

Triseum Pilot: Future Classroom Scenario

Title of the scenario:

Introduction to Variant Limits - first lesson with the game

Names of author(s)

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Relevant Trends/s

Write the trend(s) or trends the Scenario is intended to respond to.

e.g. <http://www.allourideas.org/trendiez/results>

- Student Centered Learning
- Game Based Learning & Gamification
- STEM Learning
- Edutainment
- Flipped Classroom

Learning Objectives and Assessment

What are the main objectives? What skills will the learner develop and demonstrate within the scenario? (e.g. 21st Century Skills). How will the progress in achievement be assessed, ensuring the learner has access to information on their progress so they can improve?

The objectives of this learning scenario are to incorporate game based learning into the classroom through the use of Variant Limits. The game is used to teach math concepts (limits, asymptotes or intermediate value theorem), to brushing up the students' limits vocabulary, encourage self-learning and learning by mistakes.

Progress will be assessed on Triseum Portal where teacher can check time played by every student, number of sessions, current zone, last activity and number of attempts of solving a particular puzzle, number of info button clicks, time spent on solving a particular puzzle and so on. Also summary of classroom progression can be checked.

Students will play some quizzes on Quizlet and write traditional test at the end of block of classes.

Learner's Role

What sort of activities will the learner be involved in?

Students will have to create their own accounts in Variant Limits Portal and log into the game. They'll know how to move around in the game and interact with objects. They'll discover how to solve the puzzles with info button help and finish the game.

In the next steps:

- Students will discuss maths problems using a proper mathematical language.
- They will play some quizzes.
- At the end of course will take a summative test.

Tools and Resources

What resources, particularly technologies, will be required?

- PC or Mac computer with Variant Limits installed <https://triseum.com/variant-limits/>
- Smartphone
- Whiteboard

Learning space

Where will the learning take place e.g. school classroom, local library, museum, outdoors, in an online space?

School classroom with PCs or Macs with Variant Limits installed
Home - PCs or MACs required with Variant: Limits installed <https://triseum.com/variant-limits/>
Online

Future Classroom Scenario Narrative

Describe the main ideas of the scenario.

Introducing students to the idea of game based learning using Variant Limits.
Students should know idea of limits of the sequences and some of Zeno's paradoxes (for example Achilles and turtle <https://www.youtube.com/watch?v=3vNlf2zGLaE>)
At the beginning of the first lesson, students will be engaged by presentation of game trailer.
<https://www.youtube.com/watch?v=Ys1ShVbkdqQ>

Then they'll create their own accounts in Triseum Portal <https://portal.europe.triseum.com>, log into the game and discover how to move around and control objects. Some explanation should be given considering the idea of using and interpreting colours of orbs within graphs of function and benefiting from using info buttons (it's necessary because students usually try to move forward by checking every possibility).

The following activities are taking place in the classroom: creating accounts, getting to know how to move around and control objects and solving a few puzzle within the Variants Limit. Later students will be playing at home. During the next lessons in the classroom, the problems raised by students and puzzles with a large numbers of solving attempts (needed information can be found on instructor portal) should be discussed.
Students progress will be assessed both, on the instructor portal and by traditional test.

During the next lesson, some quizzes on Quizlet can be used.
<https://quizlet.com/4qfr90>
<https://quizlet.com/4qfrtf>
<https://quizlet.com/4qdcr5>

Learning Activities

Add the link to the Learning Activities created with Learning Designer (<http://learningdesigner.org>)

<https://v.gd/Wzn91L>

This Future Classroom Scenario has been developed as part of the Triseum Pilot project. Find more Future Classroom Scenarios in the Future Classroom Lab website (<http://fcl.eun.org/directory>) and learn how to create your own scenarios by using the Future Classroom Toolkit (<http://fcl.eun.org/toolkit>).



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