Safe Exam Browser Guide for Faculty

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About Safe Exam Browser

Concept

Safe Exam Browser is a web browser environment to carry out e-assessments safely. The software turns any computer temporarily into a secure workstation. It controls access to resources like system functions, other websites and applications and prevents unauthorized resources being used during an exam.

[Safe Exam Browser in Moodle 3.9 Video](#)

General Concept

SEB runs on a local computer and it is connected via the internet to a learning management system (LMS), Moodle.

Safe Exam Browser is a customized web browser, available for Windows (7, 8.1, 10), macOS (starting 10.7, recommended 10.11 or newer) and iOS (9.3.5 or newer). The application must be [downloaded and installed](#) on the device that the student uses to attempt the quiz. The restrictions placed on students are similar to those in the quiz *Extra restrictions on attempts > Browser security* "Full screen pop-up with some JavaScript security" case, but because Safe Exam Browser is software running on the student's computer, it can do a much more effective job of restricting their actions.

- Students will only be able to attempt the quiz if they are using Safe Exam Browser.
- The browser window won't have a URL or search field and back/forward navigation and reload can be disabled.
- Safe Exam Browser cannot be closed until the test is submitted.
- Switching to other applications is disabled by default, but it's possible to allow to use specific third party applications during an exam.
- Shortcut keys such as Win+Tab, Alt+Tab, Ctrl+Alt+Del, Alt+F4, Print Screen, Cmd+Tab are disabled or cannot be used to close Safe Exam Browser or to switch to other user accounts on the computer. The possibility of taking screen shots is disabled.
- The clipboard is cleared when starting and quitting Safe Exam Browser.
- The browser context menu is disabled.
- Specific web sites/pages/resources can be configured to be accessible during an exam, using a URL filter.
- Spell checking and dictionary lookup is disabled, but can optionally be allowed.

Configuration for Faculty

From within Moodle, in a Quiz Activity:

1. Turn Editing on in Moodle.
2. Add an Activity or resource where you want to add a Quiz.
3. Choose Quiz and go through the options of adding a quiz. Scroll to Safe Exam Browser.
4. In the drop-down menu choose Yes – Configure Manually next to "Require the use of Safe Exam Browser."
5. Set other options of Safe Exam Browser to your preferences. See Explanation of options below under "Safe Exam Browser Options."
6. When you are finished with Quiz configurations, choose "Save and return to course."
7. From within your course, click on the Quiz you just added. You should see the following:

   "This quiz has been configured so that students may only attempt it using the Safe Exam Browser." followed by a button to "Download configuration."

   Optional Steps for additional security:

8. Different measures assure that the Safe Exam Browser used for taking the quiz is in fact using the correct configuration and no modified or manipulated Safe Exam Browser can be used.
9. A Browser Exam Key or multiple Browser Exam Keys can be set to validate the SEB version(s) used by students to access the quiz, and to assure that the Safe Exam Browser client is correctly configured/secured for that specific quiz.
10. Another possibility is to use the Config Key. Then, during the quiz, Moodle sends its responses with a Config Key custom HTTP request header, which is combined with the URL of the HTTP request into a SHA256 hash. The following minimum versions of the Safe Exam Browser are required for use of the Config Key feature: macOS – 2.1.5pre2, Windows – 2.4, iOS – 2.1.16.

Safe Exam Browser Settings

Require the use of Safe Exam Browser - Set whether students can only attempt the quiz using the Safe Exam Browser. The available options are:

- *No*: Safe Exam Browser is not required to attempt the quiz.
- *Yes – Configure manually*: No template for the configuration of Safe Exam Browser will be used. You can configure Safe Exam Browser manually.
- *Yes – Use an existing template*: A template for the configuration of Safe Exam Browser can be used. Templates are managed by the Moodle Administrator. Your manual settings overwrite the settings in the template.
- *Yes – Upload my own config*: You can upload your own Safe Exam Browser configuration file. All manual settings and the use of templates will be disabled.
- *Yes – Use SEB client config*: No configurations of Safe Exam Browser are on Moodle side. The quiz can be attempted with any configuration of Safe Exam Browser. *Yes – Use an existing template* is only shown when there really are templates to choose from. If no administrator or manager has uploaded any template and set at least one to *Enabled*, the option is not shown.

Safe Exam Browser config template - Choose a template for the configuration of Safe Exam Browser to apply. This setting is only shown if *Require the use of Safe Exam Browser* is set to *Yes – Use an existing template* and when there really are templates to choose from. If no administrator or manager has uploaded any template and set at least one to *Enabled*, the option is not shown.

Show Safe Exam Browser download button - Set whether a button for Safe Exam Browser download will be shown on the quiz start page. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*, *Yes – Use an existing template*, *Yes – Upload my own config* or *Yes – Use SEB client config*.

Show Exit Safe Exam Browser button, configured with this quit link - In the according field you can enter a link to quit Safe Exam Browser. It will be used on an "Exit Safe Exam Browser" button on the page that appears after the exam is submitted. Clicking the button or a link to the same URL placed wherever you want to put it, it is possible to quit Safe Exam Browser without having to enter a quit password. If the field is left empty, then the "Exit Safe Exam Browser" button does not appear and there is no link set to quit Safe Exam Browser. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Ask user to confirm quitting - If enabled, users have to confirm quitting of Safe Exam Browser when a quit link is detected. Note this setting does just affect quitting with the quit link and doesn't affect quitting with the "Quit" button, Ctrl-Q or the close button in the main browser window. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Enable quitting of SEB - Set whether users can quit Safe Exam Browser with the "Quit" button in the Safe Exam Browser task bar or by pressing the keys Ctrl-Q or by clicking the main

browser window close button. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* or *Yes – Use an existing template*.

Quit password - Here, it is possible to provide a password which is prompted when users try to quit Safe Exam Browser with the "Quit" button, Ctrl-Q or the close button in the main browser window. If no quit password is set, then Safe Exam Browser just prompts "Are you sure you want to quit Safe Exam Browser?". Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* or *Yes – Use an existing template*.

Enable reload in exam - Used to allowing page reload during a quiz (reload button in Safe Exam Browser task bar, browser tool bar, iOS side slider menu, keyboard shortcut F5/cmd+R). Offline caching might break when the user tries to reload a page without internet connection. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Show SEB task bar - Set whether users are shown the Safe Exam Browser task bar. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Show reload button - Set whether users are shown the reload user interface element in the task bar bottom right corner. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* is set to *Yes*.

Show time - Set whether users are shown an element in the task bar with the current time. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* is set to *Yes*.

Show keyboard layout - Set whether users are shown an element in the task bar to choose the keyboard layout. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* is set to *Yes*.

Show Wi-Fi control - Set whether users are shown an element in the task bar to choose the Wi-Fi. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* is set to *Yes*.

Enable audio controls - Set whether users are shown an element in the task bar to change the audio volume. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* is set to *Yes*.

Mute on startup - Set whether the audio volume is initially mute when Safe Exam Browser launches. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Show SEB task bar* as well as *Enable audio controls* is set to *Yes*.

Enable spell checking - Set whether spell checking is enabled in Safe Exam Browser. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Enable URL filtering - Set whether URL filtering is enabled in Safe Exam Browser. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually*.

Filter also embedded content - Set whether URL filtering applies to embedded content, too, in Safe Exam Browser. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Enable URL filtering* is set to *Yes*.

Expressions allowed - Insert a set of simple expressions URL are tested against and allowed for accessing during an exam. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Enable URL filtering* is set to *Yes*.

Regex allowed - Insert a set of regular expressions URL are tested against and allowed for accessing during an exam. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Enable URL filtering* is set to *Yes*.

Expressions blocked - Insert a set of simple expressions URL are tested against and blocked for accessing during an exam. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Enable URL filtering* is set to *Yes*.

Regex blocked - Insert a set of regular expressions URL are tested against and blocked for accessing during an exam. Can only be set if *Require the use of Safe Exam Browser* is set to *Yes – Configure manually* and *Enable URL filtering* is set to *Yes*.

Allowed browser exam keys - Insert allowed Browser Exam Keys for versions of Safe Exam Browser that are permitted to access this quiz. If no keys are entered, then Moodle does not check Browser Exam Keys. Can only be set if "Require the use of Safe Exam Browser" is set to "Yes – Upload my own config" or "Yes – Use SEB client config". When using the option "Yes – Upload my own config", you have to re-download the configuration file from the attempt quiz page (using the button "Download Configuration") and use that file to calculate the Browser Exam Key in each SEB version you want to allow for this quiz. These re-calculated Browser Exam Keys you need to copy-paste into the "Allowed browser exam keys" field (each key on a new line). The reason for this is that Moodle changes the Start URL setting value and formatting of the configuration file you initially uploaded to the quiz settings, therefore the Browser Exam Key changes. This doesn't apply when using the option "Yes – Use SEB client config". Remember that using the Config Key, which Moodle automatically calculates, is much easier.

Student Experience

1. Make sure that you share these instructions with your students.

Here is an example of what the students see when they open a quiz that has been set up to use Safe Exam Browser:
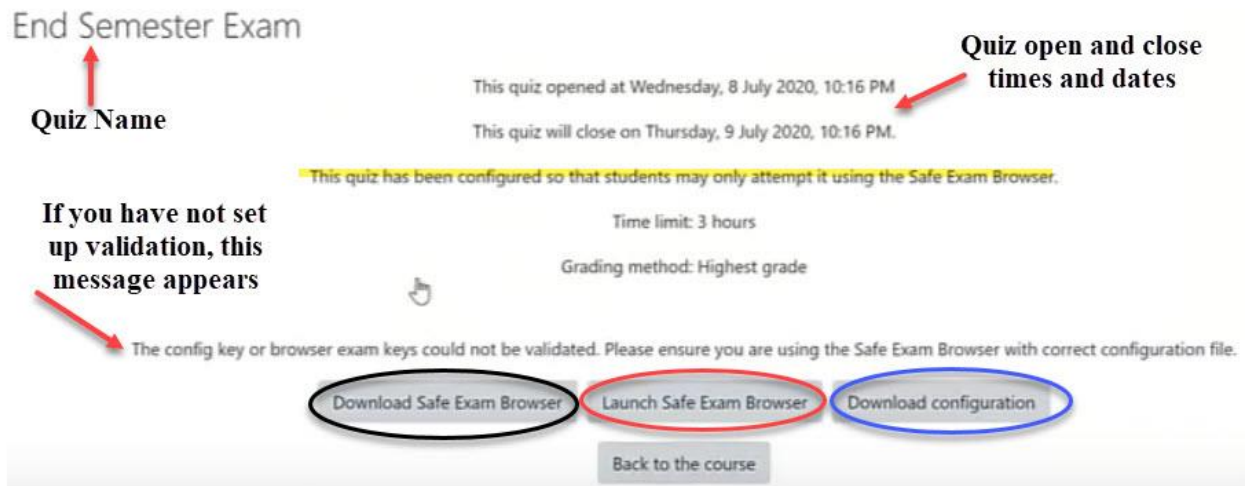
2. Students will need to Download the Safe Exam Browser, Launch Safe Exam Browser, and then Download configuration in order to start the quiz. You can have your students Download the Safe Exam Browser anytime ahead of the quiz: Click Here to Download
3. The Download configuration button will open the quiz in the Safe Exam Browser after the student has downloaded SEB and Launched SEB.
4. The student will then be required to sign in with their user name and password.
5. The student will now be able to attempt the quiz and will be unable to open their files, applications, browser or other websites. Students are permitted to upload files to the Quiz as answers to questions that have been set up to accept them.
6. Students may logout of exam when they are finished. They are then returned their normal computer environment.