Biology - High School Leading Group Discussion
Thinking critically about a Scientific Article

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<th>Author(s)</th>
<th>Avatar(s) &amp; Environment</th>
<th>Suggested Learner Audience</th>
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<tr>
<td><strong>Simulations for Secondary Science Teachers Conference</strong>&lt;br&gt;Karri Blalock&lt;br&gt;Dr. Kabba Colley&lt;br&gt;Dr. Rebecca Cooper&lt;br&gt;Dr. Samantha Strachan&lt;br&gt;Deiny Toss&lt;br&gt;Dr. Rachel Karchmer-Klein</td>
<td><strong>Host Avatar(s)</strong>&lt;br&gt;Nina/Michael&lt;br&gt;<strong>Simulation Avatars</strong>&lt;br&gt;Ciara, Angela, Jordan, James, Stephanie&lt;br&gt;<strong>Environment [ML3z]</strong>&lt;br&gt;11th Grade High School Classroom</td>
<td>• Pre-Service/In-Service High School Science Teachers</td>
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**Mursion**<br>Julie Snyder

**Delivery Mode(s) Available for Scheduling**<br>1:1, Facilitated Group

This scenario was created in partnership with AACTE and the convening, Enhancing Science Education through Virtual Reality: A Conference to Design Simulations that Enhance the Clinical Preparation of Secondary Science Teachers, is funded by the National Science Foundation (NSF) 20-572 Discovery Research PreK-12, award #2040747.

**Learner-Facing Vignette:**
You are a High School Biology teacher about to lead a group discussion with your 11th grade students about an article that you shared with your students for homework. This is the culmination of a unit on Healthy ecosystems/recognizing a healthy ecosystem. The students are familiar with indicators of a healthy ecosystem.

They have read the article and are prepared to have a conversation based on your guidance. You plan to lead a discussion about reading a scientific article and analyzing data. You anticipate that you will encounter some misconceptions and preconceived notions in this discussion and you plan to guide your students to have an active role in analyzing and interpreting this information.

**Note:** The article (as well as the Journal article upon which it is based) can be accessed via the Portal as an attachment to the scenario card.
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Outcome:
Your goal in this scenario is to engage the students in a discussion to think critically about a scientific article.

Strategies/Best practices to consider:
- Leading the students to guide their own discussion by encouraging them to respond directly to each other
- Ask follow up questions for clarification and based on concepts/misunderstandings that you uncover.
- Ask higher-order thinking questions to engage the students critically on the topic

Information about Intensity Level: Low
- Low intensity sessions are meant to build confidence for the learner. This setting is recommended for first time learners.

Supplemental Materials:
Note to the Course Instructor: Although this is a Low intensity scenario it does contain advanced content. We recommend this selecting scenario for Learners that have had experience with Mursion simulations and/or experience in the field.

Students Prior Knowledge:
Indicators of a Healthy Ecosystem

This scenario is gearing toward practicing the following of the Next Generation Science Standards 8 Practices of Science & Engineering:

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<tr>
<th>Practice</th>
<th>Description</th>
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<tr>
<td>Engaging in Argument from Evidence</td>
<td>Argumentation is the process by which explanations and solutions are reached.</td>
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<tr>
<td>Obtaining, Evaluating, and Communicating Information</td>
<td>Scientists and engineers must be able to communicate clearly and persuasively the ideas and methods they generate. Critiquing and communicating ideas individually and in groups is a critical professional activity.</td>
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