

FeedbackFruits

LMS tools and DoTank projects



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And many more....

0 Introduction

This document provides in-depth information on the functionalities and tools that facilitate several Learning Activities. All these tools and functionalities were co-created at FeedbackFruits.

Content of this document

1	General overview of services	
	LMS integration	3
	Data analytics	3
	User workflow	4
	User support and Help center	4
	Accessibility	4
2	Explanation of LMS tools	
	Group Member Evaluation	6
	Peer Review	8
	Interactive Study Material	11
	Comprehension	13
	Assignment Review	15
	Skill Review	17
	Interactive Presentation	19
	Discussion Assignment	20
3	Edtech Dotank	22
4	Explanation of Features	
	Key features	23
	Dotank features	26
5	Dotank LMS tools	
	Open courseware suggestor	31
	Team Based Learning	32

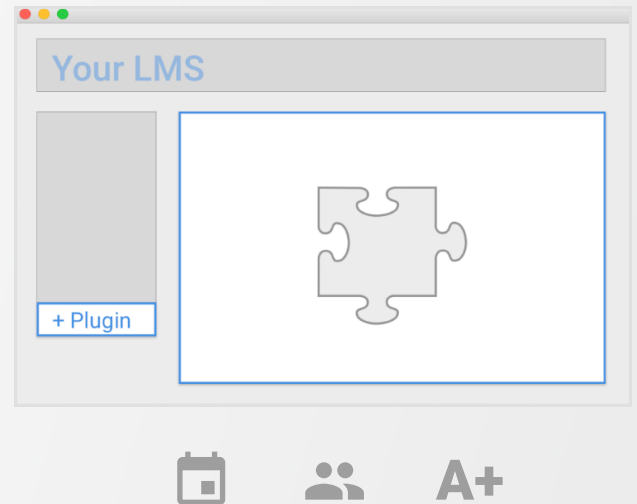
1 General overview of SaaS services

This part provides an overview of services that are independent of the type of LMS tool teachers use.

LMS integration

All tools integrate in the Learning Management System via an LTI integration. This is necessary in order to authenticate which user is using the tool, allows for users to edit pages and lets the tool send back grades to the Learning Management System's grade center.

For some tools, group work is an important aspect of many learning activities. An additional API integration allows for groups to be imported from the LMS and automatically synced to the tool. Furthermore, the API integration lets the tool sync deadlines into the students' LMS calendars.



Finally, the API integration, compared to a standard LTI integration, makes it possible to send back more advanced grading information to the LMS. API integration is currently possible for Canvas, Blackboard and Brightspace/D2L, for edX and Moodle an LTI integration is available.

All tools open within an iframe in the LMS for a seamless user experience.

4 of 6

students have completed this

8

average number of comments per reviewer

8 min

average time spent per review

Statistics per active student

DOWNLOAD

Name	Overall grade out of 100 %	Read instructions	Handed in	Give feedback	Average time per review
Group A		✓	✓	---	3 min
A Ash Fisher	77.9 pp	✓	✓	-	3 min
L Liz Bennett	77.9 pp	✓	✓	-	5 min
E Emily Collins	67.9 pp	✓	✓	-	< 1 min
Group B		✓	✓	---	2 min

now analytics per group and per student are shown

Data analytics

All tools come with realtime data analytics on student progress. Depending on the tool, different data is displayed.

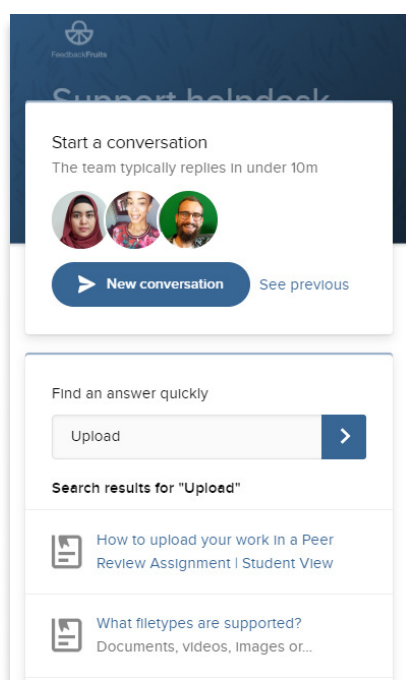
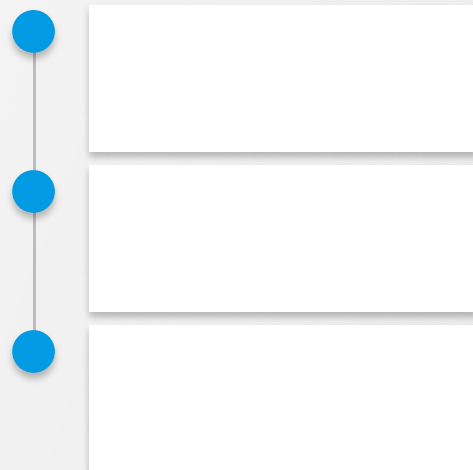
For example, in feedback tools, the following information can be displayed: if students read the instructions, completed all the feedback tasks, how many annotations did they write, how many upvotes were completed, what is their overall grade and how much time did they spend completing the Learning Activity. The data can also be downloaded in a .csv file, allowing for further consultation.

This functionality can be switched on or off depending on the needs of our partner.

User workflow

Every LMS tool in the suite is designed according to Google material design guidelines and our own guidelines. Because of this standardisation, the look and feel for each Learning Activity is similar, as well as the workflow. This means that teachers and students do not need to familiarize themselves with a different look and feel when using new tools, as they all work the same.

An example of a common feature that is built into the workflow of each tool is the focus mode, which expands the iFrame to full screen mode, hiding social media or other distractions.



User support and Help Center

All users, student or instructor, have access to our online support chat, where users can ask questions on how to use the tools directly to our support team. With happiness rates of 96%, almost all users have great experiences with the center. The chat is accessible via the user support icon in the lower left corner when using the tools in your LMS. In addition to the support chat, users can access the help center in order to find articles to help them further. The help center is structured in such a way that users can easily find articles that are most relevant to them in the following sections:

- How to configure tools in your LMS
- How to set up the different tools
- Student perspective on using the tools
- Teacher perspective on using the tools
- Administrative guides
- Frequently Asked Questions
- Release notes
- Updates and Announcements

Accessibility

We strive to ensure that there are no barriers that prevent interaction with, or access to the modules, for people with disabilities. All tools therefore comply with WCAG 2.0 AA standards.














2 Explanation of LMS tools

This section gives a in-depth exposition of all the current LMS pedagogical tools. It does so by going over the following points:

- 1) Overview of the tool
- 2) Key learning activities
- 3) Key features
- 4) EdTech DoTank features
- 5) User (student) workflow

The following pages respect the order of pedagogical design themes and the tools that fall under each one of them. For greater clarification, you can find an overview below:

Theme	LMS pedagogical tool
1 Peer Feedback	 Group Member Evaluation
	 Peer Review
	 Skill Review
	 Assignment Review
	 Automated Feedback
2 Activating study material	   Interactive Study Material
	 Comprehension
3 Interactive classroom	 Interactive Presentation
4 Discussion	 Discussion Assignment



Group Member Evaluation

Group assignments are a common sight in education. Research shows that collaborative learning can be extremely effective because it encourages students to actively reflect on their own skills and contribution to the group work. The Group Member Evaluation tool and associated Learning Activities facilitate such reflection by asking group members to evaluate each other’s contribution. Aside from fostering reflection, it provides teachers insight into the collaborative process, thereby helping combat the problem of free-riding. As such, Group Member Evaluation improves both the critical thinking and involvement of students.

This tool streamlines the way students assess their peers’ collaboration skills. The teacher specifies by which criteria students evaluate their peers’ contribution to group work. Additionally, teachers can require students to elaborate, by commenting on the feedback they provide their peers, thereby combining quantitative and qualitative feedback. The built-in analytics allow teachers to instantly monitor students’ progress and the amount of time they spent giving feedback.

	0 points	1 point	< 2 points	3 points
Focus on task and participation Total points 20 out of 27 74%	Rarely focuses on the task Lets others do the work and rarely supports the efforts of Read more...	Received by one participant Sometimes focuses on the task Read more...	Received by 4 participants Focuses on the task most of the time Read more...	Received by 3 participants Consistently stays focused on task Read more...
Shared responsibility and dependability Total points 20 out of 27 74%	Rarely punctual with work responsibilities Rarely follows through on assigned tasks	Sometimes punctual with work responsibilities Follows through on some assigned tasks	Received by 4 participants Usually punctual with work responsibilities Read more...	Received by 2 participants Consistently punctual with work responsibilities Read more...
Discussing and listening Total points 10 out of 30 33%	Received by 2 participants Rarely respectfully listens, interacts, discusses,...	Received by 5 participants Sometimes respectfully listens, interacts, dis...	Received by 2 participants Usually respectfully listens, interacts, discusses,...	Consistently and respectfully listens, interacts, discusses, and contributes to the group. Read more...
Teamwork Total points 8 out of 24 33%	Received by 2 participants	Received by 4 participants	Received by 2 participants	Always contributes to the overall goal of the group

Example of feedback as rating on a rubric

Feedback

My feedback would be that you showed great restraint and composure in an otherwise provoking debate setup. It was gallant to see that even though the opposition did not provide it in return you still kept reaching out to them. I think this shows great promise in depolarising such difficult discussions and bridging the deep political divide |

Compliment Suggestion

POST

Example of anonymous qualitative feedback on a criterion

Key learning activities

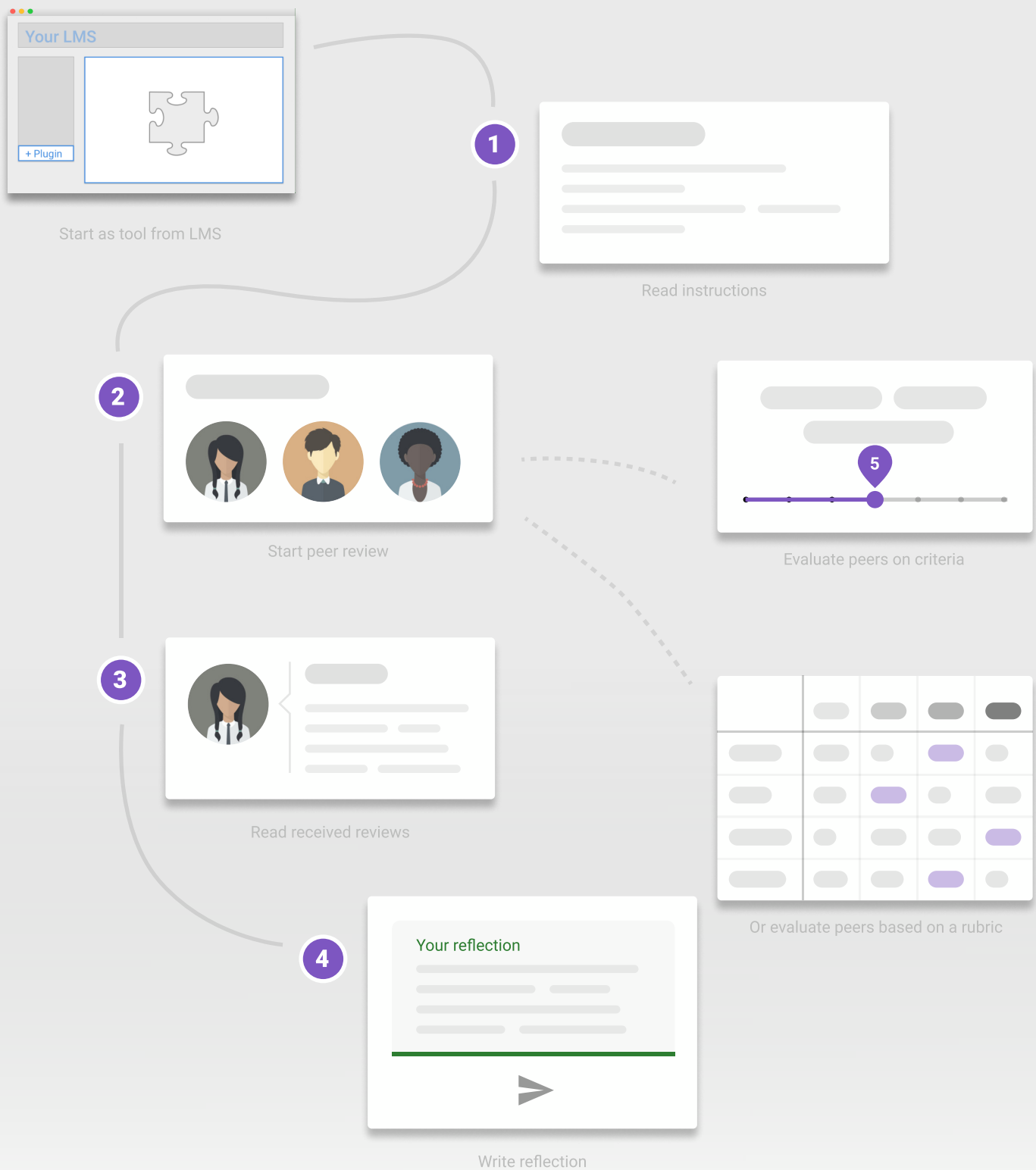
- 1 Students give feedback on their peers' collaboration skills
- 2 Personalize group grades based on individual contributions to group work
- 3 Teacher discovers free riders in group projects

Key features

- Supports group work
- Reviewer anonymity
- Sync grades with LMS
- Sync deadlines with LMS calendar
- CSV Export data
- Option to require written reflection
- Discussion on feedback
- Configurable grading
- Complex rubrics
- Self-evaluation

Edtech Dotank features

- Group contribution grading
- Feedback cards
- Students rate their reviewers
- Insights
- Nudging
- Completion checklist
- Manual allocations



Student workflow

When a student accesses Group Member Evaluation, the instructions are shown. After reading the instructions, students are shown which of their peers they need to give feedback to.

When clicking on one of their peers they see the criteria specified by their teacher. By grading on a scale or other grading mechanism the student can change this per student. Optionally, students leave a qualitative comment per criterion. When all students have evaluated their peers it is possible to review the received feedback. The average grades calculated from all reviewers per criterion are visible and all the qualitative feedback can be read.

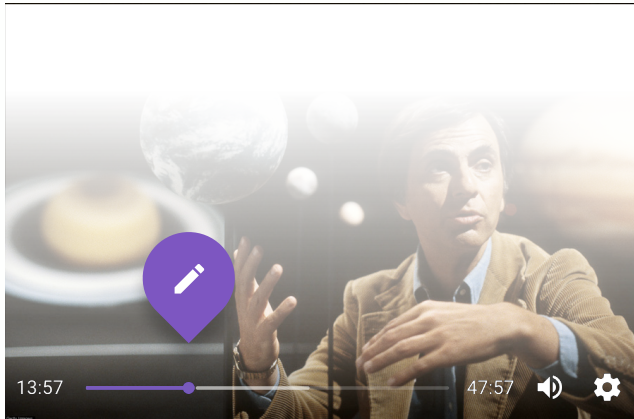
The last step is optional, if required by the teacher, and asks to write a reflection on the received feedback and how the student could change their behavior next time.

Finally, the teacher can decide to publish the grades to the gradebook if this was a summative Learning Activity and students can view their grades there.

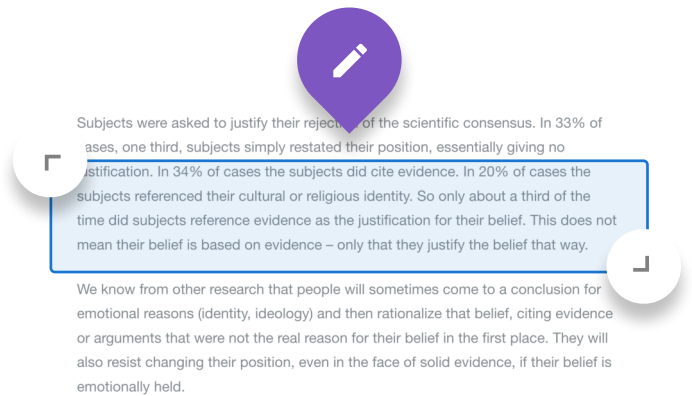


Peer Review

Students can learn a great deal from giving each other feedback on their work. Research has shown that students regard the feedback from their teacher as (more or less) absolute truth, while feedback from peers creates doubt, which activates students to think critically about their work. In consequence, students' self-knowledge as well as other skills (e.g. coaching, cooperation, debate) are improved.

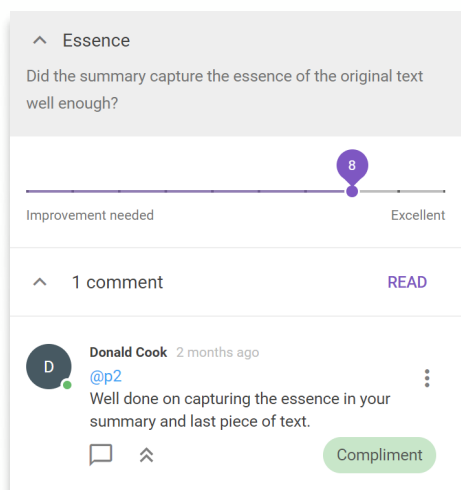


Provide feedback on a specific time in a video



Provide feedback on a specific part in a document

This tool structures and streamlines the process of students reviewing their peers' work. The teacher specifies the criteria by which students evaluate their peers' work and sets deadlines and instructions. After the deadline, each student is automatically assigned a peer's work to review. The file, feedback, and discussions about the feedback are all displayed in the LMS, without the need to download individual files. Next to a formative way of using this tool it is also possible to add a summative part where students automatically receive a grade of their work.



Complete feedback on a criterion

Key learning activities

- 1 Students peer assess each others' draft group reports before the final hand-in to teacher
- 2 Students upload videos of their work for peers to review and grade
- 3 Students evaluate the credibility of sources

Key features

- Supports group work
- Manual allocations
- Inline feedback on all media types
- Discussion on feedback
- Reviewer / submitter anonymity
- Sync grades with LMS
- Sync deadlines with LMS calendar
- CSV export data
- Option to require a summary
- Configurable grading
- Complex rubrics

Edtech Dotank features

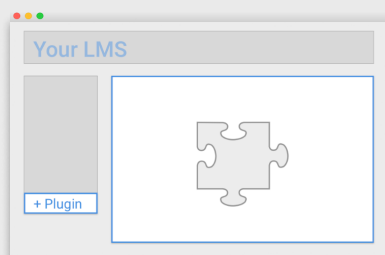
- Participation grading
- Feedback cards
- Students rate their reviewers
- Automated submission checking
- Insights
- Nudging
- Completion checklist

Student workflow

Students enter Peer Review and first see the instructions provided by the teacher. Below the instructions, students can upload their work. The deliverable can be any file type or even a website. Media files can be viewed within the LMS, other files (such as Mathematica files, zip files, or code scripts) can be downloaded for reviewers to run externally. After the deliverable is handed in and the deadline has passed, students are assigned to their peers in order to provide feedback.

When the student starts reviewing, their peer's work is displayed, together with the review criteria in a rubric form set by the teacher. Students can now annotate specific sections of the deliverable related to the different criteria in the rubric.

Finally, students read the feedback they received from their peers and write an (optional) reflection on the feedback they received and how they intend to incorporate it in their future work.



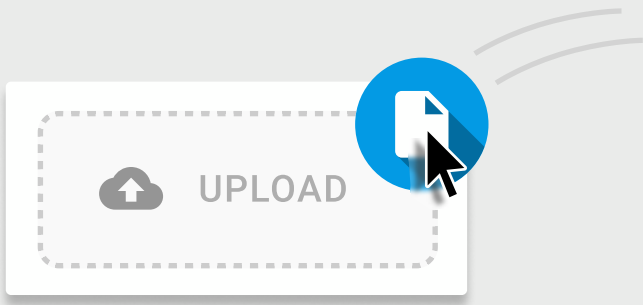
Start as plugin from LMS

1



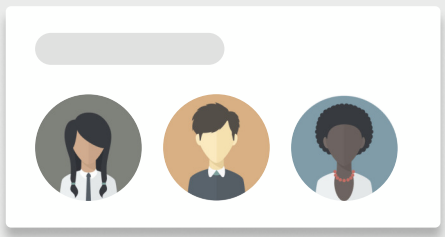
Read instructions

2

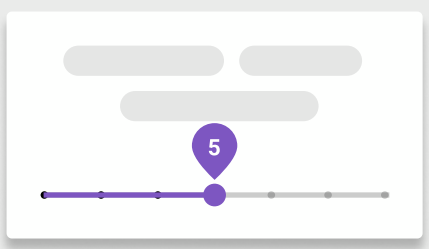


Hand in deliverable

3



Start peer review



Evaluate peers on criteria

4

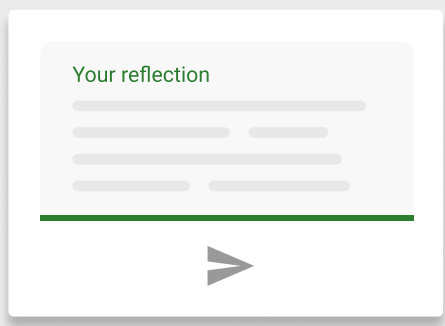


Read received reviews

	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Or evaluate peers based on a rubric

5



Write reflection



Interactive Study Material

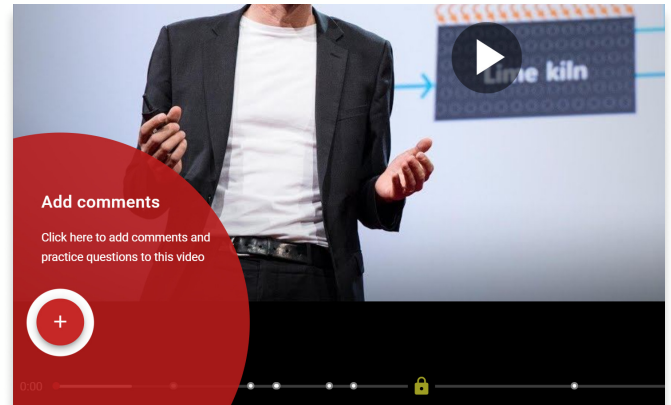


Reading books or articles, watching a video, or listening to a podcast are important study activities that take place in almost every course. However, students are often only passively consuming content. These three tools add interactivity and social learning to this passive consumption of material.



With this tool, teachers can upload documents, videos or audio files for students to read in preparation for class. Teachers can add discussion topics or practice questions to guide students in their preparations for class. Students can, at the same time, add discussion topics, practice questions and discuss with their peers or instructor.

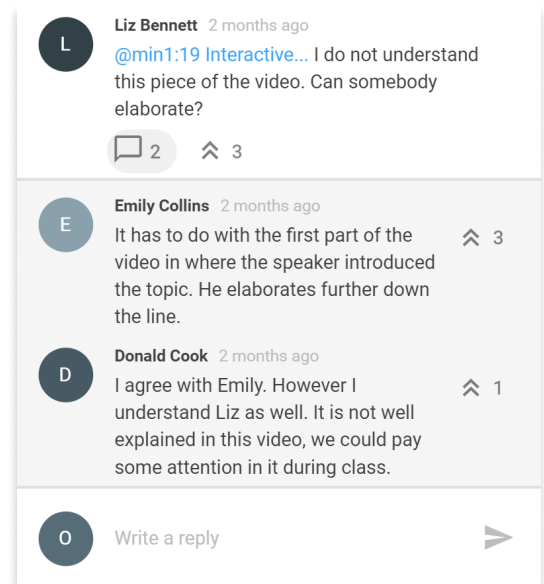
With configurable grading, it is possible to assess assignments in a summative form. After published, the grades are automatically pushed into the LMS gradebook and displayed in the assignment.



Interactive Video

Key learning activities

- 1 Students add discussion topics to a video
- 2 Asking students to create exam questions
- 3 Students recap previous section in Q&A/Discussion session



Comment thread

Key features

- Supports group work
- Sync grades with LMS
- Sync deadlines with LMS calendar
- CSV export data
- Option to require summary
- Inline discussion on feedback
- Video captions
- Prevent download (copyright feature)

Edtech Dotank features

- Teacher insights
- Configurable grading
- Participation grading

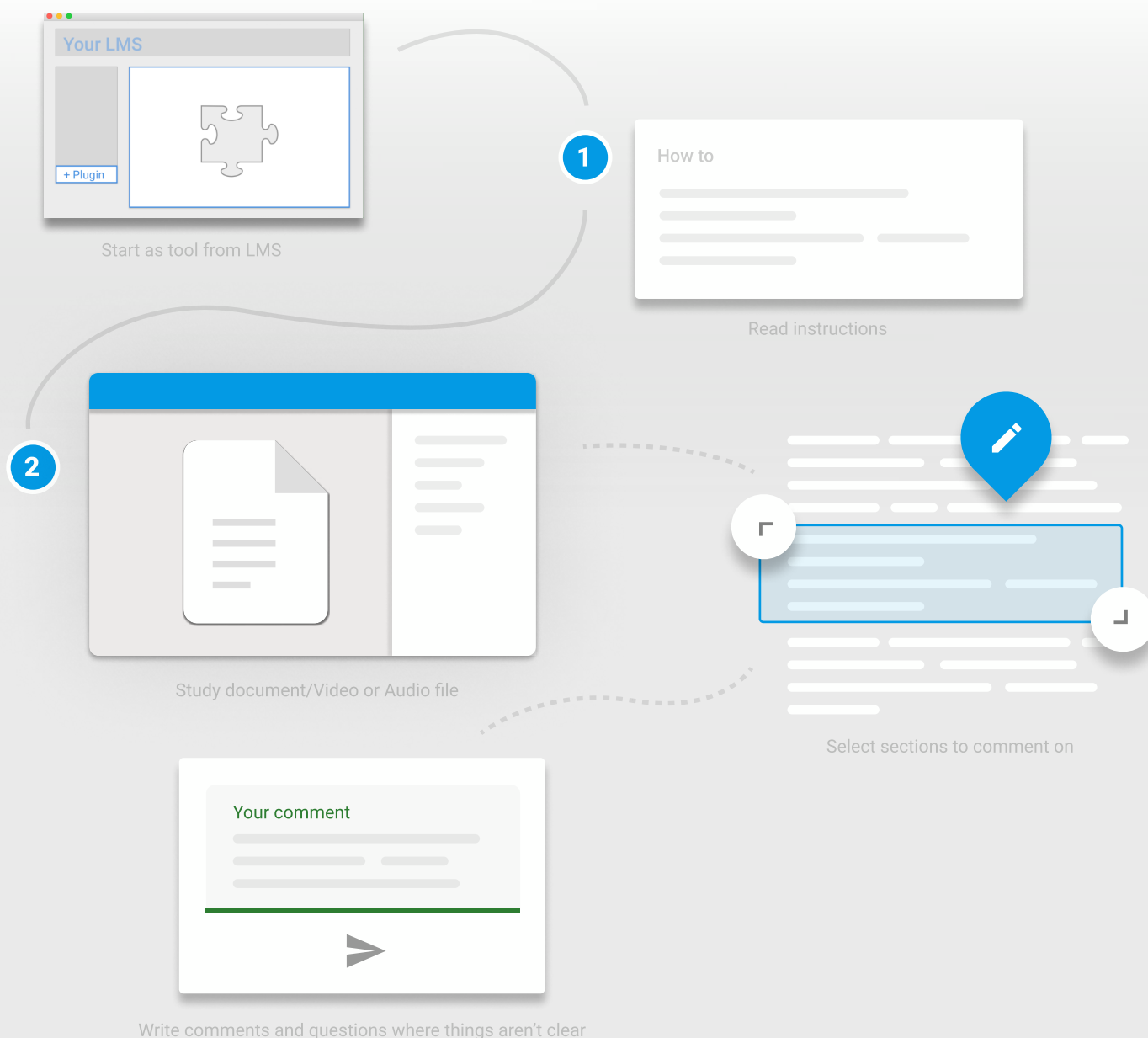
Student workflow

When opening the LMS tools, students see the instructions given by their teacher. Students then open the document, video, or audio file, which is displayed in the browser together with the comments and questions.

When reading the article, watching the video or listening to the podcast students can annotate pieces of text by simply drawing a box around the relevant section, or in the case of video or audio, clicking the relevant part of the timeline. Students can then write their comment.

While reading the article, the student sees the pieces of text that are annotated by their peers. Not only do they see them, the possibility is also there to respond and start a discussion by commenting and/or upvoting the annotation.

Practice questions (either multiple choice or open questions) added by the teacher or student are also displayed next to the relevant section of the study material. Optionally, the teacher can “lock” practice questions. In that case, students can only continue reading, viewing, or listening after they have answered the question.





Comprehension

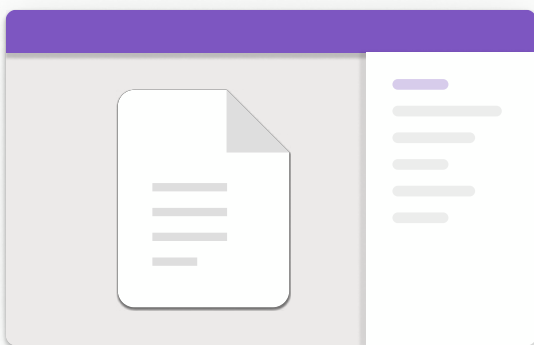
Comprehension helps students better process study material by priming them on specific topics. The teacher specifies which topics are essential to grasping the material. Students select and annotate the passages where these topics are discussed. This helps students grasp the structure of the material and improves their learning strategies.

Optionally, annotations can be set to be visible for every student in class. By reading (and responding to) their peers' annotations, a collaborative learning element is added.

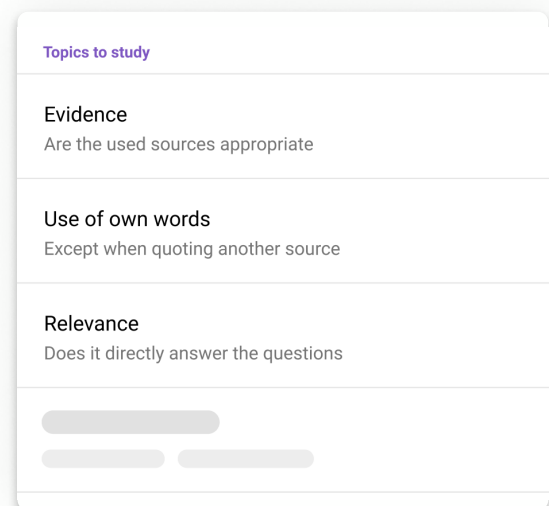
Finally, the teacher has the option to require students to write a summary of their annotations. By priming students on relevant topics and using these topics to guide student discussions and summaries, this tool helps students improve their grasp of both the structure and the contents of study materials.

Key learning activities

- 1 Students read a text using the SQ3R method
- 2 Students can better process study material / scientific articles by priming on specific topics
- 3 Students annotate a mockup essay to develop writing skills



Document and primed topics side by side



Topics students should focus on while reading

Key features

- Guided inline annotations
- Students can view peer-made annotations
- "Heat map" of annotations
- Real time learning analytics
- Commenting and upvoting on annotations

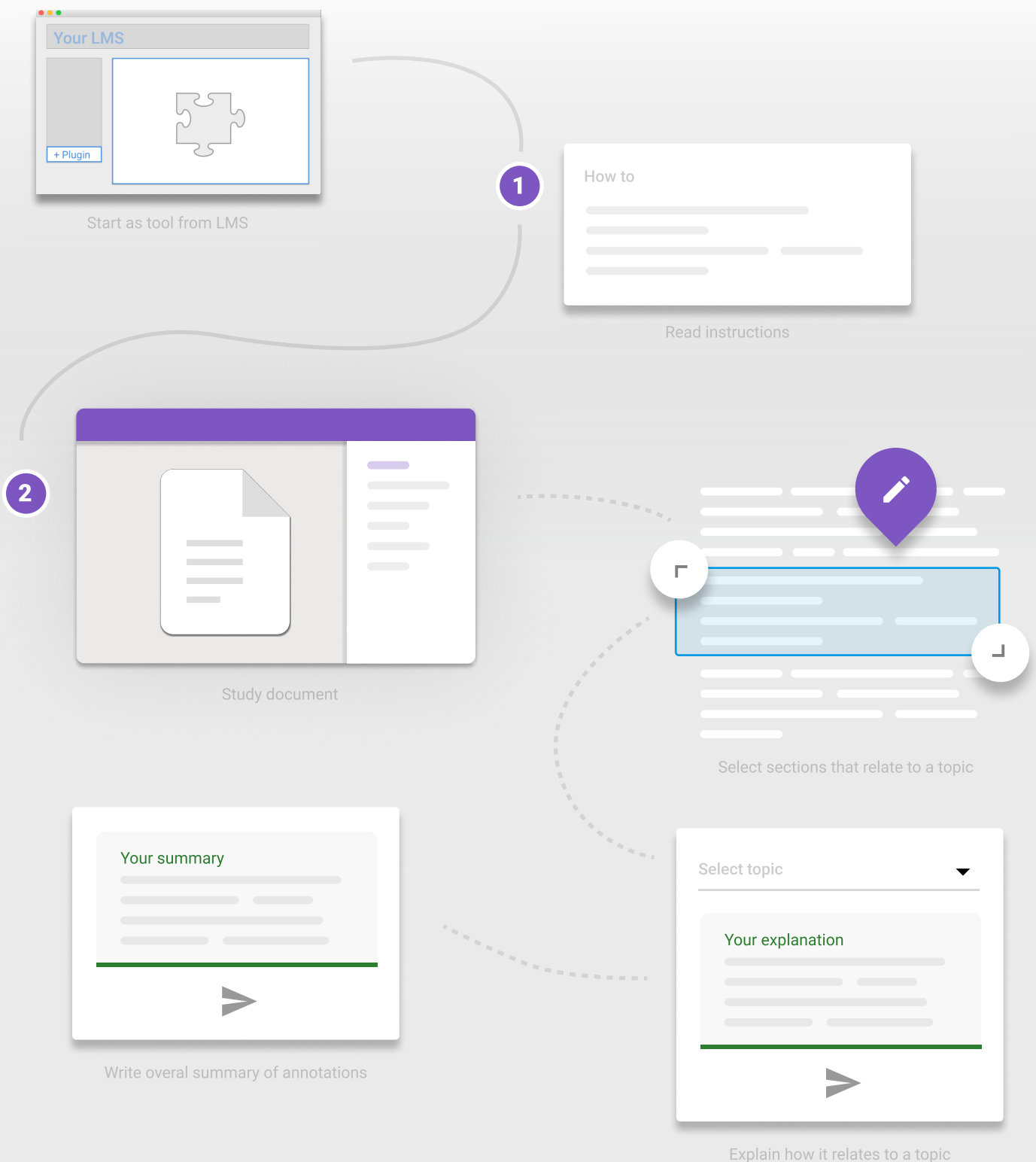
Edtech Dotank features

- Participation grading
- CSV Data export
- Video
- Groups Synchronization

Student workflow

When students open Comprehension, they first see the instructions. The step that follows elaborates on the topics students should focus on, as well as the number of annotations required for each topic.

In the following step, the study material is shown, with the annotation topics displayed in a sidebar. Now, students annotate different pieces the article and link these to the topics indicated by the teacher. After the required number of annotations are made, the student is asked (if required by the teacher) to write a summary of their annotations for the topic.

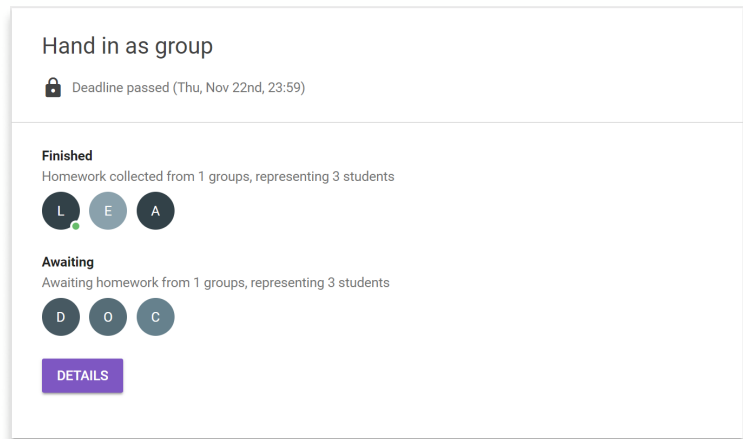




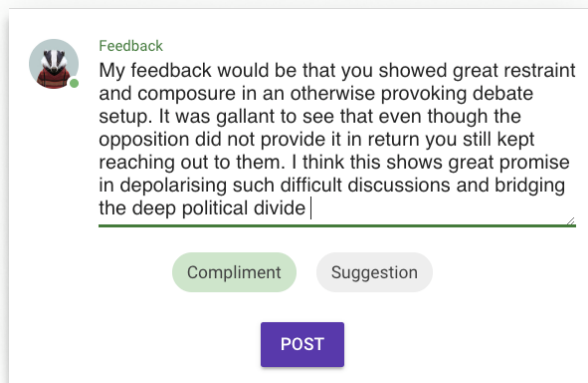
Assignment Review

Meaningful feedback from teachers on student assignments has a positive impact on students' learning. Research highlights that feedback must be as specific as possible, so that learners know exactly what they are doing right or how they could improve.

Assignment Feedback aims to improve student learning by allowing instructors to provide in-line feedback on deliverables (video, document etc.) uploaded by students. Teachers can specify the feedback criteria, as well as the feedback format (grading on a scale, rubrics, or just comments).



Group possibilities



Example of qualitative feedback on a criterion

Key learning activity

- 1 The teacher reviews students' written work.
- 2 The teacher reviews student recordings of presentations or physical activities
- 3 Formative feedback on (group) laboratory assignments

Key features

- Supports Group work
- Reuse feedback comments
- Inline feedback on all media types
- CSV export data
- Sync grades with LMS
- Sync deadlines with LMS Calendar
- Bulk download of submitted work
- Complex rubrics

Edtech Dotank features

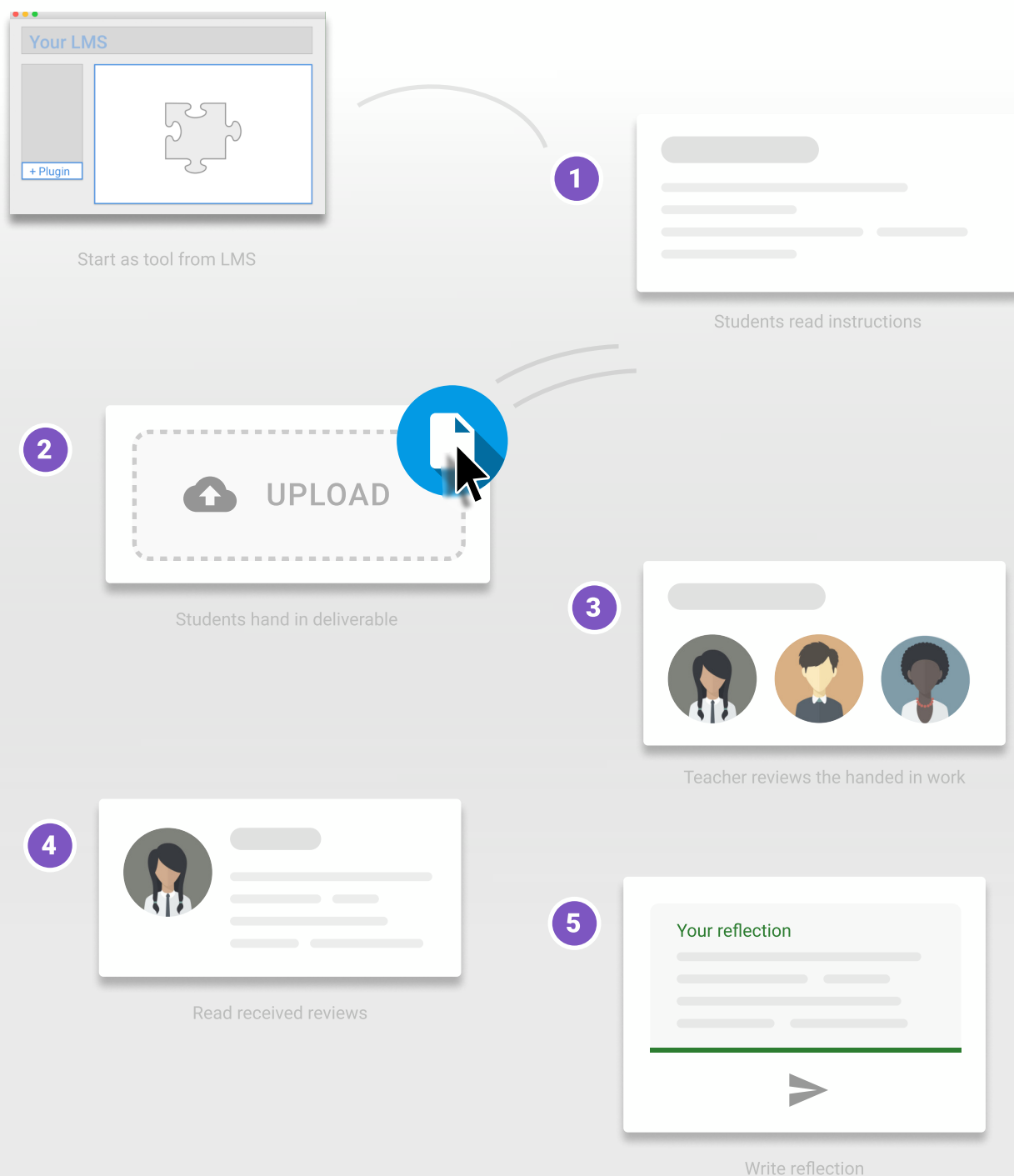
- Nudging
- Feedback cards
- Automated submission checking

Student workflow

When opening the Assignment Feedback, students first see the instructions the teacher wrote.

The second step is students uploading their deliverable. The deliverable can be individual or group work. If the deliverable was produced by a group, only one student in the group needs to upload the work, though others can still add or remove uploaded files. After the upload is complete, students wait for their teacher to give feedback. The teacher gives inline feedback in exactly the same way as students do in the Peer Review tool.

When the teacher has provided feedback, students re-enter the assignment, where they can view the file they handed in. The in-line feedback is displayed in the sidebar, where students can also comment on the feedback they received. A final (optional) step is a written reflection on the received feedback.





Skill Review

Feedback on performance and skills is central to many areas of education. Constructive, structured feedback from teachers enhances students' overall experience and motivates them to significantly improve in the long run.

The Skill Feedback tool facilitates teacher feedback in learning activities where there is no deliverable, such as a presentation, an oral exam, or an interview. Feedback criteria can be structured in several ways (ratings on a scale, rubrics, or qualitative feedback without ratings), and all ratings can be underpinned by qualitative comments.

Give feedback on students

Students to review

L	Lara Wilkins	START REVIEWING
S	student9	✓ Review complete
	Malik Johnson	START REVIEWING
L	Lara Wilkins	START REVIEWING

Individual student possibilities

Key learning activities

- 1 Review student group presentations
- 2 Evaluate oral exams
- 3 Review student group debates

🕒

Your recent feedback

Great developments on your presentation skills. However, please make sure that you use less text on your slides next time.

REUSE
Compliment

Reuse feedback as a teacher

Key features

- CSV export Data
- Supports group work
- Sync deadlines with LMS Calendar
- Sync grades with LMS
- Inline feedback on all media types
- Reuse feedback comments
- Complex rubrics

Edtech Dotank features

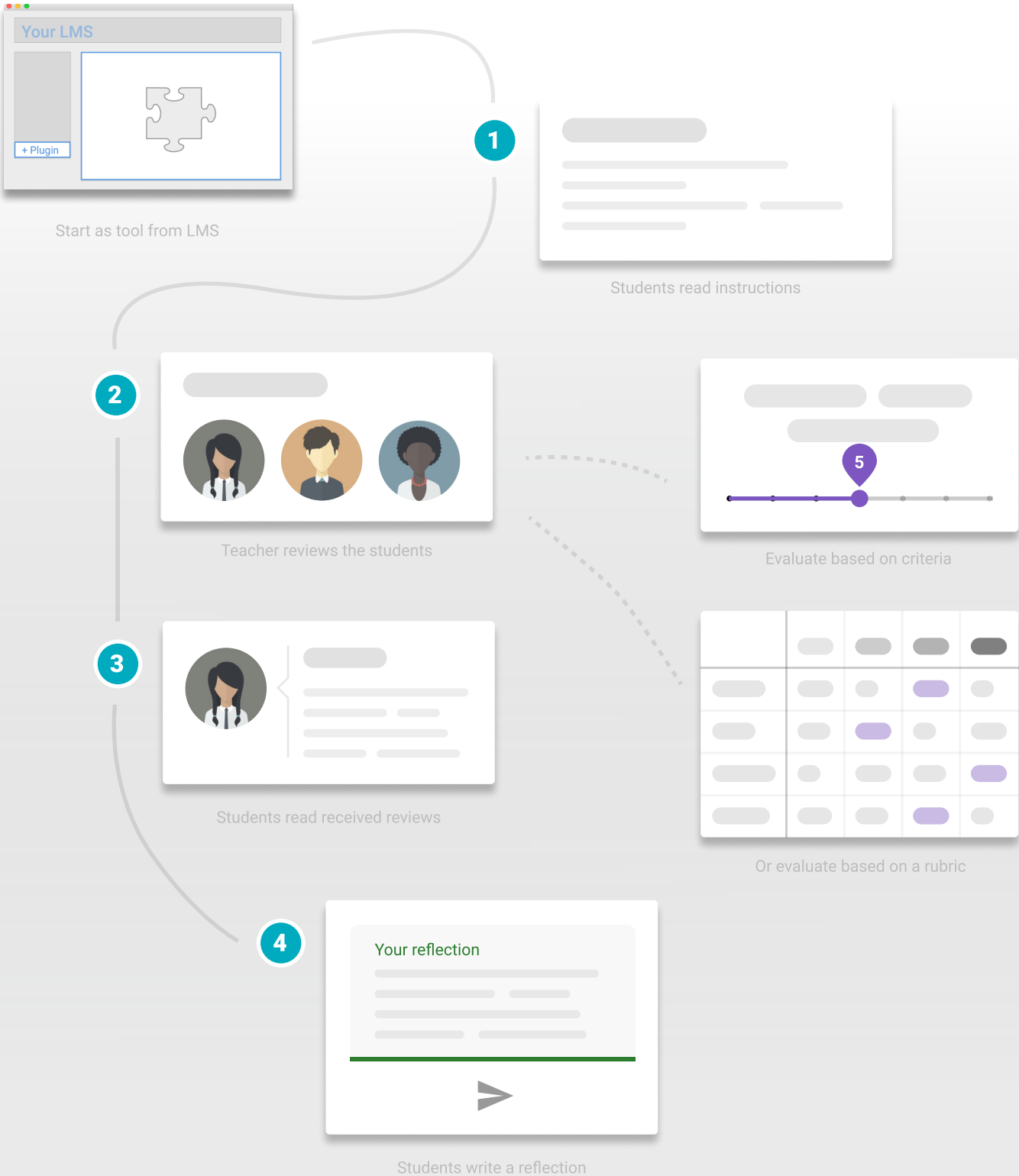
- Nudging
- Feedback cards
- Automatic feedback tips
- Completion checklist

Student workflow

When students open the LMS tool, they first see the instructions for the assignment. Other than reading the instructions, there is little that a student has to do at this point.

Students are notified by email when their teacher has provided them with feedback. They can read the feedback by re-opening the tool. The feedback is displayed in the right sidebar, where students can also upvote feedback comments or write replies to their teacher's feedback.

Finally, if required to do so by the teacher, students can write a reflection on their feedback, detailing what they learned (for example), or how they will incorporate the feedback in future work.





Interactive Presentation

Engage your students in class for deeper learning and increased interaction

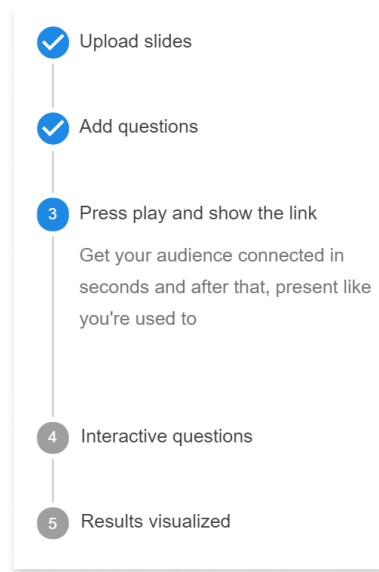
Traditional lectures can be perceived as passive by students because of the one-way communication flow from teacher to student. This passive consumption of the lecture can negatively impact learning outcomes.

This tool let teachers add question slides to existing presentation decks.

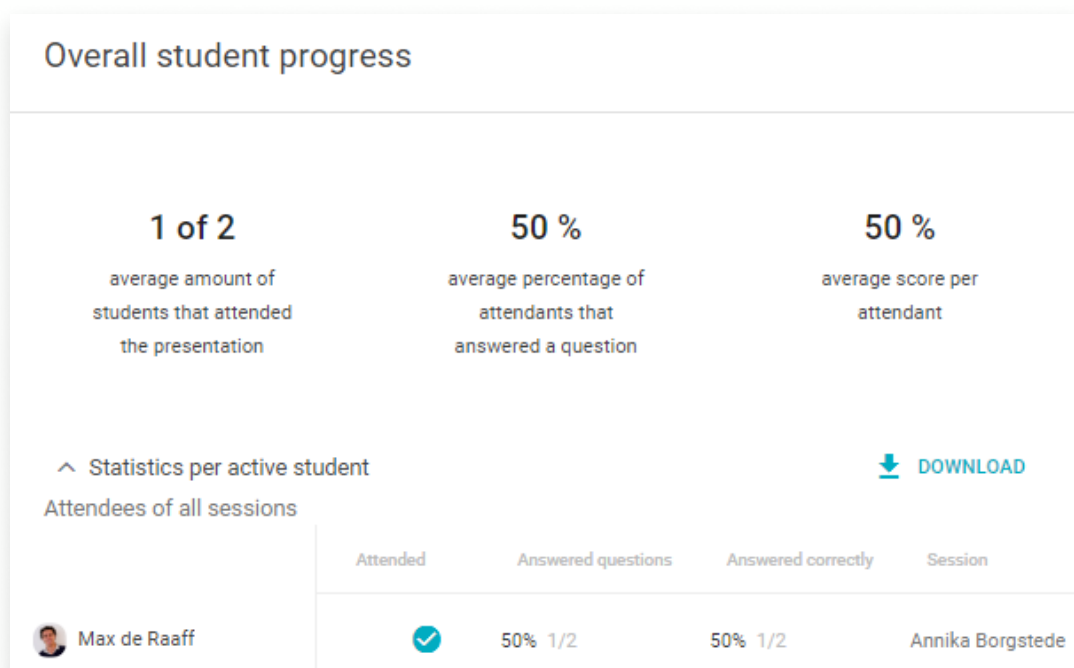
A short, unique link to a website where students can log in is shown at the start of the presentation.

On their own devices, students can follow the presentation slides and answer the questions live.

Results can be vizualized during and after the presentation.



After answering the questions, the results from all students are shown, optionally followed by the correct answer. These analytics can be useful in guiding discussions during the (online) lecture, or provide the teacher with insights on how well students grasp the material.





Discussion assignment

Discussion assignments have the purpose of encouraging critical and reflective thinking and generating dialogue with peers. This is done by providing explicit instructions and facilitating a step by step meaningful dialogue. The open discussions allow students to compose their own thoughts and feedback without guidance from the teacher.

Threaded discussions allow for more depth, without losing the primary focus. This tool is formative, however it can be altered to contain a summative part where students receive a grade for their work and their participation in the discussions.

Discuss with your peers

🕒 3 days left (Fri, Nov 30th, 23:59) **POSTPONE**

GO TO THE DISCUSSION

Key learning activities

- 1 Organise open-ended assessment at scale and leverage class interaction for enhanced online learning
- 2 Organise open-ended summative assessment at scale and leverage class interaction for enhanced online learning

Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Praesent commodo cursus magna, vel scelerisque nisl consectetur et. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

Discuss the submissions of at least 3 peers. 3 of 3 done

Contribute to other classmates' work **CONTINUE**

Case study on The Early Sales Decisions
3 days ago · Firstname Lastname

🗨️ 5 🏆 3 [SHOW OLDER](#)

Firstname Lastname 5 hours ago
Nullam quis risus eget urna mollis ornare vel eu leo. Maecenas sed diam eget risus varius blandit sit amet non magna. Praesent commodo cursus magna, vel scelerisque nisl consectetur et. Donec sed odio dui.

🗨️ 2 🏆 3

Firstname Lastname 5 hours ago
Nullam quis risus eget urna mollis ornare vel eu leo. 🏆 3

Firstname Lastname 5 hours ago
Integer posuere erat a ante venenatis dapibus posuere velit aliquet. Donec. 🏆 3

Write a reply... ➤

Write a comment... ➤

My case against The Early Sales Decisions
3 days ago · Firstname Lastname

🗨️ 5 🏆 3 [SHOW OLDER](#)

Firstname Lastname 5 hours ago

Key features

- Inline feedback on most media types
- Data export possibility
- Calendar deadline synchronization
- Upvote and/or reply to feedback

Edtech Dotank features

- Grading
- Incentives
- Group Synchronization

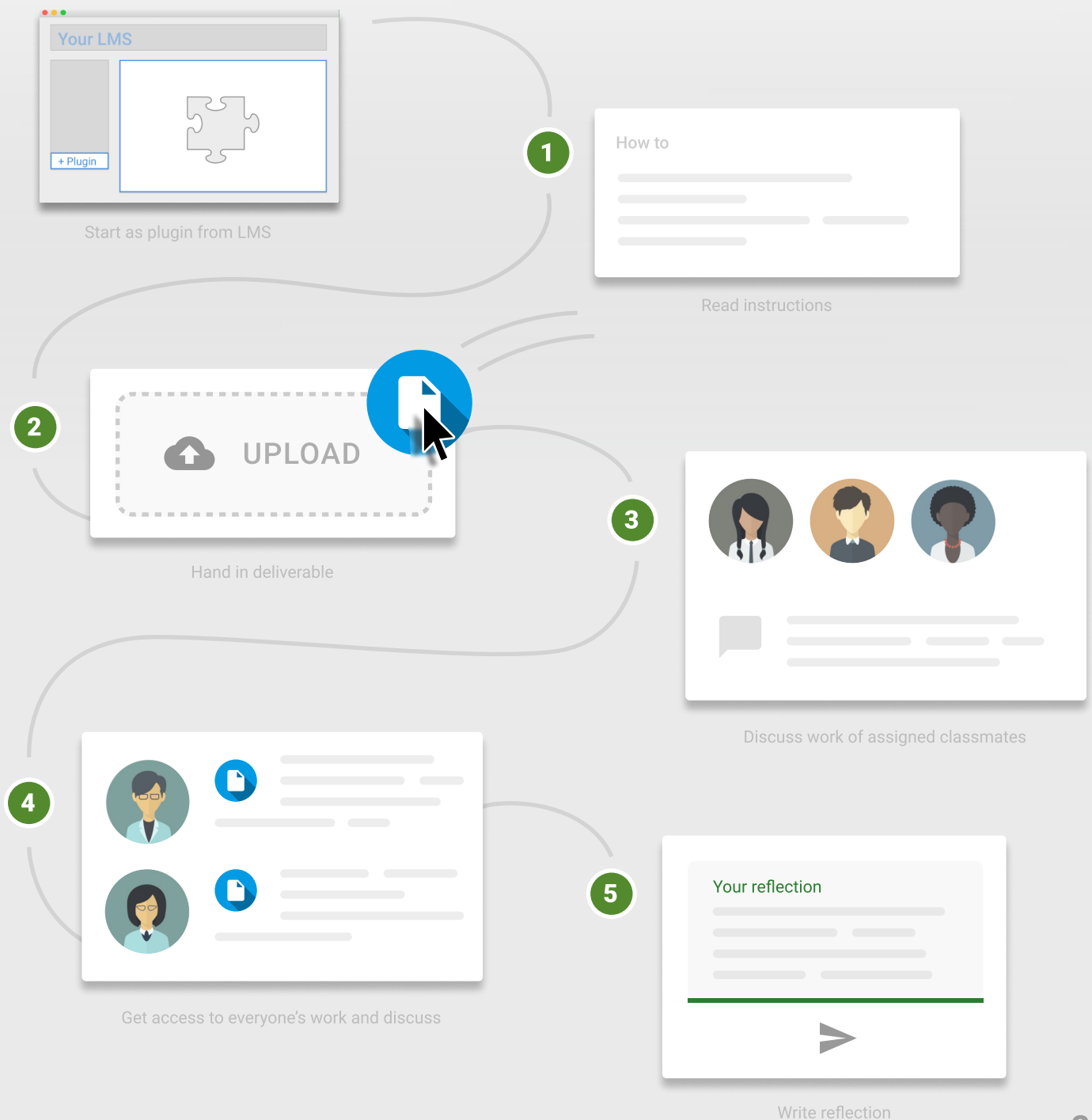
Student workflow

When opening Discussion Assignment, students first see the instructions the teacher wrote. The second step is when students upload their deliverable.

After the deliverable is handed in and the deadline has passed, students are assigned peers whose uploaded material they will discuss. Students can leave general comments or annotate specific pieces of the deliverable to ask questions or to provide feedback.

The next step is to participate in an open discussion. Here, the student will find all the uploaded deliverables of the class, on which they can likewise ask questions and write comments. The other students are then able to react and have a discussion with each other on the deliverable.

The final step is for students to read the discussion on their own deliverable and write a reflection on the feedback and tips they have received.



3 EdTech DoTank

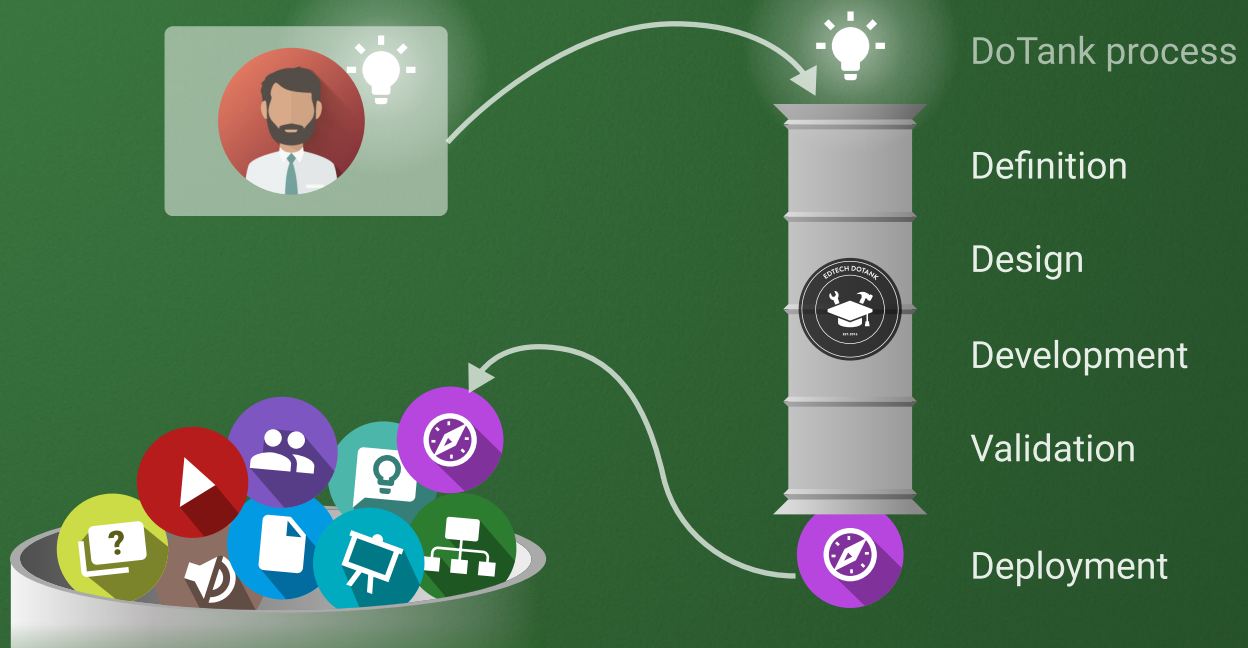
The DoTank partners co-create new technical solutions to support activating Learning Activities. The focus on a seamlessly integrated solution improves the implementation process of new pedagogic designs.

Higher education is rich in excellent ideas, but clear and effective methods for transforming these ideas into validated technological solutions are in short supply. Even when such solutions are developed, a lack of technological support hampers solutions from spreading beyond a small group of innovators.

FeedbackFruits established the EdTech DoTank in 2016 to bridge this gap between ideas and reality. By supporting these innovators with finding solutions and translating them into technology, the EdTech DoTank facilitates the spread of validated ideas to our other partners. Every year, each of our DoTank partner institutions pinpoint an educational use-case that cannot be met with current available technologies. In collaboration with experts and teachers from other partner institutions, the EdTech DoTank builds new technically supported Learning Activities to the proposed challenges and opportunities. We believe that in our co-creative partnership we can drive innovation at a pace that would be impossible for each partner to achieve individually.

This development process is agile, based on design thinking, and consists of five phases:

- 1 Definition:** our partners define an opportunity for a didactically validated Learning Activity to be implemented in multiple scenarios.
- 2 Design:** our product design team, in collaboration with our partner institutions, designs a solution.
- 3 Development:** our development team translates this design into code.
- 4 Validation:** the code goes through several iterations of validation and improvements based on feedback.
- 5 Deployment:** the tool or feature goes live for all our partners to use.



4 Explanation of features

This section elaborates on several key features of the LMS tools. First, this section offers information on features that are already on production, the second part provides a deeper explanation on features that are currently being co-created with partners in the EdTech DoTank.

The following features are explained:

Key features

- Inline feedback
- Self-assessment
- Anonymity
- Data export
- Practice questions
- Complex rubrics
- Configurable grading

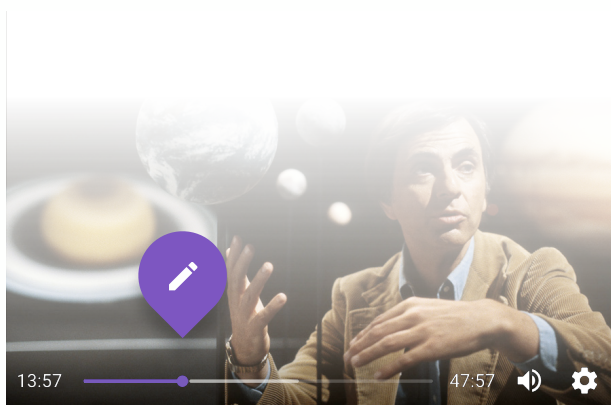
Edtech Dotank features

- Participation grading
- Group Contribution Grading
- Feedback cards
- Students rate their reviewers
- Automated submission checking
- Insights
- Nudging
- Completion checklist

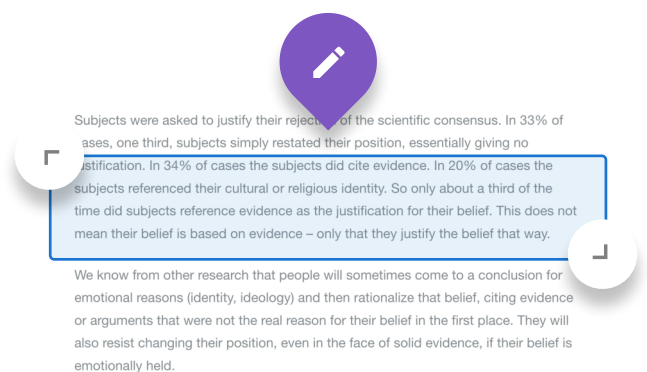
Key features

Inline feedback

Students can highlight specific pieces of an article or mark a specific moment in a video or audio file. Highlighting the specific section to which a comment pertains makes the feedback as concrete as possible.



Mark a specific moment in a video or audio file

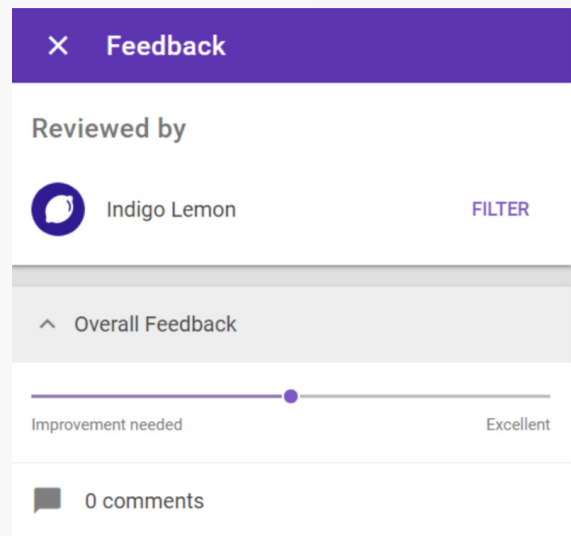


Highlight a specific part in a document

Anonymity*

In some cases, being able to provide feedback anonymously can contribute to a safe learning environment. With this option enabled, students will not be able to see who reviewed them. The reviewer's name is replaced by a color and a fruit, tasty! Teachers can always see the names of both the reviewer and the reviewee, so reviewers can always be called to account for what they write.

*Dotank feature: Submitter anonymity



Data export

With some LMS modules it is possible to extract the student data as a CSV file. Depending on the LMS module, this CSV file will contain different types of data. Those include: If students read the instructions, completed all the feedback tasks, how many annotations did they write, how many upvotes were completed, what is their overall grade and how much time did they spend completing the Learning Activity.

Practice questions

Practice questions can be inserted into interactive documents, videos or audio tools. These questions can be locked, acting as a teacher. In such cases, students need to answer the question before they can continue reading, watching or listening. It is not necessary for them to answer correctly, answering alone is enough to continue.

Complex rubrics

Complex Rubrics lets teachers set detailed explanations and point values for each level in a rubric. Detailed explanations for each level helps students in providing more constructive and meaningful feedback. As a teacher, you can open the rubric to see how students reviewed each other. Complex rubrics are re-usable, so once a rubric has been entered into

	Incomplete 0 points	Partially Proficient 1 point	Proficient 2 points	Exemplary 3 points
Concept Total points 9 out of 12 75%	Little effort has been spent on brainstorming and refining a concept. Unclear on the goals and how the project objectives will be met.	Has brainstormed their concept, but no clear focus has emerged. Goals/final product not clearly defined.	Rating received by... A B L C +2 Has a fairly clear picture of what they are trying to achieve. Can describe wha... Read more...	Rating received by... A B L Has a clear picture of what they are trying to achieve. Adequate de... Read more...
Script/Storyboard Total points 10 out of 12 83%	There is no evidence of a storyboard or script.	The thumbnail sketches on the storyboard are not in logical sequence and do not provide complete descriptions of the video scenes, audio background... Read more...	Rating received by... A B L C +2 The storyboard includes thumbnail sketches of each video scene and inc... Read more...	Rating received by... A B L C +2 The storyboard illustrates the video presentation structure with thumbnail... Read more...
Content/Organization Total points 5 out of 12 42%	Content lacks a central theme, clear point of view and logical sequence of information. Much of the supporting information is irrelevant to the overall m... Read more...	Rating received by... A B L C +2 The content does not present a clearly stated theme, is vague, and som... Read more...	Rating received by... A B L Information is presented as a connected theme with accurate, current support... Read more...	Rating received by... A B L The content includes a clear statement of purpose or theme and is creative, compelling and clearly written. A rich variety of supporting information in... Read more...

FeedbackFruits, teachers can use it throughout their assignments and share it with colleagues.

Configurable grading

Grading ×

Configure which facets of the activity should be weighed in the students grade.

100 %

10 pp	Hand-in step completed
0 pp	Hand-in step completed on time
0 pp	Completed giving feedback
0 pp	Has written the minimum number of review comments: 1
90 pp	Ratings received on work in total
22.5 pp	SWOT Analysis
22.5 pp	Problem Statement
22.5 pp	Management Team Plan
22.5 pp	Financial Plan
0 pp	Has viewed all received feedback
0 pp	Has written the required reflection

5 inactive [HIDE](#)

100 %

Configurable grading enables teachers to configure which steps of the assignment should be graded, and how much each element should count towards the final grade. Weighted ratings can be assigned to the different steps of the assignment. Moreover, different weights can be assigned to each criterion in Peer Review and Group Member Evaluation assignments. These separate grades can be sent back to the LMS.

Group Contribution grading

Since the grade adjustment is based on how an individual student compares to the rest of the group, this system is difficult to game. After all, students cannot improve their grade by giving all their peers full marks. Common issues such as free riding can be detected and taken into account in grading using this tool.

Group contribution grading Last published 5 days ago [PUBLISH GRADES](#)

Per group, the average received ratings are shown. For each student in each group, the Group Contribution Factor is shown, based on the ratings by their peers.

Generate individualized grades for each student by filling in the group work grade (as percentage), adding an optional adjustment (percentage points) per student. (The suggested adjustment can be used by clicking it.)
[Further explanation...](#)

	Self to Peer Assessment Ratio	Group project grade	Suggested adjustment	Adjustment	Overall grade
Group 1	1.345	50 %			
1st Test Bas	1		6 pp	10 pp	60 %
Richard Machielse	2.036		-15.1 pp	-15,1 pp	34.9 %
2nd Test Bas	1		6 pp	6 pp	56 %
Group 2		%			

DoTank features



The features explained in this part explain several DoTank features. These features are co-created with our DoTank partners. They are not available for all partners until they have been fully validated.

Participation grading

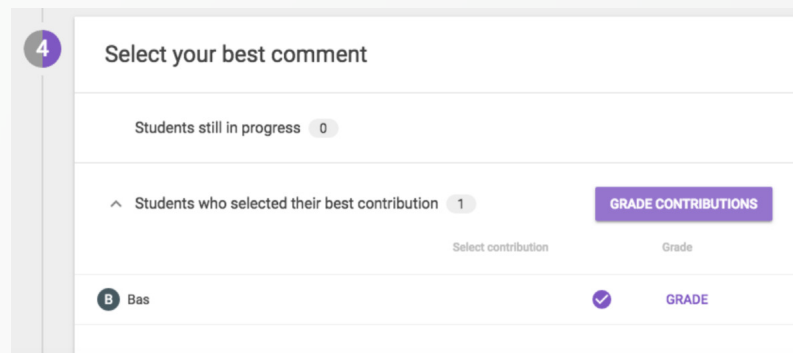
Co-Creation partner: Wageningen University

Tools to be used: Peer Review, Comprehension, Interactive Study Material

Dotank phase: Validation

The goal of Participation Grading is to help motivate every student to participate in an online discussion. Studies have shown that grading online discussions contributes to an increase in student participation. As an instructor, however, the quality of contributions is more important than the quantity.

Thus, rather than using a rigid algorithm, we simply ask students to select the contribution to the discussion that, in their eyes, was the best. Not only does it give students the freedom to participate in their own way, it also provides a moment for students to reflect on their personal contributions. Thereby organically increasing the number of high-quality contributions.



The set up is done very well. The group displays sounds knowledge of all the equipment

REUSE

Compliment

Set-up and equipment care is done very well and secure. Good job.

REUSE

Compliment

Feedback cards

Co-Creation partner: Technical University of Eindhoven

Tools to be used: Peer Review, Group Member Evaluation

Dotank phase: Iteration

For a teacher it is hard to rewrite extensive explanations and often good explanations are already given somewhere in the study material or online. Feedback cards enable a teacher to link an explanation of a topic to a certain part in the assignment or questionset and reuse the same feedback cards multiple times in one assignment.

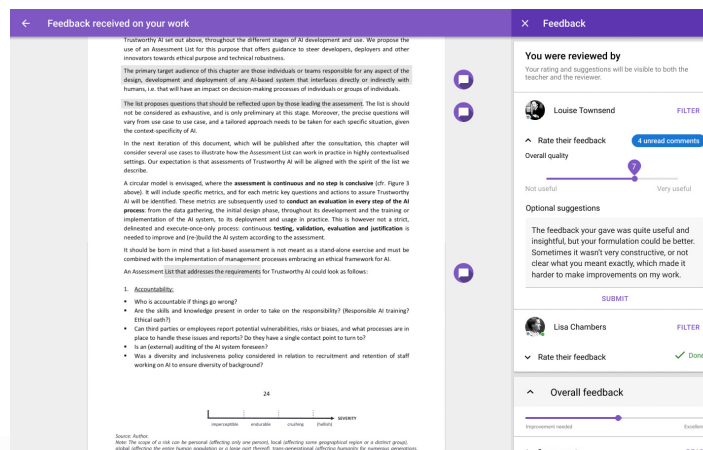
Students rate their reviewers

Co-Creation partner: Erasmus University Rotterdam

Tools to be used: Peer Review, Group Member Evaluation

Dotank phase: Iteration

Improving the quality of Peer Feedback. Students rate the peers that reviewed them. In the reflection step, students rate (1-10) how well their peers have provided them feedback. Teachers can incorporate the average into their grade and see it in their tables.



Automated submission checking

Co-Creation partner: Erasmus University Rotterdam

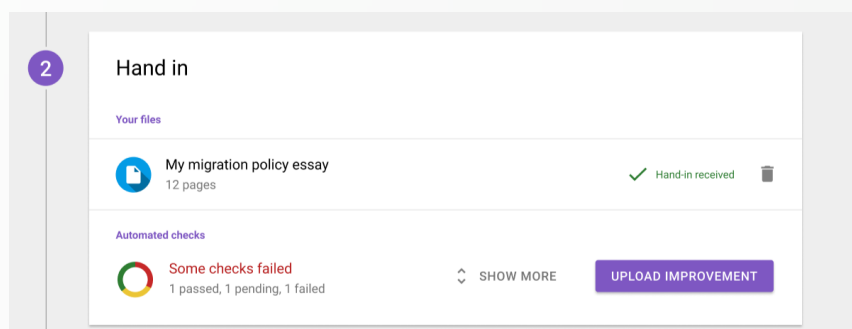
Tools to be used: Submission assignments

Dotank phase: Development

The goal of automated submission checking of student work is to increase the quality of student products, stimulate deeper learning, all while reducing teachers' review time. Automated submission checks support a number of different scenarios:

1 By automatically attributing student products in different categories (e.g. poor, intermediate and good) teachers can specifically direct attention to student products that are of intermediate quality. The remaining time can be used to take in extra student products (intensifying education) or lower teacher workload.

2 Students can gain insight into the quality of their work during writing or immediately after submission, and thus are able to increase the quality of their work without intervention of the teacher. This increased quality, combined with teacher insight into the results of the checks, lead to a lower teacher workload when grading submissions



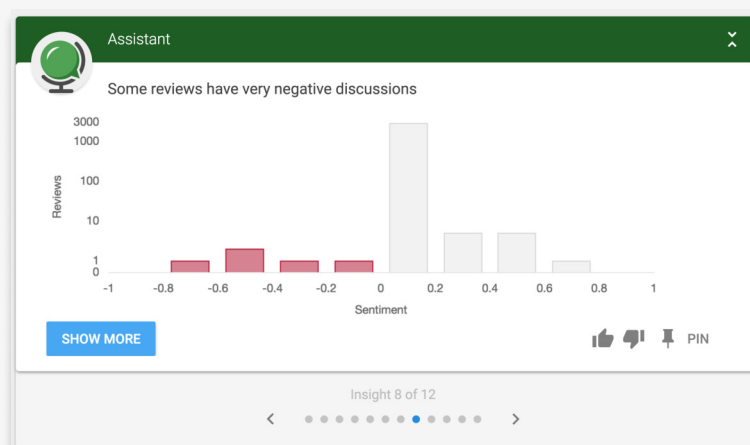
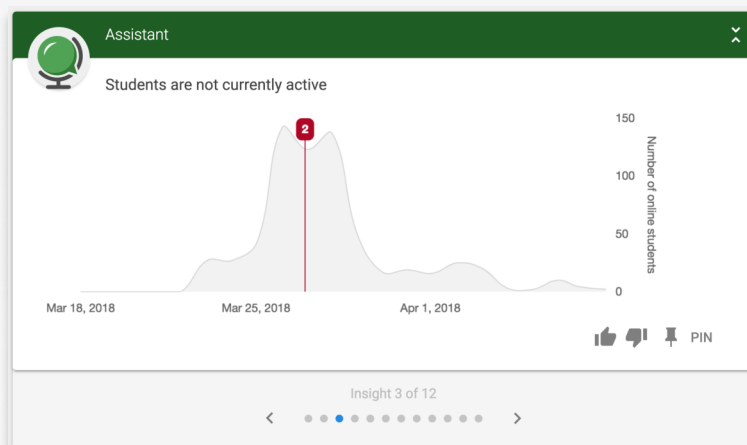
Insights

Co-Creation partner: Universiteit Utrecht

Tools to be used: Peer Review, Group Member Evaluation

Dotank phase: Development

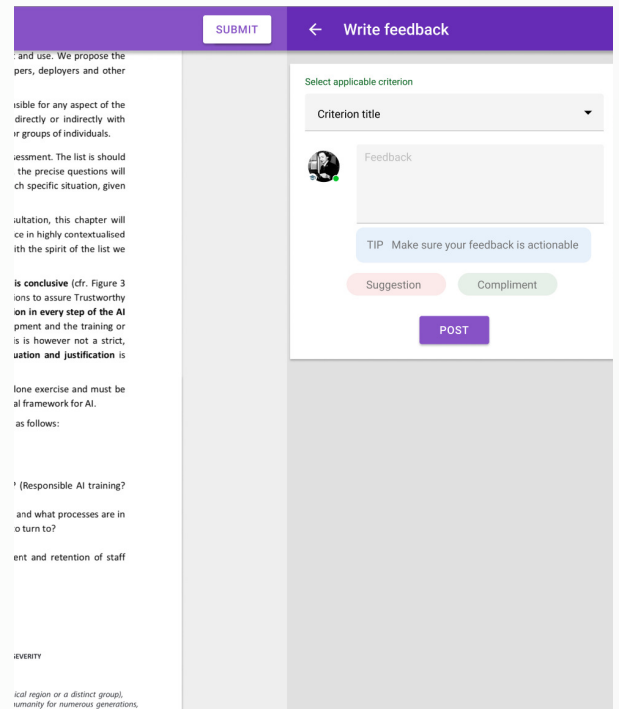
Through artificial intelligence, Insights, our digital personal assistant tracks students' progress and suggests teacher interventions. For example, Insights can point out students who completed considerably fewer reviews than their peers, or notify teachers when students use very positive or negative language, or even curse, at other students. This Dotank project is currently in the development phase.



Nudging

Co-Creation partner: Erasmus University Rotterdam
 Tools to be used: Peer Review, Group Member Evaluation
 Dotank phase: Validation

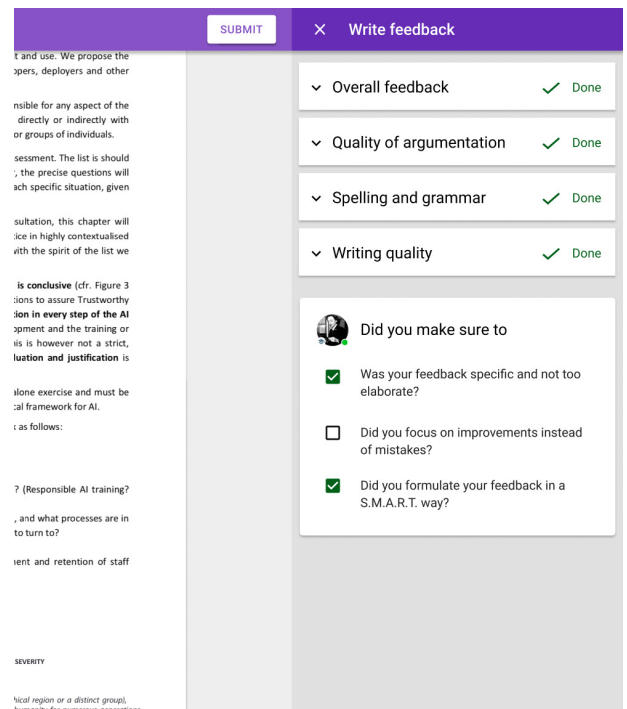
To 'nudge' students to be aware of the feedback they are providing, and double check their work before submitting and completing the review of a peer, tips will be given to the students while writing their feedback. The teacher is able to adapt these tips.



Completion checklist

Co-Creation partner: Erasmus University Rotterdam
 Tools to be used: Peer Review, Group Member Evaluation
 Dotank phase: Validation

The concept of the completion checklist feature is the same as nudging - Making students more aware of the feedback they are giving, and motivate them to double check their work. The only difference is, a checklist will be offered. FeedbackFruits provides a default checklist, which teachers can adapt.



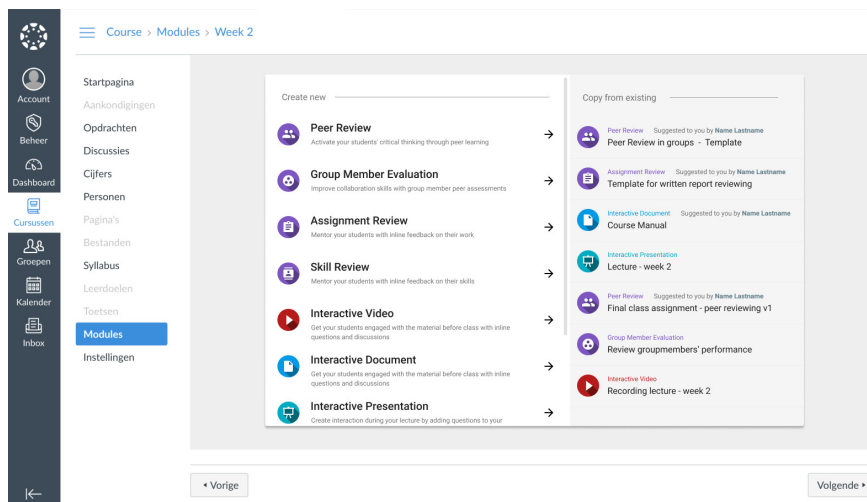
OneDesign: Collaboration

Co-Creation partner: FeedbackFruits

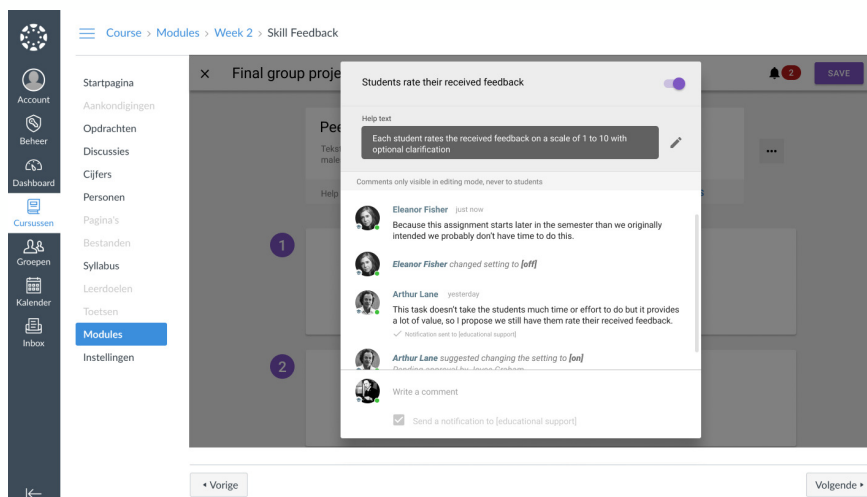
Tools to be used: Peer Review, Group Member Evaluation

Dotank phase: Design

OneDesign is a project which is currently in the design phase at FeedbackFruits. The purpose is to make the selection of tools effortless, visually appealing and flexible.



When teachers reach the point of choosing a tool within their LMS, the picture above is what they will see. On the left side, tools in which they can create new learning activities will be visible. And on the right side, presets and saved learning activities will appear, allowing them to copy existing activities.



With the Collaboration feature, instructional designers together with professors can have discussions over every feature available within a tool, allowing for a tailored and fast exchange of information when designing assignments.

5 DoTank LMS tools

The LMS tools explained in this part of the brochure elaborates on several Dotank LMS modules. These tools are Co-Created with several partners within the consortium. They are not available for all partners until validated.

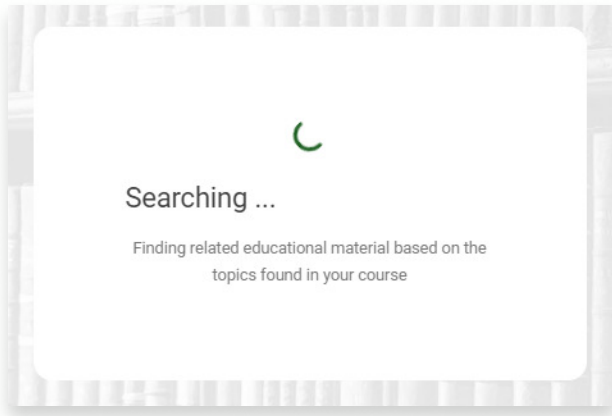


Open courseware suggestor

Co-Creation partner: TU Delft & MIT


Dotank phase: Validation



The Open Courseware Suggestor uses artificial intelligence to find relevant open source study material for courses. The internet offers a vast amount of freely available high-quality study material, so vast in fact that sorting through it is impractical at best. By harnessing the power of artificial intelligence, the Open Courseware Suggestor puts the best material within easy reach of teachers. By integrating this tool in an LMS system, it is possible to scrape your complete course for relevant topics and to copy open study material directly in your course. This project is currently in the validation phase.



Scientific method ✕ Education ✕ Writing ✕ Research ✕ Extracellular matrix ✕
Developmental biology ✕ Cellular differentiation ✕ Gene expression ✕ Signal transduction ✕
Protein structure ✕ Bioinformatics ✕ Prediction ✕ Protein structure prediction ✕
Add more subjects ...

1330 results found

 **12. Introduction to Protein Structure; Structure Comparison and Classification**
MIT 7.91J Foundations of Computational and Systems Biology, Spring 2014
View the complete course: <http://ocw.mit.edu/7-91JS14> Instructor: Ernest Fra...



SAVE TO COURSE



Team Based Learning

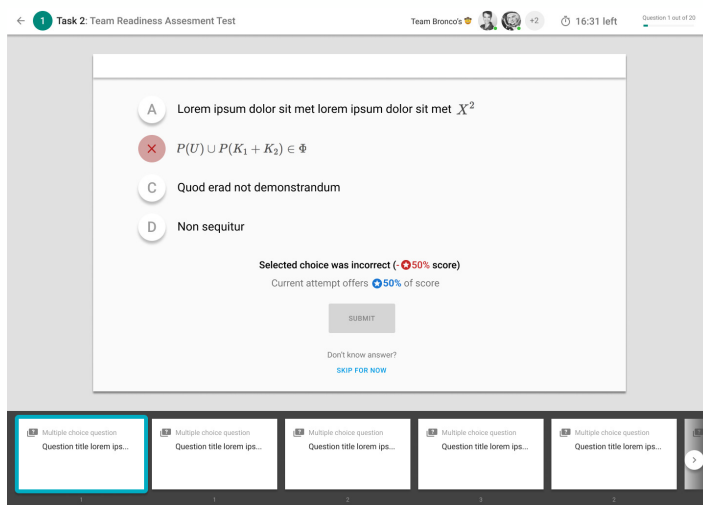
Perform individual and team readiness tests live during class

Co-Creation partner: IE Business school

Dotank phase: Development

TBL is a uniquely, powerful form of small group learning. It provides a complete coherent framework for building a flipped course experience. The FeedbackFruits TBL tool lets you achieve two important things:

- 1). Students come to class prepared by using TBL's ingenious Readiness Assurance Process.
- 2). Students learn how to apply the course concepts to solve interesting, authentic, real-world problems using TBL's framework.



Main features:

- Answer as a group (every team member can answer)
- Scratch card principle: enter answer submissions until a team is correct
- Teacher can configure the attempt points:
- MC question overview (TRAT & IRAT comparison)
- LMS integration (LTI / API)

The tRAT is the exact same test as the iRAT. This part of TBL is based on a scratch card concept. Teams must negotiate which answer to choose, they then “scratch off” their answer choice, hoping to find a correct answer. If incorrect, student teams continue to discuss the question and sequentially select other choices. Teachers identify trouble spots easily with real-time detailed data analysis on team performance. Students get real-time feedback on tests, resulting in higher learning outcomes.

Question	Slide ^	iRAT			tRAT	
		Fail rate	Time to answer (avg.)	Skip rate	Attempts	Time to answer (avg.)
All questions		33% on avg.	0m59s on avg.	3%	3.1 on avg.	2% on avg.
"Which explanatio...	1	12%	0m58s	1%	2	0m58s
"Quantum mecha...	2	24%	1m32s	5%	1.9	1m05s
"Do black holes e...	3	39%	1m32s	4%	3.5	1m21s
"Hawkin radiation...	4	41%	2m32s	2%	4.1	1m32s
"The best you've...	5	2%	2m32s	1%	2.6	1m32s
"Which explanatio...	6	12%	0m58s	1%	2	0m58s
"Quantum mecha...	7	24%	1m32s	5%	1.9	1m05s
"Do black holes e...	8	39%	1m32s	4%	3.5	1m21s
"Hawkin radiation...	9	41%	2m32s	2%	4.1	1m32s
"The best you've...	10	2%	2m32s	1%	2.6	1m32s

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