## HISTORY

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<th>Date</th>
<th>Authors</th>
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1 Introduction

Tutorial module was conceived to provide a platform for enabling study groups with interactive and collaborative features. The study group is moderated with help of a remote tutor. Currently, the interaction is over audio only.

This document describes the objectives and functionalities of QEEE Tutorial Module.

2 Objective

- Provide a platform which enables communication between a remote tutor and a group of students who wish to study collaboratively.
- The platform will allow the external remote tutor to use the interface to engage in one-on-one interaction through text, audio.
- The platform will host and allow sharing of any educational content in video, audio, document format in synchronization

3 Functionalities

This section describes the different functionalities available in Tutorial module.

3.1 User Profiles

Tutorial module has 2 user profiles.

1. **Moderator**: The remote tutor for the session/study group. Has complete control of the interaction and collaboration windows. Can choose to give/revoke controls for other users. Only one moderator exists for a session.

2. **Student**: All users other than Moderator are Students. Can hear the audio of the moderator and receive the collaborations (white board, video/audio content synchronization). Can interact and collaborate with Moderator.
3.2 Tutorial Module Window

The above window is divided into **Collaboration Window** and **Interaction Window** for intuitive explanation of functionalities.

3.3 Components of Interaction Window:

3.3.1 Audio Interaction

This window contains the options related to Audio interaction. The options are user-specific, thus different for Moderator and Student profiles.

3.3.1.1 Moderator:

For Moderator, 3 tabs are available.
**My Audio:** Moderator should click on the Start button to start the audio transmission. The browser may prompt to allow the use of microphone. Please click on Accept/Continue.

**Mic level:** Indicates the microphone status.

*Mic level* indicates the level of audio captured through the mic. If Mic level is -1, the mic is not working. Click on ✎ to Refresh the audio devices and check again.

**Interaction Management:** Displays the Active users and Waiting users (from “Student” users). Clicking on ✎ the audio interaction with the user.

**Active Users:** Displays the user name currently interacting with Moderator.

**Waiting Users:** Displays the user name currently in Queue interact.
### 3.3.1.2 Student

3 tabs are available for Student profile.

**Start PTT:** This button is enabled only when Moderator has started the interaction. When a user wants to interact with Moderator, the Start PTT button has to be clicked. The browser may prompt to allow the use of microphone. Please click on Accept/Continue.

At a time 5 students can be in interaction with moderator. If more than 5, “You are in queue” message is displayed and automatically the user is moved to interaction when a user quits the interaction.

**Pre-test:** to do the testing with head phone to make sure the setup.

**Interactions:** Displays the user name currently interacting with Moderator.

### 3.3.2 Text Chat

- Shows the chat conversation
- Lists the users logged in

### 3.3.3 Notes

Text notes can be typed and saved for further reference.
3.4 Components in Collaboration Window

The functionality of collaboration window is content synchronization across all users of the session. By default, Moderator has the control. The content viewed by the moderator is synchronized to other users of the session.

3.4.1 Collaborative components

3.4.1.1 Media: Audio/video/document content
Content is uploaded in prior to the session. Media tab displays audio/video content. Documents tab displays pdf documents. Moderator can select the file under Videos tab and use the video/audio player controls. The same is broadcast to other users in session.

3.4.1.2 Whiteboard: Drawing canvas
Whiteboard is a drawing canvas used for illustrations. When Moderator draws an object on the canvas, it is synchronized to other users of the session. Upto 5 screens of canvas can be emulated.

3.4.1.3 ScreenShare:
Screen share is used to share your screen. A Java plugin needs to be installed on the machine which user uses. User has to communicate through chat/voice that screen is shared.

3.4.2 Giving Collaborative Control to other users
The Moderator can give control to users for collaboration.

The user can be selected from the Select drop-down list

Click on give control. On giving control, user has the complete control of Collaboration Window.
Moderator can take the control from the user by clicking on [revoke back].

Note: Interaction Control and Collaboration Control is disjoint. I.e. Interaction can be with one user and Collaboration can be with another user at the same time. Interaction control is given through Handraise request initiated by Student. Collaboration Control is initiated by Moderator.