

Question: How do mobile technologies affect instructional design choices? Have mobile technologies forever altered the role of the teacher/instructor?

Title: Batch Sizes: Smaller is Better!

As we move to mobile education and the design of educational solutions there are ideas from the software industry that should be part of the discussion. Yes, we see discussion of micro-lessons, but perhaps we need to have a discussion about why smaller is better.

Learning from lessons in creating software, consider DevOps and the underlying approaches that allow organizations to succeed. In DevOps there is a focus on value streams, theory of constraints, work in progress, batch sizes and feedback. The idea of the value streams is that as we consider how product related work transitions from “requirement to run” there are many steps in the process. At each step additional value is added to the work product. Between steps, as work waits to be done, we encounter waste. In DevOps, we look to minimize waste, identify bottlenecks, prioritize and focus optimization efforts – all driven by feedback and metrics.

A challenge in these efforts is batch size. “Today’s developers are blind to the issue of batch size. They do not measure batch size or try to reduce it. They fail to recognize both the critical relation between batch size and cycle time, and the critical relation between batch size and feedback speed” (Reinertsen, 2009, p. 9). More simply put, if the software product that we try to push through the value stream is big, it takes longer at each step as it is more difficult to: understand, build, test, support, and so on. This batch size and slowness means that we lose responsiveness and cannot get feedback or act upon it.

This is key as we think about mobile learning and micro-lessons. Not only are micro-lessons aligned with our devices (small screens, small interactions), micro-lessons are aligned with better development practices. By creating smaller learning solutions, they get produced more quickly, with higher quality and we can more quickly validate that we are meeting the needs of our students. And, we also gain flexibility in how we combine each of these small solution components.

Perhaps the inherent constraints of mobile learning will force solution design to embrace small batch sizes. Having said that, having a discussion about workflow, batch sizes, feedback and flexibility should be a part of our mobile learning journey.

Reference

Reinertsen, D. G. (2009). *The principles of product development flow: second generation lean product development* (Vol. 62). Redondo Beach: Celeritas.