EXPERIENCES IN PRACTICE:

THE ROLE OF PROJECT-BASED LEARNING AT WARREN NEW TECH HIGH SCHOOL

National Center for Learning Disabilities

For as long as he can remember, James Woodall[1] has found the traditional classroom experience frustrating.

A teacher gives a lecture on historical events he knows he'll be tested on, but he can't concentrate. He fidgets, he can't keep his mind on the topic, and he's distracted by a number of stimuli around the room: a nearby student tapping his pencil, his friend across the room and the social plans they have after school, the reading he has to do in another class. James was diagnosed with attention-deficit hyperactivity disorder (ADHD) and receives services through the Individuals with Disabilities Education Act (IDEA). Yet even with the accommodations and protections students like James are entitled to, a problem remains: The very structure of most schools—the neat rows, the exclusive reliance on lectures, the single way students are required to demonstrate learning—can impede some students' educational success. But the vision and practice of his school, Warren New Tech High School, in the rural town of Warrenton, North Carolina, works for James. It changes the structure of learning.

Like the nearly 200 New Tech Network schools around the country, Warren New Tech provides James greater agency to master content and gain 21st century skills essential to his future success. Recently, his history teacher, Michael Williams, assigned James and his classmates a project that connects events in the Civil War with key events in North Carolina's local history. James was able to take a leadership role in this collaborative group project, conduct interviews with local community members, and present his findings to those community members, his classmates, and teachers. James and his classmates thrive in this environment where learning is relevant and engaging. One hundred percent of students in the class—including others with ADHD—will go on to some form of postsecondary education this year. James plans to enter a two-year program at Vance Granville Community College and later transfer to a four-year school to study broadcast communication and journalism.

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1 In this instance and throughout the rest of the text, the student's name has been changed to protect privacy.

THE VISION: 21ST CENTURY SKILLS THROUGH A PROCESS OF EMPOWERMENT

James' experience with this engaging, self-driven learning isn't happening separately from his peers—it is simply the way Warren New Tech approaches education for all students. When the school launched as part of the New Tech Network in 2007, there was a clear vision of what educators, students, and the community expected learning to reflect: Students would be active owners and creators of their learning rather than passive recipients of it. They would get more individual attention, more opportunities to collaborate with peers, and more opportunities to practice skills essential to their future success, such as written and oral communication, collaboration, citizenship and work ethic, technology literacy, and critical thinking.

The New Tech Network isn't the only national network of schools that emphasize greater student agency and hands-on learning. Other networks also emphasize this approach, including Expeditionary Learning, Big Picture Learning, Envision Education, and Asia Society Schools. New Tech just happened to be the best fit for what the school, community, and students were looking for. New Tech Network's senior director of communications and partnerships, Dr. Kristin Cuilla, describes how Warren New Tech and other sites across the country share a common vision: "There are four design pillars that serve as the foundation for our model: a culture that empowers, teaching that engages, technology that enables, and outcomes that matter." For leaders at Warren New Tech, this has several implications for how they run the school. They explicitly focus on cultivating student agency and relevance in learning for James and his peers. They do this to develop a full range of knowledge and skills the students will need when they leave Warren New Tech. And they scaffold, using technology to support this more advanced learning.

THE STRATEGY: PROJECT BASED LEARNING AS A CENTRAL DRIVER OF STUDENT EXPERIENCES

The vision developed by the school in 2007 was bold, but the question evolved into how to make the vision a reality for the variety of different learners—students like James who learn differently and also the school's high-performing students. The school's answer was project-based learning (PBL). As defined by the Buck Institute for Education, high-quality project-based learning involves "a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge." Gold-standard projects within this definition include elements of being explicit about the key knowledge, skills, and dispositions to be addressed; a sustained project with necessary duration and intensity; reflection; and a public product.

Several inherent factors of PBL can yield specific benefits for students like James. Because projects are designed to be authentic, they help James focus more effectively on what he's doing. Because they have longer duration, they help James become more invested

WARREN NEW TECH
AT A GLANCE

Location:
Warrenton, North Carolina

# of Students: **155**

# of Students With Disabilities: **17**

Year School Began: **2007**

Other Grants/Funds Supporting Work: **District Support of Teacher Leaders through stipends; original funding from North Carolina New Schools Project and the Bill & Melinda Gates Foundation**

in the project's success. And because they emphasize a variety of skills that a simple lecture-based classroom might fail to cover, they draw out his strengths rather than magnify his deficits. This focus on skills is important to Williams. "When thinking of a project—including for students with disabilities—my question as a teacher is what set of skills do I equip students with to prepare them for life beyond high school? Within the classroom, what are the projects I can create to ensure my students have the critical-thinking and collaborative skills, problem-solving and self-management skills? My content is very important, but I have an underlying curriculum that includes skills to ensure my students—especially struggling learners—can be empowered through PBL with what they need to go into a company and succeed."

While these principles are important, Williams and other teachers at Warren New Tech know that simply implementing a project doesn't erase the needs related to students' disabilities. To support James, teachers keep his parents informed about the specific requirements of the project. James gets preferential seating in the classroom in a place where he can better pay attention. And, at certain stages in the project, he is put in a position where he gets greater interaction with his teachers to ensure that he's establishing work processes that lead to a high-quality product.
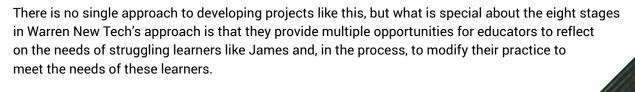
IMPLEMENTING PBL AT WARREN NEW TECH

A lot of intentionality goes into implementing a high-quality project and little is left to chance. Warren New Tech's process for implementing high-quality projects for James and his peers include the following eight stages:

- **Stage 1: The teacher initiates a project.** Teachers look at course standards and at the school's key 21st century skills to inform a project that addresses a relevant, real-world problem or issue. As an example, a recent schoolwide project dealt with issues of community zoning and its relationship to the preservation of public spaces. The idea for the project originated from interests of the school's teachers, students' interests stemming from a recent schoolwide recycling initiative, and news in the Warren County community related to the challenges of zoning.

- **Stage 2: The teacher brings project ideas to a "critical friends" discussion.** The teacher then brings the project idea to a discussion with critical friends, seeking input on ways to modify the project and finding connections to cross-disciplinary content and skills. As teachers talked through Williams' idea, they saw potential and began to raise questions around implementation, including, "How do we breathe life into this for students who struggle with literacy and relevance?"

- **Stage 3: Strategize accommodations to meet the needs of a range of learners.** Teachers reflect on the needs of different students and design accommodations as necessary. A group of teachers in the social studies department began to think about how to make bureaucratic zoning language come alive for students like James. They began to think of how they would solicit meaningful contributions from all students and bring in supports and speakers to bring greater relevance to the subject.

- **Stage 4: Take the project to students and facilitate a "need to know" session.** Teachers then bring the project idea to students to solicit feedback and questions in "need to know" sessions, where students are provided opportunities to give feedback and ask clarifying questions on the project. James' question was straightforward: "What are we presenting and to whom?" Other students had other clarifying questions around how success would be measured and what roles were necessary to complete the project.

- **Stage 5: Designate each student's role.** Students divide into groups, work on projects, and begin to take increasing ownership over implementation. Teachers continue ensuring that the project addresses overall standards and learning goals. While all students get access to different roles and skill-building opportunities throughout the year, each student takes primary responsibility for a specific role in the project, such as researcher, liaison to the community, liaison to the teacher, and presentation coordinator. One of the roles James took in this project was of team reporter—the individual designated to communicate progress and challenges to the teacher. This gave him an opportunity to identify and speak about the group's concerns and challenges. It also gave Williams the opportunity to check in with James about any individual learning challenges and areas where he might need additional support.

- **Stage 6: Teachers reassess and provide scaffolding.** As projects are being implemented, teachers set up specific stop points for themselves to assess the progress of the group and strategize new directions for the project. In this specific project, Williams began to realize that for some students, the trade language in zoning regulations was a barrier to the learning goals developed at the beginning of the project. He would have to build in more checkpoints to clarify understanding and help students translate the documents into layman's terms.

- **Stage 7: Students make public presentations to reflect learning.** Upon completing the project, students work with teachers to decide the best way to present the project. For James' group, this involved making a presentation and providing handouts to peers, teachers, parents, and community members in a public setting.

- **Stage 8: Teachers work with students to facilitate student reflection.** Following the presentation, students, with support from teachers, engage in a guided reflection of their learning experiences. James and his peers outlined what went well and what they could have done differently. They graded themselves on every stage of the project.

There is no single approach to developing projects like this, but what is special about the eight stages in Warren New Tech's approach is that they provide multiple opportunities for educators to reflect on the needs of struggling learners like James and, in the process, to modify their practice to meet the needs of these learners.

James has experienced significant benefits from this project-based approach—projects like this have helped form his aspirations around entering broadcast journalism. Still, for every benefit that a student like James experiences from this approach, there is an associated challenge that educators like Williams must intentionally address.

BENEFITS AND CHALLENGES FOR STUDENTS WITH DISABILITIES

Key Benefits of Warren New Tech's PBL Approach for Students With Disabilities

- **Relevance and Learning Ownership**
  PBL places students in a position to proactively drive and advocate for their own learning needs, skills particularly important to students like James when they leave their K–12 schools.

- **Strengths-Based Approach**
  Warren New Tech's PBL approach draws out multiple skills and opportunities to demonstrate skills, empowering learning experiences that focus more on strengths than on deficits for students like James.

- **Development of Key 21st Century Skills**
  The PBL approach also facilitates the development of essential skills like collaboration and problem-solving that too many students with disabilities don't sufficiently develop.

Key Associated Challenges of Warren New Tech's PBL Approach for Students With Disabilities

- **Time Limitations**
  Providing students with opportunities to pursue learning that develops a larger set of skills requires a greater time investment, especially for struggling learners. Teachers and teacher teams need to plan accordingly to ensure that students have time to complete the projects.

- **Specific Student Needs**
  Students with disabilities might need to have an initial conversation and work with teachers to ensure that their disability is accommodated. Teachers must set up checkpoints with students to address these needs throughout the project.

- **Alignment with End-of-Course Assessments**
  Emphasis on skills may not align with IEP goals or the end-of-course assessments students are required to take. Teachers must ensure alignment between project goals, standards, assessments, and student IEPs.

CONCLUSION

Sometimes schools approach PBL as a strategy of choice for their gifted and talented students, because they assume these students will be the only ones who will be interested or who will benefit from this approach. PBL should not be seen as an intervention of choice for some students, however, but as a best practice for all students. Even so, to be sure this approach meets the aspiration of inclusivity, educators and schools must approach it with intentionality. At Warren New Tech, it is not assumed that all students will naturally succeed in this environment—a system with built-in checkpoints ensures that students receive the supports they need to succeed. By taking this intentional approach, other schools can ensure that the benefits of PBL are experienced by all learners.