Removing Barriers to Learning:
Tools to Reach All Students Through Design and Inquiry

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Abstract
Viewing lesson design through the framework of Universal Design for Learning (UDL) requires using tools and strategies that reach all learners, including those with disabilities. However, creating a welcoming and effective experience for all students requires understanding the barriers they face and how to mitigate them. This paper examines teacher-inquiry tools and resources that you can use to identify your students' strengths and needs, and use to identify and select strategies that mitigate learning barriers. It also explores employing empathetic processes to make classrooms more inclusive.

Keywords
Learner variability; empathetic practice; design thinking

INTRODUCTION
According to CAST, the aim of Universal Design for Learning is "to have the student understand how s/he learns and become an 'expert learner'." Creating expert learners requires an understanding of all students—including the approximately 20 percent who may have learning and attention issues—and the inherent learning variability common to all.

BACKGROUND
Since 2014, Understood has been committed to ensuring that individuals with learning and attention issues become expert learners who mature into self-determined adults with purpose, meaningful work, and fulfilling social connections. Understood works as a partner to educators to provide tools to build empathy, understanding, and resources needed to help educators design the learning environment with flexible means, methods, and materials that will allow them to better meet the needs of every student**.**

The Relay Graduate School of Education prepares teachers and school leaders to support all students in achieving ambitious academic and social-emotional goals. During Relay coursework, Relay teachers and leaders are asked to reflect on their own learning skills and to get to know their students deeply as learners. Relay teachers and leaders then practice planning and executing instructional strategies that are designed to support learner variability.

ASSESSING AND UNDERSTANDING LEARNER VARIABILITY

Relay Graduate School of Education's "Learner Variability Inquiry" Tool
Teachers and leaders who have mastered their craft are curious about the experiences that their students are having in their classrooms and in their schools. They watch and listen closely to better understand what's working for students during a lesson and where students might be facing barriers to their learning. They respond to this data to remove these barriers.

The ability to "read the room" and respond appropriately is typically developed through experience. However, even experienced teachers may have difficulty identifying certain barriers that their students are facing. To support both new and veteran teachers in understanding and removing barriers to learning in their classrooms, Relay GSE has developed Universal Design for Learning One-Pagers, an observation tool that includes specific indicators of common barriers to learning. Once teachers have used this tool to identify barriers to student learning, they can use Relay's UDL Strategy Packet to identify Universal Design techniques to mitigate the challenge.

Understood's "Through Your Child's Eyes" Tool
UDL teachers offer students multiple ways to approach the same material and give them choices to show what they have learned. For students with learning and attention issues, it's important to understand the barriers and challenges they face from their perspective.

The Through Your Child's Eyes tool provides educators with a means to experience firsthand how challenging it can be when your hand won't write what your brain is telling it to, or how hard it is to complete a simple task when you have trouble focusing. This unique simulation tool is an adult learning mechanism designed to help educators empathize with their students who have learning and attention issues and provide a pathway to address their needs.
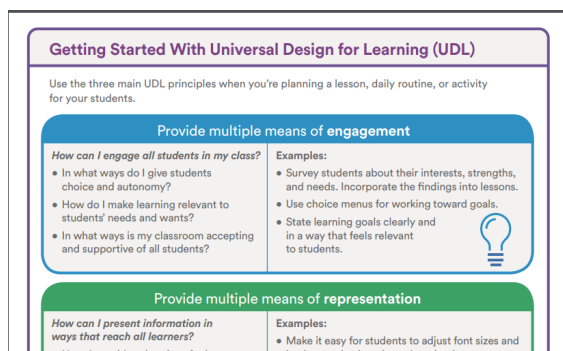
EMPATHETIC DESIGN

Practical Design: Getting Started With UDL
The goal of UDL is to use a variety of teaching means, methods, and materials to remove barriers to learning, giving all students equal opportunities to succeed. It's about designing flexible learning environments so that

teachers can address the strengths and needs of a wide range of students. Moving from conceptual understanding to practice, however, isn't a simple process. This approach to teaching doesn't specifically target students with learning and attention issues, but it can be especially helpful for students with these issues—including those who have not been formally diagnosed.

The Getting Started With Universal Design for Learning (UDL) chart (Fig. 1) asks teachers to keep in mind the key guiding question: *How can I build into my practice and planning ways to meet the needs of the wide range of learners who walk into my classroom?* It also provides a practical, easily accessible and visual introduction to UDL's three key principles. The questions to consider for each principle, and examples of the principles in action, can lead educators to provide students with purposeful options for accessing learning and achieving lesson goals.

Figure 1. Getting Started with Universal Design for Learning Reprinted from Understood.org (2019, March 17). Getting started with universal design for learning (UDL). Retrieved from https://www.understood.org/~/media/images/categorized/educators/getting%20started%20with%20udl_final.pdf Copyright 2019 by Understood.org USA LLC

Practical Design: Incorporating Learner Variability Results

The goal of UDL is to use a variety of teaching means, methods, and materials to remove barriers to learning, giving all students equal opportunities to succeed. However, it may not be feasible for teachers who are new to this approach to adopt the best practices of UDL all at once. Teachers need a way to strategically approach the development of their practice, mindful of the inherent learning variability among their students.

The Universal Design for Learning One-Pagers (Fig. 2) enable teachers to evaluate their own practice to identify the barriers that are getting in the way of student learning. Teachers are asked to assess their practice through the lens of engagement, understanding, and action & expression to determine the presence or absence of learning barriers. Once they have used this tool to complete their analysis,

they can then use this information to prioritize a certain barrier for elimination, in service of objective mastery in an upcoming lesson.

Figure 2. Universal Design for Learning One-Pagers Reprinted from Relay GSE (2019, March 17). Universal Design for Learning One-Pagers [Class Handout]. Copyright 2019 by Relay GSE.

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