User Manual

Stakeholder Communication Plan (SCP)

During the 15th of May 2020 meeting, the Macquarie School of Education sponsors confirmed the support and maintenance requirements for the handover of the project at the end.

Significantly, the sponsor's agreed that in terms of training they would prefer it to be a comprehensive written manual in plain english over in person explanation and demonstration. The significance of a plain english written manual is firstly, for ease of comprehension and to avoid misunderstandings. Secondly, for technical professionals to have a manual for integration based on the particular product's systems applied. Lastly, for a seamless handover to another PACE group of students if required.

Regarding the help the Sponsor's would need during handover, the Sponsor's requested that the manual include likely help scenarios for common pain points and that sufficient information about definitions, context and reasoning is provided about each of the systems.

In terms of both the installation and configuration of the end product of TPP, the sponsors requested that all systems and functionality be defined and explained in plain english. More specifically, all required installation and configurations of TPP will be stored on Github where they can change the password afterwards and the corresponding documentation will be emailed to them in a timely manner.

Handover Training (HT)

This document section is intended for use by new developers picking up this project. The current assumption is that our work will be continued by another PACE team in the future, so this Handover Training document includes an explanation of how to access and navigate the project.

Development Environment Setup:

The following section describes how to prepare your PC for working on the project.

Python IDE:

The project has been written in Python, and developed using PyCharm. Any Python IDE can be used based on preference. PyCharm is free, and can be downloaded from here (https://www.jetbrains.com/pycharm/download/).

MySQL Server and Workbench:

The project uses MySQL as a database engine. A windows version of MySQL can be downloaded here (https://dev.mysql.com/downloads/installer/). Mac and Linux versions are also available. MySQL workbench is a convenient tool for interfacing with your local MySQL server, and can be downloaded here (https://dev.mysql.com/downloads/workbench/).

Git:

PyCharm includes Git version control capabilities. However, if you are using another IDE, you may wish to use Git as a standalone application. Git for Windows can be downloaded here (https://gitforwindows.org/).

Project Installation:

The following section describes how to import and set up the project on your PC.

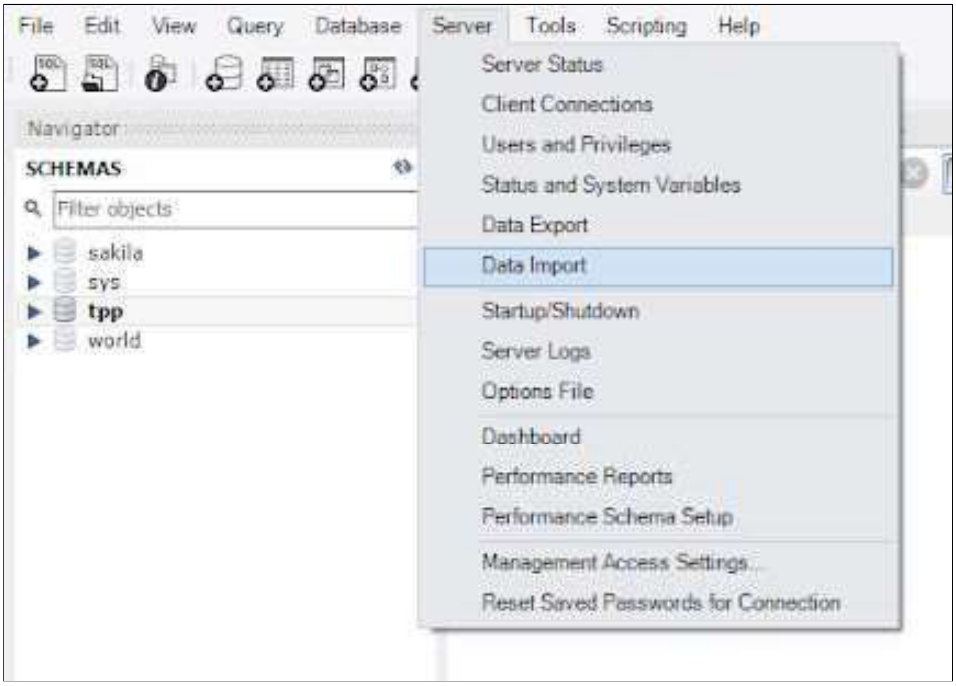
Clone the Repository:

The project repository is hosted on Github here (https://github.com/TPPProject/teaching-performance-platform). To access it, log in using the TPPProject account. Account credentials will not be published here for security reasons, but should be available from the clients. The steps for cloning a new project using PyCharm can be found here (https://www.jetbrains.com/help/pycharm/manage-projects-hosted-on-github.html).

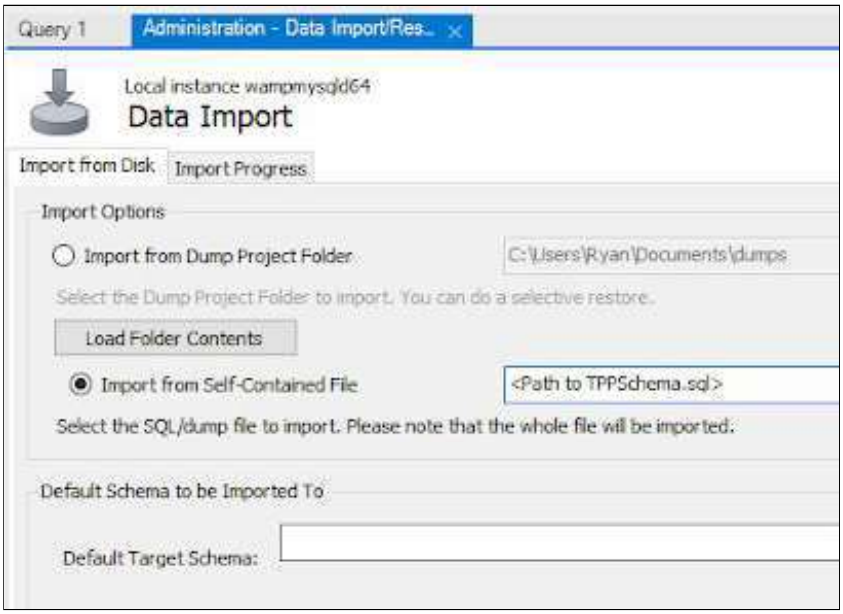
Setup the Database:

The project assumes that there is a valid database it can connect to, and will not automatically generate the necessary tables. The repository contains a file called “TPPSchema.sql”. Using MySQL Workbench, you can automatically create a new DB schema with this file using the following steps:

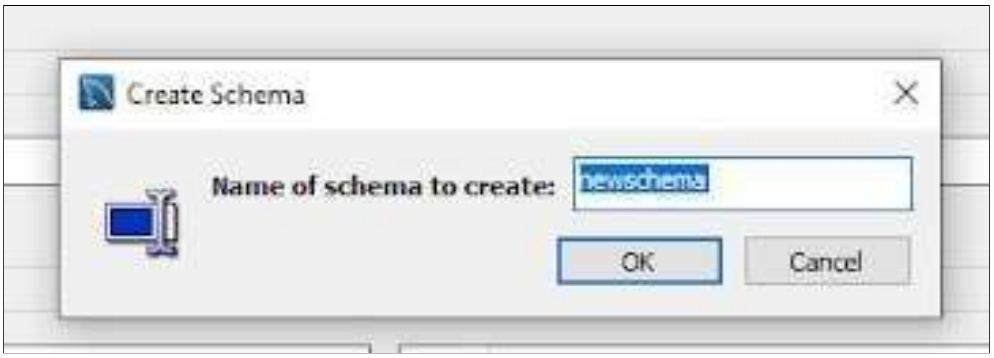
1. Select Server > Data Import



2. Select “Import from Self-Contained File” and select the TPPSchema.sql file



3. Create a new schema to insert the data into. We named this schema “tpp”, but it can be named anything



4. Then select start import

Once this process has finished, you should see the new scheme appear containing all the necessary tables after you refresh the schemas tab in the navigator on the left.

The project still needs to be connected to the database. You can find the connection string in “main.py”. The connection string uses the following format:

“mysql+pymysql://**<username>**:**<password>**@localhost/**<schema-name>**”.

Update the bold sections with valid values, and the application will be able to connect to the database. For development purposes, you can use the root user or create another with read/write permissions for only the tpp schema.

Updating Dependencies:

The project repository includes the virtual environment, so dependencies should be included in the original download. If any are missing or broken, view “requirements.txt” for a list of required python libraries. To install a Python library, use the “pip” tool from the terminal in PyCharm.

Project Documentation:

The following section explains the structure of the project and how to expand upon it.

Project Structure:

The project’s structure is based on Bottleplate by Rolinh (https://github.com/Rolinh/bottleplate). While the project does not fully implement all Bottleplate functionality, it is worth reviewing when adding additional functionality that doesn’t match any existing patterns.

Assets:

The assets folder contains all static assets. This includes CSS, Javascript, and images. In addition to custom CSS and Javascript, this folder also contains downloaded versions of Bootstrap and Handlebars, which may need to be updated.

Config:

This folder is currently underpopulated, containing only "routes.py". The routes file contains the code that maps URLs to Python methods through Bottle. Ideally, this folder would also contain files that define configuration strings like the DB connection string, but that has not been implemented. See Bottleplate for potential implementations.

Controllers:

Controllers are responsible for handling HTTP requests and returning data to the client. All controllers inherit from ApplicationController, though currently ApplicationController contains no behaviour. Controllers process request data into models, then pass those models to their respective processor. They then convert the returned value into an HTTP response.

Models:

Models define objects from the database. Each table has a corresponding model. These models extend declarative_base() from SQLAlchemy, which allows them to make use of SQLAlchemy's ORM functionality. Each model includes a json_dict() method, which returns a dictionary of their values. This method is used by controllers when returning values to the client. Bottle automatically serializes dictionaries into JSON when responding to web requests.

Processors:

Processors bridge the gap between controllers and models. By separating processors from controllers, business logic is separated from web request logic. Processors should only handle models, not JSON, nor SQL. To facilitate error handling, processors return three values. The first is the return data, as expected. The second two are an error message and HTTP response code, respectively.

Views:

The views folder contains HTML templates, both for Bottle and Handlebars. Each .tpl file outside of the subfolders represents an HTML page, and is dynamically inserted into "layouts/base.tpl" using Bottle's rebase() function.

Handlebars_templates:

This subfolder contains both plaintext templates (.handlebars) and precompiled templates (.precompiled.js). The project expects that handlebars templates will be precompiled. You can read about that process here (https://handlebarsjs.com/installation/precompilation.html).

Layouts:

This subfolder contains .tpl files that are not complete pages on their own. “Header.tpl” and “footer.tpl” are added at the beginning and end of each page, and “base.tpl” is the main template that all other pages are inserted into.

Main.py:

This file is the startup point for the project. Currently, it initializes the Bottle server, installs SQLAlchemy into the server instance, sets up the routes from “routes.py”, and starts the server.

Extending Functionality:

A common task in developing this project is adding support for an additional data type similar to video, or submission. The following steps explain how this should be done to maintain consistency with the rest of the project.

1. **Create a new table in the DB.** This can be done easily with MySQL Workbench.
2. **Create a new model.** The new class must extend Base, or SQLAlchemy won’t know to use it. The model should define Column() objects for each column in the related DB table. The model should also define classmethods for its creation, and a json_dict() method for converting an instance's values to a dictionary. Current models use two creation classmethods, one where the primary key ID of the model is known, and one where it is not.
3. **Create a new processor.** This new class should extend ApplicationProcessor, though this has no functional purpose currently. Standard processor methods usually include create, update, and delete methods for the new model. These methods must accept the DB connection object as an argument if they are to connect to the DB, as this will be passed by the controller created in the next step. The processors methods should return three values, as stated above.
4. **Create a new controller.** Controllers should extend ApplicationController in a similar way to processors. Each method in this new class should correspond with an intended endpoint, and will likely have a partner method in the relevant processor. When values are returned from the processor, the controller should check for error messages, and return the error message if one was encountered. Controller methods that are expected to interact with the DB must have an argument named “db”. This argument will be automatically filled by Bottle. HTTP request data can be accessed through the “request” object. This does not need to be stated as an argument, as it is automatically supplied by Bottle.
5. **Update “routes.py”.** Each new controller method will have to be added to “config/routes.py” before they will be accessible as endpoints. If you are using dynamic routing, be sure that the name of the variable in the route matches the name of an argument in the specified method.

With that completed, the new model should be available via the created endpoints. The existing files should provide a sufficient template for reference.

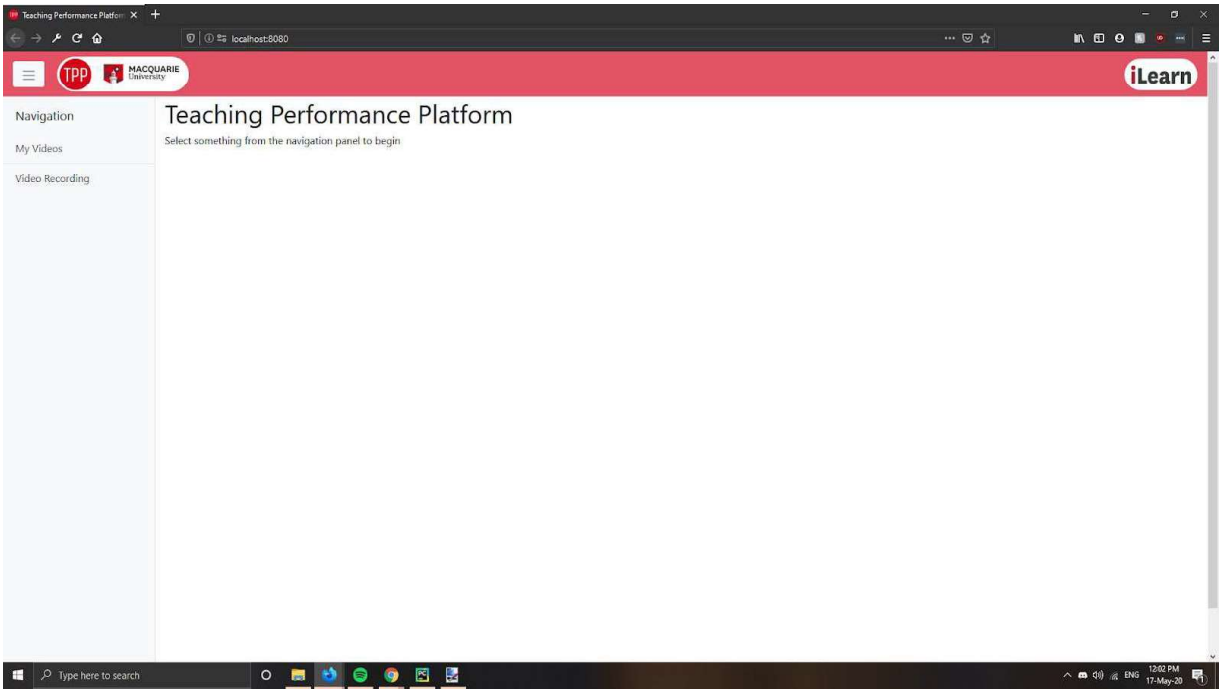
User documentation (UD)

Teacher

How to use

Accessing the TPP via iLearn

1. Log into the Teaching Performance Platform via iLearn: https://ilearn.mq.edu.au/login/index.php
    - Your iLearn username and password will be your oneID Portal login details.
    - If you cannot login to iLearn after checking that you have entered your username and password correctly, you should contact the IT department to ensure that your login details were correctly transcribed.
2. When you log into iLearn, you will be on the home page, where you will see all the units you are currently assigned to. Select the unit that requires the video submission.
3. This will direct you into the page for the selected unit. Select the title “assessments” by clicking on the “assessments” topic to expand the section.
4. This will reveal any currently active assignments and their relevant submissions. Submissions will be organised in a list. A link that will take you to the TPP will also be visible on the screen. Click on this link to be redirected to the website. You will not be required to sign in again as you are already logged into the iLearn system.



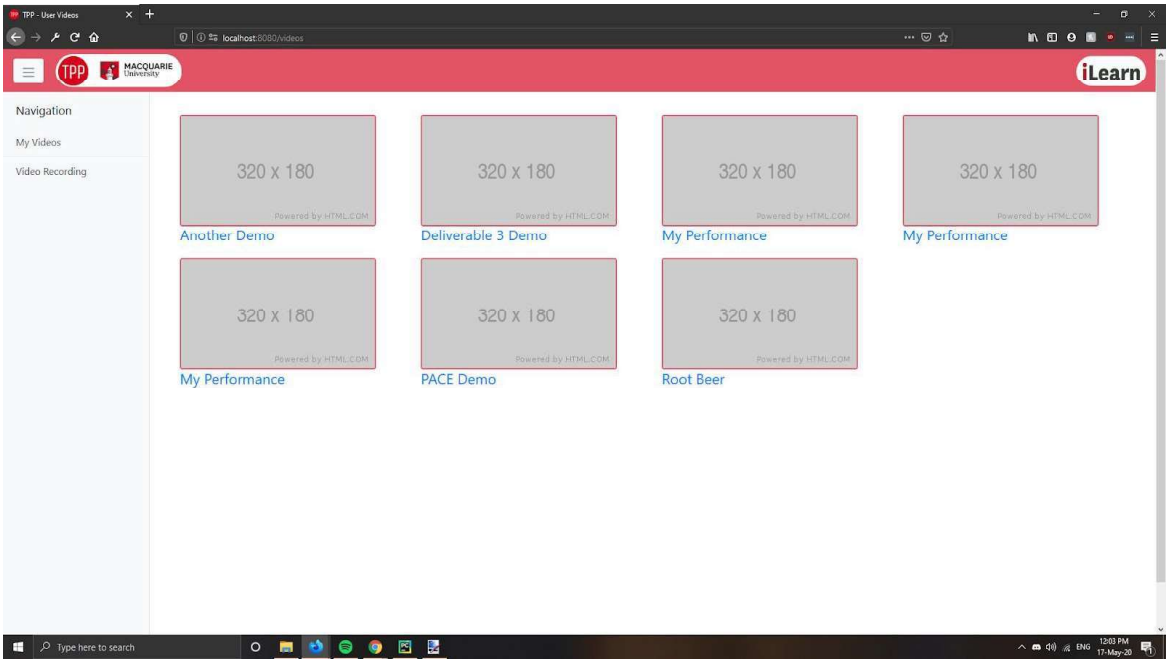
Creating Assessment link

1. Follow the previous set of instructions (“Accessing the TPP via iLearn”). Within the “assessments” topic you will find an option for creating assessments.
2. Click on “Create assessment submission”. This will open a prompt asking for you to set the due date and time.
3. Input the date and time, then select “confirm”. This will create an assessment link that is viewable to both you and the students within the unit.

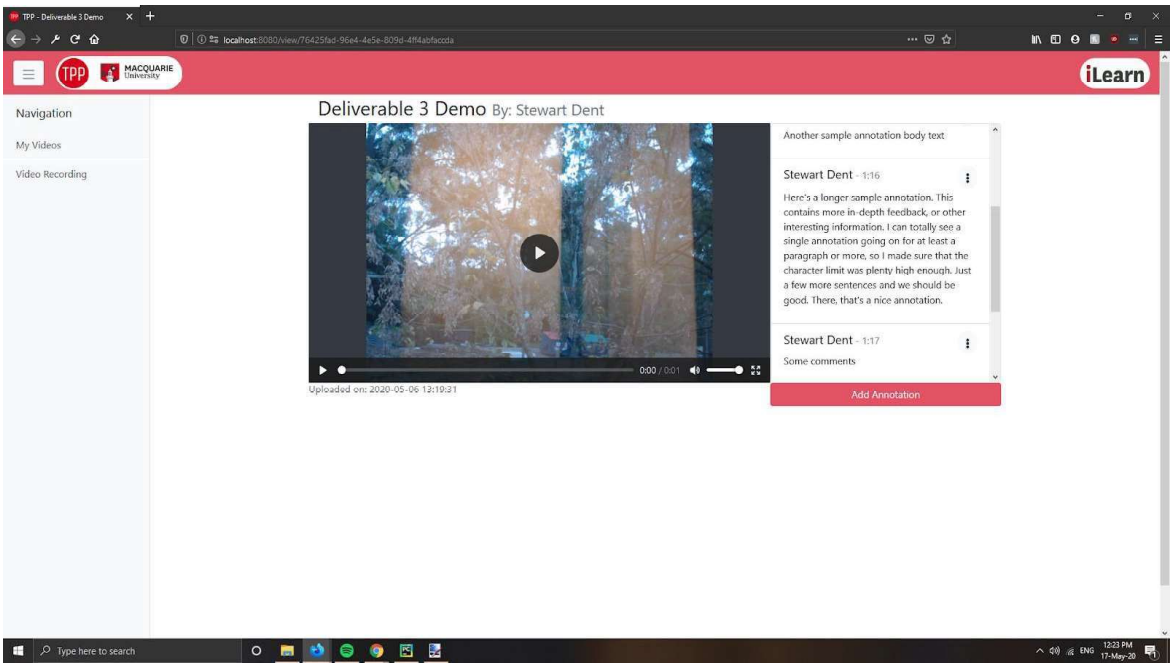
Viewing submitted videos and adding feedback annotations

These instructions assume that an assessment link has already been created (see above).

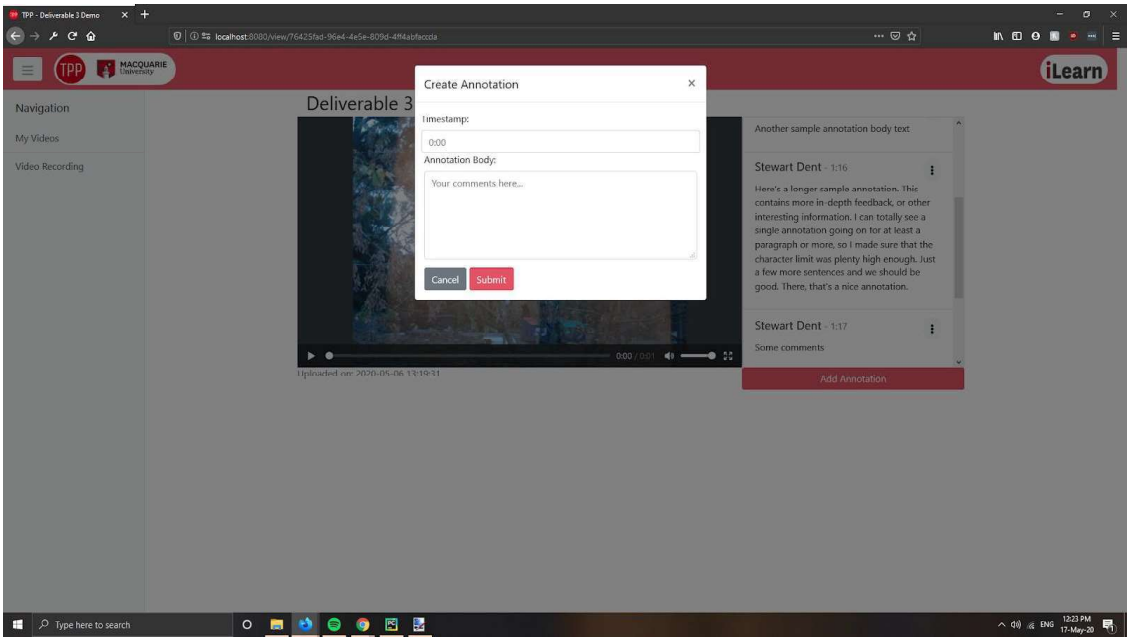
1. After logging in (once again following the instructions listed in “Accessing the TPP via iLearn”), in the “assessments” under the assessment link (see previous section “Creating Assessment link”) will be a list of videos submitted by students via TPP.



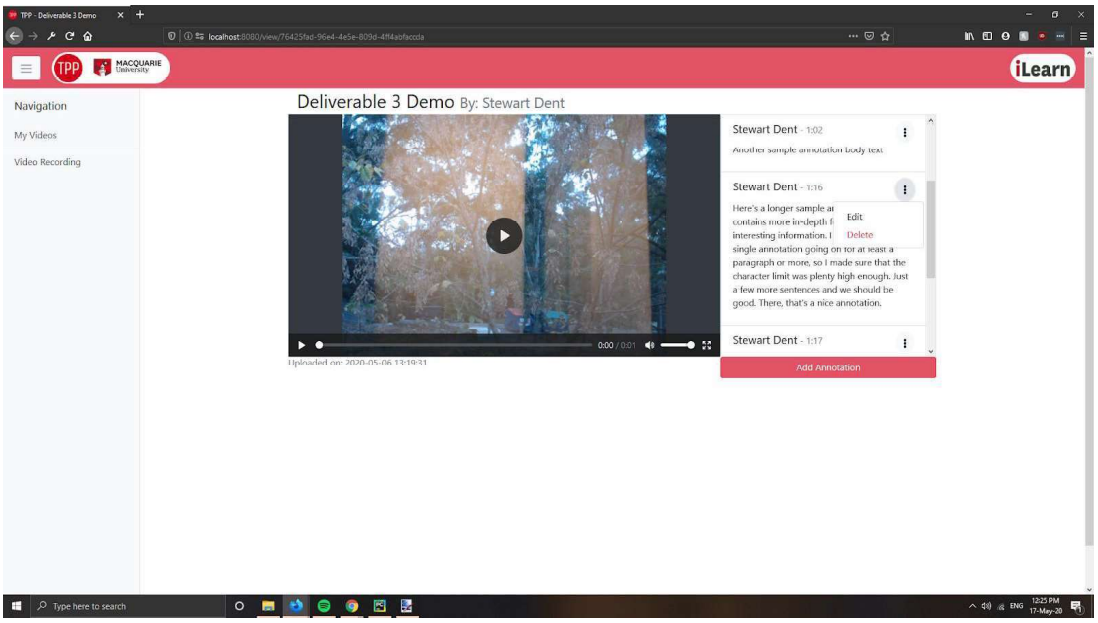
2. Click on the video you wish to proceed with. The TPP should prompt you to the video where you have the option to review the video and add your own annotations.



3. Click the “Annotate” button to add or delete annotations to the video. Click the “Add Annotation” button to make an annotation on the video. You will be able to see the annotations on the right hand side of the video depending on the time you have annotated within the video. Click the “Delete Annotation” button to remove an annotation made on the video. The annotation will not be seen on the right hand side after it has been removed.



4. When finished click on “click to finish” to save and resubmit the video with the relevant feedback annotations. The new annotations should be viewable to both you and the student.



Student

How to use

The following instructions provide an overview on how to perform various functions on the Teaching Performance Platform for a student user.

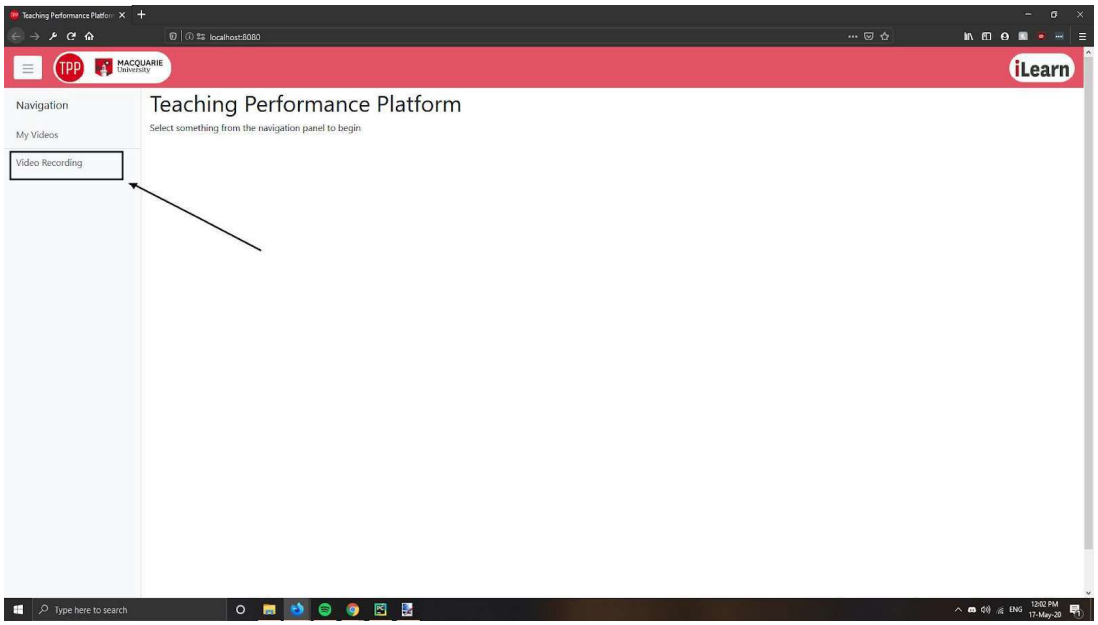
Accessing the TPP via iLearn

1. Log into the Teaching Performance Platform via iLearn: https://ilearn.mq.edu.au/login/index.php
    - Your iLearn username will be your Macquarie Student ID Number. This is an 8-digit number that can be found on the back of your Campus Card.
    - Your iLearn password will be your oneID Student Portal password.
    - Note that both your username and your password are CaSe SeNsItIvE.
    - If you cannot login to iLearn after checking that you have entered your username and password correctly, you should contact the IT HelpDesk.
2. When you log into iLearn, you will be on the home page, where you will see all the units you are currently enrolled into for the semester. Select the unit that requires you to submit an annotated video for assessment by clicking on the unit's title.
3. This will direct you into the page for the selected unit. The unit will be divided into different sections, that are categorised by topic or weekly format. Select the title "assessments" by clicking on the "assessments" topic to expand the section.
4. This will reveal any current, past or future assignments including the marking rubric and any additional details. You could be asked to submit an annotated video submission for an assessment. There will be a link placed by the unit conveyor or tutor that links you to the TPP. Click on this link to be redirected to the website. You will not be required to sign

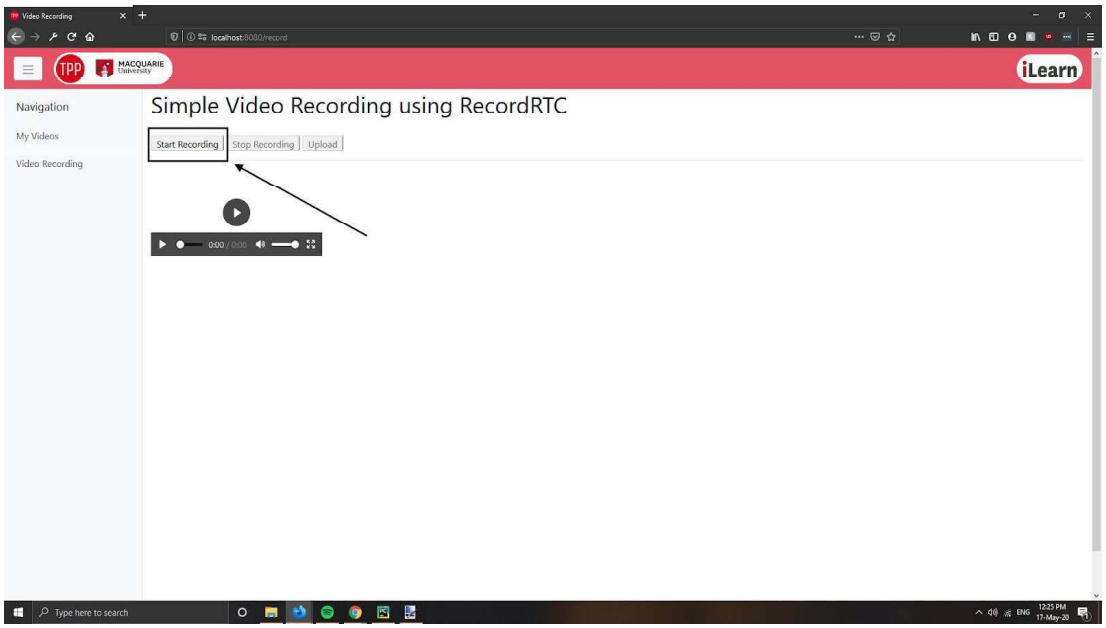
in again as you are already logged into the iLearn system.

Recording a Video for Assessment

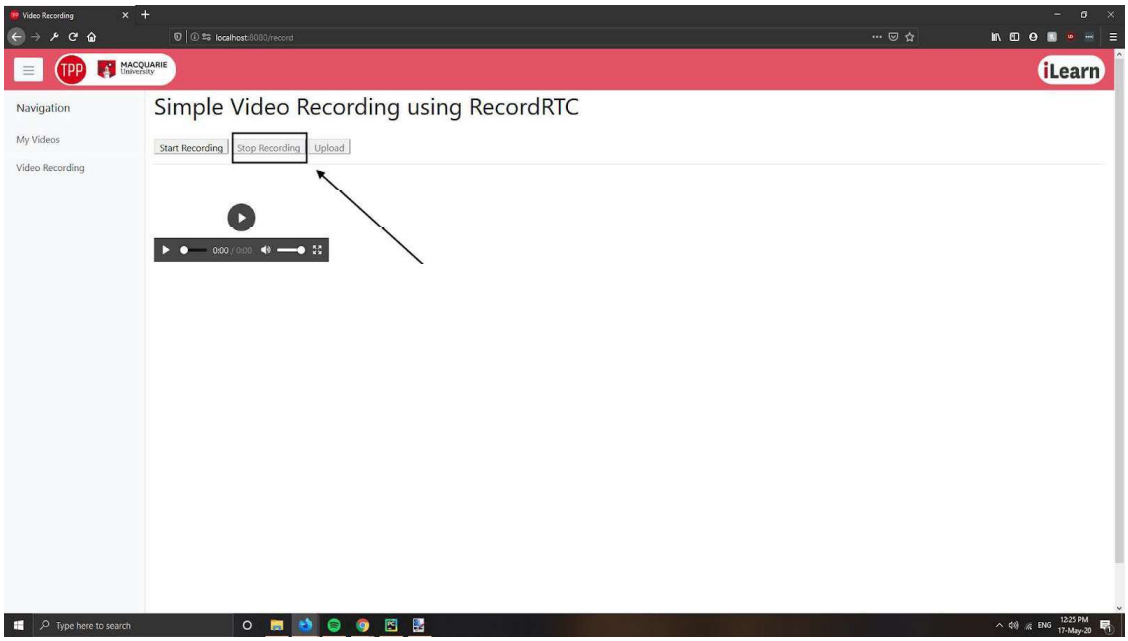
1. After logging in, you should currently be on the homepage of the TPP system. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options.
2. Select the “Video Recording” option to open up the video recording webpage.



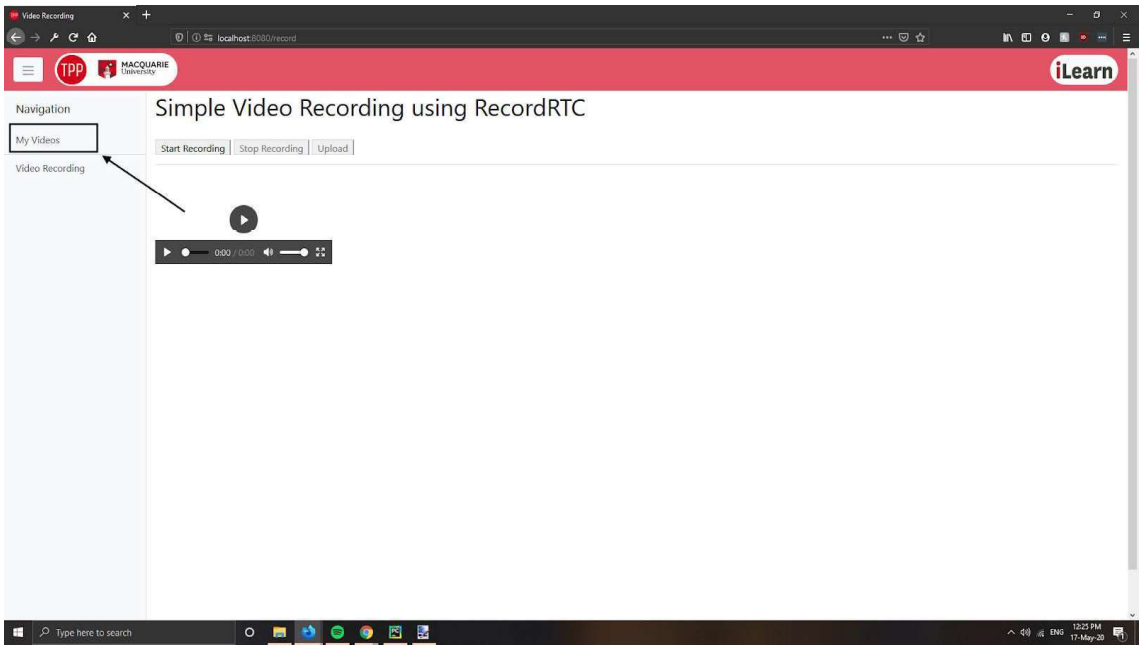
3. You will then need to click on the “Start Recording” button to start recording your video.



4. Before this, the TPP will require you to input a title for the video recording. Enter the title you wish to name your video such as “Assignment #1 Video Submission”. The video should not exceed the allocated time assigned for the assessment. If you submit a video that is greater than those allocated minutes, you may incur a penalty.
5. After you have recorded the video for a desired amount of time, click on the “Stop Recording” button to end the recording.

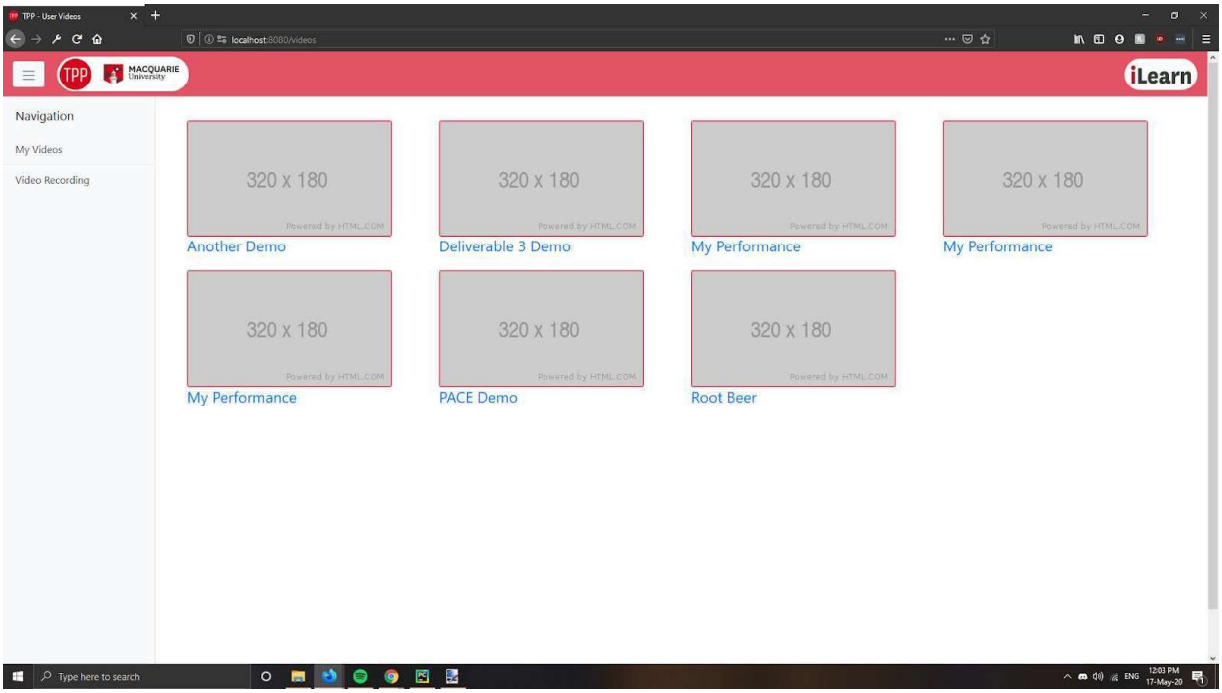


6. The TPP will save the video to the “My Videos” page, where you will be able to see all the past and current videos that have been recorded.



Delete Video

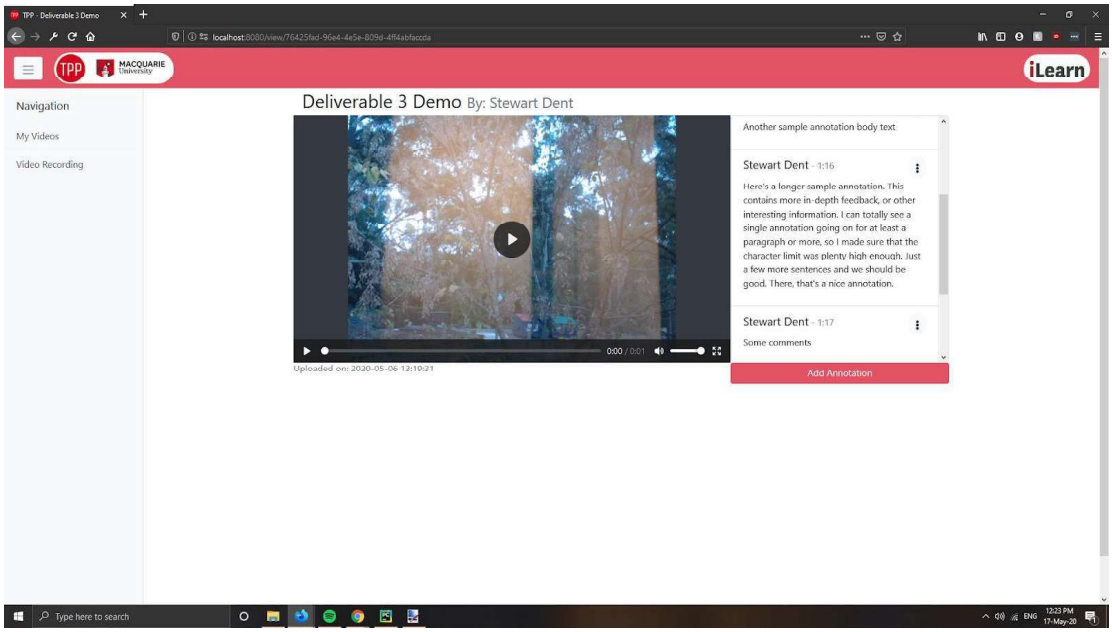
1. After logging in, you should currently be on the homepage of the TPP system. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options.
2. Select the “My Videos” option to view all auto-saved videos and edited videos that have been recorded on the TPP.



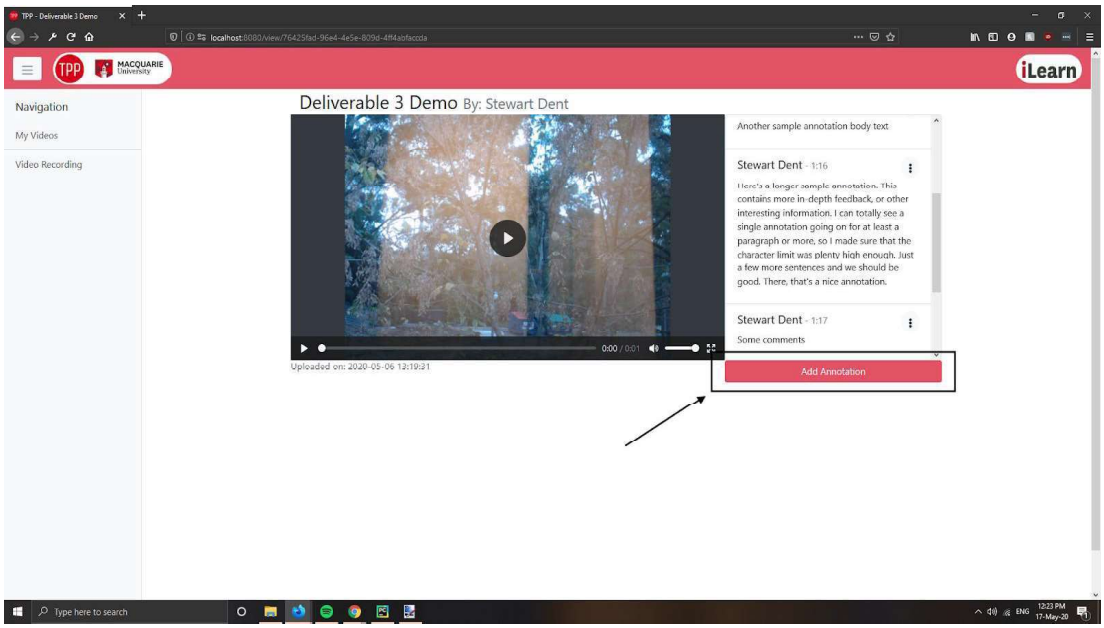
3. Click on the video you wish to proceed with. The TPP should prompt you to the video where you have the option to review the video, edit annotations or delete the video that has been uploaded.
4. Click the “Delete Video” button to remove the video from the TPP system.

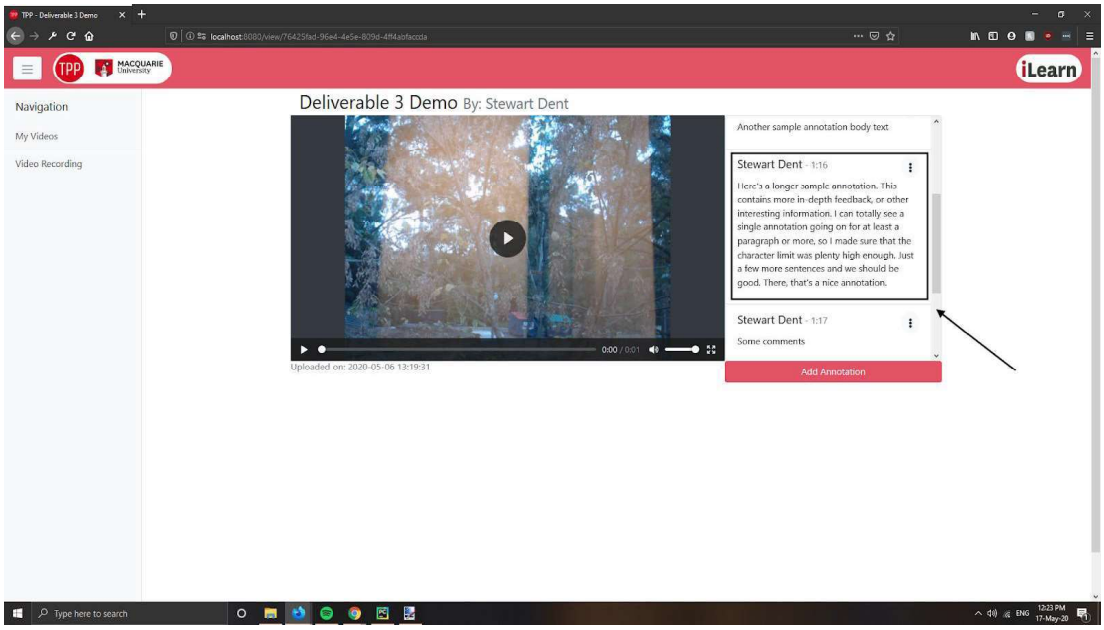
Editing Video for Assessment

1. After logging in, you should currently be on the homepage of the TPP system. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options.
2. Select the “My Videos” option to view all auto-saved videos and edited videos that have been recorded on the TPP.
3. Click on the video you wish to proceed with. The TPP should prompt you to the video where you have the option to review the video, edit annotations or delete the video that has been uploaded.

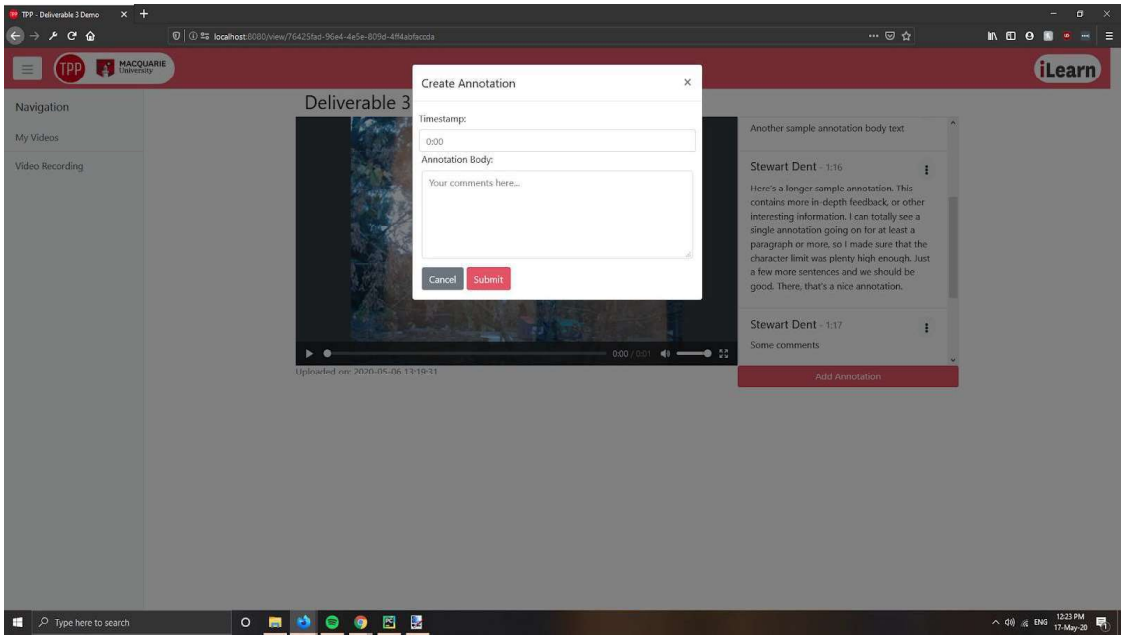


4. Click the “Add Annotation” button to make an annotation on the video. You will be able to see the annotations on the right hand side of the video depending on the time you have annotated within the video.

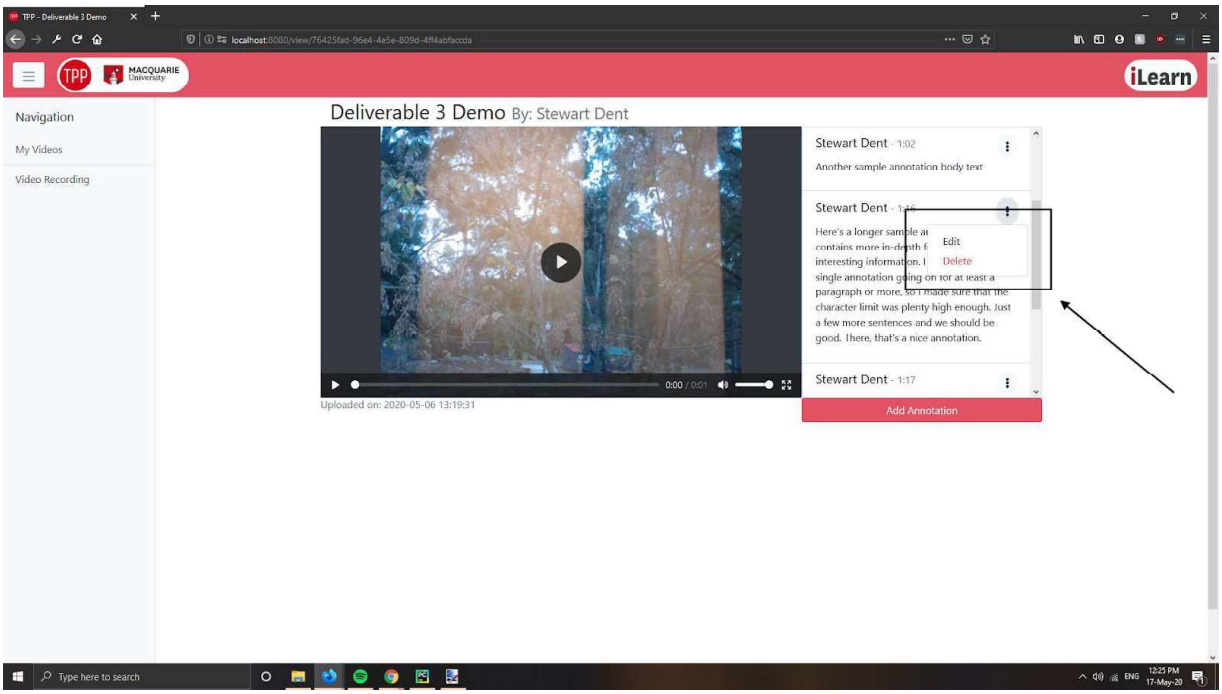




5. Select the timestamp where you wish to add an annotation and write the message in the “Annotations Body”.

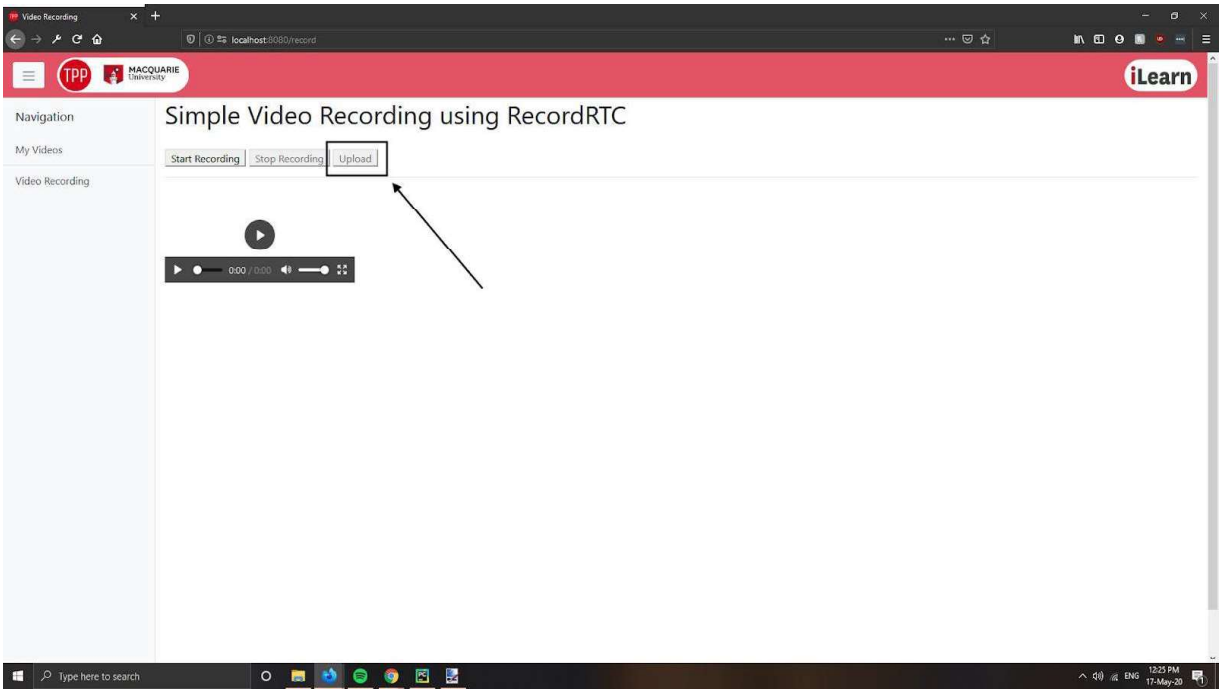


6. Click the “Delete Annotation” button to remove an annotation made on the video. The annotation will not be seen on the right hand side after it has been removed.



Submitting Your Video Annotations Video for Assessment

1. To submit a video for an assessment, you must have already had a recorded video that has been annotated and edited where necessary. It is your responsibility to check your submission is correct before finally submitting the video. You will not be able to re-submit the video if it has been submitted incorrectly. If you submit a wrong video or a video in the wrong format, you will receive zero marks. You must submit before or on the day of the due date. If you submit a video after the due date you will incur a late penalty (specified in the unit guide) unless a special consideration request has been approved.
2. After logging in, you should currently be on the homepage of the TPP system. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options.
3. Select the “My Videos” option to view all auto-saved videos and edited videos that have been recorded on the TPP.
4. You must select only one video to submit for assessment. Click on the video you wish to proceed with. The TPP should prompt you to the video where you have the option to review the video, edit annotations that have been uploaded.
5. Click the “Upload” button to submit the video for grading.



View Video Assessment Submission

1. After logging in, you should currently be on the homepage of the TPP system. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options.

2. Select “View Video Submission” button to access the video. You may respond to teacher feedback by commenting on the video annotations and skip to a selected timeframe.

Log Out

Once you have finished using the TPP, you should log out of your account, exit or quit the browser. To log out of TPP, click on the navigation panel which is found at the top left hand corner of the screen and select the option to Logout. If you do not log out of the TPP, exit or quit the browser, other users can continue to use your account.

Browser Requirements

To access the Teaching Performance Platform resources and activities, a browser such as Chrome or Firefox is required. It is recommended that browsers are updated to the most recent version. The TPP will operate on the following browsers:

- Firefox
- Chrome
- Safari for Mac users.
- Internet Explorer 8 or later

Hardware Requirements

Desktop

	macOS	**Windows**
RAM	128MB or more RAM	128MB or more RAM
Operating system	macOS 10.13 (High Sierra) or higher	Windows 10 (64-bit) or higher
CPU	Intel-powered Macs, (2006 onward)	Pentium 4 processor or higher

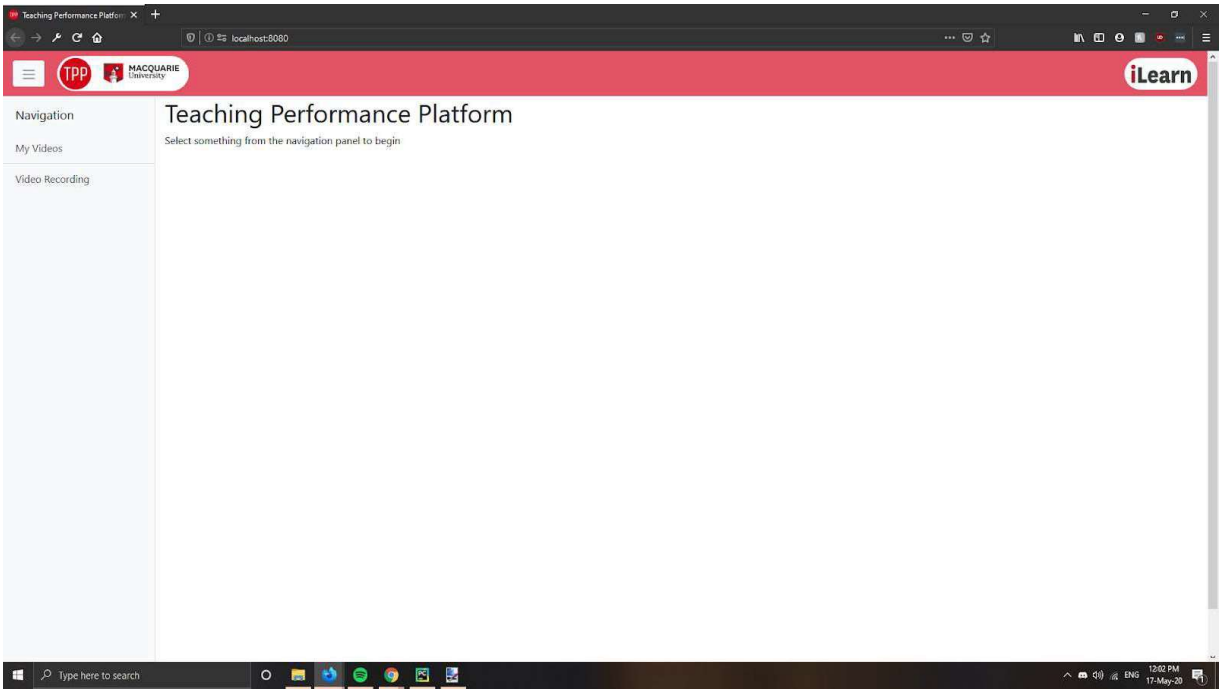
Mobile

	Apple	**Android**
CPU	412 MHz ARM 11	1GHz single-core
RAM	128MB or more RAM	512MB or more RAM
Other details	Any device capable of running iOS 4 or greater	A resolution of 480x320 in landscape mode

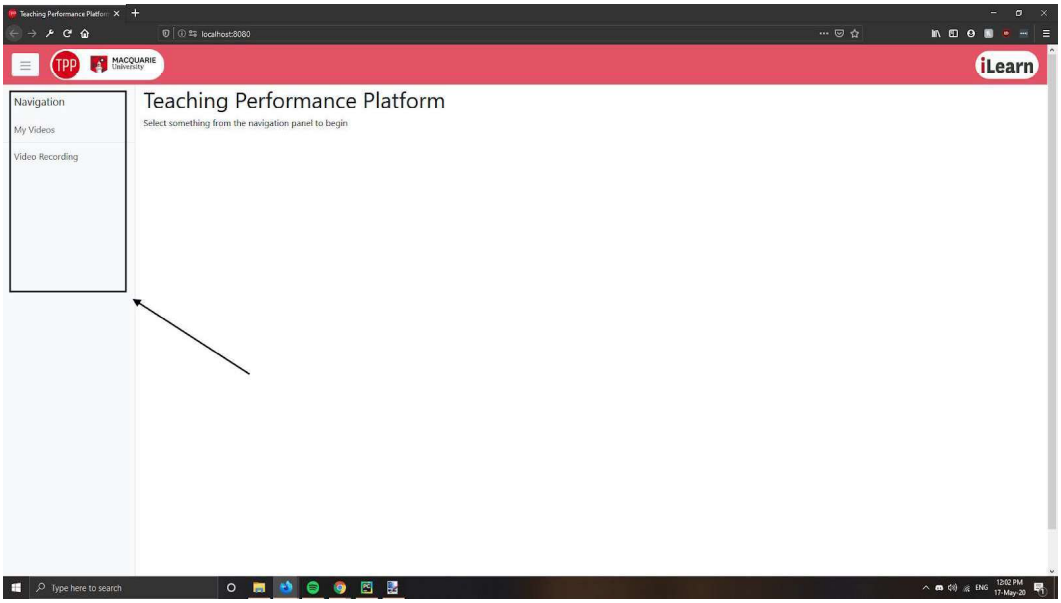
Features

Home Page

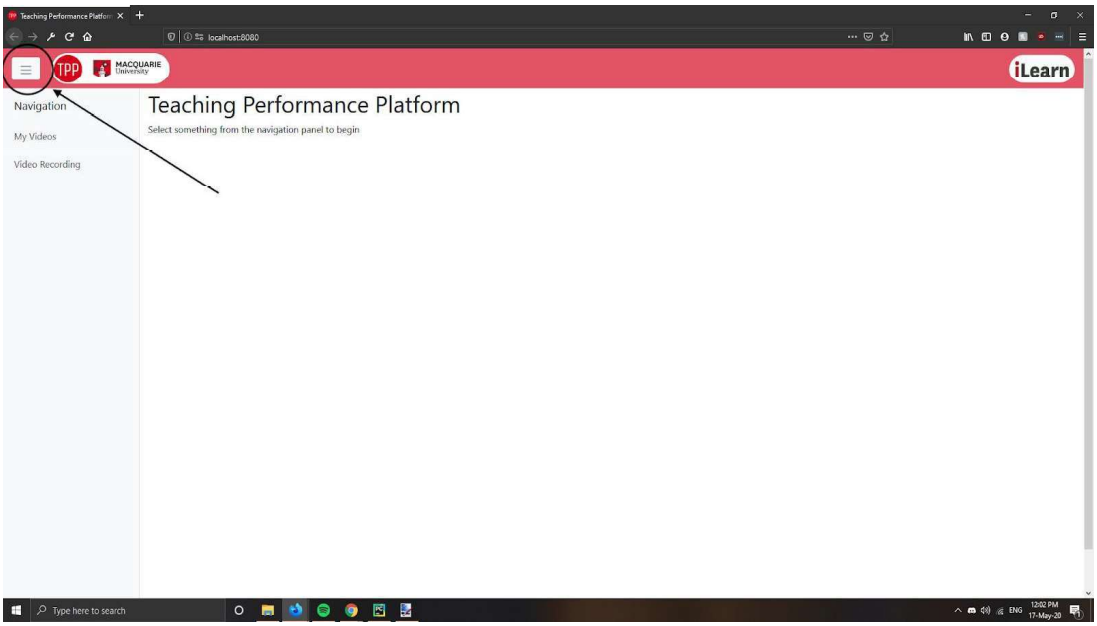
After logging into the TPP, the first page you will see is the home page. You can also navigate back to this page by clicking on the Macquarie University Logo at the top of the page.



Navigation Panel



When you are redirected to the TPP, you will land on the home page. The Navigation Panel should automatically be opened, if it is not, click the icon at the top left hand corner of the screen to display a list of options. To close the navigation panel, click on the icon again. You can choose from a variety of options such as My Videos, Video Recording & View Video Submission. This feature will be available on every web page so users can navigate through different functionalities quickly.



FAQ

How can I report a problem or error on the website?
If you run into any problems or errors on the TPP, please contact the unit conveyor or tutor via their Macquarie email address. Please include extensive details about the issue you're experiencing and any error messages and screenshots, if possible.

Why can't I view the video I uploaded?
There are two possible reasons for this: your device is not currently connected to the internet, or it has been a few months since the uploaded video was submitted. In the former case, the recording is only accessible on TPP itself and is not saved on your device. In the latter scenario the video has already surpassed it's upload time limit and has been automatically deleted. Both of these countermeasures are to ensure compliance with Australia's privacy requirements (note that removal should not happen until after the semester is over, if you are unable to access a submitted video before the end of semester, with internet access, report the problem immediately).

Why do I need TPP? Can't I just record with my phone's default application?
As previously mentioned, TPP is a method with which to take recordings while working around the aforementioned privacy laws. Keeping a recording of students that is unaccounted for is strictly prohibited.