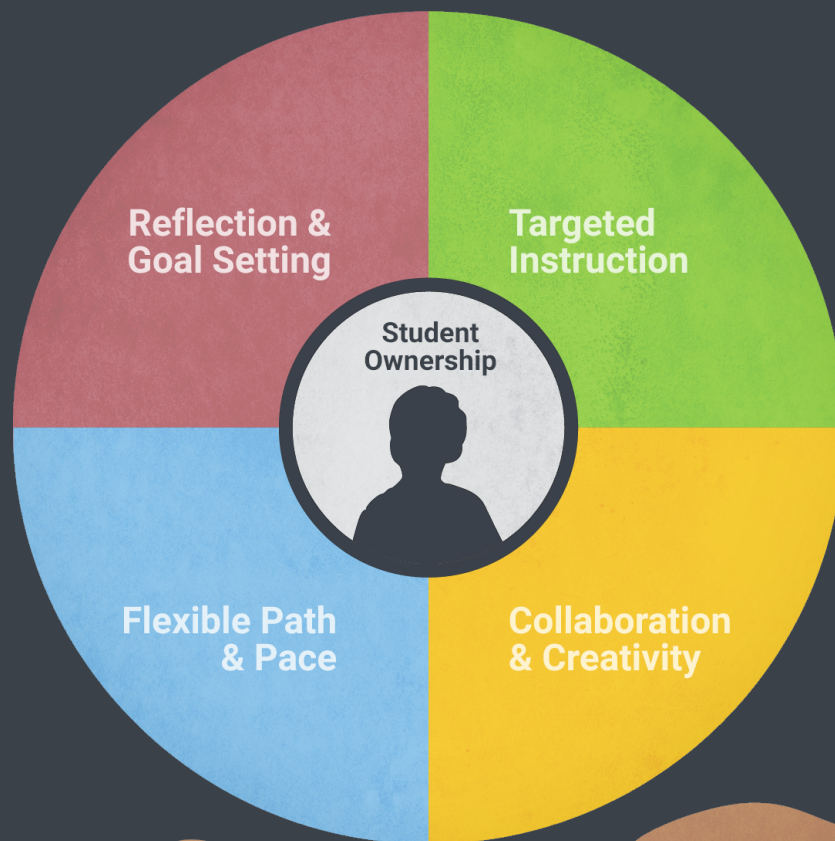


The Core Four

OF PERSONALIZING LEARNING



Nurturing Learning
Environments

INTRODUCTION

In 2014 Education Elements first introduced the Core Four, later publishing the “Core Four of Personalized Learning: The Elements You Need to Succeed” in 2016. Since its publication, this white paper has been downloaded over 3,000 times by educators across the world. The Core Four is our team’s most widely-recognized collateral. It is often the first resource we share with educators, it has been cited in research and position papers, and it has been adopted and customized by school districts.

In the last five years since the white paper’s publication, our team has learned from the educators, students, families, and experts we work with on a daily basis and our approach has continued to grow based on those learnings. In addition, we, like educators across the world, are also reflecting on the lessons we’ve learned during the pandemic. We better understand what is most important for our students, what supports for educators have the greatest impact, and what mindsets and foundational knowledge are critical to this work.

These new learnings and understandings are the reasons we are publishing the most significant update to the Core Four since 2016. This update better reflects our team’s beliefs and mindsets about personalizing learning for students. It incorporates the Core Four continuum which turns principles into school and classroom practices, making this both a white paper and a guide.

We are thrilled to share this update and hope the Core Four will continue to support educators who work every day to personalize learning experiences that empower our students.



What is Personalizing Learning?

Personalizing learning is an instructional approach that empowers students to build ownership of their learning. Educators personalize learning by targeting instruction, fostering collaboration and creativity, facilitating reflection and goal-setting, and designing flexible learning experiences. Personalizing learning is an active and ongoing process. It is a student-centered approach to learning that calls on educators to be responsive to the needs of their students. When students get the instruction they need, when they need it, they are more engaged, successful, and better prepared for college and careers.

The Core Four of Personalizing Learning

The Core Four is a framework for understanding the practices, mindsets, knowledge, and priorities that best personalize learning for students. Classrooms that personalize learning shift away from teacher-directed lessons towards experiences that build every student's ownership of their learning. Those learning experiences require educators to have a foundational understanding of social emotional learning and culturally responsive instruction.

Educators who are most successful at personalizing learning embrace the beliefs that:

Students are more important than content. We must prioritize students as unique individuals with their own strengths, interests, and perspectives.

Caring and supportive relationships with students that honor their identities and background are foundational. You must understand and care about your students in order to personalize their learning.

Equity provides a powerful reason to personalize learning for students. Empowering every student to be successful in a way that is authentic to them turns equity into a powerful purpose for personalizing learning.



The Goal is Student Ownership

Building each student's ownership of their learning is the goal of personalizing learning. Everything educators do, from the classroom models they use to the content they present to students, should be oriented towards building student ownership of learning. Student ownership of learning looks and sounds different for each student, but is always grounded in four key principles:

- Builds self awareness of their unique strengths, interests, and learning modalities
- Empowers them to advocate for themselves and their community
- Develops self management skills that encourage personal and academic growth
- Inspires them to become lifelong learners

Educators who are most successful at building ownership of learning recognize the varied ways this might occur. There is no single set of practices that build ownership of learning, because each student, teacher, and classroom community is unique. The components of the Cour Four should be utilized flexibly by each educator. Building student ownership of learning requires positive relationships with students. Teachers who know and care about their students as individuals are best able to personalize learning that builds ownership of learning. Choose the right strategies, format, and balance of components that will foster ownership of learning with your students.

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Nurturing Learning Environments

Developing nurturing learning environments create the conditions to personalize learning for students. Nurturing learning environments include these foundational elements:

Self-Awareness

CASEL (The Collaborative for Academic, Social, and Emotional Learning) defines self-awareness as “The abilities to understand one’s own emotions, thoughts, and values and how they influence behavior across contexts.” The greater a student’s self-awareness, the better positioned they will be to build an ownership of learning.

Social Awareness

CASEL (The Collaborative for Academic, Social, and Emotional Learning) defines social awareness as, “The abilities to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures, and contexts.” Educators who understand the strengths and limitations of their lived experiences are better positioned to personalize learning for all students, especially those whose experiences may be different from their own.

Strong Relationships

Positive and supportive relationships between educators and students is critical when personalizing learning. Personalizing learning requires educators to understand the person they are teaching. The more we develop strong relationships with students, the more successful this work in the classroom will be.

These elements create the conditions to personalize learning for students. It is critical that educators practice and model these elements if they want to see them reflected in their students.



Personalizing Learning and Diversity, Equity, and Inclusion

The teachers and schools that best personalize learning recognize the unique backgrounds, interests, and identities every student brings to class. They approach that uniqueness as an asset and as a responsibility. That uniqueness can both enhance an individual's learning experience and the experience of the entire class. It also requires educators to better know their students and themselves. Personalizing learning creates an opportunity for educators to meet the needs of all students, honor their uniqueness, and build ownership of learning. When schools prioritize diversity, equity, and inclusion, they create the environment where personalizing learning is most likely to be successful.

There are distinct relationships between personalizing learning and diversity, and equity, and inclusion:

Diverse educator backgrounds, interests, and identities help ensure that every student's needs and interests are met.

Equity provides a powerful reason to personalize learning for students, and it requires us to reimagine the systems that are not supporting the success of all students.

Inclusion builds trust and understanding across the stakeholders necessary to successfully personalize learning for every student.

Learning is most powerful when students feel valued, honored, and empowered. The teachers who leave the greatest lasting impact on their students are the ones who see them for who they are, often before the students even see this themselves. These teachers uplift their students by developing their interests, celebrating their uniqueness, and challenging their assumptions about the world and themselves. Prioritizing diversity, equity, and inclusion when personalizing learning is one way to this, and it is not the only way. Culturally responsive education, transformative justice practices, and anti-racism are other critical components of this work.



The Four Components

The components that make up the Core Four of Personalizing Learning categorize the key practices that build student ownership of learning. These are the practices we have most often seen that build agency, self actualization, and lifelong learners.

Student Reflection & Goal Setting

Student reflection and goal setting are practices that can build a bridge for students between the content they are learning and why they are learning it. While these are two separate practices, they can, and should be interconnected in the classroom. Reflecting on what we know and how we learn builds self-awareness that can make goal-setting a truly meaningful experience.

Targeted Instruction

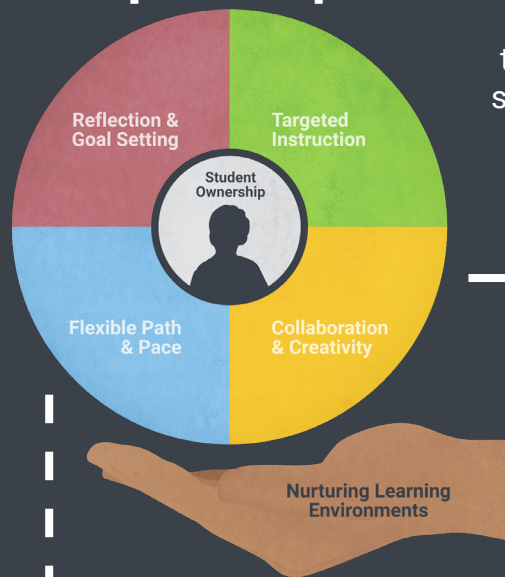
At its most actualized, targeted instruction means that students can articulate what instruction they are receiving and why, and students have some choice over the instruction they receive

Collaboration and Creativity

Personalizing learning encourages students to work with one another, share ideas, create new solutions and projects, provide one another with feedback, and, in the process, learn more about themselves.

Flexible Path & Pace

Students learn in different ways and to truly personalize the learning experience, there must be opportunities for students to progress towards mastery of their learning through flexible learning pathways and at different paces.



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Reflection is a process where students describe their previous learning, how it evolved, and how it might impact future learning. In the same way we build academic skills in students, reflection is a skill that needs to be carefully cultivated in our classrooms. If we commit to developing these habits in our students, there is evidence it can lead to increased learning. A 2014 Harvard Business School study discovered that:

- Learning from direct experience can be more effective if coupled with reflection, that is, the intentional attempt to synthesize, abstract, and articulate the key lessons taught by experience.
- Reflecting on what has been learned makes experience more productive.
- Reflection builds one's confidence in the ability to achieve a goal (i.e., self-efficacy), which in turn translates into higher rates of learning.

There is not one right way to practice reflection, we should show our students different ways it can look and guide them to choose the process they find most meaningful.



Supporting student reflection begins with self-reflection. Investigating and understanding our own identities, biases, and experiences is a crucial step to helping students navigate for themselves. Through reflection, educators and students can develop self-awareness competencies, from identifying one's strengths, to developing clear goals for specific tasks, amongst others (CASEL, 2020). Through reflection and goal setting, students are more well-positioned to take academic risks, learn from their experiences, and more intentionally tackle the next task in front of them.

Reflection can begin with making time for simple prompting questions at the end of a lesson or after an assessment. Educators can help student begin to reflect by using prompts such as:

Goal setting is one piece of the reflective process. Goals allow students to name milestones they want to achieve or practices they would like to grow in. Milestones could be around performance, effort, or habits. Setting goals empower students to dictate their own indicators of success that are important for their personal growth. Individually crafted goals can foster a sense of ownership in students when it comes to their learning. Goals create an opportunity for connections to be drawn between classroom learning and broader dreams students hold for themselves.

What is one thing that would improve your practice in the future?

How would you rate your learning experience?
(5 stars, red/yellow/green, thumbs-up/down, etc.)

What did you learn? What do you still want or need to learn?

Core Four Continuum:

Student Reflection & Goal Setting

Developing

Teacher supports students in setting their own learning goals

Teacher sets-up structured opportunities for students to reflect.

Sustaining

Students set, track and reflect on their own learning goals and make connections between the choices they make in class and their goal.

Emerging

Teacher sets classroom-level goals.

Teacher provides students with foundational knowledge on the process of reflection.

Advancing

Students set and track their own learning goals

Students reflect on their learning progress through the method of their choice.



Targeted Instruction

At its most actualized, targeted instruction means that students can articulate what instruction they are receiving and why, and students have some choice over the instruction they receive based on their data, passions, and preferences.

In earlier versions of our work, we separated data driven decisions and targeted instruction but we know that these two elements go hand-in-hand to help teachers and students design learning experiences tailored for individuals and groups of students.

- By analyzing data and using it to tailor the learning experiences, we shift from a one-size-fits-none approach to a classroom environment grounded in students' strengths, needs, and interests. Teachers who target instruction:
- Have a deep understanding of where each student is academically, and share that understanding with students so they are equipped to take ownership of their academic progress
- Modify instruction to better meet students where they are
- Provide opportunities for students to have voice and choice in their instructional experience
- Regularly update groups based on relevant data sources so that as students progress they continue to have opportunities to demonstrate knowledge at the highest level of mastery



In order for students to be able to embrace rigorous tasks, they must understand themselves as members of that academic community. “There’s still not enough effort to connect the dots between what neuroscience tells us about SEL, relational trust, and the student’s ability to do higher order thinking or deep learning. These are at the heart of what it means to be culturally responsive. It’s not either/or but both/and.” (Zaretta Hammond, 2015). Combining what research suggests about how students learn as well as the lived experiences within real classrooms, we must honor students as key drivers in their own learning experiences by connecting those dots.

Targeted instruction should start small. Consider what data sources are most relevant for an upcoming unit or lesson, and gain insight into where students are academically. Consider what scaffolds students who haven’t mastered necessary prior knowledge will need in order to be successful in the lesson. Plan a scaffold or mini-lesson to address this, and pull just the students who need it. Remember, groups don’t need to be of equal size. As you get more comfortable analyzing data and grouping students, you can create additional groups as needed and make adjustments in real-time. Throughout the process, be transparent with students about the instructional decisions you’re making and where they have choice, so that they have opportunities to truly own their academic experience.

In order for students to be able to embrace rigorous tasks, they must understand themselves as members of that academic community.



Core Four Continuum:

Targeted Instruction

Developing

Teacher reviews data sources to create heterogeneous or homogeneous groups, and modifies instruction to better meet the needs of those groups for a small percentage of class time.

Sustaining

Students can articulate what instruction they are receiving and why, and have some choice over the instruction they receive.

Emerging

Teacher creates structured opportunities for students to work in small groups, meeting with students individually or in small groups

Advancing

Teacher uses real-time data to make in-the-moment adjustments to instruction, so that students spend a larger percentage of class time having instruction tailored to their strengths, needs, or learning preferences.



Collaboration & Creativity

Personalizing learning encourages students to work with one another, share ideas, create new solutions and projects, provide one another with feedback, and, in the process, learn more about themselves. A major misconception about personalizing learning is that students work independently for the majority of the time. We believe that true personalization happens when students show up as their whole selves, including their values, emotions, and perspectives, and work with others to solve creative solutions to complex problems meaningful to them and their community.

A research study of top U.S. companies shared the skills students need in a post-pandemic world, and every single one named self-awareness and collaboration, comfort with ambiguity, or strategic and agile thinking to solve complex problems as what they will want and expect from today's K-12 students when they eventually hire them.

Classrooms that encourage collaboration and inspire creativity:

- Include space for students to learn more about each other and the communities in which they live.
- Challenge students to think critically, problem-solve, and design solutions for problems relevant to student's lives, both big and small.
- Celebrate collective success and highlight the value of taking risks and learning from mistakes.
- Recognize the power in the process of learning, even over getting the answer to a question right.



A key lever for collaboration is developing relationship skills and social awareness. Being able to recognize the strengths in others, take multiple perspectives, and navigate diverse social norms are all skills that students can practice with support from teachers and leaders in school communities.

Beyond thinking about setting up students for positive relationships with each other, educators can consider how they intentionally collaborate with families and the local community to deepen their own understanding of their classrooms. Honoring home languages, pronouncing students' names correctly, and leveraging community partnerships to increase relevance of classroom experiences are just a few ways collaboration might show up.

When thinking about ways to improve how students work together or the learning experiences that matter most to them, start with this simple step before doing anything else; ask them. We recommend polling students in a class or convening a small group to ask them questions about how they like working together and what their interests are before making a plan. Including students in the process will help them feel included and valued while also providing a model of what happens when collaboration and creativity drive a process that honors the whole

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Core Four Continuum:

Collaboration and Creativity

Developing

Students have small structured opportunities to work in pairs or small groups. (turn + talk, small group conversations)

Students make connections in order to generate new ideas and solutions.

Sustaining

Students work in groups to accomplish a task and are given autonomy to establish roles and norms.

Students generate novel ideas and solutions to complex problems or prompts independently of the teacher and without prompting.

Emerging

Students spend most of their time working independently.

Students are exposed to novel ideas and solutions by the teacher or in teacher-selected resources.

Advancing

Students work in groups to accomplish a task with individual roles that are assigned by the teacher

Students can articulate how their novel ideas and solutions are meaningful to them and/or their community.



Flexible Path & Pace

Students learn in different ways and to truly personalize the learning experience, there must be opportunities for students to progress towards mastery of their learning through flexible learning pathways at different paces.

Learning pathways are the teacher-curated set of learning activities and checkpoints that lead all students to a common outcome or objective (standards or competencies). Creating differentiated pathways for students allows us to honor the unique needs, talents, and strengths of each student as they progress through their learning journey. This is supported by the Universal Design for Learning framework, which encourages educators to provide multiple means of engagement, action, and expression for learners. It is also important to consider ways to provide flexibility for navigating between different learning pathways. This expands the number of learning opportunities available to students, rather than limiting them to a single pathway.

Learning pathways are also supported by allowing for differentiated pace. While students might be on the same learning pathway, their process by which they navigate that pathway and progress towards mastery might look different from their peers. Differentiated pace allows learners to have more agency in their learning as well. Increased agency opens up the opportunity to incorporate a student's passions and interests into their learning, which also leads to higher levels of interest and relevance.

Creating flexible opportunities for path and pace:

- Creates the opportunity for multiple, differentiated learning trajectories to guide students on their path towards mastery
- Relies on the purposeful collection and utilization of data to inform decisions for how to help students craft their learning journey
- Amplifies student ownership by giving them choice in determining the process and product of their learning
- Honors the unique talents, strengths, and abilities of students and the value that each student contributes to the learning environment

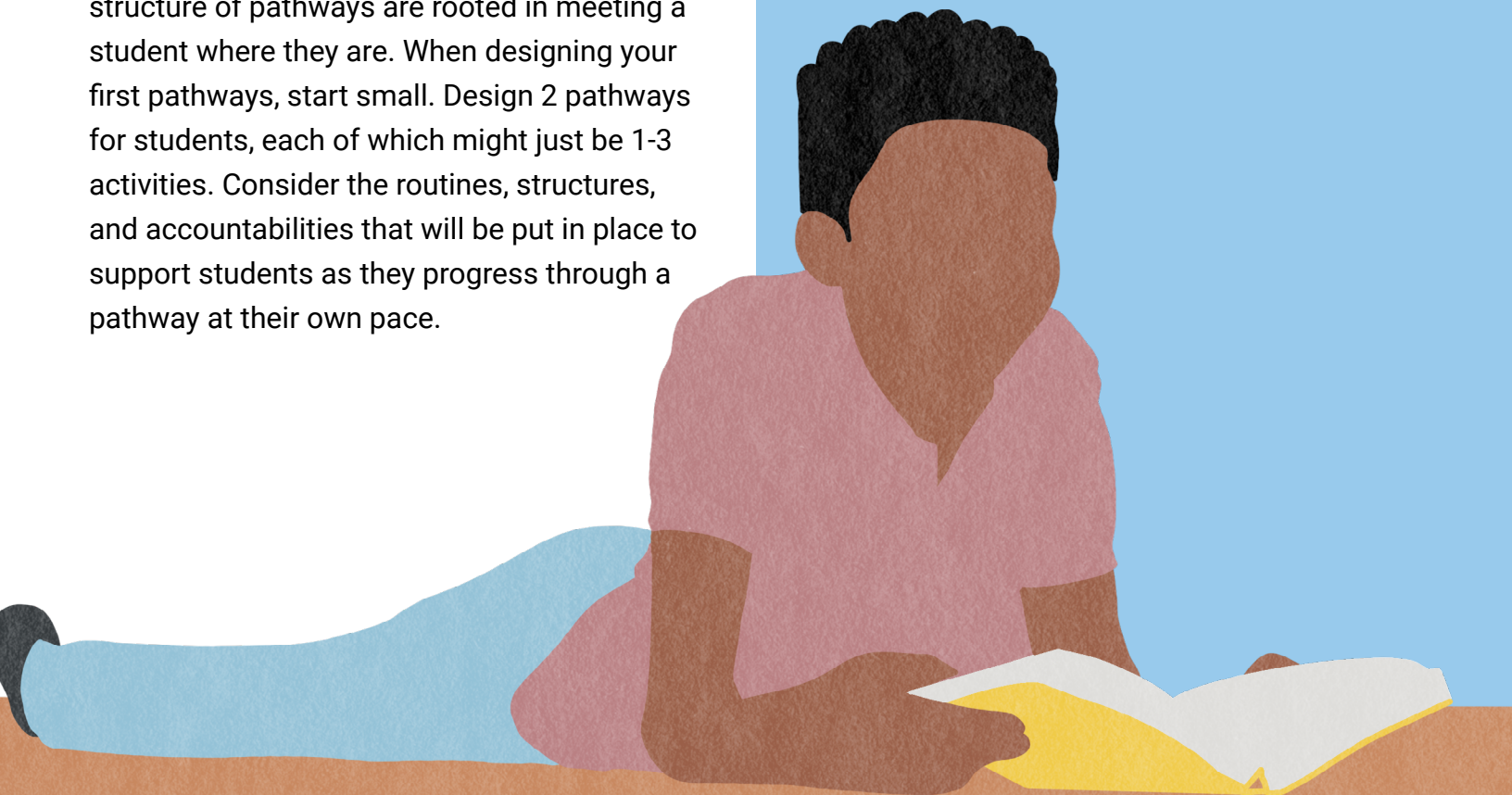


Several studies highlight the powerful connection between engaging, meaningful learning and instructional materials and assignments that reflect students' backgrounds and experiences (New America, 2019). In order to create these experiences, educators must invite, understand, and celebrate each student's identities into their classroom.

When increasing flexibility in student learning experiences, teachers can provide valuable tools so that students feel supported in this increased self-direction. This can help move students from superficial engagement or compliance into drivers of their own learning.

The starting point for crafting any learning pathway is effective collection and utilization of data to inform where students' pathways will begin. Whether that data source is from a more formal summative assessment, an exit ticket, check for understanding or an empathy-building activity, it is critical that the origin and structure of pathways are rooted in meeting a student where they are. When designing your first pathways, start small. Design 2 pathways for students, each of which might just be 1-3 activities. Consider the routines, structures, and accountabilities that will be put in place to support students as they progress through a pathway at their own pace.

The starting point for crafting any learning pathway is effective collection and utilization of data to inform where students' pathways will begin.



Core Four Continuum:

Flexible Path and Pace

Developing

Teacher provides more than one opportunity for flexibility in path or pace.

Sustaining

Students are able to choose their path and pace as they work through material.

Emerging

Teacher provides one opportunity for flexibility in path or pace.

Advancing

Teacher supports students in choosing the path and pace that best meets their learning needs.



Core Four Continuum

In 2018, Education Elements published the Core Four Continuum. This framework helped educators turn each component of the core four into actionable steps. The continuum of phases ensured the framework was meaningful for anyone, whether you were just starting to personalize learning or if you had been doing this work for years. As part of our update to the Core Four of Personalizing Learning, we are also updating the continuum in the following ways:



| | Emerging | Developing | Advancing | Sustaining |
|---------------------------------------|---|---|---|--|
| Reflection and Goal Setting | <p>Teacher sets classroom-level goals.</p> <p>Teacher provides students with foundational knowledge on the process of reflection.</p> | <p>Teacher supports students in setting their own learning goals</p> <p>Teacher sets-up structured opportunities for students to reflect.</p> | <p>Students set and track their own learning goals</p> <p>Students reflect on their learning progress through the method of their choice.</p> | <p>Students set, track and reflect on their own learning goals and make connections between the choices they make in class and their goal.</p> |
| Targeted Instruction | <p>Teacher creates structured opportunities for students to work in small groups, meeting with students individually or in small groups</p> | <p>Teacher reviews data sources to create heterogeneous or homogeneous groups, and modifies instruction to better meet the needs of those groups for a small percentage of class time.</p> | <p>Teacher uses real-time data to make in-the-moment adjustments to instruction, so that students spend a larger percentage of class time having instruction tailored to their strengths, needs, or learning preferences.</p> | <p>Students can articulate what instruction they are receiving and why, and have some choice over the instruction they receive.</p> |
| Collaboration & Creativity | <p>Students spend most of their time working independently.</p> <p>Students are exposed to novel ideas and solutions by the teacher or in teacher-selected resources.</p> | <p>Students have small structured opportunities to work in pairs or small groups. (turn + talk, small group conversations)</p> <p>Students make connections in order to generate new ideas and solutions.</p> | <p>Students work in groups to accomplish a task with individual roles that are assigned by the teacher</p> <p>Students can articulate how their novel ideas and solutions are meaningful to them and/or their community.</p> | <p>Students work in groups to accomplish a task and are given autonomy to establish roles and norms.</p> <p>Students generate novel ideas and solutions to complex problems or prompts independently of the teacher and without prompting.</p> |
| Flexible Path and Pace | <p>Teacher provides one opportunity for flexibility in path or pace.</p> | <p>Teacher provides more than one opportunity for flexibility in path or pace.</p> | <p>Teacher supports students in choosing the path and pace that best meets their learning needs.</p> | <p>Students are able to choose their path and pace as they work through material.</p> |

Conclusion

This update to the Core Four of Personalizing Learning represents the knowledge and perspectives that have been shared by the hundreds of educators and thousands of students we've had the honor of working with. We believe that personalizing learning to create more student-centered classrooms is more important than ever. Educators across the country recognize the critical importance of developing student ownership of learning. This orientation for personalizing learning can empower our students to not just be successful; but to outline what success means to them, why it's important, and to advocate for themselves and their communities.



Authors

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