

Hi, I'm Jennefer Jolls, a Teacher/Community Coordinator at Central Vermont Adult Basic Education in Randolph, VT. For this Technology Integration Project, my students and I explored Khan Academy as a tool for independent Math practice.

#### **WHAT is Khan Academy?**

Khan Academy is a free website with micro video lectures and practice exercises. Although courses are offered in several subjects and content areas, we focused specifically on Mathematics.

#### **RATIONALE**

I chose to integrate Khan Academy into my students learning plans because it is a fabulous tool for differentiating Math instruction. My learners come from a variety of backgrounds and there is a 37-year age range amongst the group. Additionally their needs are diverse: a couple students struggle with long division while another needs more practice with fractions, meanwhile another student is still hoping to master subtraction with borrowing. Online practice with Khan Academy lets each learner focus on their own specific challenges.

#### **HOW I Used Khan Academy**

Although Khan Academy is nicely organized by grade level and within that, Common Core State Standards, they have not created missions for Adult Basic Education or even GED prep. So my first task was to organize the CCRS. I created a Google Doc linking each College Career Readiness Anchor to Khan Academy practice exercises.

The Google Document was shared with students and included instructions for joining my class. They completed the registration process in the learning center, where they could receive needed assistance from me and their peers.

After that, each week students practiced skills at their own pace and in the setting of their choice: some did the activities at home, others went to the library or came in to the learning center.

Additionally, there was an expectation that students drop in to the open Math lab or schedule a one-on-one tutoring appointment to apply those practiced skills and get extra help on areas of struggle.

#### **TIME**

The greatest time commitment to this project was matching the College and Career Readiness Standards to their Common Core origins.

I did not record the exact amount of time I spent picking out these standards, but I did a few every day over a period of weeks. As of this recording I have not finished Level D CCRS.

Aside from that, there was little else to learn. My students and I found Khan Academy to be very intuitive. Students who have Google or Facebook accounts can register to Khan through those platforms. On the opposite end of the spectrum, a teacher can create an account for students who don't have an email address.

#### **COMPLICATIONS**

Because I spent so much time creating a Google Doc that outlined every Level C standard, I was eager to give it to every student and challenged him or her to master every topic from beginning to end. Well, that wasn't a very personalized approach to Math practice.

After reviewing TABE Math results, I edited a document for each student. Topics they missed on the initial assessment became the focus of their independent Math Practice.

For GED Students, I reviewed both their TABE scores and results of their GED practice tests. From this data, I created their personalized Google Doc with Math Topics to Practice.

#### **ENHANCING & IMPROVING**

Khan Academy is a wonderful remediation tool for students who are behind, and as enrichment for those who are highly motivated. As I teacher, I am most thrilled with being able to monitor student learning.

While I am pleased with Khan Academy's capacity to help my student develop basic math procedures, the content is not comprehensive and it does little to develop higher order

thinking or apply it to relevant, real-life situations. As the teacher, I need to spend more time analyzing student learning data and using that information to develop a Flipped Classroom. In these classes, I would simply need to focus on a single, Big Idea, and then differentiate with open questions and parallel tasks.

#### **NEXT STEPS**

So what's next?

As I mentioned, I'd like this to progress into a Flipped Classroom. Khan Academy is incredible and it's extending student learning, but I need to backtrack and create more challenges here in the Learning Center.

Instead of a bi-monthly Drop-In Math Lab, I definitely need to hold a formal class. Each week we should focus on one Big Math Idea, in which every student can apply his or her Math Knowledge regardless of skill level.

I also hope to complete the mapping of CCRS Level D and GED Math Topics. I have emailed Khan Academy requesting a GED Prep Course, and have signed online petitions calling for this. Perhaps this is something they will offer in the future.

Finally I am curious to see how these students will reassess. I have not given anyone a follow-up TABE or Practice GED, but I am confident that they will show skill gains.

#### **POST AS A FRAMEWORK**

People – Objectives – Strategies – Technology

The POST Method is a simple framework for organizing your lessons and prioritizing learning goals. In this case, I used it to establish an entire course, but POST could be used every day to brainstorm a single lesson or tutoring session.

I used the POST framework for initial planning, but I also referred back to it multiple times during the project, often monitoring and revising my strategies and technology details.

As my Khan Academy integration evolves, I will continue to refer to the POST method to shape my teaching goals.