

O5 Report

Executive Summary



LELLE2: Let's learn how to learn! – A project to improve the learning skills of secondary school students

General information, history

The LELLE2 project was supported by the European Union's Erasmus + program under number 2018-1-HU01-KA201-047839. The LELLE2 project builds on the success of the previous project, Learn to Learn, Developing Higher Education through Innovative Inclusion of Learning Skills in University Curricula (LELLE).

The LELLE2 program is implemented in cooperation with institutions from four countries - Estonia, Hungary, Romania and Slovakia - the four partners include four secondary schools and two national educational research backgrounds (Eszterházy Károly Egyetem, former Oktatáskutató és Fejlesztő Intézet, the Hungarian and Slovak national educational research institutes, which have extensive experience in supporting secondary schools) and a university, the University of Pannonia, which has previously had significant experience in skills development as a lead partner. The partner schools help to incorporate practical experience into the program and expand their own repertoire and insights in these professional areas.

The target group of the project includes secondary schools and teachers and students in Estonia, Hungary, Romania and Slovakia. Through educational research institutes, the target groups of the project are national and regional support institutions, which can also benefit from the results of the project.

The LELLE2 project aims to increase the efficiency of secondary education by promoting the development of three key learning competencies:

- problem solving,
- critical thinking,
- managing your own learning path.

The primary goal of the project is to ensure that young people leaving secondary education institutions have these skills and abilities before they are admitted to higher education institutions or enter the labor market.

Parts of the LELLE2 project:

- Collection of best practices
- A tool to assess the learning skills of high school students
- Training and educational material for high school teachers - How to teach how to learn?
- New methods developed to develop learning skills that fit into existing curricula and curricula
- Developing learning skills - create a GATEWAY website to present the results of the project and create an online community that can share methods for developing learning skills.

The LELLE2 program also wants to involve education actors and stakeholders by publishing and disseminating the results, creating long-term partnerships between educational institutions and background organizations. The aim is to promote lifelong learning through the development of state-of-the-art learning methods that can inspire further collaborations for similar purposes.

Section of LELLE2 O5

European Learning Skills Development Portal – GATEWAY

The fifth intellectual result of the project is the website called GATEWAY, which was developed by the software development staff of the Institute of Informatics Development of the Eszterházy Károly University.

GATEWAY aims to create an open educational online toolkit for learning the three skills development methods - problem solving, critical thinking, and guiding your own learning path.

During the development of the portal, the partners took into account to create an understandable and user-friendly interface that can be easily used by both participating and non-participating teachers. Furthermore, students who want to develop their learning skills on their own can also use GATEWAY.

GATEWAY is also a knowledge sharing portal and functions as a knowledge community. The added value of the portal is that learning skills development methods provide flexibility for all teachers who want to use them as they do not require curriculum integration. With teachers uploading new development methods, site visitors interact, discuss and exchange ideas and experiences for developing learning skills.

Introducing the LELLE2 GATEWAY

The GATEWAY website is available at <https://lelle2.eu>.

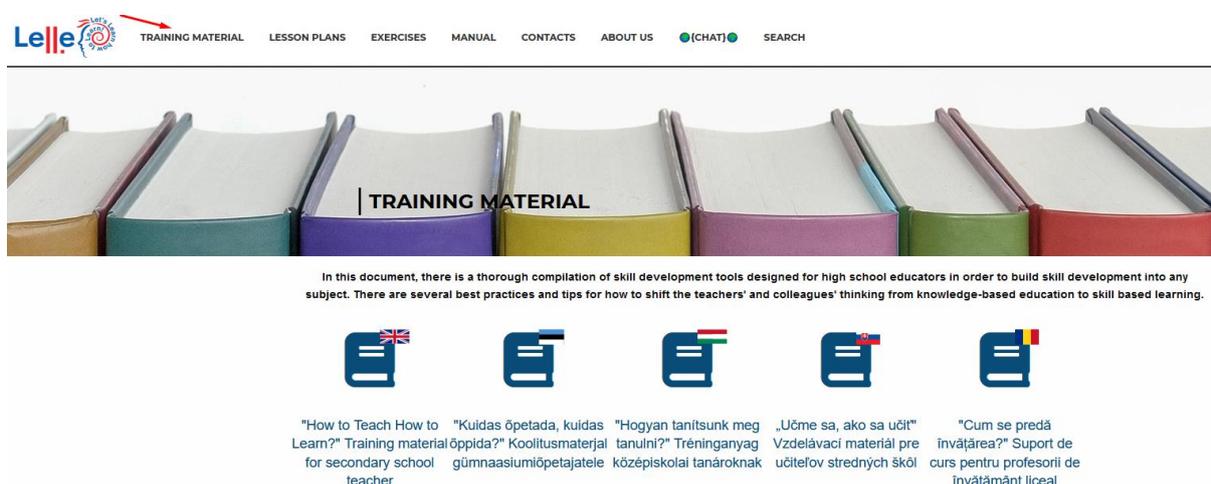
The portal contains professional documents and other products created within the framework of the project: training materials, lesson plans, tasks.

The teachers participating in the project uploaded the content to the website in five languages: Hungarian, English, Slovak, Estonian and Romanian.

There are two types of privileges in the system: public and non-public. The public menu items and the approved contents are available to the users without logging in to the portal, but the non-public menu items and contents are used only by the partners participating in the project, the administrators and the staff with editorial rights.

Training Material menu:

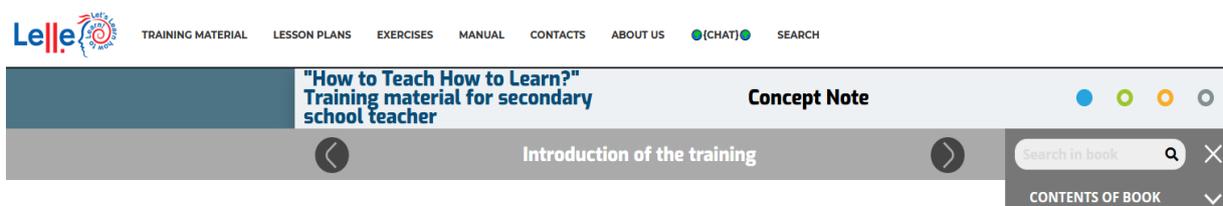
The training documents are available in English, Hungarian, Slovak, Romanian and Estonian in smartbook format.



The screenshot shows the LELLE2 GATEWAY website interface. At the top, there is a navigation menu with the following items: TRAINING MATERIAL (highlighted with a red arrow), LESSON PLANS, EXERCISES, MANUAL, CONTACTS, ABOUT US, (CHAT), and SEARCH. Below the menu is a banner image of several colorful folders with the text "TRAINING MATERIAL" overlaid. Underneath the banner, there is a short paragraph: "In this document, there is a thorough compilation of skill development tools designed for high school educators in order to build skill development into any subject. There are several best practices and tips for how to shift the teachers' and colleagues' thinking from knowledge-based education to skill based learning." Below this paragraph are five icons representing different languages: UK (English), HU (Hungarian), SK (Slovak), RO (Romanian), and EE (Estonian). Each icon is followed by a title and a brief description of the training material in that language.

Language	Title	Description
English	"How to Teach How to Learn?" Training material for secondary school teacher	Training material for secondary school teacher
Hungarian	"Kuidas õpetada, kuidas õppida?" Koollusmaterjal gümnaasiumiõpetajatele	Koollusmaterjal gümnaasiumiõpetajatele
Slovak	"Hogyan tanítsunk meg tanulóit?" Tréninganyag középiskolai tanároknak	Tréninganyag középiskolai tanároknak
Romanian	„Uçme sa, ako sa uçi!” Vzdělávací materiál pre učitelov stredných škôl	Vzdělávací materiál pre učitelov stredných škôl
Estonian	"Cum se predă învățarea?" Suport de curs pentru profesorii de învățământ liceal	Suport de curs pentru profesorii de învățământ liceal

Smartbooks can be created by editors. Each book has its own style, color, header and footer. You can also search for books using the search function. The table of contents of the books can be opened on the right.



The screenshot shows the Lelle platform interface. At the top, there is a navigation bar with links for TRAINING MATERIAL, LESSON PLANS, EXERCISES, MANUAL, CONTACTS, ABOUT US, (CHAT), and SEARCH. Below this, a book titled "How to Teach How to Learn?" is displayed, with the subtitle "Training material for secondary school teacher". The current page is the "Concept Note" section, which is part of the "Introduction of the training" module. A search bar and a "CONTENTS OF BOOK" dropdown menu are visible on the right side of the page.

The training module focuses on education and training of teachers in 3 learning skills: critical thinking, problem solving and managing own learning process.

Critical thinking

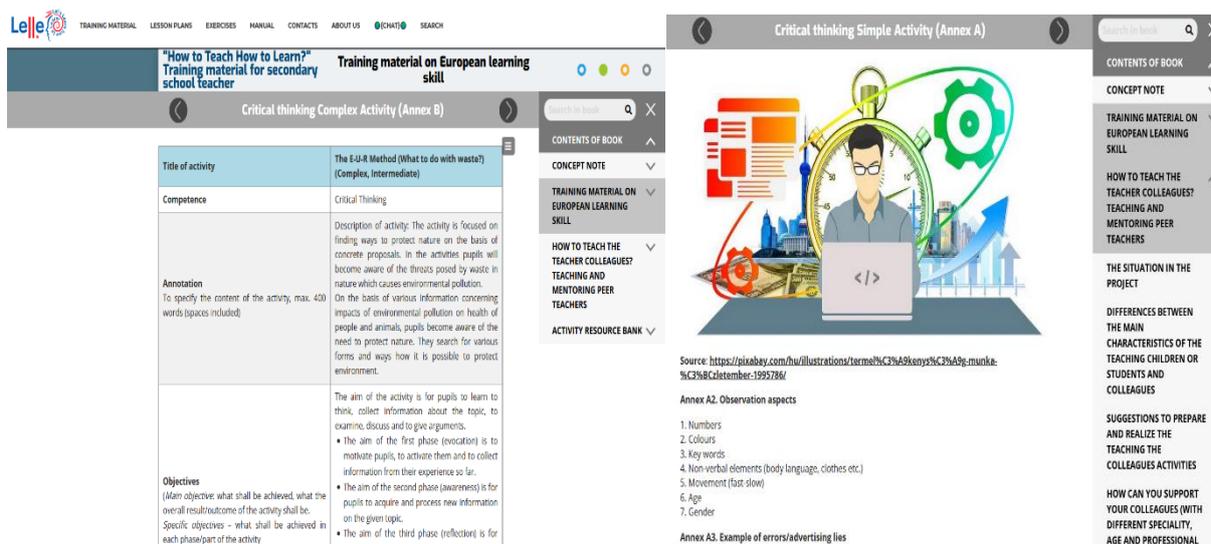
Ability to find the data quickly in short time, resolve most important issues and evaluate them critically in order to gain constant importance. The key competence of teachers is the ability to develop critical thinking, argumentation and presentation skills of his/her learners. The training module is aimed at the development of the following competences: 1) critical thinking in receiving information; 2) formulation of own arguments; 3) presentation skills.

Problem solving

In everyday life problems arise in different forms, they are simple or complex, expected or unexpected. All problems require a decision and a problem solving process is needed. The ability to solve problems is actually the ability to make decisions. The training module is aimed at education and training on increasing a couple of subskills of participants related to the problem solving activities.

Managing own learning process

The training module focuses on the following points: 1. To demonstrate reflection on the process of learning and thinking, processing new knowledge and information and applying different learning strategies. 2. To realize the need of autonomous learning as a means for self-improvement and personal development. 3. To evaluate own progress critically, collect feedback and realize further opportunities for development.



The screenshot shows two pages from the Lelle platform. The left page is titled "Critical thinking Complex Activity (Annex B)" and contains a table with details about the activity. The right page is titled "Critical thinking Simple Activity (Annex A)" and features an illustration of a person at a computer with various icons representing learning and technology. A table of contents on the right side of the right page lists various sections of the book.

Title of activity	The E-4-R Method (What to do with waste?) (Complex, Intermediate)
Competence	Critical Thinking
Annotation	Description of activity: The activity is focused on finding ways to protect nature on the basis of concrete proposals. In the activities pupils will become aware of the threats posed by waste in nature which causes environmental pollution. On the basis of various information concerning impacts of environmental pollution on health of people and animals, pupils become aware of the need to protect nature. They search for various forms and ways how it is possible to protect environment.
Objectives	The aim of the activity is for pupils to learn to think, collect information about the topic, to examine, discuss and to give arguments. <ul style="list-style-type: none"> The aim of the first phase (evocator) is to motivate pupils, to activate them and to collect information from their experience so far. The aim of the second phase (awareness) is for pupils to acquire and process new information on the given topic. The aim of the third phase (reflecter) is for

Source: <https://pixabay.com/hu/illustrations/?term=%C3%A9knyvs%C3%B9g:munk%C3%B9g&letter=1995786/>

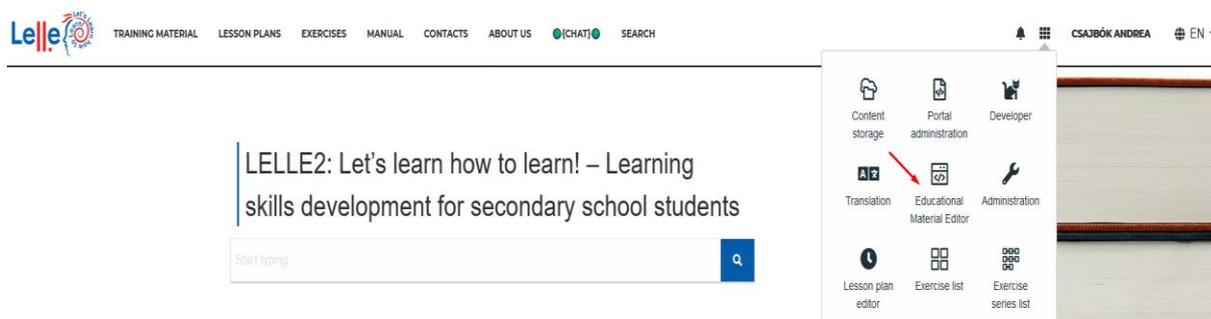
Annex A2. Observation aspects

1. Numbers
2. Colours
3. Key words
4. Non-verbal elements (body language, clothes etc.)
5. Movement (fast/slow)
6. Age
7. Gender

Annex A3. Example of errors/advertising lies

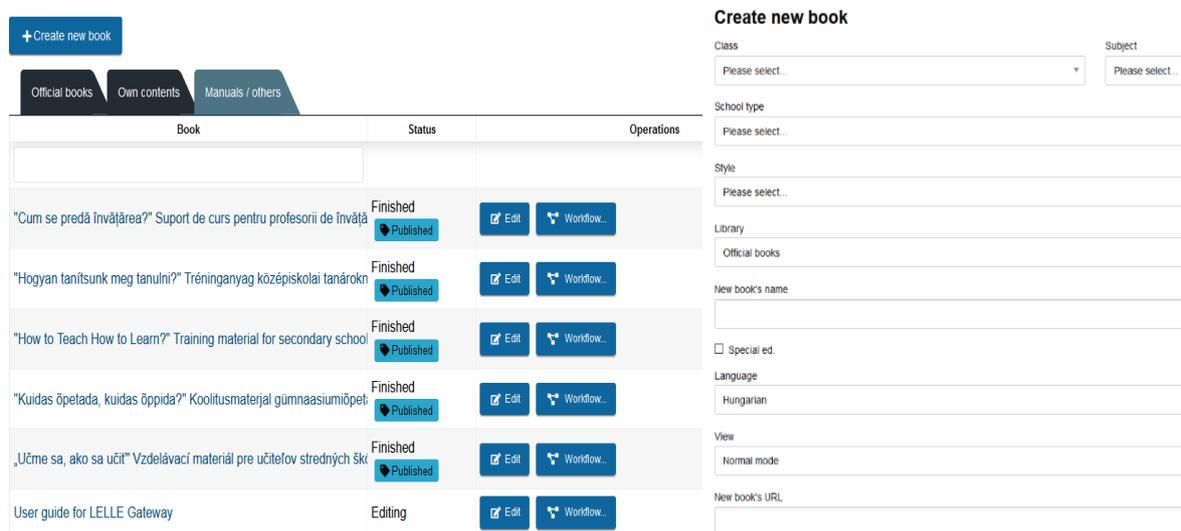
Educational Material Editor:

To create books, you need to use the Educational Material Editor.



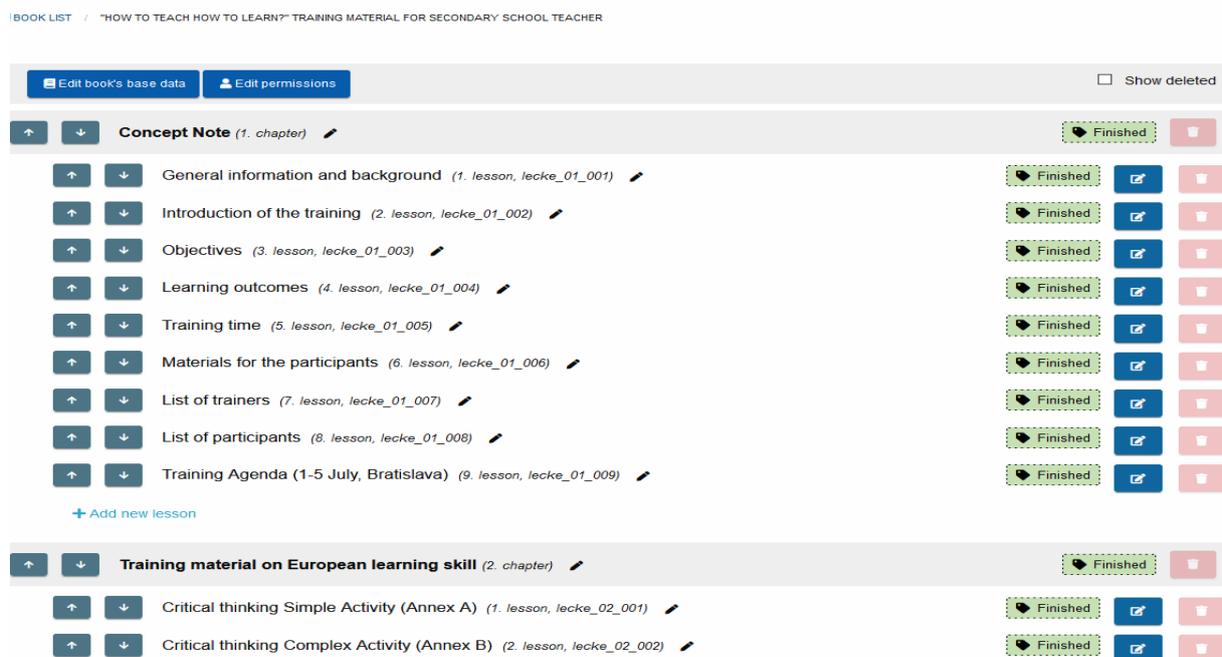
Create a new book:

To create books, you need to provide the following information: class, subject, school type, library, new book name, language, URL.



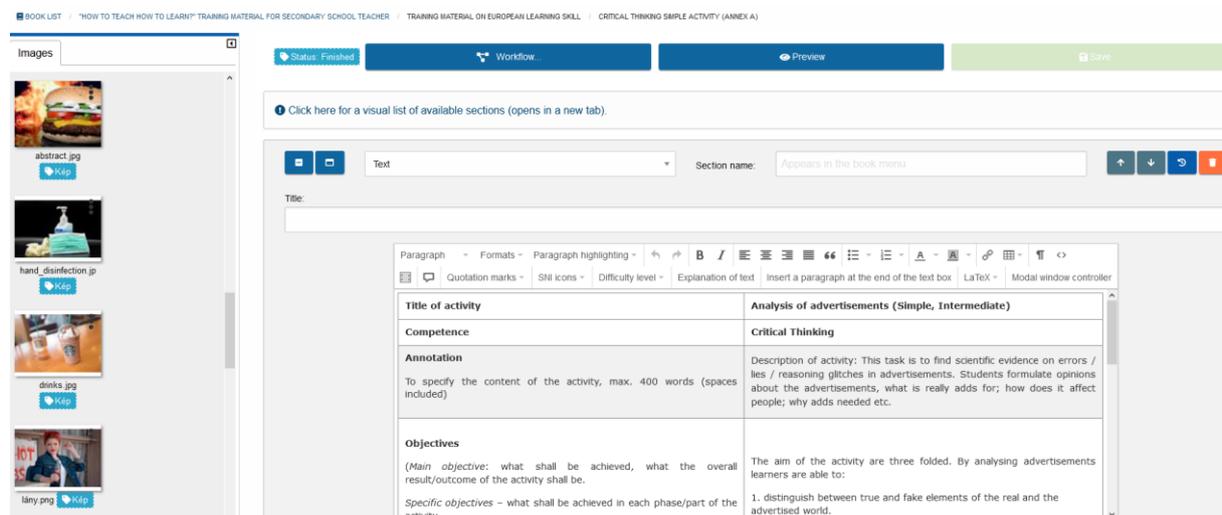
Creating chapters and lessons:

Chapters and lessons can be created in the book. You can change the titles of chapters and lessons and rearrange the order.



The screenshot shows a book management interface. At the top, there are buttons for "Edit book's base data" and "Edit permissions", and a "Show deleted" checkbox. Below this, the book is titled "HOW TO TEACH HOW TO LEARN? TRAINING MATERIAL FOR SECONDARY SCHOOL TEACHER". The main content area displays a list of chapters and lessons. The first chapter is "Concept Note (1. chapter)", which is marked as "Finished". It contains nine lessons: "General information and background (1. lesson, lecke_01_001)", "Introduction of the training (2. lesson, lecke_01_002)", "Objectives (3. lesson, lecke_01_003)", "Learning outcomes (4. lesson, lecke_01_004)", "Training time (5. lesson, lecke_01_005)", "Materials for the participants (6. lesson, lecke_01_006)", "List of trainers (7. lesson, lecke_01_007)", "List of participants (8. lesson, lecke_01_008)", and "Training Agenda (1-5 July, Bratislava) (9. lesson, lecke_01_009)". Each lesson has a "Finished" status, a pencil icon for editing, and a trash icon for deletion. A "+ Add new lesson" button is located at the bottom of the list. The second chapter is "Training material on European learning skill (2. chapter)", also marked as "Finished", and contains two lessons: "Critical thinking Simple Activity (Annex A) (1. lesson, lecke_02_001)" and "Critical thinking Complex Activity (Annex B) (2. lesson, lecke_02_002)".

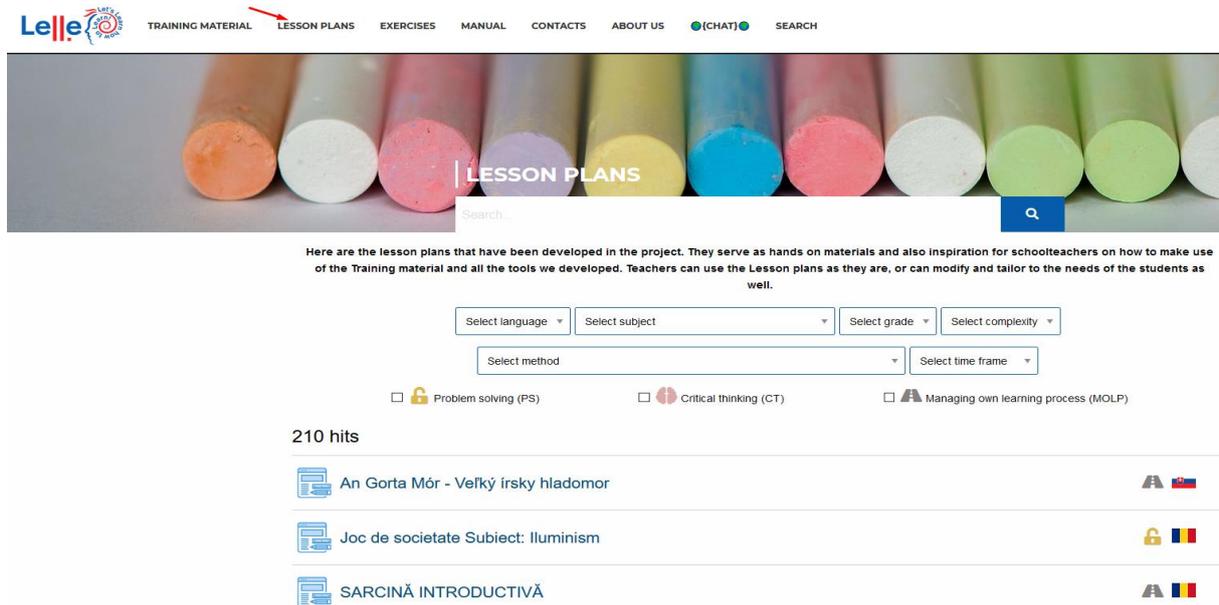
Each lesson includes sections so you can easily manage the content of the book. All basic formatting options are available in the HTML-based editor (for example: font color, background color, italics, bold font, pasting URLs, etc.). Images can also be uploaded to the system.



The screenshot shows the HTML-based editor interface. At the top, there are buttons for "Status: Finished", "Workflow", "Preview", and "Save". Below this, there is a message: "Click here for a visual list of available sections (opens in a new tab)". The main editing area has a "Text" input field and a "Section name" field with the value "Appears in the book menu". Below the input fields, there is a "Title:" label and a text area. The editor includes a rich text toolbar with options for Paragraph, Formats, Paragraph highlighting, Bold (B), Italic (I), Underline (U), Text color, Background color, Link, Unlink, and Code. Below the toolbar, there is a table with the following content:

Title of activity	Analysis of advertisements (Simple, Intermediate)
Competence	Critical Thinking
Annotation To specify the content of the activity, max. 400 words (spaces included)	Description of activity: This task is to find scientific evidence on errors / lies / reasoning glitches in advertisements. Students formulate opinions about the advertisements, what is really adds for; how does it affect people; why adds needed etc.
Objectives (Main objective: what shall be achieved, what the overall result/outcome of the activity shall be. Specific objectives - what shall be achieved in each phase/part of the activity.	The aim of the activity are three folded. By analysing advertisements learners are able to: 1. distinguish between true and fake elements of the real and the advertised world.

Lesson Plans menu:

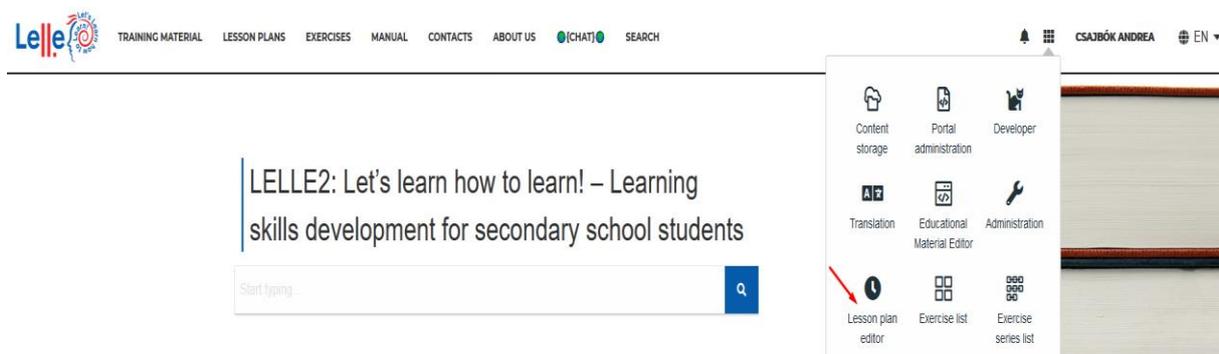


The screenshot shows the 'Lesson Plans' menu on the LELLE2 website. The navigation bar includes 'TRAINING MATERIAL', 'LESSON PLANS' (highlighted with a red arrow), 'EXERCISES', 'MANUAL', 'CONTACTS', 'ABOUT US', '[CHAT]', and 'SEARCH'. Below the navigation bar is a banner image of colored chalk with the text 'LESSON PLANS' and a search bar. A descriptive paragraph states: 'Here are the lesson plans that have been developed in the project. They serve as hands on materials and also inspiration for schoolteachers on how to make use of the Training material and all the tools we developed. Teachers can use the Lesson plans as they are, or can modify and tailor to the needs of the students as well.' Below this are several filter options: 'Select language', 'Select subject', 'Select grade', 'Select complexity', 'Select method', and 'Select time frame'. There are also checkboxes for 'Problem solving (PS)', 'Critical thinking (CT)', and 'Managing own learning process (MOLP)'. The results section shows '210 hits' and lists three lesson plans: 'An Gorta Mór - Veľký irský hladomor', 'Joc de societate Subject: Iluminism', and 'SARCINĂ INTRODUCIVĂ', each with a document icon and a flag icon.

In the lesson plan store, lesson plans can be viewed and the result list filtered. The following search options are available: language, subject, grade, complexity, method, time frame, problem solving, critical thinking, and managing your own learning process.

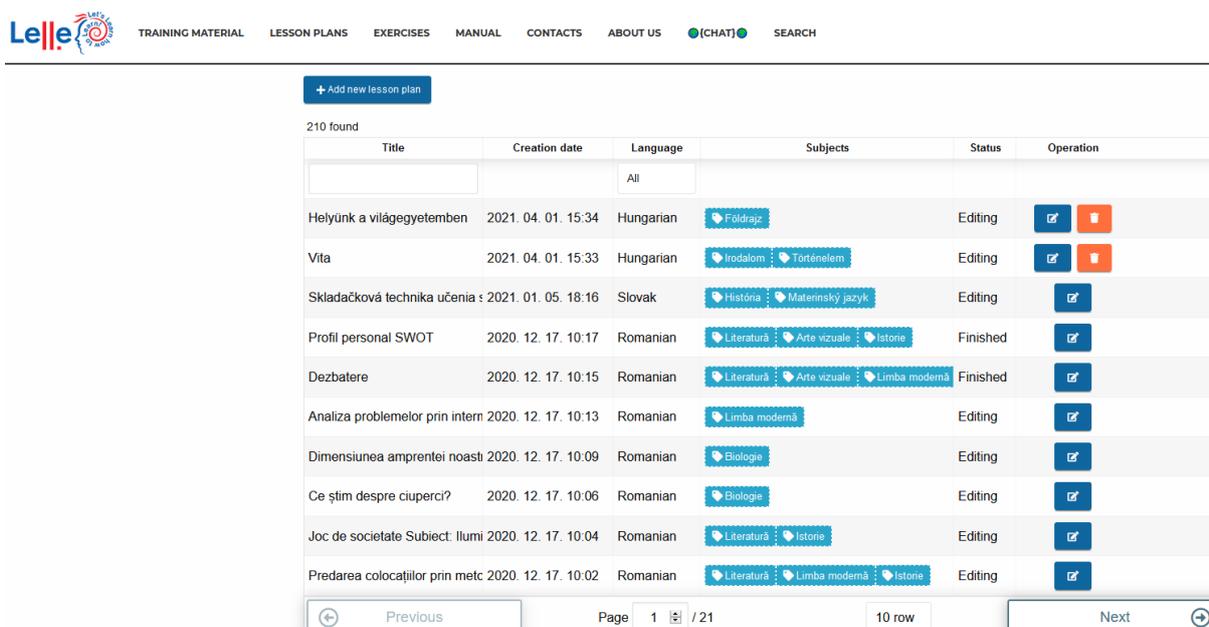
Lesson Plan editor:

To create lesson plans, you need to use the Lesson Plan editor.



The screenshot shows the 'Lesson Plan editor' interface on the LELLE2 website. The navigation bar is the same as in the previous screenshot. The main content area displays the title 'LELLE2: Let's learn how to learn! – Learning skills development for secondary school students' and a search bar with the text 'Start typing...'. A dropdown menu is open, showing various options: 'Content storage', 'Portal administration', 'Developer', 'Translation', 'Educational Material Editor', 'Administration', 'Lesson plan editor' (highlighted with a red arrow), 'Exercise list', and 'Exercise series list'. The user's name 'CSAJBÓK ANDREA' and the language 'EN' are visible in the top right corner.

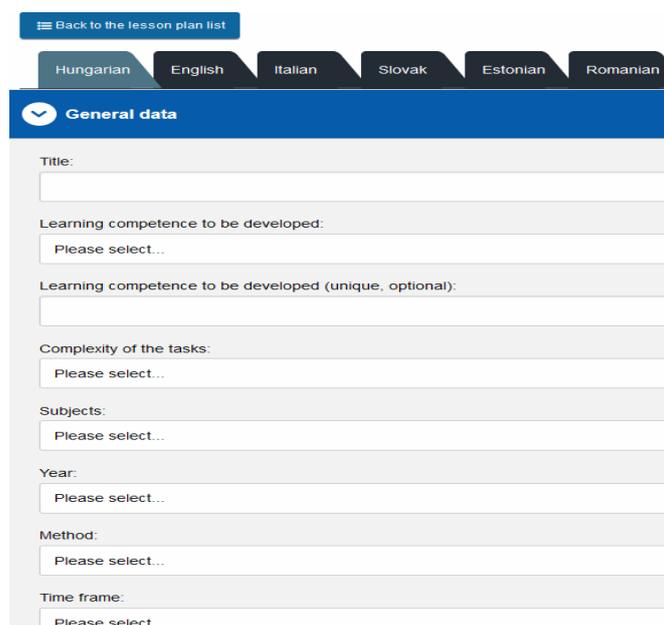
Created lesson plans can be viewed, edited and deleted. In the Lesson Outline editor module you can create and upload lesson outlines in five languages: Hungarian, English, Slovak, Estonian, Romanian.



The screenshot shows the Lelle platform interface. At the top, there is a navigation menu with options: TRAINING MATERIAL, LESSON PLANS, EXERCISES, MANUAL, CONTACTS, ABOUT US, (CHAT), and SEARCH. Below the menu, there is a button to '+ Add new lesson plan'. The main content area displays a table with 210 found lesson plans. The table has columns for Title, Creation date, Language, Subjects, Status, and Operation. The table lists several lesson plans with their respective details, including titles in Hungarian, Slovak, and Romanian, creation dates, languages, subjects, and status (Editing or Finished). At the bottom of the table, there are navigation controls for 'Previous', 'Page 1 / 21', '10 row', and 'Next'.

To create a new lesson plan:

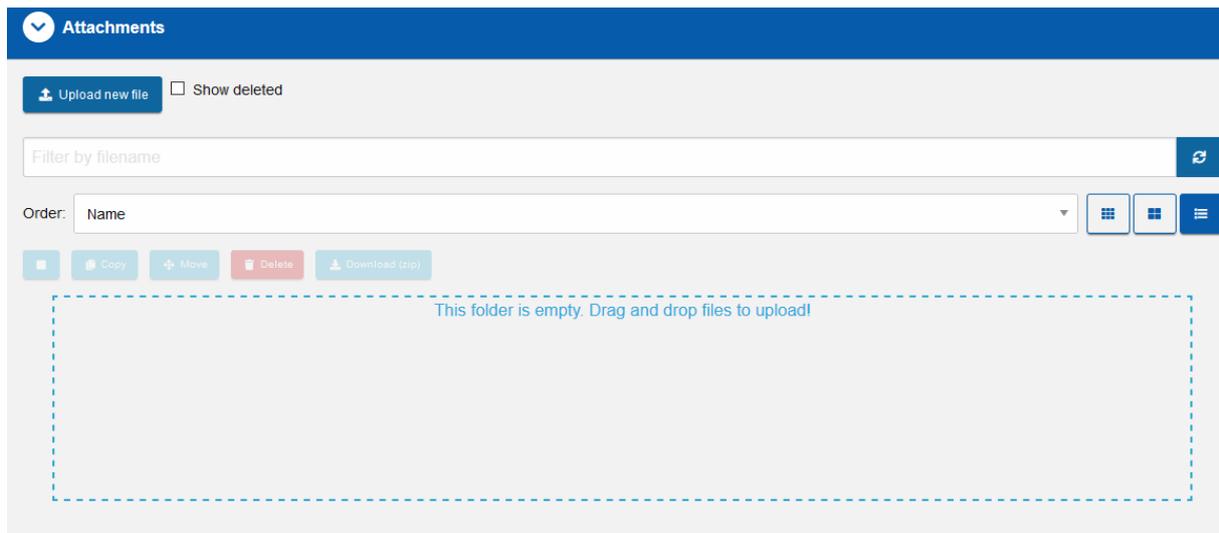
To prepare the lesson outline, the following data must be provided: title, learning competence to be developed, complexity of the task, subjects, grade, method, time frame.



The screenshot shows the lesson plan creation form. At the top, there is a button to 'Back to the lesson plan list'. Below this, there are tabs for the languages: Hungarian, English, Italian, Slovak, Estonian, and Romanian. The form is titled 'General data' and contains several input fields and dropdown menus for the following information: Title, Learning competence to be developed (with a 'Please select...' dropdown), Learning competence to be developed (unique, optional), Complexity of the tasks (with a 'Please select...' dropdown), Subjects (with a 'Please select...' dropdown), Year (with a 'Please select...' dropdown), Method (with a 'Please select...' dropdown), and Time frame (with a 'Please select...' dropdown).

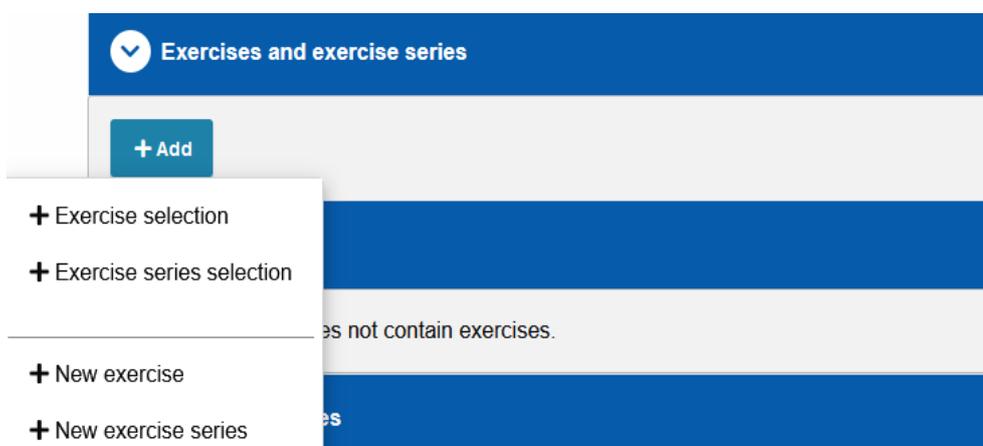
Upload attachments:

It is possible to upload files (pictures, documents, etc.). Uploaded attachments can be searched or sorted by item name or creation date.



Select exercises and exercise series:

In this section you can select and attach the exercises or exercise series to be displayed from the 25 types of exercises in the system.



Keywords:

Categorize

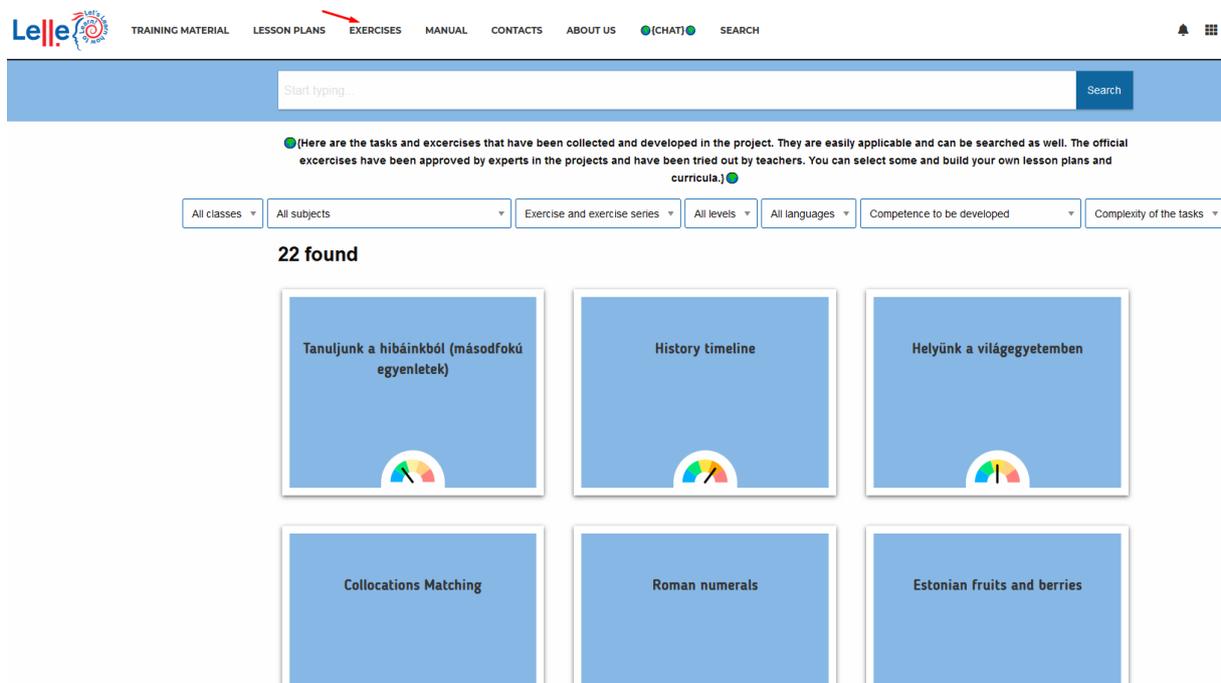
Keywords: *

Metadata:

There are no metadata categories assigned to this data type.

A keyword or search term is a word or phrase that identifies certain content. The keywords entered are entered into the search engine and become searchable by users.

Exercises menu:

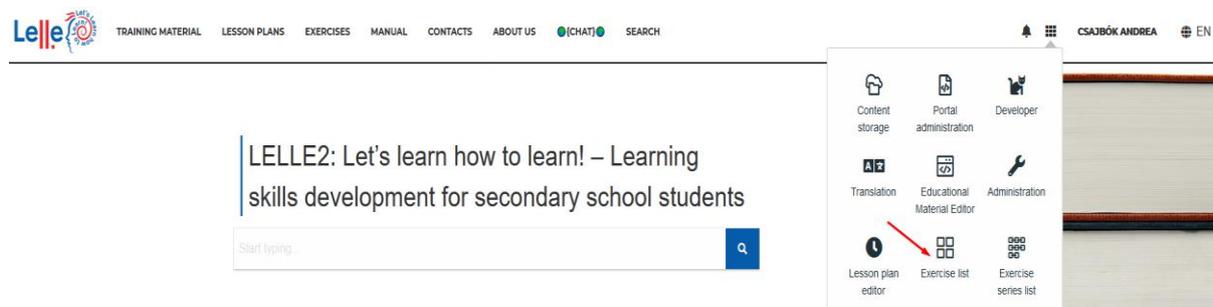


The screenshot shows the Lelle website's navigation menu with 'EXERCISES' highlighted by a red arrow. Below the menu is a search bar with the placeholder text 'Start typing...' and a 'Search' button. A message states: '(Here are the tasks and exercises that have been collected and developed in the project. They are easily applicable and can be searched as well. The official exercises have been approved by experts in the projects and have been tried out by teachers. You can select some and build your own lesson plans and curricula.)'. Below this are several filter dropdowns: 'All classes', 'All subjects', 'Exercise and exercise series', 'All levels', 'All languages', 'Competence to be developed', and 'Complexity of the tasks'. The results section shows '22 found' and a grid of six exercise cards: 'Tanuljunk a hibáinkból (másodfokú egyenletek)', 'History timeline', 'Helyünk a világegyetemben', 'Collocations Matching', 'Roman numerals', and 'Estonian fruits and berries'.

The exercise list contains all the exercises available in the system. Exercises can be viewed and filtered from the results list.

Exercise editor:

You must use the Exercise Editor to create exercises.



You can choose from the following task types to create tasks:

Multiple choice tasks:

- Thyme eggs
- Quiz
- Pairing (drag and drop)
- Pairing quiz
- Pairing (connecting)
- Lightning issue

Organized tasks:

- Organize
- Sentence completion (drag and drop)
- Sentence completion (drop-down list)
- Sorting
- Sudoku
- Number line
- Spreadsheets (drag and drop)
- Drag to area
- Blind map

Text tasks:

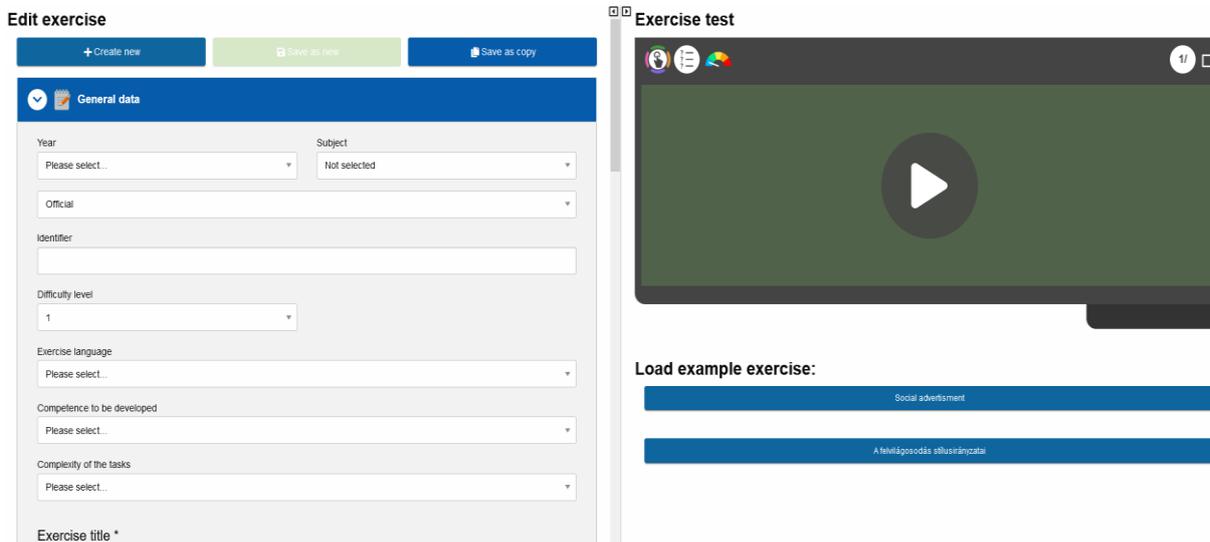
- Crossword
- Addition of sentences (free text)
- Open-ended (text)
- Number pyramid
- Text replacement
- Spreadsheets (free text)

Games:

- Painter
- Jigsaw puzzle
- Memory game
- Word finder
- Universal task engine

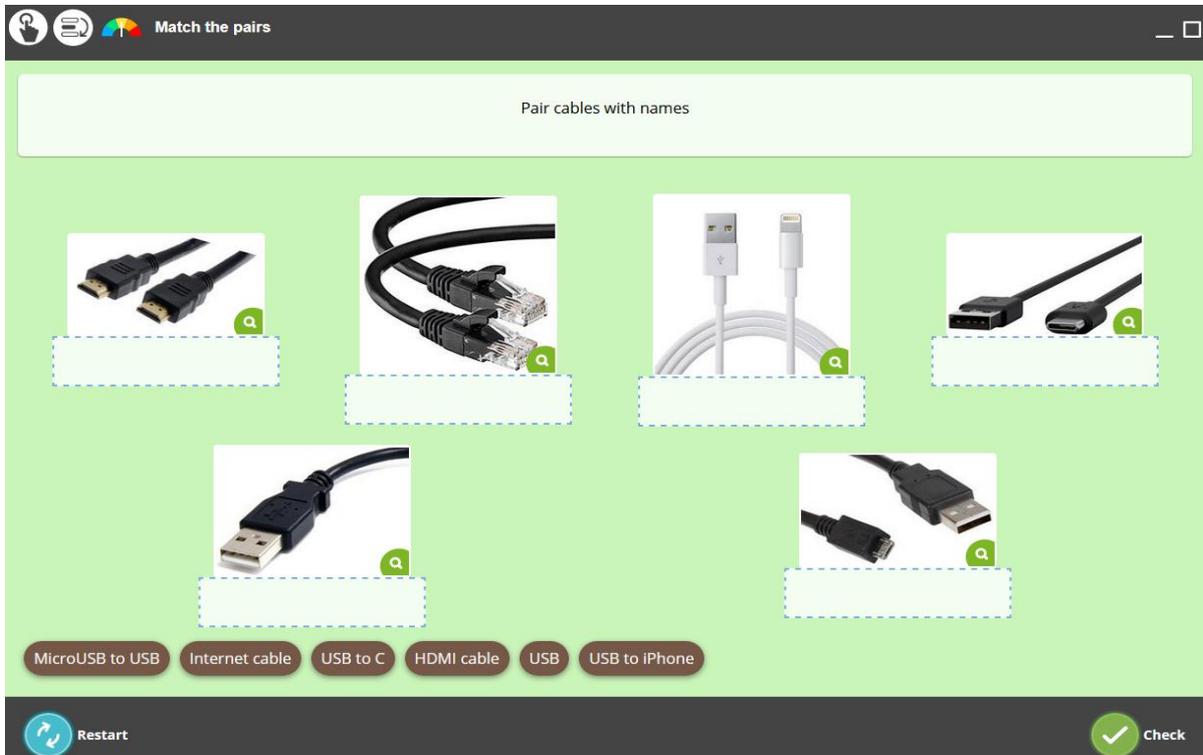
Exercise filler:

The exercise fill interface allows the editor to select general information about the exercise (e.g., exercise name, description, keywords, etc.) after selecting the appropriate exercise engine, and then items that can be specifically specified for each exercise engine (question, answer, etc.).



The screenshot displays two side-by-side windows from a software interface. The left window, titled "Edit exercise", features a top navigation bar with buttons for "+ Create new", "Save as new", and "Save as copy". Below this is a "General data" section with several form fields: "Year" (dropdown menu), "Subject" (dropdown menu), "Official" (dropdown menu), "Identifier" (text input), "Difficulty level" (dropdown menu), "Exercise language" (dropdown menu), "Competence to be developed" (dropdown menu), "Complexity of the tasks" (dropdown menu), and "Exercise title *" (text input). The right window, titled "Exercise test", shows a dark green video player interface with a large white play button in the center. Below the video player, there are two blue buttons: "Load example exercise:" followed by "Social advertisement" and "A felhívásosodás stílusirányzata".

Pairing (drag and drop) exercise:



Edit exercise

General data

Year:
 Subject:

Official:

Identifier:

Difficulty level:

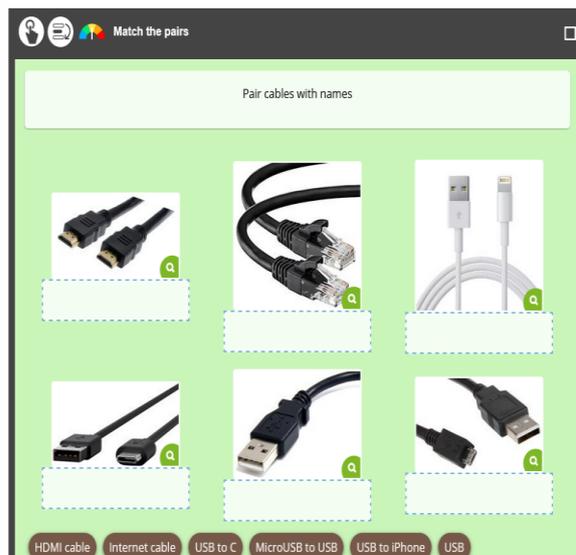
Exercise language:

Competence to be developed:

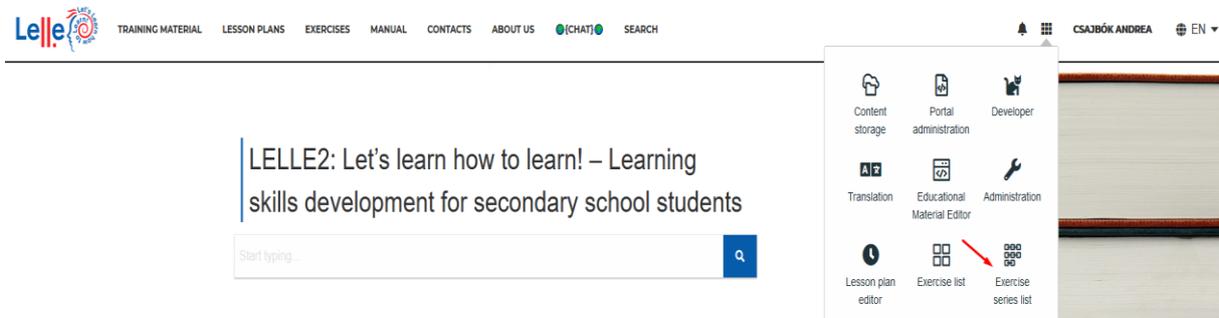
Complexity of the tasks:

Exercise title *

Exercise test



Exercise series editor:



Multi-exercise series can be created in the exercise series editor.

Exercise series editor:

The exercise series editor interface allows the editor to collect the exercises they want to link, assign scores to them, and specify other settings for the task queue: description, time limit, exam, practice mode, and more.

Edit exercise series

[+ Create new](#)
[Save exercise series as new](#)
[Save as copy](#)

Year:
 Subject:

Library:

Language of the exercise series:

Title:

Introduction:

Keywords:

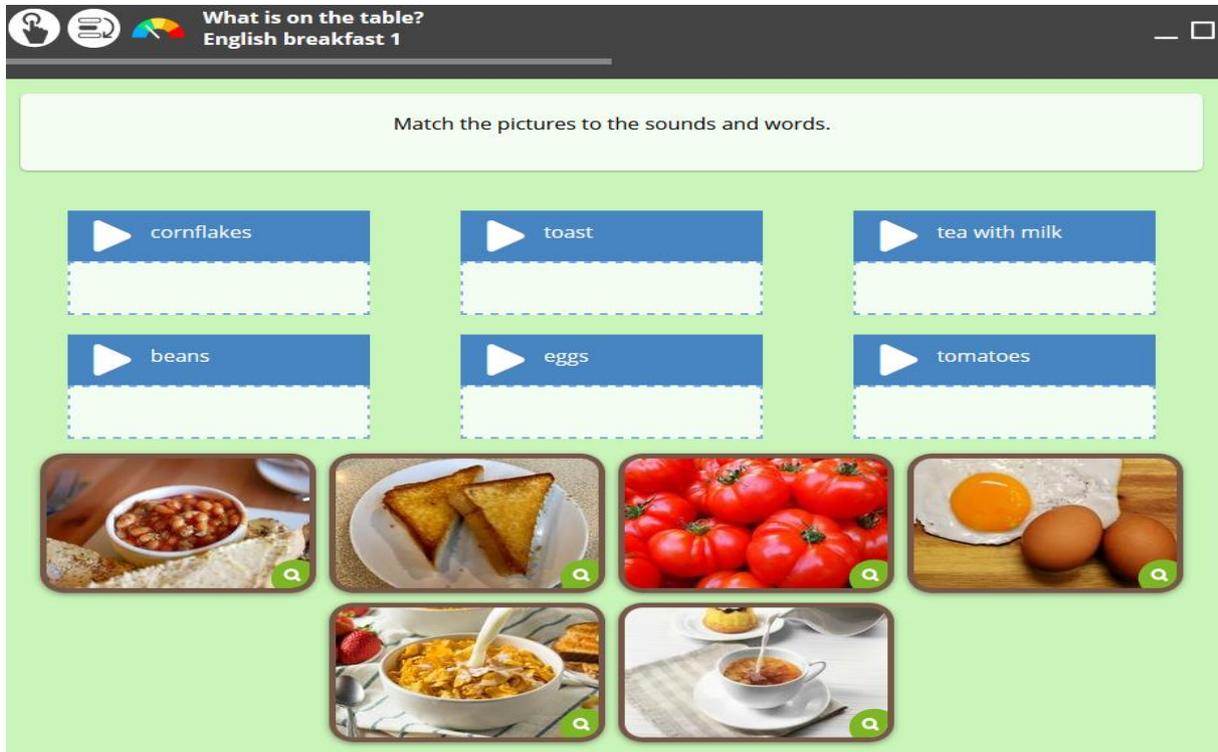
Difficulty level:

Exercise title	Type	Level	Weight	Status	Operation
+ Add exercise					

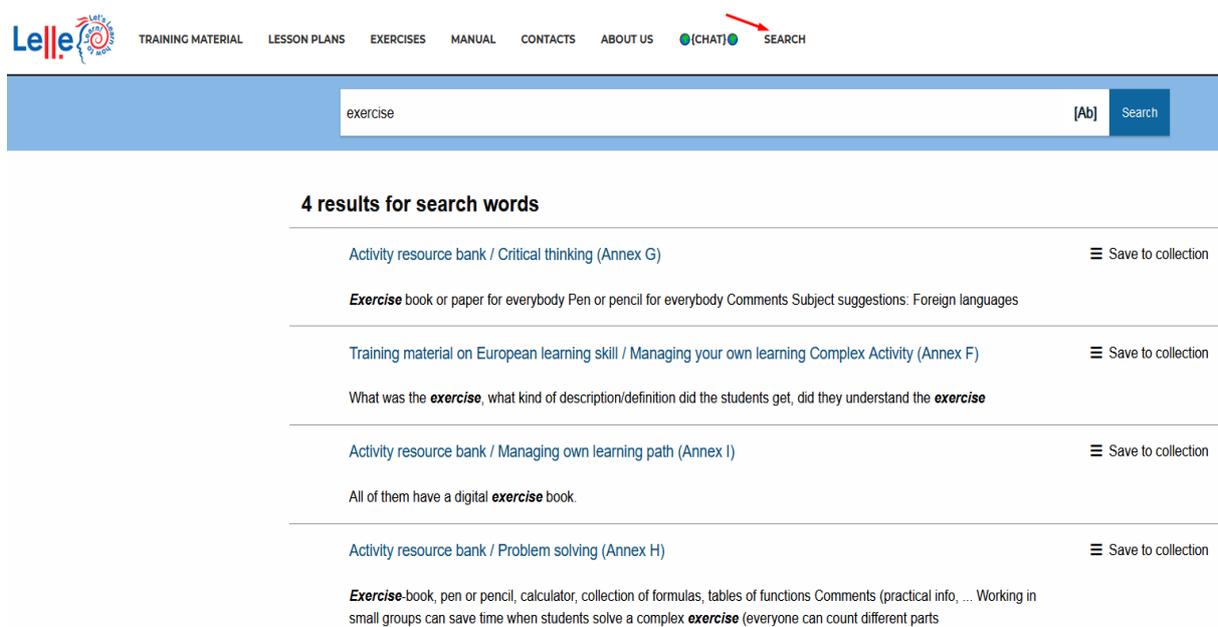
Type of display
 Type of behaviour:
 The order of questions is fix
 Selection mode:

Type of evaluation
 Level of success(%):
 Show earned points
 Don't show the evaluation
 Time limit (mins):
 Can be interrupted

Simple type exercise series:



Search menu:



Public content available on the website can be searched by users.