LMS Explorer Kit FAQ

1) What does the LMS Explorer Kit help me do?
   The LMS Explorer Kit allows institutions to extract data from their Learning Management System (LMS), including instructor and student course activity, and create a series of optional data visualizations to help inform action and decision-making around deployment, training, course development and usage.

2) How much does the LMS Explorer Kit cost?
   It is offered to the community at no cost.

3) How does the LMS Explorer Kit help institutions?

   Without an efficient means of extracting, organizing and presenting LMS data, institutional leaders and administrators are left with complex and time-consuming incremental database queries and manual manipulation of data. The LMS Explorer Kit provides administrators a jump-start to assist with providing immediate and organized LMS data models that can be accessed directly by Business Intelligence tools to inform resource planning and decision making.

4) What critical questions does it help me investigate? What use cases can be addressed?
   1. *Which courses have been moved online?* University leadership has access to high level metrics on online utilization and adoption in order to inform constituents, stakeholders and interested parties the degree of progress to supplant face-to-face teaching and learning with online teaching and learning. These baselines are quantifiable metrics and not qualified T&L efficacy or academic measures.
      a. *How many courses have some degree of current activity (instructor and student logins)?*
      b. *Which courses have no recent activity?*
      c. *Ability to compare distinct courses to higher level and selected averages to find outliers and exceptions. This allows institutions to direct resources to training and development, as well as highlighting highly active courses to identify best practices.*

   2. *Are students engaged in the online classroom?* Student Affairs practitioners have access to data that helps to identify individual students who are not engaging with the LMS, and who are at high risk of dropping out and/or failing courses. The first priority is simply identifying students who are not using and/or logging into the LMS, not necessarily looking for grade patterns or learning outcomes.
      a. *Which students are not logging into the LMS for a specific course?*
      b. *Are there students who are not logging into the LMS over all of their courses?*

      c. *Which students are engaging with the LMS at lower rates than their peers?*

5) What LMS options are supported?
Presently, we support Instructure Canvas and Blackboard Learn. We have two versions of Blackboard code available: one using Postgres as the source database and one using Snowflake or Oracle as the source database. When determining which zip file to use, "Postgres" is used in the name of the zipfile to differentiate it. Other LMS platforms may be considered based on demand.

6) How do I deploy it? What level of technical expertise do I need?
We are using Python and SQLite to download and build two reporting data sets. These data sets use a subset of the tables provided by Canvas and are then built using SQLite. The files are output as CSV files and can become the data source to any BI reporting tool. We have developed a set of Tableau dashboards that will also be provided to assist in getting you started quickly on your analysis.

For Blackboard Learn we are using Python and Postgres to download and build two reporting data sets. These data sets are created using a subset of the Learn table structure and are built in Postgres.

The files are output as CSV files and can become the data source to any BI reporting tool. We have developed a set of Tableau dashboards that will also be provided to assist you in getting started quickly on your analysis.

HelioCampus has attempted to simplify the installation of LMS Explorer to the greatest extent possible. Users will benefit from familiarity with SQL, Python, and common BI tools, such as Tableau. Documentation is provided for those who need to install the tools and technologies, as well as links to helpful training and orientation resources for reference. We are also providing [support resources](#).

7) How long will it take me to get the tool installed?
Following our instructions with the appropriate access to Canvas or Blackboard Learn, the data sets should be available within 40-60 minutes depending on the number of courses you have in your LMS and your server configuration. Utilizing the Tableau workbooks may take another 30 minutes to 1 hour to configure properly.

8) What tools will I need?
 Canvas: You will require access to Canvas, the Canvas key and secret to connect to the database, Canvas Data CLI installed on an application server, Python 3.6.4 or above and specific Libraries.

Blackboard Learn: First, you should request your server IP address be whitelisted by Blackboard. You will also require an administrator username and password to connect to Blackboard, Python 3.5 with specific libraries and a local installation of Postgres.

If you would like to take advantage of the Tableau workbooks, install a Tableau Creator desktop license. Tableau is providing a free extended trial (expiring July 24th) for use with the LMS Explorer Kit. The link to access this trial can be found in the zip file when you download it (PDF called: Limited Time Tableau Licensing for HelioCampus LMS Explorer Kit).

9) Who needs to be involved at my institution?
The LMS administrator and LMS support staff, as well as administrators familiar with any policies related to the use of the LMS.

Additionally, it may be helpful to include Institutional Research, Business Intelligence or other staff who are familiar with reporting on student data, or who have experience with Tableau.

10) Is documentation provided that shows which tables are being accessed from the LMS?
Yes, a data dictionary is provided that shows details on the following attributes for Canvas: DataSet, DataSetField, SourceTable and SourceField. This document will be most useful to Canvas administrators who understand the Canvas data structure and wish to see exactly what is included in the data extracts. The data dictionary for Blackboard Learn is still in development.

11) Are there any pitfalls I should be aware of?
It is important for each institution to be mindful of the data they are pulling and subsequently using. While the data extracts accurately reflect the data from the LMS's source data tables, details of the LMS configuration, usage and associated business practices may strongly influence the data that is generated and stored. HelioCampus urges you to do your due diligence in understanding the source data in order to make accurate and reliable inferences from the data.

These data include identifiable student information. Please consult your institution's FERPA guidelines to ensure appropriate use of the data and to respect student privacy.

12) If I have questions, how can I get help?
We will be hosting a one-hour, once a week open Q&A session on Wednesdays at 1pm Eastern. Additionally, we will respond to email questions during normal business hours: 8-5pm Eastern, Monday thru Friday within a 48-hour time frame. Drop into the office hours by visiting our support website and filling out the corresponding form or email us at LMS-helpdesk@heliocampus.com. There is also a recorded introductory overview on our main landing page.