CONNECT:
Making Learning Personal

Reports from the Field by the League of Innovators

Innovative Schools in Michigan

edited by Stephen F. Page

This second issue of *Connect* highlights innovative teaching as practiced by teachers and administrators in Michigan schools as they seek to provide greater personalization for every student's learning. The first two field reports are from schools that have implemented a version of 20-Time, a concept borrowed from business where it has been used to encourage creativity in product development. Employees are allotted a percentage of their work time to pursue a project of their own choosing. In education, 20-Time seeks to promote students' motivation, autonomy, and communication and interpersonal skills in collaborative endeavors—all characteristics deemed essential for their working careers. A pared-down version of 20-Time is called the Genius Hour. For more information, see the video on the **20-Time website**.

Two more teachers describe their flipped math classes. Flipped classrooms take advantage of technology by reversing the traditional schoolwork–homework activities: Students view direct instructional materials—the teacher's lectures and demonstrations—at night via some device and then apply that instruction in the following day's classroom. This arrangement allows greater personalization, freeing class time for teachers to help individual students or small groups while other students work on exercises. You can watch a **video interview with Tara Maynard**, one of our authors in this issue, and some of her students describing a typical day in her flipped eighth-grade mathematics classes. Also online is **Delia Bush's demonstration and assignments** for her class's long division problems. Her description, below, highlights another potential variation on the flipped classroom, one based on a station-rotation model.

The flipped classroom allows students a certain amount of latitude in choosing when and where they access their nightly out-of-school work. Providing still more freedom is the hybrid model implemented at Fraser High School. For English teacher Chris Stanley and his colleagues,

This field report is the second in a series produced by the Center on Innovations in Learning's League of Innovators. The series describes, discusses, and analyzes policies and practices that enable personalization in education. Issues of the series will present either issue briefs or, like this one, field reports on lessons learned by practitioners recounting the successes and obstacles to success encountered in implementing personalized learning.

Neither the issue briefs nor the field reports attempt to present in-depth reviews of the research; for those resources readers are encouraged to access the Center on Innovations in Learning's resource database. Topics should be of particular interest to state education agencies and district and school personnel.

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technology makes student learning a "24/7" enterprise, and students aren't always required to be in the classroom. Blended learning also provides a fertile environment for competency-based education (CBE), whereby students are tasked with achieving "specific learning objectives rather than task completion." In CBE, the when, where, and even how of demonstrating competence will differ for each student. To see how CBE works in Fraser High's English department classrooms, watch an engaging **online presentation**, in which the model is referred to as "standards-based learning." For an example of an assignment in a blended-learning English class, **see Chris Stanley's YouTube video.** If you want more information on CBE and its implementation, as well as supporting research, download the (free) first *Connect* issue, **Competency-based Education: Supporting Personalized Learning**, by Janet S. Twyman.

Yet another variation on innovative teaching is the project-based learning model used at Kent Innovation High School. Based on a model developed by **New Tech Network** that relies extensively on Internet tools, instruction at the school seeks to engage students in authentic problem solving and self-directed learning.

Many more resources on personalized learning, flipped classrooms, blended learning, competency-based education, and project-based learning can be found in the database maintained by Center on Innovations in Learning: Just click **here** to go to the database.

20-Time and Genius Hour

Grosse Pointe, Michigan, South High School

by *Nicholas Provenzano*

Every Friday, students at South High School are given the day to pursue something they are passionate about. Early in the school year, students choose a topic, select a mentor, and spend the rest of the year researching and pursuing their goal. They need to produce a product or achieve a goal at the end of the school year.

Students are graded on two aspects of this year-long project, but not on their ability to complete it. The goal is for students to dream big and not let grades get in the way of trying something difficult. One grade students receive is determined by their reflective blog posts, which also function as a means of sharing their work with other students, their teachers, and anyone else in the world interested in their project. The student blogs are the best way for me to assess what students are doing and what they are learning. The second graded feature of the project is a speech given at the end of the year, focusing on what each student has learned. This culminating event, TEDxGrossePointeSouthHS, is one of only a handful of student-organized TEDx events in the world.

The year-long project, essentially assessment free, has been effective in getting students excited about school and also getting them to practice their reading, writing, research, and speaking skills.

Warner Elementary, Western School District, Michigan
by Ben Gilpin

Over the last couple of years, I have had the good fortune to watch our student exploration take off through 20-Time in the classrooms. Several teachers dabbled in project-based learning early on, and that has evolved into Genius Hour. At each grade level, Genius Hour looks a little different and also varies according to the teacher's understanding of his or her students. Some of our younger students work in teams, while older students may work independently. Also, some teachers convey expectations to parents and allow for a more blended learning environment, but many teachers want the 20-Time to be strictly student driven, and the classroom setting ensures this.

We believe in choice, but we also understand the need for structure, so teachers create rubrics that provide direction and expectations for students. Teachers have blended both standard-based and competency-based expectations to the rubrics that go along with Genius Hour. Further, our school has a 2-to-1 ratio of iPads to PCs, a mix which has provided students with the opportunity to do their research with and create with different technologies. Students' efforts have shown some amazing results, but what I have been most impressed with is that these student projects are self-directed and my role in the classroom is that of facilitator, not instructor.

With the help of our school's parent–teacher organization, Warner Elementary is taking 20-Time to the next level in 2015. The purchase of two 3-D printers will allow for enhanced creativity and imagination. You can read more about the Genius Hour **in a CNN article** that featured Warner third-grade teacher Julie Oliver.

The Flipped Mathematics Classroom

Zeeland Public Schools, Zeeland, Michigan
by *Tara Maynard*

For my flipped classroom, my middle school students receive content via an iBook as well as a traditional textbook. iBooks are used to package instructional videos, as well as interactive questions, pictures, and vocabulary words. I assign out-of-class activities to get students ready for in-class work. Outside activities include reading, watching videos, and explorations. In-class activities include investigations, technology integration, explorations with iPad apps and software such as the math program GeoGebra, traditional practice, card sorting, and daily team discussions. Some units offer varied pacing; others do not. The class also uses Edmodo, an online network for schools, outside of class for collaboration, content help, and daily communication.

Students come to class daily with a written summary and questions about their out-of-class assignment. Student teams then discuss these assignments, and students help each other understand the material. Often, when I ask each group what questions its

students still have, students say that the questions have been answered by their peers. Although I work with each student daily, students are choosing when, where, and from whom to get help, making for a very cohesive, collaborative classroom.

I deliver direct instruction mostly through video and then group three or four students to work through activities in class while I provide small-group instruction, as needed.

I gather data from formative assessments almost daily to measure progress. The quick checks, taken online, are students' first assessment, covering only one lesson or topic to see if they are ready for each lesson. I also give short quizzes over a few topics to see what pieces students are and are not understanding. I use a variety of different sites or apps for these assessments, such as Socrative, Nearpod, Classkick, and ThatQuiz. After seeing where students are struggling, I work with small groups to help their understanding. Common district assessments must be given at the end of each unit as well.

Alpine Elementary, Kenowa Hills Public Schools

by *Delia Bush*

A flipped classroom in its most basic form consists of students watching lectures at home and going to school to engage in higher order thinking skills. All our videos are housed on YouTube, but the students access them via Chromebooks and Google Classroom, which is also where I put all my assignments and games that the students play. I record all my videos using Camtasia, a screen recorder and video editor, but there are many other options available. In class, I have set aside time every day for a math workshop during which students work with me in small groups. In these workshops, my students rotate through four "stations" each day:

- Teacher station: The student and I review video questions, and the student begins working on problems while I am available to help him or her.
- Student's station: In their own seats, the students complete "old" homework.
- Technology station: I've found multiple technology games that apply to each learning goal in our math units, so at these stations, students work on a particular learning goal via online games. Students also have the option of completing assigned videos during their time at the technology station. If they choose not to, then they watch them at home.
- Hands-on station: Activities at this station can vary from working with manipulatives to playing board games, but all have to do with the learning goal we're aiming at.

My district is in the very early stages of transferring to mastery instruction. My students all have their own tracking sheet for each unit (I do as well). We update it almost daily. Instituting the flipped math class allowed me to meet with my students in small groups each day, thus allowing a student–teacher dynamic that was never possible before. It allows me to better get to know my students, and develop stronger relationships with them.

The Hybrid Classroom

Fraser High School, Fraser Michigan

by *Chris Stanley*, *Luke Woods*, and *Michael Lonze*

Fraser High School has hosted its Hybrid Learning Program since the 2010–2011 school year. Students who are enrolled in the hybrid classroom have access to their course material through the school's learning management system, called Blackboard. Students are able to work at their own pace (with deadlines) and are not always required to be in the classroom. The hybrid classroom allows for both online and face-to-face interactions between students and teachers. Students who are not receiving a grade of a "C" or higher are required to be in the classroom, allowing for focused teacher instruction.

Because students have access to all classroom lessons and learning instruction, they can learn at their own pace. Teachers have access to students' work on assignments and can even comment using Blackboard. The blend of instruction and technology in our classrooms has enhanced learning. Because of students' access to iPads, the learning is considered to be 24/7 rather than just confined to the regular school hours. Students have the ability to demonstrate their understanding of a subject in more ways than ever before by using different technology resources.

Fraser High's Chris Stanley, an English teacher, operates a competency-based classroom. His students have 11 competencies (or standards) that they need to meet in order to pass his class. Students have ample opportunity to demonstrate any competency that they may have struggled with. This competency-based learning works well with the blended classroom because blending allows time for students to show their understanding in different ways. Since Chris's class is based on competency attainment, he has a better understanding of why a student may or may not be performing well in class. Instead of having the you're-not-turning-in-enough-work conversation, he's able to elaborate more specifically to both students and parents about the reasons a particular grade may be low, and, more importantly, can explain how it can be fixed.

Kent Intermediate School District, Kent Innovation High School

by *Nate Langel*

Kent Innovation High School focuses on project-based education. Its new and remodeled studio spaces, collaboration stations with AV hookups, open floor plan, and lots of glass walls and windows, provide an environment for students to investigate, collaboratively, authentic problems and attempt to develop meaningful solutions

At Kent, each student has his or her own laptop, and the whole school is heavily invested in the use of Google Drive. Teachers use it to introduce, track, and plan projects with students, while students use it for ideation, planning, and presenting their projects. The Internet is conceived of as a real-time textbook. Resources are curated by facilitators, but students also learn to find relevant information on their own.

Formative assessment is emphasized and addressed through verbal and digital feedback, a constant cycle of revisions and rethinking. Summative assessments are open for revisions and resubmissions as well.

Learning at Kent Innovation High School requires diverse skill sets and higher-order thinking, and all students know their contribution is necessary for the project to succeed. The faculty believe that project-based education both empowers students and stimulates the development of an intrinsic motivation that can be applied in postsecondary education and careers.

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