Abstract

The current project drew from a model created by Annetta (2008) of Serious Educational Game (SEG) design and development. In this model, students are challenged to become the teacher of science content through an SEG.

- Distinct nodes of learning are created to aid students in the design process.
- Each learning node in the progression depicts knowledge and/or skills a student must attain before moving along the learning spectrum.
- Within each node are sub-nodes that can actually be considered learning progressions unto themselves. All the while, the teacher facilitates understanding and conceptual change.

Test Question: What are the advantages and disadvantages of wind energy?

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
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</thead>
<tbody>
<tr>
<td>An advantage is that wind energy makes things go faster.</td>
<td>The advantages are that wind turns a turbine to make energy.</td>
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<tr>
<td>One disadvantage is that wind energy uses turbines.</td>
<td>One disadvantage is that turbines are usually in wind farms, which can be expensive and also dangerous to birds.</td>
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</table>

Student Comment: “I learned that you can use wind turbines to generate electricity. I didn’t know they were called wind turbines. Also, I learned a little bit about solar panels, and how they work.”

Event 2: Narrative Excerpt for Electricity in Remote Places
The player will move the turbines to generate electricity. Then the player will be asked a question to see what they learned. “Can wind energy go to remote places?”

References

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