Discovery Trail

USER MANUAL

Discovery Trail is browser based educational map application for creating trails and showing user-oriented interactive content in pre-defined geographical location in various playful ways.

Discovery Trail
Systematic use of digital outdoor learning tool

Co-funded by the Erasmus+ Programme of the European Union

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- The **Discovery Trail (Avastusrada)** is a browser-based application that helps you create interactive outdoor trails **www.avastusrada.ee**, where players can follow marked interactive trails, answer questions, get information, do exercises, study surroundings.
- The **Discovery Trail (Avastusrada)** was developed in 2013 for **Environmental Board** with focus on teaching environmental and sustainability issues in **centres of environmental education.**
- In 2019 we got it back for **Tallinn University** for further development.
- Currently in use in **Erasmus+ KA2 project** and in base research of TLU **research group SEEMIK**.
- Created for **centres of environmental education**, now also used by **schools** and some **private companies** (e.g. for language learning or tourism purpose).

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- Educators can create trails **for everyone** (topics, age, surroundings, language etc) and everyone who has **smartphone or tablet** with **any operation system**, **GPS** and **mobile data** (at least 3G) can follow it.
- The **trailpoint** can be information board, multiple choice test, open text responses or picture.
- The application allows to **integrate the subjects** of natural sciences and humanities through practical activities and inquiry learning and to enhance general competencies.
- The **player** has to **find** the way from one **trailpoint** to an other, interactive map showing players **location in realtime**. The task opens **only** if the player is in **predefined radius** from trailpoint.
- The players are encouraged to use **other applications** or **information sources** for solving the tasks (IT competences).

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- Applications like the Discovery Trail are **cheaper** and **flexible** alternatives for physical information boards of outdoor learning trails.
- As the digital devices are part of everyday life of the younger generation therefore they are **more motivated** to learn outside using applications like Discovery Trail.
- Creating Discovery Trails is easy and it gives opportunity to **consider** the current **characteristics** of surroundings and players.
- With specific design of tasks it is possible to **evaluate** the player **development** and **effectivness** of the trail.

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- **The educator** can create the trail either in office or directly on the landscape.
- The educator has **real-time overview** of “explorers” progress (safety).
- The educator get **responses in real-time**, semiautomatic control - depending on the task type it may be already marked as correct/incorrect.
- **Pictures, photos, music files or videos** can be used as a question or information.
- The **player** has to **find** the way from one **trailpoint** to an other, interactive map showing players **location in realtime**. The task opens **only** if the player is in **predefined radius** from trailpoint.
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Discovery Trail

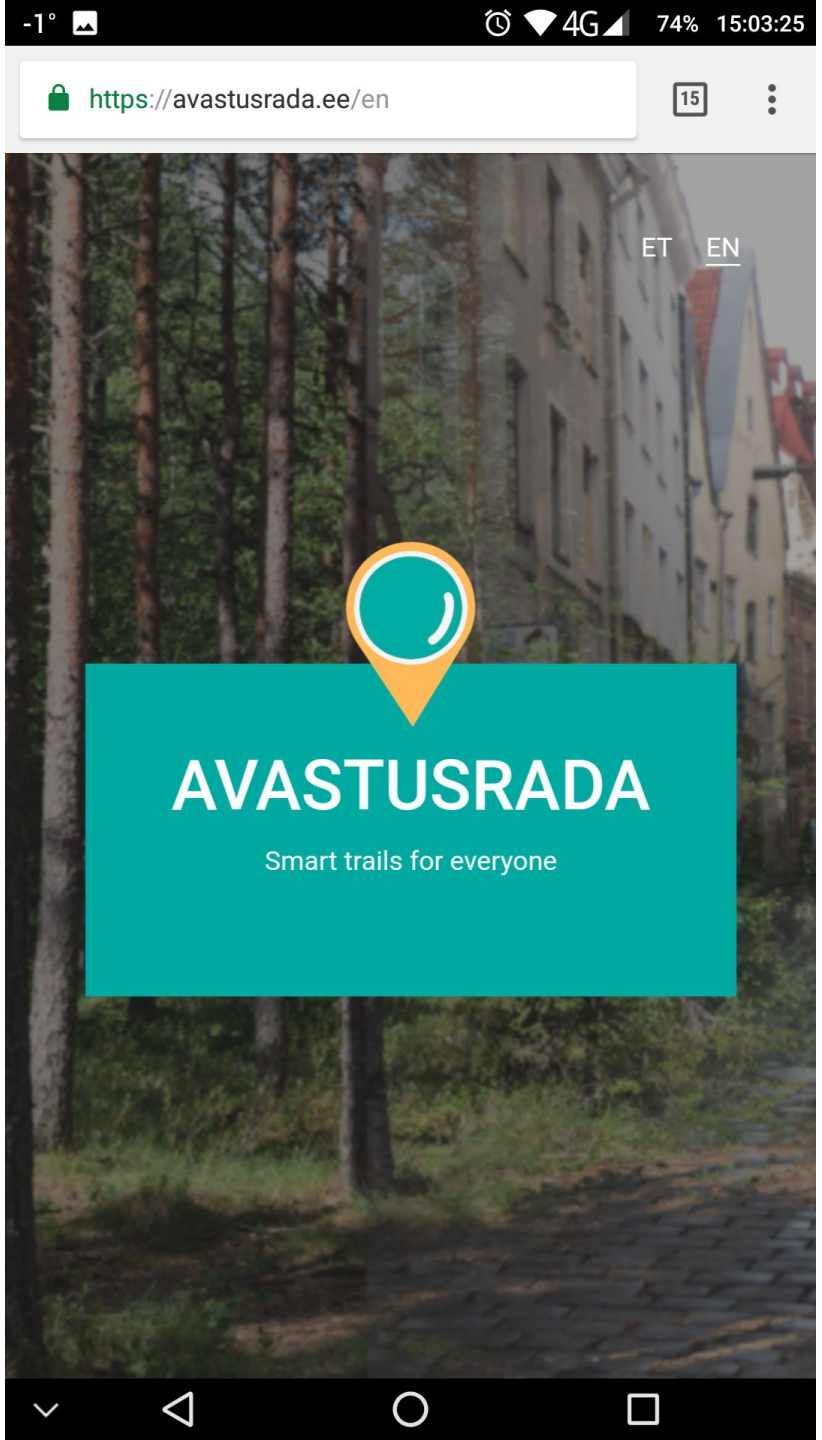
Smart trails for everyone

How to play Discovery Trail?

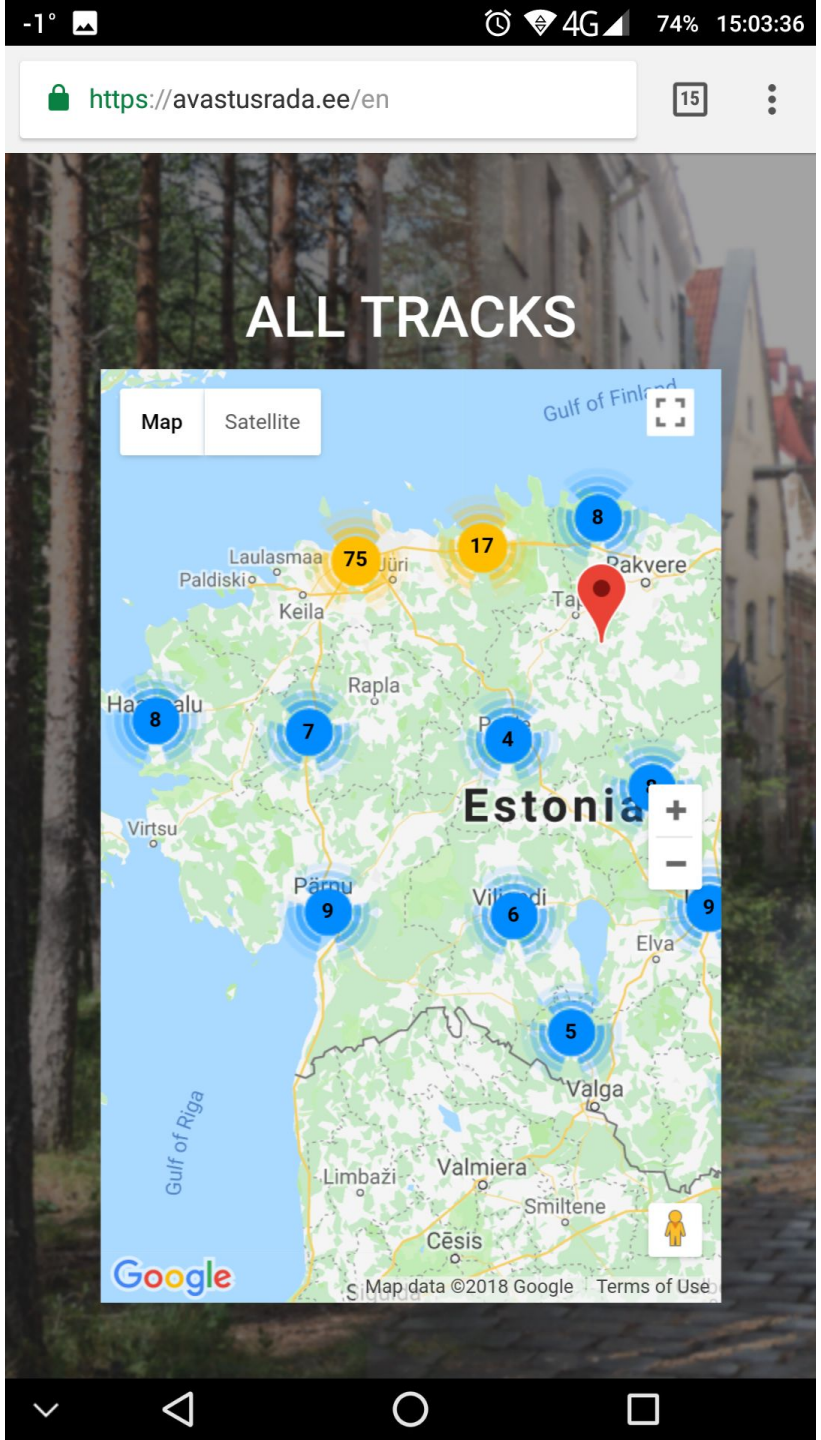
Euroopa Liit
Euroopa Sotsiaalfond

Eesti tuleviku heaks

TALLINNA ÜLIKOOL



On the opening page of avastusarada.ee, there is a short description, a map with available tracks, and links to the FAQ section (currently outdated version).



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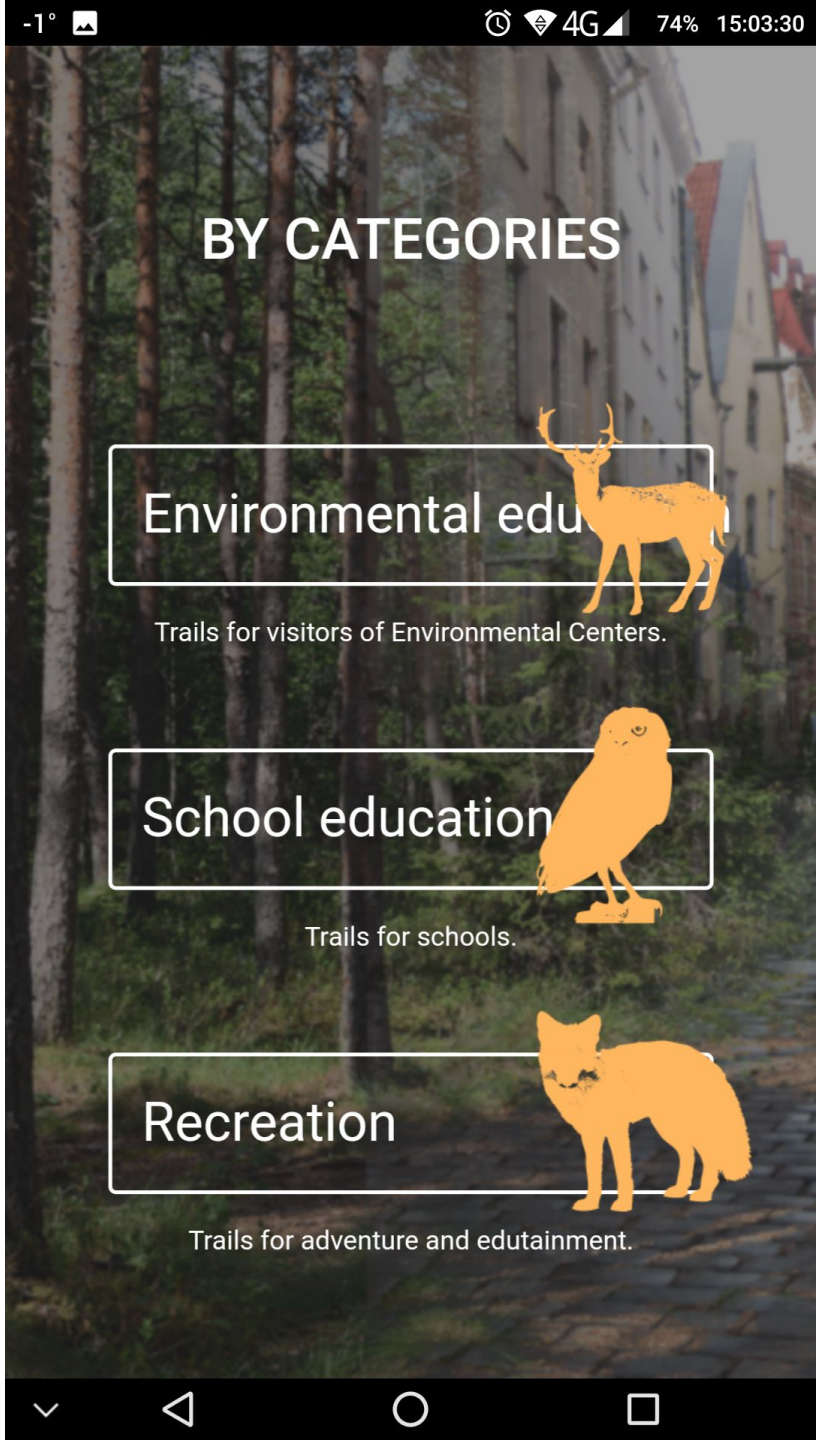
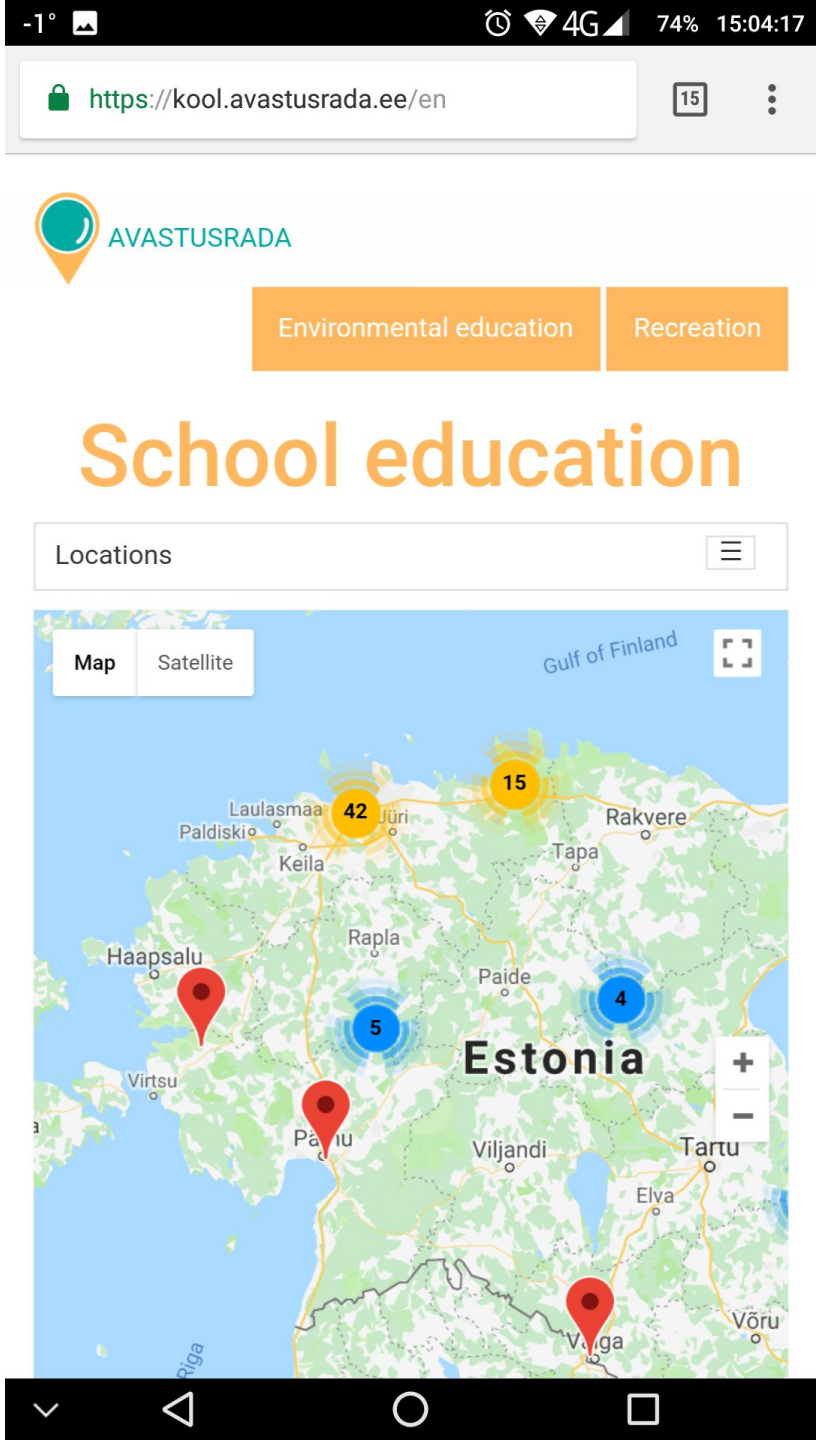


You can choose between three possibilities: trails for Environmental education, School education, or Recreational purposes.

Players can choose the nearest trail from the map or from the list.



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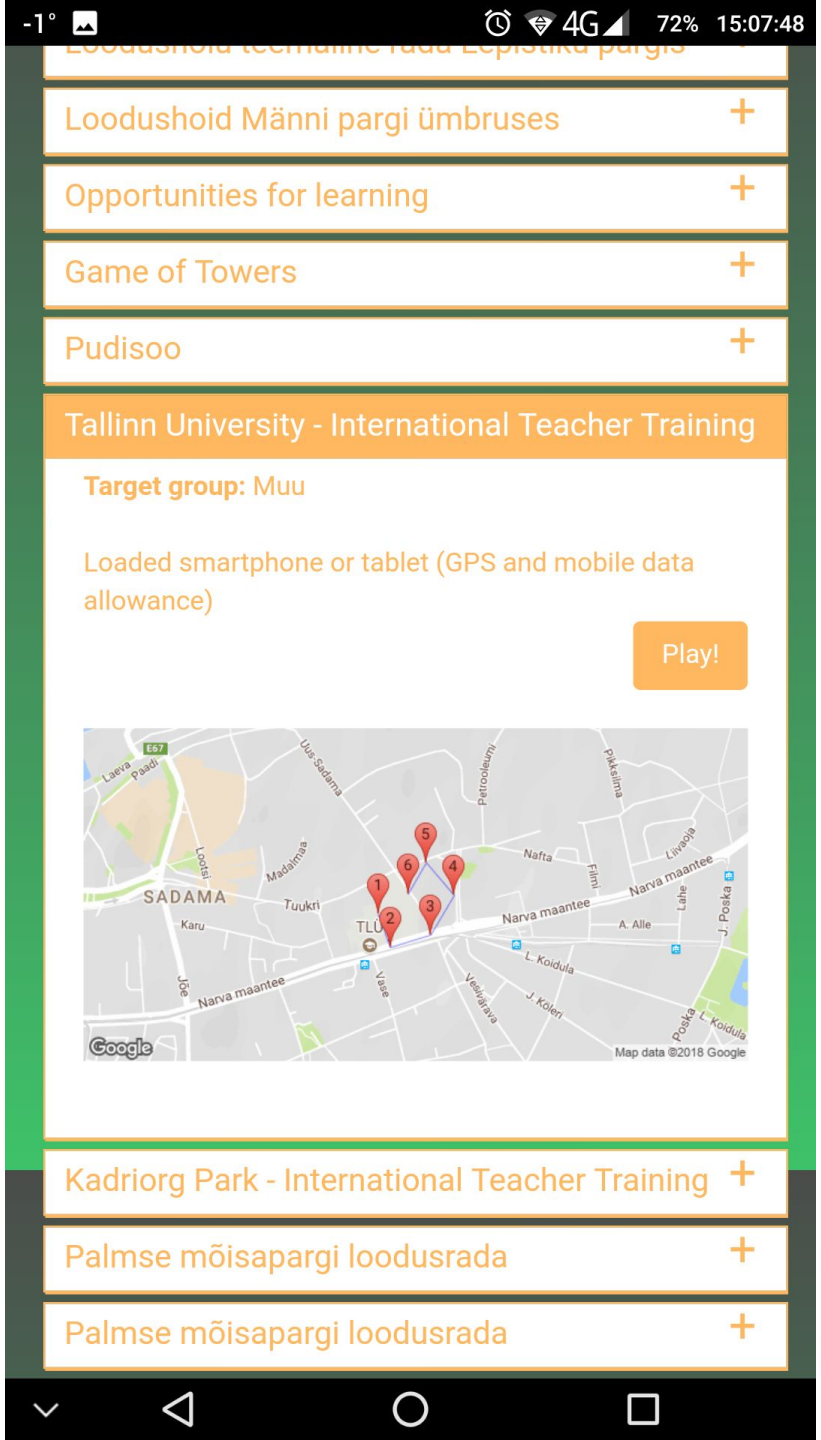
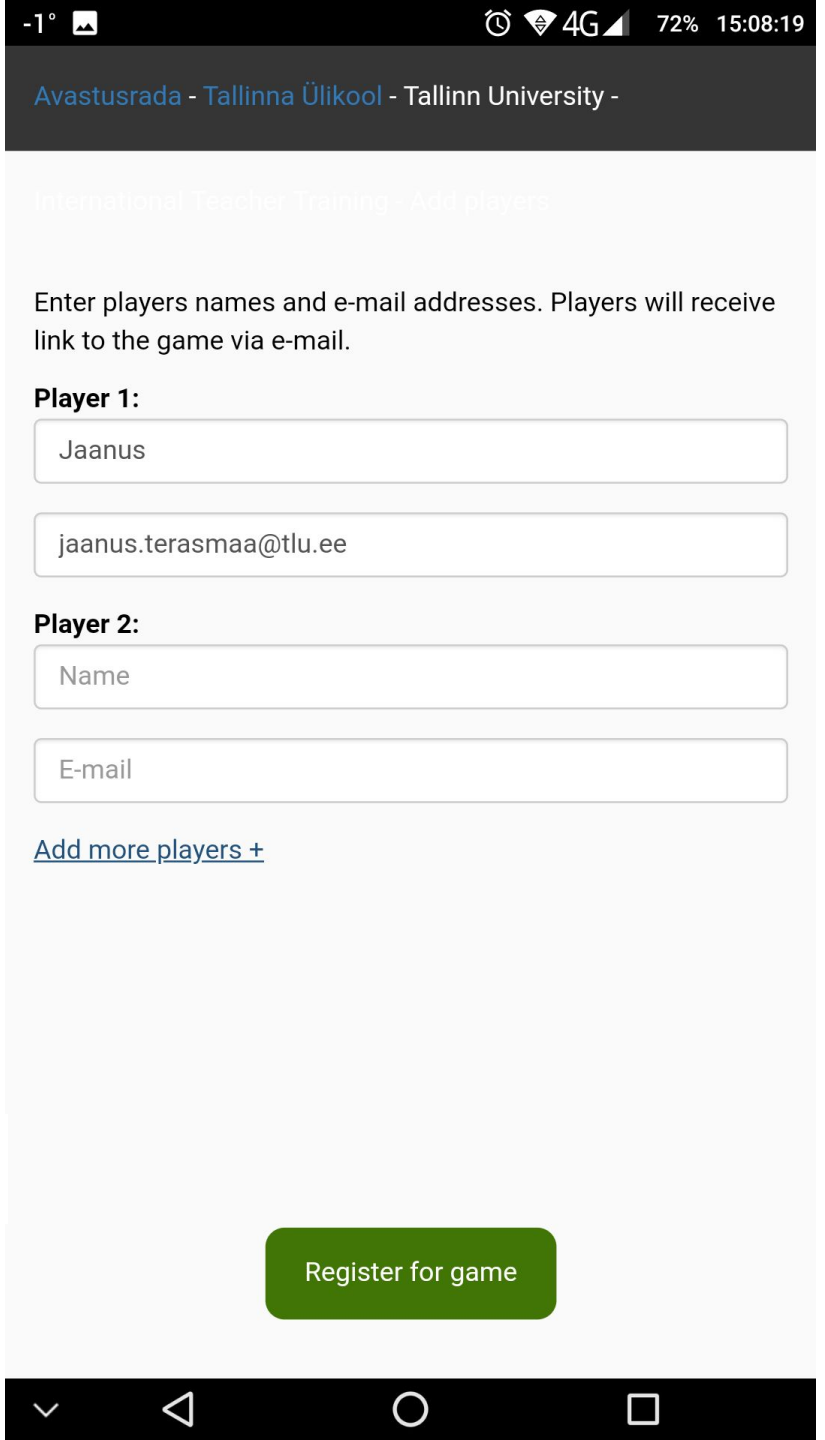


On the trail information screen, players see the locations of the trail points.

On the player registration screen, an unlimited number of players can join the game. Names and emails are needed.

All these steps, including the previous ones, can also be done from home using a desktop computer or laptop.

After pressing "Register for game", an email will be sent.



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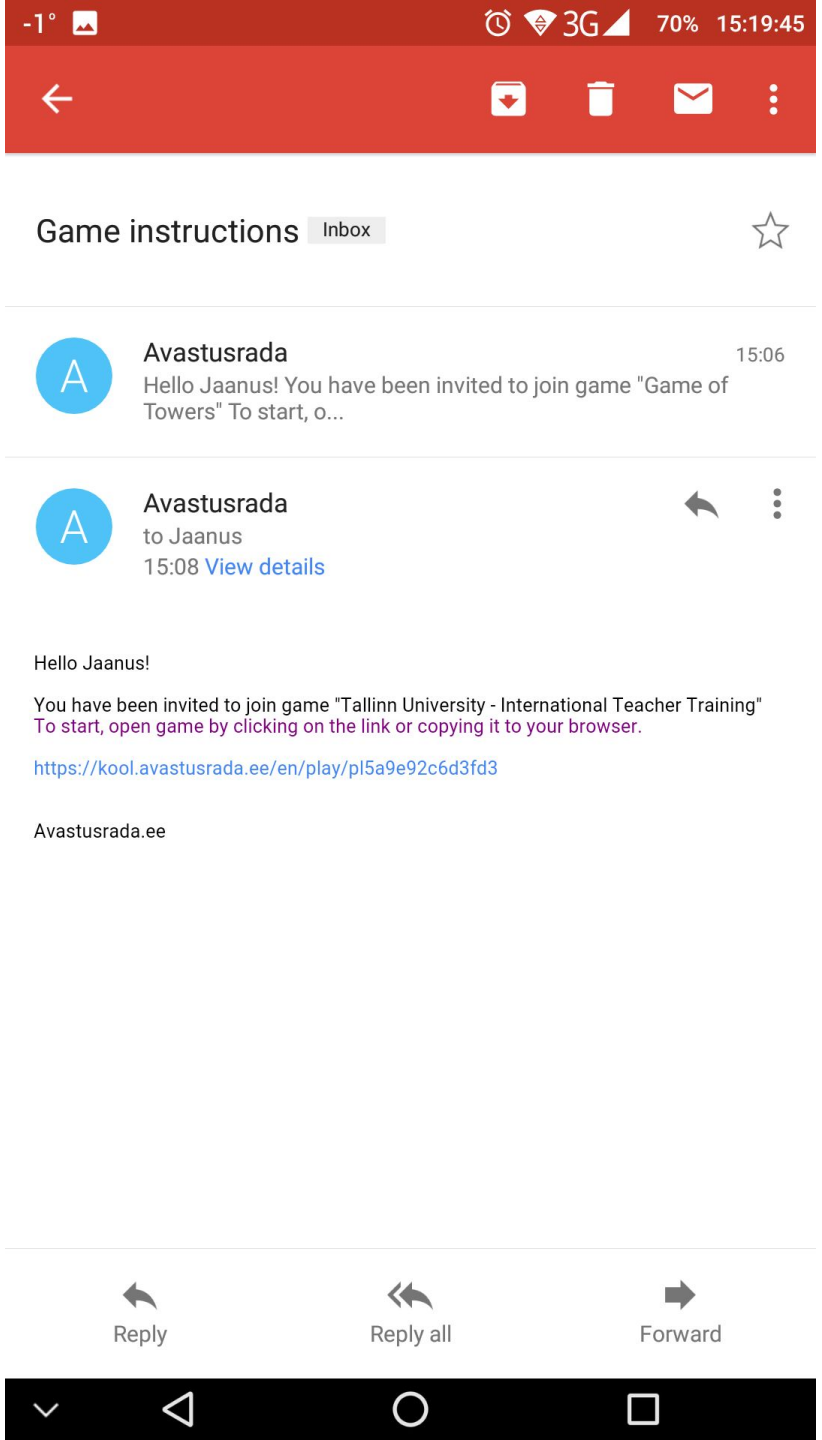
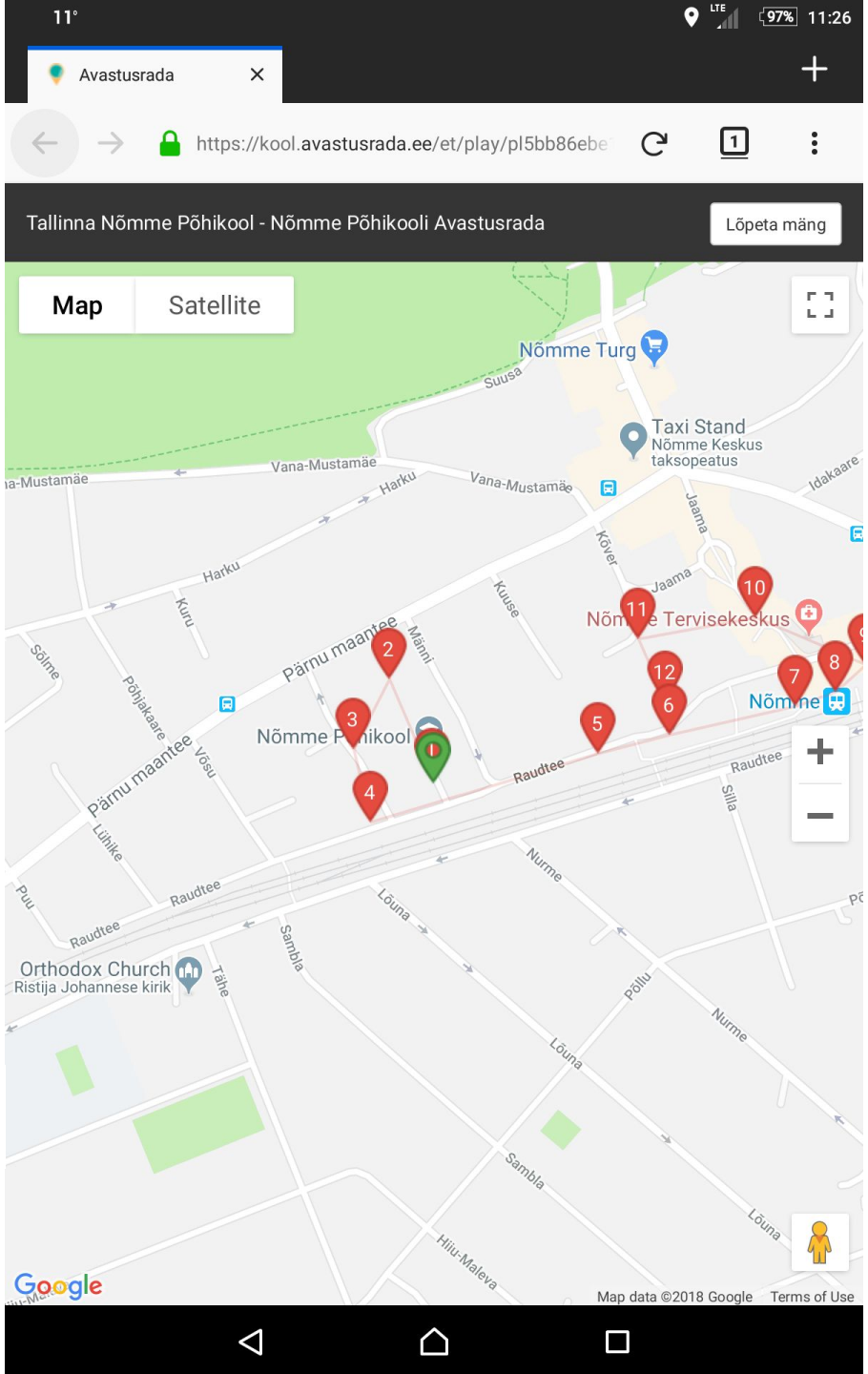


After clicking the link, a new browser window will open where the player can see all trail points.

Red pins represent trail points, while a green pin represents the player.

Questions will open when the player is within the predefined range (which can be changed in the game settings).



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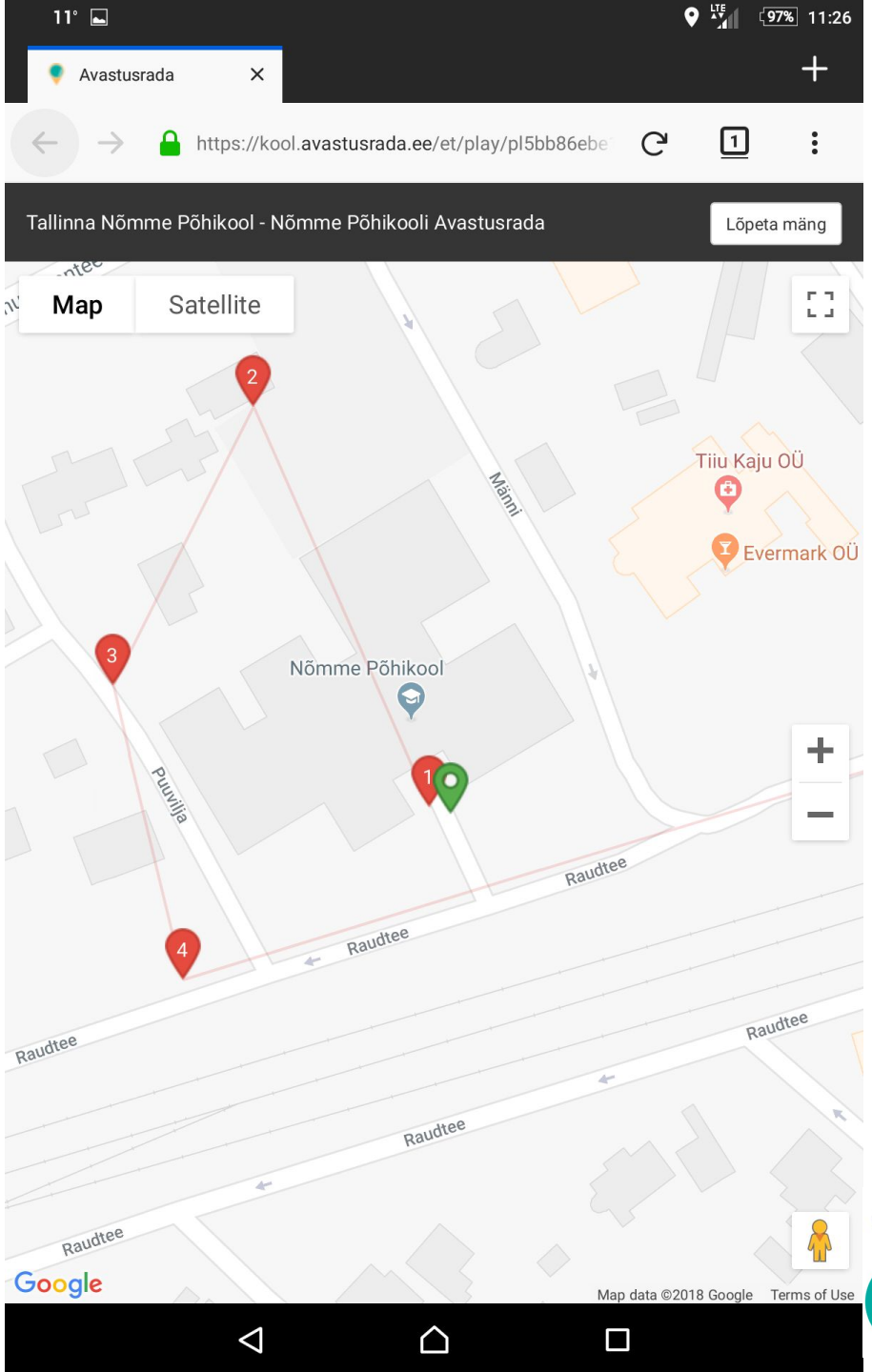

On the map, players can zoom in and out, use satellite imagery, or even street view (if available) to find the exact location of the trail points.

Avastusrada is not a navigation device; it doesn't provide directions or voice commands. It operates as a map on which players must find their way.

This way, players will learn how to use more classical navigation methods and must be able to read the map in order to orientate themselves in the landscape.

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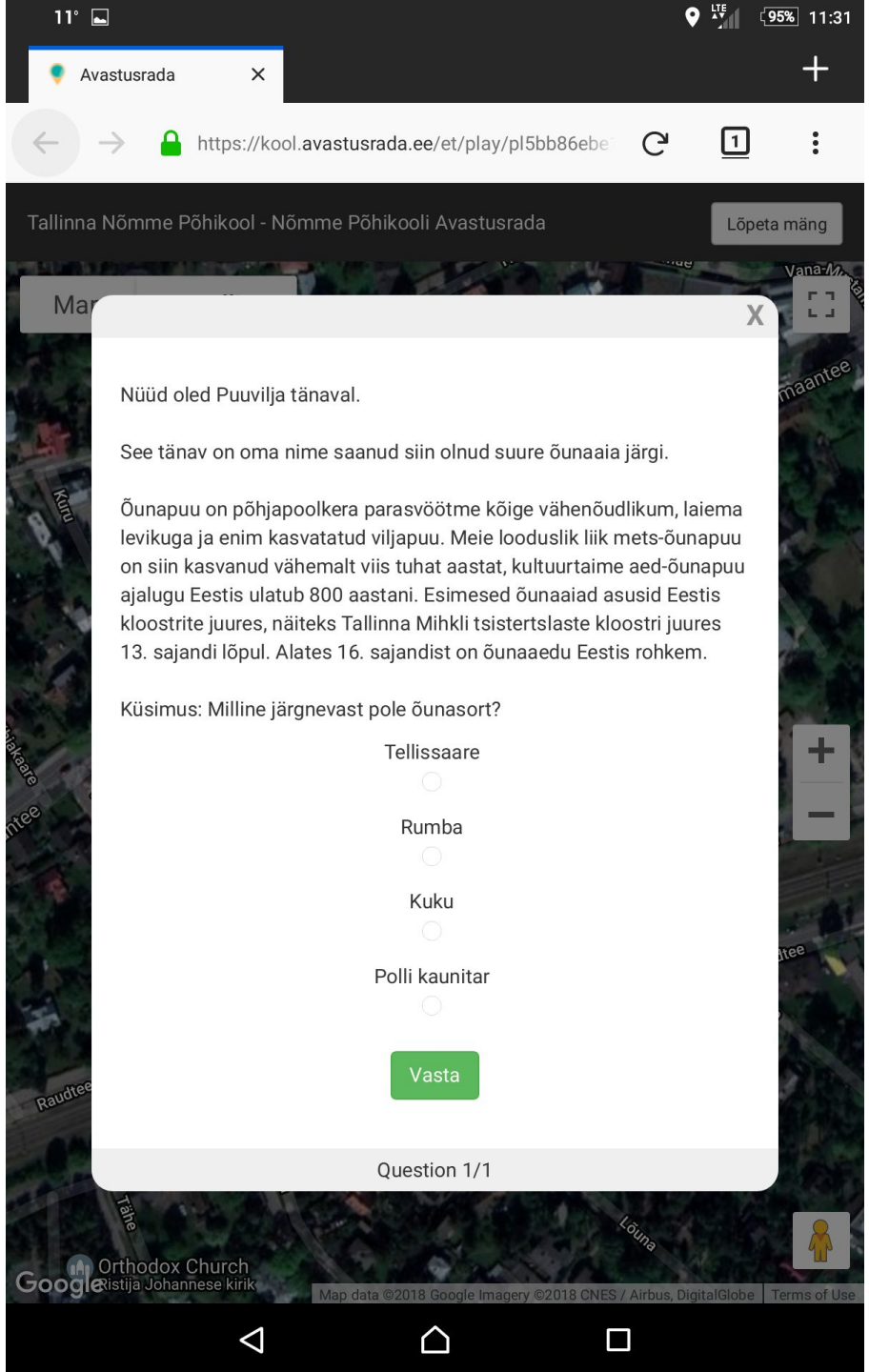
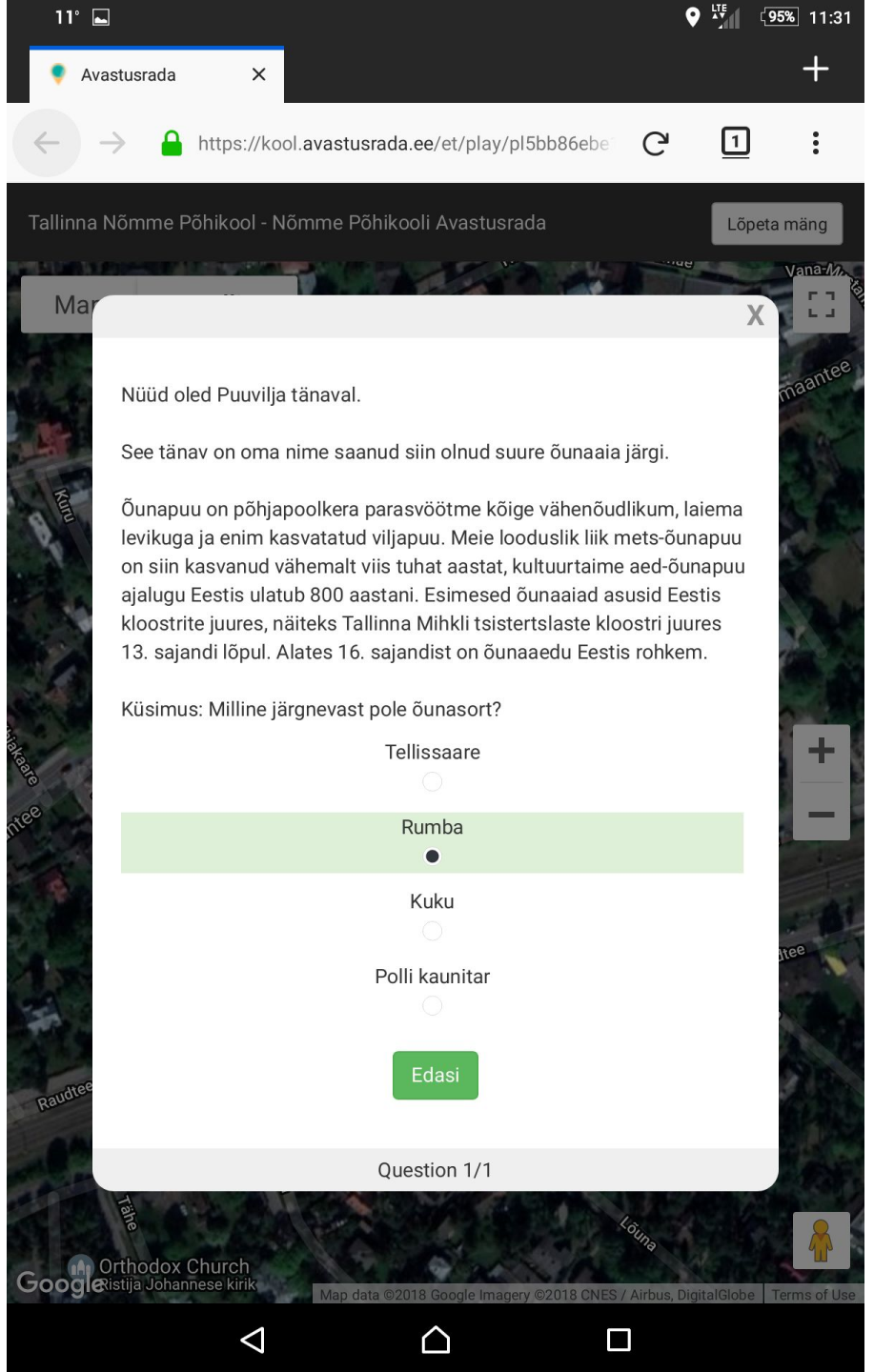


Once the question is answered and submitted, it cannot be changed.

If a trail point is too far away, it cannot be opened.



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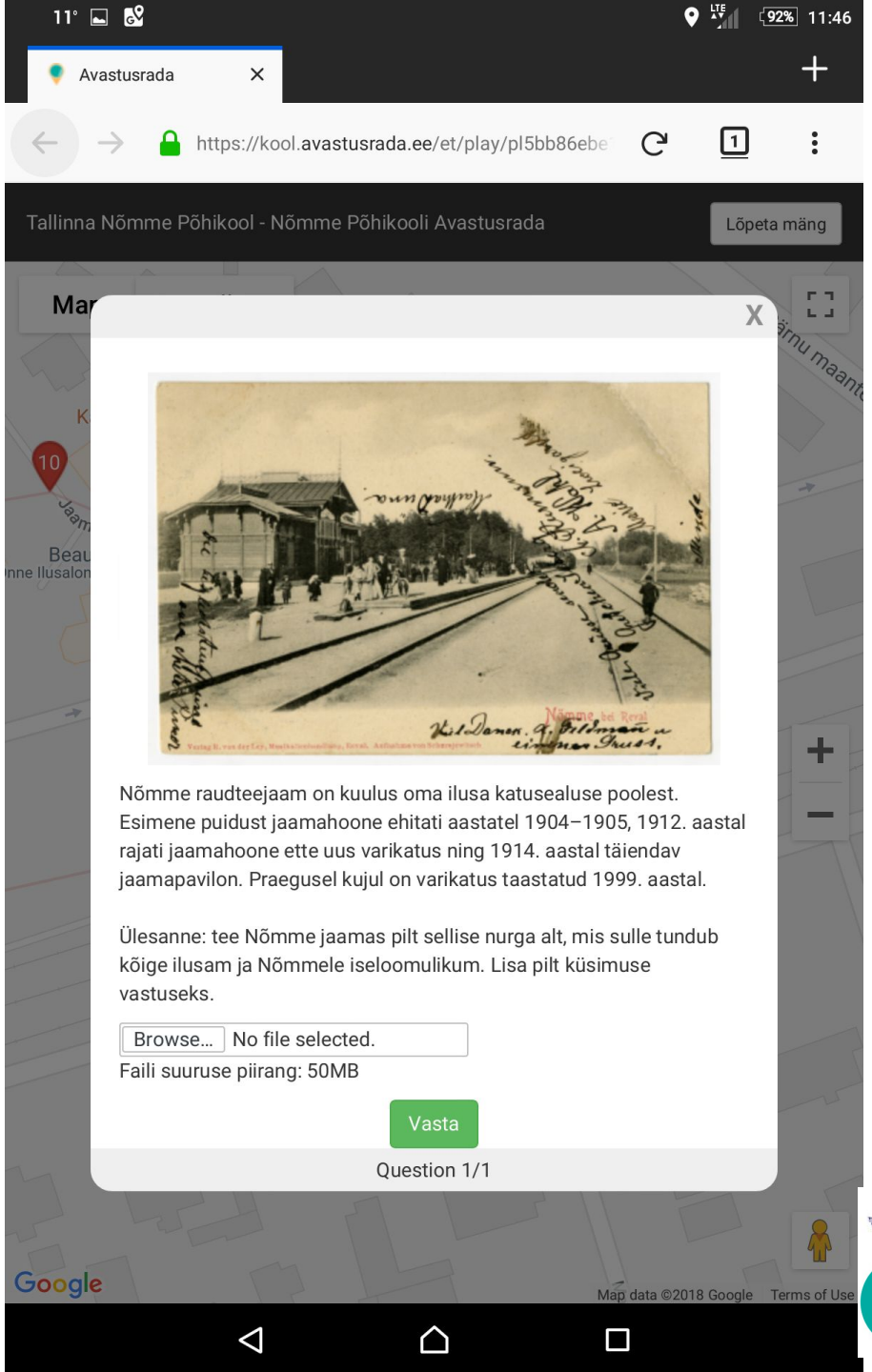
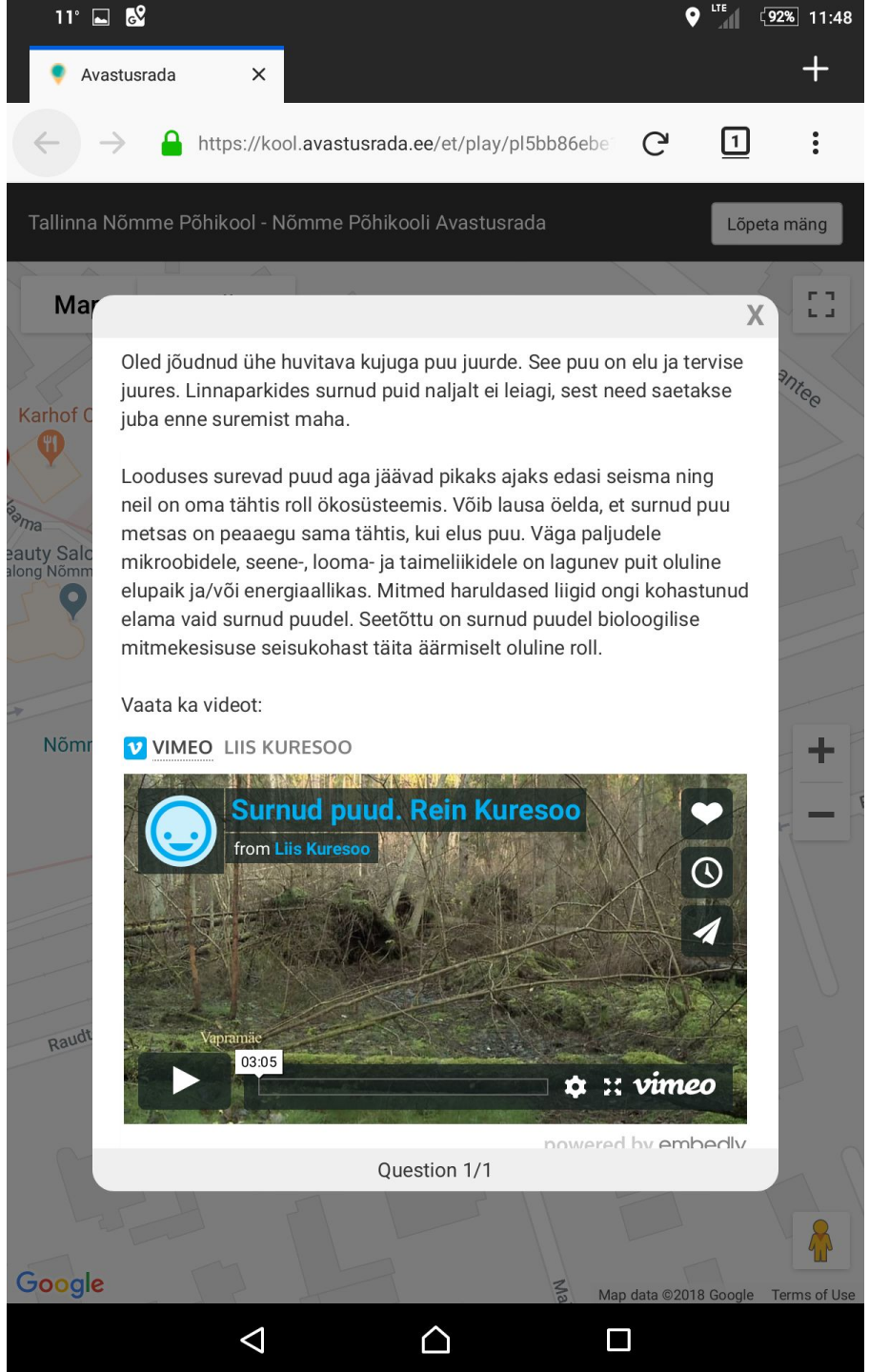


It is possible to use pictures in the heading of every question.

Inside the text, it is possible to use video, audio, additional pictures, forms, and so on with the help of embedded codes.



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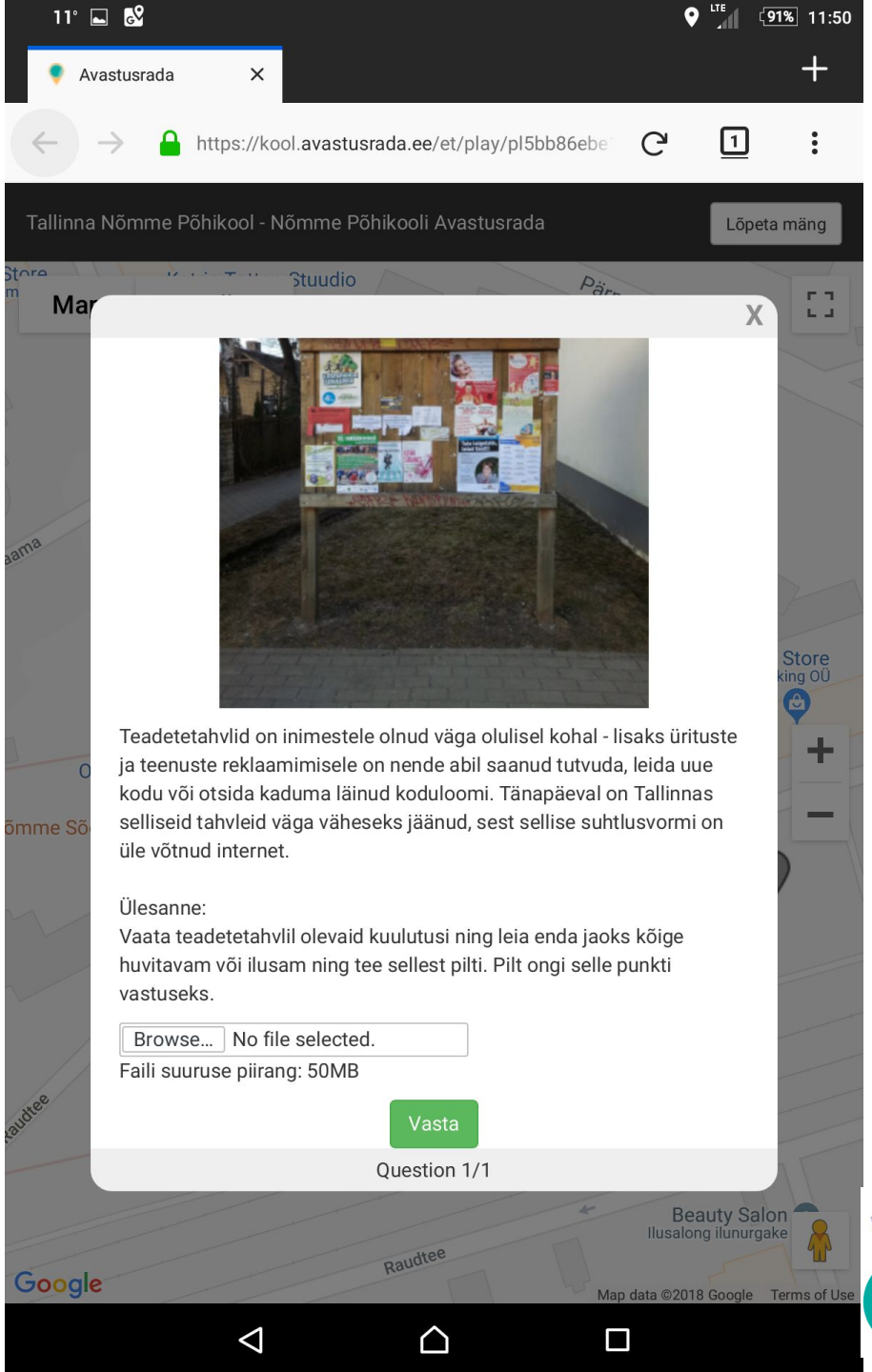

It is possible to answer with photo.

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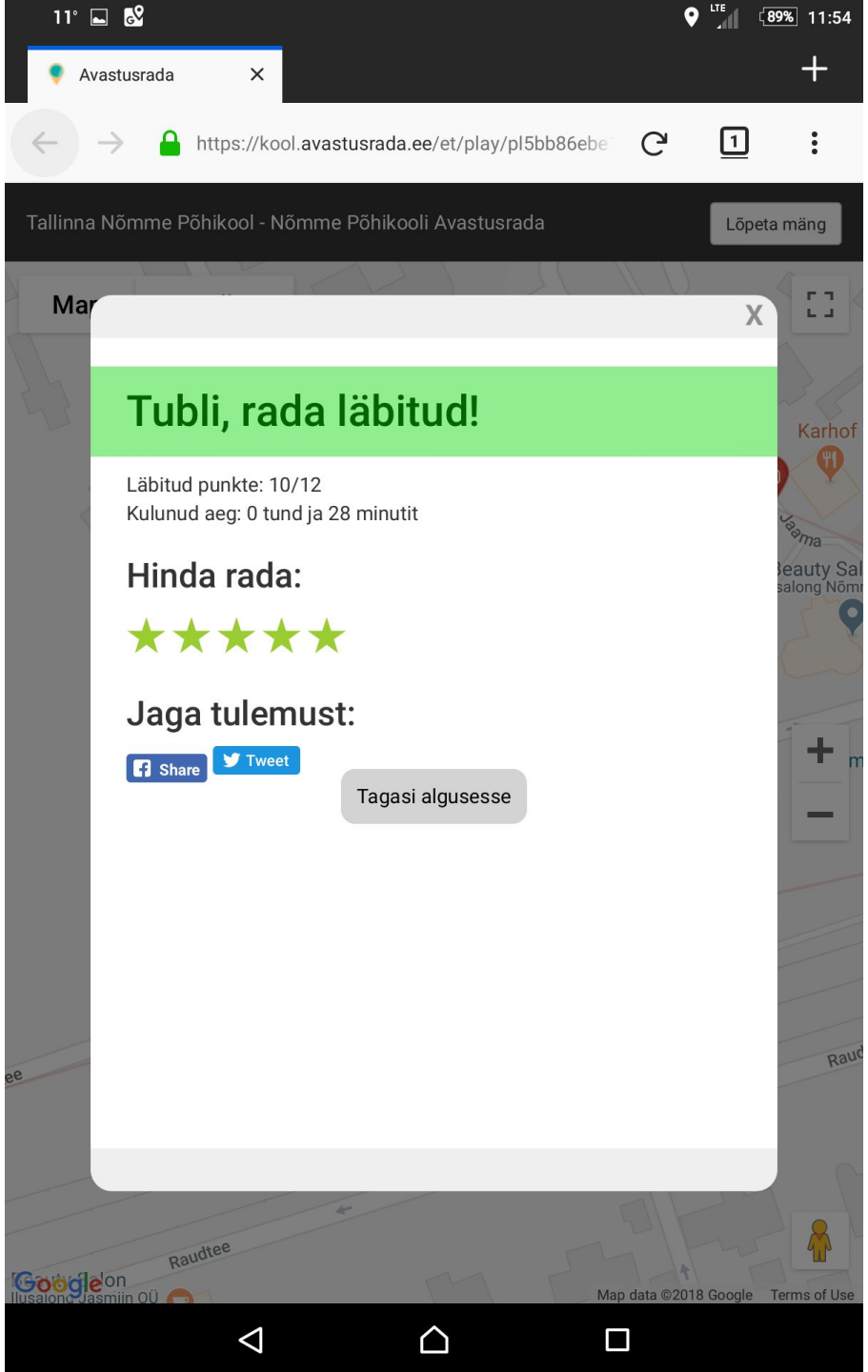
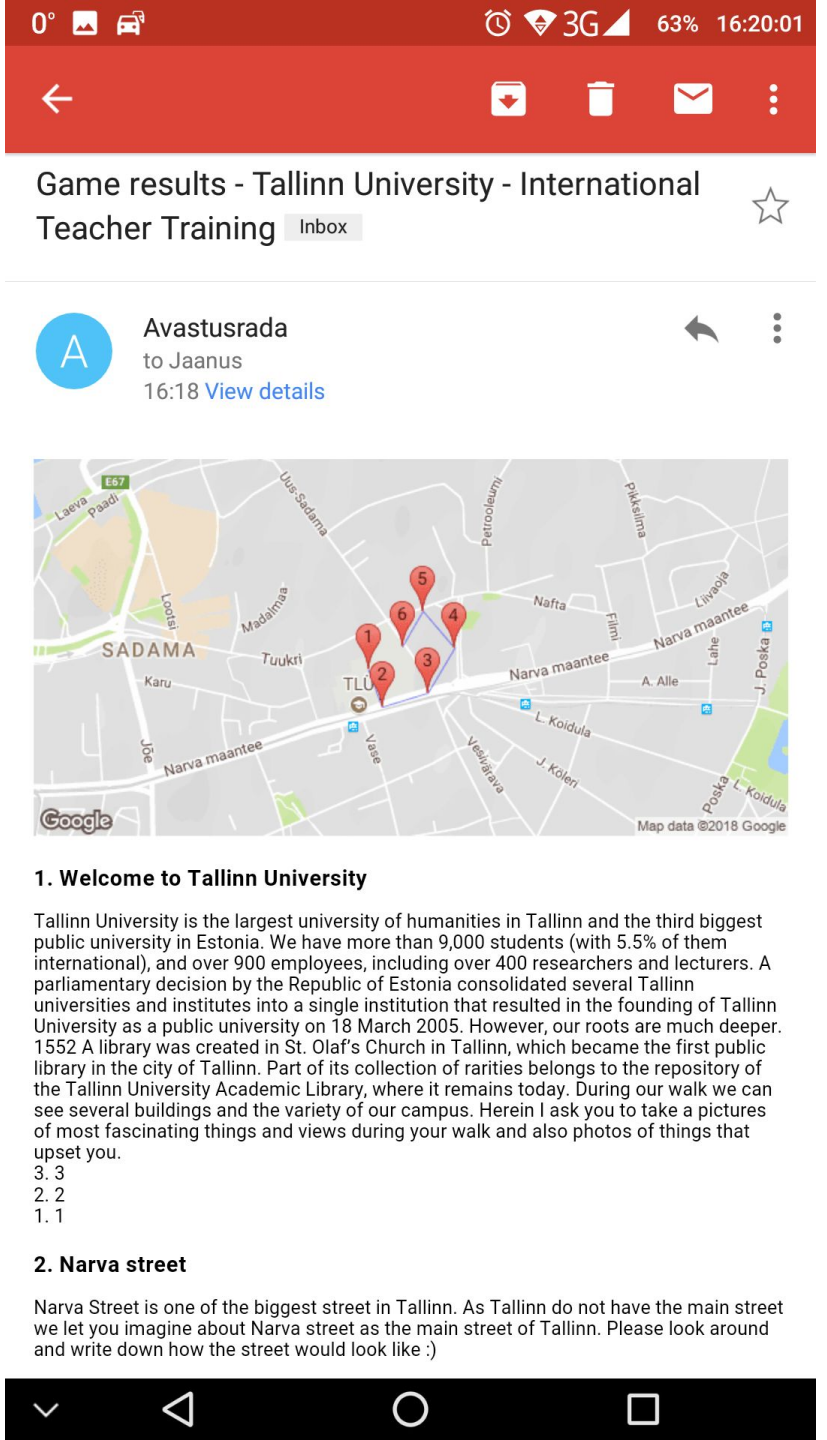


When all questions are answered, the player can rate the track and share it on social media.

After the game, the player will receive a game report by email with all questions and answers.



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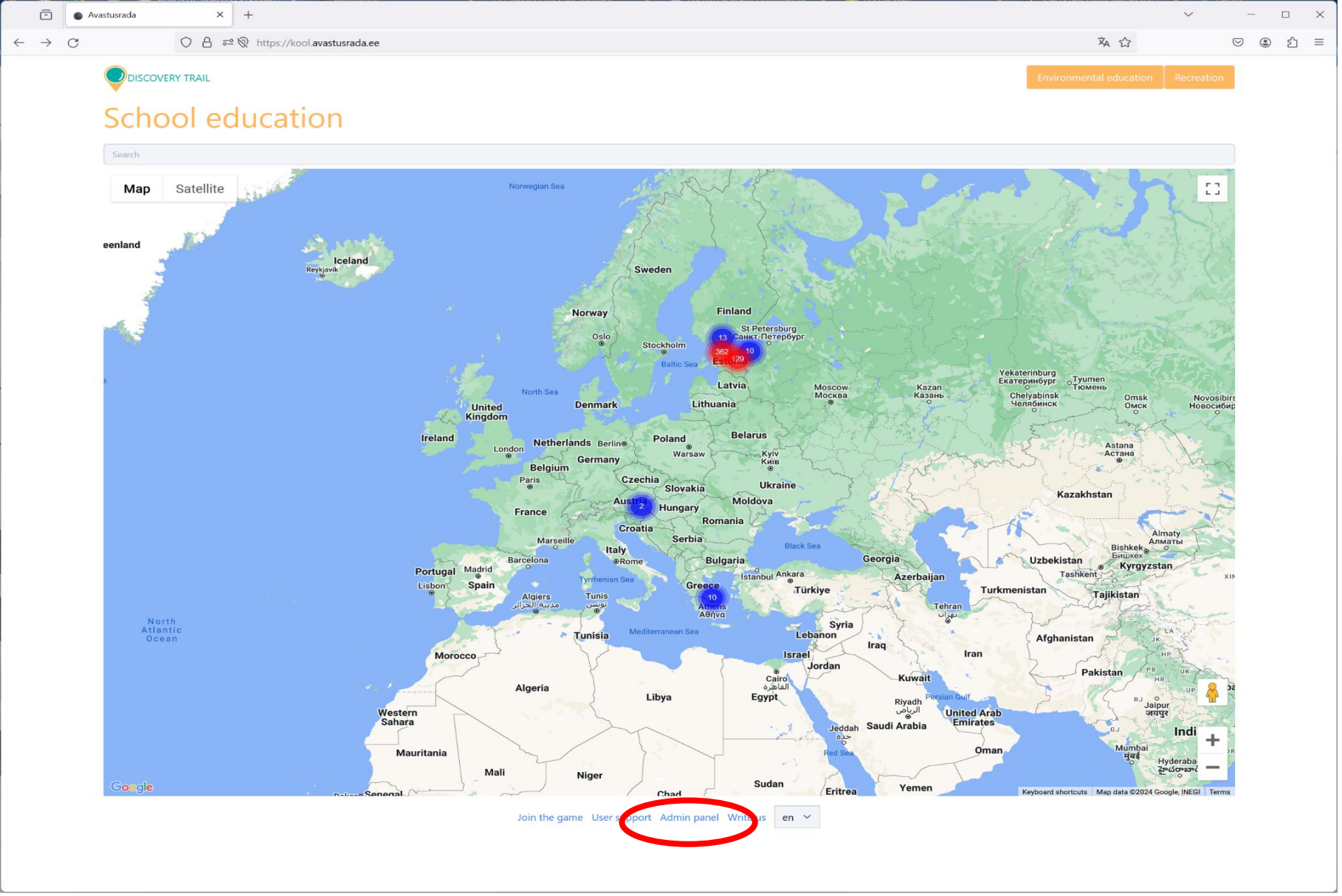

The best way to create a new Discovery Trail is to use a computer. The phone screen is too small for doing it conveniently.

At first, you need an account. To create one, choose Environmental Education, School Education, or Recreation.

In the footer of those pages, there is a link "Admin panel".

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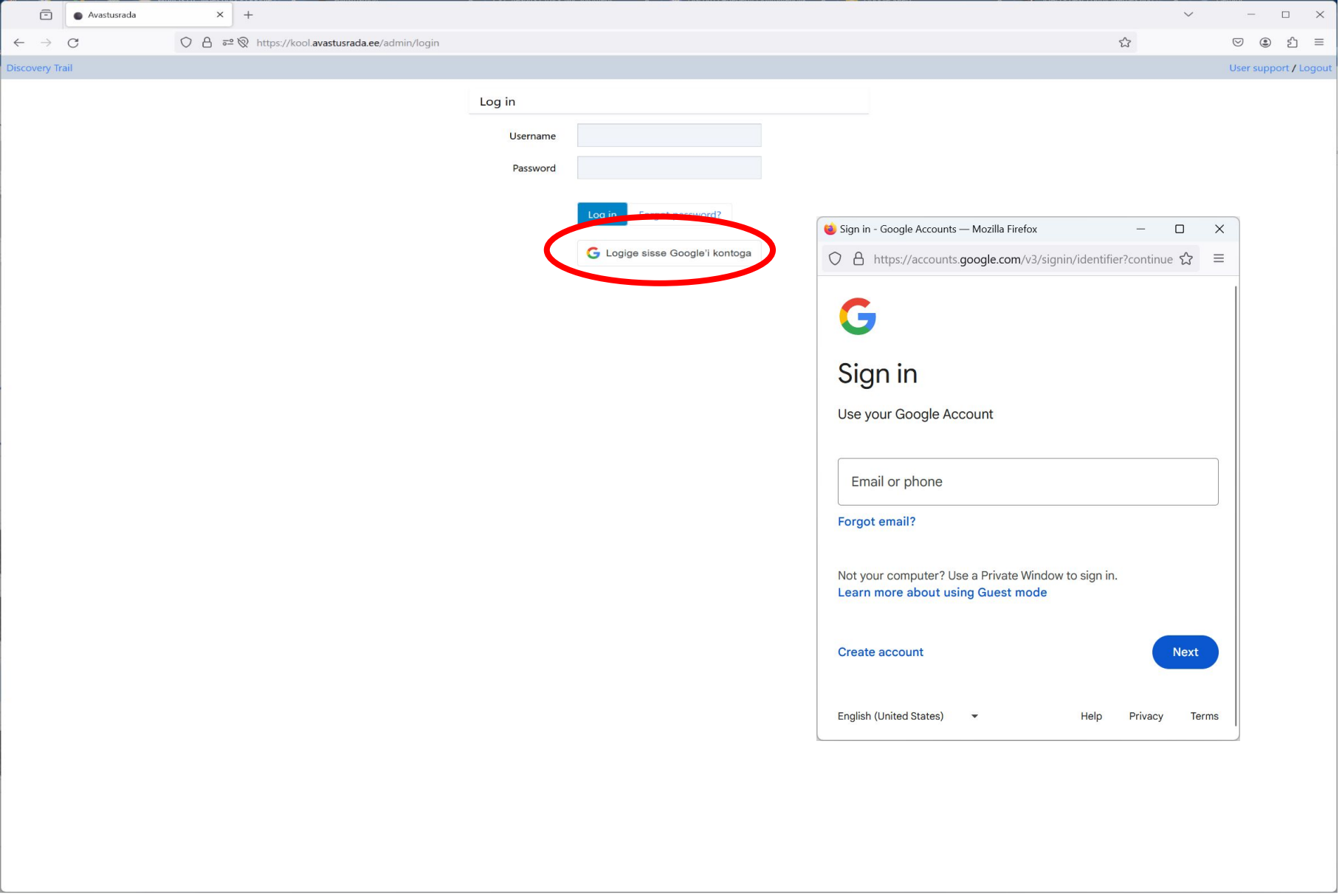

To register, the easiest way is to log in with a Google account. After that, you will have student (player) rights - allowing you to join games.

To obtain teacher rights, you need to contact your local representative or use the "Write us" link in the footer of the page.

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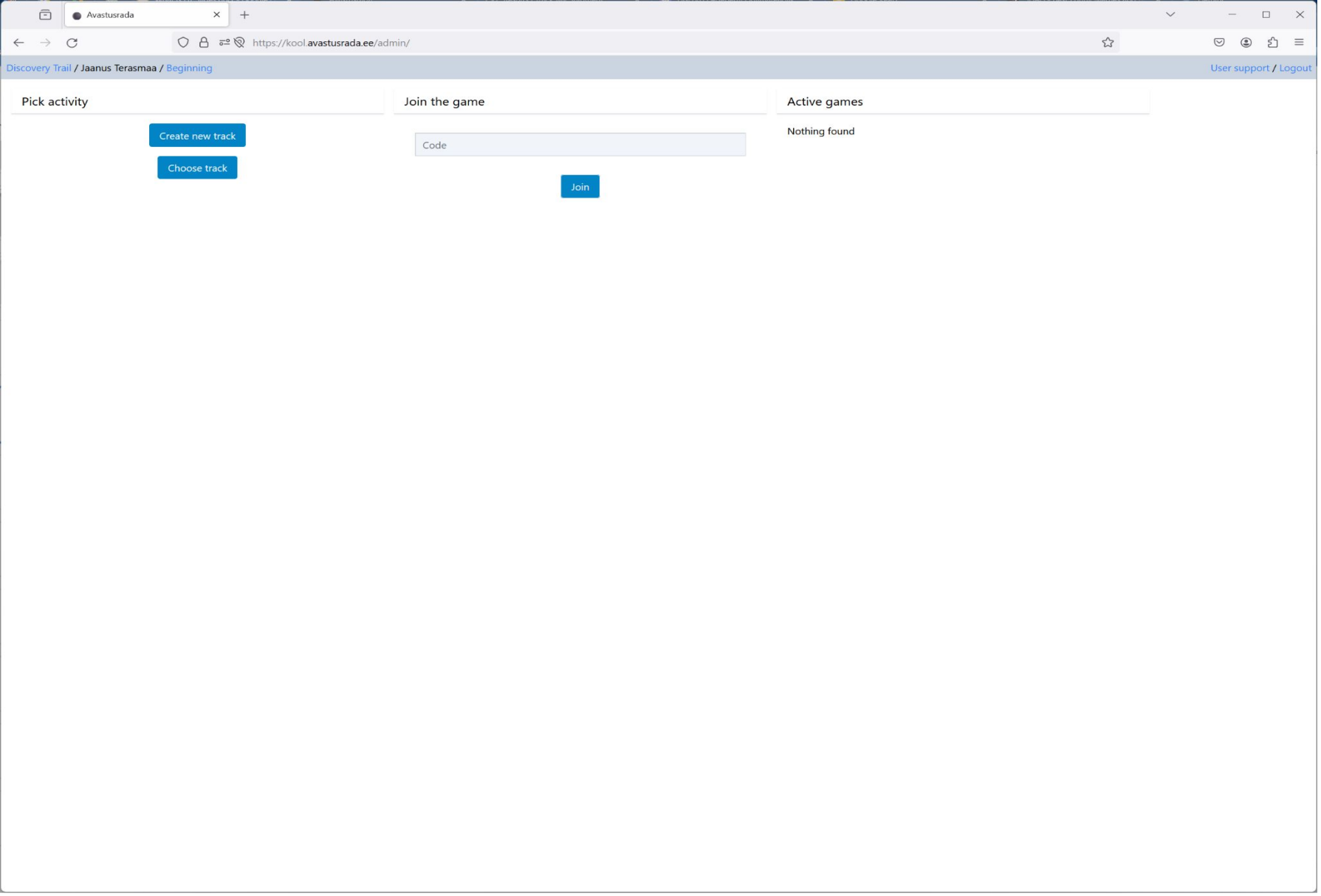

If you have teacher's rights, you can choose between two activities:

- Create new track
- Choose track

"Choose Track" will show you the list of all tracks in the system.

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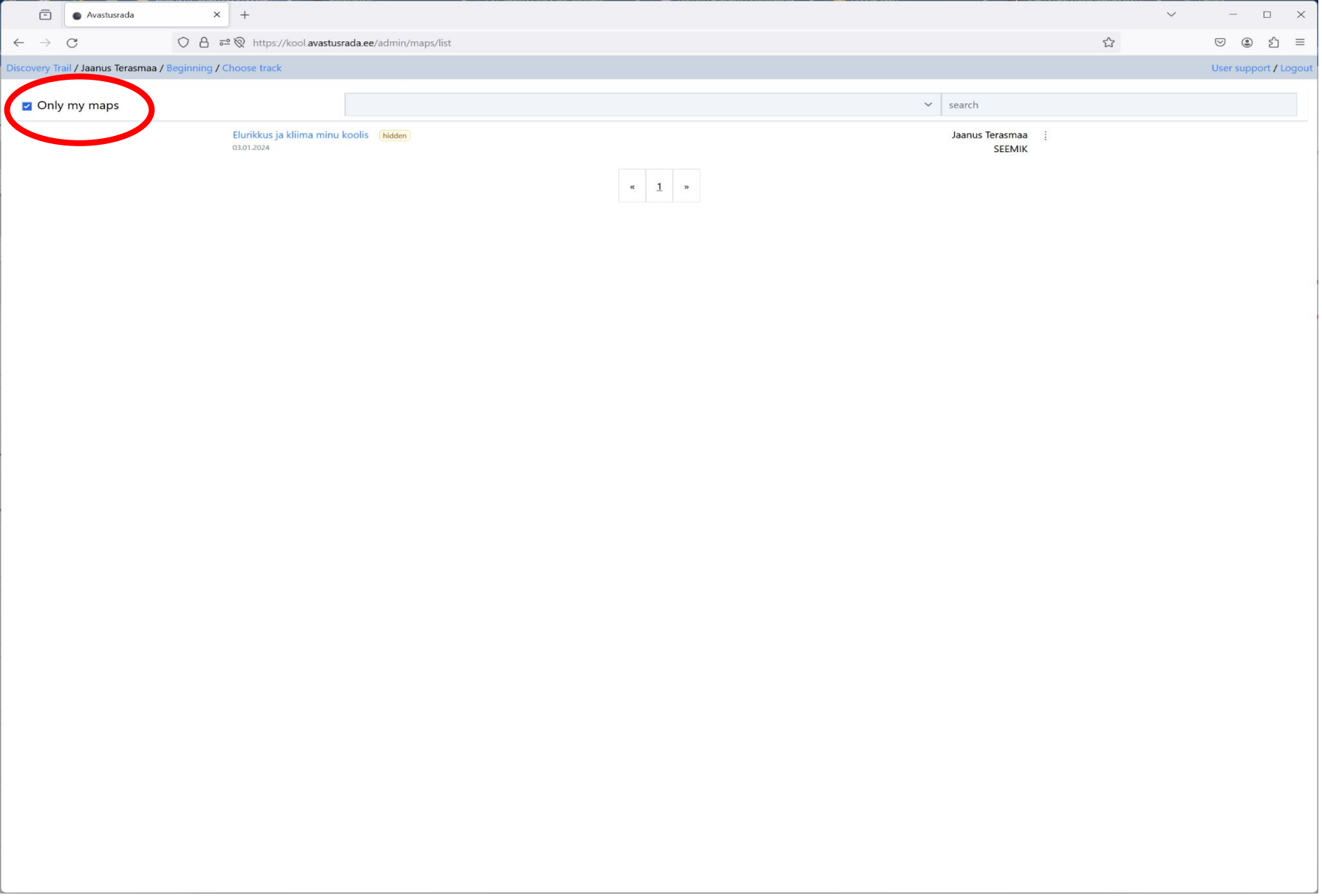

Untick the box “Only my maps” to see other tracks.

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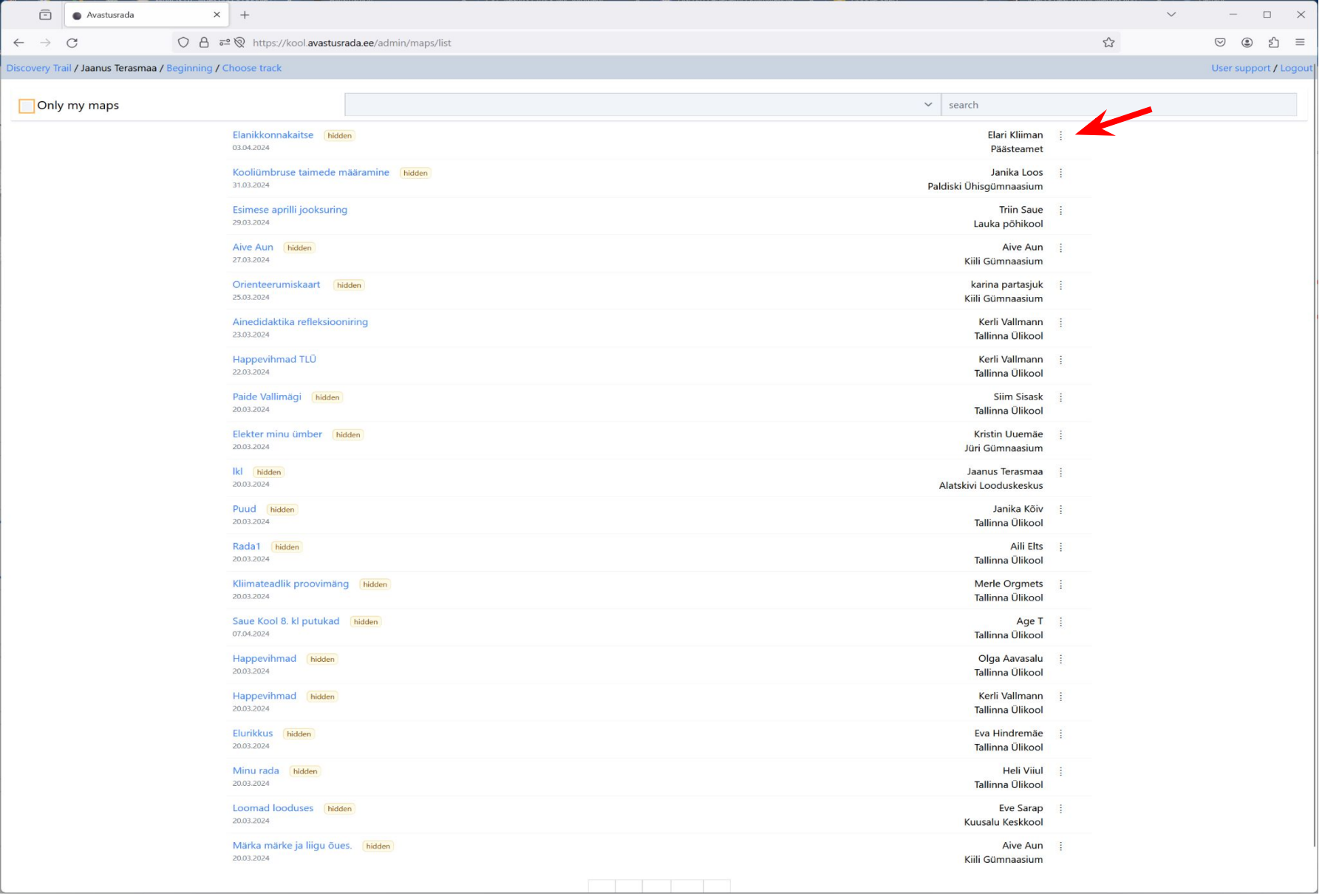

You can choose from all the tracks in the avastusrada.ee environment.

Behind every piece of track information, you can see three dots.

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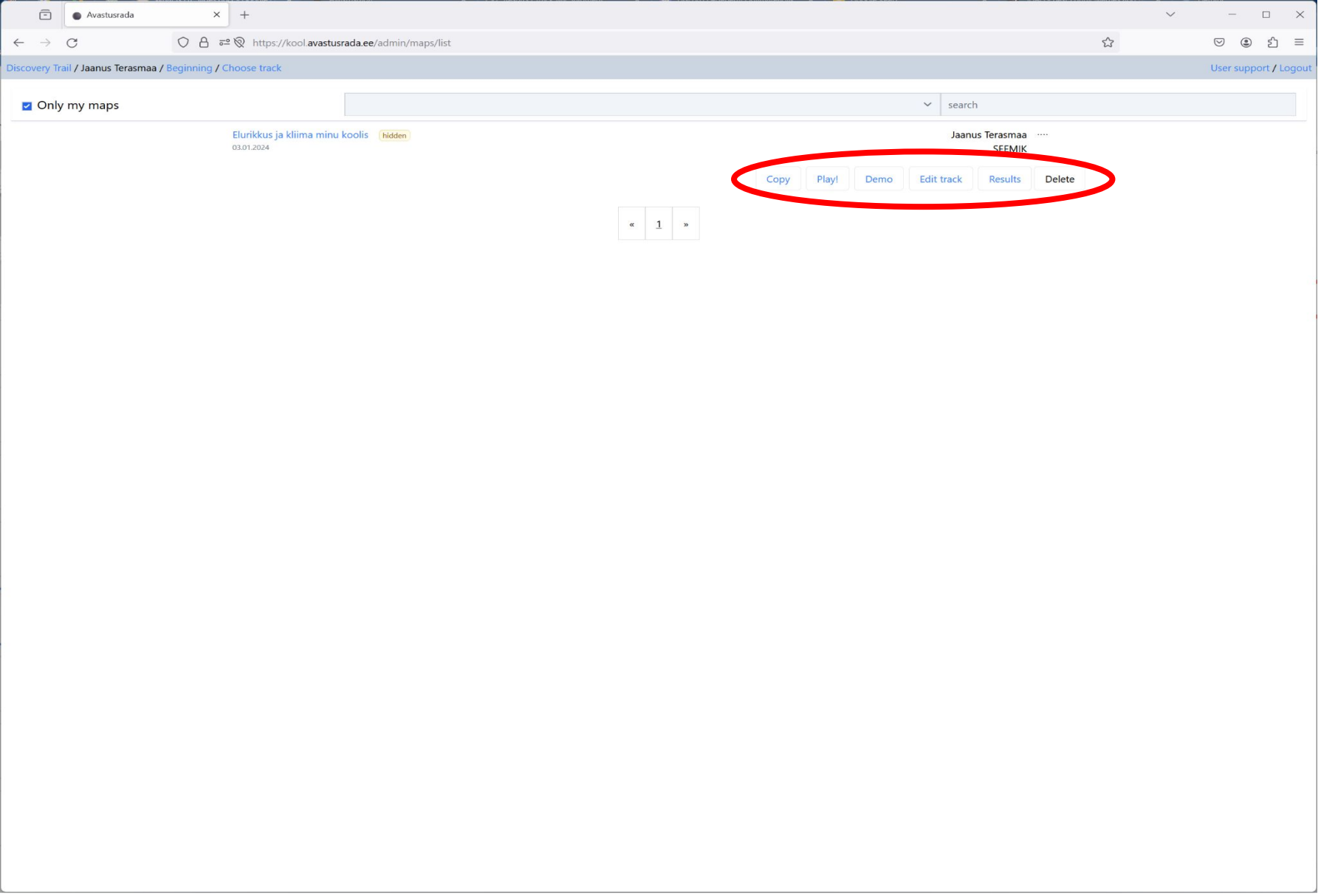

After clicking on the dots, a new menu will appear.

You can choose between:

- **Copy** (make your own editable copy)
- **Play** (go and start the new game)
- **Demo** (play the game in the browser without going out)
- **Edit track** (make changes, add new points, etc.)
- **Result** (see the results of the played games)
- **Delete** (delete the track)

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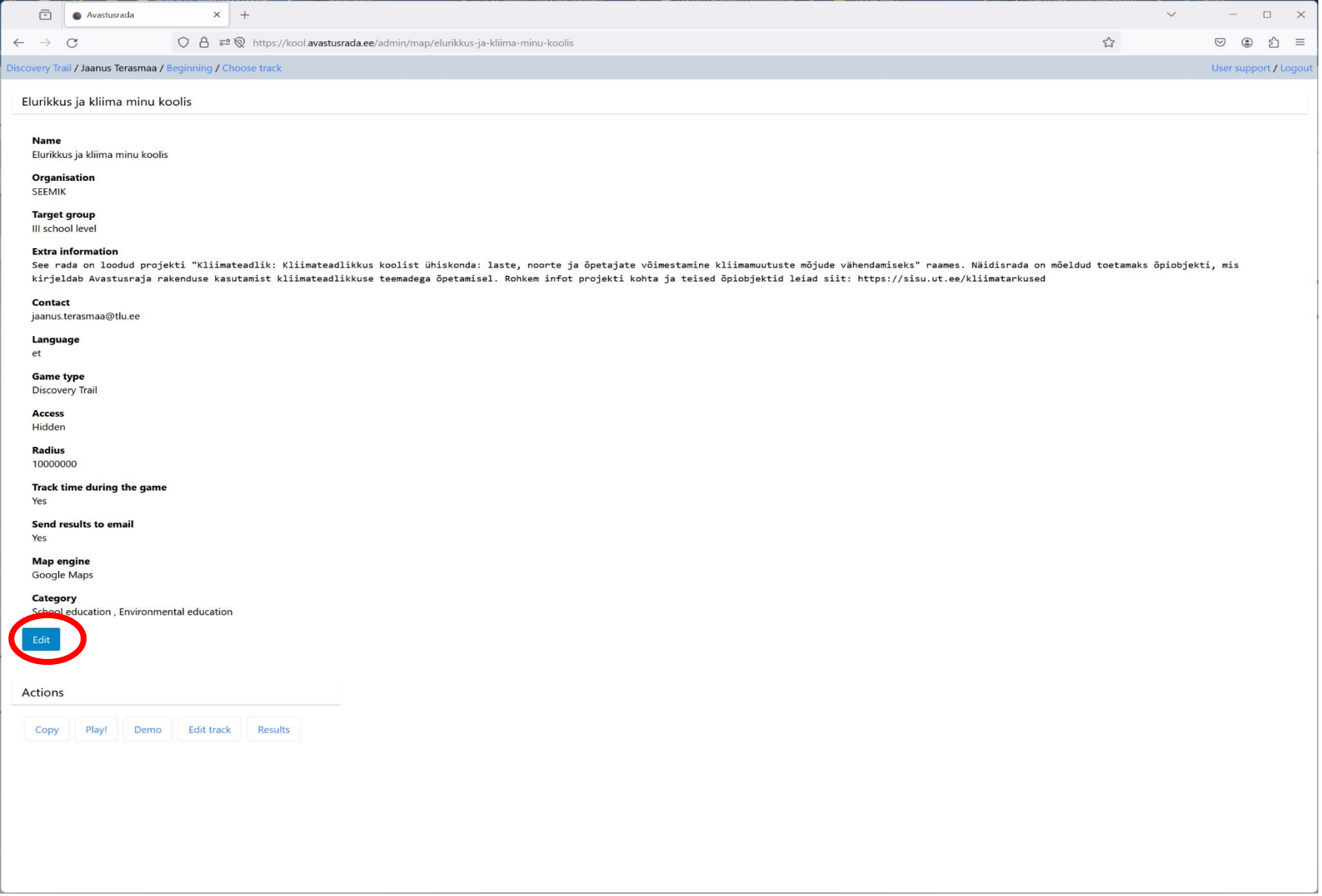

If you click on the track name on the list, you will see the track info and some links under the section "Action":

- Copy
- Play
- Demo
- Edit track
- Result

In addition to that, you can also change the track info by choosing the "Edit" button.

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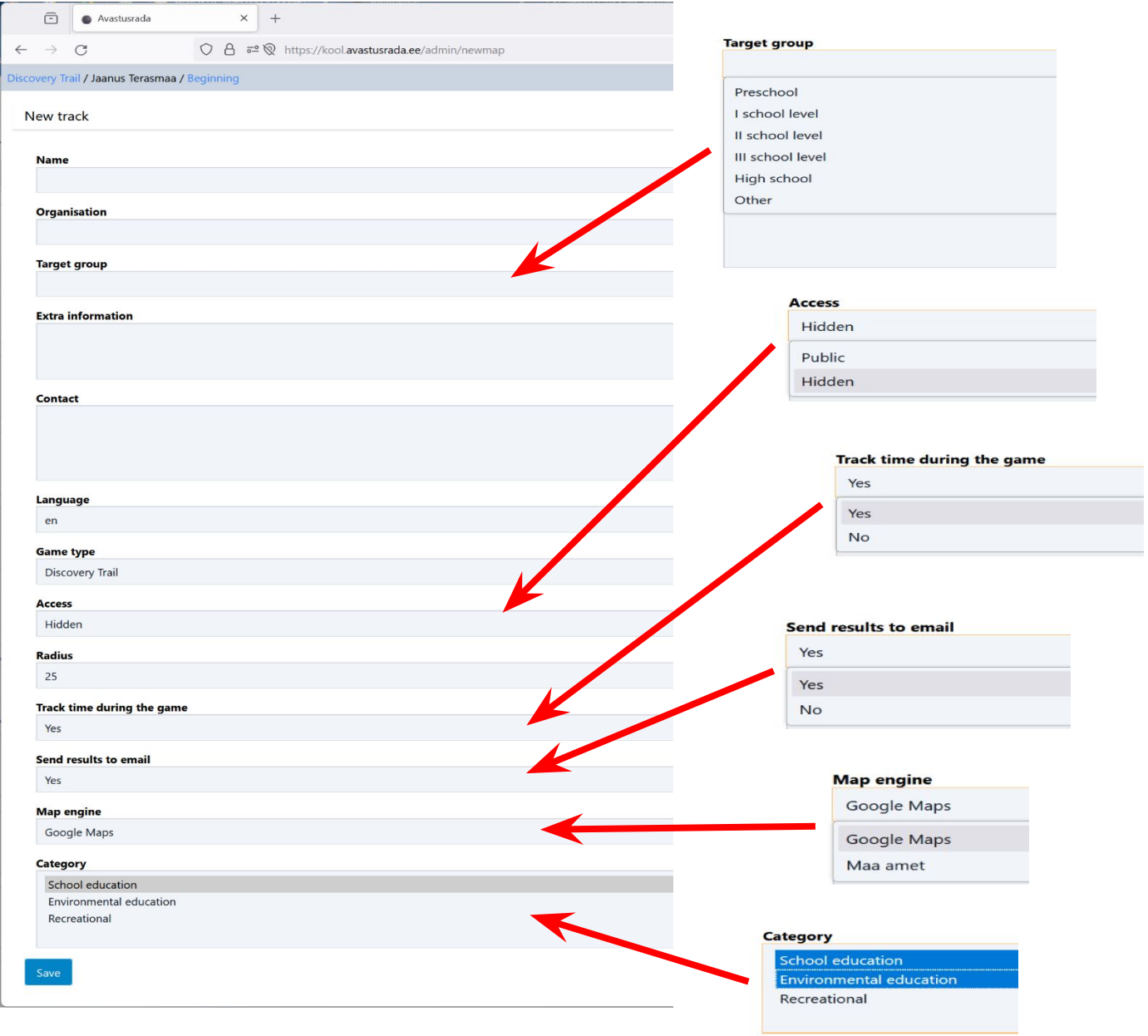

In the track info, you have to fill in several fields and make some choices from the dropdown menus.

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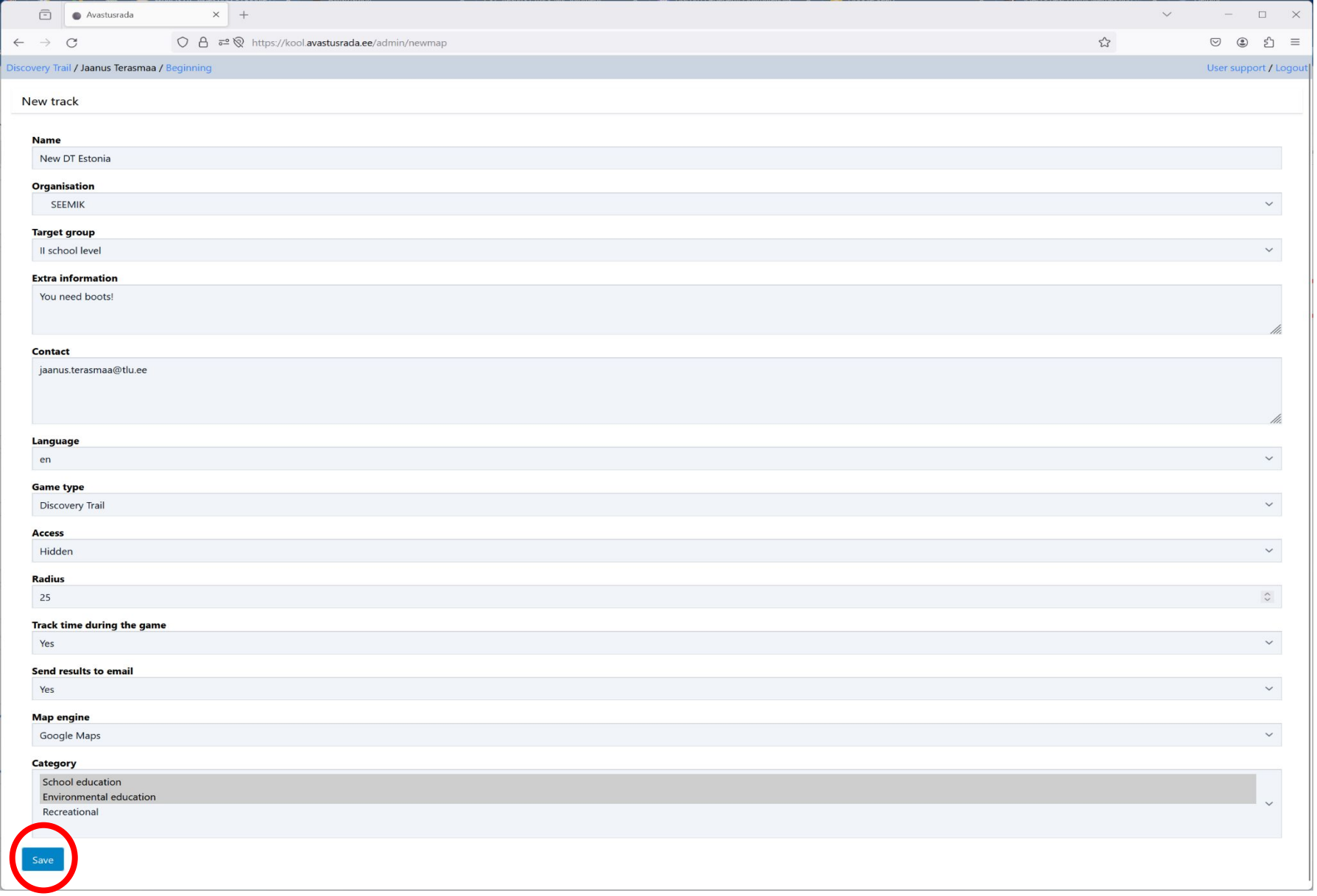
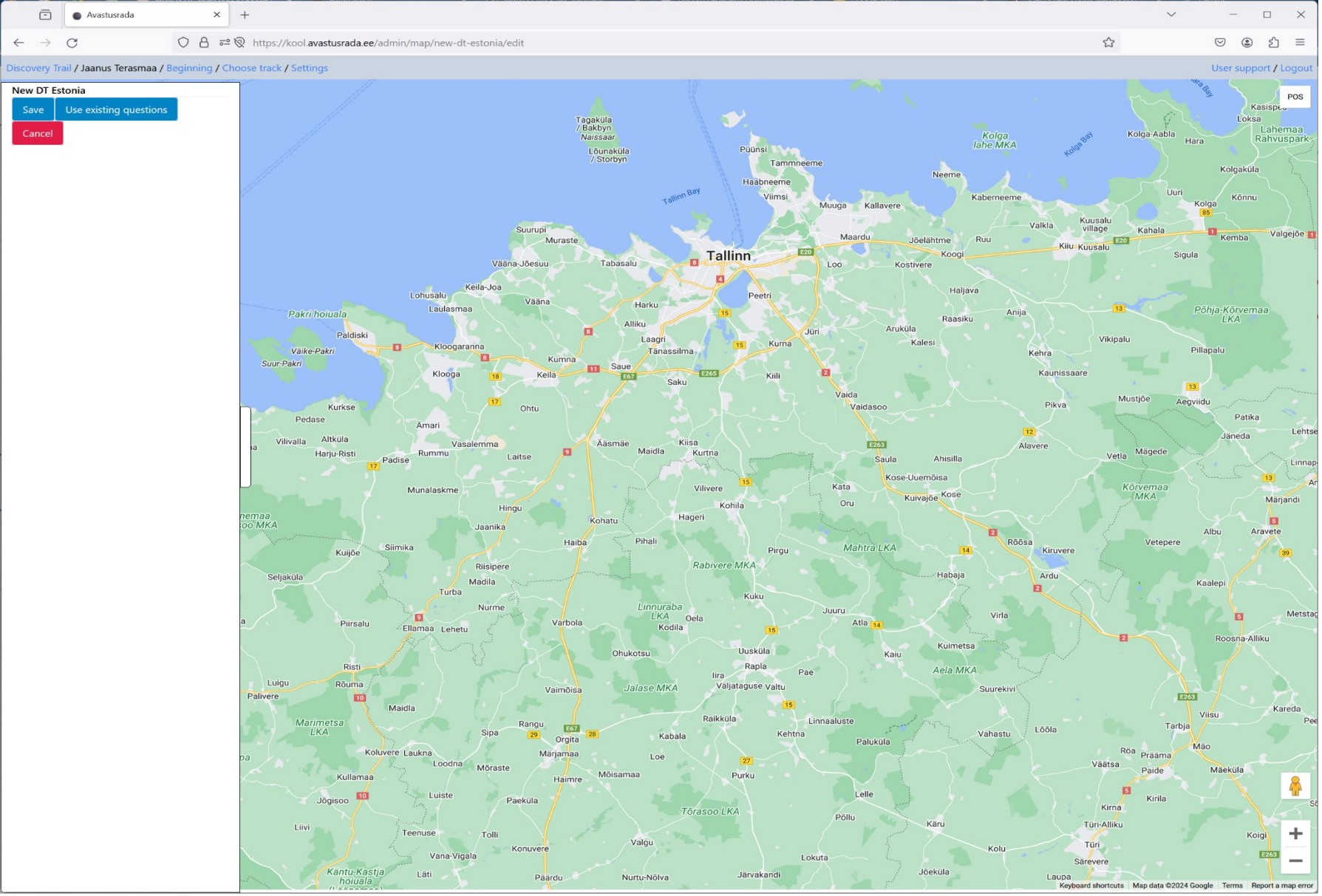


After filling out the form, click "Save". You will be directed to the map view of the track editor.



In the map view of the track editor, you have to manually find the place where you want to build your track.

You can zoom in and out and move freely on the map.

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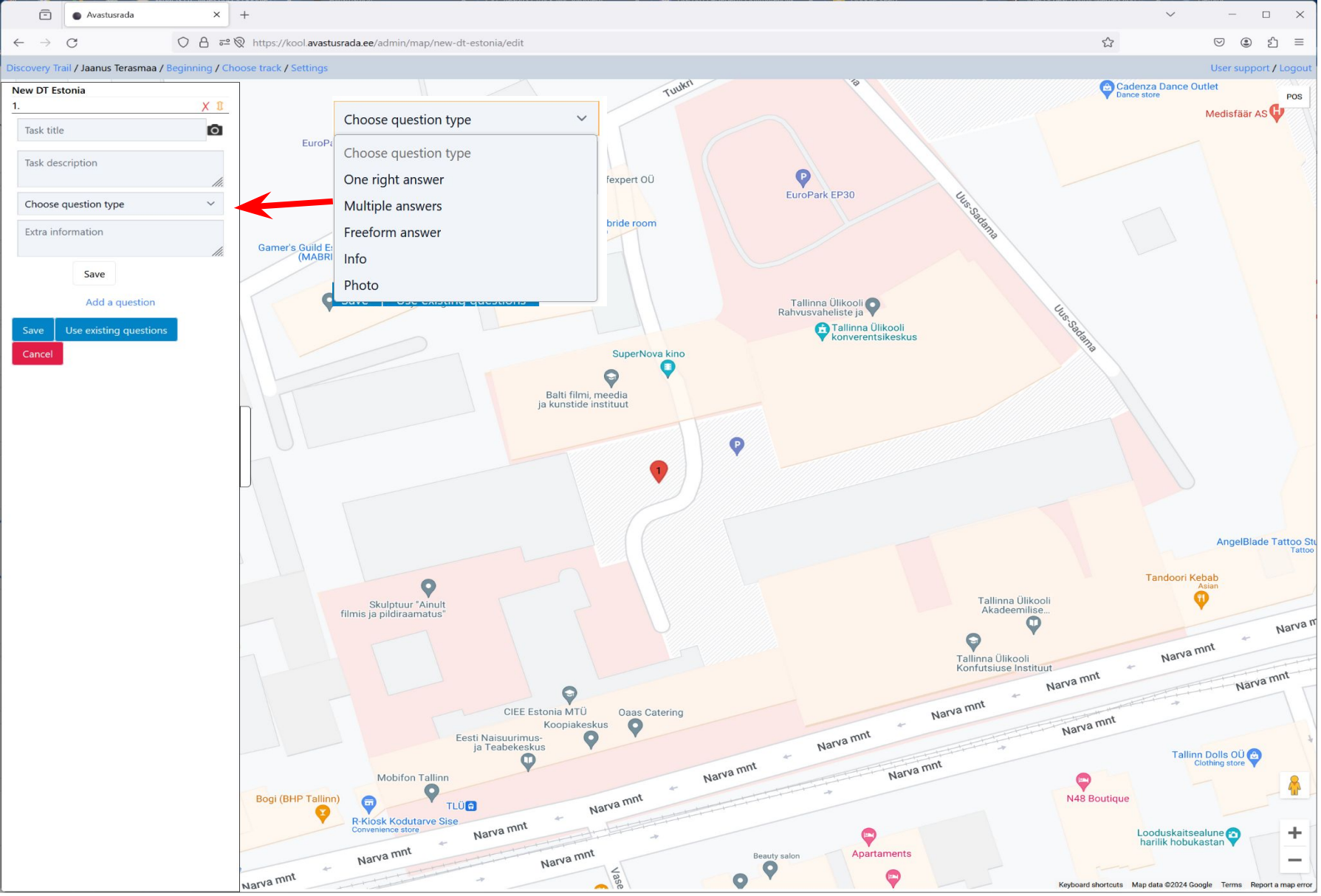

When you find the desired location on the map, you can add a trackpoint by simply clicking on the map.

A red marker will appear on the map, and a new form for the task description will be presented on the side.

There, you can provide the following information:

- name of the task
- task description
- type of the question
- extra information

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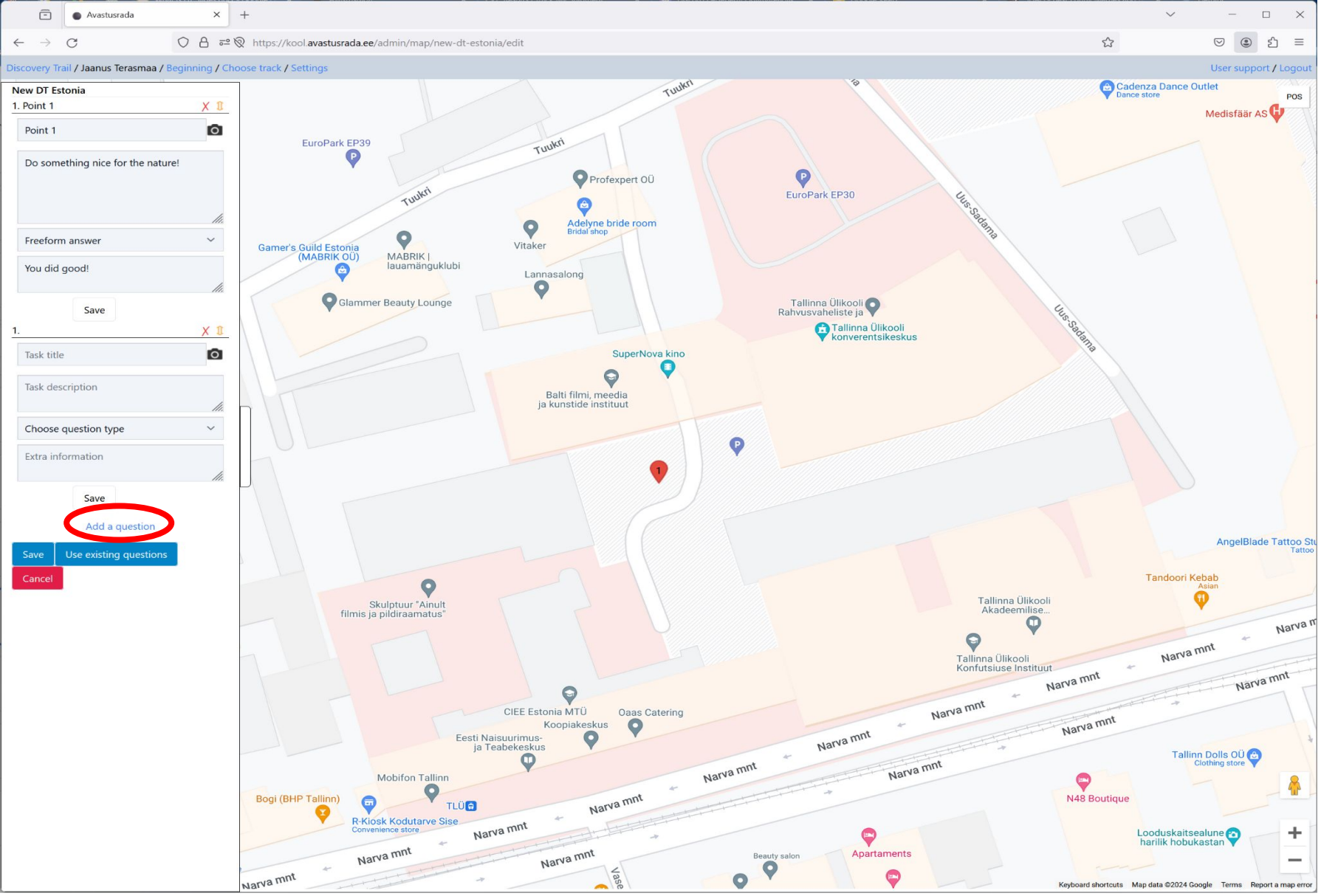

You can add more than one task to a single trackpoint by clicking "Add a question".

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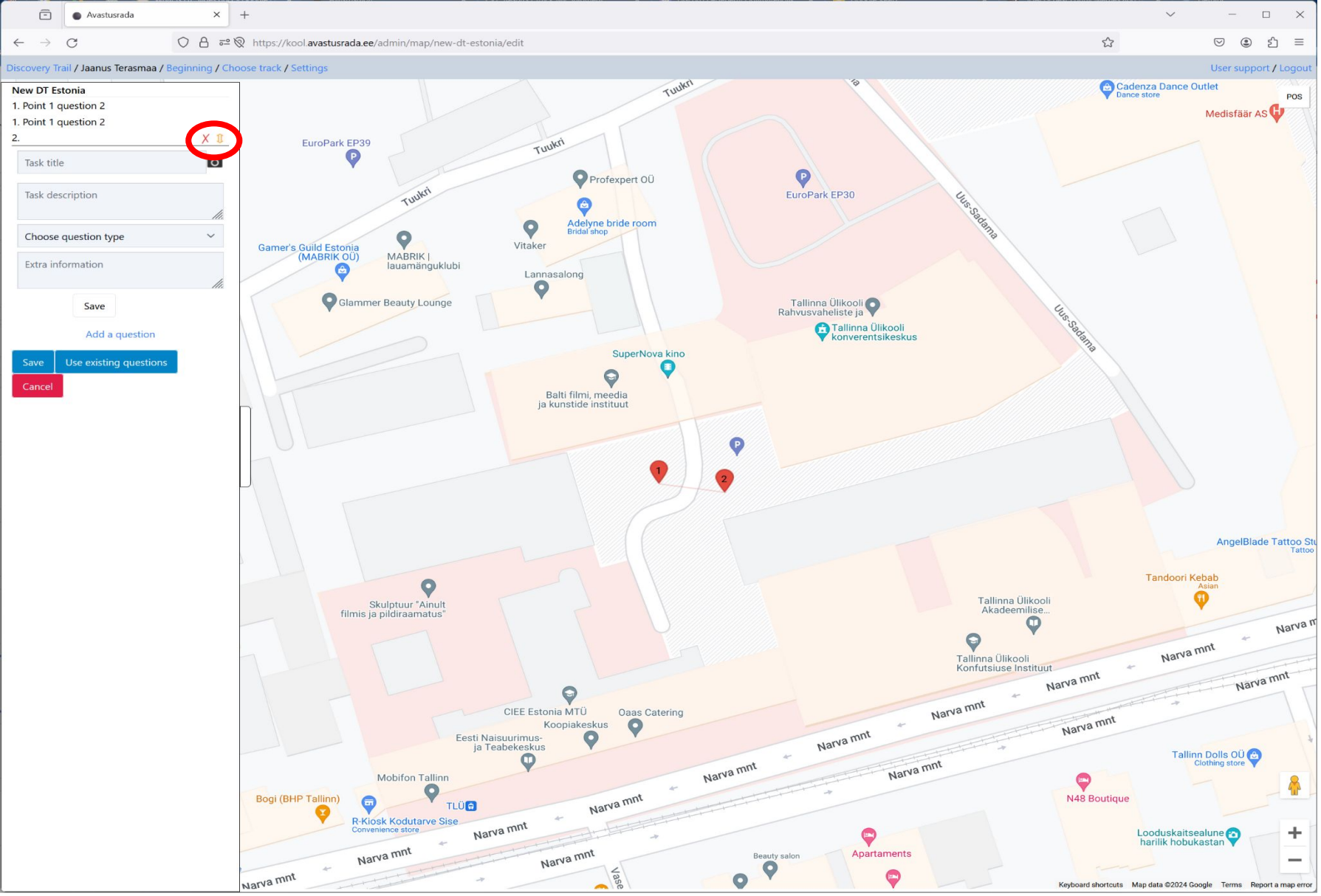

To add more trackpoints, simply click on the map.

You can change the order of the trackpoints by using the arrow in the right corner of the task description form.

By clicking on the "X", you can delete a trackpoint (confirmation for this action will be requested).

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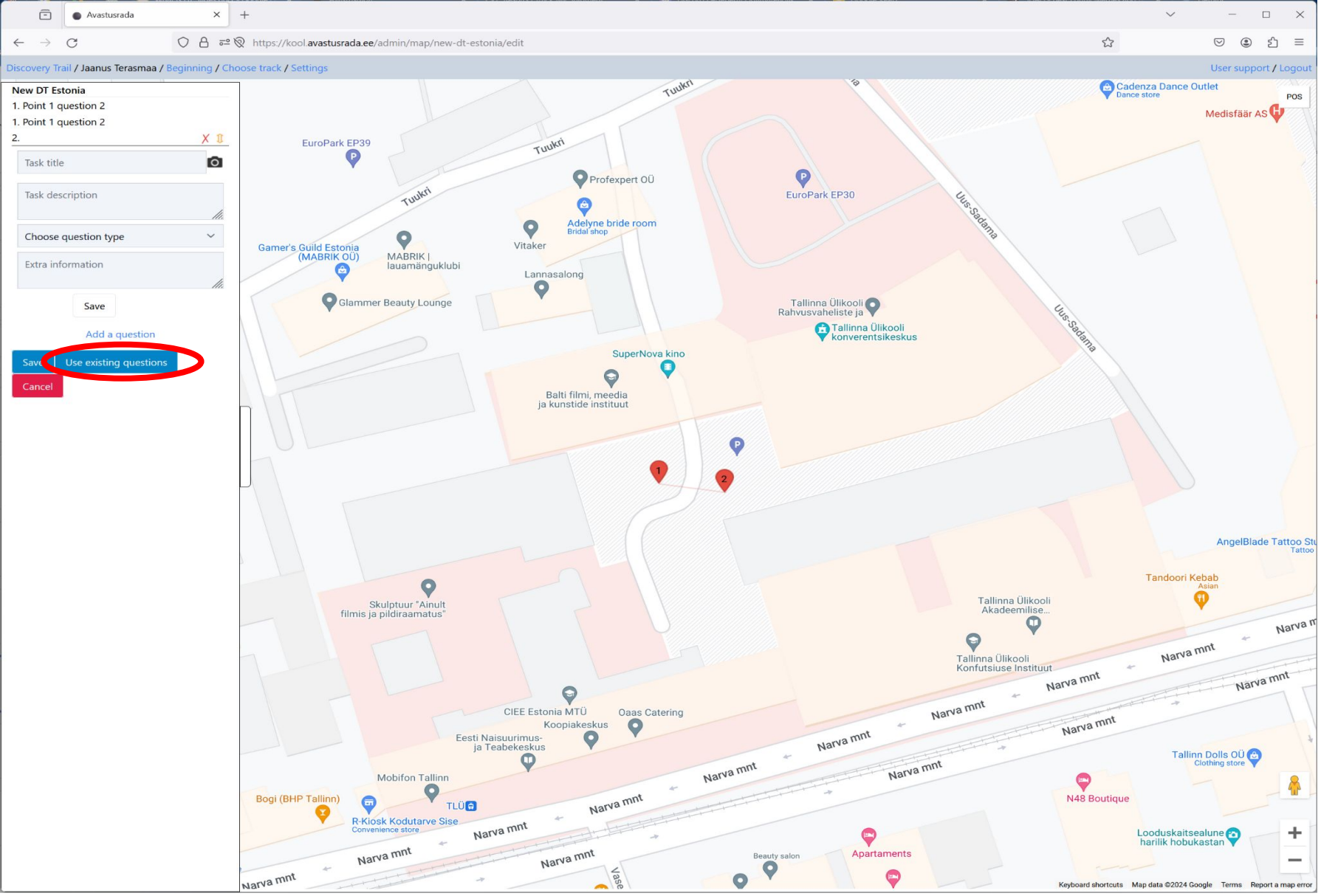

If you want to find an already existing question (made by others) in Avastusrada, you can click on the button "Use existing questions".

A new dialogue window will open.

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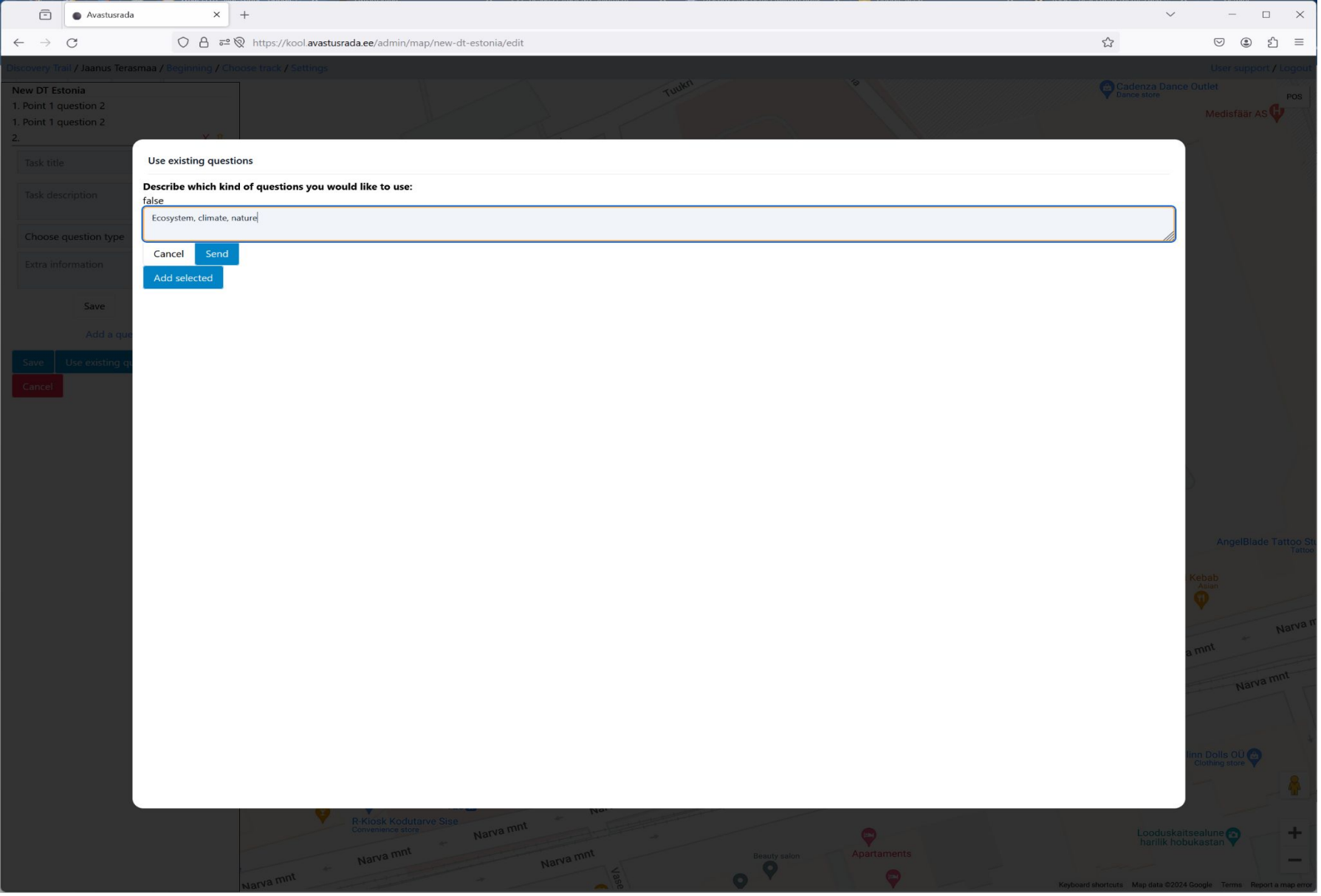

Use keywords or a description of the desired outcome.

This search uses AI, so the results are directly related to the quality of your prompt.

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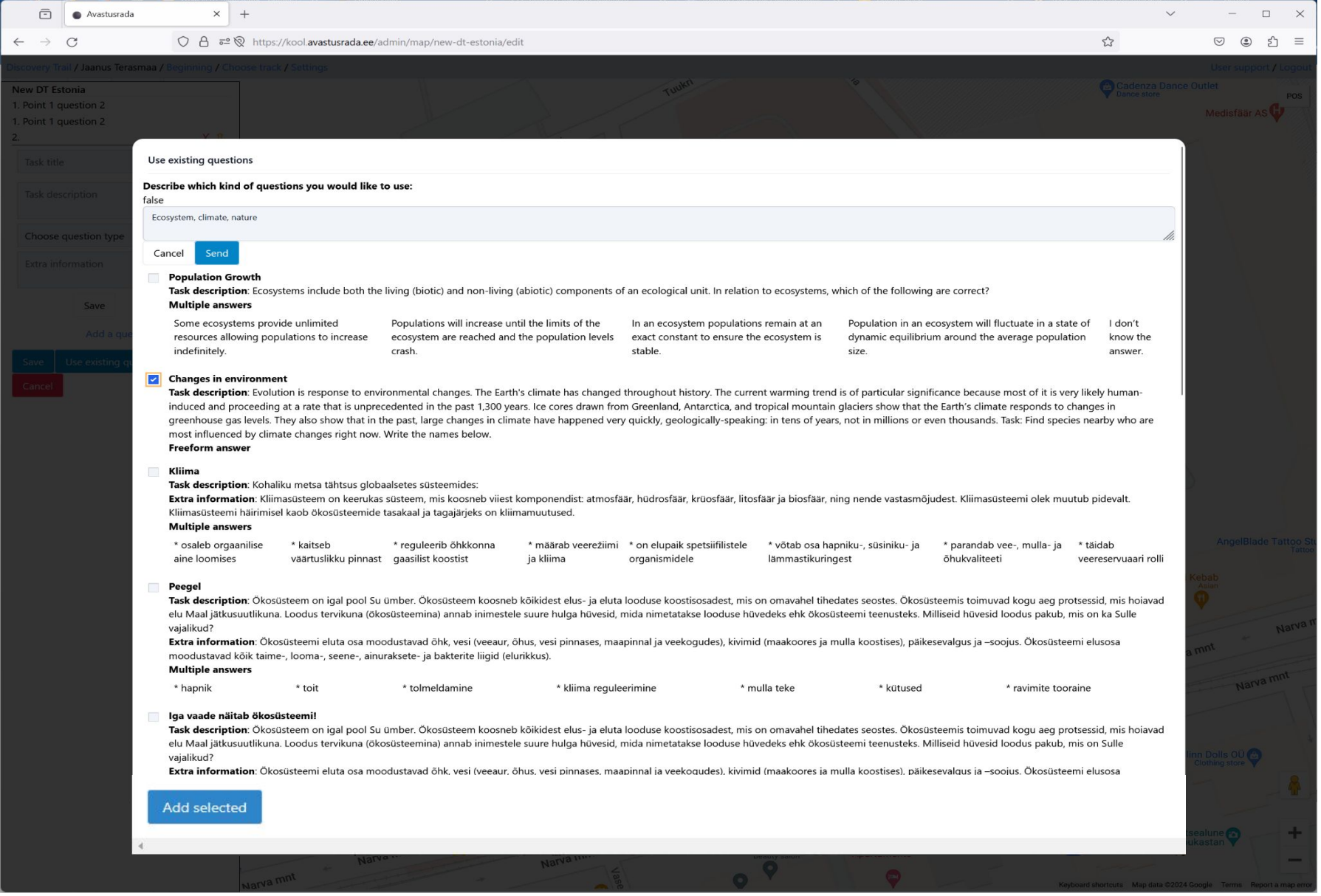

You will be presented with a list of questions. Tick the boxes for the ones you would like to use.

When the selection is made, click on "Add selected".

You can repeat the search later for different results.

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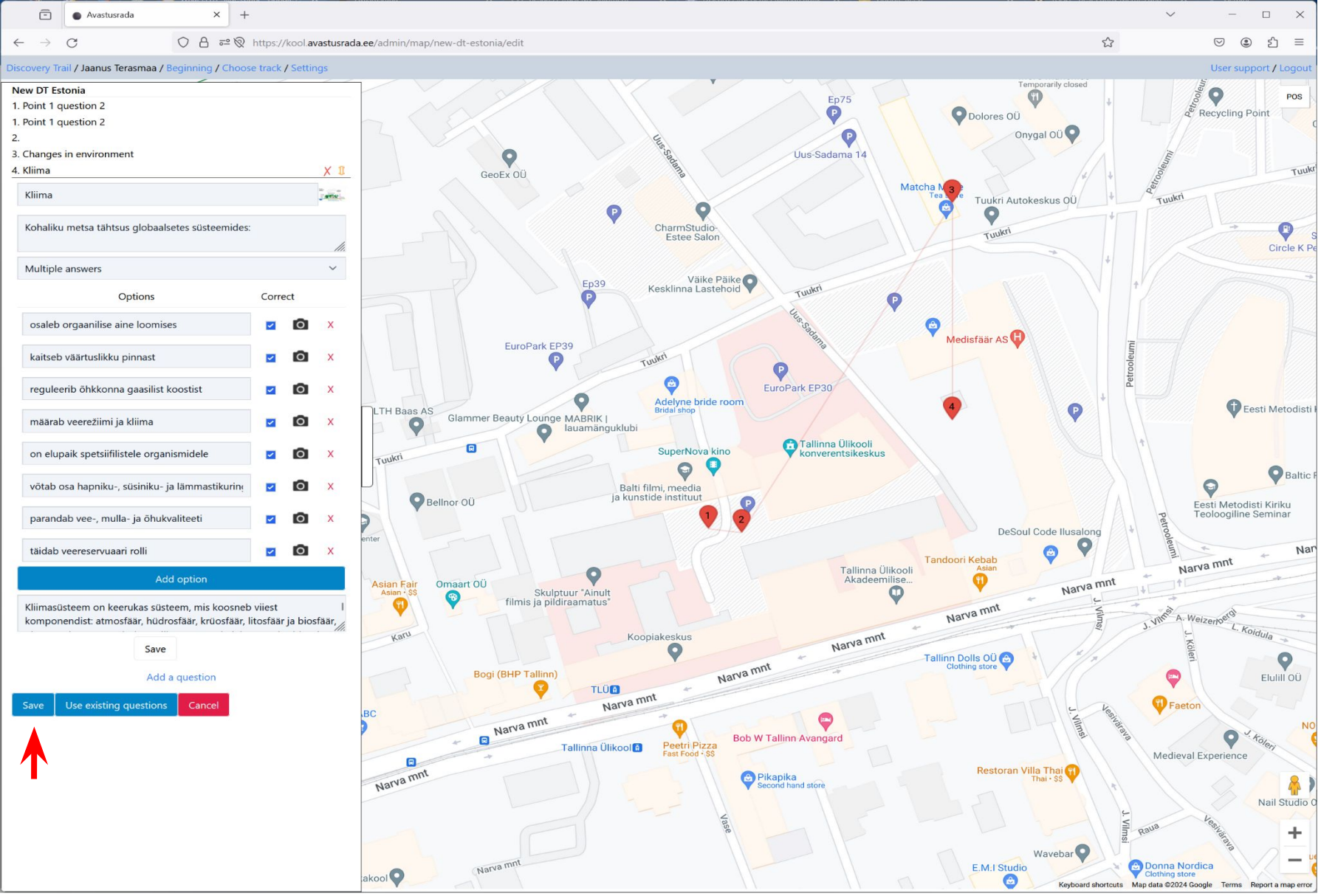

A new trackpoint will be added to the map randomly.

You can drag them to the correct places by using your cursor (or finger on the phone).

When the track is ready, click the "Save" button.

You must also save each trackpoint as you create them.

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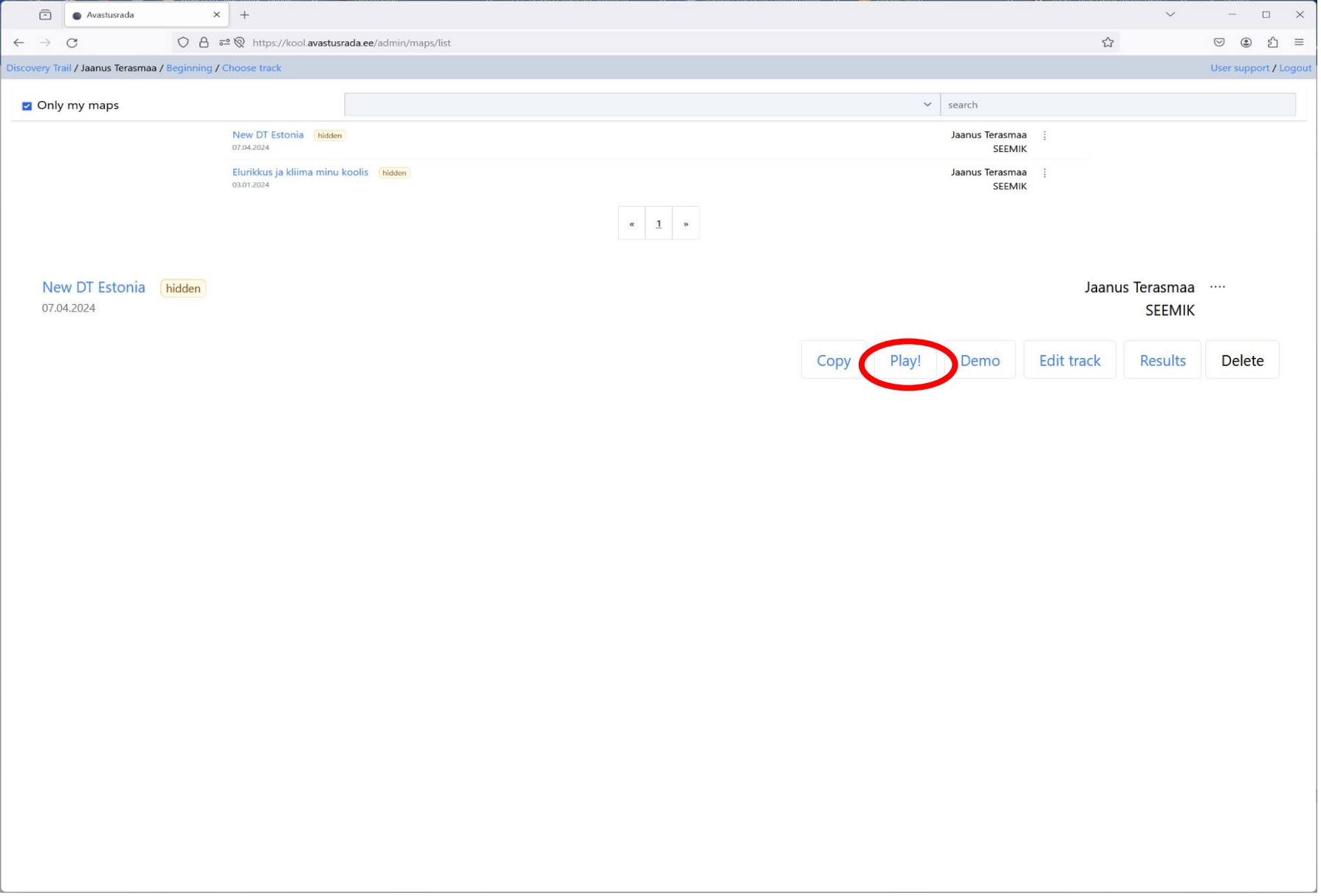

When the track is ready and you want to ask people to use it, click on the three dots and choose "Play!"

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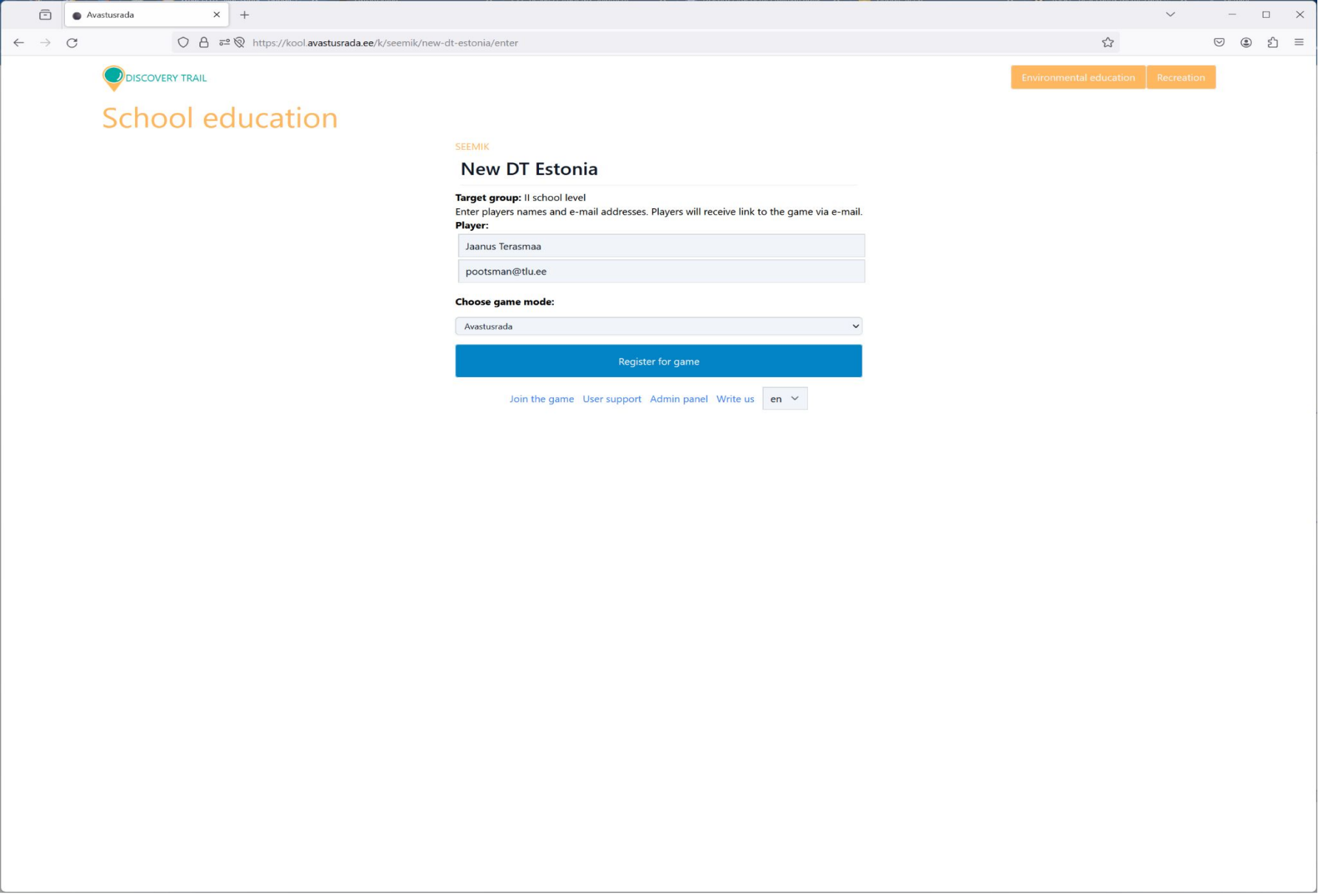

You have to fill in the form and click "Register for game".

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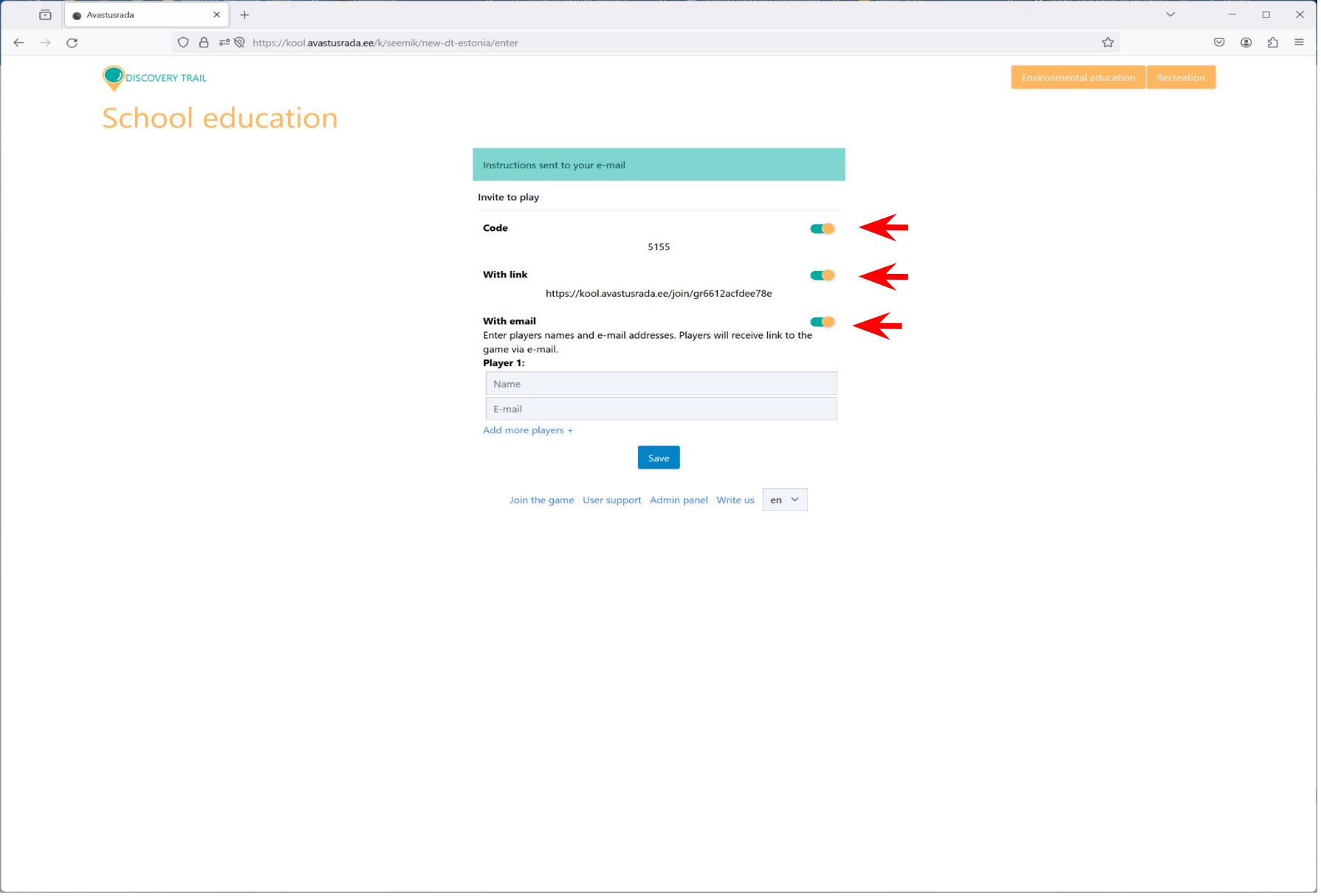

You will be presented with three choices on how to invite others to the game:

- Code

- With link

- With email

You can make your choice by using the slider buttons.

When a choice is made, click "Save".

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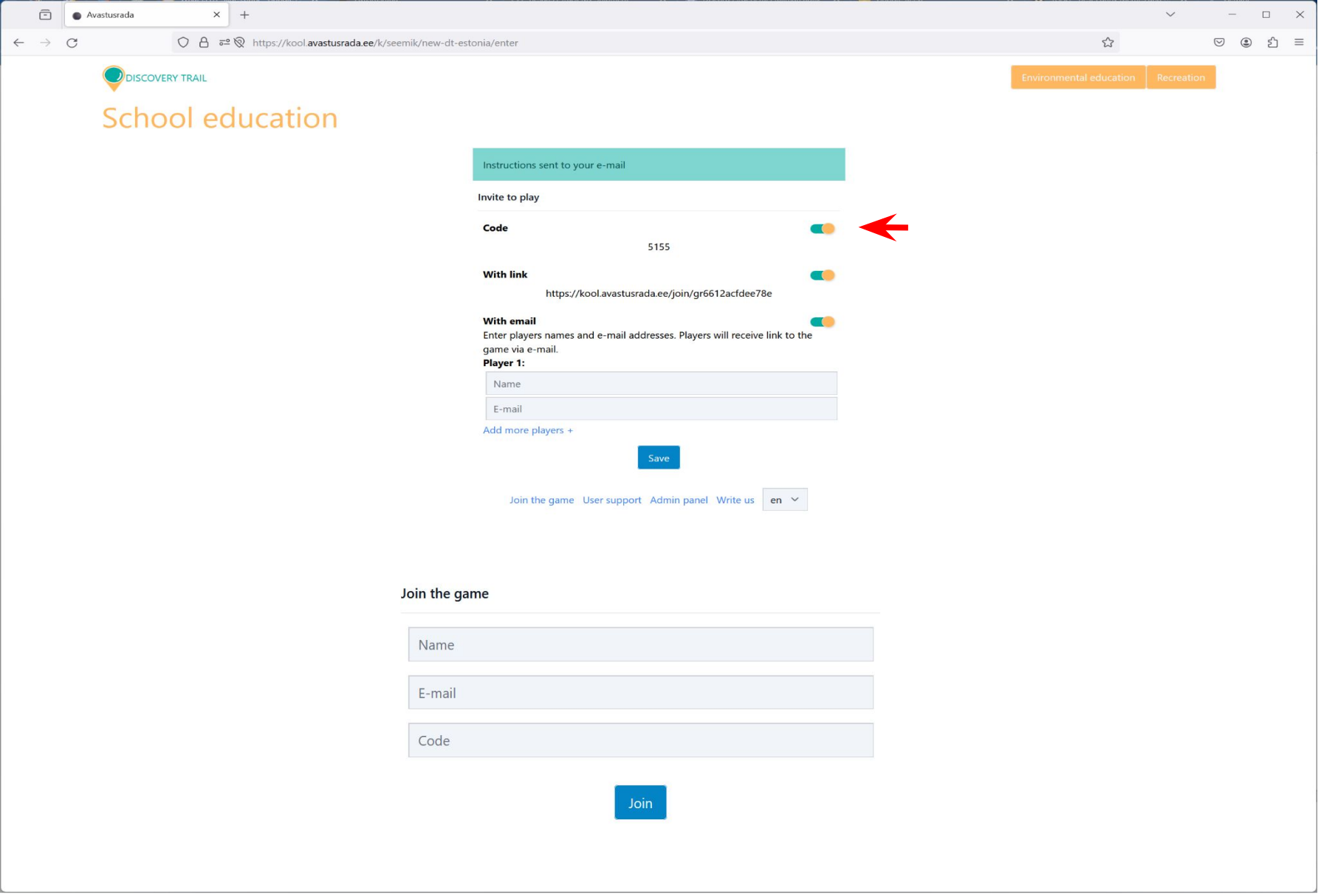

If you choose "Code", you can send this code to your players.

They can join the game by clicking the link "Join the game" in the footer of the page.

They will be presented with a small form to fill out.

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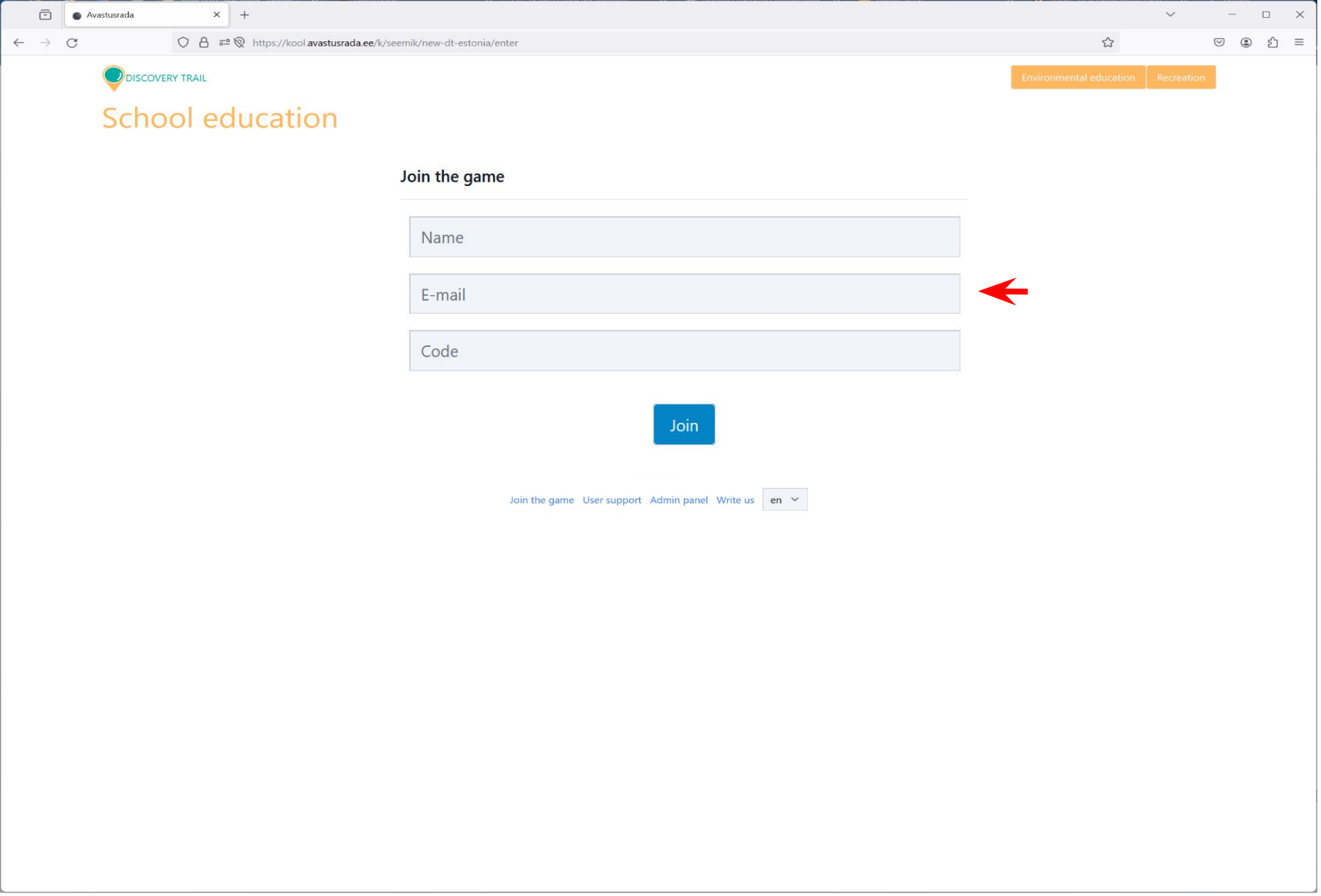

After clicking "Join", the player will be directed to the game.

If they type in the email address (recommended), they will receive a link to the game in their mailboxes.

From that link, they can continue the game later, etc.

If an email is not provided, it is not possible to continue the game if the player exits the game, closes the browser window, etc.

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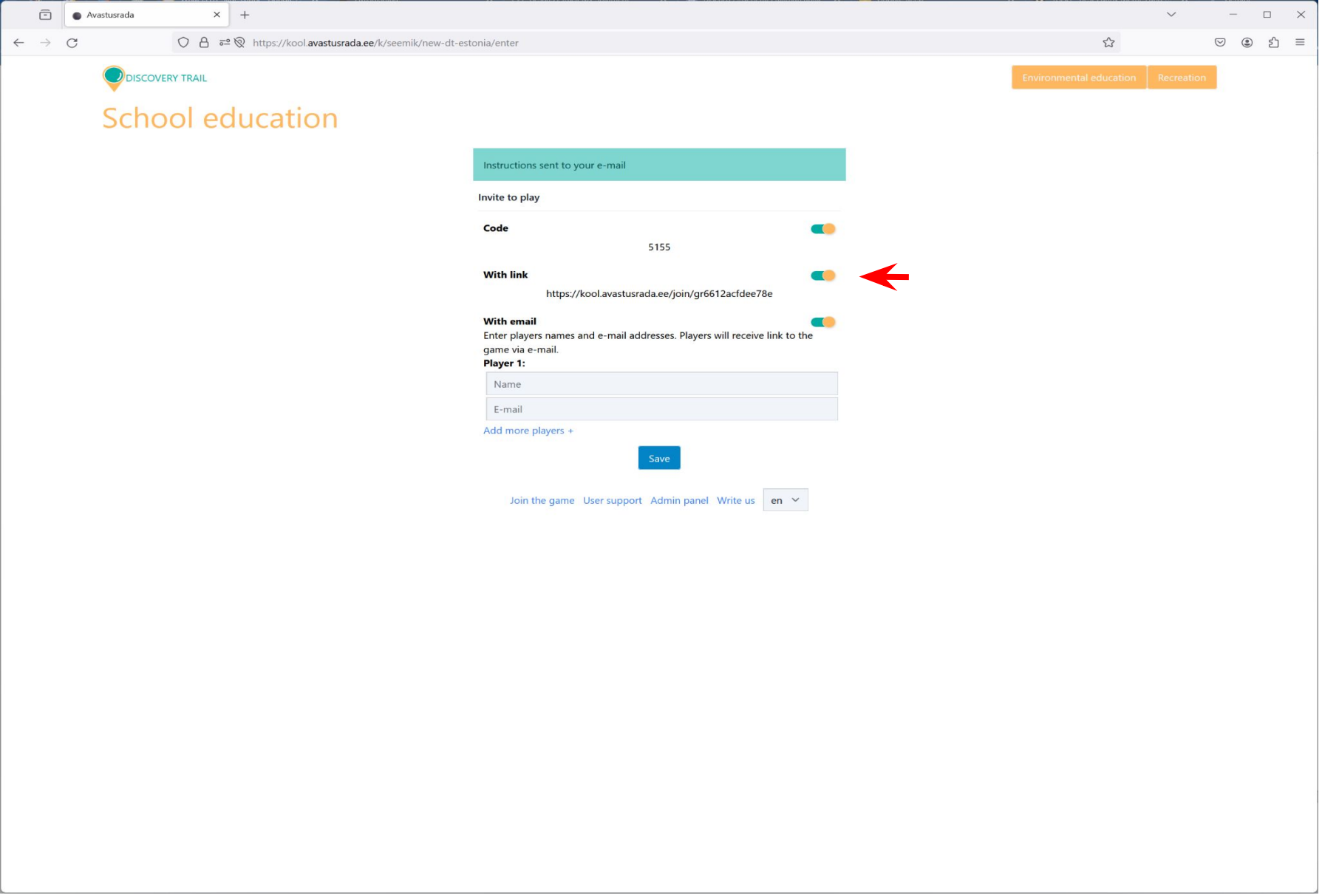

Using the "Link" option, you can send players the link, and they only have to fill in their name and email address.

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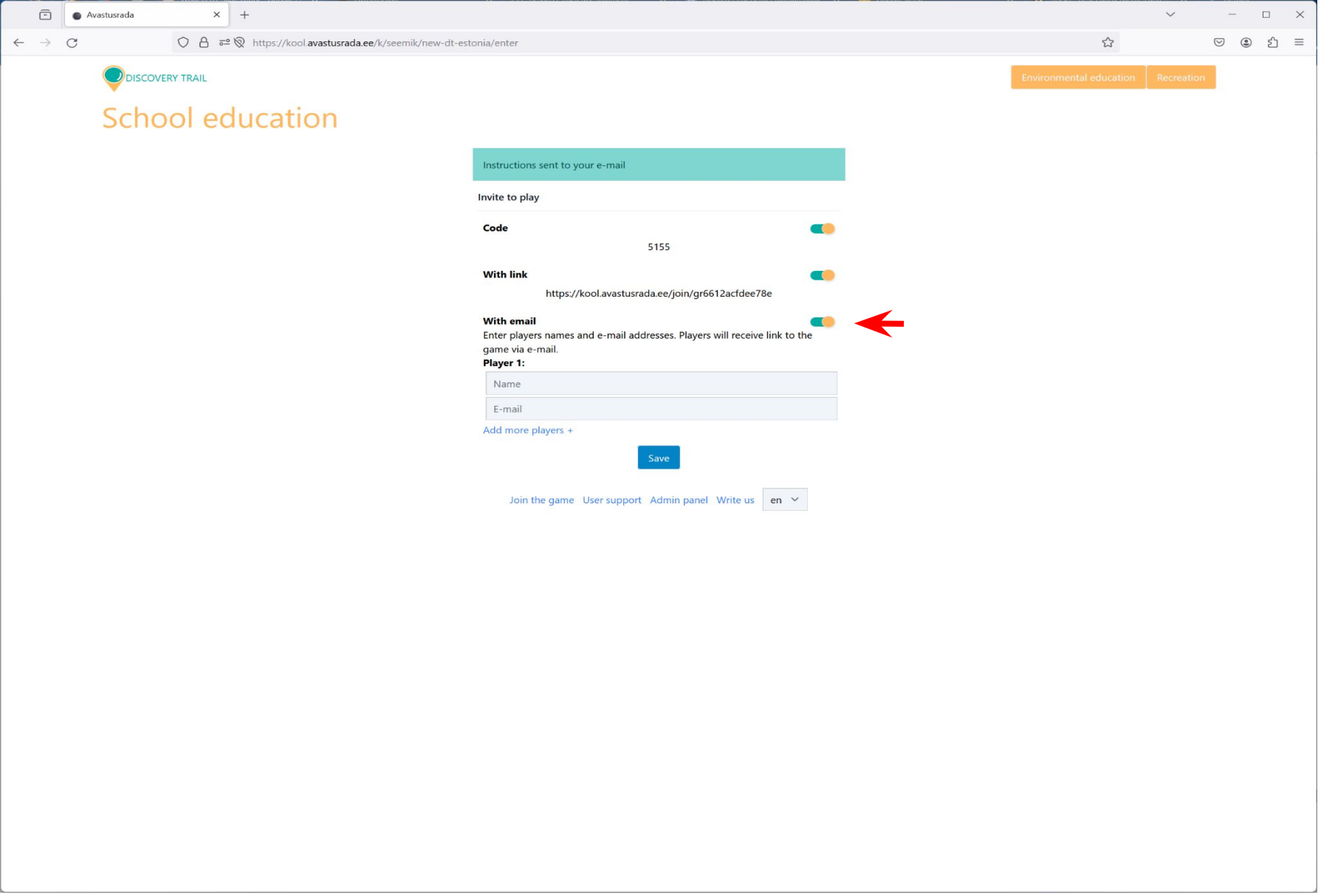

With the email option, you have to prefill the form yourself, player by player.

You can add as many players as you like by clicking on the link "Add more players".

When you click "Save", players will receive an invitation email with a link.

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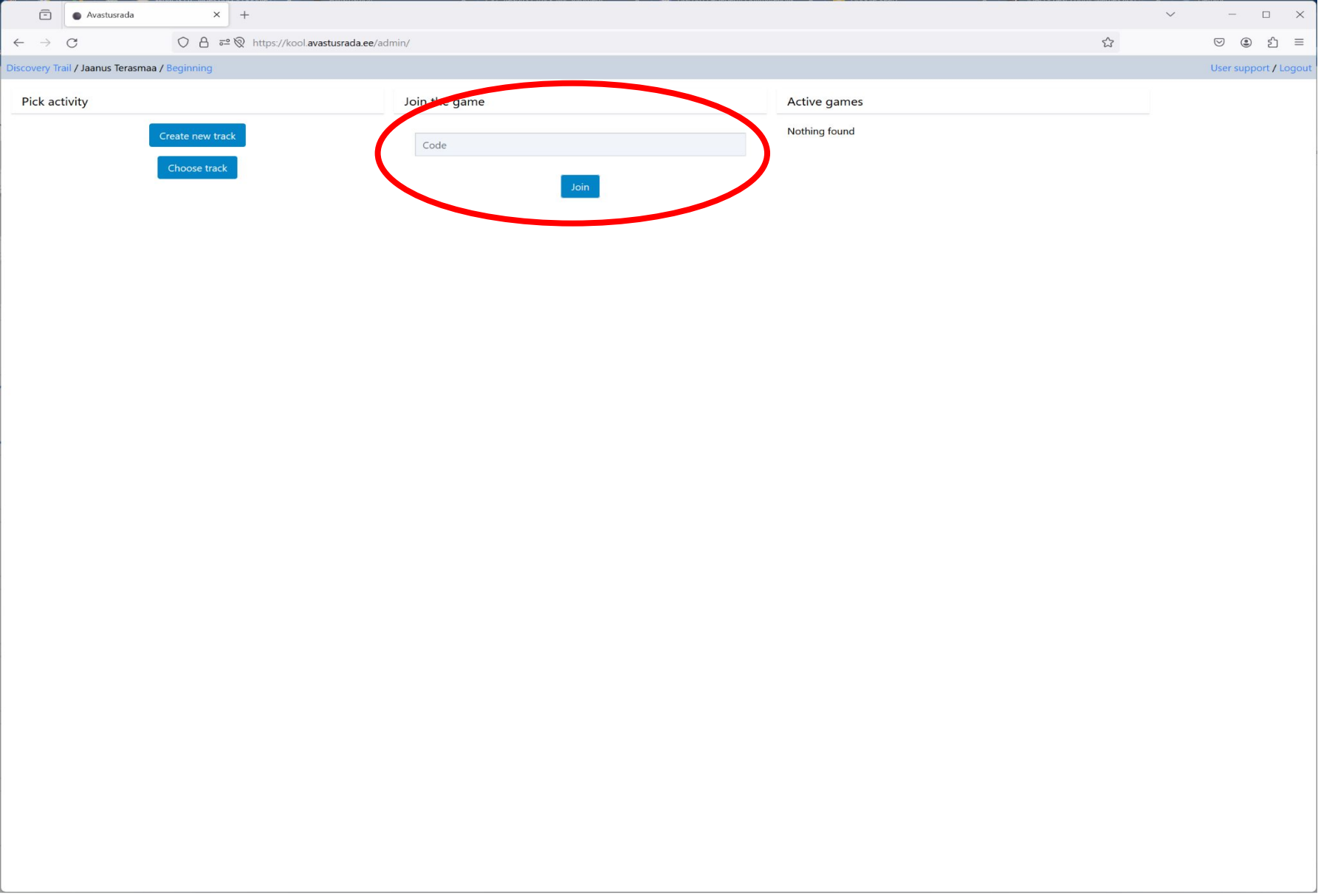

Players can also join if they are logged in with a Google account.

This way, they will have all their played games in the list.

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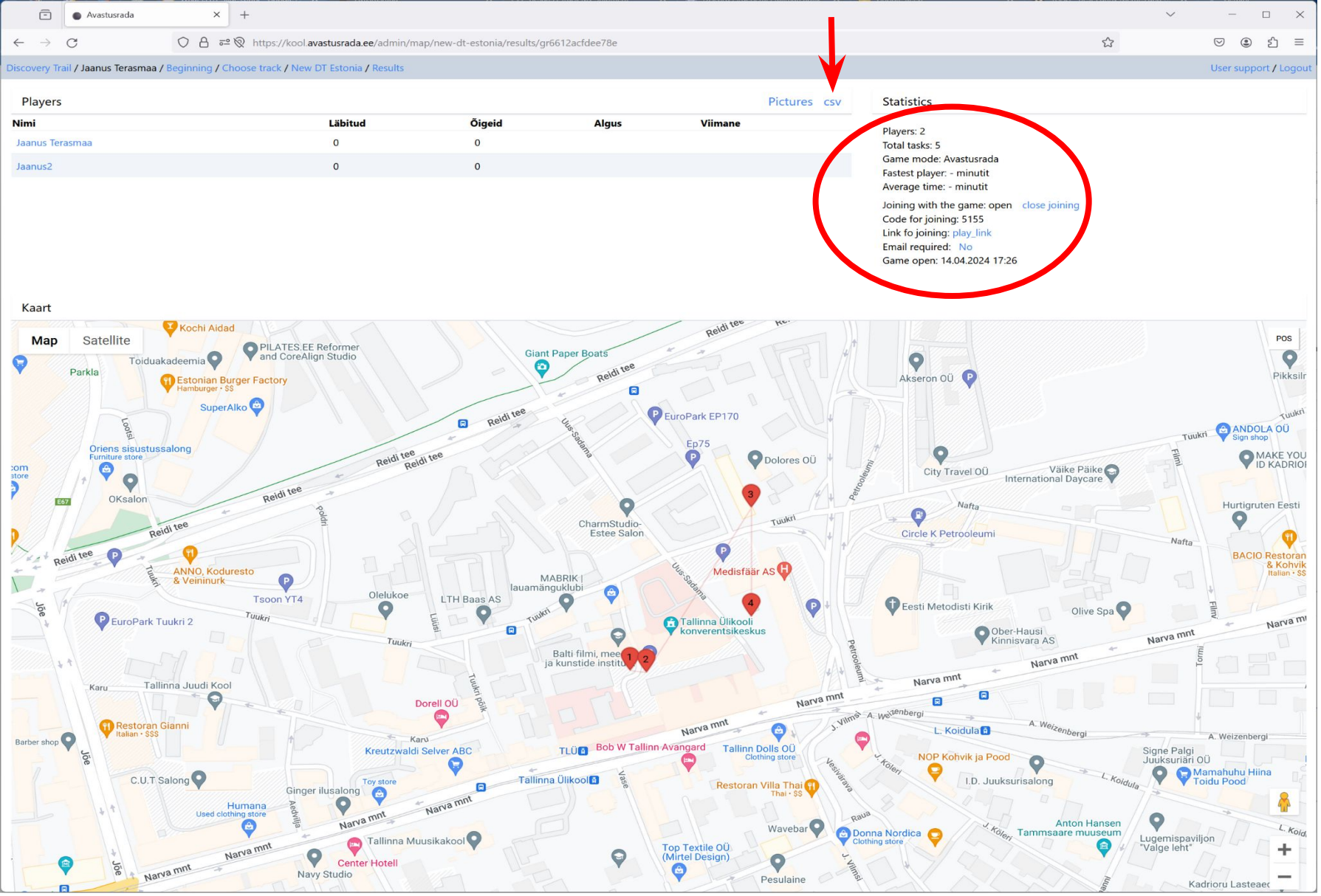

The teacher can see all started games in their list.

Players, their answers, and location on the map during the game are presented.

It is also possible to turn off the registration and see the game code and link.

You can export the result as a CSV file.

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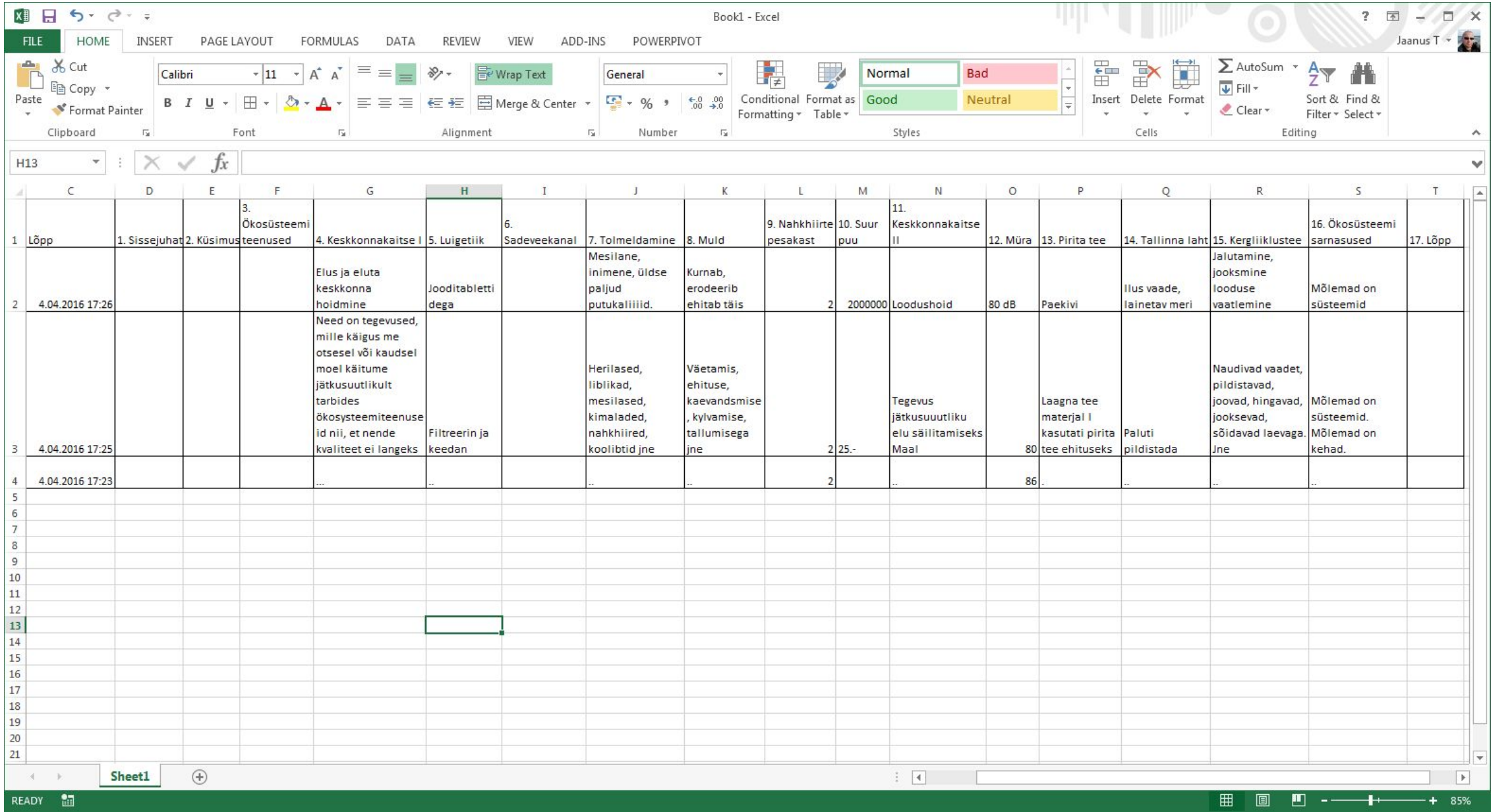
Results are exportable to the CSV-format. CVS-format is compatible with every tabula data platform. So it is possible to send results to the players, use them as education topic in class and so on.



Book1 - Excel

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Lõpp	1. Sissejuhat	2. Küsimus	3. Ökosüsteemi teenused	4. Keskkonnakaitse I	5. Luigetiik	6. Sadeveekanal	7. Tolmeldamine	8. Muld	9. Nahkhiirte pesakast	10. Suur puu	11. Keskkonnakaitse II	12. Müra	13. Pirita tee	14. Tallinna laht	15. Kergliiklustee	16. Ökosüsteemi sarnasused	17. Lõpp
2	4.04.2016 17:26				Elus ja eluta keskkonna hoidmine	Jooditabletti dega		Mesilane, inimene, üldse paljud putukaliiiid.	Kurnab, erodeerib ehitab täis	2	2000000	Loodushoid	80 dB	Paekivi	Ilus vaade, lainetav meri	Jalutamine, jooksmine looduse vaatlemine	Mõlemad on süsteemid	
3	4.04.2016 17:25				Need on tegevused, mille käigus me otsesel või kaudsel moel käitume jätkusuutlikult tarbides ökosysteemiteenuse id nii, et nende kvaliteet ei langeks	Filtreerin ja keedan		Herilased, liblikad, mesilased, kimaladed, nahkhiired, koolibtid jne	Väetamis, ehituse, kaevandsmise , kylvamise, tallumisega jne	2	25.-	Tegevus jätkusuuutliku elu säilitamiseks Maal	80	Laagna tee materjal I kasutati pirita tee ehituseks	Paluti pildistada	Naudivad vaadet, pildistavad, joovad, hingavad, jooksevad, sõidavad laevaga. Jne	Mõlemad on süsteemid. Mõlemad on kehad.	
4	4.04.2016 17:23				...	..		..	..	2		..	86	.	..	..	..	

Sheet1

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85%

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