Learner-Centered 2: Culturally Responsive Teaching & ZPD

1	Title Slide	Welcome to this module, Culturally Responsive Teaching, in the Learner-Centered teaching series. To advance to the next slide, select the "forward" arrow located on the play bar at the bottom of your screen.
2	Introduction	According to the National Research Council, learner-centered is defined as "environments that pay careful attention to the knowledge, skills, attitudes, and beliefs that learners bring to the educational setting." Learner-centered environments include teaching practices that are accommodating to students' various cultures. Webster's Dictionary defines culture as "the customary beliefs, social form, and material traits of a racial, religious, or social group" or in other words, "the characteristic features of everyday existence shared by people in a place or time." In this module, we will be discussing learner-centered environments as it relates to culturally responsive teaching practices and Vygotsky's zone of proximal development.
3	Learning Objectives	By the end of this module, the learner will be able to incorporate culturally responsive teaching practices into science-based classrooms.
4	Prior Knowledge	Each student who enters the classroom brings a plethora of prior knowledge to the learning environment. Prior knowledge can include but is not limited to students' personal experiences, such as international travel, knowledge of specific career fields due to their relatives' employment history, a traumatic experience, or even students' cognitive development stage. However in this module, we will focus more on the prior knowledge that students acquire because of their social roles, such as a student's race, socioeconomic class, gender identity, and/or their culture and ethnicity (Heath, 1983). Students' prior knowledge could have an influence on how they interpret their environment, which may adversely affect their ability to acquire new knowledge. As a teacher in a learner-centered environment, it is important to bring each students' prior knowledge into the classroom. According to the National Research Council, effective instruction begins with what learners bring to the learning environment, which includes their cultural practices and beliefs, as well as previous knowledge of academic content being covered in class.
5	Diagnostic Teaching	One culturally responsive teaching practice within learner-centered environments is diagnostic teaching. Diagnostic teaching strives to uncover what students think about certain problems by discussing their misconceptions and rearranging their ideas (Bell, 1982a:7). Teachers may choose among many avenues to diagnose their students' thinking, whether through observing or having discussions with the student, prompting the student with questions, or reflecting on a student's work. A key strategy of diagnostic teaching is to lead students to justify their knowledge by asking them to make predictions about various situations and explain their reasoning. Diagnostic teaching encourages long-term learning and transfer

		from various contexts and situations by helping students to detect, understand, and correct their own misconceptions, as well as others' (Bell, 2007).
6	Diagnostic Teaching	Additionally, diagnostic teaching allows the instructor to purposefully build upon a student's current knowledge base, in other words, their prior knowledge. Bell (2007) provides specific approaches to utilizing diagnostic teaching, which include the following: • Rather than posing several questions in one lesson, focus on a challenging situation or context and encourage a variety of interpretations from students. • Ask questions that create a cognitive conflict that needs resolving. This will create awareness to items that need to be reconsidered or clarified. • Use activities that provide opportunities for meaningful feedback to the students. • Ensure that lessons include time for whole class discussion. Students should be encouraged to share their ideas in a non-threatening environment created by the teacher. • And finally, create opportunities for students to 'consolidate' what has been learned through the application of newly constructed concepts. When using diagnostic teaching to build upon a student's prior knowledge, teachers should be sensitive to the students' cultural practices and incorporate cultural practices into the classroom learning environment. We will discuss more about sensitivity to cultural practices coming up next. But first, pause the module and take just a moment to brainstorm and write down three examples of how you could use diagnostic teaching in your science-based classroom.
7	Sensitivity to Cultural Practices	Like mentioned previously, learner-centered instruction is sensitive to the cultural practices of students (NRC, 2000). Visualize teaching as constructing a bridge between subject matter and the student. Learner-centered teachers keep a constant eye on both ends of the bridge. The teachers feel for a sense of what students know and can do as well as what each student cares about and wants to do. Learner-centered teachers respect and understand students' prior learning experiences and use them as a foundation to build and connect new concepts.
8	Sensitivity to Cultural Practices	Learner-centered environments include teachers who are aware that learners construct their own meanings, which means that they attach their beliefs, understandings, and cultural practices to the academic content being taught in the classroom. Rather than viewing a students' diverse cultural background as a weakness, learner-centered teachers view them as strengths on which to be built. Instructors should intentionally focus on cultural practices of the students in order to ensure that the content being taught is not an obstacle. For example, language used in science courses is often impersonal and can be difficult to connect to students' experiences (Lemke, 1990; Wertsch, 1991). According to Heath (1983), this can often provide a barrier for students who

		do not come from a home environment that emphasizes or places value on being fluent in impersonal scientific language. Students must be trained to understand scientific language. Similarly, students may not be accustomed to being asked questions and being expected to produce an answer. Before we move on, pause the module to brainstorm and write down two examples of how you could incorporate cultural practices in your classroom. Then, write two examples of what you could do in your science-based classroom that would allow the learner to comprehend and use scientific discourse.
9	ZPD	Now, let's take a look at how social interactions can positively impact student learning. Vygotsky (1978) was a proponent of active learning and believed that the social environment, culture, and people were important components of learning. Among many of Vygotsky's pedagogical accomplishments was his installment of the zone of proximal development. Vygotsky (1978) defined the Zone of Proximal Development as "the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (p. 86). Note the visual of Vygotsky's Zone of Proximal Development on your screen. **See file** According to Vygotsky (1978), students' mental development should be assessed in regards to what a student can accomplish with the assistance of other people. The students' readiness to learn is a critical component of active learning and indicates the students' highest level of competence. However, the students' level of competence when supported by another individual is continually changing. As the student becomes able to complete the task or skill on their own, the student gains independent competence and no longer needs the support of another individual to accomplish that task or skill.
10	ZPD	As a practical application, the Zone of Proximal Development can be used by teachers to organize classroom activities. For example, instruction can be planned in a way that provides practice for an individual students' zone, or for groups of students. This could include a teacher using prompts and cues that helped the student at an earlier time as the basis for an instructional activity. Additionally, a teacher could utilize cooperative learning activities to group students at different ability levels to help each other learn. Lastly, teachers could incorporate scaffolding, which is a technique used to move students progressively toward greater understanding and independence. When using scaffolding, the teacher does not simplify the task that the student must complete, but rather simplifies it in a way that makes the learning gradual (Slavin, 2009).

		For more information on using this learning theory in application, see the attached file in the module that discusses the gradual release of responsibility framework devised by Nancy Frey and Douglas Fisher. **See file**
11	Review	As we come to a close, let's consider all we have covered so far. We first discussed culturally responsive teaching by defining learner-centered and culture. We highlighted the importance of incorporating the students' prior knowledge into the classroom and using prior knowledge through diagnostic teaching. We then focused on the importance of cultural sensitivity and how Vygotsky's Zone of Proximal Development can contribute to a learner-centered classroom environment. Incorporating the concepts that we discussed in this module should help you create a learner-centered environment that encourages student growth and development.
12	Sources	Bell, A. (2007). Introduce diagnostic teaching. Michigan State University: Toolkit for Change. Retrieved from http://www.toolkitforchange.org/toolkit/documents/419_32_slpa_introdiagntchg.pdf Culture. 2018. In Merriam-Webster.com. Retrieved from https://www.merriam-webster.com/dictionary/culture Heath, S. B., (1983). *Ways with words: Language, life, and work in communities and classrooms.* Cambridge, UK: Cambridge University Press. Lemke, J., (1990). *Talking science: Language, learning and values.* Norwood, NJ: Ablex. National Research Council. (2000). *How people learn: Brain mind, experience, and school.* Washington, D.C.: The National Academic Press. Slavin, R. (2009). *Educational Psychology: Theory and Practice* (9th ed.). Boston, MA: Pearson. Swan, M. (2007). *Helping teachers gain diagnostic teaching skills.* Michigan State University: Shell Centre Publications. Retrieved from http://toolkitforchange.org/toolkit/documents/375_28_tlpa_helpttodiagtchng.pdf Wertsch, J. V., (1991). *Voices of the Mind.* Cambridge, MA: Harvard University Press. Vygotsky, L.S. (1978). *Mind in society: The development of the higher psychological processes.* Cambridge, MA: The Harvard University Press.
13	Credits	Thank you for viewing this module.