Title: Using visual modeling to create more student-centered lessons



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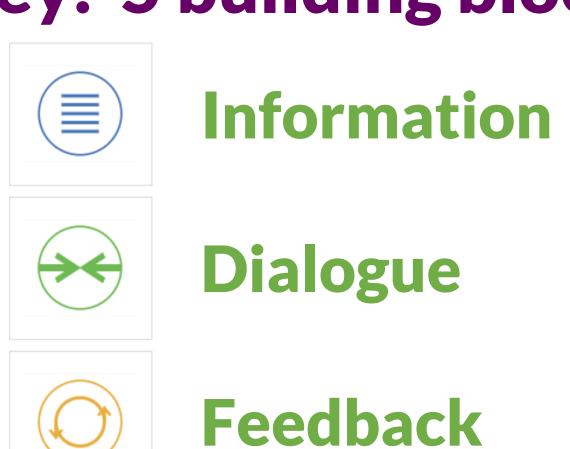
Overview of visual modeling

The creation of a visual blueprint allows instructors to easily identify areas of their lesson that are less student-centered. The Learning Environment ModelingTM (LEM) toolkit is a visual language that can be used to create a visual blueprint of a lesson. This toolkit incorporates what is being learned, how it is being learned, the sequence of learning, and where the learning is occurring (in-class, online, etc.).

Components of the LEM toolkit

- 1. Building blocks components of a lesson (see key below)
- 2. Contexts describes where the learning is taking place (synchronous online, in-class, etc.)
- 3. Actions identifies who is responsible for the transition from one building block to the next
- 4. **Notations** used to explain or describe the visual blueprint

Key: 5 building blocks





Practice



Evidence

Using visual modeling to create better lessons

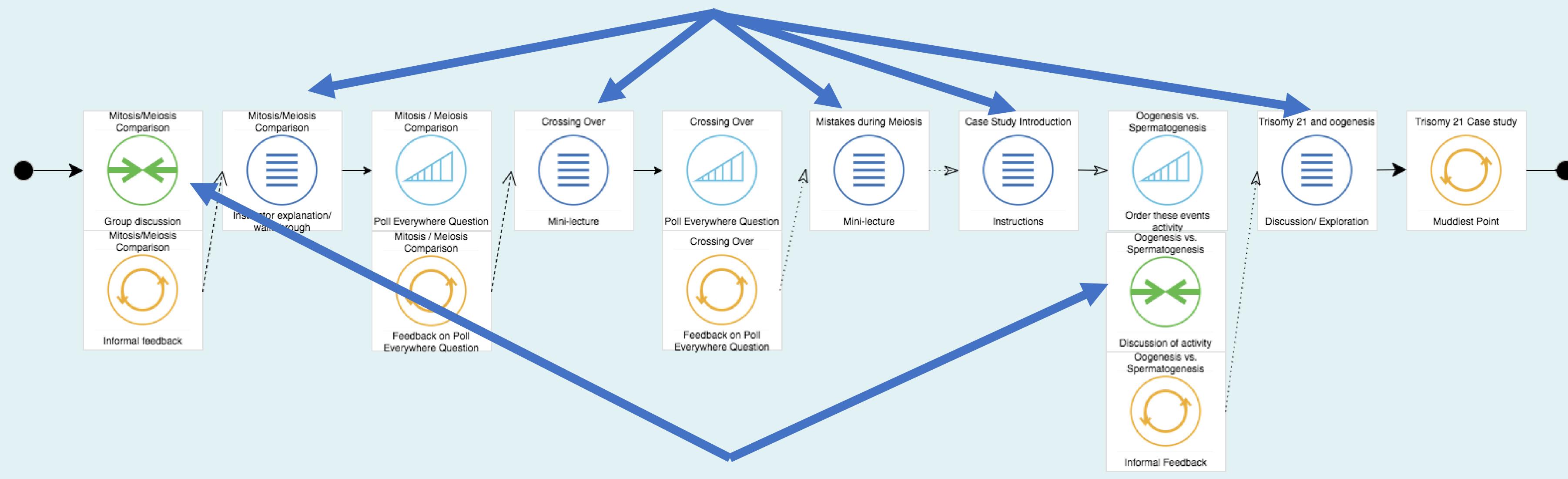
Creating a visual blueprint of my two-day meiosis lesson enabled me to easily identify portions that needed to be modified to be more studentcentered. In particular, I noticed that the second day of my lesson relied too heavily on content delivery ("Information") and not enough on students working through the material ("Dialogue" and "Practice"). With the help of an instructional designer, I used the visual blueprint to redesign Day 2 to be much more student-centered. Thinking in terms of the 5 building blocks helped me determine which elements I needed more of, and which I needed fewer of, in the class. I was able to add more dialogue between students, more learner-initiated actions, and I developed a better way for students to provide evidence that they had learned.

Acknowledgements: I would like to thank Kiran Budhrani, the instructional designer that taught me the LEM and helped me modify my lesson plan using the visual blueprint. I would also like to thank Bucky Dodd, the creator of the LEM, and his colleague Carolyn Muller. They met with me and provided guidance on sharing the LEM and access to many resources about the LEM.

Creating a visual blueprint of my casestudy based meiosis lesson helped me easily recognize that my lesson could be more student-centered.

Blueprint of original lesson

Too much "Information"



Not enough "Dialogue"

