Sustainable U (You)
Learner power! Sustainable U; sharing tips on learning about academic learning.

Studies in neuroscience and psychology of learning find that our brains have the capacity to grow new neural pathways throughout our lives.

Many of us have had life experiences which have shaped our information-processing pathways in ways that create challenges to some academic learning. We can learn tools to strengthen our academic learning.

Let's talk about some of the basic concepts of how we learn, specifically in the context of academic learning.

There is power in identifying stages of academic information-processing, and there is even more power in sharing this information.

Unpack thinking about one's own thinking or metacognition.

Observe your brain at work. Applying metacognition to academic learning can help reduce learning frustrations, and can help learners identify their own best learning strategies, using insights gained on what it takes to learn a subject and how best to approach that learning for themselves.

Insights from participants encouraged: place your own notes on the poster, and take-with you any learning tips that resonated.

A student's key sustainability includes their navigation of how to learn academically. This poster session brings light to what learners are actually asked to do academically. It provides some tools and contexts for the learner, from the toolbox used to create assignments and shape classes; this session encourages vigorous dialogue and sharing. Sharing of these insights is an often-missing piece of education justice, a piece which can support resiliency in students, academic sustainability, and in turn help shape and strengthen communities and interrupt inequities.

Backstory:
A few things jumped out at me while I was completing my undergraduate degree. I was a nontraditional student who had worked toward the degree for a long while. I was also driven by a firm commitment to multidisciplinary studies and to social justice and issues of equity. From my own experience and my witnessing of many peers' struggle with strategies for academic learning, I recognized that there may be value in starting a conversation about student sustainability, learning equity, social justice and tools for college students to learn about academic learning. This proposed poster session comes from my undergraduate research, Learner power! The Benefits of Metacognition and Transparency on Education Justice, Insights from Neuroscience of Learning accepted July, 2018, the abstract for which follows at the end of this document.

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WOHESC 2020 Root Causes to Sustainability Challenges and Positive Actions to address them. I commit to:

Actionable takeaways	Interaction and Inclusivity
Creativity of subject matter	Diversity, Equity and Inclusion
Connectivity	Engagement
Transferability	Academics
Quality	Student Leadership

Abstract: Emerging understandings from neuroscience and cognitive research on human learning indicate that nearly all people can learn, and that we can do so throughout our lifetimes. Simultaneously, public health research from the late 1990s identified Adverse Childhood Experiences (ACEs). This research connected ACEs to incidence of factors impacting children's development (including cognitive and educational) and possible long-term impairments to life outcomes. Incidence of impact factors is correlated with effects of poverty and socioeconomic status, especially as the experiences of poverty can create neural stress impacts similar as those resulting from ACEs. Specific insights from ACEs-related research identifies developmental impacts to attention, behavior, comprehension of mathematics and reading. However, our brains possess neuroplasticity, meaning we can create new neural pathways from input and stimulus. Understanding trauma's impacts in light of the brain's capacity to create new patterns helps educators develop possible educational approaches to a range of educational concerns. These concerns include classroom behavior issues, learning progress, and engagement with healthy social spheres. Many best practices exist for trauma-informed and poverty-impacted learning settings which focus on supporting protective factors and on supporting the mitigation of risk factors in a learner's life, and often include fostering development of a learner's executive functions. This paper delves into much-studied areas where deleterious conditions persist, and emphasizes the approaches of metacognition (thinking about one's own thinking, learning about one's own learning) and transparency, while considering the educational future taking shape now with large, swift global technological changes in learning. This paper is a qualitative literature review considering education and learning for trauma and poverty affected learners (K-12, predominantly). This paper argues that education justice for all learners requires more cohesive application of techniques to teach all learners, specifically an increase in the use and application of metacognitive tools and transparent practices. Also considered are aspects of emerging education trends like globally connected learning, universal learning goals, blended learning and the flipped classroom, alongside questions of education justice and Khan Academy. Contained is an additional review of Khan Academy as an example of such a learning model which may represent part of the future of education.