Move On When Ready Learning Collaborative eNewsletter
August School Spotlight: Gary K. Herberger Young Scholars Academy

Determining Course Progression and Assessment Timing through Data Analysis

This month, we turn our spotlight to the use of data to inform the pace of instruction and timing of end-of-course assessments at the Gary K. Herberger Young Scholars Academy (Herberger Academy). The Herberger Academy, located at Arizona State University’s West Campus in Phoenix, is a private school serving a diverse group of learners from age 12 through high school graduation. Upon enrolling in the Academy, students study an integrated middle school and high school curriculum using Cambridge Secondary 1 and IGCSE level syllabi and assessments. Over time, students can complete high school while exploring varied intellectual interests through Cambridge IGCSE and AS/A Level coursework and connections made accessible at Arizona State University. The school is entering its third year implementing Move On When Ready (MOWR). Though Herberger Academy is relatively small, many of the systems the school has put in place are applicable to the type of proficiency-based systems being established across the MOWR network.

In this issue, Herberger Academy’s Executive Director, Dr. Kimberly Lansdowne, shares her thoughts on the school’s approach to course sequence and the pacing of end-of-course IGCSE examinations. The strategy relies on the use of “IGCSE contracts” for each core subject, through which the school, students, and their families reach agreement on suitable dates for end-of-course test taking.

In this model, multiple data are analyzed to:

- Determine at what point a student will be best prepared to demonstrate mastery (through IGCSE end-of-course assessments) in each of their core subjects and meet qualification scores needed to earn a Grand Canyon High School Diploma.

- Identify targeted, personalized support so students receive additional instruction in the concepts and learning objectives they have yet to develop.

In this way, students are not promoted through a pre-set, annual sequence of courses and examinations. Instead, students receive the time they need to build knowledge and skills to reach foundational college and career readiness at their own pace. The net result is that all students sit for Cambridge IGCSE end-of-course exams, but only when they are adequately prepared to do so.
Below are Kimberly’s responses to questions about Herberger Academy’s individualized approach:

Can you describe Herberger Academy’s approach to individual student pathways?

We feel it is important that students demonstrate college readiness through the IGCSE exams in each of their core high school subjects; it is what gives us the confidence that they will be successful at the next level. But we also recognize we have a diverse population of students with varied levels of proficiency, maturity, and academic discipline. Some have a significant amount of intrinsic motivation and well-developed skills, while others simply need more time and practice to reach a level that could be considered college-ready. As a result, we have devised a system to examine key pieces of data before the students sit for Cambridge’s exams at the end of their courses.

We use data to create an individualized road-map for the student, with the ultimate goal that he or she will have an opportunity to earn an AICE Diploma [one of several MOWR upper division pathway options] before they leave us. In each individual course, the data we look at include:

- Secondary 1 exam results
- Formative and summative assessment results
- Overall course grade
- Perhaps most importantly, the student’s performance on aligned mock exams taken directly from Cambridge released tests

From this analysis, we make a determination about whether the student is likely to meet qualification scores if they were to take the end-of-course examination at the next administration date. If they are, we submit forecast grades and get them signed up to test. If not, we design an appropriate timetable for preparing the student to succeed.

What is the IGCSE Contract?

To a large extent, students drive their own program with us. In order to ensure they are the ones taking ownership of their progress, we include the students and their families in discussions about their readiness. To facilitate the conversation, we developed a set of contracts between the school and students and their families [an example of the IGCSE Mathematics contract can be seen here]. At the top of the contract, we show the key data used to evaluate student readiness such as course grade, unit/semester final scores, and IGCSE mock exam scores. Below that, we offer our recommendations for pacing based on our analysis of the information. However, we also include alternative options to what we recommend to let families choose how to approach the end-of-course exam cycle. Both the student and a parent/guardian sign the contract, which establishes a clear understanding of expectations, commitments, and long-term outlooks.
When is the contract presented and signed?

To coincide with the submission of forecast grades and test ordering, we sit down with the students and their families in February. The timing allows us to take all of our pre- and post-test data from the first half of the year, coupled with analysis of the students’ ongoing coursework, formative assessments, unit tests, past performance on Secondary 1 tests [middle school level exams], and teacher input to develop an individualized plan. The students’ signatures indicate that they have “bought in” to the plan in consensus with their families and the school. It is as much a counseling tool as anything else.

What was needed from an operational standpoint to allow this practice?

Basically, we needed to get very good at looking at the data in the aggregate and, as importantly, we had to become skilled in conducting item level analysis of our day-to-day and summative assessments. Of course, this also means that we had to build assessments that measure what the students will be tested on in the end-of-course exams and from those assessments we needed to draw out item level data used to identify strengths and weaknesses. Fortunately, we are able to use the Cambridge released tests to help guide this work, but our teachers have also become more proficient in assessing their students in higher order tasks like those on the Cambridge exams. However, to be honest, we need to get better at grading performance rather than compliance. We need to neutralize the power of the “zero” for missed assignments and are working with our staff to do so.

Do you have data to support the use of this strategy?

Since this is our first year receiving IGCSE end-of-course exam data, we will know more by the end of August. However, it is interesting to note that we had five students who held off from taking at least one of their IGCSE exams at the end of their first cycle in a course. For these students, everyone came to the agreement that it would be best to defer taking the exams until either the October/November 2013 date or the May/June 2014 testing period. I believe this accomplishes several things for these students, including the fact that it relieves some of their anxiety about taking exams before they were ready. It also allows us to reflect and make adjustments to what, how, and how long we spend teaching them the various learning objectives that are outlined on the syllabi. If we can focus on the most critical needs, we will get the most out of our teachers and help all students hit the qualification scores at their own pace.

What are your plans for this approach moving forward?

We want to continue to refine the way that we look at the indicators we receive from the data. They are the best reflection of what students have learned and serve as the best predictors of what a learner will be able to do at a given point in time. As our students begin to work at the Cambridge AS Level and A Levels [upper division], we will take the same approach to monitoring readiness for the exams.

Interested in diving deeper into the topic of determining student pathways through data analysis?

Please join Dr. Kimberly Lansdowne for our MOWR Learning Collaborative meeting on September 12th,
2013 during which she will elaborate on Herberger Academy’s support of MOWR’s proficiency based system through individually paced end-of-course exams.