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Curiosity

At a Glance

What is Curiosity?

Curiosity is innate, but that doesn't mean it's always there! In fact, the different facets of curiosity arise in specific contexts. As a teacher, you can help facilitate these kinds of situations to help learners practice being curious. Two example experiences include:

- When you seek **new experiences** and break from an existing routine–particularly one that's boring or unsatisfactory. This requires stepping outside of one's comfort zone and having the opportunity to make the choice to explore different things.
- When you seek **deeper understanding** in light of a conceptual conflict or uncertainty in one's own knowledge. Such a situation requires two components: strong background knowledge and noticing a gap in what you know.

In the age of AI, which aspect of Curiosity should be emphasized?

For each competency, a modern emphasis is determined based on the relative importance of the competencies in an AI landscape, as well as the potential for the competency (and its subcompetencies) to be automated in an age of AI. AI can amplify human curiosity. Nonetheless, the intrinsic drive and creativity behind human curiosity remain uniquely human traits that cannot be replicated by artificial intelligence.

In the age of AI, **emphasize open-mindedness** due to the vast and rapid advancements in technology. Open-mindedness fosters a willingness to explore new ideas and perspectives, enabling individuals to adapt to evolving technologies and insights. By embracing open-mindedness, people can engage with AI innovations more effectively, allowing for greater learning, discovery, and creative problem-solving in a rapidly changing technological landscape.

What other words and concepts are associated with Curiosity?

Exploration, Wonder, Openness to Experience, Passion, Self-Direction, Motivation, Initiative, Drive, Enthusiasm, Appreciation

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How can I best teach Curiosity?

Tips to follow…	Pitfalls to stay aware of…
Model what experiencing and pursuing curiosity looks like. **Acknowledge not knowing the answer as an opportunity to learn more**, and frame "off topic" questions as ones worth pursuing (though perhaps not right at that moment).	Since curiosity stems from a lack of knowing, **it is inherently uncomfortable—it is unpleasant to not know something**! Contrast this with when people who are knowledgeable about something they like, and thus may not be curious to know more.
Allow learners voice and choice. Provide opportunities for learners to follow through on curiosity in the curriculum, such as with open-ended projects where learners can select their own topic or format.	**Teachers often struggle to predict what learners will find interesting** because of their own love of the subject matter. Chat with students and colleagues to gut-check what content is most relevant.
Facilitate "information gaps" when new material is presented. First, elicit the background knowledge of learners, and then surprise their intuitions. The revealed gaps in their understanding prime learners to want to fill them.	**Learners need practice noticing what they don't know.** People often do not notice that they believe in two conflicting ideas until it is directly brought to their attention. For example, people might intuitively say the moon rises around sunset, even though they have seen the moon during the day.

To foster Curiosity, use language such as:

- **"What do you notice or wonder?"** Be intentional in providing the time for low-stakes open-ended exploration of content, whether with images or text.
- **"Sometimes I get confused too."** Acknowledge that no one can know everything and reframe confusion as an opportunity for exploration.
- **"What question could we ask here?"** Strong questions are just as valuable as answers, and learners need practice recognizing what is missing.

And when focusing on Curiosity, avoid the following approaches:

- **"We don't have time for that"** or **"we need to move on."** Of course, classes have schedules! Consider creating systems in which students can write a question down with a clear opportunity for follow-up, so learner curiosity isn't devalued.
- **"Just go with what is in the book."** Books (or content from any medium) are created by people, who are fallible. Create space for students to challenge texts or put their own spin on assignments, as long as they do so with deliberate intention.

Subcompetencies

To create targeted learning experiences for creativity, teachers can use the following subcompetencies as specific learning objectives. Classroom exercises and activities then can infuse subcompetencies into student learning to create deliberate, explicit, comprehensive, systematic, and demonstrable areas for growth. All subcompetencies in the CCR Framework are identified by a brief code for shorthand (i.e., CUR1).

Subcompetency	Description
CUR1: Seeking to understand deeply	Curiosity can come from a **lack of closure**. It's natural to gravitate toward an unanswered question, or an explanation that is not yet clear. Intentionally creating moments without closure can push students to seek deeper understanding.
CUR2: Surveying opportunities and exploring novel experiences	Curiosity can take the form of an openness or a yearning for new things and being in the habit of **stepping out of one's comfort zone** to seek out novelty.
CUR3: Seeking different perspectives to broaden understanding	**Getting outside of one's bubble or perspective** requires a curiosity to look at things in ways one is unaccustomed to. Exposing oneself to differing opinions and perspectives is a form of curiosity.
CUR4: Envisioning and prioritizing one's interests and passions	Curiosity involves **acting on the impulse to know more about something**. Oftentimes, these impulses are ideas that matter personally, be they passing wonders or long-term interests.
CUR5: Finding joy in learning and being a lifelong learner	Curiosity leads to **personal betterment**, furthering learning and persevering for gradual improvement.

Growth Rubrics

The growth rubrics on the following page are a synthesis of the global research body on curiosity and are designed to provide an opportunity for formative reflection on a competency based on a performance in a specific context. They are not meant to be holistic or measure the worth of a person in a high-stakes way, but rather to enable dialogues between educators and learners, creating space for feedback and opportunities for future improvement. **The rubrics are not age-specific, and progress through the levels may be slow and vary greatly depending on the context of the task.**

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CUR1: Seeking to Understand Deeply			
Level I	**Level II**	**Level III**	**Level IV**
I typically choose not to explore the "why" behind something.	I focus on deeply understanding what will be assessed, and don't like unnecessary tangents.	If something doesn't make sense, I act on it by trying something new, asking a friend or teacher, or looking it up.	I spend free time trying to better understand things that don't make sense to learn for the sake of learning.
CUR2: Surveying opportunities and exploring novel experiences			
Level I	**Level II**	**Level III**	**Level IV**
I stay away from activities and ideas outside my comfort zone.	If I'm asked, I'll cautiously try something new, focusing more on the potential risks than the potential benefits.	I try new things until they stop being fun or pleasing, but I know by continuing to try, I'll find something I like.	I look for new things to try and learn from, and I persist even if they are not immediately pleasing.
CUR3: Seeking different perspectives to broaden understanding			
Level I	**Level II**	**Level III**	**Level IV**
I generally believe and state that my way is right or that my experience is universal.	When I'm asked, I can imagine how someone else might view a situation.	I try to imagine how others experience the world, using analogies I can relate to as appropriate.	I ask others for their perspectives and appreciate them even if I disagree.
CUR4: Envisioning and prioritizing one's interests and passions			
Level I	**Level II**	**Level III**	**Level IV**
I am often aimless in my free time and am not sure what my passions are.	I can focus on goals set by others but struggle to set my own goals or recognize that they matter.	I get excited to start work on my personal goals but have a hard time maintaining my efforts.	I focus my free time on my personal interests and, with enough time, can reach any goal I set.
CUR5: Finding joy in learning and becoming a lifelong learner			
Level I	**Level II**	**Level III**	**Level IV**
I don't enjoy learning and struggle to see the point of most activities or courses.	I see value in each course or activity, even though I find some more enjoyable than others.	I know what I want to learn, and sometimes find time to pursue new ideas independently.	I make sure to find time to learn something I'm interested in and value pursuing new ideas.