical technologies, in-depth laboratory experiments, original document analysis, debate or speech higher-order thinking skills such as problem-finding, collaboration, design and problem solving as students tackle difficult problems, work in groups, research, and construct knowledge with the help of their teacher and peers. A teacher's interaction with students in a flipped classroom can be more personalized and less didactic, and students are actively involved in knowledge acquisition and construction as they participate in and evaluate their learning. Go to our YouTube channel for the explanatory video on flipped classroom.  https://youtu.be/ReT7Z4pNI-E
Detailed instructions	The 6-step guide to flipping your classroom: 1. Plan Figure out which lesson in particular you want to flip. Outline the key learning outcomes and a lesson plan. 2. Record Instead of teaching this lesson in-person, make a video. A screencast works. Make sure it contains all the key elements you'd mention in the classroom. 3. Share

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	Send the video to your students. Make it engaging and clear. Explain that the video's content will be fully discussed in class. 4. Change Now that your students have viewed your lesson, they're prepared to actually go more in-depth than ever before. 5. Group An effective way to discuss the topic is to separate into groups where students are given a task to perform. Write a poem, a play, make a video, etc. 6. Regroup Get the class back together to share the individual group's work with everyone. Ask questions, dive deeper than ever before. After the six steps, Review, Revise, and Repeat! Some other strategies that can be used in in-class activities include: • Active learning. Allow students to apply concepts in class where they can ask peers or instructors for feedback and clarification • Peer instruction. Students can teach each other by explaining concepts or working on small problems • Collaborative learning. Collaborative learning activities could increase student engagement, enhance student understanding, and promote collective intelligence • Problem-based learning. Class time can be spent working on problems that can last for the duration of a semester • Discussions or debate. Give students the opportunity to articulate their thoughts on the spot and to develop their arguments in support of their opinions or claims
Experiments, conducted in the different schools, involved in the project	The methodology was tested at 39 Secondary school by history teacher Gergina Blagoeva with 7th graders. 4 test lessons were done with class 7A and 3 test lessons with class 7B. History adapted lesson test 7A grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 15 Nov 2021.

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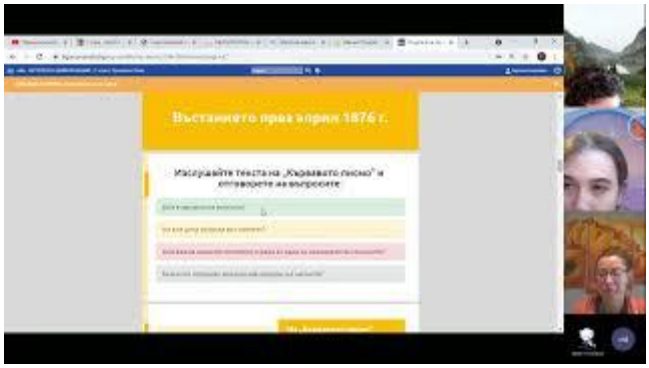
https://youtu.be/WgyDd1P0AIU

History adapted lesson test 7A grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 18 Nov 2021.

https://youtu.be/yUbSCIfCogo

History adapted lesson test 7A grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 22 Nov 2021.



https://youtu.be/s4jf-2ho128

History adapted lesson test 7A grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 29 Nov 2021.

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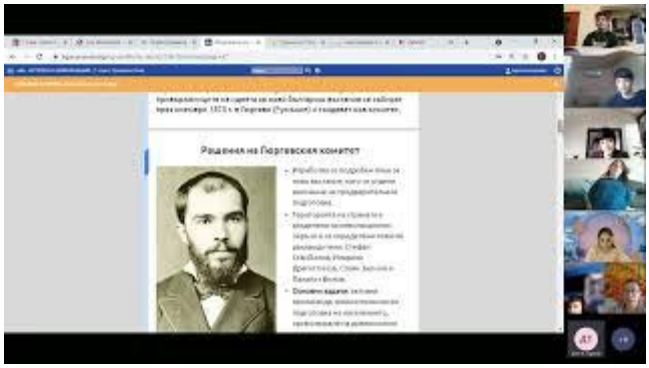
https://youtu.be/KJJc-dVcaJo

History adapted lesson test 7B grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 18 Nov 2021.

https://youtu.be/HVXE9n_MDv0

History adapted lesson test 7B grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 24 Nov 2021.



https://youtu.be/UbqaV94u5t4

History adapted lesson test 7B grade 39 Secondary school "Petar Dinekov" (in Bulgarian), conducted on 1 Dec 2021.

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https://youtu.be/6yrRneSg7bU

The test done in Bulgaria with adaptations of lessons in history with 7th graders was evaluated at the end and the experience was considered by 17 students in the following manner:

Was it easier for you to understand the material through this way of presentation?

64.7% answered YES.

Was this way of presenting the lesson more distracting for you?

52.9% said that it was not.

What is your motivation for learning after having the material presented this way?

58.8% confirmed that they are more motivated to learn, 29.4% do not find a huge difference and 11.8% do not consider themselves motivated to learn.

Would you like more lessons to be adapted in this way?

47.1% say definitely yes, 11.8% are uncertain and 41.7% would prefer their lessons in the traditional manner.

The tool was also tested in 4th primary school in Nea Moudania with 6th graders and their class on personalities worth remembering (Social and Political Education). The tool was combined with role-playing and music in the classroom tools.

This lesson aims at helping pupils learn about famous people who fought for democracy, peace and social justice.

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Before the lesson: The teacher shares a link of a classic animated movie (Robin Hood) which the pupils watch in order to identify the issues of social injustice and oppression.

During the lesson: the teacher uses the movie as a springboard to talk about social justice and the principles of democracy. The pupils are organized in groups. They use the Internet to find information about Nelson Mandela, Mahatma Gandhi, Abraham Lincoln and Mother Teresa. A representative of each group makes a brief presentation of the historical personality they worked on. Then, a class discussion follows to find out what these people have in common.

Some pupils play the role of candidates for presidency and deliver their campaign speeches. The citizens (pupils-rest of the class) evaluate each candidate, focusing on whether the issue of social justice is included in their campaign promises.
Students in groups select important thoughts of these important people from the internet and create posters, which they present to their classmates and post in the classroom for constant feedback.

The pupils sing and choreograph the song 'Heal the world' and each group creates a poster with the aforementioned historical personalities' most famous quotes.

A video from the work done: https://youtu.be/U7hLXnA4Lw0

A video of "Heal the world" song the students performed: https://youtu.be/NFeaOB_epCI

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	The tool was also used in Portugal with 5th graders. Download the report here. The tool was also used in Greece in a History lesson by Stergianni Mertsioti. Download the report here. Adapted lesson plans in informatics, provided by Margarita Farlinkova, are also available in Bulgarian language. Download them here.
Evaluation tools	*Questions, which a teacher can use in order to monitor his/her progress with this tool and establish its usefulness and feasibility:* Was it hard to prepare the material to be used at home? After introducing the activities, was it easier or harder for the students to understand and engage with the material? What is the learning motivation after the lesson? Have there been any changes? Would you personally prefer to have more lessons of this type or to return to traditional lessons? How would you evaluate the usefulness of the tool? What feedback did you receive from the students, if any? Was the adapted lesson more distracting than the regular lesson? Was there a change in the marks of the students, after using the adapted approach? Was there an increase in information retainment?

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