

Introduction to VR - VEGA Teaching Scenario



Topic: Introductory scenario for the teachers and students who want to use VR goggles (especially Oculus/Oculus 2) in the classroom

Subject: IT, support for all the other subjects

Age / Grade: any / regarding the VR goggles producer: 13+

Short description of the online game in this scenario:

This scenario is a set of practical exercises which will help you to start with VR goggles and with introducing them to your students. The apps which we recommend to use in this process are:

- Oculus First steps for Quest 2 A free app where you can take your first steps in VR and get to know the controllers.
- Oculus First contact First Contact is an official Oculus experience built for Oculus Quest. The user can experience the
 'presence' in VR, exploring moments that feel as real. You'll find there a magic box full of toys and a robot guide; make a
 new friend, then touch, tap, bounce, hold and throw things, and play together.

- <u>Elixir</u> Another free demo app, where you can try the hand tracking functionalities of oculus. Very useful and amusing game, although it requires quite a high English level to follow the instructions.
- Richie's Plank Experience This app invokes one of the strongest possible emotions related to the presence in the VR world. Very short, helps in sharing the "WOW" effect with new VR users. However it is advised only for those who are ready for some stronger emotions. You need to be careful especially with the students with the fear of heights or space. On the other hand, it may be very attractive to show to those who think that there's nothing which can surprise them in a gaming world.
- <u>VR Chat</u> This app can be an example of how to start social interactions in VR. You can invite your students to different worlds, play games, test avatars. Advantage of this application is that it can be used also on desktop and mobile devices, so you can engage more students, even those who don't wear goggles at a certain moment.

Introduction to the scenario

This scenario is a couple of tips on how to go through the first experience with VR goggles and how to lead a class through it. It starts from practical activities with wearing the goggles and handling the controllers and presents shortly some of the VR apps which can be helpful with getting acquainted with this equipment.

Learning outcomes:

The students are able to:

- Use VR goggles (Oculus Quest in particular)
- improve English language skills

Curriculum: Meta material for all the subjects

Formative assessment

Number of students: Depending on the number of VR headsets and the space available, not more than 3-4 per one goggles.

Duration (estimated time/number of lessons): 2 lessons (2 x 45 minutes)

Prerequisites (necessary materials and online resources):

- VR Oculus Quest headsets
- All the required apps installed and updated
- Mobile devices for casting the picture from goggles to make controlling possible
- Bigger screen to present the view from goggles to bigger audience
- Proper WiFi network
- Supporting teacher(s)

Before the program begins (preparatory work for teacher):

- Ensure the sufficient number of VR headsets and paired mobile devices
- Learn the mechanics of the games and apps yourself
- Make sure that the goggles are fully charged and you have spare batteries for controllers
- Find at least one supporting teacher who will help you to maintain the engagement of the whole group, especially those students who don't wear goggles at the moment.

Lesson one: Introducing VR goggles

(45 minutes)

Teacher starts this lesson with a short introduction to VR and AR. It shouldn't be too elaborative. If there are not other reasons, it will be enough to present such concepts like:

- Virtual Reality
- Augmented Reality
- Mixed Reality
- Metaverse
- The most typical ways of using VR goggles (standalone, PC connected, Google cardboard) and perhaps the most popular and affordable brands (Oculus, HP, HTC and others)

You may use this word list as well as the first chapter of VEGA publication as supporting tools.

Then the teacher presents the goggles to the class. It is important to tell as much as possible about practical issues with using goggles to avoid problems on the later stages, when you'll be involved in presenting specific apps and games. Therefore it is crucial that the teacher is also well prepared before the lesson and that the teacher tested the goggles and games before. For preparation for this part, you may use this tutorial. You can also share it with your students.

For starting playing with Oculus Quest headsets, the important issues to be mentioned are:

- How to wear goggles (placing on head, tightening the stripes, regulating lenses, using distancer for those who wear glasses)
 and controllers (holding, using protective stripes, button functions, especially "flat" buttons like oculus button)
- Safety rules (proper space and the role of guardian)
- Procedures in case of motion sickness

All of those can have a form of presentation or discussion with students, especially when there are active or VR experienced persons in the group.

Then you may start with practical exercises. Pick one of the students for the first presentation in front of the whole class. Explain once more, how to wear the goggles and controllers. For the first use we recommend to wear the controllers first and hang them on the wrists using the stripes. It is easier to show everything, before the person wears goggles and becomes blind to the "real world".

When the student has the goggles and controllers on, it is time to start playing. It's good to cast the view from goggles to the bigger screen so the rest of the class can follow what is happening.

Guide your student through the whole process:

- Turn on the goggles
- Set up the guardian
- Explain how the menu works
- Help with first use of the controllers
- Start the "Oculus First Steps" apps and let the student go through it

When this is finished, the other student can go the same way. You may start using other headsets in parallel in other places in the classroom. The other teachers or experienced students can assist you and other students.

Lesson two: Practicing with VR goggles apps

(45 minutes)

This lesson is mostly the continuation of using goggles and first apps dedicated for beginners. Of course, you can devote more time to this process, if you have it. This 45 minutes is just a minimum time to let a bigger number of students have a first contact with VR. Arrange the space and time according to the volume of your class and available devices. Use the apps listed at the beginning of this scenario. Below you can find some tips on how to proceed with them.



1. Oculus First steps

This app is actually self-explanatory. Just follow the steps. It is good to know that it will not move to the games (shooting or dancing) until you try all the toys from the table.

2. Oculus First contact

Similarly to the first one. It is a very easy and intuitive game. You can play it until the students get bored or the time is finished.



3. Elixir

This is the next step in the VR world. This game helps in practicing controller-free play. In order to follow the game, you need to listen to the instructions given by the narrator. Make sure that the students know English well enough or help them with translation.

4. Richie's Plank Experience

Be careful with this app. On the one hand it is very attractive for most of the students and evokes a lot of emotions, but on the other hand it can be harmful for sensitive persons (in one of the versions you "jump" from a skyscraper). Good solution for those who want to try it but can be too frightened to have full experience will be painting in the sky or hero academy.



5. VR Chat

It's a nice app to practice social functionalities of VR. Try to involve more than one student at a time. You can also mix VR and non-VR students or invite students from another class or school. Find a peaceful world, where you can meet without crowds and try to have a conversation. A Chinese Garden or Ancient Museum is good for that. To have more fun, try to find new avatars. Be careful of motion sickness. If a student feels bad, let her or him stop for a while or for good.

Try not to lose a sense of time and book some last minutes of the lesson for at least a short summary and discussion with the students. It is important that all of them feel self-confident in the VR world in order to fully enjoy and learn through the other games.