Ask the Expert: Construct Development

I'm Sue Somay. I am a Senior Measurement Scientist at NBME.

On-screen: [Su Somay, senior measurement scientist, growth and innovation, NBME.

What is construct development and why is it so important?]

Construct development is the foundation of creating meaningful and fair assessments. It's the backbone of all assessments. It's all about defining and shaping abstracts or theoretical concepts.

On-screen: [Construct Development: the process of determining the traits (such as knowledge, skills or abilities) that are desired to be measured in a test or assessment.]

Imagine we're trying to assess something like critical thinking skills or empathy. These are both very abstract and complex concepts, right? So the construct development process is all about trying to precisely define these and then give them a clear and measurable form.

On-screen: [What are key factors to consider for proper construct development?]

We really need a robust construct development process to be able to provide reliable, meaningful, valid, and fair results.

A key factor, first and foremost, is having the right expertise in the room, content expertise, and psychometric expertise. This helps us ground the construct in a solid theoretical framework, which is essential.

On-screen: [What is the process to create a good construct?]

I should mention that this is a very iterative process. As we progress through the steps of assessment development, we often find ourselves going back and forth, reconsidering the constructs, sometimes redefining it, sometimes tweaking it. It's very much like crafting a fine recipe. It's rarely perfect the first time you do it, right?

On-screen: [Evidence-Centered Design (ECD): An assessment design framework that ensures early consideration of data collection to generate evidence to support assessment inferences.]

So luckily, we have evidence-centered design, ECD, which is a powerful approach to assessment development. It's very much like a GPS or having a roadmap.

On-screen: [Diagram showing the question "do the data support the intended inference?" leading to inference, then evidence, then task, and finally data. The cycle repeats in a loop.]

Really, it systematically incorporates the evidence we need to support our validity arguments into the developmental process.

On-screen: [What are the consequences if the construct development isn't done properly?]

The consequences can be detrimental. We may end up not measuring what we intended to measure, but perhaps worse, it might introduce biases leading to unfairness in outcomes and misguided decisions based on flawed information.

Ultimately, these negative consequences could erode trust, which is the foundation for everything, and it could waste resources and even cause legal issues. So, it's really crucial to invest time and effort into proper construct development process.

On-screen: [Learn more. reassessthefuture.org.]