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Lowering the barriers to teaching online

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What problem was addressed?

After committing to delivering two fully online fellowship programmes aimed at diversifying the workforce in academic medicine, we had 9 months to create both programmes and produce 21 online modules. Our biggest challenge: make it easy and appealing for busy biomedical research faculty, many of whom are physicians, to design and teach the modules. All the faculty members had face to face or flipped teaching experience, but only one had experience teaching online.

What was tried?

We used the Persuasion components of Rogers' Diffusion of Innovations Model¹ to lower the barriers to entry for faculty members. Here are the components and how we applied them.

1. *Relative advantage: adoption is faster when the innovation is perceived as superior to alternatives.* The relative advantage of online learning for geographically dispersed, busy trainees is easy to see. However, not all our faculty members are equally convinced that online educational experiences could promote meaningful learning. To address these doubts, we shared research on online learning outcomes and grounded our course design recommendations in the science of learning.
2. *Compatibility: adoption is higher when the innovation is consistent with adopters' values.* Our faculty members were deeply committed to diversifying the biomedical workforce and working with a new trainee population, so project goals were intrinsically motivating. Department leaders also attended meetings regularly and developed modules themselves, sending a powerful message of institutional commitment and shared values.
3. *Complexity: adoption is higher when complexity is reduced.* Developing online courses can be difficult and time consuming. We reduced the complexity by providing course design templates (we're happy to share them!), just-in-time technology training and ample instructional design support. Particularly helpful: we used a consistent structure for all modules; this gave faculty members a replicable model and eliminated potentially overwhelming choices.

4. *Trialability: adoption is higher when adopters have opportunities to test out the innovation.* To give faculty members the opportunity to try online teaching without a major time commitment, we kept each module short (2–4 weeks). We also encouraged faculty members to use freely available media (e.g. videos from NIH and TedMed, podcasts and blogs) for course content, thus minimising time-consuming recording of video lectures.
5. *Observability: adoption is higher when the results are visible to others.* Faculty members met regularly as a group, which gave them the opportunity to discuss discipline-specific content, brainstorm ideas, and follow the progress of one another's modules. We also held periodic meetings after the modules launched, which allowed faculty members to relay their 'boots on the ground' experiences and advice to their colleagues.

What lessons were learned?

We believe that applying Rogers' model effectively lowered the barriers to entry for faculty members learning to create and teach online courses. A survey of participating faculty members ($n = 12$; 92%) showed that 91% found the experience rewarding, 100% said they found the pedagogical and technological support valuable, 73% said they would recommend the experience to a colleague, and 91% said they would do it again.

References

1. Rogers, EM. Diffusion of Innovations. 5th. New York, NY: Free Press; 2003.