
Release Notes for CAE LearningSpace Enterprise 2019 Fall

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Important Note about Data Security

Important note to all customers upgrading to CAE LearningSpace Enterprise:

The Enterprise 2019 fall release for **CAE LearningSpace** is aiming not just to become the most secure release ever, but also to require the least effort in preparing client computers for access to the **CAE LearningSpace** system. To accomplish this goal, CAE LearningSpace has become completely plugin-free, which brings changes to how videos are delivered to the browser and how the built-in digital intercom works.

The following list covers the essentials for upgrading to CAE LearningSpace Enterprise:

- All cameras and video devices directly connected to the system must support the H.264 compression standard.
- All audio encoders connected to the system must support the AAC audio compression standard.
- Google Chrome is the only browser supported, which has all the required technologies for the plugin-free video delivery and digital intercom functionality
- An SSL certificate must be deployed to the **CAE LearningSpace** system to utilize the digital intercom functionality

Additional information regarding SSL certificate usage: CAE strongly recommends installing a valid SSL certificate for use in **CAE LearningSpace**. The securely encrypted HTTPS traffic will minimize the risks that are inherent to applications connected to the Internet.

Additionally, the Intercom functionality of CAE LearningSpace requires the web browser to have access to the microphone of the client PC, which in turn requires a secure HTTPS connection to the CAE LearningSpace server. It is the responsibility of the end-user institution to provide the SSL certificate.

New Available Languages

CAE LearningSpace has added Traditional Chinese, Polish, and Welsh to its scope of supported languages.

Notification Feature

From now on **CAE LearningSpace** includes a notification feature which notifies users when new software updates are available.

Users may receive the following notifications:

- **Messages** – notifications about general changes such as system requirements (e.g., supported browsers)
- **Software updates** – notifications about software updates (Software updates need to be approved by an Administrator.)
- **Feature updates** – notifications about improvements of existing features or new ones. (Feature updates can be optionally enabled or disabled.)

Directory Server (LDAP) Synchronization

The directory server integration in **CAE LearningSpace** has been extended: it now supports multiple directory servers and includes user data synchronization.

Import user data from your preferred directory server to **CAE LearningSpace** to manage user data more efficiently.

Also, synchronize user data of specific groups to ensure user details are the same in **CAE LearningSpace** and your organization's directory server. There are two authentication modes: using full DN or resolving sAMAccountName. When enabled, LDAP authentication can be set independently for each user, or it can be set up for a whole group.

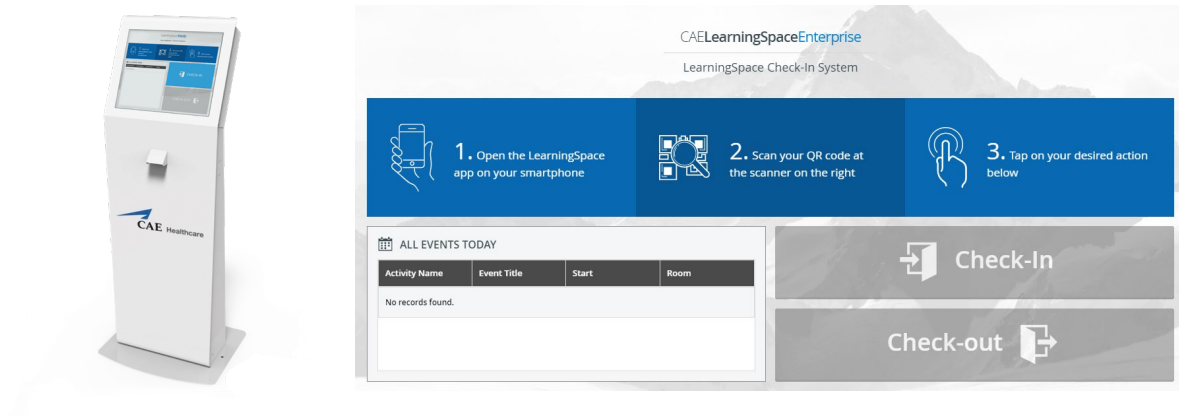
Contact your organization's network administrator or IT professional to help you configure LDAP synchronization or authentication in **CAE LearningSpace**.

Strong Password Enforcement

To enhance the security of your user accounts, **CAE LearningSpace** checks for weak passwords when users are created. Password validation from now on meets the industry standard for strong passwords.

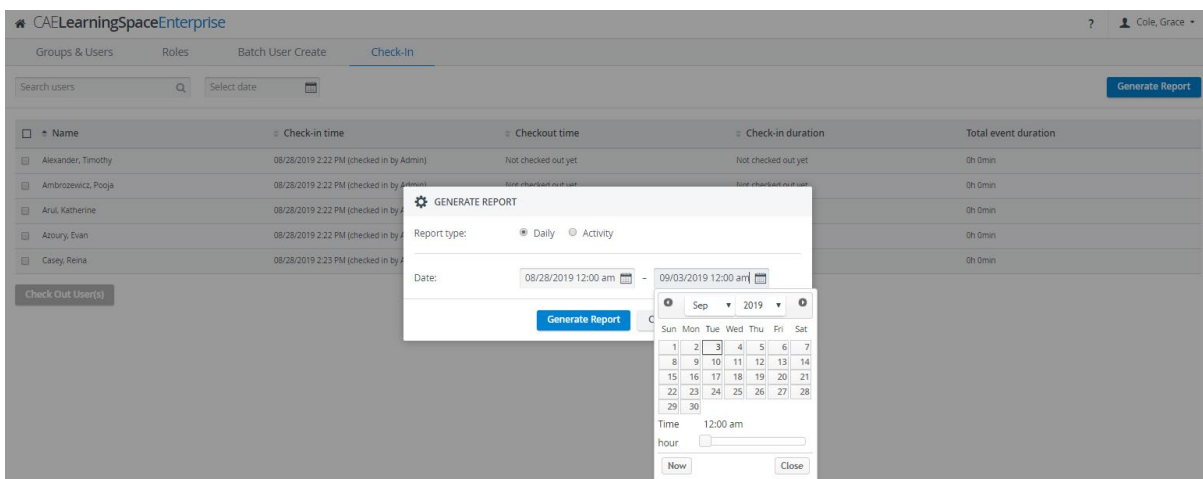
Learner Check-In and Check-Out

Log your learners' time spent at your training facility. To check in and out, learners need to log in the **CAE LS Check-In Application** (for iOS and Android) and scan their QR code at the KIOSK device installed at your facility.

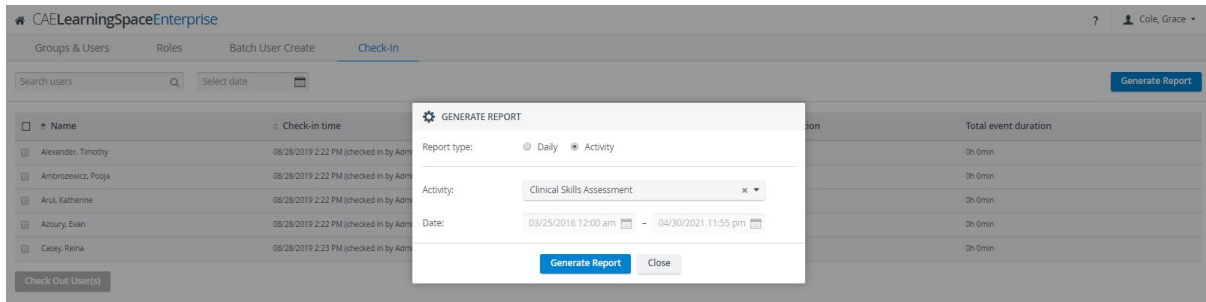


Contact your sales representative for more details if you are interested in installing CAE Healthcare's KIOSK at your campus.

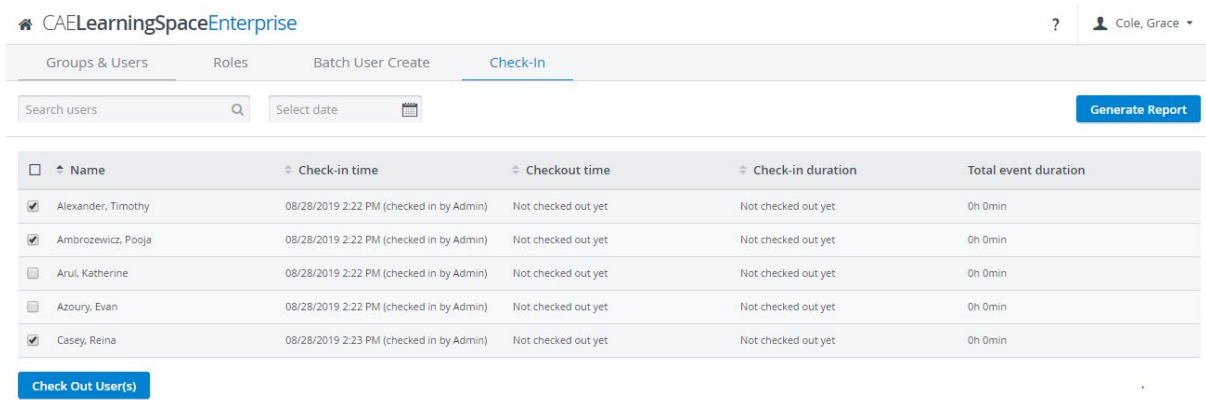
There is also a new tab available in **Users**. In the **Check-In** tab, you can filter by time frame or activity and generate a report of your learners' contact hours. Filtering by date, the report includes all learner check-ins during the specified time frame regardless of activities.



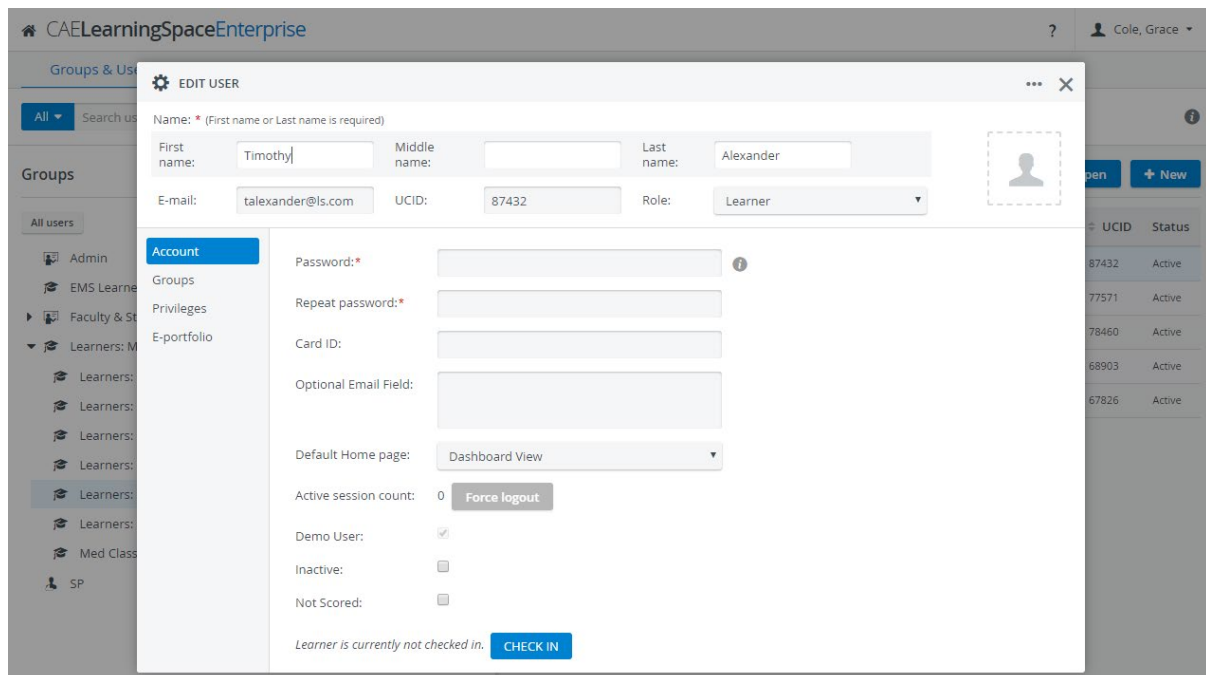
The activity filter allows you to generate a report of contact hours put in so far for the selected activity by learners who are assigned to it.



If learners are unable to check out for any reason, Administrators and User Managers can check them out manually in the **Check-In** tab.



Learners can be checked in manually as well, one at a time through their user account at the **Account** tab with the new Check In button.



Concealable Resource Manager


Is the **Resource Manager** module unrelated to your daily work? You can request our support team to hide it for you and only enable it when necessary.

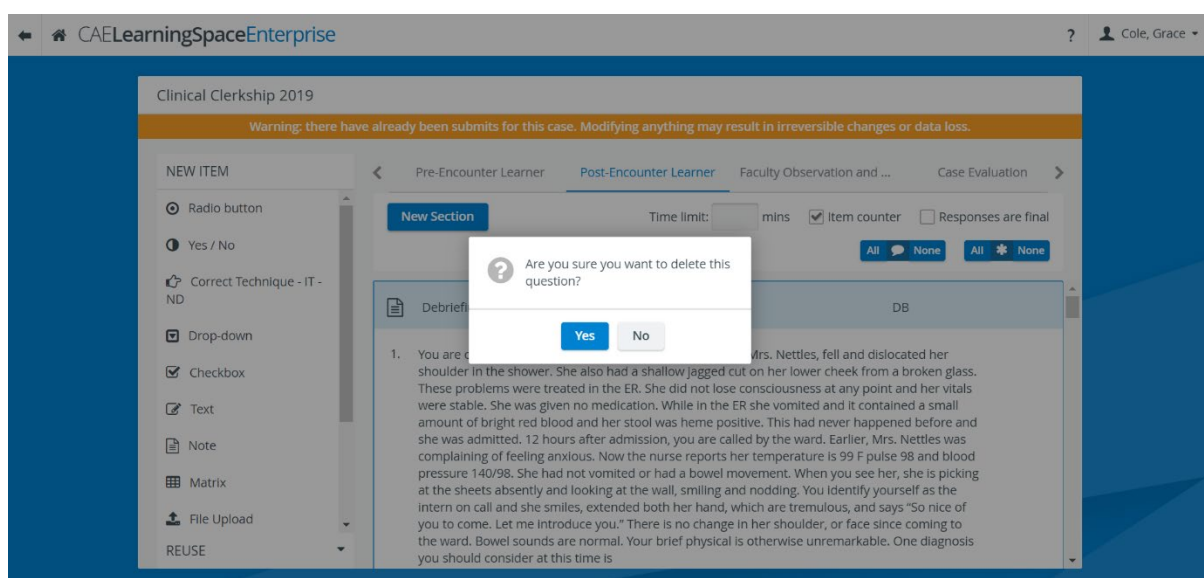
Location Management

Create locations within **CAE LearningSpace** to organize rooms located at different sites, campuses, or buildings, etc. Use the location filter in the **Calendar** module to check your event schedule for each of your institutions' location. Location filtering is also available from the Center Overview screen in the **Recording** module.

You can manage locations at the **Rooms** tab in **System Manager** module by clicking Location Management in the bottom left corner of the tab. You can assign rooms to a specific location in the **Room Settings** pop-up by clicking the cogwheel icon for each room.

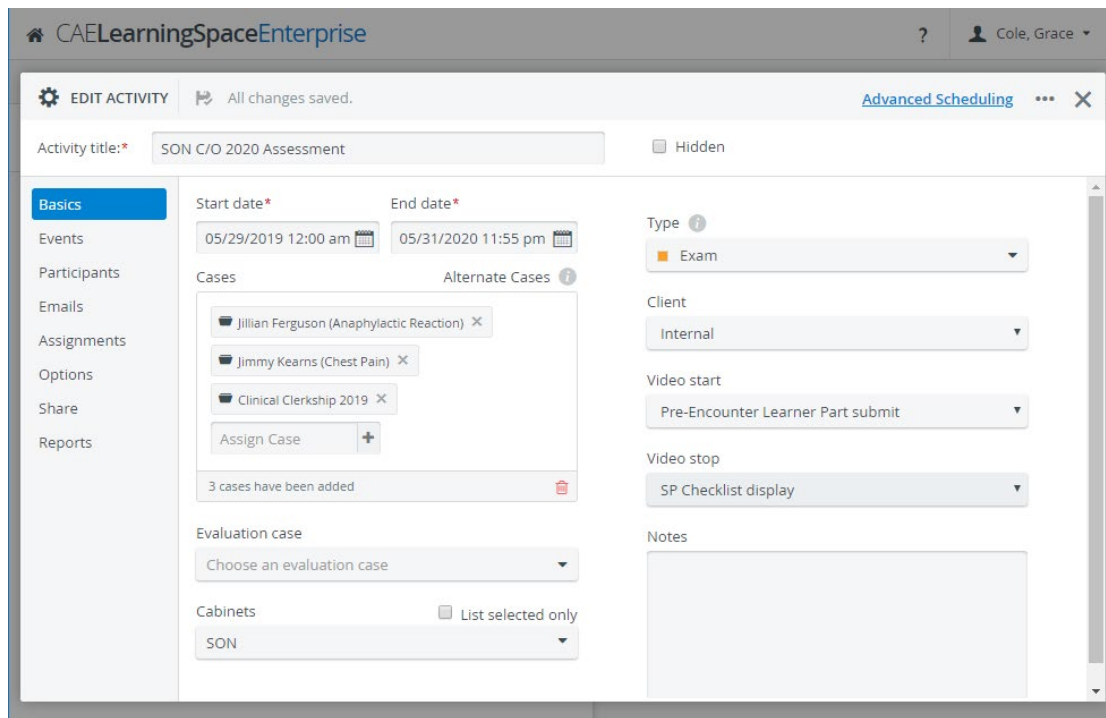
Confirmation Message When Item Is Deleted

To make sure none of your case content or data entry are erased by accident, **CAE LearningSpace** warns your administrator, case author, and case author full control when they try to delete a question item. When any of these users click the delete icon  at any question, the following confirmation dialogue appears:



Start Recording After Pre-Encounter Learner Submit

Reduce recording time with the new Video Start recording setting in the **Activity** manager. Set the video recording to launch only when your learners submit their Pre-Encounter Part from the authorized hallway station.



PTZ Drag-To-Move

While recording, keep up with sudden moves and position your camera towards crucial actions with your cursor. Click on the center of the orange camera target icon in Single Room View and start dragging your cursor. An arrow appears and shows the path your camera is following. Let go of your cursor when you arrive at the position you wanted.

Contact our support team to enable this feature for you.

PTZ Click-To-Center

While recording, change the center of your view with your cursor. Click an area you want to center, and your PTZ camera changes its view accordingly.

Contact our support team to enable this feature for you.

Intercom Hotkey

With the Intercom hotkey, you can send intercom messages with a push of a key on your keyboard. Once the Intercom hotkey is defined, users with administrator and intercom privileges can use this keyboard shortcut to send announcements.

Your System manager has to define the hotkey on the **Intercom** tab of the **System** module, which performs the same action as the **Push-to-Talk** button on the user interface.

You can access the feature on the following pages:

- Center Overview (CO)
- Single Room View (SRV)
- Live Activity Control.

Short-Click Intercom Broadcasting

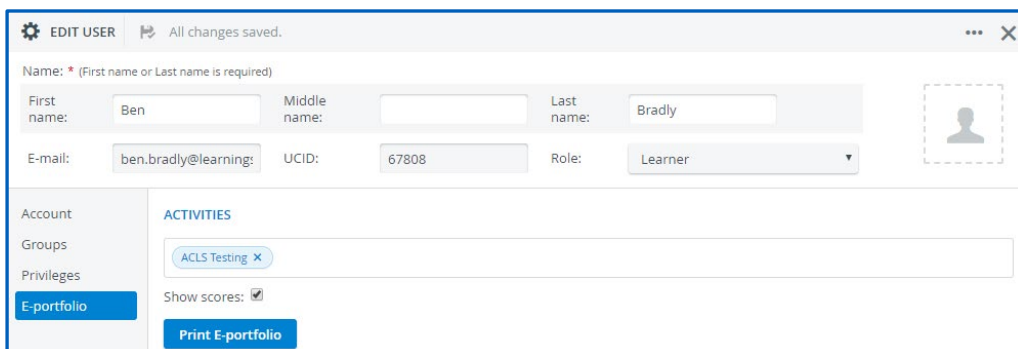
There is a new short-click option available for the Intercom announcement feature in **Recording**. If short-click is enabled, the short click option activates the **Push-to-Talk** functionality for continuous live announcement until it is turned off. To mute your live announcements, you only need to use your external microphone.

Contact our support team to enable this option for you.

NOTE: You can still use the push-to-talk option with a long click while the short-click option is enabled.

Learner E-Portfolio

The e-portfolio is a new feature for creating printable reports of individual learners, which display detailed learner performance broken down by activities. Users with administrator privilege can access this feature in the **User Manager** tab.



The screenshot shows the 'EDIT USER' interface. At the top, it says 'EDIT USER' and 'All changes saved.' Below this, there are input fields for 'Name: * (First name or Last name is required)', 'First name: Ben', 'Middle name:', 'Last name: Bradley', 'E-mail: ben.bradly@learning:', 'UCID: 67808', and 'Role: Learner'. There is a profile picture placeholder on the right. Below the input fields, there is a sidebar with 'Account', 'Groups', 'Privileges', and 'E-portfolio' (highlighted in blue). The main content area shows 'ACTIVITIES' with a list containing 'ACLS Testing' and a 'Print E-portfolio' button at the bottom.

Open a learner for editing and select the **E-portfolio** tab. Select the activities you want to review in your learner's report, then click the Print E-Portfolio button to generate a printable datasheet.

The datasheet includes the following checklists (if created for cases): SP, Pre-Encounter Learner, Post-Encounter Learner, Faculty Observation and Narrative, Self-Evaluation, and Peer Evaluation. The checklists on the report appear the same way as on the **Responses** tab in the **Reports** module, along with correct answers and natural scores for each item:

Student Portfolio for
Ben Bradly

ACLS Testing
2015 AHA ACLS Adult High Quality BLS Skills Testing Checklist

Part: Faculty Observation and Narrative

Scenario Information

Hospital: "You are working in a hospital or a clinic, and you see a person who has suddenly collapsed in the hallway. You check. You check that the scene is safe and then approach the patient. Demonstrate what you would do next."

Prehospital: "You arrive on the scene for a suspected cardiac arrest. No bystander CPR has been provided. You approach the scene and ensure that it is safe. Demonstrate what you would do next."

Assessment and Activation Assess

Checks responsiveness

Yes 1 Pt

No 0 Pts

Points: 1 out of 1 Pt

Checks breathing

Yes 1 Pt

No 0 Pts

Points: 1 out of 1 Pt

You can save and print your learner's datasheet. We recommend you save the reports to PDF, to get a well-edited portfolio.

Print

Total: 37 sheets of paper

Print Cancel

Destination: Canon MG5600 series

Pages: All

Copies: 1

Layout: Portrait

Colour: Black and white

More settings

Print using system dialogue... (Ctrl+Shift+P)

Student Portfolio for
Ben Bradly

ACLS Testing
2015 AHA ACLS Adult High Quality BLS Skills Testing Checklist

Part: Faculty Observation and Narrative

Scenario Information

Hospital: "You are working in a hospital or a clinic, and you see a person who has suddenly collapsed in the hallway. You check. You check that the scene is safe and then approach the patient. Demonstrate what you would do next."

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Assessment and Activation Assess

Checks responsiveness


Yes 1 Pt

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Histograms in Reports

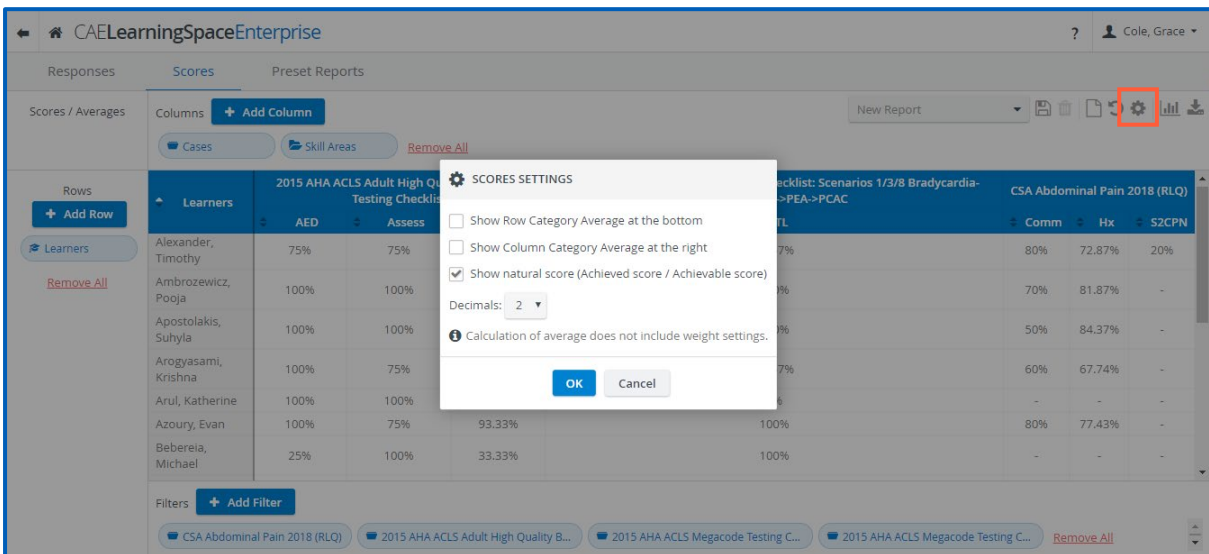
In **Reports**, a new visual aid is available: **CAE LearningSpace** can visualize submitted responses with a histogram at each checklist item.

Display histograms for every item in the **Responses** tab by selecting a case and toggling the **Show diagrams:**  switch in the top right corner of the checklist tab.

Decimals and Natural Score Display

We improved the **Scores** tab in **Reports** so you can review your custom reports in more detail. From now on you can display percentage values up to two decimal places and can also view natural scores (Achieved score / Achievable score). You can access the new settings by clicking the cogwheel icon in the top right corner of the **Scores** tab.

Adjust your settings in the **Scores Settings** pop-up.



The screenshot shows the CAE LearningSpace Enterprise interface. The 'Scores' tab is active, displaying a table of scores for various learners. A 'SCORES SETTINGS' pop-up dialog is open, allowing users to customize the display of scores. The dialog includes the following options:

- Show Row Category Average at the bottom
- Show Column Category Average at the right
- Show natural score (Achieved score / Achievable score)
- Decimals:
- Calculation of average does not include weight settings.

The background table shows columns for 'Learners', 'AED', and 'Assess'. The 'Assess' column contains percentage values for each learner, such as 75% for Alexander, Timothy and 100% for Ambrozewicz, Pooja.

Open-Ended Question Scoring (OEQS) Module

The **Open-Ended Question Scoring module's** new design displays questions, learner responses, and grading side by side.

CAELearningSpaceEnterprise

Open-Ended Questions > Scoring

#1 6/12/12

Scored responses / All responses / All questions

Question(s) 6/8

Debriefing

You are on call for surgery. A 35 year old married woman, Mrs. Nettles, fell and dislocated her shoulder in the shower. She also had a shallow jagged cut on her lower cheek from a broken glass. These problems were treated in the ER. She did not lose consciousness at any point and her vitals were stable. She was given no medication. While in the ER she vomited and it contained a small amount of bright red blood and her stool was heme positive. This had never happened before and she was admitted. 12 hours after admission, you are called by the ward. Earlier, Mrs. Nettles was complaining of feeling anxious. Now the nurse reports her temperature is 99 F pulse 98 and blood pressure 140/98. She had not vomited or had a bowel movement. When you see her, she is picking at the sheets absently and looking at the wall, smiling and nodding. You identify yourself as the intern on call and she smiles, extended both her hand, which are tremulous, and says "So nice of you to come. Let me introduce you." There is no change in her shoulder, or face since coming to the ward. Bowel sounds are normal. Your brief physical is otherwise unremarkable. One diagnosis you should consider at this time is

VIEW LESS

The most reasonable next step with this patient would be

Response
07/31/2019 11:04:12 AM

I would try **intoxication or withdrawal from a habit forming substance**.

Related Open-Ended Scoring

Scoring Notes

Keywords	Value
deep vein thrombosis	0
sepsis	0
hypertension	0
intoxication or withdrawal from a habit forming substance	1
acute bipolar mania	0
Maximum	1
Recommended	1

Comments

Submit Skip

Review the video recording of your learner next to the responses on the **Video tab**:

CAELearningSpaceEnterprise

Open-Ended Questions > Scoring

#1 6/12/12

Scored responses / All responses / All questions

Question(s) 6/8

Debriefing

You are on call for surgery. A 35 year old married woman, Mrs. Nettles, fell and dislocated her shoulder in the shower. She also had a shallow jagged cut on her lower cheek from a broken glass. These problems were treated in the ER. She did not lose consciousness at any point and her vitals were stable. She was given no medication. While in the ER she vomited and it contained a small amount of bright red blood and her stool was heme positive. This had never happened before and she was admitted. 12 hours after admission, you are called by the ward. Earlier, Mrs. Nettles was complaining of feeling anxious. Now the nurse reports her temperature is 99 F pulse 98 and blood pressure 140/98. She had not vomited or had a bowel movement. When you see her, she is picking at the sheets absently and looking at the wall, smiling and nodding. You identify yourself as the intern on call and she smiles, extended both her hand, which are tremulous, and says "So nice of you to come. Let me introduce you." There is no change in her shoulder, or face since coming to the ward. Bowel sounds are normal. Your brief physical is otherwise unremarkable. One diagnosis you should consider at this time is

VIEW LESS

The most reasonable next step with this patient would be

Step 2 CS Patient Note

HISTORY: Describe the history you just obtained from this...
VIEW MORE >

PHYSICAL EXAMINATION: Describe any positive and ...
VIEW MORE >

Diagnosis #1

Diagnosis #2

Diagnosis #3

Response
07/31/2019 11:04:12 AM

Video Recording: 07/31/2019 05:03:28 PM - ZSR 2

Camera: Camera #3

Related Open-Ended Scoring

Score: 2

Bonus points: Optionally added extra points

Keywords	Value
good communication	2
effective teamwork	1
Maximum	3
Recommended	2

Comments

Submit Skip

In the OEQS module, the multimedia content uploaded to a question item also appears in the context of the question:

The screenshot shows the 'Scoring' tab in the CAE LearningSpace interface. On the left, under 'Question(s)', there is a 'Step 2 CS Patient Note' with a history section and a 'PHYSICAL EXAMINATION' section. The physical examination section includes a video of a patient lying on a table. Below the video are three diagnosis options, each with a checkmark. The main area shows a 'Response' form with a date and time stamp, a text input field containing a medical description, and a 'Related Open-Ended Scoring' panel on the right. This panel includes a 'Score' dropdown set to 4, a 'Bonus points' input field, and a 'Comments' text area. At the bottom right of the response form are 'Submit' and 'Skip' buttons.

On the **Open-Ended Questions** tab, you can display question items in two ways:

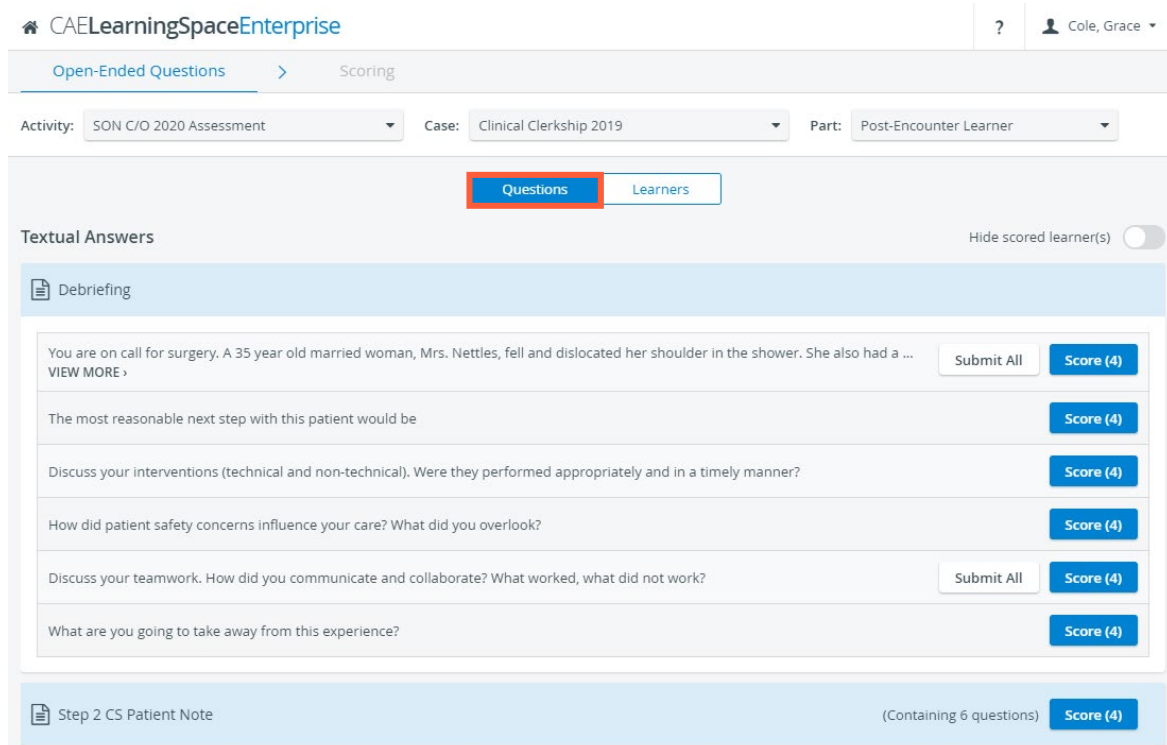
- Switch to *Learners* view, to sort open-ended items by learners and review how many items are left to score:

This screenshot shows the 'Open-Ended Questions' tab in the CAE LearningSpace interface. The 'Activity' is 'SON C/O 2020 Assessment', the 'Case' is 'Clinical Clerkship 2019', and the 'Part' is 'Post-Encounter Learner'. Below these filters, there are two buttons: 'Questions' and 'Learners'. The 'Learners' button is highlighted with a red box. Below the buttons, there is a 'Learner(s)' section with a 'Hide scored learner(s)' toggle switch. A 'Selected Learner' dropdown is set to '#1 6/12/12' with a 'Score' button next to it. At the bottom, there is a list of question items: '#1 6/12/12', '#2 3/12/12', '#3 2/12/12', and '#4' with a green checkmark.

The green tick indicates that scoring is complete for a learner. To focus only on learners who still have open-ended items to score, toggle the *Hide scored learner(s)* switch:

This screenshot is similar to the previous one, but the 'Learners' button is now highlighted in blue. The 'Hide scored learner(s)' toggle switch is now turned on (indicated by a blue circle). The 'Selected Learner' dropdown is still set to '#1 6/12/12' with a 'Score' button. The list of question items at the bottom now only shows '#1 6/12/12', '#2 3/12/12', and '#3 2/12/12', as the item with the green checkmark has been hidden.

b. Switch to *Questions* view, to list all the open-ended items you have in the selected checklist:



CAELearningSpaceEnterprise ? Cole, Grace

Open-Ended Questions > Scoring

Activity: SON C/O 2020 Assessment Case: Clinical Clerkship 2019 Part: Post-Encounter Learner

Questions Learners

Textual Answers Hide scored learner(s)

Debriefing

You are on call for surgery. A 35 year old married woman, Mrs. Nettles, fell and dislocated her shoulder in the shower. She also had a ... [VIEW MORE >](#) [Submit All](#) [Score \(4\)](#)

The most reasonable next step with this patient would be [Score \(4\)](#)

Discuss your interventions (technical and non-technical). Were they performed appropriately and in a timely manner? [Score \(4\)](#)

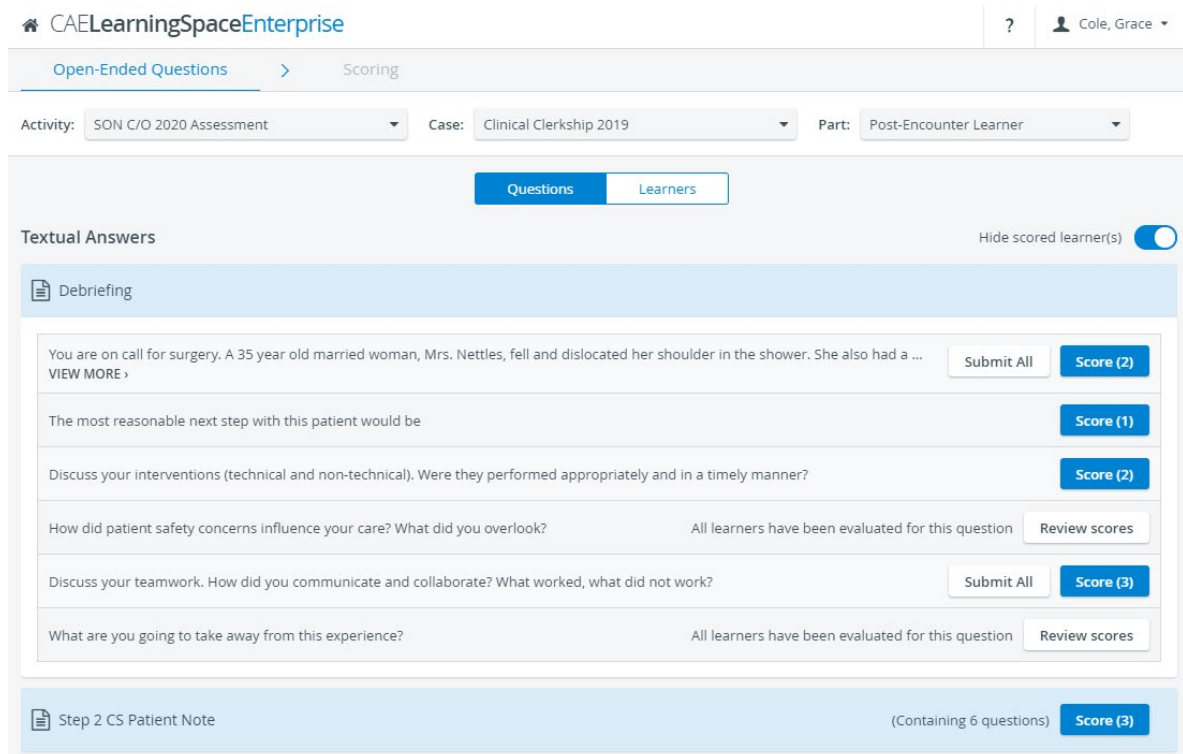
How did patient safety concerns influence your care? What did you overlook? [Score \(4\)](#)

Discuss your teamwork. How did you communicate and collaborate? What worked, what did not work? [Submit All](#) [Score \(4\)](#)

What are you going to take away from this experience? [Score \(4\)](#)

Step 2 CS Patient Note (Containing 6 questions) [Score \(4\)](#)

The blue **Score** buttons show the total number of responses submitted for each question. To view how many responses per question item are left to score, toggle the *Hide scored learner(s)*:



CAELearningSpaceEnterprise ? Cole, Grace

Open-Ended Questions > Scoring

Activity: SON C/O 2020 Assessment Case: Clinical Clerkship 2019 Part: Post-Encounter Learner

Questions Learners

Textual Answers Hide scored learner(s)

Debriefing

You are on call for surgery. A 35 year old married woman, Mrs. Nettles, fell and dislocated her shoulder in the shower. She also had a ... [VIEW MORE >](#) [Submit All](#) [Score \(2\)](#)

The most reasonable next step with this patient would be [Score \(1\)](#)

Discuss your interventions (technical and non-technical). Were they performed appropriately and in a timely manner? [Score \(2\)](#)

How did patient safety concerns influence your care? What did you overlook? [Review scores](#) All learners have been evaluated for this question

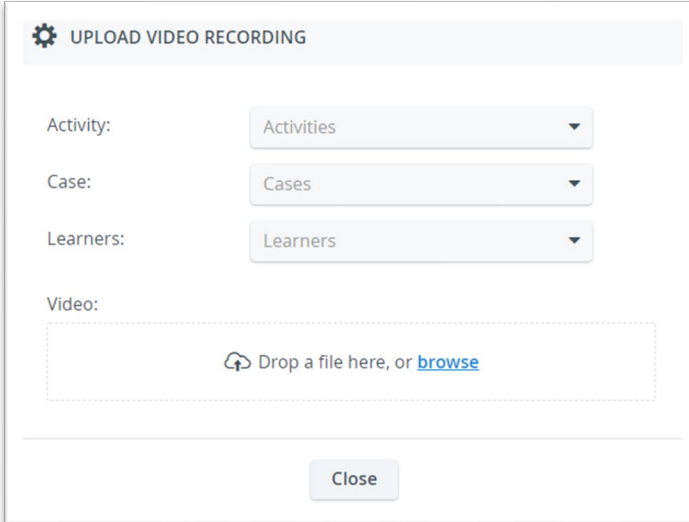
Discuss your teamwork. How did you communicate and collaborate? What worked, what did not work? [Submit All](#) [Score \(3\)](#)

What are you going to take away from this experience? [Review scores](#) All learners have been evaluated for this question

Step 2 CS Patient Note (Containing 6 questions) [Score \(3\)](#)

Video Upload

From now on, you can import videos in the **Video Review** module. Drag & drop your video files to upload them to **CAE LearningSpace**.



UPLOAD VIDEO RECORDING

Activity: Activities


Case: Cases

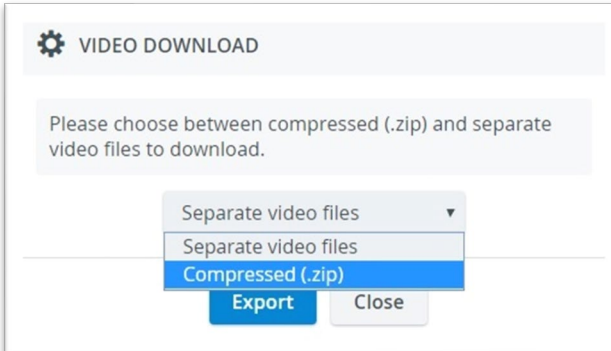
Learners: Learners

Video: Drop a file here, or [browse](#)

Close

Zip Video Download

From now on in the **Video Review** module, when you download a selected recording (with the download icon  at the bottom), the **Video Download** pop-up appears, where you can select how to download: either as separate video files (if there were more than one camera angles) **or as a compressed (.zip) file**.



VIDEO DOWNLOAD

Please choose between compressed (.zip) and separate video files to download.

Separate video files

Separate video files

Compressed (.zip)

Export Close

Notes for Developers and System Integrators

CAE LearningSpace Raw Data API

Note for developers and system integrators with Administrator privilege: the data retrieved from the API interface of **CAE LearningSpace** now include the UCIDs of learners; additionally, the case IDs and the activity IDs as well. Submits are also grouped according to virtual sections if the case contained virtual section tags.

CAE LearningSpace Learner Schedule API

Note for developers and system integrators with Administrator privilege: with the new Learner Schedule API, you can query learner schedules by entering an email address and time range. Your query will contain the activities and rounds each learner is scheduled to and the start and end times of each round.

Appendix 1: CAE LearningSpace Raw Data API Overview

Purpose

This document is intended for developers and system integrators who want to write applications to interact with the data API interface of CAE LearningSpace in order to retrieve responses of specified Activities in XML format.

Location

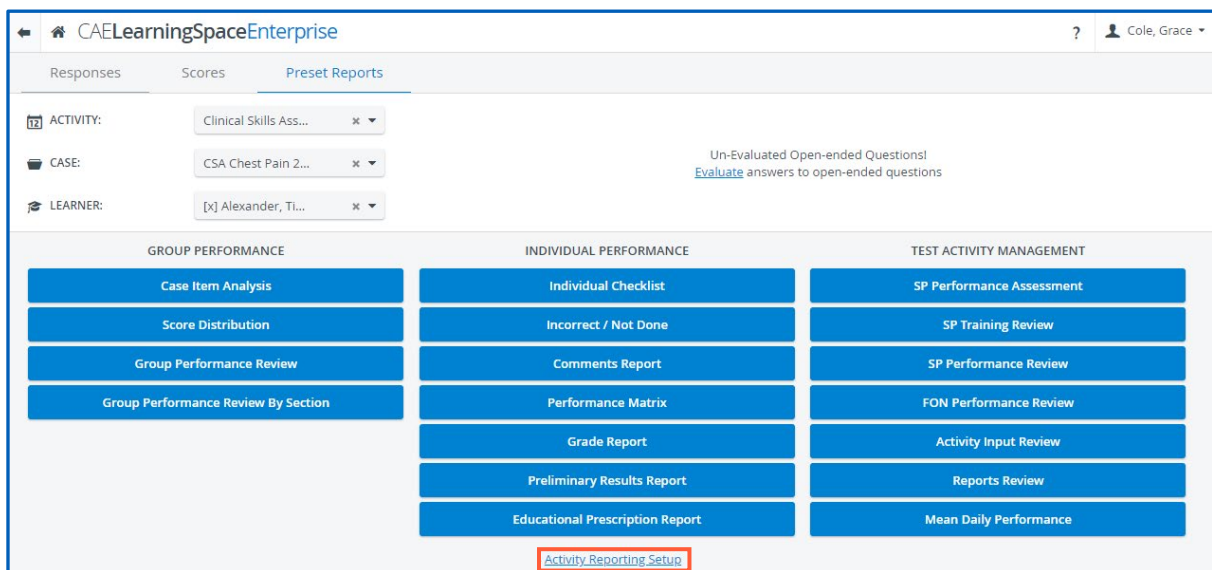
http://<your_learningspace_server_address>/w/api/rawdata.cgi

Preliminaries

Make sure you have a user account set up in CAE LearningSpace with Admin privilege.

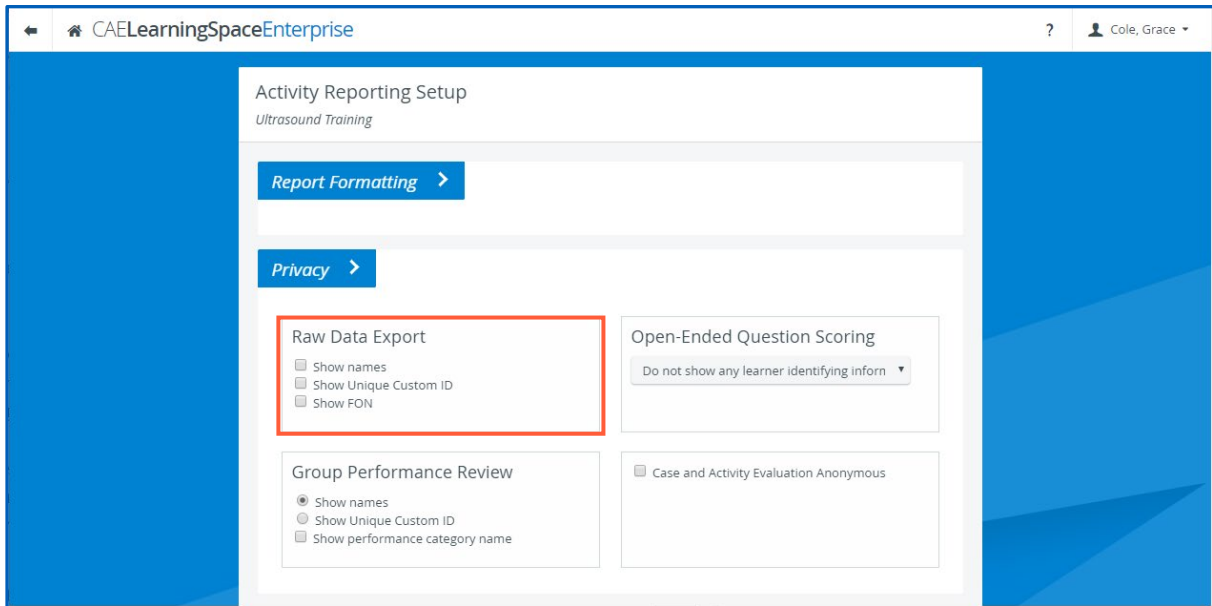
TIP: Ask your local CAE LearningSpace administrator to provide you with Admin user account. You can also use the master password specified in the CAE LearningSpace system of your institution.

IMPORTANT: The activity-specific responses of the API are affected by the parameters set in the **Raw Data Export** panel of the **Privacy** settings in the **Activity Reporting Setup** (accessed via the **Preset Reports** tab of the **Reports** module by selecting a specific activity).



The screenshot shows the CAE LearningSpace Enterprise interface. At the top, there are tabs for 'Responses', 'Scores', and 'Preset Reports'. Below the tabs, there are filters for 'ACTIVITY:' (Clinical Skills Ass...), 'CASE:' (CSA Chest Pain Z...), and 'LEARNER:' ([x] Alexander, Ti...). A note indicates 'Un-Evaluated Open-ended Questions! Evaluate answers to open-ended questions'. The main content area is divided into three columns: 'GROUP PERFORMANCE', 'INDIVIDUAL PERFORMANCE', and 'TEST ACTIVITY MANAGEMENT'. Each column contains several report options. At the bottom of the grid, a red box highlights the 'Activity Reporting Setup' link.

Link to Activity Reporting Setup in Preset Reports



Raw Data Export settings in the Privacy tab at Activity Reporting Setup

Input Parameters

- The first parameter has to be affixed to the *rawdata.cgi* after a question mark: ?
- The *value* of the *parameter* has to be preceded by an equals sign: =
- Multiple parameters can be defined within a single query by using the ampersand: &

EXAMPLE:

*http://<your_learningspace_server_address>/w/api/rawdata.cgi?password=**xzy**&sid=**1**&page_size=**5***

Bolded parts are the variables, for instance, password= “the password of an admin account or the master password”).

<i>append_sid</i>	When used with the sid parameter with value 1, the current sid is displayed in the first node (rawdata_stuff) as <sid></sid>. When used with value 2, the current sid is displayed as an attribute of the root node <rawdata_stuff>. Default: 0.
<i>exclude_case_info</i>	A value of 1 tells the API not to include the case information (code- book), which results in a faster retrieval of the list of activities. Default: 0.
<i>page</i>	Page index starting from 0.

<i>page_size</i>	<p>The number of activities per output XML (defaults to unlimited).</p> <p>If there are too much data to be displayed, the API could time out. To prevent timeout, use this parameter to fine-tune the number of displayed results.</p> <p>This parameter can only be used without the <i>sid</i> parameter.</p>
<i>password</i>	<p>A valid password is required for API queries.</p>
<i>sid</i>	<p>Activity* identifier (optional).</p> <p>When the <i>sid</i> parameter is not specified, the API returns all activity, case, and item lists.</p>

** The API refers to activities as events. It is NOT to be confused with Calendar entry related events on the user interface.*

Sample Queries and Outputs

http://<your_learningspace_server_address>/w/api/rawdata.cgi?password=x

```
<!-- rawdata_export version="2.0" -->
<events>
  <event sid="26" title="Clinical Skills Assessment">
    <cases>
      <case name="CSA Abdominal Pain 2018 (RLQ)">
        <item phrase="Onset * 48 hours" short_id="RLQHx001">
          <answer value="1"/>
          <answer value="0"/>
        </item>
        <item phrase="Progression * no change" short_id="RLQHx002">
          <answer value="1"/>
          <answer value="0"/>
        </item>
      </case>
    </cases>
  </event>
  <page_info current_page="0" events_per_page="9223372036854775807" max_page="0"
  total_event_count="11"/>
</events>
```

http://<your_learningspace_server_address>/w/api/rawdata.cgi?password=x&sid=26

```
<!-- rawdata_export version="2.0" -->
<rawdata_stuff>
  <learner UCID="87432" name="Alexander, Timothy">
    <case name="CSA Abdominal Pain 2018 (RLQ)">
      <resp achieved_points="1" max_achievable="1" section="RLQHx001" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx002" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx003" value="Yes"/>
      <resp achieved_points="0" max_achievable="1" section="RLQHx004" value="No"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx005" value="Yes"/>
    </case>
  </learner>
  <learner UCID="77571" name="Ambrozewicz, Pooja">
    <case name="CSA Abdominal Pain 2018 (RLQ)">
      <resp achieved_points="1" max_achievable="1" section="RLQHx001" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx002" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx003" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx004" value="Yes"/>
      <resp achieved_points="1" max_achievable="1" section="RLQHx005" value="Yes"/>
    </case>
  </learner>
</rawdata_stuff>
```

XML Output Structure

When rawdata.cgi is invoked *without* the *sid* parameter:

Node	Attribute	Description
<events>	N/A	First node encapsulating the other nodes below.
<event>	sid	Unique numerical identifier of the activity.
	title	Title of the activity - as entered on the Edit Activity page on the user interface.
<cases>	N/A	Child node of <event>, encapsulating all the cases assigned to the activity.
<case>	name	Name of the case - as entered on the Edit Case page on the user interface. Presenting complaint, if entered, is displayed in parentheses.
<item>	phrase	A question within a section as seen on a checklist on the user interface.
	short_id	Presenting complaint of the case - if entered. Section abbreviation as entered in the Case Content on the user interface (aka Skill Area) - if entered. The number of the question - continuous count across different checklists.
<answer>	value, value_max, value_min	The numerical values of the multiple answers offered for the question. Max/min values are applicable when direct scoring method is used.
<page_info>	current_page	Displays the current XML output page number if the page parameter is used.
	events_per_page	Indicates how many activities are displayed on a single page of the XML output. It is defined by the page_size parameter.
	max_page	Displays how many pages are available. Depends on the page_size parameter and the number of activities available (total_event_count).
	total_event_count	The number of activities available.

When rawdata.cgi is invoked **with** the *sid* parameter.

Node	Attribute	Description
<rawdata_stuff>	N/A	First node encapsulating the other nodes below.
	sid	Only when <i>append_sid</i> has a value of 2.
<learner>	UCID	The learner's UCID, if added, as entered in the Edit User pop-up on the user interface.**
	name	The learner's name in firstname, lastname, middle- name format as entered in the Edit User pop-up on the user interface.**
<case>	name	Title of the case as entered in the Case name field of the Edit Case pop-up on the user interface. Presenting complaint, if available, is displayed in parentheses.
<resp>	achieved_points	The score the learner was given for a specific question.
	max_achievable	The maximum score the learner could receive for the specific question.
	section	Presenting complaint of the case - if entered. Section abbreviation as entered in the Case Content on the user interface (aka Skill Area) - if entered. The number of the question - continuous count across different checklists. See: <item> short_id.
	value	The textual representation of the selected response.
<sid>	N/A	The sid parameter used for the current query. Displayed only when <i>append_sid</i> has a value of 1.

****Name display depends on the parameters determined on the **Raw Data Export** panel of the **Privacy** settings in the **Activity Reporting Setup** (accessed via the **Preset Reports** tab of the **Reports** module by selecting a specific activity).**

Error Codes

'--No_rawdata_found': no responses found for the activity

'--No_case_for_event' : no case assigned to the activity

'--Request_error' : internal error

'--Authentication_failed' : user has no access to current activity

'--Event_notfound' : no activity has been found

'--Invalid_event_range_specified_for_total_event_count_[total event count] ' : the specified page does not exist or is invalid

Appendix 2: CAE LearningSpace Learner Schedule API

Purpose

With specifying an email address (learner email address saved in CAE LearningSpace) and a date range, the Learner Schedule API returns the scheduled activity titles and the start and end dates of the round(s) the learner has been scheduled to.

Location

http://<your_learningspace_server_address>/w/api/student_calendar.cgi

Input Parameters (GET)

NONE

Input Message (POST)

XML message

EXAMPLE:

```
<request>
  <param name="email" value="learner@cae.com" />
  <param name="sdate" value="2013-05-24" />
  <param name="edate" value="2013-07-03" />
</request>
```

Learner scheduling information for the given time range in XML format:

```
<response STATUS="+OK">
  <event name="BLS/CPR Critical Skills Assessment" rnd_end="2013-07-04 09:15:00"
  rnd_start="2013- 07-04 09:00:00" />
</response>
```


XML Output Structure

Node	Attribute	Description
<event name>		Title of activity the learner has been assigned to.
<rnd_start>		Start date and time of the round within the activity which the learner has been assigned to.
<rnd_end>		End date and time of the round within the activity which the learner has been assigned to.

Status Values in Response

'+OK': Information retrieved OK

'+No_hits': Request was correct but no data found for given values

'-Invalid_input_XML': Invalid XML in request

'-Missing_or_invalid_parameters': Missing or invalid parameters in request XML

'-Duplicate_users_found_by_the_given_email': More than one users found for the provided email address

'-No_user_found_by_the_given_email': No user found by the given email address

**** Sample code for calling the API (implemented in Perl)***

```
#!/usr/bin/perl
use strict;
use warnings;

use LWP::UserAgent;

my $endpointUrl="http://localhost/w/api/student_calendar.cgi";
```

```
my $requestXML = <<EOX;
  <request>
    <param name="email" value="learner\@cae.com" />
    <param name="sdate" value="2013-05-24" />
    <param name="edate" value="2013-07-03" />
  </request>
EOX

my $params = {
  'POSTDATA' => $requestXML
};

my $apiClient = LWP::UserAgent->new();
my $response = $apiClient->post($endpointUrl, $params);
my $content = $response->content;
print $content;
```