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Developing Assessments to Gauge Biomolecular Visual Literacy: A 5 step approach to ensuring accuracy and reliability

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Abstract

BioMolViz is a community of educators, assessment experts, and biomolecular visualization enthusiasts dedicated to improving biomolecular visual literacy. A central goal of the project is to create a repository of validated assessments that instructors can use in their classrooms to gauge students' visual literacy. Through three-day workshops, we convene faculty to craft and peer review biomolecular visualization assessments in teams. These workshops are often the first step in our assessment development process. In this presentation, we will describe a five-step model for designing and validating assessments that consists of: 1. Item creation 2. Item revision 3. Expert panel review 4. Field testing and 5. Dissemination through the online BioMolViz repository. Results from the first three phases of the process will be reported, and our plan for field testing and disseminating assessments will be discussed. In 2020, our workshops and assessment development model moved online, which opened up new pathways for sustained engagement with workshop participants. In particular, we will share how a new working group emerged when we established our remote workflow. A subset of the group, The BioMolViz Fellows, continued working with our community for several semesters and has become integral to the iterative assessment revision process. Alongside our validation process, we will highlight insights for

building online communities, establishing remote workflows, and sustaining long-term participant engagement.

This is the full abstract presented at the Experimental Biology meeting and is only available in HTML format. There are no additional versions or additional content available for this abstract.



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