



Case studies identify savings of up to \$40,000 for academic research laboratories with the use of video journals

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Recent studies indicate that 70% to 90% of results published in science journals are not reproducible, which presents troubling uncertainty about the future of scientific research. In contrast to the text format of traditional journals, novel video-based journals allow for systematic, step-by-step visualized demonstrations of research experiments. Video articles produce a more efficient transfer of knowledge between laboratories and therefore offer a viable solution to the issue of reproducibility. To quantify the savings of time and money generated by this alternative mode of scientific communication, we conducted a number of case studies among academic laboratories who use the peer-reviewed video journal JoVE. One study determined that using video as a guide to learn a new dissection technique saved a bioengineering lab at the University of Washington \$40,000. A second case study found that a laboratory at Cornell University studying muscular dystrophy eliminated 6 months of experimentation by learning a new complex stem cell injection technique from the video journal. Results from a third study indicated that a laboratory at the University of Helsinki shortened the time to learn a surgical technique from 1 year to 2 weeks. Together, these studies indicate that video publication significantly enhances the reproducibility and productivity of scientific research.