

Lecture II:
„Advanced Techniques in Moodle to enhance climate education. Session on creation of interactive online courses, emphasizing the use of multimedia content, discussion forums and feedback mechanisms“

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September 30, 2024

Agenda

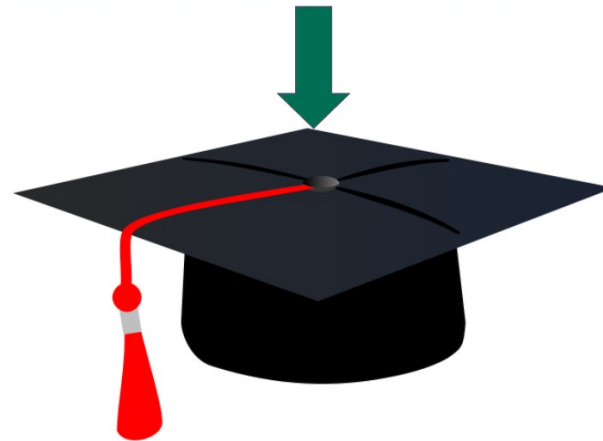
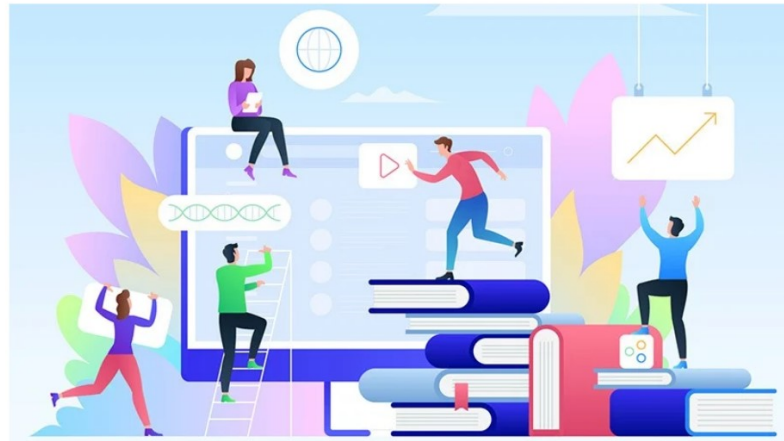
- My background
- My assignments as an educational technologist
- Moodle tools for creating an interactive online course
- Introduction game

My background

- University of Tartu - Environmental technology
- Worked as an environmental specialist – main tasks: environmental impact assessment
- Since the end of 2019 - educational technologist at the Estonian University of Life Sciences
- The project “Climate Awareness from School to Society: empowering children, youth and teachers to reduce the impacts of climate change” (University of Tartu, Estonian University of Life Sciences, Tallinn University and the University Museum of Bergen in Norway)

What are my assignments in University?

- Coordinate digital learning at the University



What are my assignments in University?

- Work out and implement new innovative solutions



What are my assignments in University?

- Make sure the old ones work well



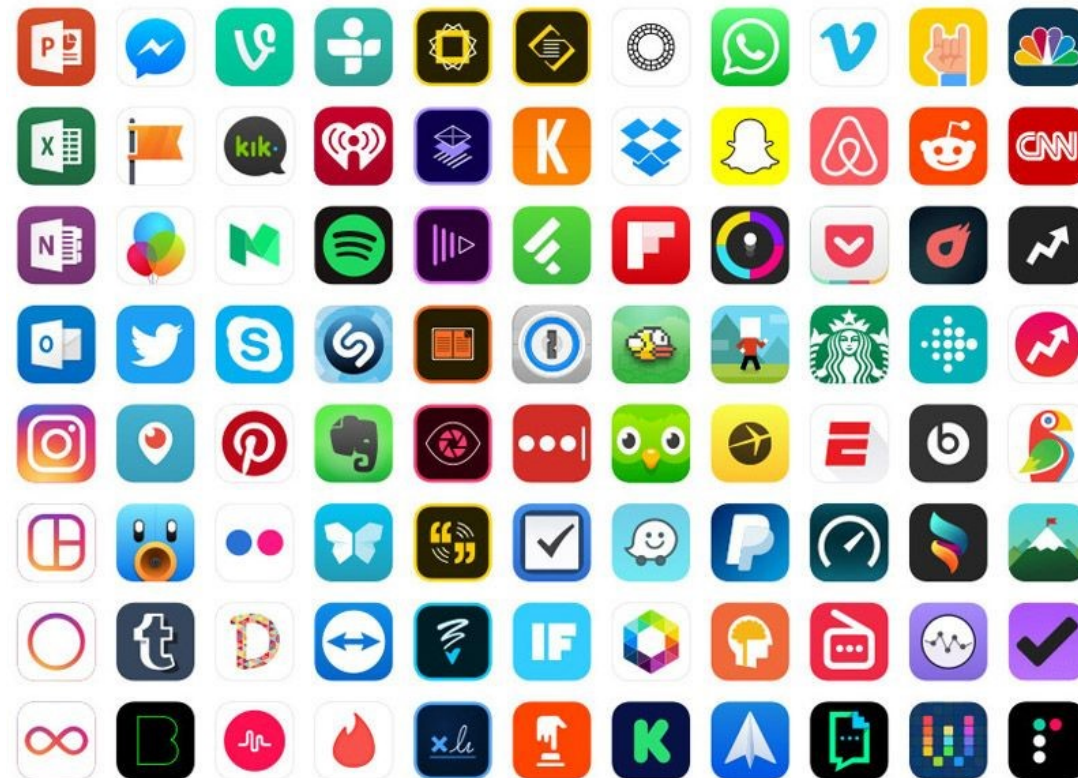
What are my assignments in University?

- Advise and support our lecturers in the use of digital tools, digital environments and digital devices in the study process



What are my assignments in University?

- Organise and conduct training in digital learning



The logo for Moodle, featuring the word "moodle" in a bold, orange, lowercase sans-serif font. A black graduation cap is positioned above the first letter 'm'. A trademark symbol (TM) is located at the end of the word.

moodle™



REPUBLIC OF ESTONIA
MINISTRY OF EDUCATION
AND RESEARCH

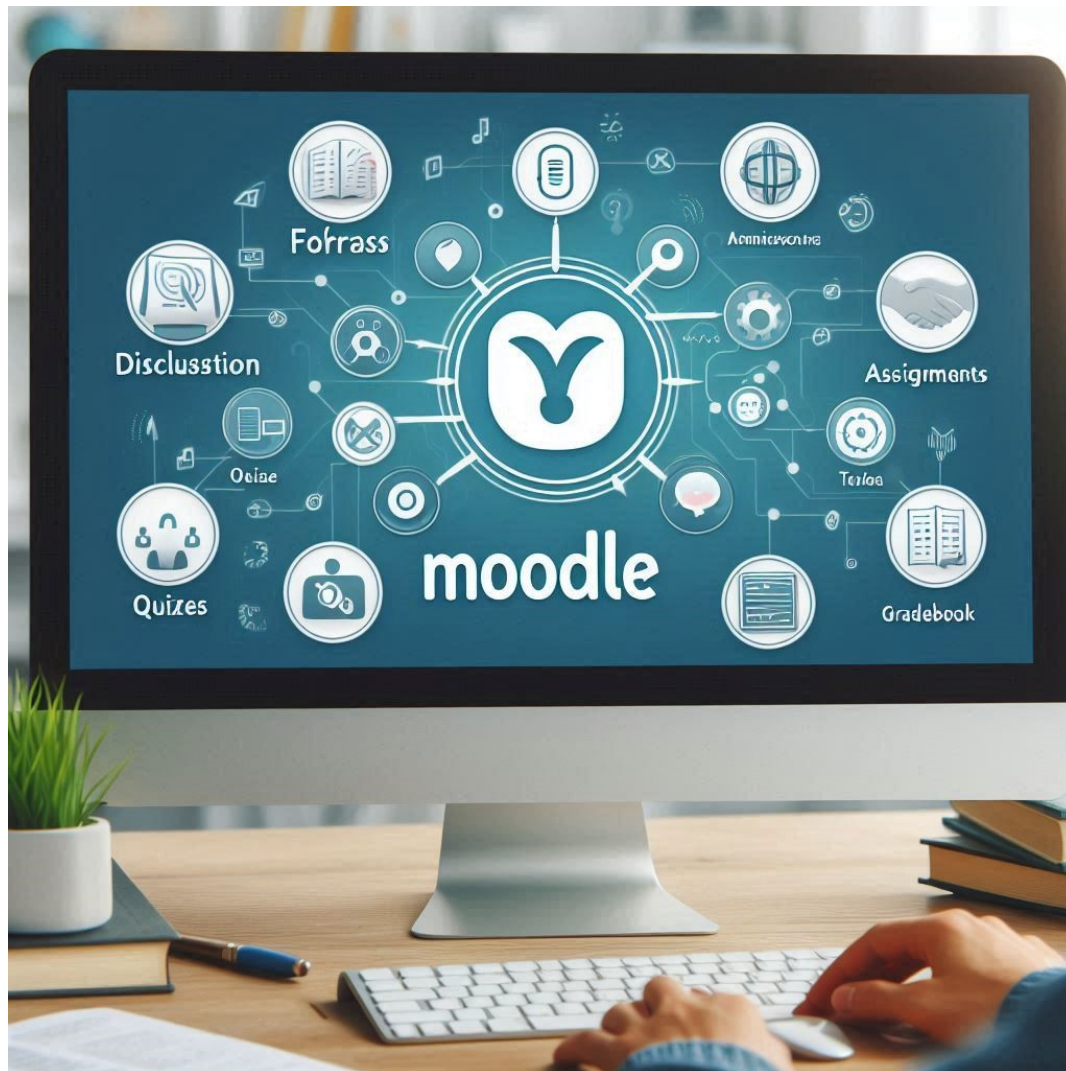


moodle.edu.ee

Moodle

- Moodle (**M**odular **O**bject-**O**riented **D**ynamic **L**earning **E**nvironment) is a free and open-source learning management system written in PHP.
- It was originally developed by Martin Dougiamas to help educators and scholars create online courses. The first version of Moodle was released on 20th of August 2002 and it continues to be actively developed.
- HTM Moodle started more than 10 years ago with the desire to provide a central solution for educational institutions, thus saving resources. Today HTM Moodle is already used by more than 200 educational institutions, companies or training units.

Key features of Moodle 1/3



Picture is created with the help of artificial intelligence.

Key features of Moodle 2/3

- **Customizable course design** - Lecturers can create courses tailored to their needs using various activities like quizzes, assignments, forums, multimedia content and many more.
- **Collaborative tools** - Forums, group assignments and wikis foster peer-to-peer interaction.
- **Assessment and feedback** - Includes grading tools, quizzes, assignments and feedback mechanisms to track and improve learner performance.

Key features of Moodle 3/3

- **Multimedia support** - Moodle allows the integration of videos, audio files and interactive content (H5P) to make learning more engaging.
- **Mobile access** - Moodle has mobile application, enabling flexible learning.
- **Data tracking and reporting** - Lecturers can monitor student progress through data analytics and generate reports for assessment.

Why building online courses in Moodle? 1/3

- **Accessibility and flexibility** - Online courses allow students to access content anytime and anywhere. This is especially useful for remote or distance learners who can study at their own pace.
- **Scalability** - Moodle enables lecturers to reach a larger audience, scaling from small classroom-sized groups to thousands of learners without compromising the quality of education.
- **Cost-effectiveness** - Online courses reduce costs, such as venue or printed material expenses, making education more affordable for both providers and learners.

Why building online courses in Moodle? 2/3

- **Personalized learning** - Online courses offer the flexibility to cater to different learning styles and paces. Moodle allows lecturers to design courses that adapt to the individual needs of learners, providing a more personalized learning experience.
- **Enhanced engagement through interactivity** - Moodle's interactive tools (quizzes, forums, multimedia) help create an engaging environment where students can actively participate rather than passively consuming content.
- **Global collaboration** - Online courses in Moodle can bring together students and lecturers from around the world, enabling a diversity of perspectives, cross-cultural exchange and collaborative learning.

Why building online courses in Moodle? 3/3

- **Sustainable education** - Online courses reduce the need for physical materials (books, paper) and travel, making education more environmentally sustainable.
- **Efficient course management** - Moodle allows lecturers to automate various administrative tasks, like grading, assignment submissions and student tracking. This efficiency lets lecturers focus more on the content and learning experience rather than administrative burdens.
- **Continuous updates and improvement** - Online courses are easier to update and revise, allowing lecturers to quickly adapt to new information, technologies or educational trends.

Real-time interaction

How to attend online classes

Step 1: 

Step 2: 

Step 3:



Real-time interaction – BigBlueButton 1/3

The image shows a split-screen view of a BigBlueButton interface. On the left is a chat window titled 'Public Chat' with a message from 'Veljo Õpilane (You)'. On the right is a presentation slide titled 'Thank you!' featuring an aerial view of a modern building at sunset. The interface includes navigation and control elements like a 'Start recording' button, a 'Send message to Public Chat' input, and a bottom toolbar with icons for chat, call, and screen sharing.

MESSAGES

Public Chat

NOTES

Shared Notes

USERS (1)

Ve Veljo Õpilane (You)

Public Chat

Tere tulemast veebiseminarile **BigBlueButton!**

Kui soovite teada saada, kuidas moodul BigBlueButton toimib, siis [tutvuge õpetusvideotega](#).

Kui soovite veebiseminariga liituda helisilla kaudu, siis klõpsake vasakpoolses ülaservas kõrvaklapiikooni. Teiste veebiseminaril osalejate häirimise vältimiseks kasutage peakomplekti (kõrvaklappide ja mikrofoniga).

Selle seansi võib salvestada.

This server is running [BigBlueButton](#).

Send message to Public Chat

BigBlueButton | Start recording

Thank you!

Slide 22

100%

Eesti Maaülikool

Real-time interaction – BigBlueButton 2/3

BigBlueButton (BBB) is an open-source web conferencing system designed specifically for online learning. It integrates smoothly with learning management systems (LMS) like Moodle.

BBB offers:

- **Real-time collaboration** - BBB allows for live audio, video and screen sharing, enabling to host lectures and interactive sessions.
- **Whiteboard** - There's a multi-user whiteboard where presenters and participants can draw, annotate, and share ideas visually.

Real-time interaction – BigBlueButton 3/3

- **Breakout rooms** - For group work, lecturers can divide participants into smaller groups in breakout rooms where they can work independently, then return to the main session.
- **Public and private chat** - BBB includes text chat features, allowing for both public conversations with the whole course and private messaging between users.
- **Polls and quizzes** - Lecturers can create live polls or quizzes to gauge student understanding during a session.
- **Recording and playback** - Sessions can be recorded, allowing students to review the material later.

Benefits of real-time interaction

Global access - Real-time tools, like BigBlueButton, allow students and lectures to connect from any location, making education accessible to a global audience. You can fit study sessions into your schedule more easily.

Recorded web lectures

Recorded web lectures - Digital video recordings of live sessions (real-time lectures) or pre-recorded by the lecturers without any live audience. Recorded lectures can include video, audio, and supplementary content like slides or screen demonstrations.



Created by AI

Benefits of recorded web lectures

- Students can watch the lectures at their own pace and schedule, which is particularly helpful for those who cannot attend live sessions due to time zone differences, work commitments or personal circumstances.
- The ability to pause, rewind, and rewatch parts of the lecture helps students better understand complex topics and control the speed of their learning.













Forums

[Forum](#) [Settings](#) [Advanced grading](#) [Subscriptions](#) [Reports](#) [More](#) ▾

Post replies: 1

[?](#)

[Add discussion topic](#)

Discussion	Started by	Last post ↓	Replies	Subscribe
☆ KB4.3	 Veljo Kabin 12 Feb 2023		33	<input checked="" type="checkbox"/> 
☆ KA2.1	 Veljo Kabin 12 Feb 2023		69	<input checked="" type="checkbox"/> 
☆ KA2.2	 Veljo Kabin 12 Feb 2023		32	<input checked="" type="checkbox"/> 
☆ KA5.1	 Veljo Kabin 12 Feb 2023		21	<input checked="" type="checkbox"/> 

Forums

- The Forum activity allows students and lecturers to exchange ideas by posting comments as part of a *thread*.
- The lecturers can choose to grade and/or rate forum posts and it is also possible to give students permission to rate each other's posts.
- Forum can be used in group mode, where in **separate groups** each group can only see and interact with their own group's posts or **visible groups**, where each group works within their own group, but they can also see posts from other groups.

Benefits of forums 1/2

- **Flexible participation** - Forums enable students to participate in discussions at any time, removing the need for everyone to be online simultaneously.
- **Question and answer** - In Q and A forum students must post their own response to the lecturers question before they can see other students' answers. This encourages independent thinking and prevents students from being influenced by the answers of their peers.
- **Time for reflection** - Unlike real-time discussions, forums allow students to reflect on their responses and contribute more thoughtful and well-researched posts.

Benefits of forums 2/2

- **Peer learning** - Students can learn from each other's perspectives and experiences. When one student shares an idea or asks a question, others can contribute their insights, creating a collaborative learning environment.
- **Peer support** - Students can ask questions and get help not just from the lecturer but also from their peers.
- **Safe space for discussion** - Forums offer students a space to ask questions, share opinions and explore ideas in a non-judgmental environment. Shy or introverted students who may not speak up in live sessions can participate more comfortably.

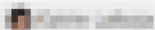







Peer assessment activity – Workshop 1/2

Workshop grades report ▾

Visible groups: All participants

First name **All** A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Last name **All** A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

First name ▴ ▾ / Last name ▾	Submission ▴ ▾ / Last modified ▴ ▾	Grades received	Grade for submission (of 75,0) ▴ ▾	Grades given	Grade for assessment (of 25,0) ▴ ▾
VÕ Veljo Õpilane	Veljo töö modified on Thursday, 9 March 2023, 10:49	40,9 (25,0) >  - (-)<  L... 13,6 (25,0) >  - (-)< op 	27,3	54,5 (25,0) >  54,5 (25,0) >  34,1 (25,0) >  47,7 (25,0) > op 	25,0

Showing 1000 items per page

Peer assessment activity – Workshop 2/2

- Workshop is a peer assessment activity, where students add submissions which are then distributed amongst their peers for assessment based on a grading scale specified by the lecturer.

Benefits of peer assessment

- When assessing each other's work, students take on the role of an evaluator and gradually develop the skills they need to better assess their own work.
- Peer assessment promotes deep learning. It enhances students' ability to critically evaluate their own learning and skill development.
- Through peer assessment, students actively participate and contribute to the evaluation process. When students are active participants rather than 'spectators' in the learning process, they become more strongly engaged in learning.

Feedback mechanisms – Feedback, survey, choice

- Feedback mechanisms in Moodle are tools and features that allow lecturers to gather responses, opinions, and insights from students.

Feedback

- Moodle's feedback module allows lecturers to create custom questionnaires where students can share their opinions on course content, teaching methods or the overall course organization. Compared to the Survey module, feedback is more flexible, as it allows both open-ended and closed questions.

Use cases:

- Gathering feedback on teaching or specific lectures. Can collect anonymous feedback, encouraging students to respond honestly.
- Comparing the effectiveness of learning at the start and end of the course.

Survey

- Moodle's survey tool is useful when you want to use pre-made, validated questionnaires such as COLLES (Constructive Online Learning Environment Survey) and ATTLS (Attitudes Toward Thinking and Learning Survey).

Use cases:

- Getting in-depth insights into students' thinking and collaboration tendencies.
- Evaluating student satisfaction with the online learning environment.
- Comparing the effectiveness of learning at the start and end of the course.

Choice

- The Choice module is a simple and effective way to quickly collect student opinions. The lecturer can create a single-question poll where students choose from multiple answer options.

Use cases:

- Quickly gathering student preferences, such as topic choices or group work distribution.
- A quick decision-making process where the entire course is asked for their opinion on a particular question.
- Feedback on whether students wish to explore certain topics in more depth.

How to use these tools effectively

- **Anonymity** - Many students may be more open if their responses are anonymous, especially when discussing course challenges.
- **Continuous feedback** - Collect feedback regularly, not just at the end of the course, to make adjustments during the course.
- **Variety of choices** - Use different question types and tools to ensure the feedback is diverse, covering both qualitative and quantitative aspects.

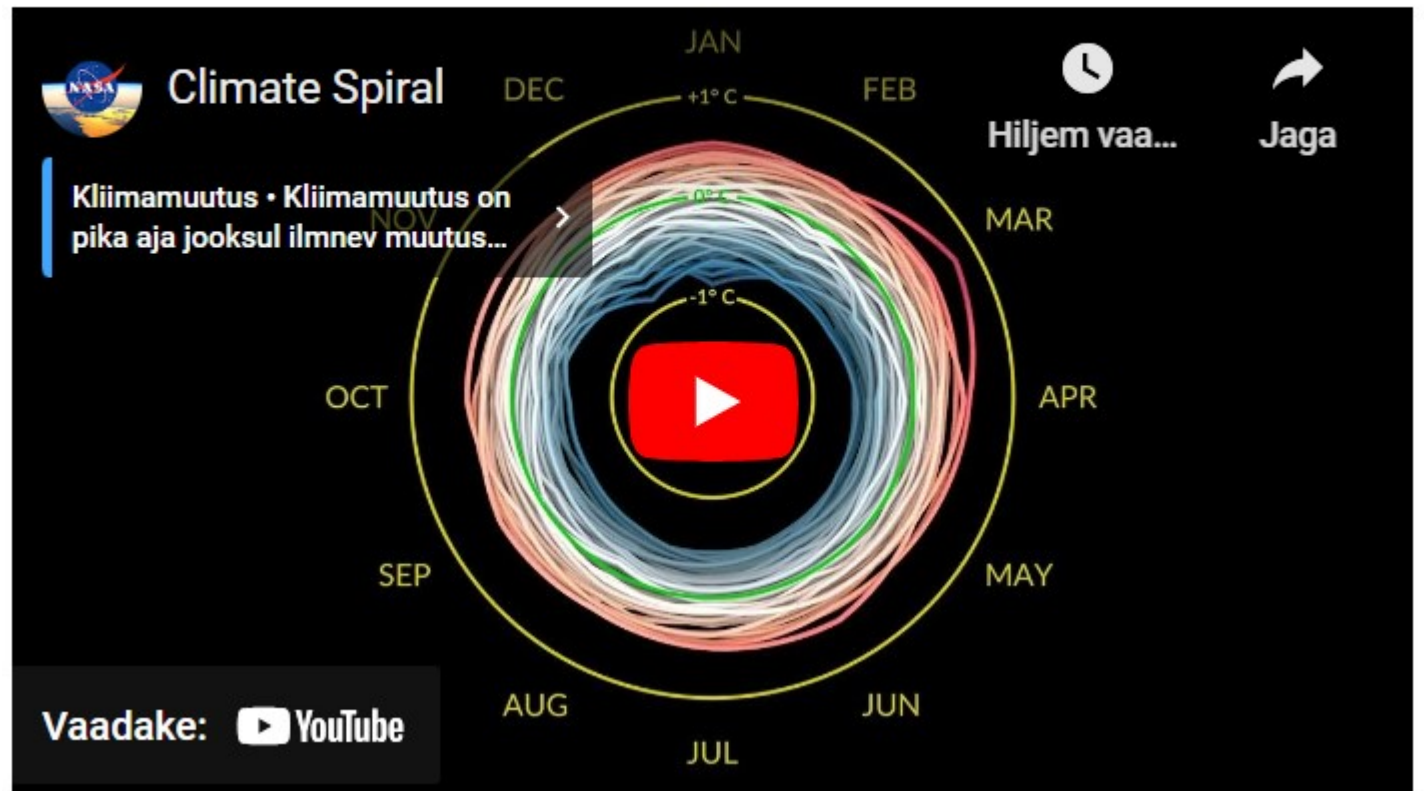
Multimedia content

- **Videos** - Video lectures or YouTube integration.
- **H5P content** - Moodle supports H5P, which enables the addition of interactive exercises like quizzes, interactive videos, image games.
- **Images and infographics** - Visual elements to illustrate the content.
- **Audio files** - Podcasts or lecture recordings.

Videos

- In Moodle you can embed YouTube videos.

▼ YouTube video - Climate Spiral



H5P videos

- Quizzes embedded within videos to test understanding as the content is being consumed.

Q2. The name of the e-learning environment where the course takes place is called...

Noodle

Moodle

Google

Doodle

Check



Audio

- In Moodle you can add audio files by simply upload them in the desired section or activity using the file upload tool.
- You can record audio clips directly in Moodle, use the audio recording feature available in the text editor. This allows you to capture and insert short audio messages without needing any external software.

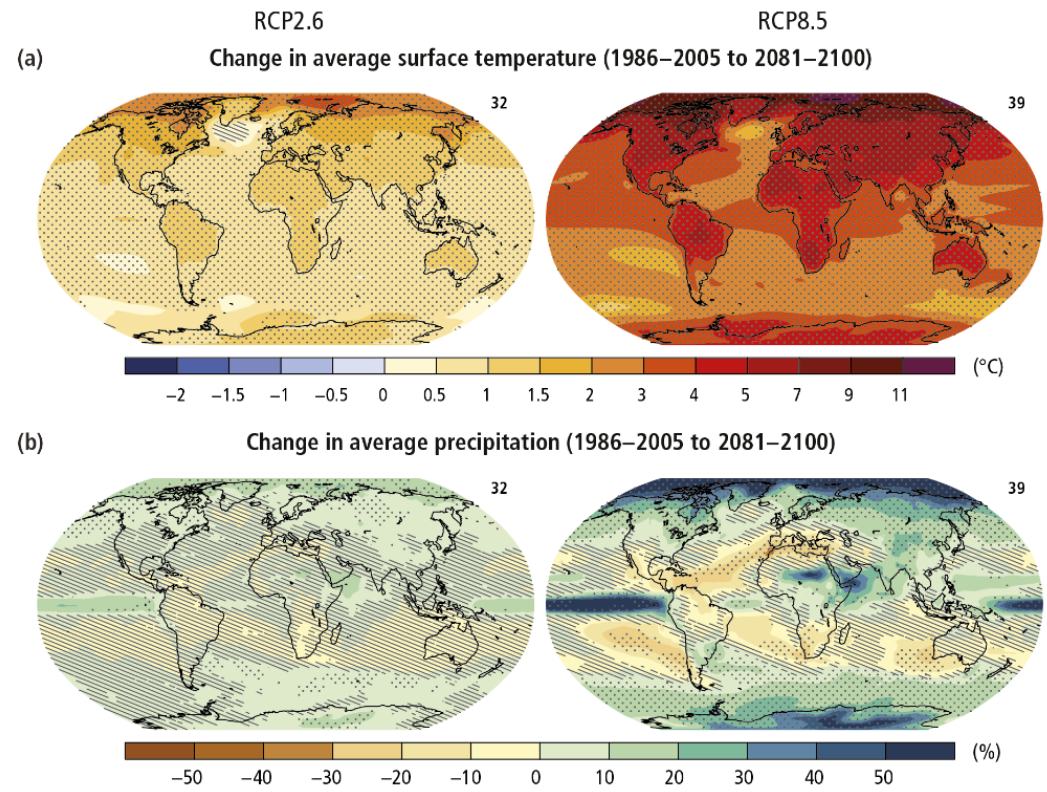
▼ Audio



Image

- You can add images, upload them in the desired section or activity using the file upload tool or by dragging and dropping the image file.

Image



Logs and reports

Moodle offers logs and reports that provide detailed data on student activity and participation.

Some key types of reports include:

- **Course activity reports** - Show the number of views and actions on various activities and resources in the course.
- **Logs** - Provide detailed insights into each user's actions, such as the time they accessed specific resources or submitted assignments.
- **Participation reports** - Display information about who has participated in a particular activity, such as a forum discussion or quiz.

Course activity report






Psychology in Cinema

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Psychology in Cinema

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Computed from logs since Wednesday, 6 January 2021, 10:47 am.

Activity	Views	Related blog entries	Last access
 Announcements from your tutor	24 views by 12 users	-	Monday, 22 March 2021, 11:26 pm (43 secs)
 Prior knowledge assessment	25 views by 10 users	-	Monday, 22 March 2021, 11:26 pm (39 secs)
 Factual recall test	92 views by 24 users	-	Monday, 22 March 2021, 11:26 pm (35 secs)
 Course chat	23 views by 5 users	-	Monday, 22 March 2021, 11:27 pm (25 secs)
 Let's make a date!	3 views by 3 users	-	Monday, 22 March 2021, 11:27 pm (29 secs)

Background information

 Concepts and characters	18 views by 9 users	-	Monday, 22 March 2021, 11:27 pm (20 secs)
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Completion progress bar

<input type="checkbox"/>	 Eita Wespere	Thursday, 2 May 2024, 18:27		100%
			 Foorum - Postita siia mõtted peale filmivaatamist Completed 	
<input type="checkbox"/>	 Senna Kriispalu-Mull	Friday, 1 March 2024, 07:38		67%
			 Foorum - Postita siia mõtted peale filmivaatamist Completed 	
<input type="checkbox"/>	 The Jakobson	Wednesday, 10 April 2024, 21:14		83%
			 Osalemine auditoorsel koolituspäeval Completed (achieved pass grade) 	
<input type="checkbox"/>	 Eita Wespere	Sunday, 7 April 2024, 15:14		100%
			 Foorum - Postita siia mõtted peale filmivaatamist Completed 	
<input type="checkbox"/>	 Eita Wespere	Tuesday, 2 April 2024, 22:32		50%
			 Foorum - Postita siia mõtted peale filmivaatamist Not completed 	

Completion progress bar



Red - Indicates that the task or activity has not been completed or is overdue. It serves as a warning for students to take action.

Green - Shows that the task or activity has been successfully completed. It signals the progress.


Blue - Usually represents an upcoming task or activity that is yet to be done but is not overdue. It serves as a reminder for the student to complete it on time.

Benefits of the completion progress bar

- **Monitor student progress:** Lecturers can easily monitor the progress of individual students or course. This allows them to identify students who might be falling behind or struggling with specific activities.
- **Visual motivation** - The bar provides a visual cue of progress, helping students stay motivated as they see their advancement.
- **Time management** - The progress bar helps students stay organized by showing which tasks are completed and what still needs to be done.

Digital Education Quality Label

- Since 2008, online and blended learning providers in Estonia have had the chance to apply for the **Digital Education Quality Label**, which recognizes well designed and executed online and blended learning courses. Courses that demonstrate excellence in applying digital technologies in teaching and learning may be awarded the **Excellence in Digital Education** label.

A close-up shot of Steve Carell as Michael Scott from the TV show 'The Office'. He is wearing a dark blue suit jacket over a light blue shirt and a dark tie. He has a wide, somewhat awkward smile, showing his teeth, and his eyes are looking slightly to the left. The background is a blurred office setting with framed pictures on the wall.

**“LET’S START WITH SOME
ICEBREAKER QUESTIONS”**

INTROVERTS

Introduction game

Each of you will say:

- ✓ Your name
- ✓ Where you are from
- ✓ One e-learning-related term or tool that hasn't been mentioned yet by someone else.

Try to be creative and remember, no repeating! 😊



Thank you!