

## A NEW TOOL TO PERSONALIZE LEARNING WITH OPEN EDUCATIONAL RESOURCES: THE MIDDLETOWN LEARNING PATH

### Introduction: The Big Problem with Textbooks

The prevalence of high-cost, low-quality, and often out-of-date textbooks is a problem across U.S. school districts. The U.S. spends billions per year on instructional materials which often don't meet the needs of students and educators. Many school districts are seeking alternatives to this paradigm by using new models of materials in their classrooms. One of these new models is Open Educational Resources (OER): teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others.<sup>1</sup>

When districts consider adopting OER for their instructional materials, it is important to understand that while OER can be a powerful tool, it can add challenges for educators. The increased lift for educators can include a need to evaluate quality and to understand relevant copyright and use restrictions. OER can be an excellent solution for quality instructional materials, in particular when the challenges above are addressed to make it easy for teachers to adopt.

**This Snapshot highlights one strong example of how a district in New York is innovating around the use of OER by making it easy for its educators to adopt materials approved for both quality and copyright.**

## TLA BLENDED LEARNING SNAPSHOT

### WHAT IS THIS SNAPSHOT ABOUT?

Learn how a school district in Middletown, New York is implementing Open Educational Resources by developing a tool that makes it easy for educators to find and use quality instructional materials.



<sup>1</sup> [Hewlett Foundation Definition](#)

## Introduction to District: Middletown Embraces Blended Learning

The Enlarged City School District of Middletown serves 7,300 students across seven schools. It is a high-poverty, small city school district: over 76% of students qualify for free and reduced lunch and almost 84% identify as minority. About eight years ago, Middletown, under the leadership of Superintendent Ken Eastwood, sought solutions to better serve its high-need students. Eastwood wanted to understand what it would really take to close the achievement gap. According to Eastwood, “The community had transitioned from a predominantly white middle class community to one of predominantly poor and minority with the graduation rate in 2004 at a dismal 54%,...(and)...we needed to do better for all of our students.”

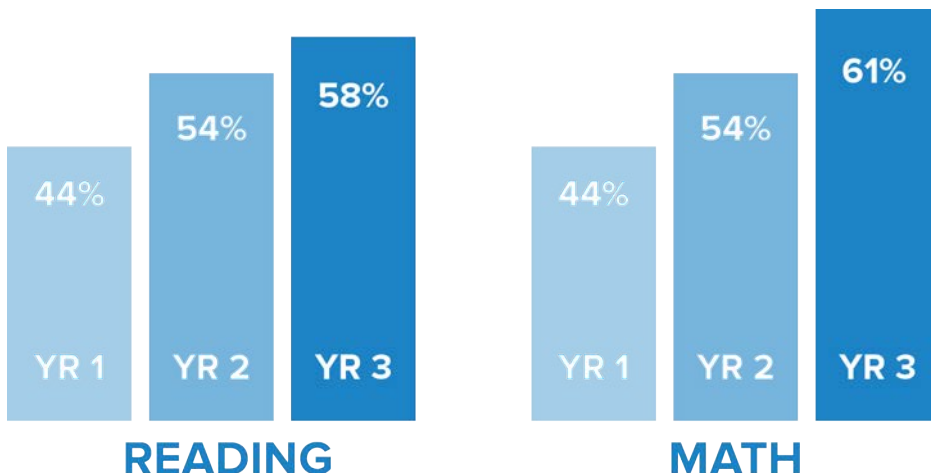
In 2013, after conducting a deep dive into the data related to its dropouts, Eastwood and his team realized that problems consistently tracked back to kindergarten and elementary school. Students not mastering grade-level skills and knowledge were socially promoted. By 5th and 6th grade, many of these students had fallen far behind, becoming disengaged. This frequently resulted, over time, in students dropping out.

The district needed a systemic approach which involved stopping social promotion and creating interventions along the way to provide extra time and opportunities for students to develop proficiency in core subjects. Middletown decided on a new instructional approach and sought the support of [Education Elements](#) to develop its approach. They began implementing [blended learning](#) in their elementary



and middle schools as a way to personalize learning for students and solve for the achievement gap. This blended learning initiative was funded by Race to the Top District funding. By the end of 2015, Middletown elementary and middle schools were fully blended.

This initiative has been highly successful increasing the percentage of students reaching their NWEA MAP growth targets, 33% in reading and 39% in math. They have increased the percentage of students taking college courses in high school from nine to 36%. In the past 10 years they increased the graduation rate from 54 to 87%, and decreased the gap between white and minority student graduation rates from 16 to only six percentage points. In the class graduating in June, 2017, 36% will graduate having taken college courses (and 56% of those are on free and reduced lunch, 84% are minority).



**GRADES K-8 -  
% MEETING OR EXCEEDING  
NWEA GROWTH TARGETS**

## Can OER Provide a Quality and Engaging Option for Students and Teachers?

Based on the success of the blended learning implementation, Superintendent Eastwood and his team turned to search for a new model of instructional materials for its middle and high schools for two reasons:

- A growing body of empirical and real-world evidence\* regarding the efficacy of high-quality curricula, demonstrating curriculum is a key component of student success. Middletown sought a solution for materials which are highly-aligned to standards, meet budgetary restrictions, engage students, and meet students' different learning needs and pathways.
- Middletown's educators were spending too much time searching the internet for instructional resources because traditional textbooks were not meeting students' needs and could not be personalized. Bill Donahue, Middletown High School's Department Chair for Social Studies and teacher, explained the daunting task for educators of looking through

### \* RESEARCH ON EFFICACY OF CURRICULA

[The Hidden Value of Curriculum Reform Do States and Districts Receive the Most Bang for Their Curriculum Buck?](#)

[Curriculum Research: What We Know and Where We Need to Go](#)

[Big Bang for Just a Few Bucks The Impact of Math Textbooks in California](#)



## Enlarged City School District of Middletown

High expectations are meaningless without rich opportunities

**Personalizing education... not standardizing it**

a multitude of resources and vetting for quality as well as understanding copyright. "It was hard for us educators to find high quality resources and it required us to review multitudes of resources and then we were concerned about the copyright of the resources we found. It was an overwhelming amount of work for teachers."

### Expert Advice and Educator Buy-In

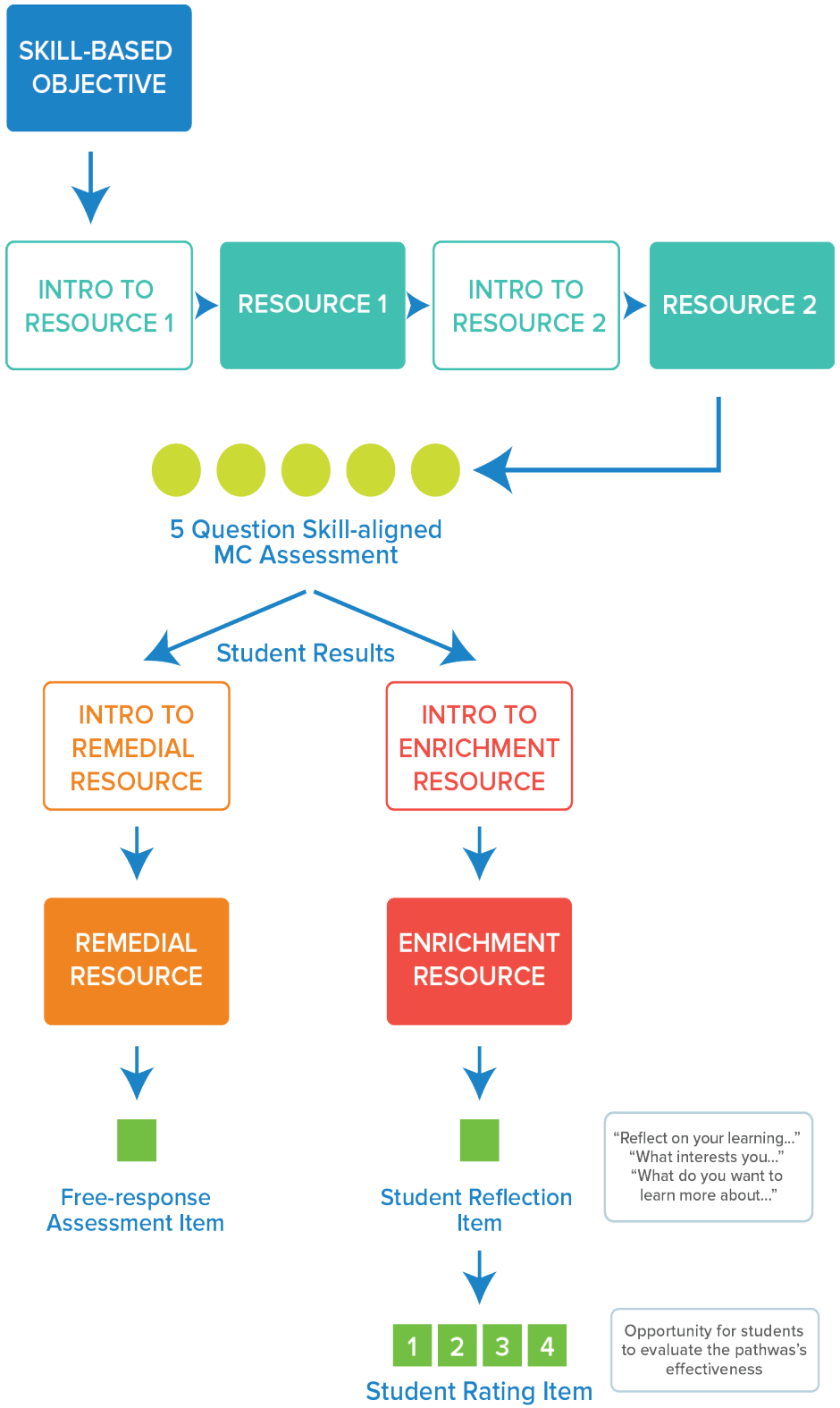
Middletown engaged Education Elements to think about how to develop a platform for educators to easily discover quality resources aligned to learning objectives which were openly licensed. Middletown wanted to build a non-commercial product, designed to be open and sharable with other districts. Middletown undertook teacher professional development in which educators reviewed the current textbooks and took pages out of the books which aligned with the scope and sequence of the course. Educators realized only about 1/3 of these books were useful as instructional resources. This helped get everyone on board to move to online resources to help solve for the issues of quality and engagement.

After engaging in PD and identifying the needs of educators, Middletown

and Education Elements partnered with [Spider Learning](#) to brainstorm about this new platform and develop the tool. They collaborated to create a vetted learning pathway model and then developed an innovative new OER tool for Middletown educators and students called Learning Path. This OER tool, also referred to as a player, is designed to solve for inefficiencies in the curriculum marketplace and foster personalized learning. The OER player provides access to standards-aligned, vetted, digital resources and assessments for educators and students. The player feeds data to educators, allowing them to create personalized playlists for students, enabling increased student agency and choice.

The learning pathway model started with a set of skill-based objectives created by district educator teams. The Spider team then found and aligned resources to each of these objectives using a rubric aligned to Common Core State Standards. These resources were next vetted by experienced educators against an instructional quality rubric as well as a permissions and copyright evaluation to be certain all resources were openly licensed or could be used in a fair use manner. (While most resources are openly licensed, those which are not have been approved for educators to use according to their terms of use.) Resources were also tagged to make them easier to find.

## The Learning Pathway Model Diagram



## Outcome

Learning Path is now being used by Middletown’s 9th and 10th grade Global Studies educators, who have received training from Education Elements and Spider Learning. Learning Path offers an editing system that enables educators to take the pathways created by Spider and add to them, as well as modify the assessment questions. This system leverages the benefits of OER by allowing further modifications, iterations, and improvements as materials are developed and used.

Students progress through learning pathways by reviewing a customizable resource introduction and then engaging with their choice of two resources. After a review of the two resources, they take a skills-aligned assessment. If the assessment determines a student is struggling, their pathway provides extra support. If a student performs very well, their pathway provides a more challenging resource. In either case, the pathway is personalized. Although it started with Global Studies, Middletown is also developing learning pathways for the other key elements of New York’s core high school curricula including Math, English, and Science.

As the platform evolves and becomes more robust, there are additional tools for personalizing learning. Learning pathways offer remedial, primary, and enrichment paths forward depending on where the student is in his or her learning. The platform also provides students with choice over which resource best suits their



keyword

All Types All Subject All Grades STANDARD English



Thinking about Starting your own OER Initiative?  
Join the #GoOpen movement!



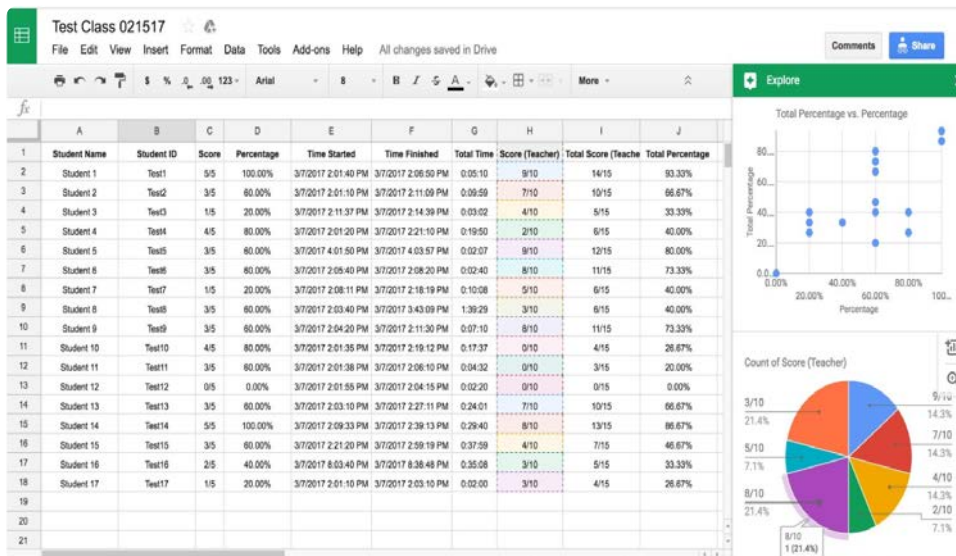
Homepage: Middletown Learning Path

learning needs. And most recently, the platform launched a new data feature which had been frequently requested from educators beta testing the system. As Ray Rozycki, Managing Partner at Education Elements, explained, “now with its reporting tool, teachers can see effective data coming from classroom use.” The data from the platform now feeds immediately into Google Classroom via Google sheets which allows for educators to have a real-time dashboard for how students are progressing and allows educators to make data-driven decisions.

As of 2017, Middletown’s middle and high school classrooms have moved into using OER and they no longer buy textbooks. This initiative has been helped by the support of the teacher unions who negotiated for an incentive for educators to get involved with digital content.

Educators are paid a stipend for developing and reviewing content as well as for being involved in classroom instruction around new technologies.

According to Superintendent Eastwood, “OER has its greatest strength in secondary school with specific courses.” Using OER has shifted costs to developing digital



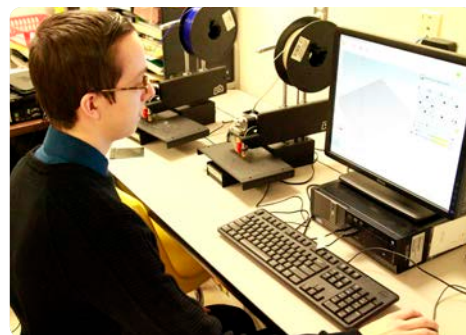
Example of Data-Dashboard from Middletown Learning Path  
This Data-Dashboard demonstrates how data from The Learning Path feeds into a Google Sheets spreadsheet, providing educators with a clear display of how each student is performing on assessments against learning objectives.

content away from textbooks. Eastwood said “they aren’t spending less, but rather taking funds from the old model and moving to a new model which seems to fit better with instruction. Kids come equipped with learning preferences that don’t blend well with old style learning.” Eastwood continued, “the information was old in textbooks, today’s world moves too quickly with information. Kids are coming to us with a different type of learning readiness and how they learn is drastically different. We understand the need to scale up technology readiness inside our classrooms.”

For Middletown’s educators, Learning Path has alleviated the difficulty of finding high-quality resources. Bill Donahue explained the daunting task for educators of looking through a multitude of resources and vetting for quality as well as understanding copyright. “Learning Path offers quality materials for educators allowing them to easily access a new type of instruction with lessons as well as assessments already built into

it. This has greatly reduced the burden on teachers for finding quality instructional materials.”

Patrick DeCosta, a Middletown high school social studies teacher, said “the strength of the player is the ability to get individual students exactly what they need. It contains already built out pathways and we can use those to address gaps in the student’s learning. The data we get back as teachers from the assessment helps us understand student learning gaps and we can drive our instruction based on the data.” For the students, according to DeCosta, they like the idea of independence and the ownership the player offers. Students can access the materials they need and can work at their own pace. Pathways can be one simple lesson or multiple lessons strung together and students can have the support of a teacher if they need it. DeCosta mentioned “the idea is that more of the ownership and accountability is put on students and they are really receptive to that notion. This helps with students’ overall engagement.”



to figure out how this can meet the needs of teachers across the state of New York.”

One of the key challenges to expanding the use of the OER player is to develop a sustainable evaluation process once educators add or modify materials. As teachers take vetted pathways and add things they use in their classrooms, the idea is they will submit these changes to a group of trained educators to approve according to the Middletown Rubric (readability, accessibility, student learning preferences, copyright, fair use, standards). This would result in an ongoing archive of reviews and vetting process for each item. Education Elements and Spider Learning hope to develop this system in partnership with several of the BOCES. One of the ideas underpinning this system is crowdsourcing, in that the more educators use it, the more engaged people will be and the more interested they will be in vetting. According to Rozycki, “when you open the system to the public and it has been teacher-developed, you will constantly get a new cadre of vetters with a high level of sustainability.” In terms of training, they will be employing a “train the trainer” model and developing a cadre of users as well as vetters via the BOCES.

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Bill Donahue, Middletown High School  
Department Chair for Social Studies and  
teacher

## The Path Forward

Middletown plans to offer the Learning Path OER platform to districts in New York and eventually across the country. It is working with New York State’s Boards of Cooperative Educational Services (BOCES) to determine how to best expand use of the platform in the state. The BOCES provide shared educational programs and [services](#) to school districts within New York state. Rozycki stated the plan is to “take the product to a small community of schools via BOCES

## Key Takeaways

Using OER as a new model of instructional materials is very promising. As the leadership team at Middletown learned, there are several key factors when considering such a transition:

- 1 It is important to understand the challenges of using OER for educators. If you want to shift to using OER in your classrooms, think about using a tool like Middletown's Learning Path which does the hard job of evaluation of resources for them. There are other tools in the marketplace to consider such as [Navigate Math](#), created in a partnership between Leadership Public Schools and Gooru, [UnboundEd](#), and [OER Commons](#). There is no need to reinvent the wheel in this space where there is thoughtful and valuable work being done.
- 2 If you don't want to use an already established tool, it is essential to provide a clear definition of what quality looks like and to provide training on the quality piece to ensure confidence that students are engaging with solid materials.
- 3 Remember the importance of training and professional development when introducing a new tool. This improves implementation and buy-in from your educator team.
- 4 As you develop your implementation plan, reflect on the ongoing evaluation process as educators take advantage of OER's ability to allow them to modify, remix and personalize the resources. It makes sense to create a team of educators or coaches responsible for the ongoing evaluations of new and modified resources to develop a robust and iterative collection.

It is exciting to see the development of a new OER tool which personalizes learning for students and offers teachers a trove of valuable information to help them make data-driven decisions for students. It is this type of innovation we like to highlight through our Snapshot Series. If you are interested in getting involved, or learning more, please contact Ray Rozycki, Managing Director, Education Elements at [raymond.rozycki@edelements.com](mailto:raymond.rozycki@edelements.com).



TLA BLENDED LEARNING  
**SNAPSHOT**

The TLA Blended Learning Snapshot, [EdTech Purchasing in Houston](#), is a recommendation-filled report on Houston's computer hardware purchasing program. It includes links to sample RFPs, lease vs. buy guidelines, and more.

The TLA Blended Learning Snapshot, [Lindsay Unified's Path to Community-wide WiFi](#), highlights Lindsay Unified School District's efforts to provide home Internet access to its 4,200 students, and includes useful strategies and artifacts for other districts to share.



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