**What is being learned? What mathematics is the focus of the activity/technology? Is relational or instrumental understanding emphasized?**

Students develop a relational understanding of the Mean Value Theorem for Integrals.

**How does learning take place? What are the underlying assumptions (explicit or implicit) about the nature of learning?**

Learning takes place by comparing the visual to the formal language and notation of the theorem. One of the assumptions is that visuals clarify verbal and written statements. It may also be assumed that the teacher would explain the connections between the two.

**What role does technology play? What advantages or disadvantages does the technology hold for this role? What unique contribution does the technology make in facilitating learning?**

The technology acts as a way to represent what would otherwise be an abstract idea. It allows you to modify the function and see how the theorem holds in different settings.

**How does it fit within existing school curriculum? (e.g., is it intended to supplement or supplant existing curriculum? Is it intended to enhance the learning of something already central to the curriculum or some new set of understandings or competencies?)**

This demo nicely supplements initial instruction on the Mean Value Theorem for Integrals, and sets students up for the idea of the average value of a function.

**How does the technology fit or interact with the social context of learning? (e.g., Are computers used by individuals or groups? Does the technology/activity support collaboration or individual work? What sorts of interaction does the technology facilitate or hinder?)**

It is best used as a demonstration piece, and so encourages discussion and questions. Only one person can modify the graph at a time, but there would still be a collaborative effort in making sense of the picture.

**How are important differences among learners taken into account?**

The visual nature of this demo lends itself to students who prefer looking at graphs to the notation. The discussion that can be had about this demo will be helpful to the social and auditory learners.

**What do teachers and learners need to know? What demands are placed on teachers and other "users"? What knowledge is needed? What knowledge supports does the innovation provide (e.g., skills in using particular kinds of technology)?**

Teachers may want to know how to embed the html code on their course website. Otherwise, there are few technological demands on the students and teacher. Mathematically, students need to understand how integrals relate to area.