Student & Instructor Success Analytics Objectives and Strategy
AY 2021-22

Student and Instructor Success Analytics (SISA) is a program in UW-IT's Academic Experience Design & Delivery (AXDD) unit. SISA's mission is to improve the student and instructor experience through online tools and analytics powered by cutting-edge data science. Each year, we recount the progress on the past year's objectives and discuss our objectives for the upcoming year.

Executive summary

During the 2020-21 academic year, the SISA Program exceeded expectations by not only achieving its objectives, but expanding the scope of one objective in order to support students during the pandemic. To achieve our first objective, we developed an app that displays learner data and predictive analytics to improve student success among students in OMA&D's academic programs including underrepresented STEM students . The team was able to expand the service to three additional student populations that were deemed vulnerable. In support of our second objective, by the end of AY 2020-21, we had begun development of DawgPath, an app that combines data from Prereq Map, Pivot, and Beaten Paths to support academic planning and discovery. Finally, we have invested in our analytics infrastructure (objective 3) and supported online teaching and learning with data science and analyses (objective 4). The SISA Program's objectives for 2021-2022 are: (1) Support student success initiatives by launching Compass, a student success dashboard, expand RAD to serve UW Athletics, and pilot RAD with an academic department; (2) Support academic discovery by launching DawgPath; and (3) Pilot a data platform for AXDD's learning records store.

Reflecting on our AY 2020-21 Objectives

Our first objective of AY 2020-2021 was to **develop an app that displays learner data and predictive analytics to improve student success** among students in OMA&D's programs including underrepresented STEM students. The team met this goal and expanded the service to students who were especially vulnerable during the pandemic: pre-major students, incoming freshman, and international students. As more units across the three campuses learned about the Retention Analytics Dashboard (RAD), we received requests to expand the app to include additional student groups. As RAD grew in popularity, we realized that additional consultation would help us deliver optimal experiences for the service. Thus launched the RAD steering committee, which is formulating recommendations for four areas related to RAD: (1) outreach strategies, (2) additional data for RAD, (3) RAD expansion, and (4) privacy and the ethical use of student data. Most significantly, we also conducted analyses that demonstrate the efficacy of RAD's data at identifying struggling students.

Our second objective was to **improve and integrate our current products and prototypes**. By the end of AY 2020-21 we had begun development of DawgPath, an app that combines data from Prereq Map, Pivot, and Beaten Paths to support academic planning and discovery. As a result of this progress, we are poised to launch DawgPath and sunset the aforementioned production applications and prototype.

Our third objective was to **put in place the infrastructure to feed the analytics engine** for our student success work. We surveyed a variety of vendor platforms and, initially began building our own, before abandoning that

approach. However, that effort helped us to identify a good vendor candidate in Unizin and we will pilot the platform this academic year.

Objectives, AY 2021-22

1. Launch Compass, a student success advising dashboard, and expand RAD

Redesign and launch Compass

In 2019, AXDD and OMA&D began a partnership that aimed to increase student retention in Educational Opportunity Program students, which led to the development of RAD. Currently, this tool is accessed via a link in Compass, a homegrown advising platform that includes detailed student information and notes from advising appointments. Despite the usefulness of the tool, the technology that powers Compass needs to be modernized. Working closely with OMA&D advisers and their leadership, AXDD will redesign and pilot a new Compass, with a goal of launching the tool Autumn 2022. In the short term, a redesigned Compass with new and improved features will greatly benefit OMA&D, which supports the most academically vulnerable students. This is also an opportunity to lay a foundation for developing a campus-wide student success platform that replaces the outdated tools advisers are currently utilizing.

Expand RAD to serve Athletics and an academic department

This past academic year, we have launched a RAD view for the Integrated Social Sciences and UW Tacoma, and this academic year we will launch a view for Athletics. An additional goal is to pilot RAD with an academic department.

2. Launch DawgPath and sunset Prereq Map and Pivot

This past academic year, the data science and UX work for a new academic planning and discovery tool called DawgPath wrapped up and development of the app is currently underway. This academic year we will complete development and testing, execute a marketing and communication plan, launch the tool, and sunset two tools that DawgPath replaces, Pivot and Prereq Map. Additionally, we plan to release the following features in DawgPath: (1) a student profile that includes career interests, intended major, and other attributes; (2) a feature that helps students make connections between industries and UW majors; and (3) a course and major recommendation system. If time permits, we will also release features that help students identify gateway courses (high-demand courses that open up substantial course-taking opportunities) and bottleneck courses (high-demand, required courses.)

3. Determine best platform to drive our analytics work and begin phase 1 build out

We are currently in the process of developing a learning records store (LRS) that will collect fine-grained learner data from various online tools (e.g., Canvas, Panopto). We have designed a reference architecture with several peer universities and industry partners and have made progress on the initial phases of LRS development. The objective for this year is to evaluate the Unizin Data Platform for its potential as the infrastructure to build an LRS, support end-user analytics applications, and enable academic analytics exploration by UW-IT data scientists.