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The EDUBOT Solution

a comprehensive guide to understand Edubot e-learning support system (WP3 result)

EDUBOT Solution is a free, multi-language software solution for schools, teachers, and even individual students.

EDUBOT provides a user-friendly, intuitive e-learning system specifically designed to support adaptive learning and differentiation. It can be an optimal solution in situations like differentiated learning in classes, the tutoring process to catch up to a desired knowledge level, or preparation for critical exams.

What this document is about

(WP3 results explained)

- Intro: Welcome to **EDUBOT!** What is in it for you?
- Introducing **EDUBOT Student App**
 - includes: EDUBOT Assistant functions in Student App
- Introducing **EDUBOT Teachers' Platform** (aka EDUBOT Tool)
 - includes: EDUBOT Assistant functions on the Teachers' Platform
- Presenting the structure of the Edubot e-learning support system
 - includes: Making adaptive routes work to suite your purpose — AI adaptive route settings explained

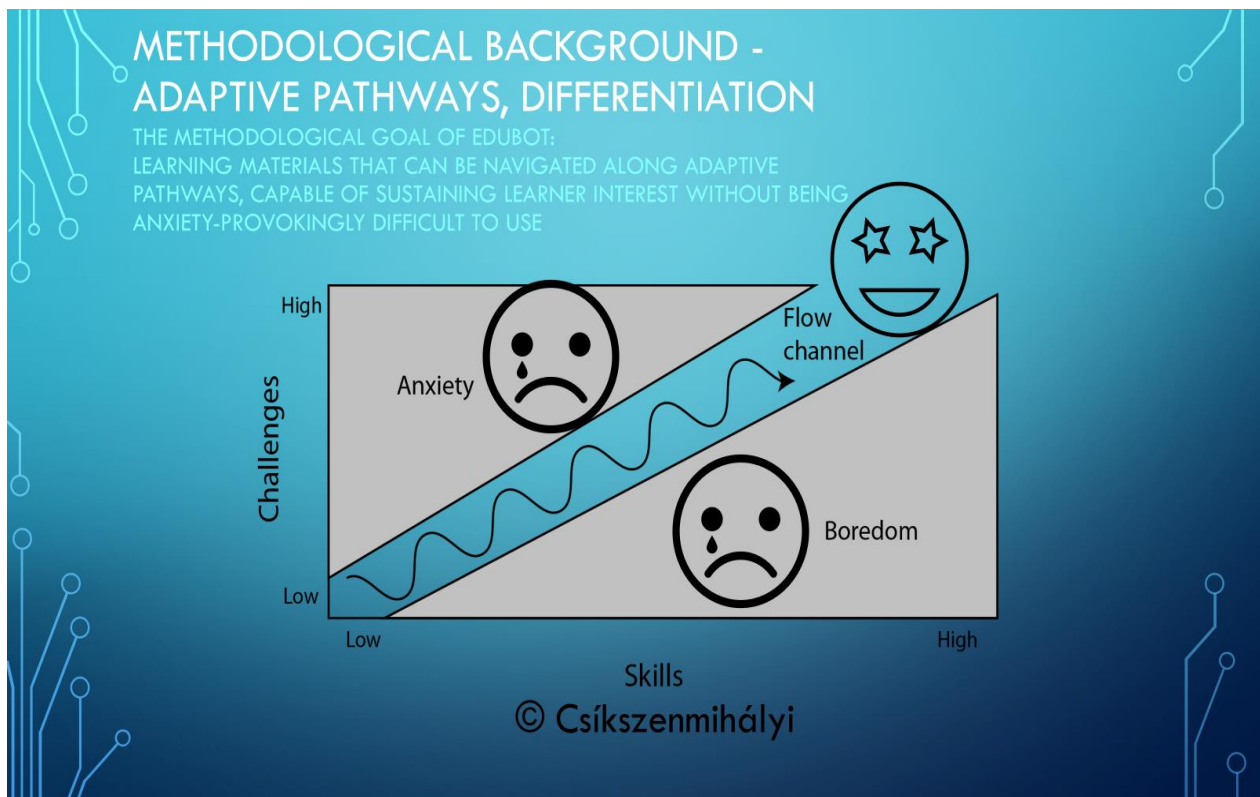
Table of contents

What this document is about	1
Table of contents	2
Intro: Welcome to EDUBOT	3
Introducing EDUBOT Student App	7
Student App functions	7
The learning process in the Student App	8
Introducing EDUBOT Teachers' Platform	18
How can you benefit of EDUBOT as a teacher?	18
Use an existing Edubot adaptive Learning Route in your own group	21
Copying a Learning Route: Create your own route!	25
Browse and copy public modules to create a Learning Route	31
Create your own new content	33
Ask the Assistant to support content creation	35
Gamification and motivation in Edubot	36
Analysing Results and Downloading Reports	38
Route reports	42
Personal results in the group	45
Aggregate personal results	46
Pairing adaptive digital learning and personal tutoring	47
How to create performance clusters?	50
Technical Structure of the EDUBOT Solution	54
General structure	54
Managing Groups, creating Content Modules and Contents to Groups with Learning Routes	55
Linear and Adaptive Learning Routes explained	57
Orientational prompts for the AI Assistant: settings of the adaptive routes	62
Extreme options in adaptive settings for black belt adventurers	66

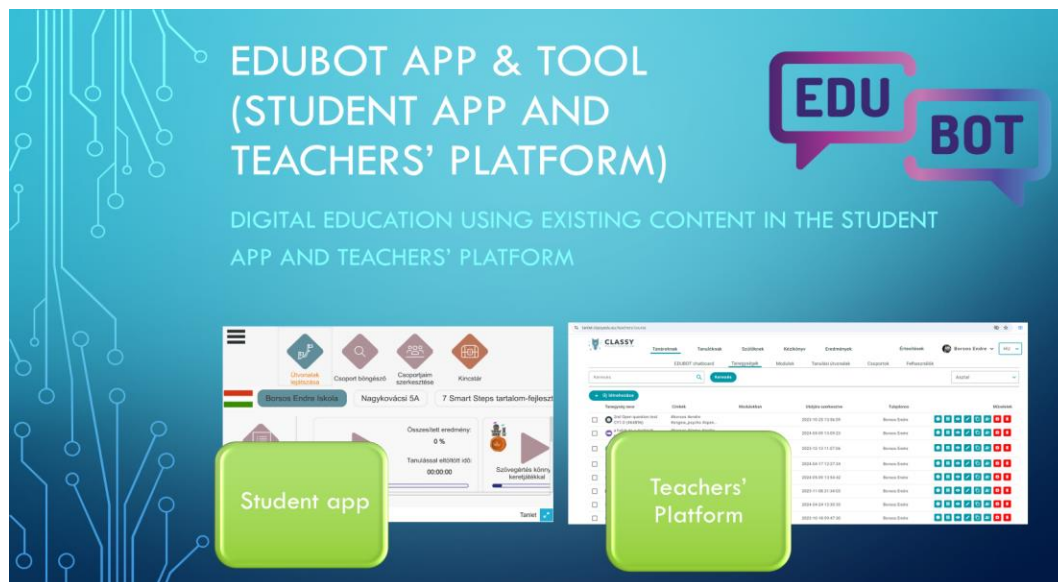
Intro: Welcome to EDUBOT

EDUBOT is a complex e-learning solution that provides AI-powered adaptive pathways, transforming any educational content into an engaging challenge accessible to all students.

Leveraging AI technology, the system analyzes student interactions to create customized learning pathways that target individual skill gaps. This personalized method guarantees that all students have equal chances to progress and achieve success, fostering inclusivity and diminishing educational inequalities.



The Solution is formed of three main elements: **EDUBOT Student app**, the **EDUBOT Teachers' Platform** and the backend structure, also integrating AI solutions referred to as **EDUBOT AI Assistant**.



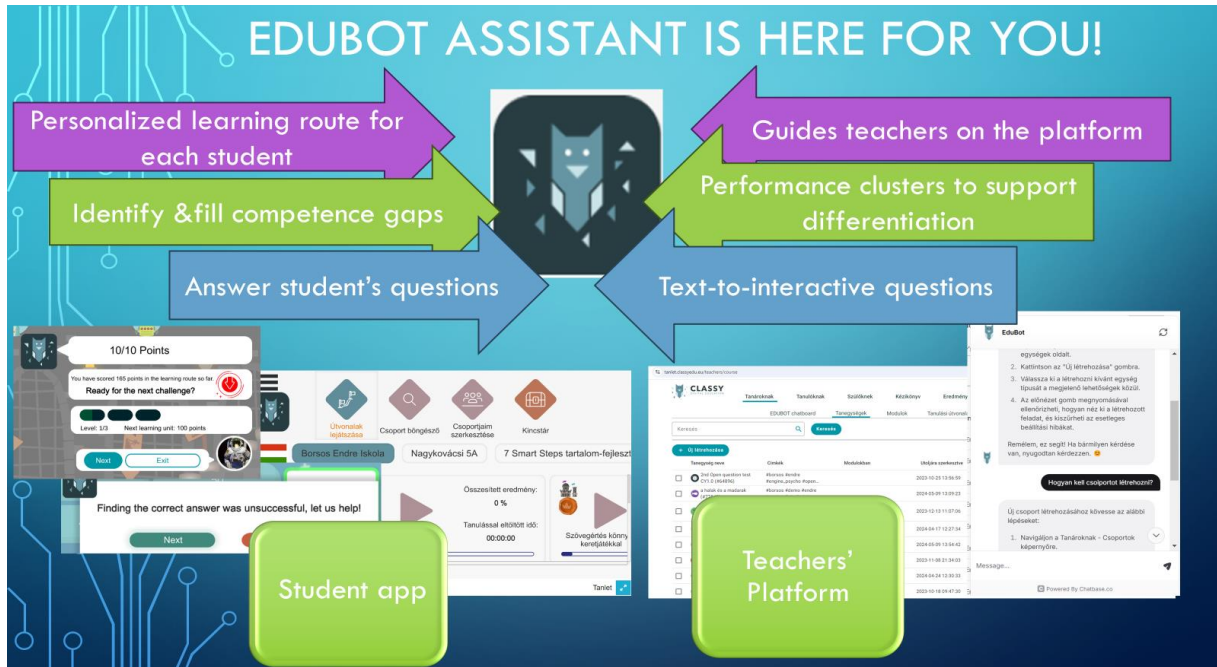
EDUBOT Student App is available in Google Play Store and Apple App Store, as well as a WebGL version accessible through web browsers. The app facilitates the learning process by providing adaptive learning routes and motivational framework games.

The app provides free access to guest visitors, so anybody can visit all contents even without registration.

EDUBOT Tool, also referred to as Teachers Platform or Interface, was created to facilitate the work of the teachers, serving content development and handling of learning groups, routes, and reports in an intuitive and easy way.

Furthermore, the introduction of the **EDUBOT AI Assistant** functions created a unique character for the EDUBOT solution, supporting both teachers and students.

1. The **AI Assistant offers support to users of the Teachers' platform**. It can be inquired about the various functions of the platform, and it supports content creation with the “text-to-interactive questions” function. Additionally, by establishing performance clusters within or between student classes, the Assistant facilitates the integration of digital learning into the classroom experience and presents a fantastic opportunity for differentiated instruction.
2. The **Assistant guides and supports the students in the learning process**. The applied AI algorithm is able to identify competence gaps in case a student cannot solve a certain task and offers solutions to fill the gap. In the case of a complex math task, the algorithm can offer various support to the student, like knowledge elements and helping questions, or—if nothing else works—an explanation of the task. The students can also address direct questions to the Assistant. It will reply based on the information available in the learning material (no public information is used).



It's time to try out EDUBOT!

You can access the **Teachers' platform** via any browser: <https://edubot.classyedu.eu/login>

Once you registered to the Platform, you can also reach the Student app in the same browser.

If you are a student and you are using a laptop or desktop computer, you should register/login to the **Student App** via this link: <https://edubot.classyedu.eu/app/>

Any registration is also valid for the Teachers' Platform.

If you are using a mobile device (phone or tablet), try out the Android or the iOS application by downloading it from the Google Play Store, respectively, Apple App Store. Scan the respective QR code from the slide below.

Note: You can access the EDUBOT contents even without registration by visiting the App as a Guest.

A Comprehensive Guide to EDUBOT

TEACHERS' PLATFORM:
EDUBOT.CLASSYEDU.EU

Scan for iOS:



STUDENT APP:
EDUBOT.CLASSYEDU.EU/APP

Scan for Android:



- Free registration
- All contents and all functions are free
- The student app can be accessed by visiting guest too, without registration

Attention! If you are using a mobile device, please always download the respective native app! Web browsers will not provide optimal performance on mobile devices!

EDU BOT

Student App and Teachers' platform can both be accessed with the same registration. Once you register, you will have full access to both tools.

Student app

Teachers' Platform

Tanulmány neve	Címek	Munkáltság	Utolsó tankezelés	Felhasználó	Műveletek
2024-09-09 13:09:23	2024-09-09 13:09:23	Boros Endre	2024-09-09 13:09:23	Boros Endre	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
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2024-09-09 13:09:23	2024-09-09 13:09:23	Boros Endre	2024-09-09 13:09:23	Boros Endre	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
2024-09-09 13:09:23	2024-09-09 13:09:23	Boros Endre	2024-09-09 13:09:23	Boros Endre	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
2024-09-09 13:09:23	2024-09-09 13:09:23	Boros Endre	2024-09-09 13:09:23	Boros Endre	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

You will find some basic workflow descriptions in this document on using the Student App and the Teachers Platform.

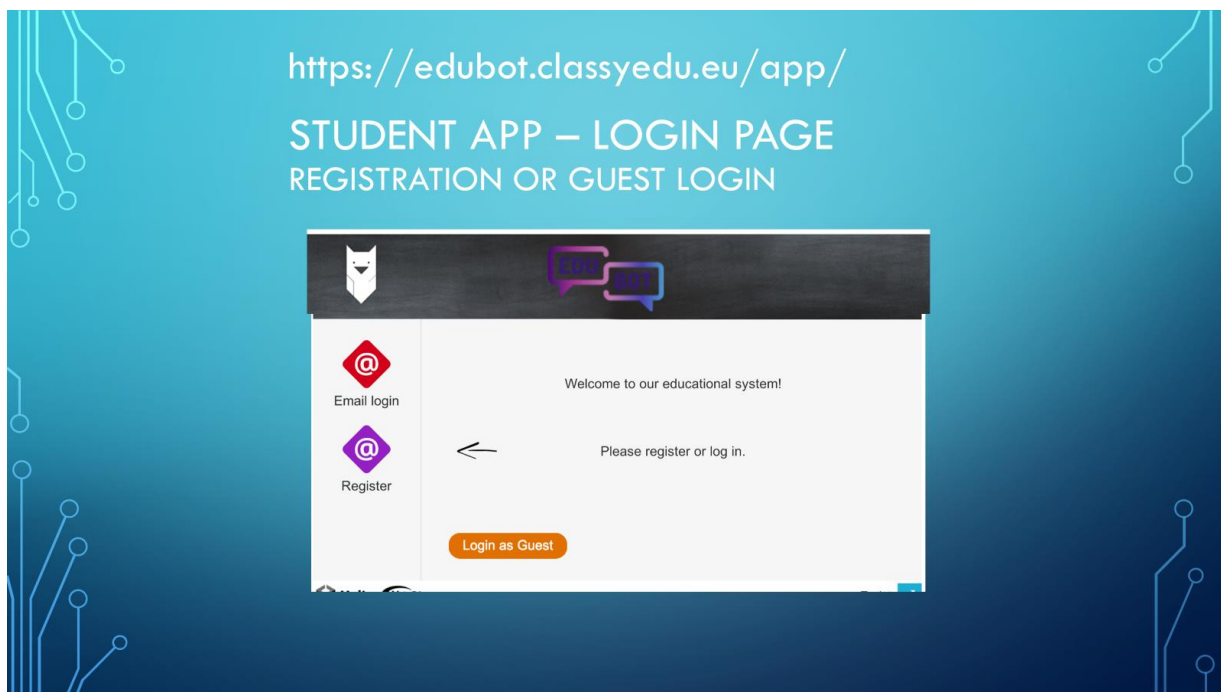
For more detailed instructions, please refer to the [Edubot Methodology](#) to learn how to handle the Teachers' Platform, respectively, to the [Student Handbook](#) to learn more about the Student App.

See you in EDUBOT!

Introducing EDUBOT Student App

EDUBOT Student App is designed to be easy to handle for students of all age groups. It is available as a native application in the Google Play Store and Apple App Store, as well as in a WebGL version accessible through web browsers.

The App provides free access to guest visitors, so anybody can visit all contents even without registration. Just press “Guest login” on the login screen, and you are in.



However, if you are here as a student looking for a serious learning session, you should register so that you can come back to the app any time and continue your learning process where you have quit it.

Check out the following tutorial for a step-by-step guide to registration:

[Tutorial to registration](#)

If you are a teacher and you want to operate one or more student groups, you can do that on the Teachers' Platform.

Student App functions

The Student App is designed to be intuitive and easy to handle. Also, it has rich functionality to cover all areas of use.

The app facilitates the learning process by providing adaptive learning routes and motivational framework games.

Features of the student app

- Registration/Log in**
 - registration
 - login
 - login as a guest (without registration)
- Settings and notifications**
 - set the application language
 - enable/disable animations in motivational games, indicator tables within and between superunits,
 - exit/logout
 - delete account
- Playful learning pathways**
 - select learning groups to view the associated learning paths
 - learning pathways
 - within the routes:
 - go to the next unit,
 - back to the previous unit,
 - information about the learning unit,
 - send a failure report from the unit, exit from learning.
 - browse curricula
- Group browser**
 - public study groups browsing, subscribe at
- Managing my groups**
 - view and sign up invited groups
 - unsubscribe from groups
- Treasury**
 - see rewards you collected
 - use the coins you earned to play a game

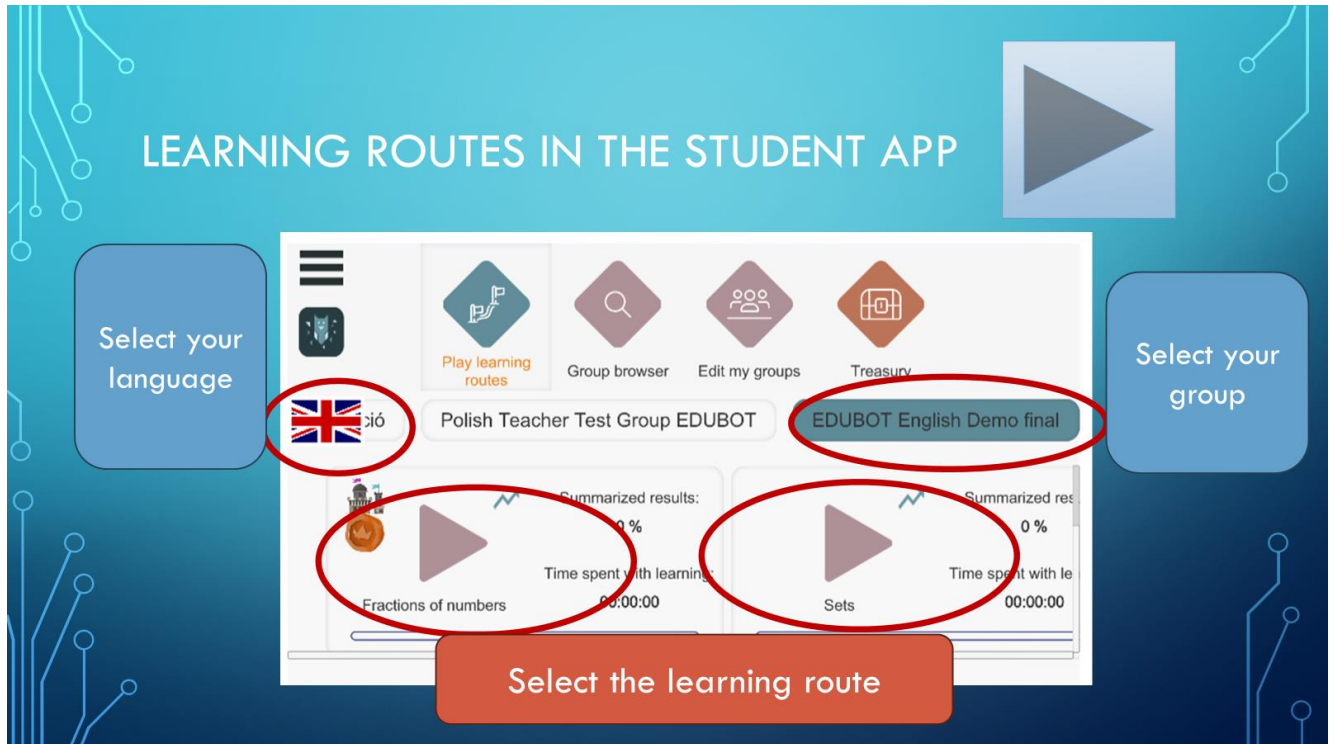
The infographic also includes a small screenshot of the app's main interface on the right side, showing various icons and a navigation menu.

A detailed guide on the Student App can be found in the Student's Handbook:

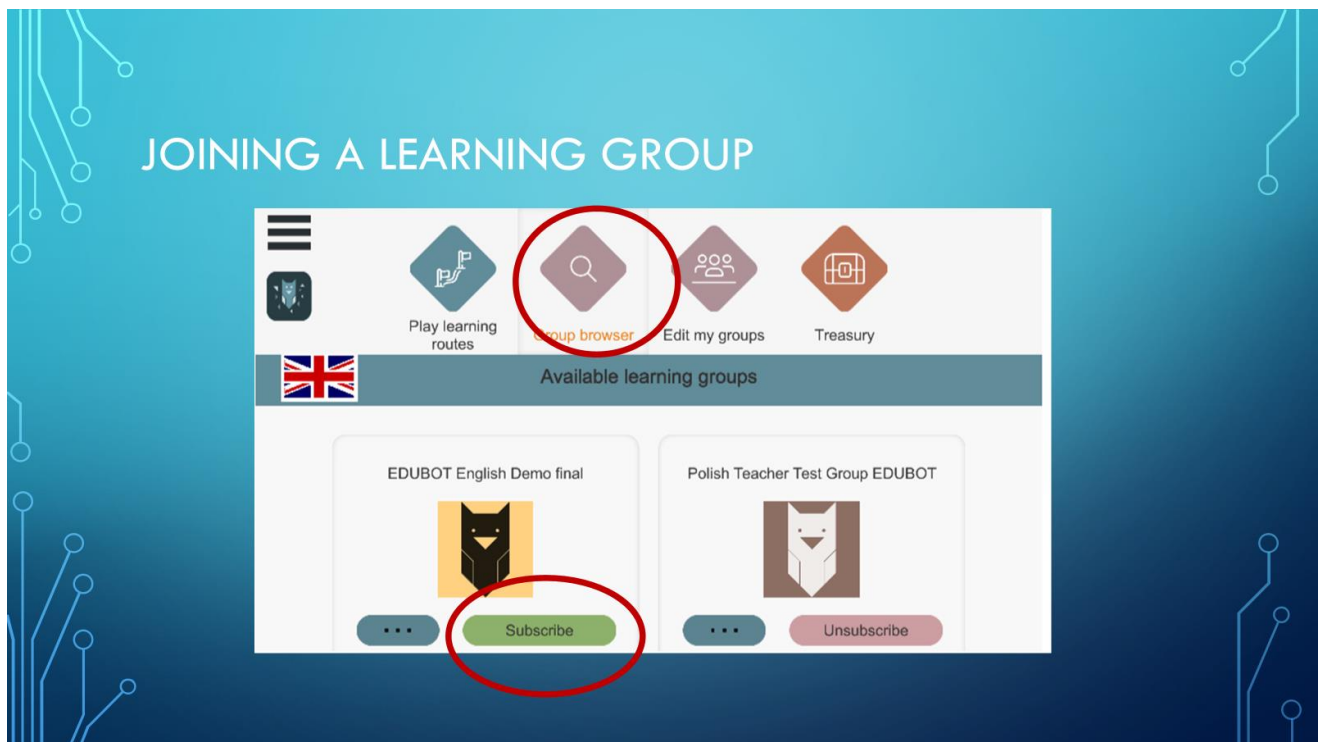
<https://userguide.classyedu.eu/student-handbook>

The learning process in the Student App

In the Student App, contents are organized in Learning Routes related to learning groups.



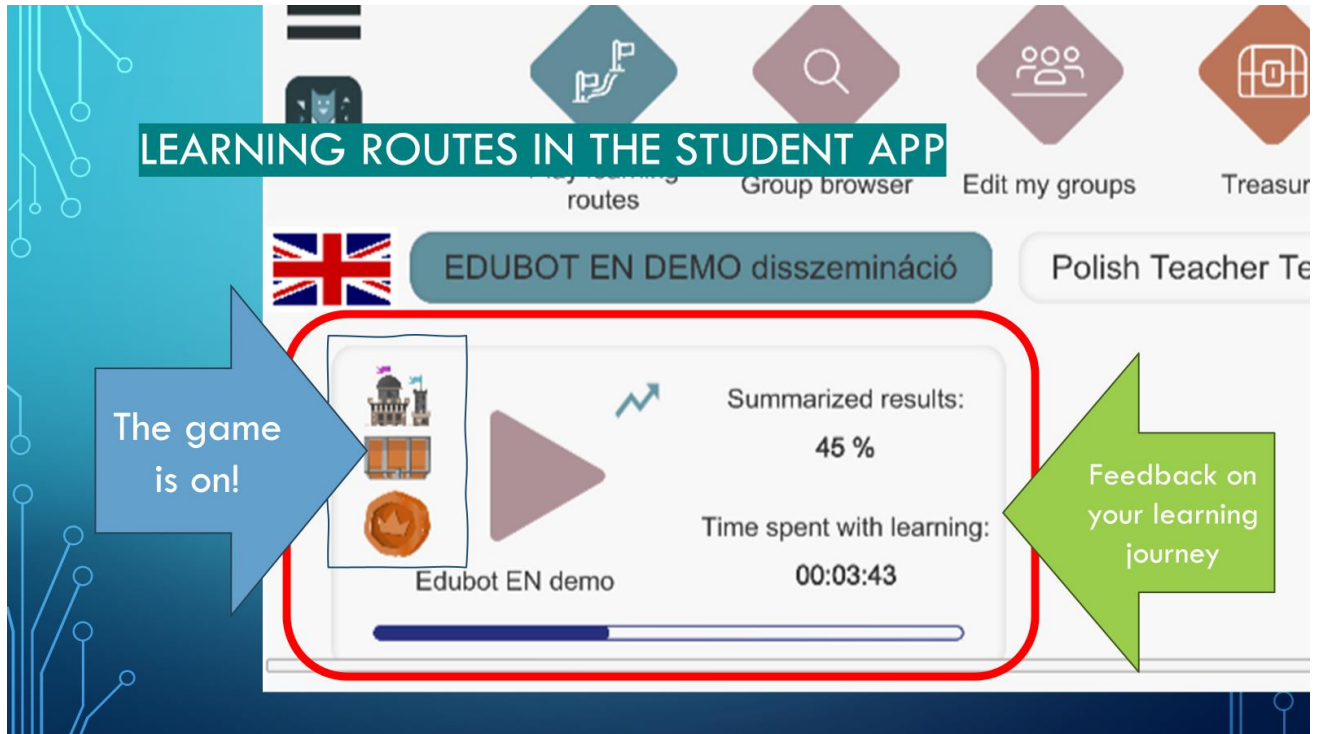
To access the EDUBOT contents, you should select your language, select the relevant group and push the “Play” button of the learning route you want.



A Comprehensive Guide to EDUBOT

If you cannot find the desired group, you may want to check it in the Group browser. Public groups are listed here, and you can join them by clicking on "subscribe". You can join as many groups as you wish.

Now let's go back to playing a learning route.



On the icon of the learning route, you can see some information displayed.

The castle, the treasure box, and the coin mean that the route has a framework game associated with it.

The little arrow indicates that this is an adaptive route, meaning that you will be guided through the route by the EDUBOT Assistant.

You will also find feedback information regarding your advancement in the route: the results you achieved, the time you spent learning, and the progress you made.

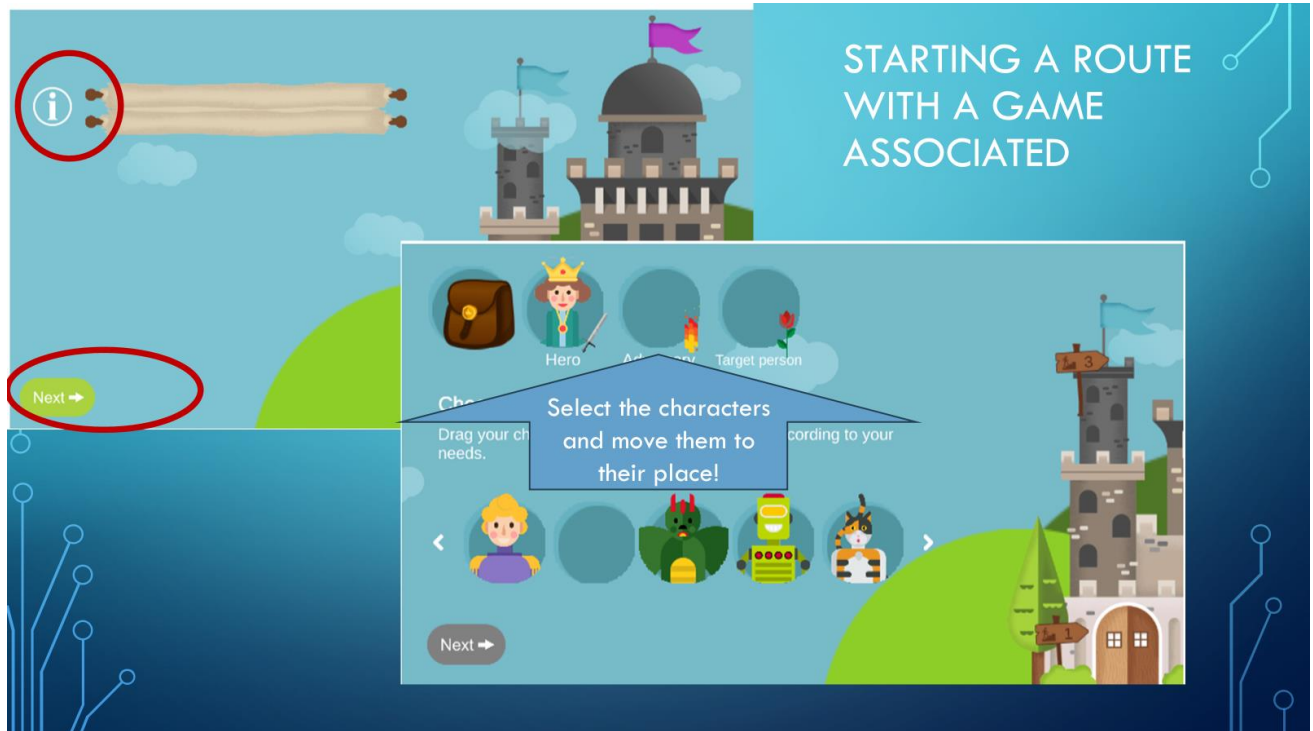
Once you push the "Play" button, your learning route will start.

If your route has no game associated with, your learning experience will start immediately.

If there is a game in your route, you will see an intro screen.

Information for second-time users:

You will always get to this screen, even if you have completed a part of the route in the past. Don't worry, you will continue the route at the position where you left it. You just have to select again the role-players in the game.



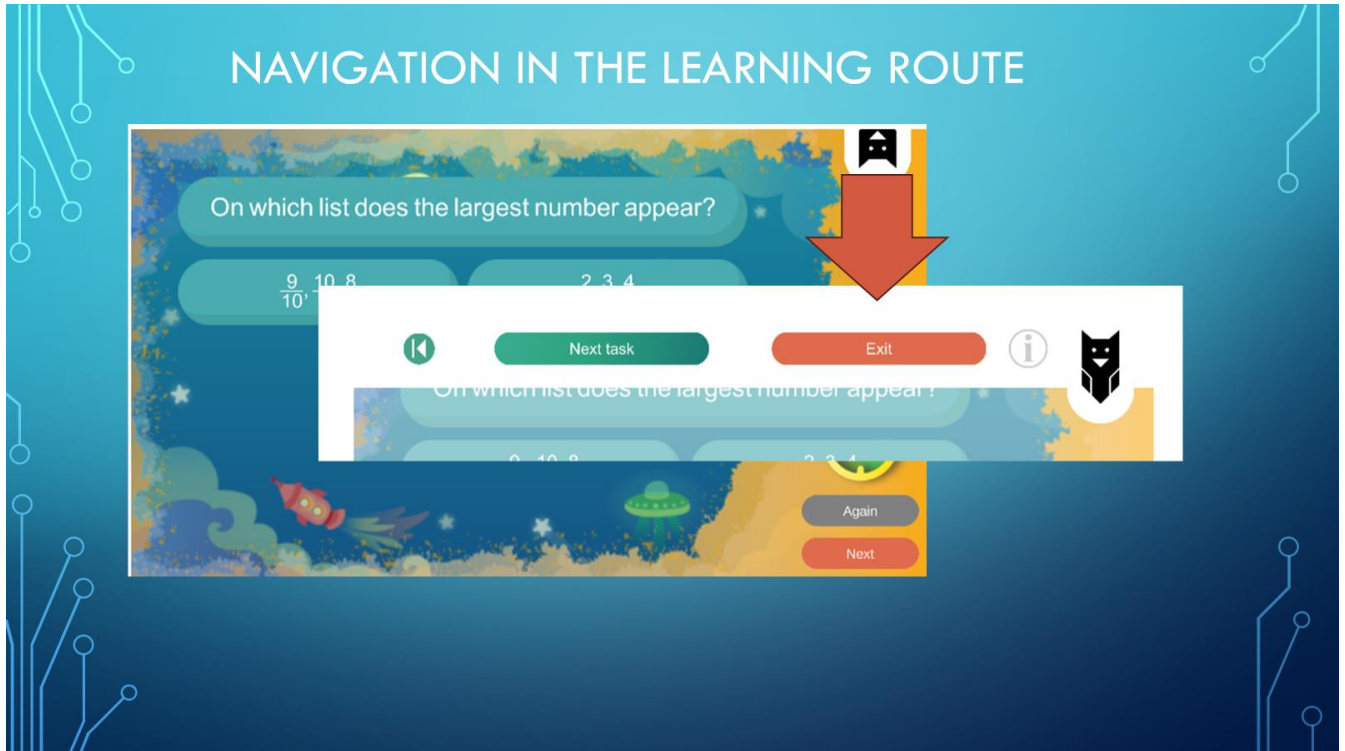
If you are not familiar yet with the game, you can check the rules by clicking on the info button. Otherwise, just proceed to the Next screen.

Here you will find the characters you can play with. Select your hero, your enemy and the target person you want the hero to rescue in this mission.

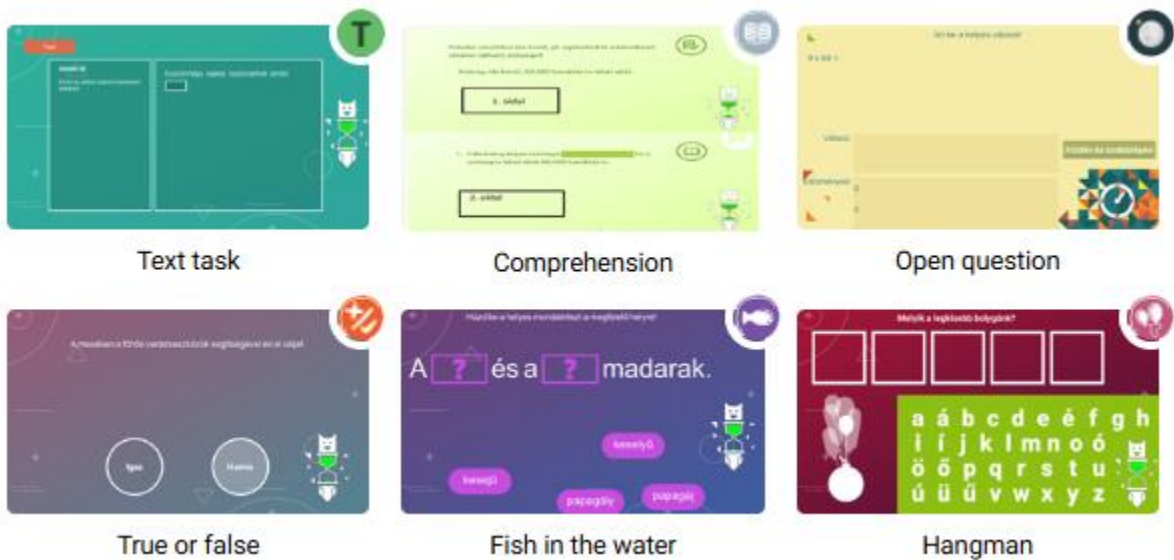
Then push next, and your mission is on!

Basically, you will be navigated through the learning route.

However, you can manually navigate back and forward if you ask for the Assistant Owl to open the navigation bar.



The tasks you get are presented in 10 different, gamified engines: you may be required to write down the answer to a question, to select the right ones from several possible answers, to pair some items, to fill in gaps in a text, and so on.

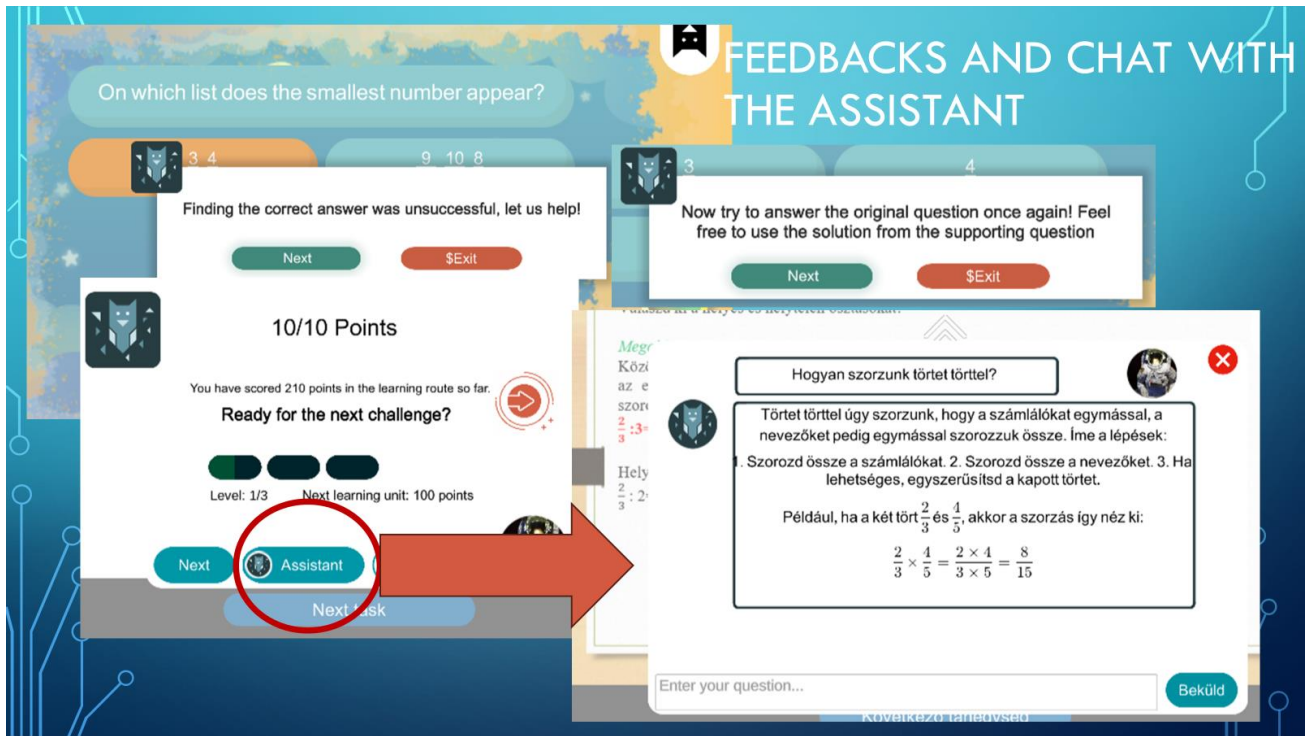




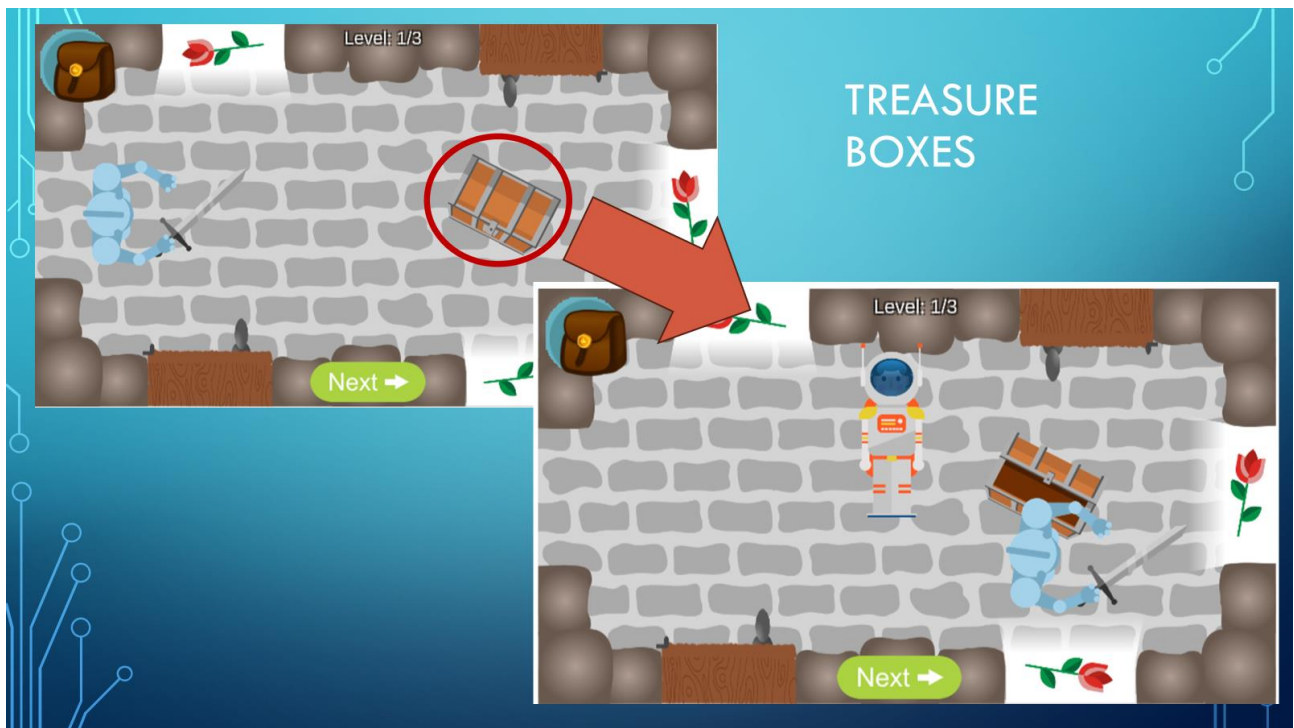
All engines have 3 different graphical skins, so they can look different from one learning route to another. We hope you will enjoy this diversity. You will also encounter knowledge elements and explanations on your way in text- or video format.



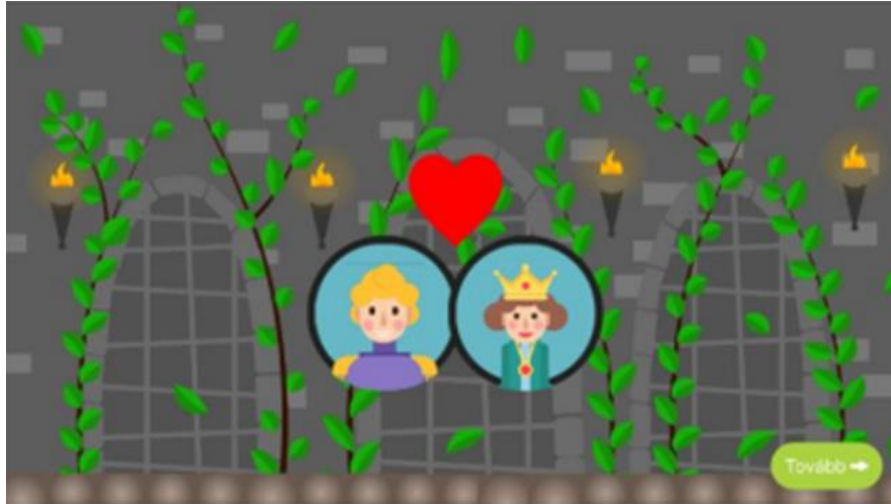
You will get constant feedback from the Assistant throughout your learning journey with Edubot. If you fail to solve a task, no problem! The Assistant will help you with knowledge elements or easier helping tasks, then you can try again. If the result is still not accepted, you will get an explanation. At the end of each main task, you will be notified about your progress, the points you gathered, the level of the route you are currently on, and the direction you are headed to. It is here you can start a chat with the Assistant, directly addressing questions to her.



Between two main tasks, your hero has to cross diverse rooms of the castle. If your teacher decided to offer you some rewards, in some rooms you may find treasure boxes. If the box is not ready to be opened, you will find indications of how many points you need to open them. If the box is fully colored and shaking, go there and open it! See what your reward is.



What is left is to do your best to solve all the assigned tasks, with the least possible help from the Assistant. This is how you can complete your learning route and get to the target person you selected to rescue at the beginning of the game.

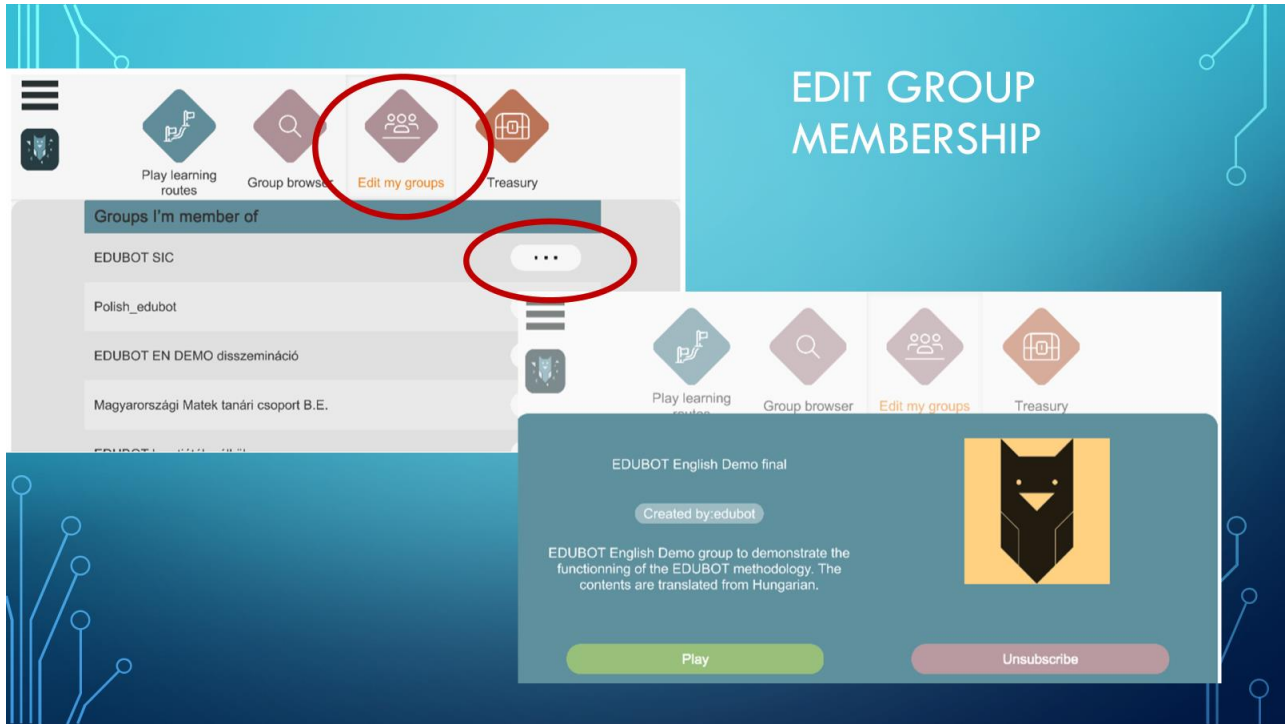


At the end of the road, you might want to check out your treasury to see what you earned. It is here you can use your coins to play a game. (Tap on the ball).



If you feel like you are a member in too many groups, you can manage them in the Edit my groups menu.

A Comprehensive Guide to EDUBOT

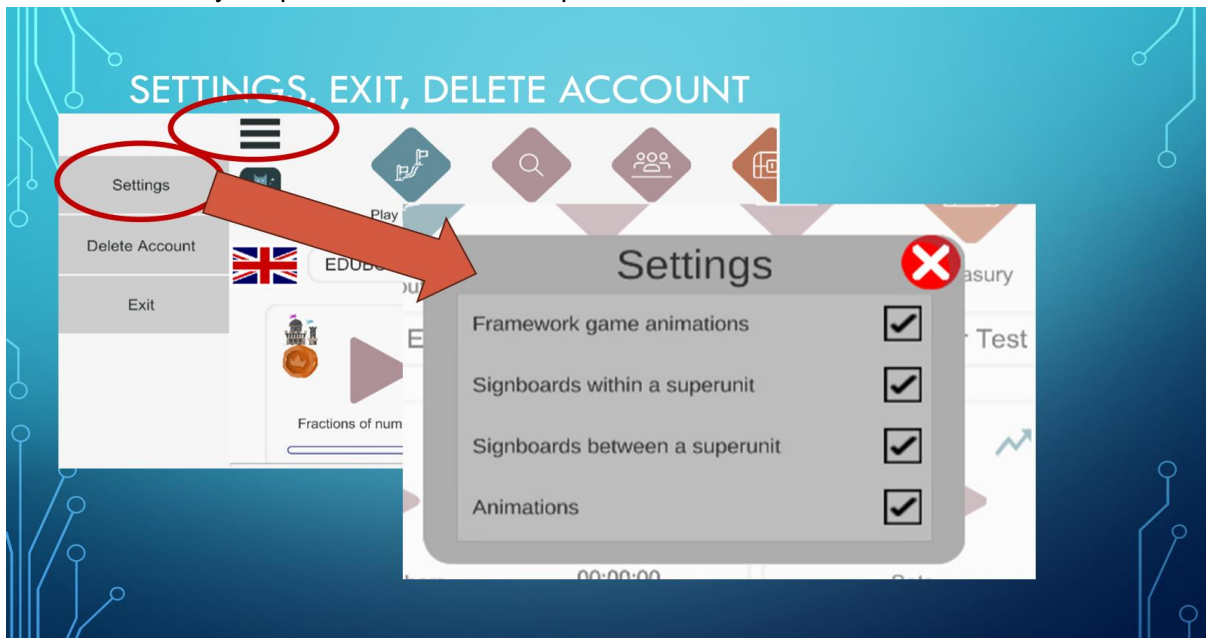


The three lines in the upper left corner lead you to the app settings.

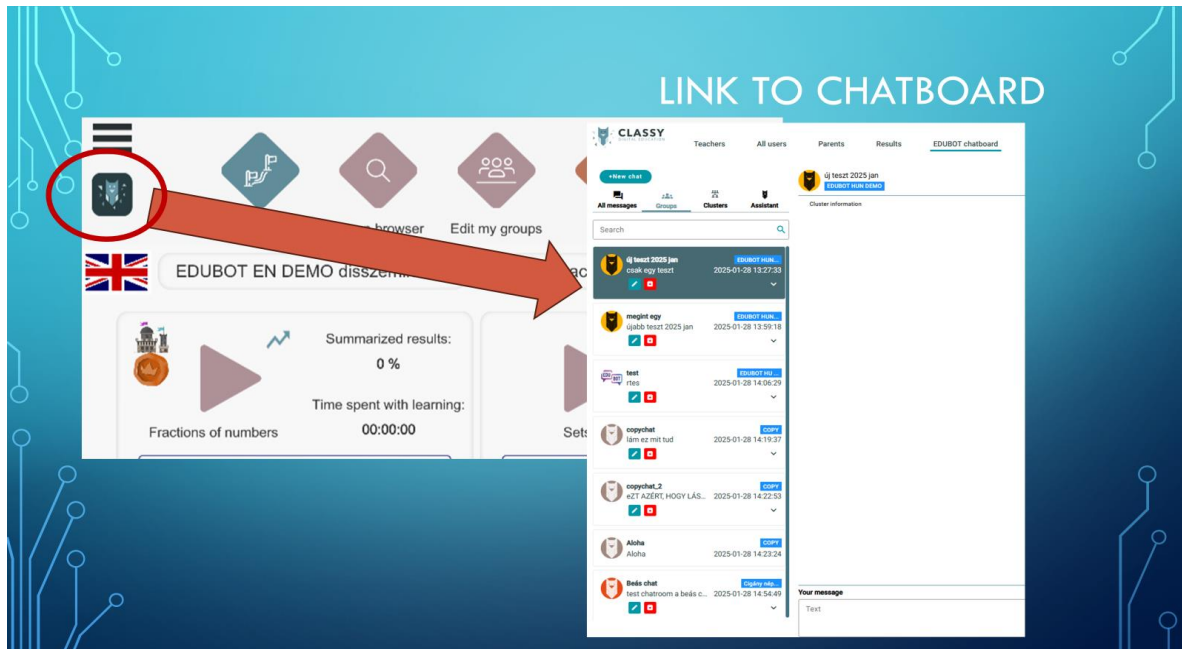
Some people don't like moving objects in math tasks. If you are one of them, here you can turn off the animations within the tasks.

You can also turn off the framework game's animations if you get tired of your hero walking around. Even with the animations turned off, the rewards you gather will be transported to your Treasury.

You can even turn off the indicative tables, but in this case you will lose contact with the Assistant: no feedback on your performance and no questions to her.



Tapping on the Assistant icon under the three lines will lead you to the Edubot chatboard placed on the platform, outside the application. This chatboard is meant to contact you, your teachers, and fellow students in your learning groups. You should only use it if you see an indication of new messages.



We hope you you will enjoy learning with Edubot. For more detailed information about some functions of the Student app, please consult the Student handbook:

<https://userguide.classyedu.eu/student-handbook>

Introducing EDUBOT Teachers' Platform

(also referred to as EDUBOT Tool or Teachers' Interface)

EDUBOT Teachers' Platform is a web-based interface designed first of all for teachers. This tool allows teachers to use the existing contents to create and run AI-assisted courses and to develop new interactive content, significantly enhancing their instructional capabilities.

How can you benefit of EDUBOT as a teacher?

EduBot is a complex system, and there are many ways you can use it as a teacher.

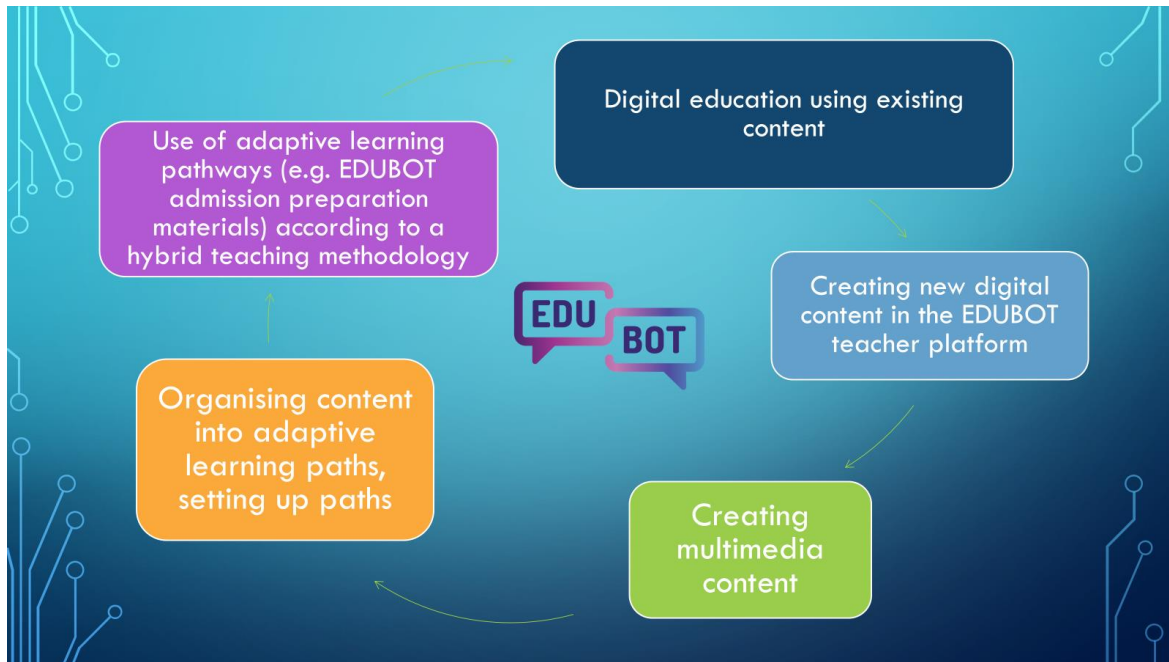
You can copy already prepared contents and use them to provide your students with personalized adaptive learning paths. You can also modify the copied contents as you wish.

You can prepare and run a simple test with your students and get a clear report that lets you dig into the details if you want.

You can develop your own adaptive learning routes, or you can team up with other teachers to prepare complex contents.

You can use EduBot in math, STEM, or any other territory.

You can target primary- secondary- and high school students, or even adults.



Our favorite use cases are:

1. **Using an existing EduBot adaptive Learning Route in your own group**



As Edubot is based on content sharing, you can start by using other people's learning routes (first of all, the ones already prepared in the project) to support your work. Ask for routes to be shared with your group, give them to your students and check out the learning results.

2. Using a Learning Route copied by you

While a route can only be shared by the owner, you can copy any route without asking for permission. All you have to do is copy and set up the route for your own purposes.

3. Creating a Learning Route by using copied public content

You may not want to use the entire routes as they are, and you don't have to. You can copy content modules or units. These copied contents will become your own, and you can edit and change them as you want.

4. Creating new content for your Learning Routes

Finally, you don't even need to rely on anyone else's support. You can create your own stunning multi-media, interactive content to use in your learning routes.

5. Combining adaptive digital learning and small-group tutoring directed to the real challenges every student is facing.

Edubot supports blended learning. You can rely on the Assistant to prepare a suggestion for you on how to break your student group into smaller performance groups to address challenges the students are facing in some specific subject. It is also possible to create performance clusters across several groups.

By using the system, you can really unleash your creativity and invent new ways of using it.

The way you can access the real Edubot benefits leads through the Teachers' Platform.

<https://edubot.classyedu.eu/login>

If you are already registered in the Student App, you can use the same username/password to log in to the Teachers' Platform.

A Comprehensive Guide to EDUBOT

EDU BOT

Student App and Teachers' platform can both be accessed with the same registration. Once you register, you will have full access to both tools.

Student app

Teachers' Platform

The image shows a screenshot of the EDUBOT web interface. A blue callout box contains the text: "Student App and Teachers' platform can both be accessed with the same registration. Once you register, you will have full access to both tools." Below the callout, two green callout boxes point to the "Student app" and "Teachers' Platform" sections of the interface. The interface itself shows a navigation menu on the left, a main content area with a search bar, and a table of activities on the right.

If you were not registered yet, you can register at the platform with your e-mail address, following the usual process: after you register, you will get an email, and you will have to confirm your registration by clicking on a link in the email. You can also register and login with your Google account.

REGISTER AND LOG IN

<https://edubot.classyedu.eu/login>

Registration

CLASSY DIGITAL EDUCATION

Username*

Username is required

Password*

Password is required

Password*

Email address*

Language

Register/login with email

Register/login with Google account

Bejelentkezés Google-fiókkal

Email address*

Missing email address

Password*

app.emptyPass

Forgot my password

Registration

Login

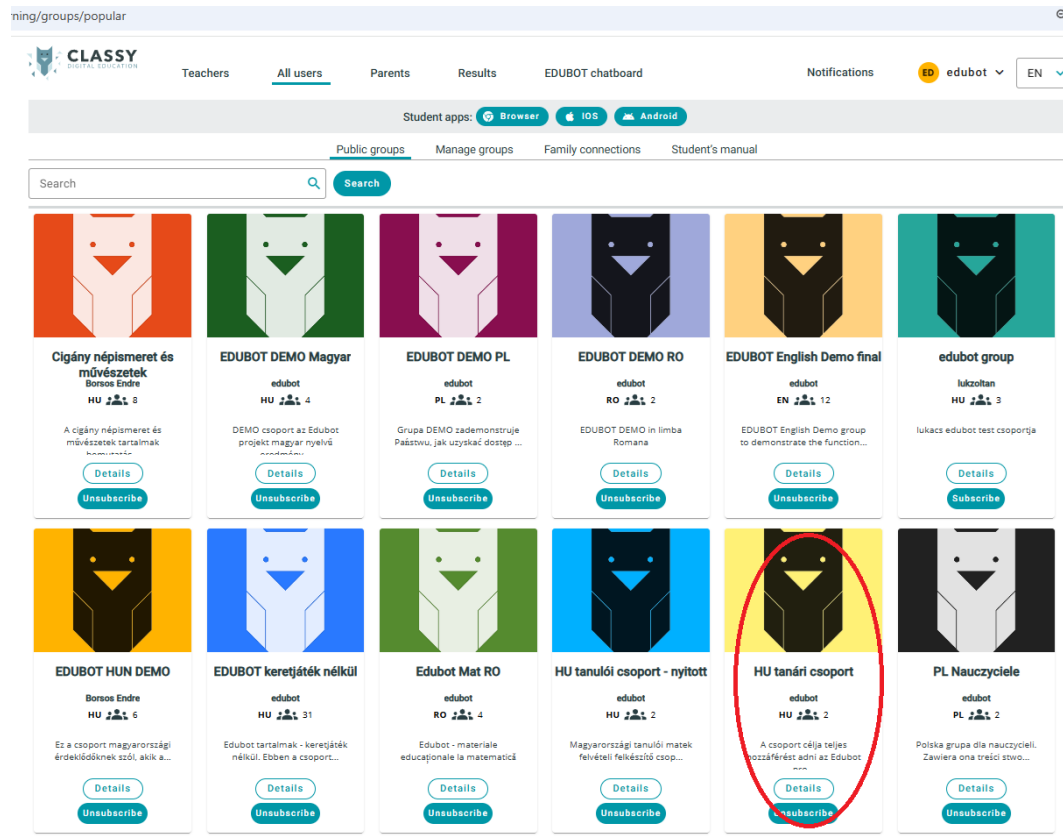
The diagram illustrates the registration and login process. It starts with a dark blue banner that says "REGISTER AND LOG IN". Below this, a screenshot of the registration form is shown. The form has fields for Username, Password, Email address, and Language. A red arrow points from the registration form to a purple callout box that says "Register/login with email". Another purple callout box says "Register/login with Google account", with a red arrow pointing to a screenshot of the Google login form. The Google login form has fields for Email address and Password, and a "Bejelentkezés Google-fiókkal" button. A red arrow points from the Google login form to a purple callout box that says "Register/login with Google account". At the bottom, there are buttons for "Registration" and "Login".

This registration also applies to the Student App, so you will be able to login to the App with the same username/password combination.

If your registration is done, let's proceed to unlock your benefits!

Use an existing Edubot adaptive Learning Route in your own group

In order to access the contents developed in Edubot, visit the All users/Public groups menu. Select the relevant group for you, and subscribe to it by clicking on “subscribe” under the group’s icon.



As an example, let's select the “HU tanári csoport” group.

Click “subscribe” under the icon!

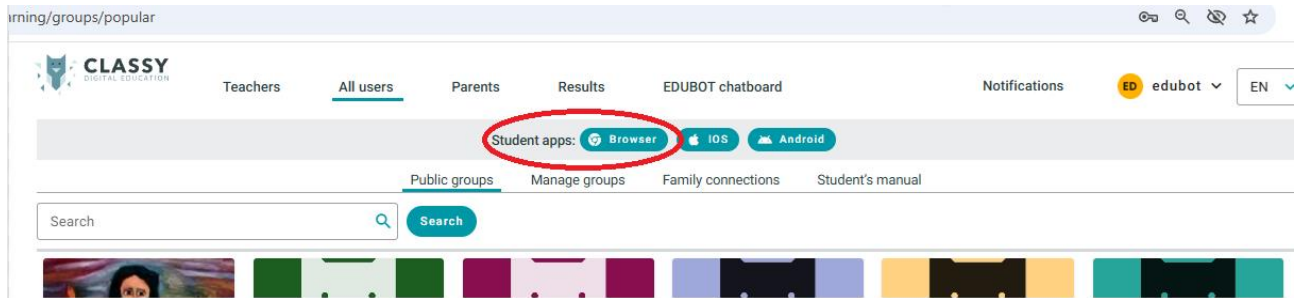
That is it.

From now on, you will have access to this content; you can view and even copy the learning routes available in the group.

(You can also join other groups to access other contents.)

If you want to see the contents of the learning routes, open the Student App by clicking on the icon that says "Browser." The WebGL will open in a separate tab, and you can check out the learning routes from a student perspective.

A Comprehensive Guide to EDUBOT



For more information about handling the Student App refer to the the previous chapter of this document.

Now go to the Teachers/Learning routes section, select the group in the dropdown box, and you can see the list of the learning routes.

The screenshot shows the 'Learning routes' section of the CLASSY Digital Education platform. A purple box highlights the 'Műveletek racionális számokkal - feladatok' learning route. The interface includes a navigation bar with 'Tanárok', 'Minden felhasználó', 'Szülők', 'Eredmények', and 'EDUBOT chatboard'. Below the navigation bar, there are tabs for 'Tanegységek', 'Modulok', 'Tanulási útvonalak', 'Csoportok', and 'Felhasználók'. A dropdown menu shows 'Magyarországi Matek tanári csoport'. A table lists learning routes with columns for 'A tanulási útvonal neve', 'Címkék', and 'Tulajdonos'. A purple arrow points from the text 'The learning materials can be accessed by playing learning pathways in the learning app.' to the highlighted learning route. Another purple arrow points from the text 'You can manage them in the teacher interface under "Pathways".' to the 'Tanulási útvonalak' tab.

The learning materials can be accessed by playing learning pathways in the learning app.

You can manage them in the teacher interface under "Pathways".

A tanulási útvonal neve	Címkék	Tulajdonos
Műveletek racionális számokkal - feladatok (#3608)	#csillag #csoport #edubot #edubot_hu_vénkertl_ #edubot_hu_vénkertl_8b #edubot_hu_vénkertl_8c #edubot_hu_ábrányl_emil_általános_ #feladatok...	edubot

In this particular group there is a large content for preparing 8th graders in Hungary for high school—entering math exams. The group was prepared to share content, so it gives full permissions to all members. Please be aware and do not delete anything!

Please do not delete anything!

In order to use the learning routes with your students, you have to create your own learning group.

In the Teachers/Groups submenu, select to create a new group.

Create your own study group!

- ▶ You will be able to invite students to this group.
- ▶ You can find a detailed description of how to set up and manage the group in the Teachers' Handbook.
- ▶ Once you have the group, go back to the "Hungarian teachers..." group and copy or share the routes for your own group

Name your group, select the group language, and select the type of subscription. Choose free subscribing so that users can join your group without your approval. If you don't make your group public (which is not advised at this point), you should choose this option, as only

A Comprehensive Guide to EDUBOT

those you invite will see the group. If any time later you want a public group, you can decide then whether you want to allow people to join in advance.

Here is a step-by-step guide for you on how to create a new group:

<https://www.floik.com/flos/nsw/4asa/ef02e1a9.html?show-author=true>

For further instructions and information, please refer to the relevant section of the teachers' user guide:

[Creating and managing groups](#)

Now you have a group, but you will also need students in it.

You can invite students to join Edubot and your group.

Here is how you can do that:

[Inviting users to your group](#)

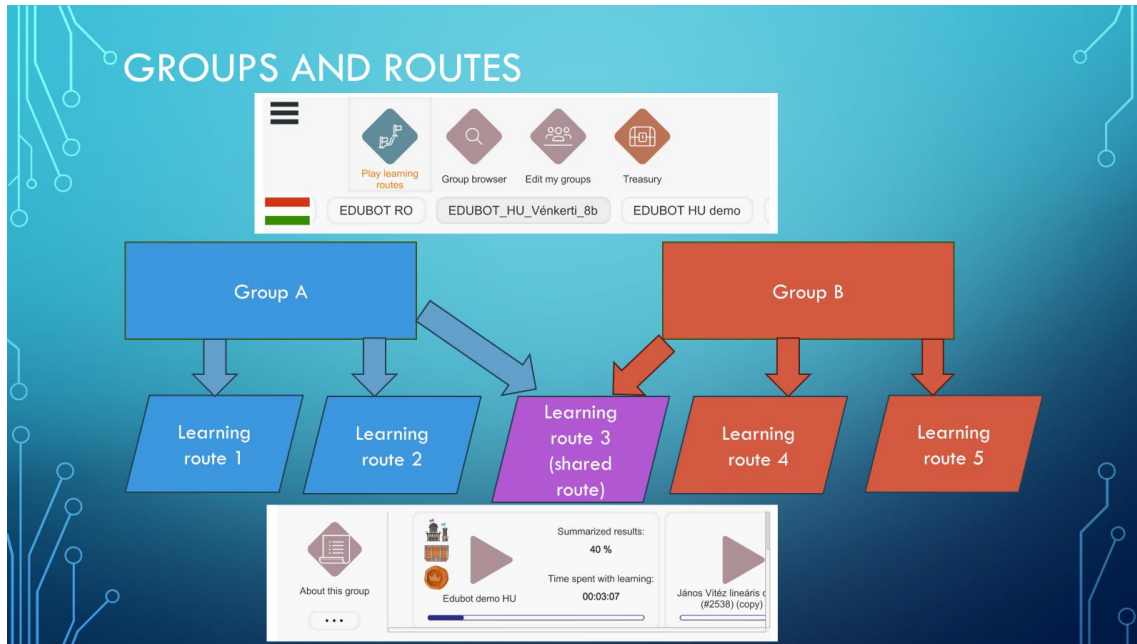
Obviously, your students will need email addresses to complete their registration and join your group.

If you don't feel comfortable with registering your students with their e-mails, contact the project team so that we can create a group for you with technical users. Write to this email address:

interregioforum@gmail.com

You should also write us if you want us to share routes with your group.

Sharing is possible because in edubot several groups can use the same route:



Sharing has its advantages: you don't have to set up the learning route; you can start using it immediately.

That is it, you are done. Your learning route is ready for your students.

If you are interested on how to check on the results of your students, skip the next chapters and go directly to "Analysing results and downloading reports" section.

However, you might consider copying the routes for your group, which has even more advantages.

In the next chapter, we will explain how to copy routes, making them of private use for your group.

Copying a Learning Route: Create your own route!

After you registered in Edubot and created your own group, you can copy the learning routes you like and start using them.

The advantages of copying routes are:

- you don't have to ask anybody to share their routes with you
- the copied routes are yours; no one can change them without your approval (as opposed to shared routes, which can be modified by the owner and even other people they are shared with)
- you can apply your own settings to the copied routes.

To copy a route, go to Teachers/Learning routes.

In the drop-down box, select the group you want to copy the route(s) from.

In the line of the desired route, select the "copy" option.

A Comprehensive Guide to EDUBOT

In the popup window, select the group you want to copy to the route, and proceed.
You are done.


Repeat the process with every route you want to copy.

Here is a step-by-step guide for you:

[Copying a learning route for your own group](#)

Now that you have your own learning route, you should set it up. Setting up a learning route means you determine the parameters the route will be played with.


The most important of these parameters are displayed in the line of the learning route.

Learning route name	Labels	Owner	Actions
> Fractions of numbers (#3774)	#demo #edubot #english #final #fractions #numbers	edubot	         

In this line you see the name of the learning route, the labels associated, the owner, the indicator icons, and the action keys.

A detailed explanation of what these icons mean and a general presentation of the learning route list are here:

[Presentation of the the learning route list](#)

To set up the learning route, you should use the  function key.
You will get a popup window with multiple tabs:



Edit learning route

Basic settings

Schedule

Adaptive mode

Framework game

Homework

Name of the learning route

Fractions of numbers

Playable

Replayable

Graphical appearance of learning units

Graphical skin 3 - Neutral

Playback mode of learning units

Test without feedback

Playback mode of supporting tasks

Practice

Enable animations

Save and exit

Save

Cancel

Delete

First of all, make sure your route is scheduled: set a starting date and an ending date for your route to be visible for the students. For example, if you want to run a test between 10 a.m. and 11 a.m., set the route to be visible for your students in Europe like this:

A Comprehensive Guide to EDUBOT

The screenshot shows the 'Edit learning route' interface. At the top, there are five tabs: 'Basic settings', 'Schedule' (which is active), 'Adaptive mode', 'Framework game', and 'Homework'. Below the tabs, there is a 'Schedule' toggle switch that is turned on. Underneath, there are two date and time pickers: 'Start Scheduling learning route' set to '2025-02-18 10:00' and 'End Scheduling learning route' set to '2038-01-18 11:00'. Below these is a 'Time zone for the scheduling' dropdown menu set to 'Europe/Bucharest'. At the bottom, there are four buttons: 'Save and exit' (teal), 'Save' (teal), 'Cancel' (teal), and 'Delete' (red).

Next, you should decide on the mode in which the learning route will be played.

In the case of copied routes, you might want to check the original route's settings in the group of origin, and apply the same ones in your route.

If you want to set up the route yourself, here is what you have to consider:

Routes by default are set to "Linear", so if that is comfortable with you, just leave it like that.

If you want to set the route as adaptive, you will have to switch the first dropdown box to "AI Adaptive."

As a beginner, in the two boxes below you should use the settings "Full route" and "The Flow."

Edit learning route

Basic settings Schedule **Adaptive mode** Framework game Homework

Playback mode of learning route
AI Adaptive

Settings to be applied to
Full route

Adaptive modes
The Flow (default)

Difficulty of leveling up Difficulty of leveling down
Medium Easy

Play learning units in random order (within the same level of difficulty)

Save and exit Save Cancel Delete

If you want to get more information about adaptive routes and their settings, go to the “Linear and Adaptive Learning Routes” section of this document.

A simple guide on what setting is best for a route can be found here:

[Comparing linear and adaptive routes](#)

Now we suggest to skip two settings tabs.

At this point, you we won't bother setting “**Framework game.**” This is where you can enable the Enchanted Castle motivational game. This is a really good motivational tool, and we recommend you to use it. If you want to know how to do that, you can check it out in the respective chapter of the present document:

[Gamification and motivation in Edubot](#)

There is also a “**Homework**” tab in the settings panel. That can be used to assign the learning route as a homework, defining the requirements of completing it. For now, we just ignore this setting. Its role is discussed in the respective chapter of this document:

[Cooperation between Teachers and Parents in Edubot](#)

To complete your setup, go to the “**Basic settings**” tab.

A Comprehensive Guide to EDUBOT

Select the graphical skin of your route. The route can be presented in three different designs to your students, prepared for different age groups. As a secure solution, you can choose “Neutral”.

You can find images of the three graphic skins here:

[Graphic skins compared](#)

In the next drop-down box, you have to decide on the playback mode of the units.

If your route is an adaptive one, the best idea is to select “Test without feedback” here.

If your route is linear, you should consider what settings to apply.

If it is a test, you should obviously select “Test without feedback”. If you want students to exercise in the linear route, set it to “Practice”. This is what we did in the case of the Edubot linear routes.

You should also decide on the animations within learning tasks. They are generally set on, as it is fun to solve a task by grabbing moving objects on the screen. However, some students—especially those with dyslexia—can find that disturbing, so if you have students with that condition, just turn this feature off.

Now you are almost done.

Set your route “Playable” if you want it to be visible for students. Until you do this, only you can see your route; your students cannot. In fact, this button could also be named “Publish your route in your group”. We find that just too long, so we stick with “Playable”.

If you want to allow students who already completed your route to play it again, set the “Replayable” button on. *Don't do that if you are preparing a test route!* 😊

That's it; you are ready!

Edit learning route

[Basic settings](#)
[Schedule](#)
[Adaptive mode](#)
[Framework game](#)
[Homework](#)

Name of the learning route

Fractions of numbers

Playable
 Replayable

Graphical appearance of learning units

Graphical skin 3 - Neutral

Playback mode of learning units

Test without feedback

Playback mode of supporting tasks

Practice

Enable animations

[Save and exit](#)
[Save](#)
[Cancel](#)
[Delete](#)

Later on, you might want to know more about the possibilities you have in route settings.

Here is a detailed explanation:

[Learning route settings](#)

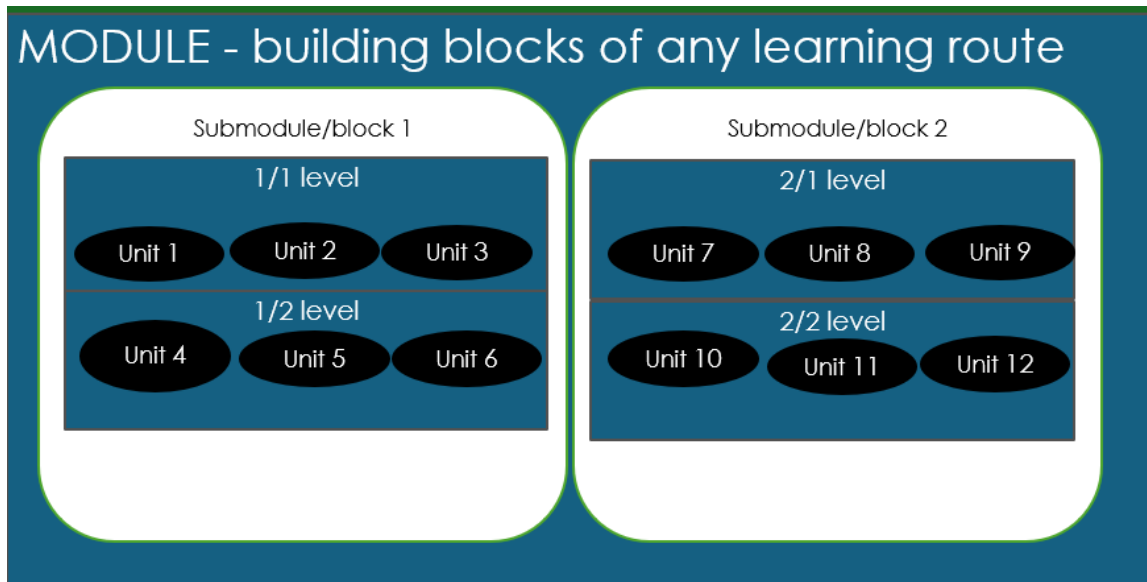
Browse and copy public modules to create a Learning Route

Another way to copy content for your personal use is to browse public contents.

In Edubot contents are organized in modules.

Modules are the highest set of contents, they are the building blocks of learning routes.

They contain learning units organized in blocks and levels.



This is how a module looks like when opened on the Teachers' Platform:



Modules belong to the user who created them, but they are all public, so you can browse their list or search it for keywords, and if you find what you want, you can copy it.

Here is what to do:

Go to Teachers/Modules and select Public modules in the drop-down box in the right.

Now you can search on keywords and see what you've got.

You can open the modules and see the units within; you can even preview the units.

If you find something interesting, you can create a copy by using the  button.

Here is a step-by-step guide on how to proceed:

[Browse public modules and make a copy of a public module for your own use](#)

Now that you have this module in your own module list, you can edit it, delete or add units to your module, and work with it as you like.

Here you will find a description of what modules are and how to work with them:

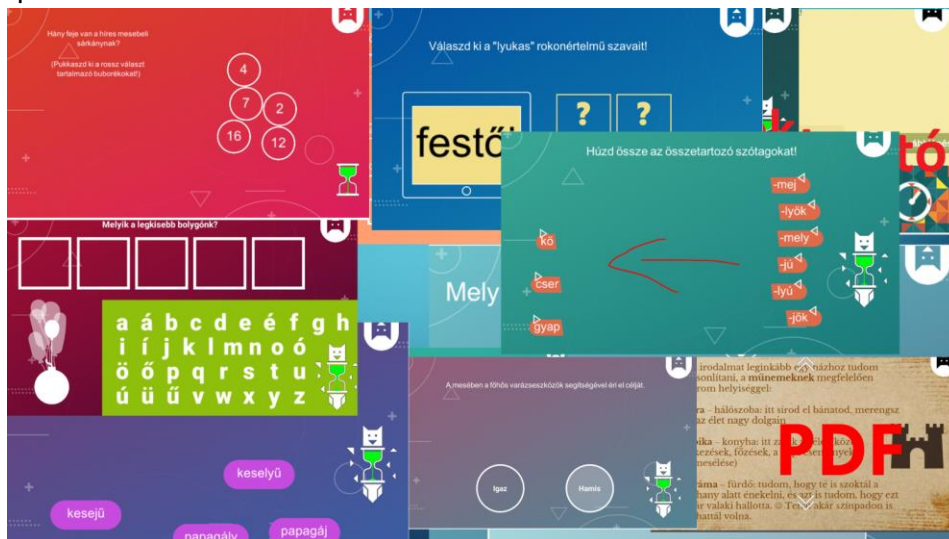
[Modules - the content sets you can use to build learning routes](#)

Create your own new content

Now that you are familiar with using public content in your own group's learning routes, how about creating your own content?

You should start by creating some new units.

In Edubot learning units can be used to pass over information in the form of text or video or to ask questions from the students in various formats.



There are two ways to approach the learning process: maybe you want to give some information first, then ask questions. This is ideal for teaching something new to the students. This is an approach that would require a linear route.

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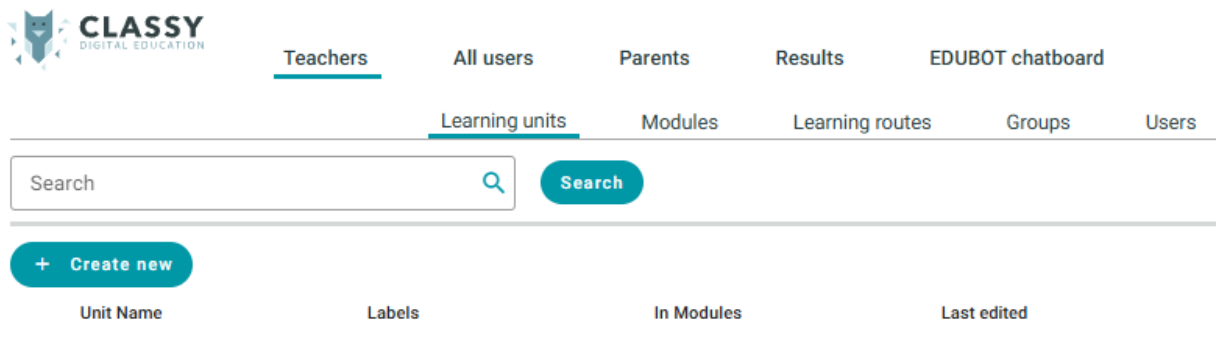
The other way is to ask questions first, analyze the answers, and give information based on the answers.

This is the way adaptive routes work.

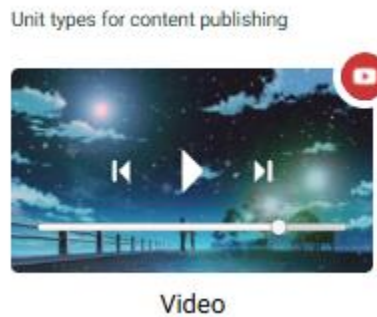
When you create your content, your pedagogical goal should be cleared before you start.

Let's go now for a linear approach.

Let's prepare a video unit, then ask some questions related to the subject presented in the video.



Go to Teachers/Learning units and push "Create new".



Select video.

Give a name to your unit.

Upload the video from your computer. Ignore the URL box and all messages related to it.

Save the unit.

You're done!

Here is a step-by-step guide for the above process:

[Create a video unit](#)

Now you should add some questions to your video.

Click on "New unit" again.



Select the interactive question you want to use.

Here is a detailed description of each unit type:

[Learning unit types explained](#)

Here you can see how each unit type will look like in the Student App in all 3 different skins:

[Learning unit types displayed](#)

Each unit type has its own wizard to use when you create the unit. There are a couple of things you have to pay attention to:

- always keep in mind that the texts you type in will have to appear on a relatively small screen, if the students will use mobile devices.
- select the right type of unit for the question you want to ask. For example, if you have a lot of text to display, don't use unit types that have limited display capacities.
- if you want to use pictures, they will usually appear in the Student app as info ("i") buttons. This is because we cannot display multiple pictures on a small screen.
- default setting for answering time is 3 minutes. If you expect the students to spend more time with finding the answer, you have to set that limit to 5-8 minutes.

Here is described how you create the interactive tasks/units.

[Create unit](#)

When your units are created, you have to place them into a module. That is because you can only add modules to learning routes; no individual units can be added.

To do that, go to modules and use an existing module, or create a new one. Push "Add units" and select the units you want to add.

[Adding units to a new module](#)

If that is done, you are ready to add your module to a learning route. Set up and publish the learning route, and see how your students handle the tasks.

Ask the Assistant to support content creation

There is a special way to create content with the support of the AI Assistant.

Basically, you give a text to the Assistant, you tell it which engines to use and how many questions you want, and it will create them for you.

To do that, go to Teachers/Learning units and push "Create new".

Scroll down and select the "AI" icon.

AI generated game settings

Millionaire 1 5

True/False 1 5

The number of units you want to create

The number of screens you want to create

Text

The text provided by the user, from which the games/questions will be created

Type or paste your text here

0/1000

Save Cancel

Type/paste your text.

Select the number of Millionaire and True or False units you want to create (0 or 1).

Select the number of screens you want to have in each unit. (1 to 5).

Screens mean that in your unit there will be several questions. After the student answers the question on the first screen, the second screen will show up, and so on.

Click on Save!

It might take some time for the AI to generate your units.

You can check the units on your desktop.

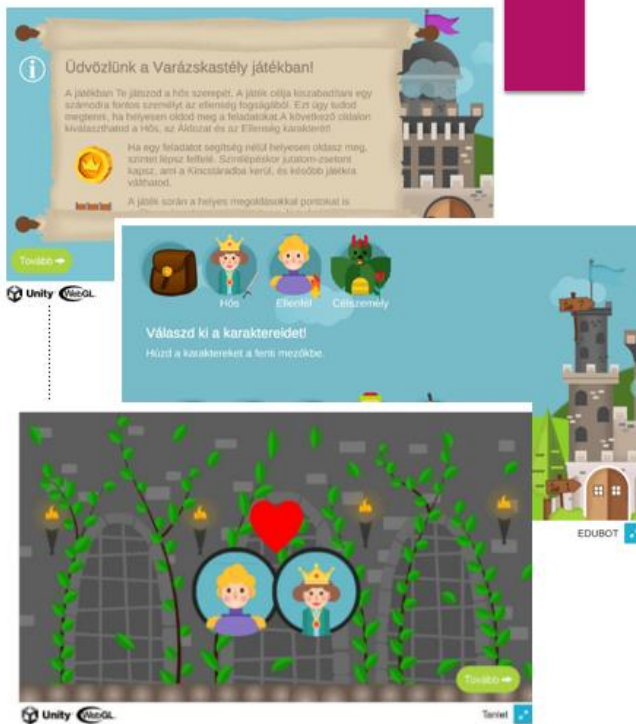
We advise you to review the units before publishing.

Here is an interactive demo of the process:

[Creating interactive questions from text with AI](#)

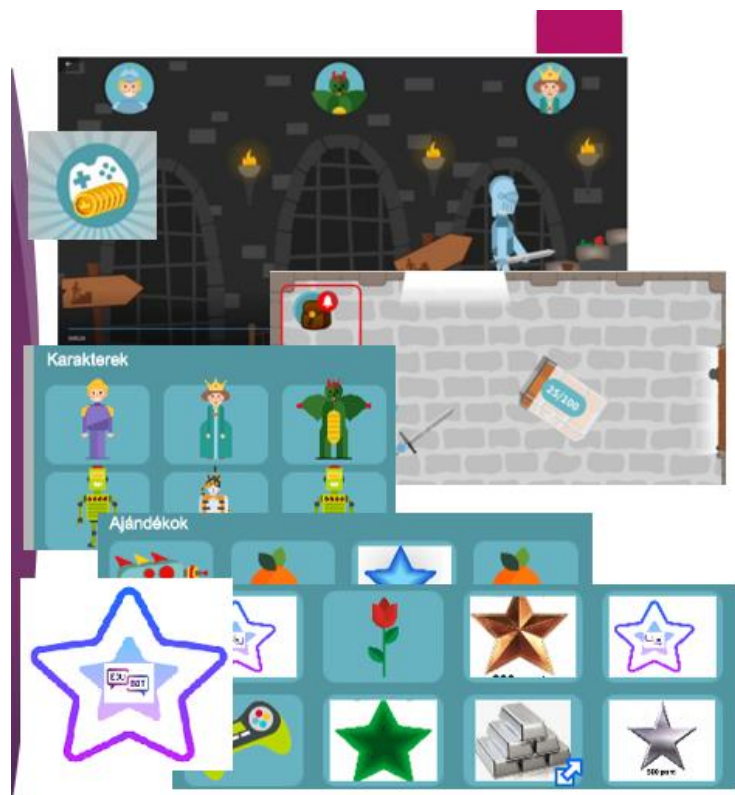
Gamification and motivation in Edubot

Gamification in Edubot is designed to motivate both excelling students and those working hard to make some progress. We use digital elements to award students, but you can add your own motivational tools, and you can link them to real life. For example, in the Edubot pilot, students could gather Edubot stars in the learning process. Five stars were worth a 5 (equivalent to an A in the US).



The tool we use is called Enchanted Castle game.

It is an animated framework story that you can choose to add to any route, but it works best in adaptive routes. According to the story, a Hero has to climb all levels of an enchanted castle to free the Target person kidnapped by the Enemy. Each level of the Castle corresponds to a level of the learning route. On the way, the Hero will cross diverse chambers of the castle. In some castles there are treasures hidden in chests, which the Hero can open if the user has gathered enough points in the learning session. As a bonus, the Hero gets gold coins every time (s)he gets one level higher in the castle (learning route).



In this case, the (s)he expression refers to the fact that the Hero is chosen by the user at the beginning of the route: it can be a Prince, but it can adobe a Princess, a Robot, a Homeless or a Cat. The other two characters also have to be chosen. New characters can be earned on the way,if they are disposed in the treasure chests.

This concept assures that not only the excelling but also the hard-working students are constantly rewarded.

As a teacher, you are in control: you can place the treasure chests wherever you want, and you can also decide what the reward is in the chest.

Here is a simple guide on how to add a motivational frame game to your route:

[Adding a motivational game to your learning route](#)

In this document, you will find a detailed description of the game and how to set it up:

[Detailed description of the Enchanted Castle motivational game](#)

Analysing Results and Downloading Reports

An important strength of Edubot is the robust reporting system. The system is built on two ideas:



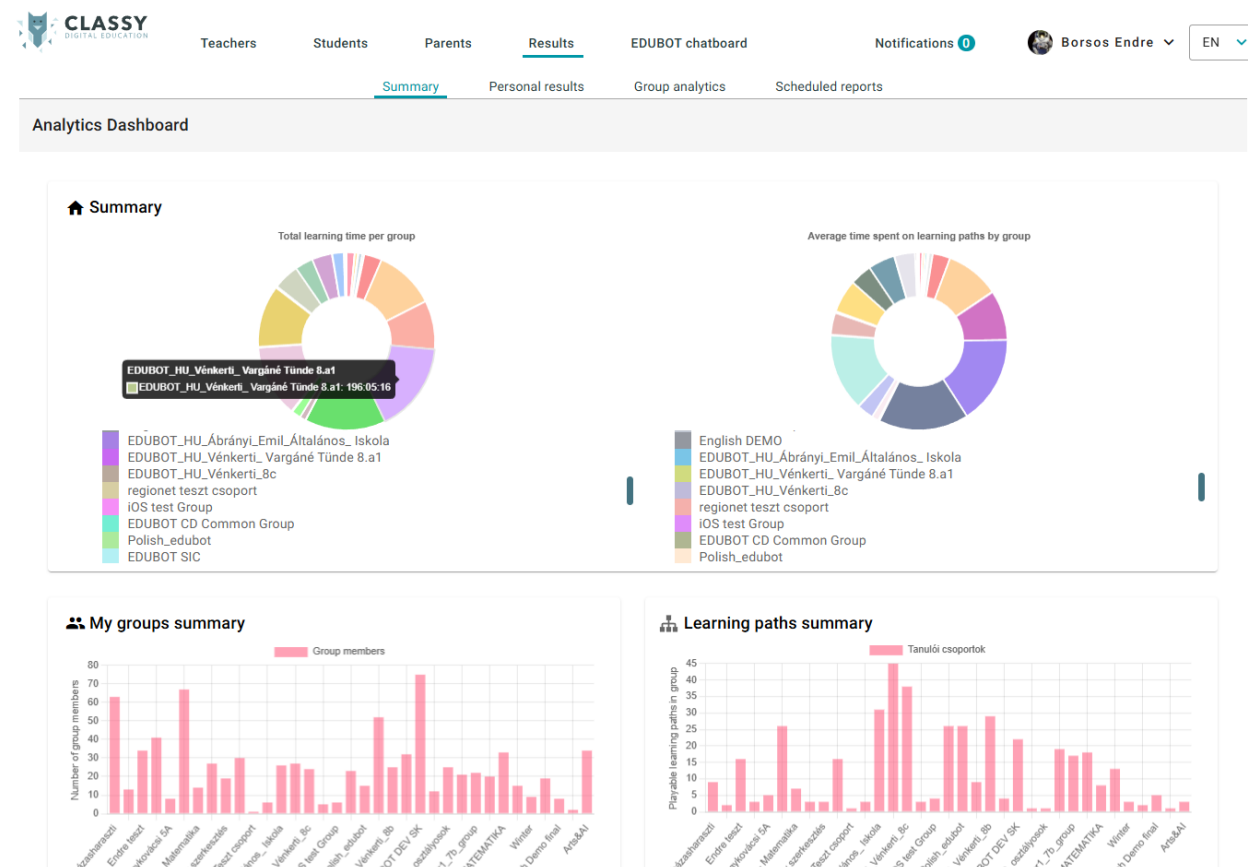
1. The group performance and the personal performance are both important sources for a report, and
2. The learning process should be tracked down to every detail so that the challenges each student faces can be identified.

The reports can be accessed under the “Results” menu.

Please note that you can see the results of the groups you are member in, and you have the “view results” permission. The pictures in this section were taken based on the results of the Edubot pilot, and the respective groups are not public, and not open to visitors. If you have any questions regarding the presented results, please contact us:

info@interregioforum.hu

On the Summary page, you can see an overview of all the groups you have permission to view: total time spent with learning, average time, number of group members, and number of learning routes by group.



To access the results of your group(s), go to “Group analytics”.
Select the group you want to work with in the group selector box.

A Comprehensive Guide to EDUBOT

The screenshot shows a navigation bar with three tabs: "Summary", "Personal results", and "Group analytics" (which is highlighted with a blue underline). Below the tabs is a grey bar containing a "Group:" dropdown menu with the text "524 - EH - SK - 5 - Matek" and a downward arrow. To the right of the dropdown is a "Show data from:" label followed by a "Custom" dropdown menu.

In the upper-right side, you can also filter the data to a desired time period:

The screenshot shows a filter bar with two tabs: "Group analytics" (highlighted) and "Scheduled reports". Below the tabs is a grey bar containing a "Show data from:" label followed by a "Custom" dropdown menu. To the right of the dropdown is a "From" label followed by a date input field containing "2000-01-01" and a calendar icon. To the right of the "From" field is a "To" label followed by a date input field containing "2030-01-01" and a calendar icon. To the right of the "To" field is a blue "Apply" button.

You will see the average results of all routes in the group.

Notes:

This is a very raw data you see here: it includes the results of all students in your group, including the inactive ones.

Please not that Edubot measures the net learning time: it does not include time spent with entering/exiting the app, going from one unit to another, framework game, etc. According to our experience, the screentime of students can be as much as 1,5- 2x more than the measured net learning time.

You can apply here further filters to narrow the list of routes.

As it is probably pointless to look at routes with very low AVG learning time, you can filter routes with a minimal AVG time: 5 minutes or 10 minutes.

Group analytics: EDUBOT_HU_Vénkerti_8b

Number of users: 25 Number of playable learning routes: 30 All learn time: 157:53:14 Average learning time: 6:18:55

The screenshot shows two filter bars. The first bar has a "Select routes" label followed by a dropdown menu with "All routes" and a downward arrow. To the right of the dropdown is the text "or routes with minimum" followed by a text input field containing "5". The second bar has a "Select students" label followed by a dropdown menu with "All students" and a downward arrow.

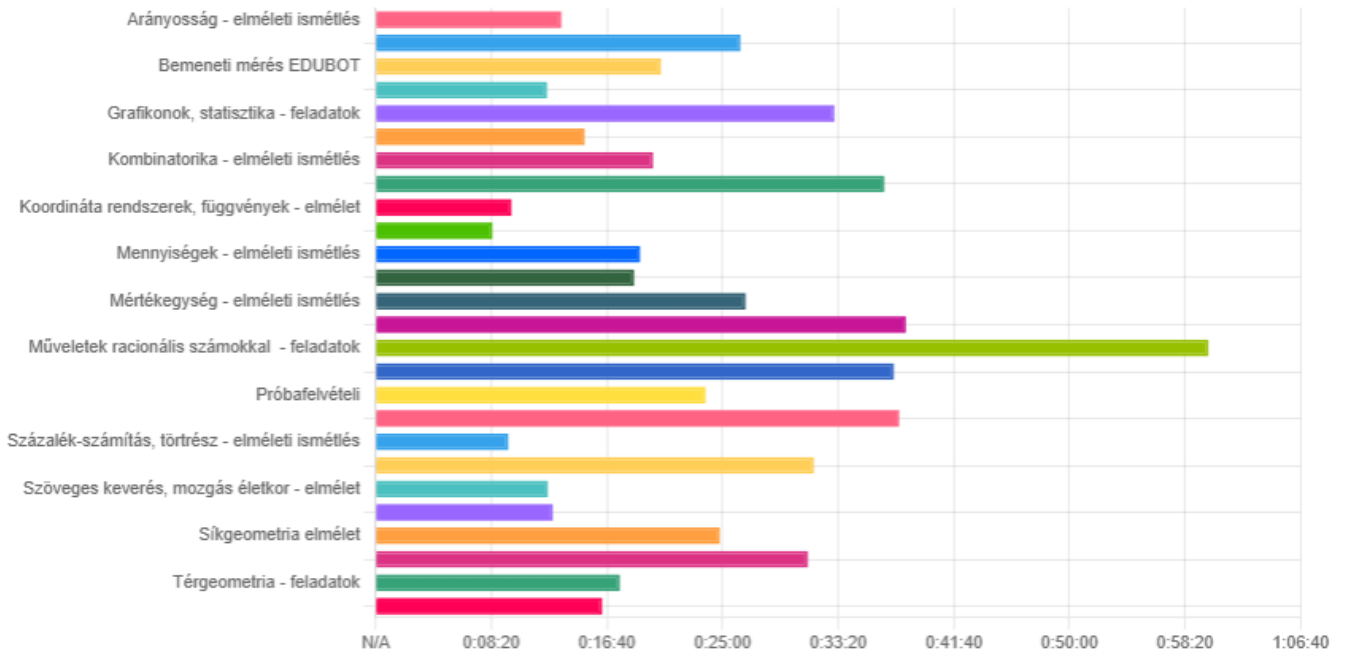
Another possibility is to manually select the routes you want to display in "Select routes".

You can also filter the data selecting/deselecting students.

Once you are done filtering, you can download a PDF report summary for your group, displaying the results you can see on the page:

Download Group Report

Average learn time



Average group result



Going further, you can:

1. click on one of the routes you are interested in, and see the route results, or

Routes

Arányosság - elméleti ismétlés Average learn time: 0:13:24 | Average group result: 58%

[Route report](#)

2. view the rewards of your students (maybe someone should get an A)

A Comprehensive Guide to EDUBOT

Unit Name		
flower	andikoreka.Rb1	EDUBOT csillag
sword	andikoreka.Rb1	EDUBOT csillag

3. scroll down to the end of the route list, and select a user to get to detailed personal reports



Route reports

Route reports are meant to give detailed information on your students' performance in a specific route.

There are report elements that are suitable for both linear- and adaptive routes:

Result: average results of the units in a route by user

Learning time: total learning time of the user in the route

User results by units—here you can see and even re-play the answers of students to particular units

One is only relevant in linear routes:

Progress—the percentage of the route completed by the user is not relevant in adaptive

Some are only relevant in adaptive routes:

Level achieved—the highest level levelachieved by each student in the route

Current position: the actual levelof each student, highest level achieved, how many times each student fell backfrom a certain level

Level reports: number of students reaching a level, falling back from a level, average result and time spent on a level

Custom route summary: this is an interesting chart showing the personal learning paths of students. You can select/deselect students here to make the visual more clear. You can also click on the dots representing units, see their results, and replay them in WebGL.

For example, here is a route summary to illustrate how diverse each path is:

Custom route summary

Hide all



In the route analytics there are several possibilities to download reports.

The easiest and most spectacular is the PDF report: just push the  button and download it.

A Comprehensive Guide to EDUBOT

EDUBOT_HU_Vénkerti_8b - Műveletek racionális számokkal - feladatok

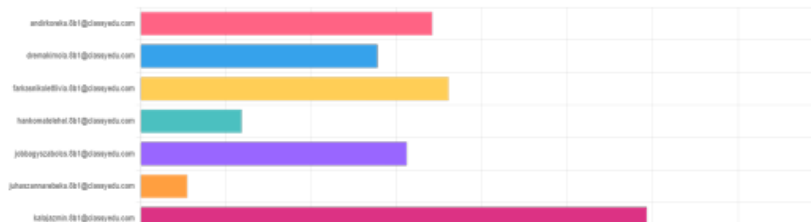
2000-01-01 00:00:00 - 2030-01-01 00:00:00


Name of learning route	Average learning time	Average result
Műveletek racionális számokkal - feladatok	1:00:02	54%

Result

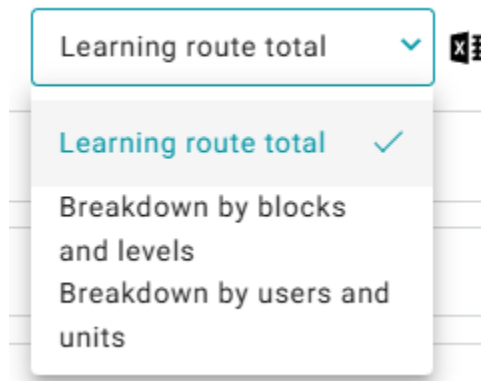


Learning time



There are a variety of excel reports available by opening the drop-down box, selecting the resolution of the report and then clicking on  .

A warning: very detailed reports (breakdown by users and units) can be difficult to download in the case of large routes, as the huge data might cause timeout on the server.



Personal results in the group

If you go back to the “group analytics” menu, and scroll down to personal results, you can view the reports on each student, with data also compared to the group average.

Detailed report: EDUBOT_HU_Vénkerti_8b - szalancsmartondras.8b1

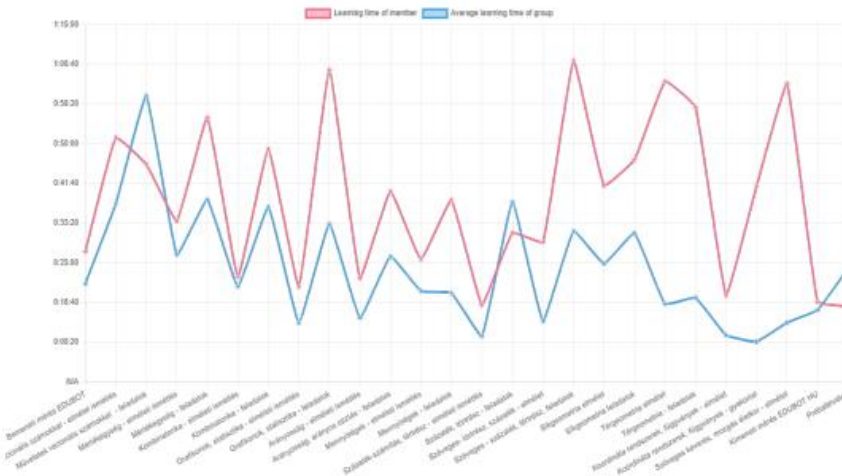
Learning time per route
Result per route
Learning time per route compared to group average
Result per route compared to group average

Here you can download a PDF presenting the performance of the selected student in all selected routes, AND comparing it to the group average:

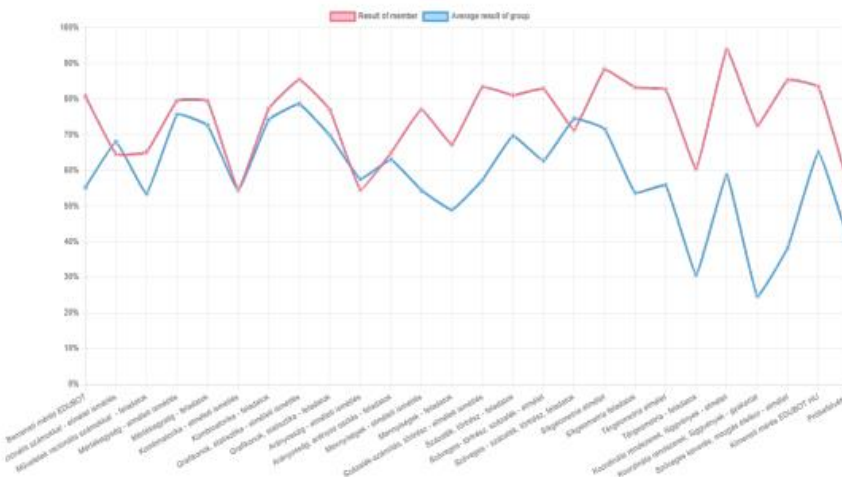
A Comprehensive Guide to EDUBOT

Learning time per route compared to group average

Total - 17:15:12 Group average - 10:19:09



Result per route compared to group average



It is also possible to download detailed personal excel reports on each route.

Aggregate personal results

As a user can be a member of several groups, Edubot has a separate section that approached the reporting from the user's perspective.

The "Personal results" menu is about you, as a user, and about the the children related to you as a parent in the system.

You should select the user, the group, and then dive into the personal route reports, down to the unit level, even replaying the answers given to a question.

Summary **Personal results** Group analytics Scheduled reports

User: Group: Show data from: From: To:

User analytics: Boross Boross Endre teszt

Time spent with learning in this group: 00:59:18

Route log result 📄 ×

Path start time	Learning time	Percentage result	xlsx.IrpScore	Actions
Game log result ×				
Unit Name	xlsx.currentLevel	Percentage result	Percentage result of path	Actions
First English Task	0	100	100	
2023-07-25 15:02:51	00:06:14	100	68.75	
2024-06-19 11:34:45	00:00:47	44.444	66.67	

This is a great opportunity to curious and caring parents!

For further details and tips on how touse the reporting system please consult the relevant section of the Methodology:

<https://www.edubot.hu/blended-learning-methodology/learning-results-reports>

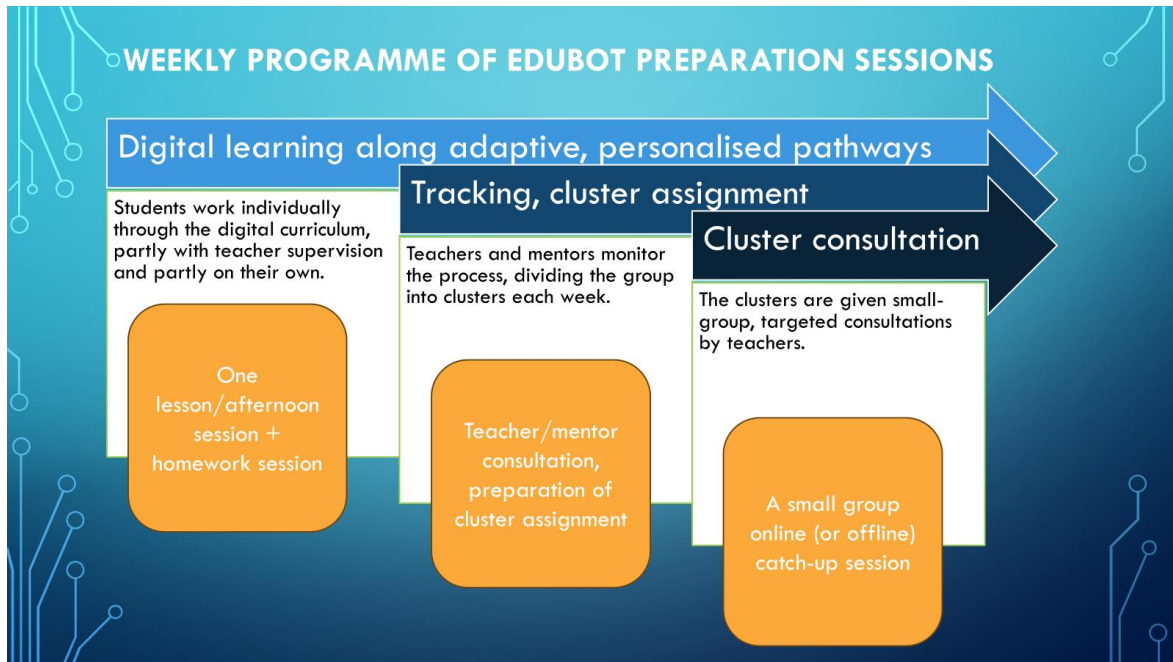
Pairing adaptive digital learning and personal tutoring

The EDUBOT methodology’s main goal is to keep students on a learning track we call the “Flow Channel” between boredom and anxiety, assuring that every student is faced with challenging but not overwhelmingly difficult learning tasks.

Edubot learning routes adapt to the learning habits of the students. Those who excel in a certain field will go on and get more complex tasks, while those who struggle will get supporting questions, knowledge elements, and explanations to help them overcome their problems.

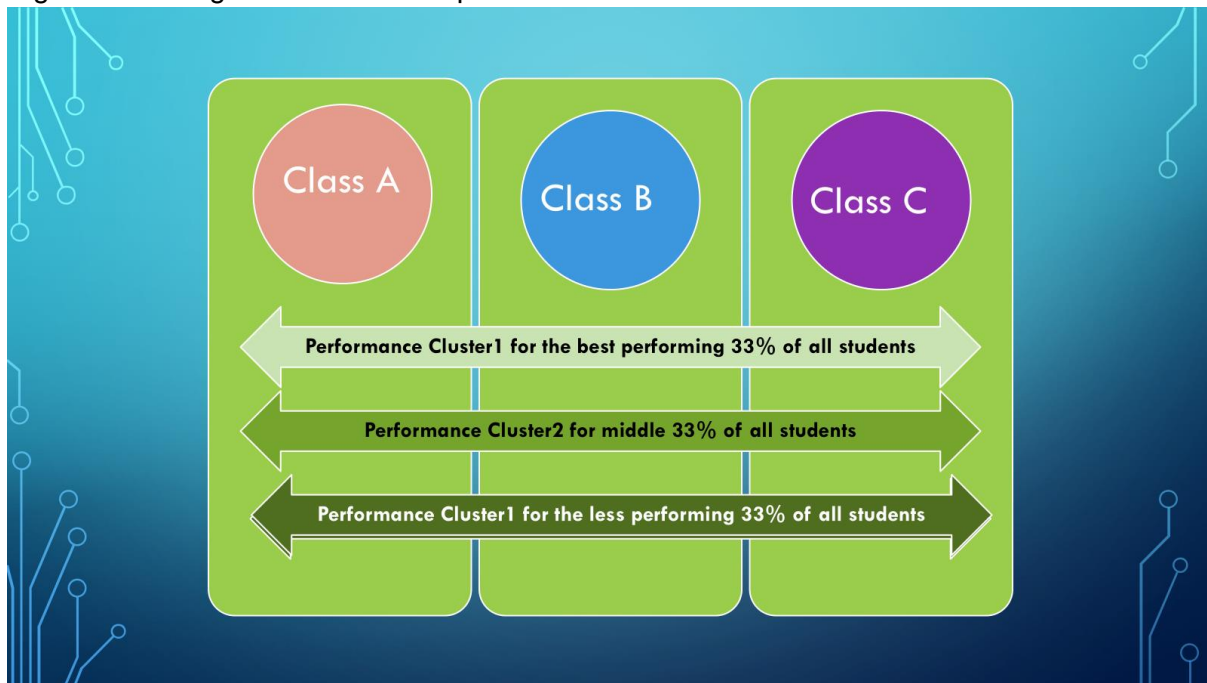
However, EDUBOT is not to create a digital system that takes over the complete learning process.

We believe that adaptive digital routes can be the most efficient if the learning process is supervised by teachers, and the students regularly get personal support in form of small group tutoring. The results of our pilot sessions also show that this is the way how the best result can be achieved in preparation for exams.



The digital learning process can and more often than not should be paired with personal tutoring. Edubot provides a unique solution to blended learning by supporting teachers to break down their classes into more homogene performance clusters.

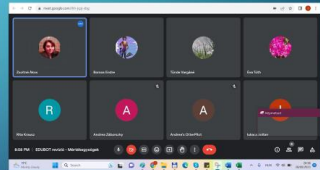
To take advantage of the results of the adaptive learning routes, Edubot suggests teachers to organize tutoring sessions in such performance clusters.



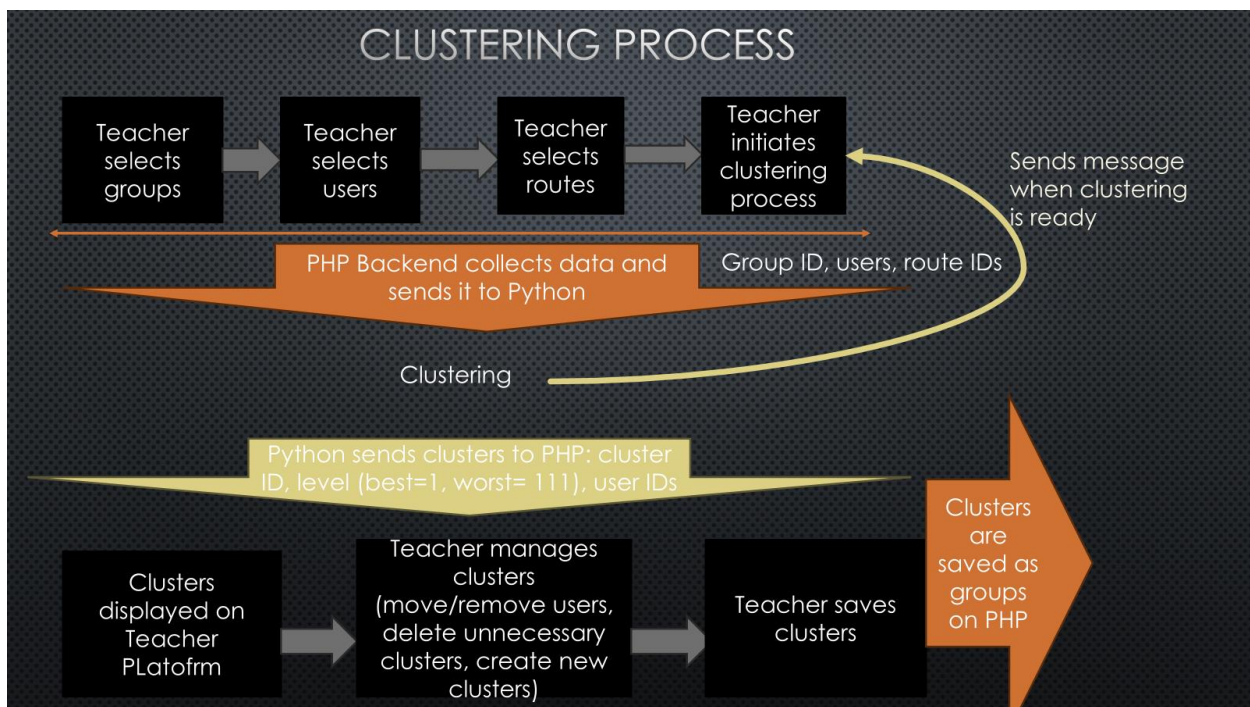
During the pilot phase, clusters were manually created.

Hiányosságok pótlása: klaszterek

Beosztás 12.04.											
E	F	G	H	I	J	K	L	M	N	O	P
Ábrányi	Vénkert 6a	Vénkert 6a	Vénkert 6b	Vénkert 6c	Vénkert 6c	Vénkert 6c	Vénkert 6c	Vénkert 6c	Vénkert 6c	Vénkert 6c	Összítés szám sz Klas
3	rohizsage@i@gmail.com kirajzmin12@gmail.com veroricis2009108@gmail.com	5	szaszbodna23@gmail.com gaztopetraiga@gmail.com guba.zsombor9@gmail.com anitanagy2340@gmail.com nagybarnabas0909@gmail.com	7	andirto.reka29@gmail.com imola.dremai@gmail.com farakasniko321@gmail.com jobbgyaszaboics091221@gmail.com lilii.nadasdi09@gmail.com ratboglariai2@gmail.com lili.szarvas0508@gmail.com			2	aronmcsay@gmail.com petersezekely1709@gmail.com		17
0		0		1	4	0	5				1
3	zalanekapoztas@gmail.co sonnosmark20081007@gmail.com szilagynoeimi20100426@gmail.com					1	4	0	5		1
1	nikodemuszskiss@gmail.com	1	mianhernad09@gmail.com	1	enehadrienn@gmail.com			3			6
7	anitalondor17@gmail.com elizabeth.barna@icloud.com k.davee10@gmail.com v.fru.mp2009@gmail.com veres.zsolt230@gmail.com kiralorincz23557@gmail.com dk3251851@gmail.com	1	laszlocsabapeter@gmail.com	1	szalanicsmartonandras@gmail.com			0			9
1	bmatec20090116@gmail.cc	2	balazsdeaki@hotmail.com svehiasara28@gmail.com	0				1			4
0		0		0				1			1
0		5	dorka100623@gmail.com szandi.boldizsar2009@gmail.com penzesviktoria1228@gmail.com izmin1984124@gmail.com	0				3			8



After the experiences of the pilot, we were able to train the Assistant to takeover a part of the work. The Edubot Assistant can now help create such clusters within a group or across the groups based on students' performance in one or several learning routes.



This is how you can work with the Assistant to create clusters:

How to create performance clusters?

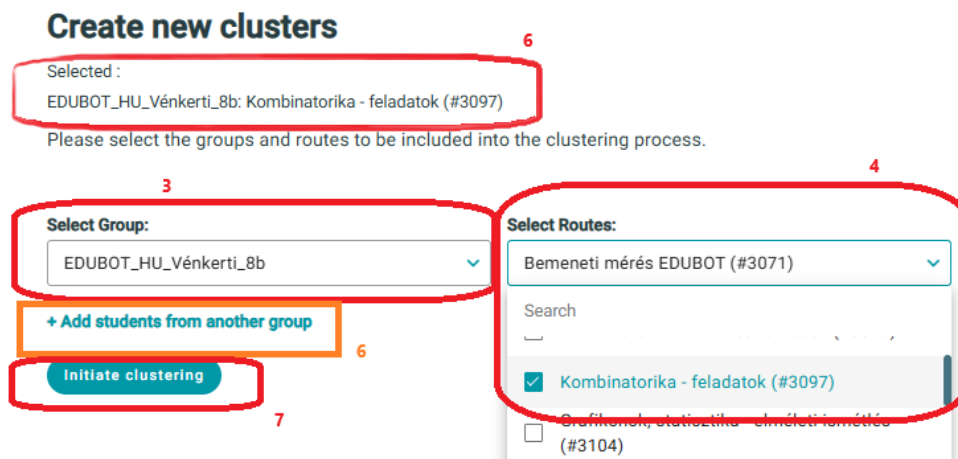
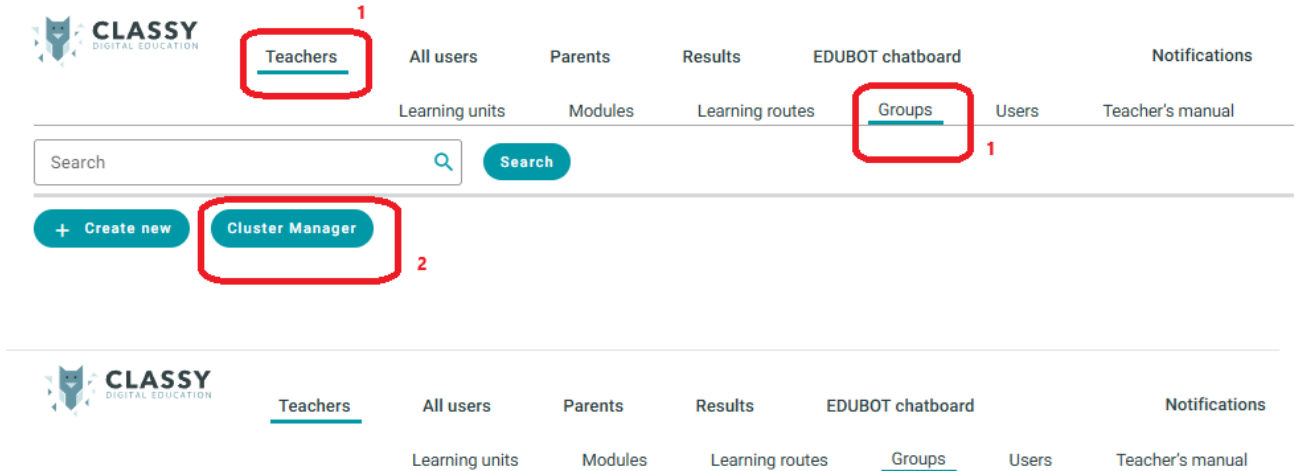
One way to create the clusters is to analyse the results and create the classes manually.

However, as this process can be time -consuming, especially if you have several classes to cluster, you might need a helping hand.

EBUBOT Assistant will do the clustering for you.

Steps to be taken:

1. Go to Teachers/Groups
2. Select Cluster manager
3. Select "Create new cluster"
4. Select the group you want to work with, then select the route the results of which you want to be taken into account in the process. *You can also select several routes if you want.*
5. If you want to include another group in the clustering process, select "Add students from another group", and repeat the process above. *Please note that the best matching clusters will result if you select the same route in all groups. The Assistant will perform the clustering at any selection, but obviously, the most matching dataset of student performance will be provided by results of a single route.*
6. Check under the "Selected" line, if the selection is correct.
7. Push "Initiate clustering"



You will receive a message that clustering has been initiated.

This process can take a few seconds or minutes depending on the quantity of the data to be analyzed by the AI.

When the process is completed, you will get a notification on the platform and also in e-mail.

You can also check yourself if the completed processes in the “Cluster manager”. If your process is marked “Completed” in the list of “Active clustering processes”, you can open the result by clicking on “Open”.

You will see the clusters proposed by the Assistant listed(see the image below).

You can now manually move students from one cluster to another (1), add new clusters (2) and delete emptied ones (3). We recommended to rename (4) the clusters you want to work with, so that you can easily identify them later.

When you are ready with the modifications, you can press “Save clusters as groups” (5). The clusters will now be saved as groups, and listed as groups in the “my Groups” menu. From now on, you can work with them as with any other learning group.

A Comprehensive Guide to EDUBOT

Cluster manager [+ Create a new cluster](#)

Active clustering processes:

Cluster ID	Name	Description	Status	Action
Cluster#7a6c0d6d1c9b47d5654206ec259965a7	EDUBOT_HU_Vénkertü_Vargáné Tünde 8.a1	Síkgeometria feladatok	Completed	Open
	EDUBOT_HU_Vénkertü_8b	Síkgeometria feladatok		
	EDUBOT_HU_Vénkertü_8c	Síkgeometria feladatok		
	EDUBOT_HU_Ábrányi_Emil_Általános Iskola	Síkgeometria feladatok		

Clustering process:

Cluster_1_DEMO teacher_11292024 [Save cluster as group](#) To delete cluster, please remove all users from the cluster first

Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok

User	Move to	Action
szekelypeter	Cluster_1_DEMO teacher_...	Remove from all clusters
szarvasliliana.8b1	Cluster_1_DEMO teacher_...	Remove from all clusters
totholiver	Cluster_1_DEMO teacher_...	Remove from all clusters
hernadimilan	Cluster_1_DEMO teacher_...	Remove from all clusters

Cluster_2_DEMO teacher_11292024 [Save cluster as group](#) To delete cluster, please remove all users from the cluster first

Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok, Síkgeometria feladatok

User	Move to	Action
svehlasara	Cluster_2_DEMO teacher_...	Remove from all clusters
benyeidorka	Cluster_2_DEMO teacher_...	Remove from all clusters

[Save clusters as groups](#) [+Add new cluster](#)

Your clusters will appear in the “Group” menu, “My groups” list.

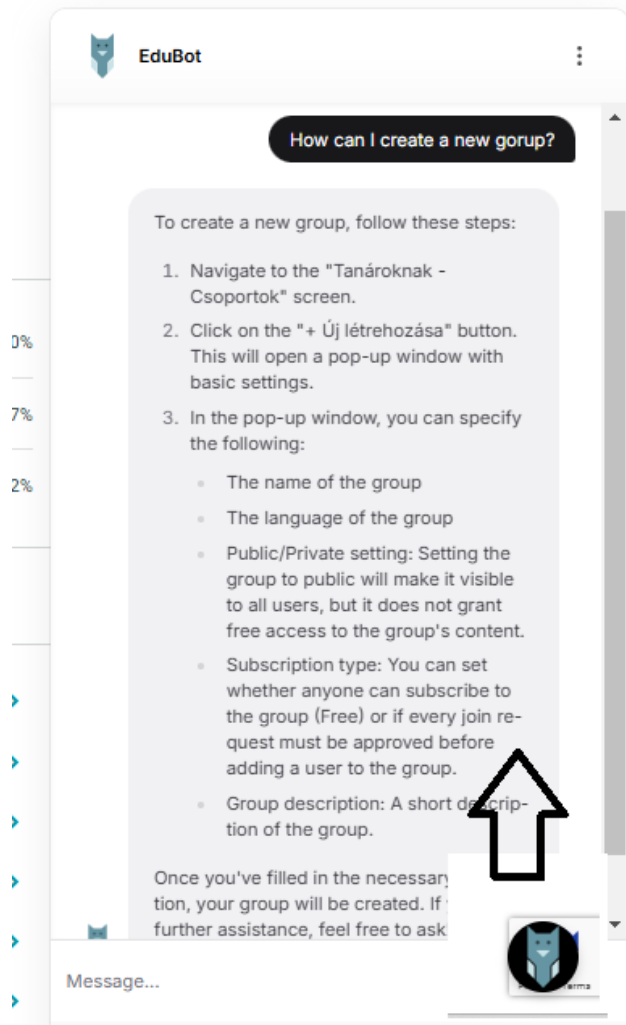
You can use the created cluster groups to offer them learning routes tailored to their needs, or you can offer them personal tutoring.

The most efficient way to invite your clusters to online meetings is through the Edubot Chatboard.

As the clusters are already created, with just a few clicks you can set up a chatroom for the cluster and send them a meeting link.

Any further questions regarding the use of the Teachers’ Platform? Ask the Assistant!

Our presentation of the Teachers’ Platform has come to an end. Should you have any further questions, please refer to the Assistant in the lower right corner of the platform’s screen:



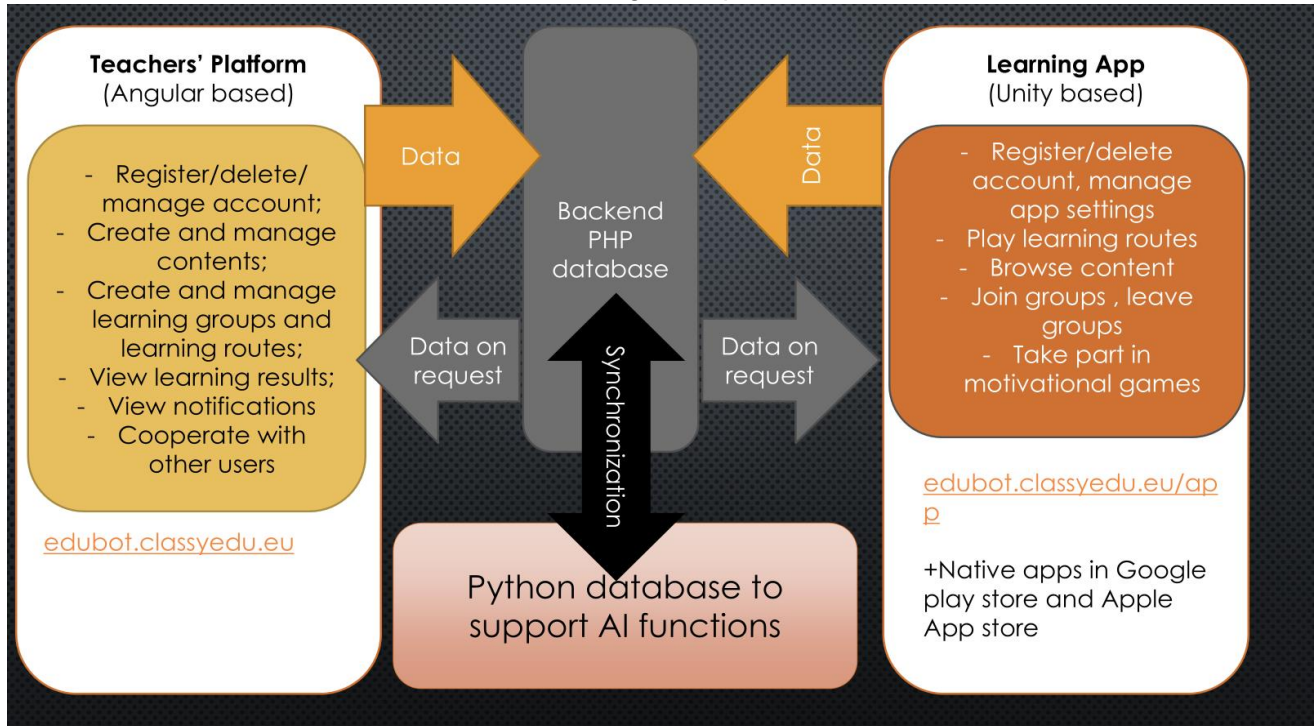
However, the Assistant is not there to become a firewall between humans. Please do not hesitate to contact us with any questions, issues, inquiries you have:

info@interregioforum.hu

Technical Structure of the EDUBOT Solution

General structure

The EDUBOT Solution is built on a clear, although complex, architecture.



The development phase saw the creation of a dynamic database and back-end structure, which are the backbone of the EDUBOT solutions. As this system is a PHP database, a completely new backend structure had to be constructed in Python to allow dynamic access to the AI solutions to the data. The constant synchronization between the PHP and the Python database also had to be developed.

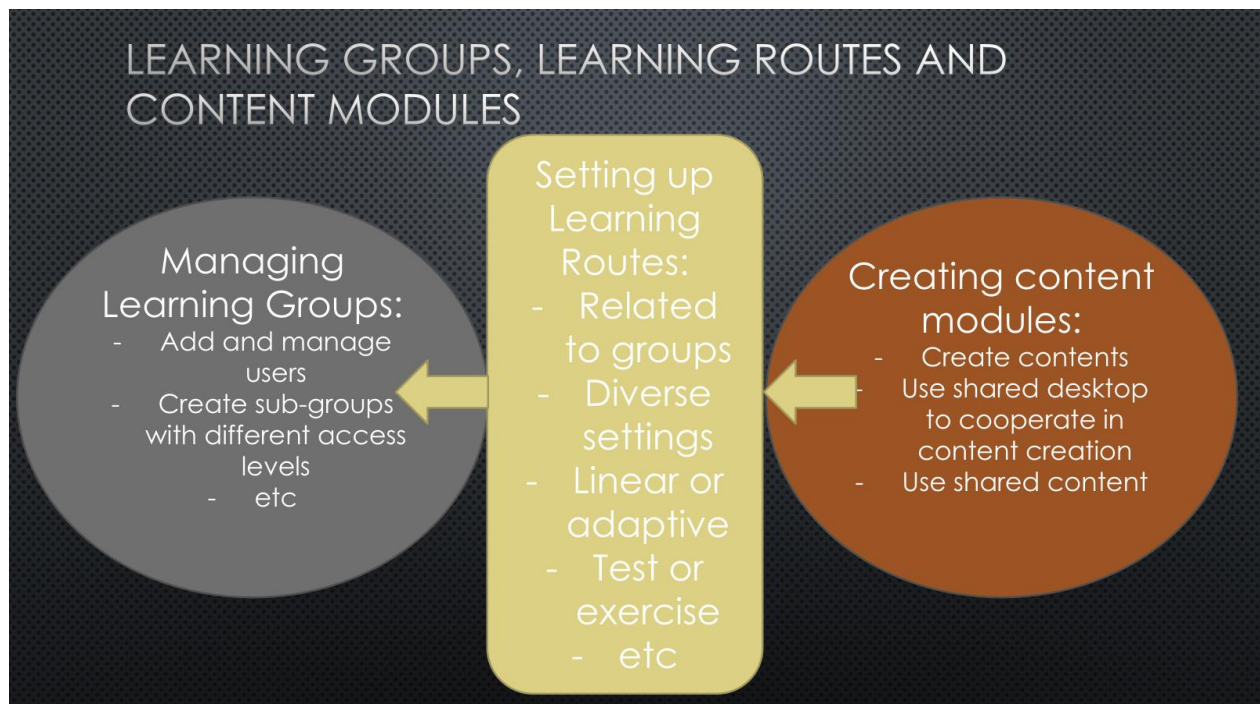
On the front-end side, the EDUBOT Tool, also referred to as Teachers' Platform, was developed. It includes a Learning Management System (LMS) and a Content Authoring Tool (CAT), both powered by AI to create content, handle personalized learning paths, and provide feedback on learning activities.

This tool allows teachers to create and run AI-assisted courses and develop new interactive content, significantly enhancing their instructional capabilities. For students, the EDUBOT App was developed in a Unity environment, available on Android, iOS, and WebGL, specifically designed for the needs of students, user-friendly, and compatible with a wide range of devices, ensuring accessibility. The EDUBOT Assistant consists of several AI solutions integrated into both the Tool and the App. It assists students with adaptive learning routes, simple conversations and choosing knowledge elements, helping questions and explanations, while also supporting

teachers in group management and content development. The development of the Assistant functions included programming and training the applied chatbots.

Managing Groups, creating Content Modules and Contents to Groups with Learning Routes

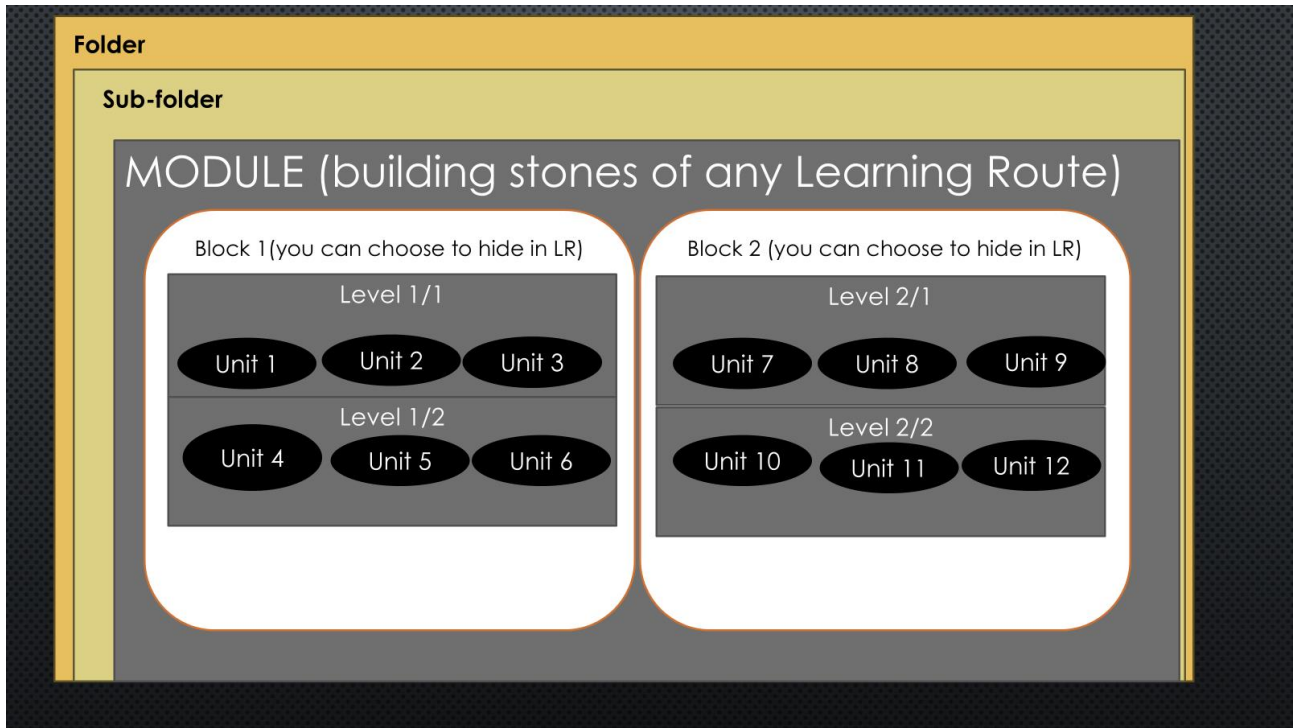
The **Teachers' Platform** integrates Learning Management System (LMS) and a Content Authoring Tool (CAT), functions, both powered by AI to create content, handle personalized learning paths, and provide feedback on learning activities.



The management of the learning process is based on Learning Groups. Within the Groups, we create separate Permission groups for teachers and students so that teachers can access functions like managing content and viewing reports that are not open to students. It is always up to the Group's owner what permission is given to group members.

The contents are created as **Units**, which are grouped in **Modules**.

Modules can have multiple levels, supporting the AI Assistant to design personalized learning paths in adaptive routes.

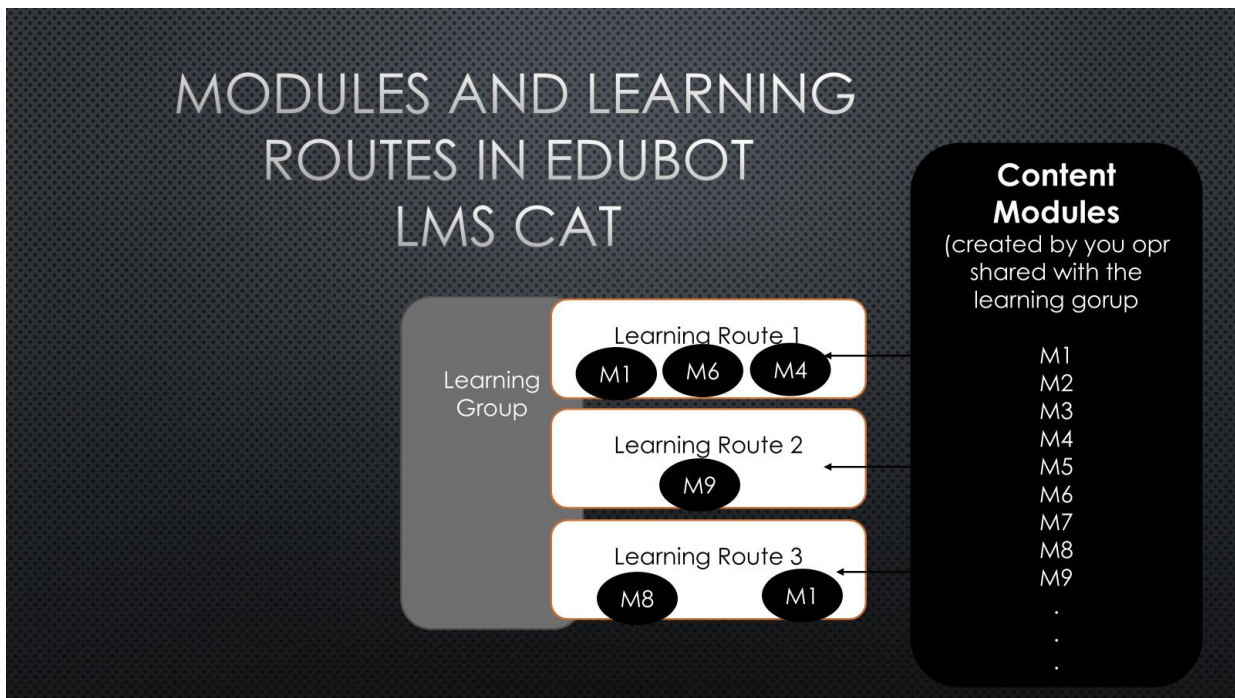


Groups and **content modules** are connected by **Learning Routes**.

This structure provides Edubot with a unique flexibility.

The same content can be used in several learning routes with different settings, so the same content can be applied in different educational contexts.

For example, a content module can be a test in one learning route and an exercise in another.



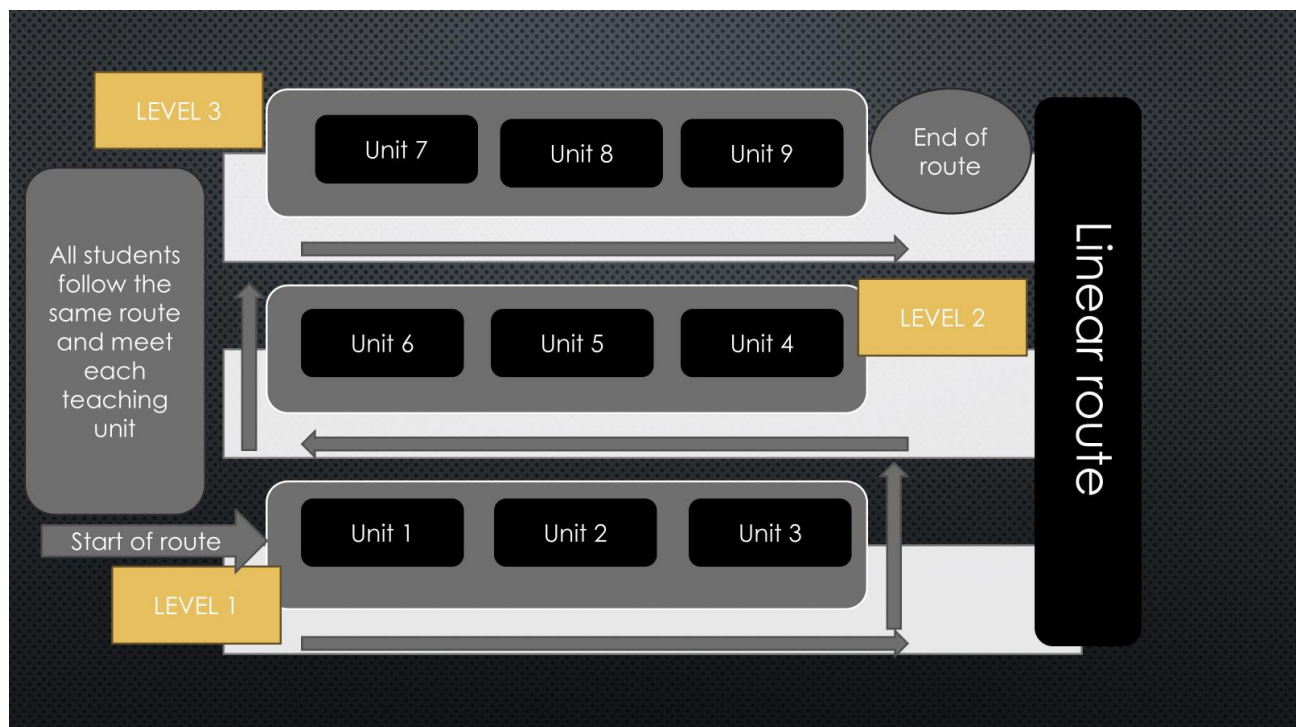
Linear and Adaptive Learning Routes explained

Learning routes can be set up as linear or adaptive.

As modules can be used in several learning routes, a certain content can be presented to students in several ways: as a linear route, or as an adaptive route with different pre-settings.

Linear routes are very simple: the units come one after the other, and the student will meet them in the order the teacher placed them. Linear routes are perfect for presenting some new information: we present a video or a text, then we give some questions to see if the student got the point.

However, in linear routes there is no room for differentiation. Some students might get bored, finding the information familiar and tasks too easy to solve. Others might find the same tasks unsolvable and might lack the basis to understand the presented information.

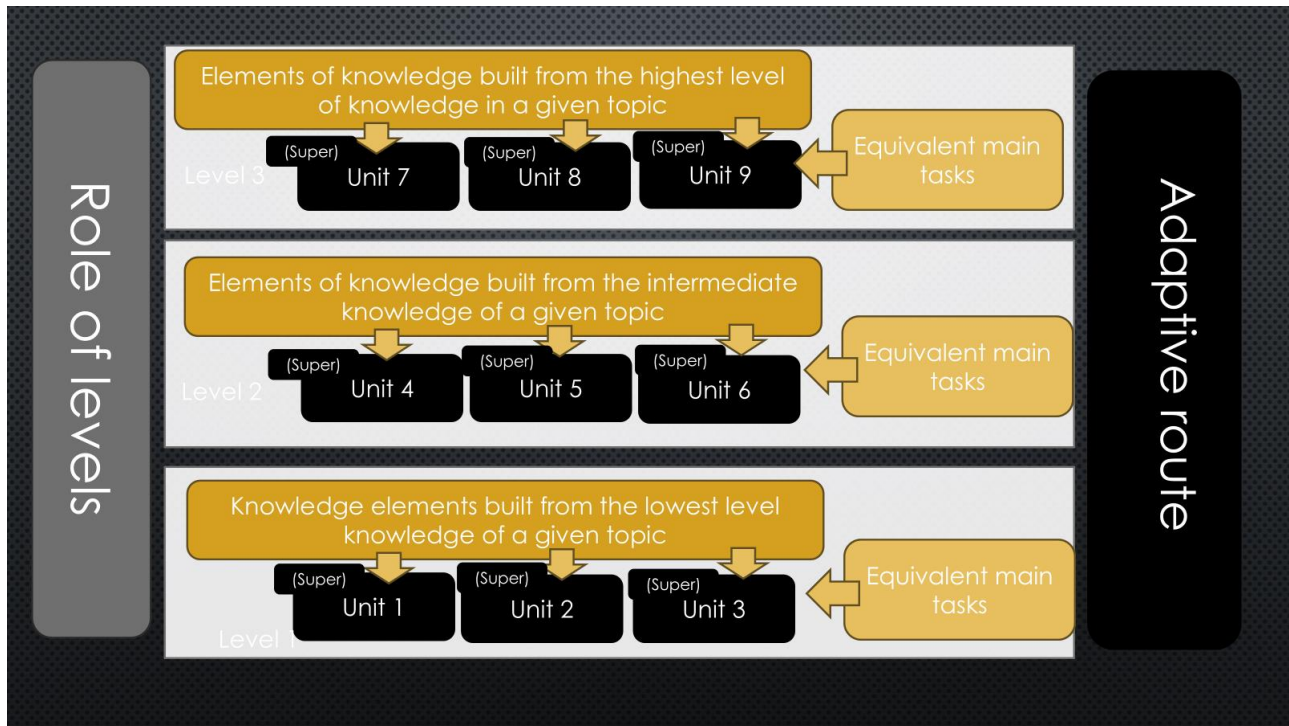


But here comes the **adaptive route** to solve this problem.

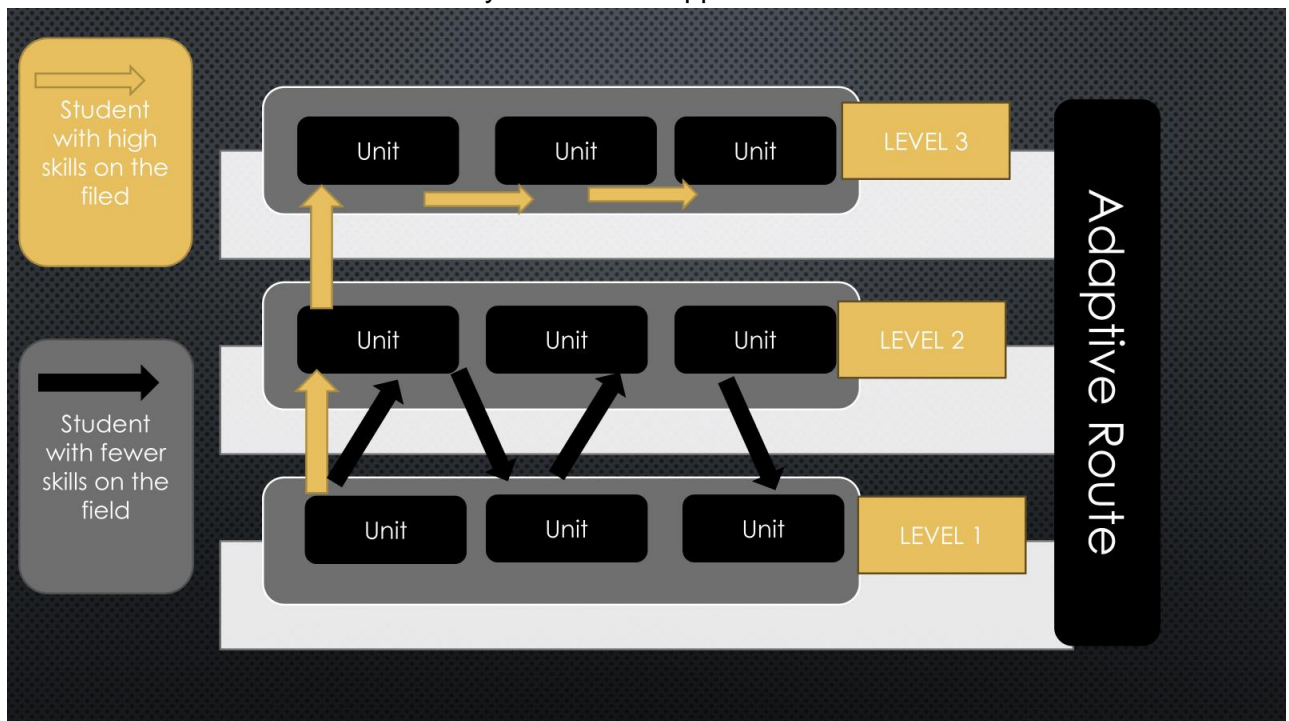
The AI assistant leads the students in personalized pathways: every student advancing in their own pace.

Obviously, the content should be created in a way to suit this approach.

Therefore, the units on a certain level of the modules in the adaptive routes should contain equivalent tasks, covering a certain level of knowledge required to complete the level.



So, those who solve a task on a certain level without external support can be allowed to pass to the next level. Those who don't... they need to be supported.



How to support then the students who cannot solve the tasks on a certain level by their own?

The solution offered by Edubot is the hero of the adaptive routes, the **Superunit**.



A **SuperUnit** is a regular unit transformed into a complex learning block containing interconnected elements. The scope of a SuperUnit is to help the student to solve the Main Task.

Main Task / MT (the Main Task / MT (the main tasks to be solved in the SuperUnit is the Unit we transformed into SuperUnit, the MT is always an interactive question, text or video units cannot be transformed into superunits)

Knowledge elements/KE (there can be several KE, their role is to provide support to solve the main task. KE is a text or video file.)

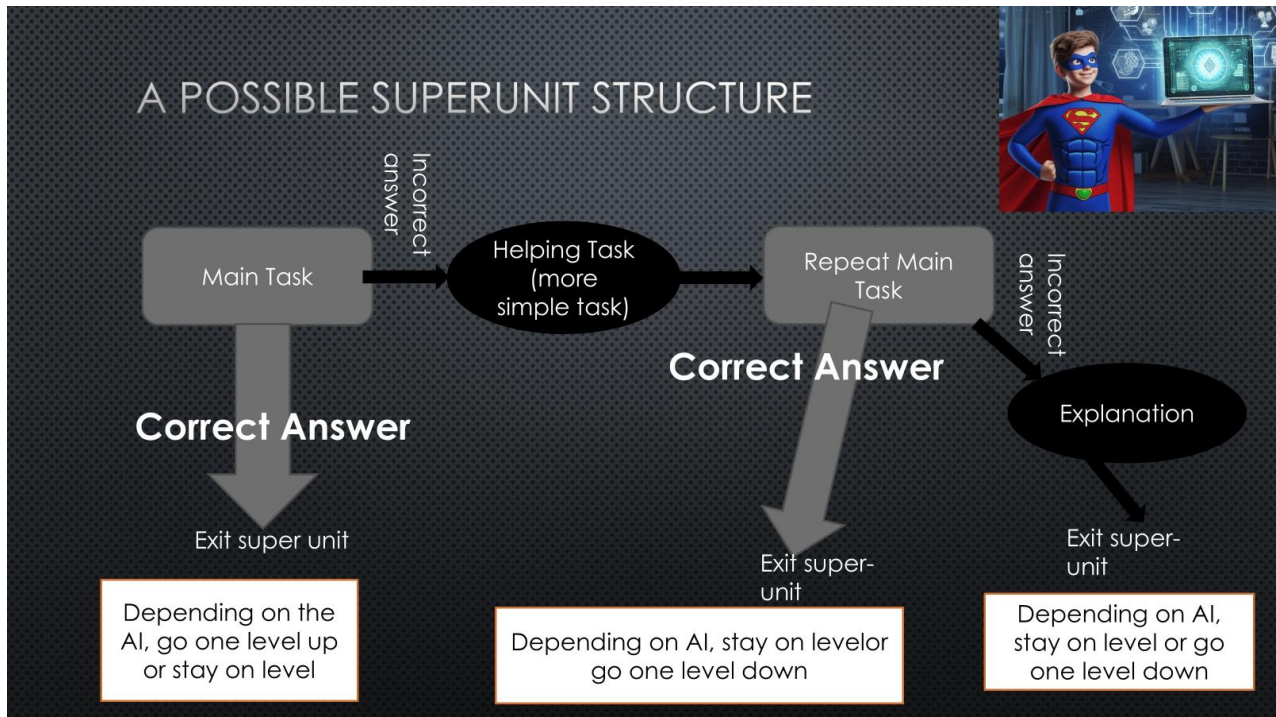
Helping Questions/HQ (there can be several HQ, their role is to provide support to solve the main task. HQ is an interactive question, preferably set in "Exercise" mode, so that the student cannot leave it without providing the right answer)

•**Repetition of the main task /RE** (there can be potentially an unlimited nr of repetition, practically 1 or 2 should occur)

Explanation /EX (There should be one explanation at the end of the SuperUnit, for those students who could not solve the task even after all the KE and HQ they got. The EX provides a solution to the task. It is a text or video file)

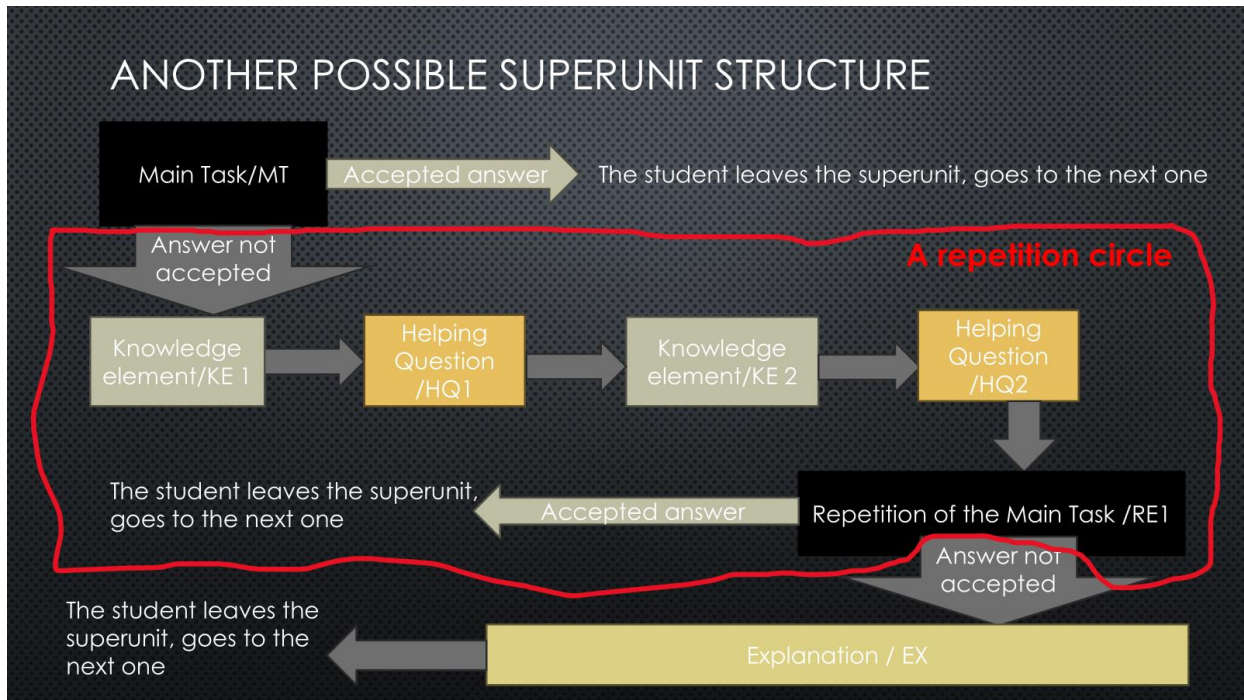
The **Superunit** is a unit that has linked to it other units: knowledge elements, explanations, helping questions, and even the solution of the task explained in text or/and video. Some elements can be linked to several units, and, of course, ANY unit can become a superunit.

Here is a possible structure of a **Superunit**:

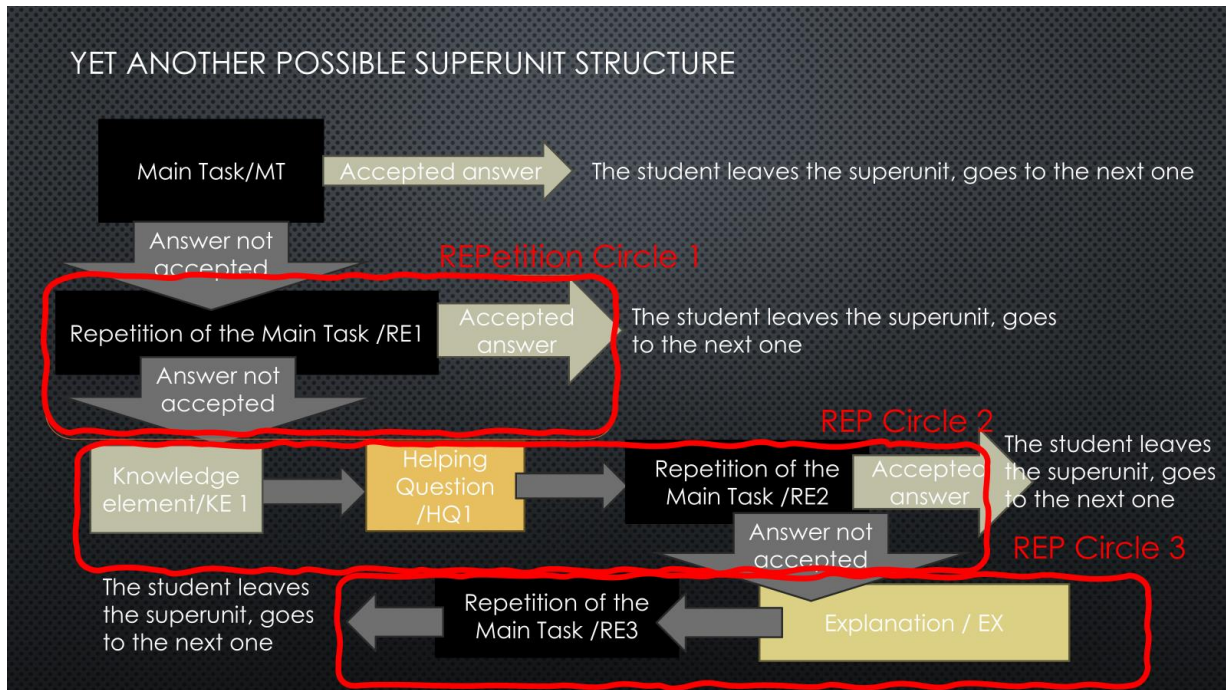


As you can see, the point here is to enable the Assistant to support the student without the intervention of a human teacher.

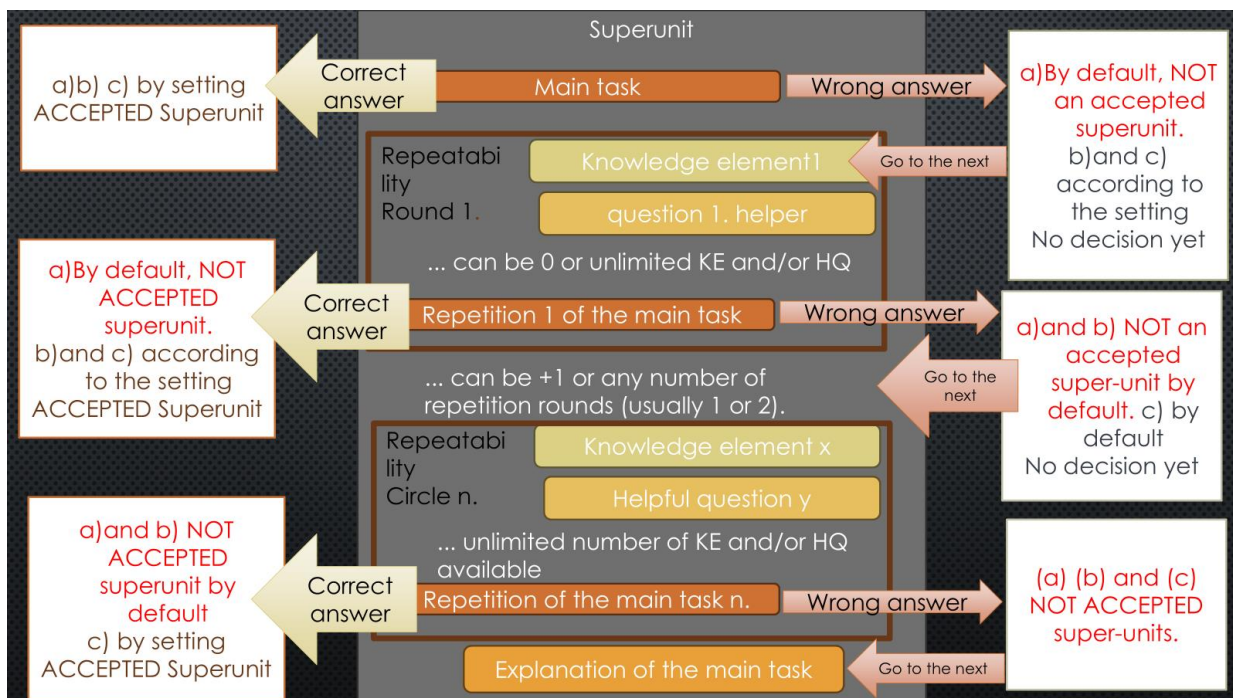
The Superunit structure is flexible, so there can be several knowledge elements and helping questions related to the main tasks.



Depending on the complexity of the main task, the Assistant can offer several types of help and can repeat the main task more than once, although too many repetitions might become counterproductive.

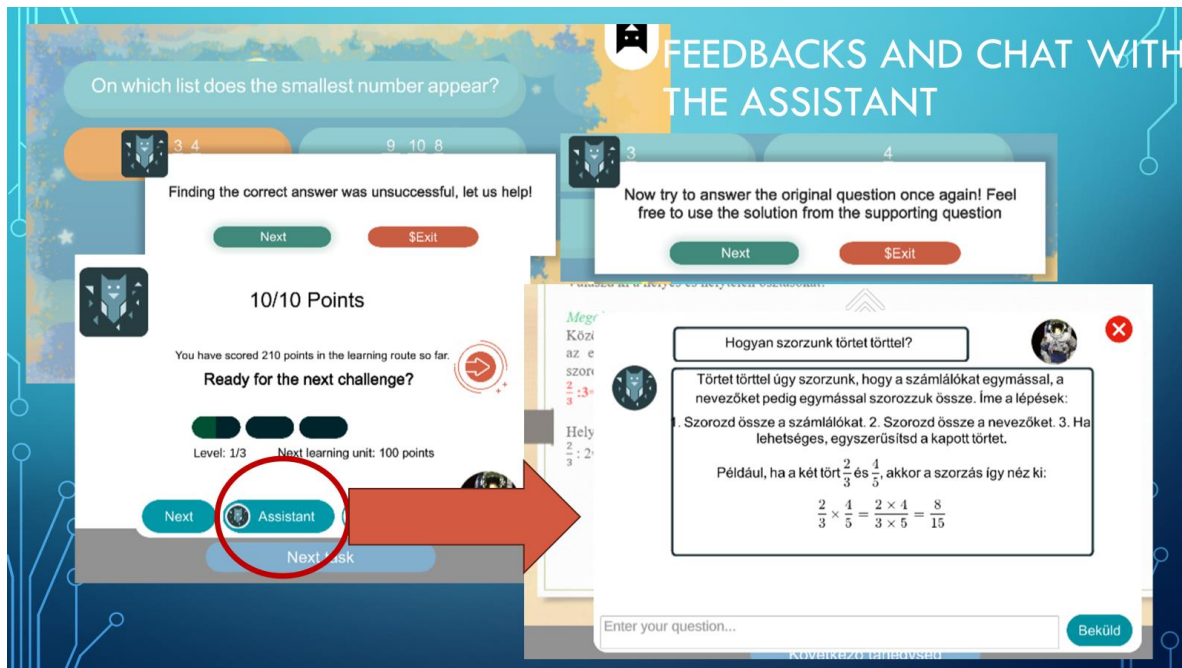


Finally, here is a model of a hypothetical Superunit with an unlimited number of “repetition circles” and the possible outcomes of the student’s actions.



A Comprehensive Guide to EDUBOT

It is at the end of the Superunit that the student can directly address questions to the Assistant.



Chat within the superunits is not allowed. This is because some students get tempted to ask the robot for the final answer if allowed to chat during solving the task. Such an answer would not help the learning process, and it would lead to false information regarding the student's competencies as well.

Oriental prompts for the AI Assistant: settings of the adaptive routes

The AI Assistant can be unleashed and allowed to lead the students as it wants.

In large learning programmes, where many students work with the same material, this is a good solution.

However, at the beginning of all processes, teachers are urged to set limits to the AI by giving some prompts on how to lead the students.

This is how you avoid questions like, "Why did I fall two levels at once? Why am I still on level 3 when I completed two tasks?" Or at least you will be able to answer those questions :).

We suggest you use the AI prompts nicknamed "The Flow," "Steady Way to the Top," "Jumping Jack," and "Challenge Road."

In this chapter, you will get an insight on what happens when you give these orders to the Assistant.



First of all, you have to select the “AI adaptive” setting in the first dropdown box. Then, select Full route, and select a setting for your route.

Here is a step-by-step tutorial on how to do it:

The screenshot shows the 'Edit learning route' interface with the following settings:

- Basic settings** | Schedule | **Adaptive mode** | Framework game | Homework
- Playback mode of learning route:** AI Adaptive
- Settings to be applied to:** Full route
- Adaptive modes:** The Flow (default)
- Difficulty of leveling up:** Medium
- Difficulty of leveling down:** Easy
- Play learning units in random order (within the same level of difficulty)
- Buttons: Save and exit, Save, Cancel, Delete

<https://www.floik.com/flos/nsw/akoj/7e2d39c0.html?show-author=true>

The default setting of Adaptive roads is “**The Flow**.” If you are a beginner, use this setting. It will allow excelling students to advance quickly, while those who can effectively use the Assistant’s support will not experience fallbacks. Those who cannot really benefit from the support will stay at lower levels.

A Comprehensive Guide to EDUBOT

	Settings within the super-unit	Level step settings
<p>Route setting name: The Flow</p> <p>Level up: Only the first try counts, Move up one level after a successful solution (Medium)</p>	<p>Only the first attempt to solve the main problem is considered.</p> <p>The first attempt to solve the main task + 1 repetition can be considered.</p> <p>All repetitions are taken into account, any solution is considered a correct answer</p>	<p>Level step 1 after accepted superunit</p> <p>Level up after 2 accepted super units</p> <p>Level step after accepting all super units in the level</p>
<p>Level down: First and second attempts count, Move down after a bad solution one level (Easy)</p>	<p>Only the first attempt to solve the main problem is considered.</p> <p>The first attempt to solve the main task + 1 repetition is taken into account.</p> <p>All repetitions are taken into account</p>	<p>1 failed super unit and the student loses a level</p> <p>Level loss after 2 failed super units</p> <p>No level loss in any case</p>

If you want to give a relatively easy way to complete the route for your students, choose the “Steady Way to the Top” setting. Not only excelling students, but also the ones who can use the Assistant’s support will advance quickly in the learning route. Few will be left on the lower levels.

	Settings within the super-unit	Level step settings
<p>Route setting name: Steady Way to the Top</p> <p>Level up: First and second attempts count, Move up a level after a successful solution (Very Easy)</p>	<p>Consider only the first attempt to solve the main problem</p> <p>The first attempt to solve the main task + the 1st repetition counts</p> <p>All repetitions are taken into account, any solution is considered a correct answer</p>	<p>Level step 1 after accepted superunit</p> <p>Level up after 2 accepted super units</p> <p>Level step after accepting all super units in the level</p>
<p>Level down: Every attempt counts, Moves down after two bad solutions one level (Hard)</p>	<p>Only the first attempt to solve the main problem is considered.</p> <p>The first attempt to solve the main task + 1 repetition is taken into account.</p> <p>All repetitions are taken into account</p>	<p>1 failed super unit and the student loses a level</p> <p>Level loss after 2 failed super units</p> <p>No level loss in any case</p>

If you want to offer an exciting learning experience, choose “Jumping Jack”. This setting will imply frequent level up- level down movements. Experience shows that some students might find it embarrassing that even if they learn from the Assistant and solve a repetition of the main task, they can be relegated to a lower level. Others enjoy the jumps and falls.

	Settings within the super-unit	Level step settings
<p>Route setting name: Jumping Jack</p> <p>Level up: Only the first try counts, Move up one level after a successful solution (Medium)</p>	<p>Consider only the first attempt to solve the main problem</p> <p>First attempt to solve the main task + 1 repetition is considered</p> <p>All repetitions are taken into account, any solution is considered a correct answer</p>	<p>Level step 1 after accepted superunit</p> <p>Level up after 2 accepted super units</p> <p>Level step after accepting all super units in the level</p>
<p>Level down: Only the first try counts, Move down after a bad solution One level up (Very Easy)</p>	<p>Consider only the first attempt to solve the main problem</p> <p>The first attempt to solve the main task + 1 repetition is taken into account</p> <p>All repetitions are taken into account</p>	<p>1 unaccepted superunit and the student loses a level</p> <p>2 unaccepted superunits after level loss</p> <p>No level loss in any case</p>

If you want your group to practice carefully on each level, and get to a higher level if their knowledge is really solid, choose the “Challenge Road”. This setting makes it harder for the students to “climb” all levels of the learning route, and they will certainly meet several main tasks on each level.

Route setting name: Challenge Route Level up: Only the first try counts, Move up a level after two successful solutions (Hard)	Settings within the super-unit Consider only the first attempt to solve the main problem The first attempt to solve the main task + the 1st repetition counts All repetitions are taken into account, any solution is considered a correct answer	Level step settings Level step 1 after accepted superunit Level up after 2 accepted super units Level step after accepting all super units in the level
Level down: First and second attempts count, Move down after a bad solution one level (Easy)	Only the first attempt to solve the main problem is considered. The first attempt to solve the main task + 1 repetition is taken into account. All repetitions are taken into account	1 failed super unit and the student loses a level Level loss after 2 failed super units No level loss in any case

You may want to set on the “Play learning units in random order” button as well. If you do that, students will get a random superunits as a first task on each level. So, if there are 3 superunits on a level, student A will get superunit 1, and student B will get superunit 2 to start with. It is more fun, and it also makes unwanted cooperation more difficult.

Extreme options in adaptive settings for black belt adventurers

Finally, if you really want to dig deep into the world of the adaptive routes, you have two more options.

Only consider these if you really have a lot of time to invest.

One option is to completely unleash the AI and let it pick the units without any prompts to consider. This is called “Experimental” mode, so this is what you have to select if you want to experiment with it.

It will produce good results, but only if there is enough data, meaning the case of learning routes (already)played by many students.

Edit learning route

Basic settings Schedule **Adaptive mode** Framework game Homework

Playback mode of learning route

Experimental ✓

Linear

AI Adaptive

Experimental ✓

AI Assisted 1 - SVD ✓

Save and exit

Save

Cancel

Delete

Within the System Plan document there is a chapter describing the logic of the different recommendation algorithms you can unleash. We won't repeat it here as it is very technical, but these are your choices:

Select AI mode

AI Assisted 1 - SVD ✓

AI Assisted 1 - SVD ✓

AI Assisted 2 - baseline Pearson

AI Assisted 3 - means Pearson

AI Assisted 4 - zscore Pearson

On the other extreme of your spectrum of choices, you can choose to take over the job altogether from the Assistant and to set up manually some further conditions for level-up-level-down jumping. If you want to do that, you can select the “Custom” setting.

A Comprehensive Guide to EDUBOT

Edit learning route

Basic settings Schedule **Adaptive mode** Framework game Homework

Playback mode of learning route

AI Adaptive

Settings to be applied to

Full route

Adaptive modes

Custom

Difficulty of leveling up **Difficulty of leveling down**

Medium Medium

Play learning units in random order (within the same level of difficulty)

Save and exit Save Cancel Delete

These conditions depend on the acceptance of student answers to the main task and its repetitions, respectively, the number of tasks successfully solved on a certain level.

You have to set separately conditions for level up and down, the conditions explained in the following tables:

LEVEL UP OPTIONS

Student will jump one level up if you provide an ACCEPTED answer to the (Main Task only, MT or First rep, MT or any rep):
 ...
 in (ONE or TWO units on the level):
 ...

Edit learning route

VeryEasy	VeryEasy -> Main Task OR the FIRST repetition in ONE superunit
Easy	Easy -> Main Task OR ANY repetition in TWO super-units
Medium	Medium -> Main Task only, in ONE super-unit
Hard	Hard -> Main Task only, in TWO super-units
Impossible	Impossible (linear route)
Easy	-> the user has played all the units in the level (the result does not matter)

Play learning units in random order (within the same level of diff)

LEVEL DOWN OPTIONS

Student will FALL one level DOWN if she provides REJECTED answer(s) to the (Main Task only, MT AND First rep, MT AND Any rep):
 ...
 in (ONE or TWO units on the level):
 ...

Edit learning route

VeryEasy	VeryEasy -> Main Task in ONE superunit (regardless of the repetitions)
Easy	Easy -> Main Task AND First repetition in ONE superunit
Medium	Medium -> Main Task AND First repetition in TWO superunits
Hard	Hard -> Main Task AND ALL repetition in TWO superunits
Impossible	Impossible (linear route) -> Never (the result does not matter)

Play learning units in random order (within the same level of diff)

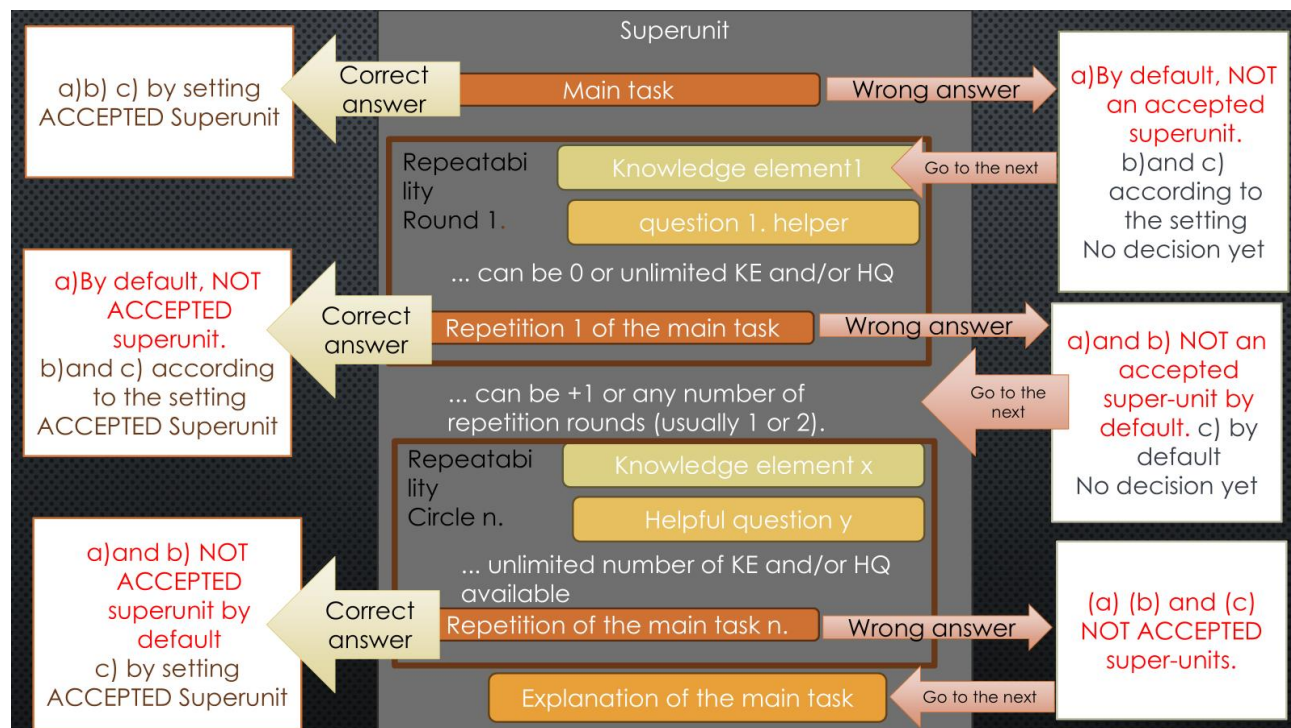
The selection can be done considering the possible outputs of superunits. This needs a little explanation.

There are 3 conditions that determine the easiness/difficulty of level jump/fall.

First, it is important to mention the **Unit Result** criteria. This means the % of result the answer is accepted. This value is set by the content developer when the Unit is created. The value is set to 100% by default, but it can be changed in the Unit settings. For example, if you have a unit which contains 5 questions, you might consider the result accepted if 4 were answered correctly. This criteria refers to all units, not only superunits. This criteria should be referred as “Result criteria”. It is important to keep in mind there is such a criteria. *HOWEVER, WE WILL NOT TALK ABOUT THIS ANY MORE, AS IT IS NOT SOMETHING YOU CAN SET IN THE LEARNING ROUTE SETTINGS, YOU MUST SET IT AT UNIT LEVEL.*

Second, we have to consider if the **Superunit** is accepted.

- The **number of repetitions of the main task that are considered** as valid solutions WITHIN the super-unit. (hereafter: **Acceptance** criteria) This should be set at the level of learning Route. The setting rules should be regulated according to the description in this document. The following possibilities should be considered:
 - **a) only the main task** counts, regardless of the results of the repetitions (if Result criteria is met in the MT, the Superunit is Accepted), backend code: {perfect}
 - **b) the main task AND the FIRST repetition counts** (if result criteria is met in the first Rep, Superunit is Accepted) backend code: {first}
 - **c) the main task the first AND ANY further repetition counts** (if result criteria is met in any repetition, Superunit is accepted) backend code: {any}

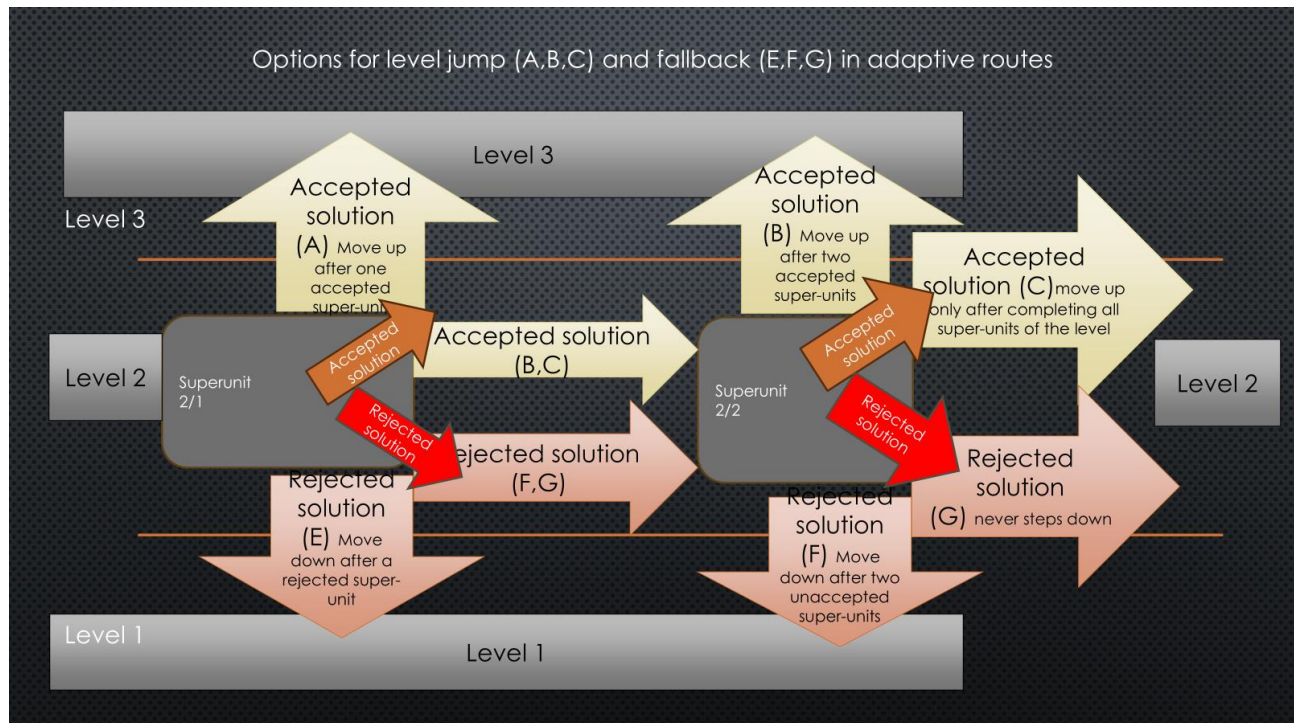


Third, there is a condition that determines what happens if the Superunit is considered successfully solved. (Hereafter: **Next Move criteria**) This condition is also set at the level of the Learning Route. The setting rules should be regulated according to the description in this document. The following possibilities should be considered:

- A. One accepted/failed (F) unit
- B. Two accepted/failed (G) units at a level
- C. Never (G) (it means the route is linear, there is no level jump, no matter what the results are)

The F,G,H refers to the falling back criteria.

See the summary chart below:



To put the last drop into the glass, you can even apply different settings to each block in your learning route.

Edit learning route

Basic settings Schedule **Adaptive mode** Framework game Homework

Playback mode of learning route

AI Adaptive

Settings to be applied to

Per block

Block 1

Difficulty of leveling up **Difficulty of leveling down**

Easy Easy

Play learning units in random order (within the same level of difficulty)

Block 2

Difficulty of leveling up **Difficulty of leveling down**

Easy Medium

Play learning units in random order (within the same level of difficulty)

Block 3

Difficulty of leveling up **Difficulty of leveling down**

Hard Easy

Play learning units in random order (within the same level of difficulty)

Save and exit **Save** **Cancel** **Delete**

That would make the route more exciting for some students, as, for example, the route can get increasingly difficult. It can also be embarrassing for other students. 😊

This is the experimental part of Edubot.

If you come this far, please share the learnings with us!

interregioforum@gmail.com