

Knowledge Base Article: Perusall

Perusall

Perusall is a social annotation tool that integrates with Canvas via LTI (learning tools interoperability). Perusall allows students and their instructors to collaboratively mark up pdf and other documents. Instead of reading a document and discussing it, Perusall brings the discussion to the text.

Integrating Perusall to Canvas

First, click on Settings.

The screenshot shows the Canvas LMS interface. On the left is a dark navigation sidebar with icons for Account, Dashboard, Courses, Calendar, Inbox, History, Commons, and Help. The 'Settings' option is highlighted with a red rectangular box. The main content area is divided into three sections: 'Recent Announcements' with a 'Test Announcement' card, a 'Sandbox' card with an 'Edit' button, and course details (Course Name, Instructor, email); 'Course Status' with 'Unpublished' and 'Publish' buttons; and 'Coming Up' with a 'View Calendar' link.

Click on Navigation. Scroll to the bottom of the page to find the Perusall app. Click and drag to the upper box to make it available to students, and click Save at the bottom of the screen. Perusall now appears on the Course Navigation Menu at left..

The screenshot shows a course management interface with a top navigation bar containing 'Course Details', 'Sections', 'Navigation' (highlighted with a red box), 'Apps', and 'Feature Options'. Below this is a 'Course Status' section with 'Unpublished' and 'Publish' buttons. A central area contains a list of items to be reordered in the course navigation, including Home, Assignments, Announcements, Modules, Discussions, Grades, People, Pages, Files, Syllabus, Outcomes, Rubrics, Quizzes, Collaborations, Attendance, Chat, and New Analytics. A right-hand sidebar lists various course actions like 'Share to Commons', 'Course Statistics', 'Course Calendar', 'Conclude this Course', 'Import Course Content', 'Export Course Content', and 'Validate Links in Content'. At the bottom, a 'Current Users' table shows counts for Students, Teachers, TAs, Designers, and Observers.

Current Users	
Students:	None
Teachers:	1
TAs:	None
Designers:	None
Observers:	None

Click on the Perusall link in the Course Navigation Menu. A new tab will appear. Accept conditions.

Please agree to our Terms of Service and Privacy Policy.

Terms of Service Print

Frequently Asked Questions

What are my rights over content I post to Perusall?

You retain complete control over your content. If instructors request that their courses be completely deleted, we do not retain any information, including posts, from them. Instructors have complete control over the content displayed and can remove the content of any

Privacy Policy Print

Last updated August 25, 2020

This Privacy Policy describes the data protection practices of Perusall LLC ("Perusall," "we," "us," or "our"). This Privacy Policy applies to information that we collect and use about you when you access or use the Perusall website, mobile application, or other online or mobile service that links to or otherwise presents this Privacy Policy to you. We refer to these products and services collectively as the "Services."

OK

The app will prompt you with the option for a tour to get started; you can take it or “End Tour” as you prefer.

Perusall® >
Get started Created from Canvas
Help What's new

- Get started
- Library
- Assignments
- Students
- My Courses
- Course home
- Settings
- Gradebook
- Student view
- Notifications
- Notes
- Add to my calendar
- Chats
- Groups
 - Announcements
 - General discussion
- One-on-One
- Hashtags
 - #grades
 - #lecture
 - #logistics
 - #section

To set up your course:

- 1 **Create links in your LMS for students to access Perusall;** students will be enrolled automatically when they click the Perusall link in your Learning Management System. You can track which students have used Perusall by clicking **Students**.
- 2 **Tell Perusall about your course.** You can change any of these later in **Settings**.

Welcome to Perusall! This brief tour will show you how to set up and navigate your course.

Next
End tour

Course end date

Enrollment estimate

The approximate number of students you expect to join the course. Perusall will use this value and the Target Group Size to create discussion groups for students.

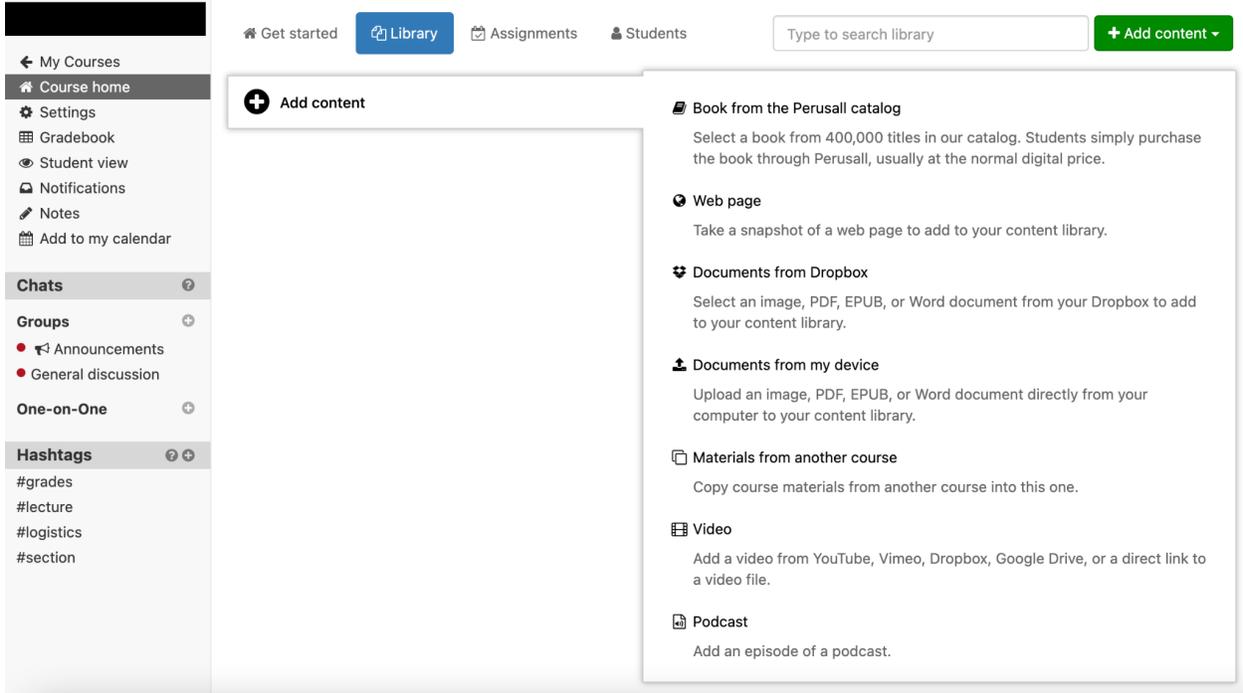
Target group size

Students will be placed into groups of approximately this size and will only be able to see comments and questions within their group. Changing this setting will not retroactively apply to groups that have already been formed, to provide consistency for students.

Save changes

Creating Assignments to Perusall

To create assignments to Perusall, first click on Library and upload content. Compatible content formats are listed at right below. It may take a few minutes for uploaded files to process.



Next, go to Assignments and click Add Assignment. There, you will select the assignment from a file uploaded into your account using the drop-down list at upper right.

The screenshot shows a modal window titled "Add assignment" with a close button in the top right corner. The window is divided into three tabs: "Content" (selected), "Options", and "Scoring".

Under the "Content" tab, there are two buttons: "+ Add another part" and "- Remove this part". Below these is a list containing one item: "Part 1: New part".

To the right, there is a section titled "Content to assign" with a dropdown menu. The dropdown is open, showing a file icon and the text "canvas flyer 007a".

At the bottom of the modal, there are four buttons: "< Previous step", "Next step >", "Save changes" (highlighted in green), and "Cancel".

Set the assignment deadline, name, and instructions. Remember the assignment name - it must be exactly the same when you integrate it into Canvas.

Add assignment [Close]

Content **Options** Scoring

Submission deadline Friday January 28, 2022, 12:00 PM
Students can annotate for full credit until this deadline. Your course settings will determine whether there is a reply window for adding responses or partial credit for late work.

Assignment name Test Perusall Assignment
Optional. If you give the assignment a name, ensure each assignment has a unique name unless the identically-named assignments will be assigned to different students. [Learn more](#)

Instructions for students B I A [Link] x² [Smiley] [Code] [Image] [Link] [Image]
Test assignment
Optional. Add instructions for students: what they should focus on, tips for reading, etc.

[Previous step] Next step > **Save changes** Cancel

Set the score type, then save changes.

Add assignment [Close]

Content **Options** Scoring

Submission deadline Friday January 28, 2022, 12:00 PM
Students can annotate for full credit until this deadline. Your course settings will determine whether there is a reply window for adding responses or partial credit for late work.

Assignment name Test Perusall Assignment
Optional. If you give the assignment a name, ensure each assignment has a unique name unless the identically-named assignments will be assigned to different students. [Learn more](#)

Instructions for students B I A [Link] x² [Smiley] [Code] [Image] [Link] [Image]
Test assignment
Optional. Add instructions for students: what they should focus on, tips for reading, etc.

[Previous step] Next step > **Save changes** Cancel

Click on Copy full title for LMS.

The screenshot displays the Canvas LMS interface for an assignment. On the left is a navigation sidebar with sections: My Courses, Course home, Settings, Gradebook, Student view, Notifications, Notes, Add to my calendar, Content, Library (containing 'canvas flyer 007a'), Assignments (containing 'Jan 28: Test Perusal ...'), Chats, Groups (containing 'Announcements' and 'General discussion'), One-on-One, and Hashtags (containing '#grades' and '#lecture'). The top navigation bar includes 'Get started', 'Library', 'Assignments', 'Students', '+ Add assignment', 'Edit deadlines', and 'Download'. The main content area shows the assignment details for 'Test Perusal Assignment', due on Fri Jan 28, 2022 12:00 pm PST. A red box highlights the 'Copy full title for LMS' button in the 'Test assignment' toolbar. Below this toolbar are buttons for 'Open', 'Edit', 'Duplicate', 'Extended deadlines', and 'Delete'. Further down are 'Analytics', 'Confusion report', and 'All comments'. At the bottom, the 'Overall assignment progress' section shows a 100% progress indicator and a legend: 'Completed with maximum score (0.0%)' (green), 'Completed but not maximum score (0.0%)' (blue), 'Some work submitted (0.0%)' (orange), and 'No work submitted (100.0%)' (grey).

Go back to the Canvas tab (left of the Perusall tab in your web browser), click on Assignments, make a new assignment, and paste the assignment name into the box.

***Important: The assignment name you paste into the Canvas assignment name box must be exactly the same as the Persuall created assignment in order for the assignment to be correctly linked to Canvas.**

The screenshot displays the Canvas LMS interface for creating a new assignment. On the left, a navigation menu lists various course tools such as Home, Assignments, Announcements, Modules, Discussions, Grades, People, Pages, Files, Syllabus, Outcomes, Rubrics, Quizzes, Collaborations, Attendance, Chat, New Analytics, Item Banks, and Qwickly Attendance. The main content area is titled 'Details' and 'Mastery Paths'. A text box at the top contains the assignment name 'Test Perusall Assignment'. Below this is a rich text editor with a toolbar including options for font size (12pt), paragraph style, bold (B), italic (I), underline (U), text color (A), background color, text alignment (T²), link, image, video, audio, and document. The editor's content area shows the text 'Test Assignment'. At the bottom of the editor, a status bar indicates '2 words' and provides icons for undo, redo, and other actions. Below the editor, the 'Points' field is set to '10' and the 'Assignment Group' dropdown menu is set to 'Assignments'.

Go to Submission type and change to External Tool. Click Find, find Perusall, and choose it. We suggest choosing Load This Tool In A New Tab option below the Find box.

The screenshot displays the Canvas LMS interface for configuring an external tool. The left sidebar contains navigation links: Home, Assignments, Announcements, Modules, Discussions, Grades, People, Pages, Files, Syllabus, Outcomes, Rubrics, Quizzes, Collaborations, Attendance, Chat, New Analytics, and Item Banks. The main content area shows the 'Submission Type' dropdown menu set to 'External Tool'. A 'Find' button is visible next to the dropdown. A 'Configure External Tool' dialog box is open in the center, featuring a close button (X) in the top right corner. The dialog contains the following text: 'Select a tool from the list below, or enter a URL for an external tool you already know is configured with Basic LTI to add a link to it to this module.' Below this, there is a section titled 'Analytics pages for Canvas' with a search icon. The list of tools includes: 'Pearson MyLab and Mastering', 'Pearson Revel and eText', 'Perusall' (which is highlighted in a grey box and includes the description 'The Perusall social learning platform.'), 'PlayPosit' (with the description 'PlayPosit is interactive video engagement.' and a search icon), and 'ProctorU'. At the bottom of the dialog are 'Cancel' and 'Select' buttons. The background also shows an 'Assign to' dropdown menu set to 'Everyone' and a 'Due' field.

Click on “Load [assignment name] in a new window.”

The screenshot shows a course management interface. At the top left, there is a hamburger menu icon followed by a redacted area and the breadcrumb path: [Assignments](#) > [Test Perusall Assignment](#). In the top right corner, there is a button labeled "6d Student View".

The main content area is titled "Test Perusall Assignment". Below the title, it says "Test Assignment". A message states: "This tool needs to be loaded in a new browser window". Below this message is a button that says "Load Test Perusall Assignment in a new window".

On the right side of the page, there are two buttons: "Edit Assignment Settings" and "SpeedGrader™".

The left sidebar contains a navigation menu with the following items: Home, Assignments (highlighted), Announcements, Modules, Discussions, Grades, People, Pages, Files, Syllabus, Outcomes (with a small icon), Rubrics, Quizzes, Collaborations, Attendance, Chat, and New Analytics.

The assignment will load. The text in the image below will display the first time an assignment is accessed. It explains how conversations work between written documents and videos.

Welcome to the social learning experience in Perusall! In documents, highlights in the text represent conversations between you and other members of the course; in videos, these conversations are displayed as circular highlights on the video timeline below the video.

Yellow highlights correspond to threads started by students, and blue highlights correspond to threads started by an instructor. To get started:

- In a document, highlight some text in a document to start a conversation.
- In a video, navigate to the part of the video you want to discuss, and click **Add comment** to start a conversation about the current position in the video.

Click **Next** or press the right arrow key to continue the tour and learn more about the Perusall experience.

Copying text from the book, from external web sites, or from other students and submitting it as your work is plagiarism and a violation of academic integrity; your instructor or institution may impose significant penalties for plagiarized work.

➤ Next

End tour

Below are directions on how to start conversations.

The image shows two screenshots of the Perusall interface. The top screenshot shows a document titled 'canvas flyer 007a' with a tooltip that reads: 'Select the option for text selection to comment on or ask a question about text. Then highlight the text you want to comment on.' Below the tooltip are 'Previous' and 'Next' navigation buttons and an 'End tour' button. The bottom screenshot shows the same document with a tooltip that reads: 'Select the option for figure selection to comment on a figure. To pinpoint a single part of a figure, click or tap to indicate the point you want to comment on. To highlight a region of a figure, click and drag (long press and then swipe on a touchscreen device) to draw a rectangle that indicates the part of the figure you want to comment on.' Below this tooltip are 'Previous' and 'Next' navigation buttons and an 'End tour' button. The interface includes a sidebar with 'My Courses', 'Course home', 'Settings', 'Gradebook', and 'Student view' options, and a top navigation bar with 'Perusall', 'Page 1', and various utility icons.

Navigating the Assignment

The assignment's right panel has these buttons in descending order: "Current conversation," which shows the a single highlighted conversation highlighted (see two images below), "All conversations," which shows all conversations and subsequent comments when clicked, "My starred comments," "Page thumbnails," "Table of contents," "Search," "Notifications," "Bookmarks," "Notes," and "Read aloud."

The screenshot displays the Perusall interface. On the left is a sidebar with navigation options: My Courses, Course home, Settings, Gradebook, Student view, Notifications, Notes, and Add to my calendar. Below this are sections for Content, Library (including canvas flyer 007a and Brit J Educational Tech), Assignments (with two entries for Jan 28: Test Perusall As...), Chats, Groups (with Announcements and General discussion), One-on-One, and Hashtags (#grades, #lecture). The main content area shows a document page from the British Journal of Educational Technology, Vol 50 No 1 2019, pages 248-263, with doi:10.1111/bjet.12718. The article title is "Tablet-based AR technology: Impacts on students' conceptions and approaches to learning mathematics according to their self-efficacy" by Su Cai, Enrui Liu, Yang Yang, and Jyh-Chong Liang. The abstract discusses AR in education. On the right, a vertical navigation panel contains icons for: Current conversation, All conversations, My starred comments, Page thumbnails, Table of contents, Search, Notifications, Bookmarks, Notes, and Read aloud. A red box highlights this right-hand panel.

Creating a conversation looks like the below. Clicking on the highlighted text opens a text box where a comment can be composed; click the Submit button in the lower right of the text box to post a comment. Additional items such as emojis, images, videos, and links can be part of the post:

The screenshot displays the Perusall interface. On the left is a navigation sidebar with sections: My Courses, Content, Library, Assignments, Chats, Groups, and Hashtags. The main content area shows a document with a red box highlighting a paragraph about 'Mathematics learning self-efficacy'. A 'Current conversation' window is open on the right, showing a text input field with the text 'Self efficacy leads to better motivation and engagement.' and a 'Submit' button. The document text includes:

Mathematics learning self-efficacy
Self-efficacy is described as a personal sense of "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982). Self-efficacy describes one's beliefs and expectations regarding one's ability to achieve one's learning goals. It can be regarded as a personal feature of learning. People may have different self-efficacy levels in different academic domains. In the mathematics field, secondary students' learning self-efficacy could be characterized into higher and lower self-efficacy (Kiviere, 2014), and learners with different levels of self-efficacy may demonstrate different behaviors in lessons with AR technology. Shih, Chi, and Hwang (2011) also suggested that the impacts of technologies or environments on improvements in the learning of content by students with different backgrounds or different characteristics should be examined.

help them to identify themselves (Bodwin, 2008; Zucker, Tinker, Staudt, Mansfield, & Metcalf, 2008). Furthermore, Dede (2009) indicated that students in immersive environments like VR and AR may achieve greater learning self-efficacy, and another study showed that AR tended to provide students with particular gains in their self-efficacy and their understanding of the subject they had learned (Kumararajen et al., 2013). These studies imply that AR learning environments have some effects on students' self-efficacy, and the same AR application might have different effects on different students. That is the potential research question of this study.

For the test tools of the mathematic self-efficacy Lin and Tsai (2013) studied students' self-efficacy and approaches to learning science in junior high school in Taiwan and provided scales of science learning self-efficacy and approaches to learning science. Similar to the COLM (Conception of Learning Mathematics), Wang, Liang, Lin, and Tsai (2017) proposed instruments about Self-efficacy of Learning Mathematics (SLM).

Conceptions of learning mathematics
In the current research, conceptions of learning mathematics are used to describe the junior high school students' learning. Students' conceptions of learning refer to what they perceive and how they interpret their own learning (Richardson, 1999). In short, the conceptions of learning could be described as "What learners actually mean by learning," and different learners may have different conceptions (eg. learning to increase knowledge, learning as memorizing, etc.).

© 2018 The Authors. British Journal of Educational Technology published by John Wiley & Sons Ltd on behalf of BERA.

252 *British Journal of Educational Technology* Vol 50 No 1 2019

Researchers have also found that people may have different conceptions in different academic domains (Lee, Johanson, & Tsai, 2008; Tsai, 2004). Tsai (2004) has classified secondary school students' conceptions of learning science into several categories: (1) memorizing, (2) preparing for tests, (3) calculating and practicing, (4) increase in knowledge and so on. Subsequently, an instrument for measuring secondary school students' conceptions of learning science was developed (Lee et al., 2008). Along this line, Wang et al. (2017) studied junior high school students' critical conceptions of learning mathematics in Taiwan and proposed the instrument, Conceptions of Learning Mathematics (COLM). According to Coimbra et al. (2015), AR can improve students' motivation and comprehension, leading to higher involvement with the content to be learned, so it may have some effects on the critical conceptions of learning mathematics. In the current research, the instrument designed by Wang et al. (2017) was chosen to measure students' conceptions of learning mathematics.

Approaches to learning mathematics
In Marton and Säljö (1976) view, approaches to learning are the ways in which learners process their academic tasks and which influence their learning outcomes. The approaches to learning could be classified as surface and deep approaches, and there is a statistically significant association between students' learning approaches and their science achievement (Okal, Tekkaya, Çakiroğlu, & Sungur, 2009). Learning approaches are related to students' learning motivations. Based on Coimbra et al. (2015) study, AR may have some effects on students' approaches to learning mathematics. But what about the effects on different students? In this study, the effects

Other Perusall Features

The screenshot displays the Perusall web interface. On the left, a navigation menu is highlighted with a red border. The menu includes sections for 'My Courses', 'Content', 'Library', 'Assignments', 'Chats', 'Groups', 'One-on-One', and 'Hashtags'. The main content area on the right shows a page of text from a journal article, with a search bar and various icons at the top. The text discusses self-efficacy in learning mathematics and science.

Perusall > Brit J Educatio... Page 4 A All comments ? Help

- My Courses
- Course home
- Settings
- Gradebook
- Student view
- Notifications
- Notes
- Add to my calendar

Content

Library

canvas flyer 007a
Brit J Educational Tech -...

Assignments

Jan 28: Test Perusall As...
Jan 28: Test Perusall As...

Chats

Groups

- Announcements
- General discussion

One-on-One

Hashtags

#grades
#features

and expectations regarding one's ability to achieve one's learning goals. It can be regarded as a personal feature of learning. People may have different self-efficacy levels in different academic domains. In the mathematics field, secondary students' learning self-efficacy could be characterized into higher and lower self-efficacy (Kvedere, 2014), and learners with different levels of self-efficacy may demonstrate different behaviors in lessons with AR technology. Shih, Chu, and Hwang (2011) also suggested that the impacts of technologies or environments on improvements in the learning of content by students with different backgrounds or different characteristics should be examined.

Previous studies have shown that technologies could engage students in learning activities and help them to identify themselves (Bodzin, 2008; Zucker, Tinker, Staudt, Mansfield, & Metcalf, 2008). Furthermore, Dede (2009) indicated that students in immersive environments like VR and AR may achieve greater learning self-efficacy, and another study showed that AR tended to provide students with particular gains in their self-efficacy and their understanding of the subject they had learned (Kamarainen *et al.*, 2013). These studies imply that AR learning environments have some effects on students' self-efficacy, and the same AR application might have different effects on different students. That is the potential research question of this study.

For the test tools of the mathematic self-efficacy, Lin and Tsai (2013) studied students' self-efficacy and approaches to learning science in junior high school in Taiwan and provided scales of science learning self-efficacy and approaches to learning science. Similar to the COLM (Conception of Learning Mathematics), Wang, Liang, Lin, and Tsai (2017) proposed instruments about Self-efficacy of Learning Mathematics (SLM).

Conceptions of learning mathematics

In the current research, conceptions of learning mathematics are used to describe the junior high school students' learning. Students' conceptions of learning refer to what they perceive and how they interpret their own learning (Richardson, 1999). In short, the conceptions of learning could be described as "What learners actually mean by learning," and different learners may have different conceptions (eg, learning to increase knowledge, learning as memorizing, etc.).

© 2018 The Authors. British Journal of Educational Technology published by John Wiley & Sons Ltd on behalf of BERA

From the left menu, you can navigate to your other courses which have Perusall integrated, check course settings, check the Gradebook, see the student view of Perusall, see notifications, see notes which are not exclusive to the assignment but are a general query and commentary of the class as a whole, add assignment dates to the calendar, view the entirety of the content uploaded, see chats between groups and individuals (assigned by the instructor), and make and view custom hashtags for viewing assignments and conversations.