The Learner Variability Project In the Field: A Guide to Teaching Students about Learner Variability

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Guide Overview

This guide is to help you identify and design activities that help students understand their own learner variability.
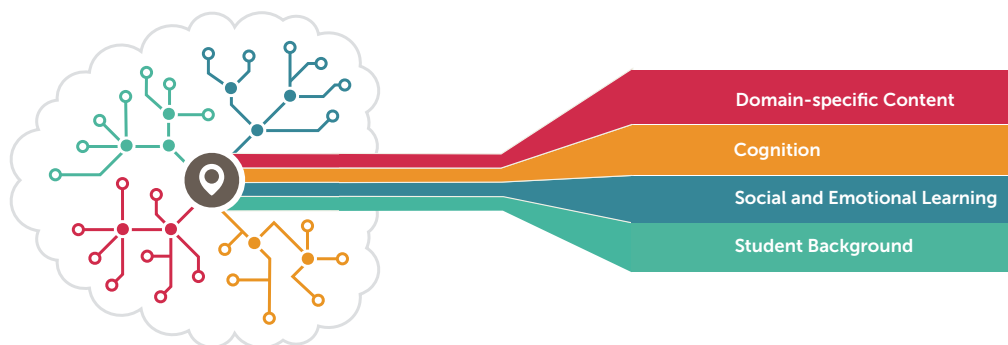
The Learner Variability Project "In the Field" series provides classroom-based examples of different ways the concept of learner variability is designed for and implemented in the classroom. Learner variability is the recognition that every student has a unique set of strengths and challenges across a whole child framework that are interconnected and vary according to context. It embraces both students' struggles and strengths and considers the whole child.

Learner variability, in concept and practice, opens up the doors to cultural responsive and strengths-based inclusive teaching and learning for each student. Providing students with the tools to recognize and reflect on their own variability may help them be better prepared to voice their needs and interests in school and beyond. Developing self-awareness in how they vary in learning and what customized paths they need to take may provide students with the confidence and motivation they need to engage in robust learning experiences.

What Do Teachers Need to Know?

Learner Variability is:

Learner variability is the understanding that each learner has a unique constellation of strengths and challenges that impact their learning. Additionally, these strengths and challenges can vary depending on context. For instance, motivation can be very different based on subject matter or relationship with a teacher. Learner variability looks at how learner factors—variables that predict student outcomes—are connected across a **whole child framework**. Connections among factors across domains can offer valuable insight for educators trying to support the complex needs of learners.

Learner Variability is not:

Learner variability is **not** learning styles (e.g., identifying solely as an auditory or visual learner). The notion of learning styles, while widespread, is not grounded in research and further promotes the idea that students have a fixed way of learning. Importantly, which modality a learner uses or prefers can vary greatly depending on the task and context. For instance, you might remember a phone number by repeating it multiple times (auditory), but you might remember someone's name with a visual reminder, such as a nameplate on a desk. Additionally, what research does show is that engaging students with multiple modalities of learning (audio, visual, and kinesthetic) helps solidify information into long-term memory.

Learn more in our teacher self-study guide to learner variability or check out the Learner Variability Navigator.

What Do Students Need to Know?

It's important for students to understand that the way they learn will grow and change with their experiences, skills, and interests. In other words, learning is a process and learner variability is not fixed!

Overview of Learner Variability for Students:

- Every student has a **unique** set of **strengths** and challenges that shape the way they learn. These strengths and challenges are **shaped by our experiences** both in and out of school and can **change** as we learn and grow.

- Our experiences in the world, community, and home affect the way we learn. Finding ways to connect these experiences to the content we learn in school is important for teachers and students.

- How we feel can impact how we engage with the world and other people. It also can have an impact on what we remember. This means that emotions and cognition are connected. Reflecting on emotions and how we see ourselves as learners can give us insight into what strategies we may need and how we've changed and grown over time.

Understanding Themselves as Whole Learners

Student Background

The way we see ourselves and the world can be shaped by our health and our families and community.

Social and Emotional Learning

Emotions play a big part in the learning process. This includes how we feel about learning, how we recognize our own and others' feelings, the relationships we have with our teachers and other students, and also our feelings of safety and belonging in school.

Cognition

This helps us understand how our brains make sense of the world. It includes what we focus on, and how we process information and remember things. It also includes how we make decisions.

Content Knowledge

Different subjects like reading and math are actually made up of a number of skills and processes such as vocabulary, alphabet knowledge, number sense, and counting. These components are like building blocks for mastering content.

Strategies for Teachers to Help Students Understand Themselves as Learners

Student Background

- Fostering a sense of belonging for each student and incorporating cultural practices can help students feel safe and make meaningful connections to new content.

- Sharing culturally diverse texts is a great way for students to experience windows and mirrors into other cultures.

Social and Emotional Learning

- Setting goals and providing opportunities for students to reflect on their learning experiences can help them process content and develop self-awareness.

- Include discussions about feelings to help students label their emotions

- Encourage students to advocate for themselves. Model what this looks like to encourage self-reflection and self-regulation.

Cognition

- Help students discover their strengths. When conferencing with students, asking about and naming their strengths in feedback helps students discover how to use them.

- Break down directions, use visuals, and have students repeat back information.

- Allow students to present learning in different ways.

- Be transparent about why these strategies are helpful.

Content Knowledge

- Explain how new learning connects or builds upon previous learning as new concepts are introduced.

- Use analogies (e.g., "learn to walk before run") to clarify why foundational skills are important to success.

- Set goals with students and consider using student-led conferences to have them reflect on and share their progress with their parents.

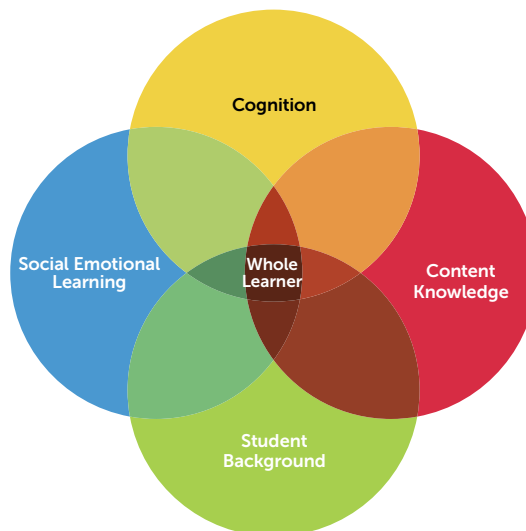# How Do You Teach about Learner Variability?

Use analogies or comparisons with plants or animals to help students understand ways that we can be similar and different. For example, discuss what plants need to live and grow. Do they all need the same things? Do they need the same amount? Do they all prefer the same environments? Consider comparing two plants like a cactus and a rose, or a tulip and a corn stalk. This can also help students understand how environment (context) can impact plants (learners).

Download the poster

Use our student poster to start a discussion about what each student needs to learn. Consider sharing stories and reflections on your own learner variability to help students feel comfortable! How are their learning preferences similar or different? How have their learning needs changed over time? How do their learning needs change in different environments (e.g., online versus in person)?

Explore different facets of the whole child using a series of activities that delve into each area of the framework. Help students understand the connections between how our brains make sense of the world (cognition), how our health and experiences at home and community shape our identity (student background), and how our relationships and feelings (social and emotional learning) can help students engage and process new information (content knowledge).

Example from the Field

Sarah Oberle, a first grade teacher in Delaware, uses glyphs, songs, and stories to teach her students about learner variability.
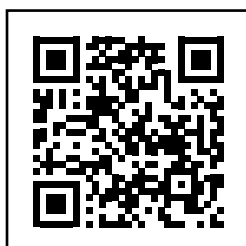
Sarah Oberle has served the Red Clay Consolidated School District for 14 years as a first grade teacher. She is also a team leader, representing her colleagues on her building leadership team, and she is a Practitioner Advisory Board member for the Learner Variability Navigator at Digital Promise. Sarah has a passion for understanding the learning sciences to improve instructional content and practice. She believes that connecting educational research to the classroom is essential towards maximizing all learners' experiences.

Sarah earned a B.A. in Psychology and a M.Ed. in Elementary Education and is currently working on an Ed.D. in Educational Leadership and Cognitive Sciences at the University of Delaware. She lives in Newark, Delaware, with her husband and two daughters. During her free time, Sarah enjoys spending time with family and friends.

Hear how she approaches this concept for her first graders:

Sarah Oberle

[Watch Video](): Sarah's Unit on Learner Variability

5 days of lessons and activities

What's included:

- Interactive instructional slides
- Reproducible student activities
- Songs
- Read alouds with links to videos
- Culminating craft

Download her unit from Canva:

[Lessons](#)

click here to access lesson slides	Day 1	Day 2	Day 3	Day 4	Day 5
goal	intro to LV & 4 factors	thinking	background	knowledge	feelings
question	Why/How are learners different?	How do you learn? What helps you learn?	What do you learn from our home and family?	What do you know about?	How do your feelings affect learning?
warm-up/review	pictures of animals/flowers to represent variability	LV/4 factors song	types of thinking think aloud	share favorite home activity	4 corners game if you know about...
discussion	what is LV?	model think aloud (memory, planning, attention)	homes health/sleep family	skills/knowledge	validate/accept all feelings self-awareness & coping
movement/(song?)	intro to song & movements	tap on forehead	hands around body like a rainbow	hands opening a book	hug yourself
story	It's Okay to be Different	The Little Butterfly that Could	Families, Families, Families	All the Ways to be Smart	My No No No Day
glyph	n/a	body	legs/arms	eyes/nose/mouth	hat
ind. activity	puzzle	I am thinking	This is my family.../Ask me about	I know/I want to learn	Today I feel...

I AM UNIQUE!

My Knowledge

Name: _____

Use green to circle what you know about.
Use yellow to circle what you want to learn about.

adding · counting · letters · reading

shapes · writing · animals · time

weather · sports · art · friends

science · technology · kindness · space

languages · music

Lesson 4

I AM UNIQUE!

Name: _____

♫ All our learning is different,
four things can affect it.
What we know and what we're thinking,
background and our feelings.

To the tune of "Don't Stop Now" –Dua Lipa

My Thinking
Cognition,
How we think

My Feelings
Feelings too,
Oh so many

Background,
Our lives and
what we bring

What we know,
We know plenty!

My Life · **My Knowledge**

Lesson 1

I AM UNIQUE!

My Life

Name: _____

Draw a picture to match your sentence.

Ask me about:

I am an expert!
Ask me about _____ .

Lesson 3

See lesson slides here:

Culminating Activity:

Glyph reproducibles are included in the lesson links. You can adapt the different glyph statements for your students. As you adapt lessons make sure you provide options that are asset-based and do not lead students to one right option.

Extension Activity

Understanding learner variability is an ongoing process. It's important for students to understand that their learning process will change as they grow.

This Google form was designed for students in grades K-2. It is a learning reflection tool which can be used as needed to help students monitor their own learning. The form is also a great way for teachers to receive insight about and feedback from students. Students can use the reflections to gain awareness about how their learning behaviors either promote or hinder their learning success. This is an easy, ready-to-use digital activity for incorporating the pillars of learner variability into your classroom practice through regular reflection.
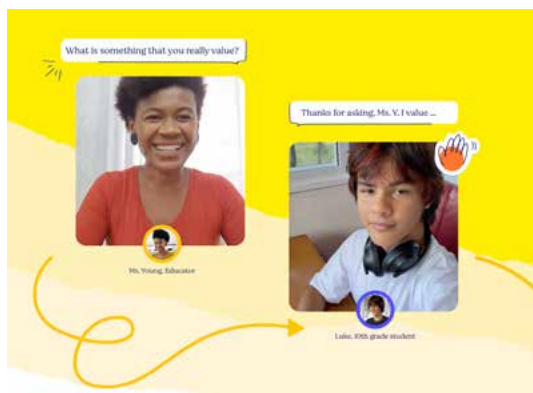

Unit Reflection from Sarah:

Teaching my students about learner variability has opened the door for them to gain insight into their strengths and needs while also appreciating their differences. Their self-regulation has improved and their interest in learning has increased. By gaining a sense of control over their learning, my first graders are equipped to manage their own learning experiences. They understand what influences their learning. Further, my students have become more supportive of their peers (and me!) by celebrating moments of reflection, redirection, and growth!

Make a copy of Sarah's Google form to use with your students

Example Tools that Support Understanding of Students' Learner Variability

What it is

Along is a free resource to help educators connect one-on-one with their students so that each student can feel seen and understood. Educators can select and send brief prompts or activities to build relationships and get to know their students' social, emotional, and cognitive strengths and challenges and their personal backgrounds. Along was designed for upper elementary, middle, and high school grade levels.

How it supports learner variability

Along's content is based on research, designed with students and teachers, and audited by experts in racial and cultural affirmation, usability, and accessibility. The tool allows educators to get to know their students' unique profiles of learner variability, expressed in their own words and medium, through quickly shared video, audio, or text reflections.

Black Genius Planning is a free tool where Black children and their parents create a profile of whole child strengths and challenges that can support their learning. The tool provides lightweight support for setting and monitoring goals. This tool was designed for Black-identifying children ages 3-17 and their parents.

Black Genius Planning can help students, parents, and teachers understand and advocate for the many strengths in Black students' backgrounds, social-emotional, and cognitive skills that can help them thrive as leaders in their own learning and their communities.

Meet the Guide Creators

This guide was written by members of the Learner Variability Project team at Digital Promise in collaboration with Sarah Oberle, whose work has been instrumental in shaping the content of this guide.

Jessica Jackson is the Practitioner Partnerships Director for the Learner Variability Project at Digital Promise, where she designs professional learning for educators and schools based on learning sciences research and an understanding of learner variability. Jessica has over 20 years of experience in education that reflects her passion for creativity, curiosity, leadership, and social justice. For this guidebook she served as a co-designer on content creation.

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Sarah Oberle is a first grade teacher, with 14 years of experience, at the Red Clay Consolidated School District in Delaware. Sarah has a passion for understanding the learning sciences to improve instructional content and practice. She believes that connecting educational research to the classroom is essential towards maximizing all learners' experiences. Sarah served as a co-designer on the guidebook, informing the content and layout in addition to creating the example from the field.

Kyla Haimovitz is the Director of Education Technology for the Learner Variability Project at Digital Promise, where she helps other organizations integrate inclusive, evidence-based design around learner variability into their products and programs. For this guidebook, she reviewed and consulted on content and wrote the example tools section.

Alison Shell is the Research Scientist for the Learner Variability Project at Digital Promise, where she reviews and synthesizes research across the many domains of learner variability into content on the Learner Variability Navigator, as well as works to understand how the Navigator and its content can best be used to support student success. Her background is in cognitive psychology, specifically in understanding the connection between language and cognition. For this guidebook, she reviewed and consulted on content.

Barbara Pape is the Senior Director for the Learner Variability Project at Digital Promise. She has developed messaging around learner variability, defined the concept in a paper, led a national survey on learner variability, and developed key partnerships, and she hosts a monthly webinar series that highlights research and practice behind learner variability. For this guidebook, she reviewed and consulted on content and wrote the introduction.

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