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Teaching methods in urban planning using Planetizen Courses

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Teaching methods in urban planning using Planetizen Courses
Virtual strategies hold promise for maintaining and expanding curricula in a future of constrained fiscal and space resources

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The following is condensed from a longer white paper.

A growing body of research in the educational field shows that many individuals — whether they study English, math, or city planning — have different learning styles that evolve as they become accustomed to varied formats of non-parallel, digital information. The traditional ways we instruct others have not changed as significantly, and in some situations, how we relay information does not best match learning styles — for example lecturing from a PowerPoint rather than engaging in a deep discussion following a movie, story, or anecdote.

In this context, the Department of City and Regional Planning at Cal Poly, San Luis Obispo, engaged in a pilot project in 2015 using Planetizen Courses to leverage online learning and video-conferencing technology to supplement and enhance the in-classroom experience. In theory, students would use the online modules to gain formative information that would then be applied to real-world scenarios in the classroom. This would be similar to how a practicing urban planner might apply lessons to a particular project after watching an online tutorial or attending a conference.

Method
Using online videos and quizzes from Planetizen Courses, a cohort of approximately 100 students engaged in a redesigned course that used a virtual lab environment to relay technical or computer-based skills. During the lab, students would interact virtually with their peers and with the instructor — the idea being that they would push themselves and become what educators call “self-regulated learners.”

Relevant courses were selected to match the curriculum from the Planetizen Courses website and then integrated with the Cal Poly online learning management system “PolyLearn,” within which students could view the course syllabus and track all daily, weekly, and term-long assignments. Each week, students were required to watch one or two Planetizen courses that served either to underscore or enrich in-class lectures. Each Planetizen course had an associated quiz to ensure completion. These were uploaded to PolyLearn for grading. Results were gathered using pre/post surveys, time spent online, and academic performance.

Results
The majority of students reported liking the (online) lab modules, saying that they contributed to learning. Students enrolled in both CRP 216, Computer Applications for Planning, and CRP 213, Population Economic & Housing Methods, dramatically increased

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their comfort level in every subject covered by the course, illustrating that online integration could be an effective medium for teaching.

The results further showed that the more time a student spent using Planetizen Courses, the better the student performed overall — indicating that hybridization can allow for students to engage in self-organized or self-regulated learning. Individuals could learn at their pace and in their own space, potentially allowing for high-level (or “liminal”) thinking.

Lessons

The evaluation indicates that this kind of hybridization empowers learners to engage in self-directed exploration and problem solving. Hybridization also ensures that students have the necessary skills to complete class-related tasks on their own in the future. And the virtual course allowed valuable space to be allocated to other campus users.

On balance, students appreciated and even craved the format of the course, and felt it would be helpful for scheduling other classes and activities, suggesting the online courses may be helpful for student retention. Students also appreciated the fact that they had the opportunity to accrue real-world experience with the courses, as many Planetizen Courses counted for AICP certification maintenance credit. A subset of students appeared to have underestimated the amount of work required as part of the online course, and/or also over-estimated their self-motivation — a factor worth considering in wider application of hybrid instruction.

Conclusion

Overall, the pilot was successful in helping increase learning while easing the burden on computational facilities/lab spaces. Students could complete labs online and not only gain computational skills, but also round out those skills with additional learning modules. While more work is needed to assess and compare longer-term performance and retention from courses with virtual components, these results indicate that online curricula can be effective — whether used to expand classroom content or to provide professional development opportunities in a planning department. Virtual strategies hold promise for maintaining and expanding curricula in a future of constrained fiscal and space resources.


William (Billy) Riggs, PhD, is an Assistant Professor of City and Regional Planning and a leader in the area of transportation planning and technology, with more than 50 publications. Dr. Richard Florida featured his work in The Atlantic. Dr. Riggs is also the principal author of Planetizen’s Planning Web Technology Benchmarking Project. He can be found on Twitter [@williamuriggs](http://twitter.com/williamuriggs).