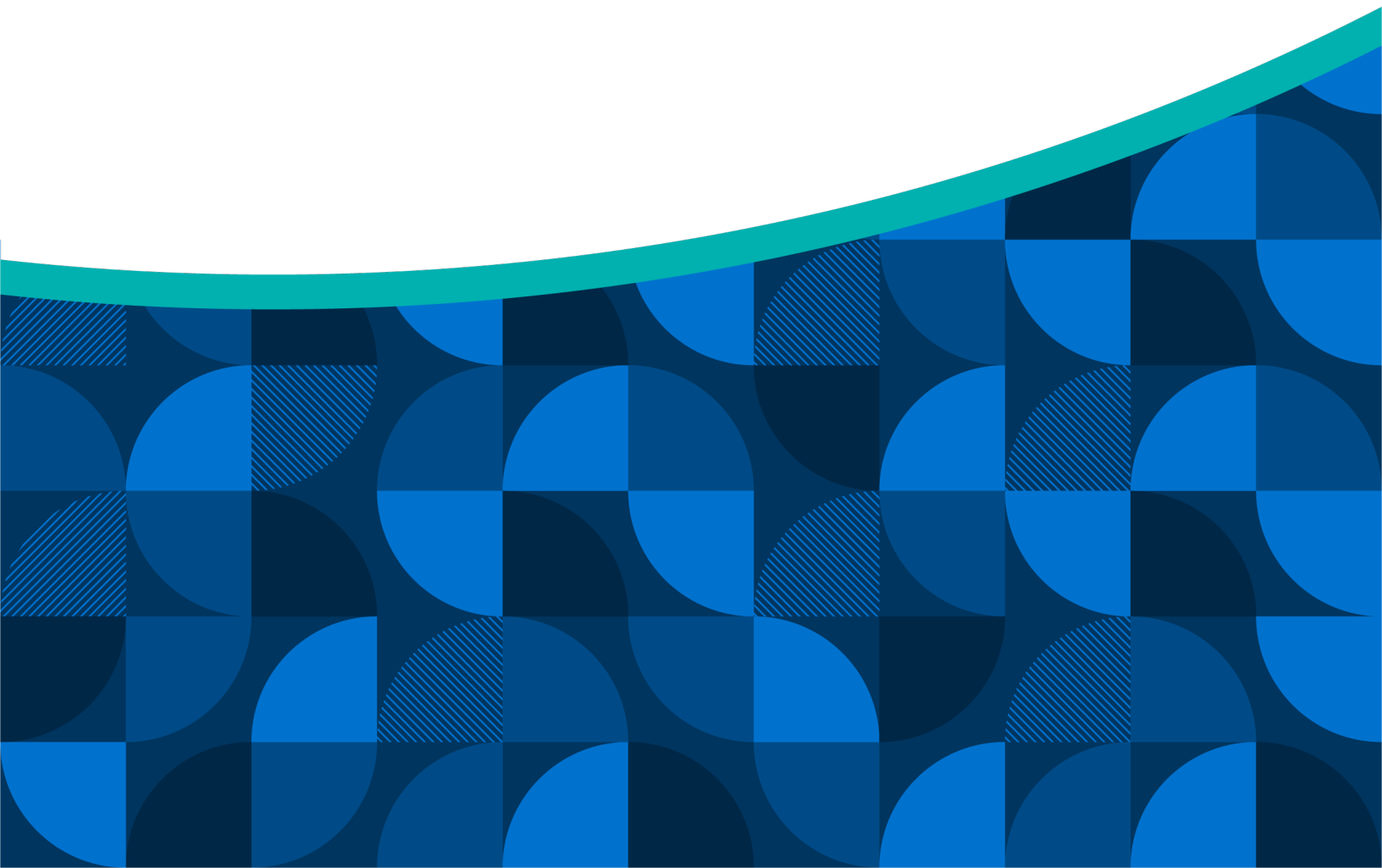
EAB

RAPID INSIGHT

Retention Modeling Pre-Work Session 2

September 26, 2023 | 1:00 p.m.–2:00 p.m. Eastern Time



Welcome

Welcome back, Rapid Insight Cohortians!

With the first session under our belts, and students returning to campus, it's time to revisit those retention models. In this session, we will be using the model you built in July to score the current population for their likelihood to retain.

At the end of Session 2, you will have a list of individual students each with a probability score of retaining. But that's not all – the scoring process is quick and will leave us time to go one step further in refining our initial models. Hint: the more information you have about a student, the better your predictions will be. And by the end of the Fall semester, you will undoubtedly have more student information.

If you missed the first session, or are feeling behind, please reach out to RI-Support@eab.com prior to Session 2. We are happy to work with you to get caught up!

As you know from Session 1, this pre-work packet is designed to help you gather the materials you will need for our time together. Instructions for each activity can be found prior to the section, however, again, please don't hesitate to reach out if you get stuck or have any questions.

We can't wait to see you again later this month!

Sincerely,

James Cousins & Lily Brennan

Activity 1: Session One Refresher

Instructions: Take a minute to recall what you accomplished during the first session. Refer to Session 1 pre-work as needed. Each participant should have their own saved copy to reference. The pre-work packet is also available online under the Event Materials section of this page.

Remind yourself:

1. What is the target population of this analysis? (e.g., Undergraduate, Degree-seeking, FTFT, etc.)

2. What retention question are you answering? (e.g., Fall to Spring, Fall to Fall, First-year to Second-year, etc.)

3. Where did you save your Predict analysis file (vpa) and/or your Veera Predict Scoring Model file (.vpsm)?

4. Which variables entered the model?

Activity 2: Prepare Your Scoring File

Instructions: Consider the following information and refer to Session 1 pre-work as needed.

In Session 1, we built a retention model. Now we can put that model into action. In order to accomplish this, you will need a dataset that includes the "scoring cohort", or the group of students that you don't know the outcome of yet. (e.g., Fall 2023 students if investigating Fall to Fall retention).

The scoring cohort needs to include (at a minimum) all the same variables that entered the model we built during Session 1. For example, if Number of transfer credits, HS GPA, and Gender entered your model based on data from 2020-2022, then your scoring cohort will also need to include Number of transfer credits, HS GPA and Gender for students enrolled in Fall 2023.

The Session 1 pre-work (activity 3) prompted you to gather this data. Double-check you have the scoring cohort dataset ready, and that the necessary variables are included in the file.

Activity 3: Map Out First Semester Data

Instructions: Below is a list of variables we suggest adding to a retention analysis to build a refined model that is inclusive of first semester outcomes. The variables below are suggested *in addition* to the variables suggested in the Session 1 pre-work, and that entered your model in Session 1.

What do you know about a student at the end of the semester that you did not know at the start of the term?

Not all these variables are a requirement, and not all of these variables will be included in the final analysis. We do however suggest beginning with a "kitchen sink" approach – include everything you have, and let the model identify the valuable contributors.

You don't need to fill in the **Source System** and **Table Name** for every variable in this list. The goal is for you to be familiar with what information you have available to you and where it is stored so that you can find it during our session. If using this table will be helpful for you to remember where your information is stored, then feel free to take notes and use this as reference sheet during Session 2.

Suggested Higher Education Modeling Variables

Retention Model

First Semester Information

Required Variable	Source System	Table Name
First semester/Fall term GPA		
Suggested Variables	**Source System**	**Table Name**
Degree hours completed/ degree hours attempted		
Attendance		
Teacher interaction with students		
Major change flag or count		
Advisor meetings/flags/notes		
Requested tutor/ assigned tutor		
Visited Writing center/Math center		
Flags identifying participation in various campus activities, campus life		
Card swipe activity		
Retention Flag (0/1 telling us if the student was lost or not)		

Activity 4: Gather Relevant Data

Instructions: Consider the following questions and follow the steps to create data extracts of first semester data.

1. **Historical Data –** When conducting a predictive analysis, it is important to use historical data so that the predictions are based on the significant patterns and behaviors of prior populations. We recommend gathering 3-5 years of historical data to be included in your analysis.

2. **Data Extracts -** Now that you have identified what data you want to add to your analysis, it will be useful to create data extracts of this information. Not all variables need to be in the same data extract at this phase. You may include as many extracts as necessary!

   Create data extracts for each table including relevant historical information for the time period specified in the last section.

   1. Save data extracts as .CSV or .XLSX file types.
   2. Make sure you have Construct and Predict installed on your computer.
   3. Reach out to RI-Support@eab.com if you have any questions.

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