Statistics now comprises a substantial area of study within K-12 mathematics curricula. Research has explored how statistics and mathematics are fundamentally different disciplines and require different styles of learning. Yet, many teachers and students approach statistics with the same mindset, skills, and tools they use for mathematics. New guidelines recommend teaching statistics content standards using a data-driven and randomization-based curriculum, which may require teachers to use unfamiliar techniques. To implement such a curriculum effectively, teachers need additional support. This research examined the use of specially annotated lesson plans as a means to store knowledge and guide in-service high school teachers’ use of technology when implementing statistics content standards, particularly those involving the use of simulation. I will discuss how the teachers in my study used technology and simulation. I will also provide examples of annotated lesson plans and highlight their inherent iterative and collaborative properties. Finally, I will reflect on the use of annotated lesson plans as a means to guide the data-oriented instruction of statistics with technology. (Received September 08, 2017)