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ADOPTING COURSEWARE THROUGH COURSE REDESIGN

Undertaking course redesign can be time consuming, but it can pay off in terms of improved student outcomes. Under what circumstances do redesign benefits outweigh the costs?

TIME FOR CLASS TOOLKIT

QUESTIONS ADDRESSED

How important is course redesign as a courseware adoption point?

How does redesign impact faculty practice and experience?

Do redesigners use courseware products any differently?



KEY INSIGHTS

Redesign is a key adoption point for courseware, but full-course overhaul is not the only condition for a positive courseware adoption.

When courseware is adopted in connection with redesign, faculty are more likely to use courseware to drive active learning in the class, implying that redesign creates opportunity for faculty to implement improved classroom techniques.

Courseware adopters who undergo redesign are more likely to engage in professional development, underscoring the importance of ensuring that faculty have sufficient support during the redesign process.

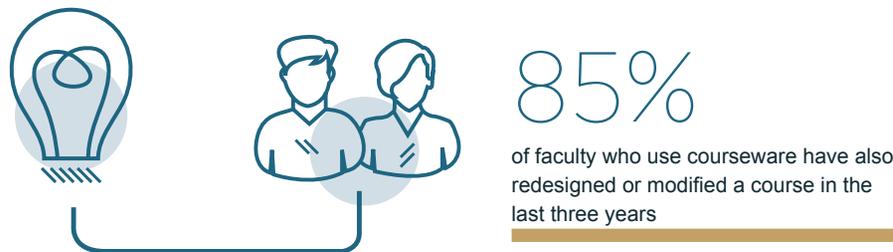
Other adoption points, where the time commitment relative to a full course redesign is lower, are also worth considering. Redesign alone does not result in faculty reporting a more positive courseware experience.



Redesign is a key courseware adoption point, but full-course redesign is not the only condition that can support positive implementation of courseware.

Course redesign¹ has long been considered a critical underlying condition for high-quality courseware implementation. That said, the process of redesigning courses relies heavily on faculty time investment, though many institutions offer specific technical support or training to faculty working on course redesign projects.

As of 2019, redesign continues to serve as an important adoption point for courseware solutions. Of all faculty who currently use courseware,² 85% are Recent Redesigners.³



Redesign alone does not result in faculty satisfaction with courseware.

The reality of courseware implementation success is nuanced – and the *Time for Class* survey enables us to look at the faculty experience of adopting courseware as one outcome measure. While it is more common for Recent Redesigners to be courseware users, they are no more likely to be courseware promoters⁴ or to consider their institution an ideal digital learning environment⁵ than those users who have not undergone the course redesign process. This is important in that it implies there are other conditions – outside of a full course redesign – that can enable faculty experimentation with courseware in ways that they perceive to be beneficial to their goals.

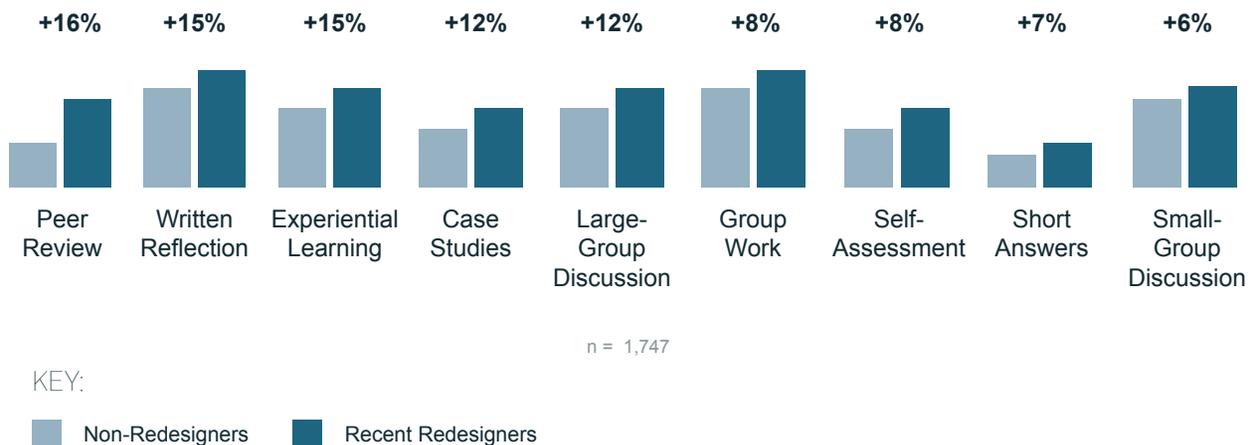
¹Question: “Over the past three years, either working alone or with others, have you done any of the following? Please select all that apply.” Answers: “Created a new course (a course that was not previously listed in the course catalog)” [and/or] “Substantially modified an existing course (e.g., making a major change in the content included in the course, changing the delivery method, or similar. Do not count the normal fine-tuning to a course.)”

²Question: “Describe your level of awareness [and use] of the following.” Row: “Courseware” Answer: “Aware, and I currently use in my course(s).” [or] “Aware, I have used but am not using currently.” ³Faculty who have undertaken course redesign or substantial modification within the past three years are Recent Redesigners. ⁴Question: “How likely are you to recommend [this courseware product] to a colleague?” ⁵Question: “How would you rate your institution in the following categories related to the use of instructional technology to support teaching and learning, i.e., digital learning?” Row: “Is achieving an ideal digital learning environment” Slider: “Strongly Disagree <-> Strongly Agree”

Faculty who undertake redesign are more likely to be users of active-learning instructional practices.

Across the board, Recent Redesigners surpass Non-Redesigners when it comes to promoting specific active learning techniques in their classrooms (Figure 1). This is correlation, not causation, but the process of redesign is connected to the adoption of more active learning within the classroom.

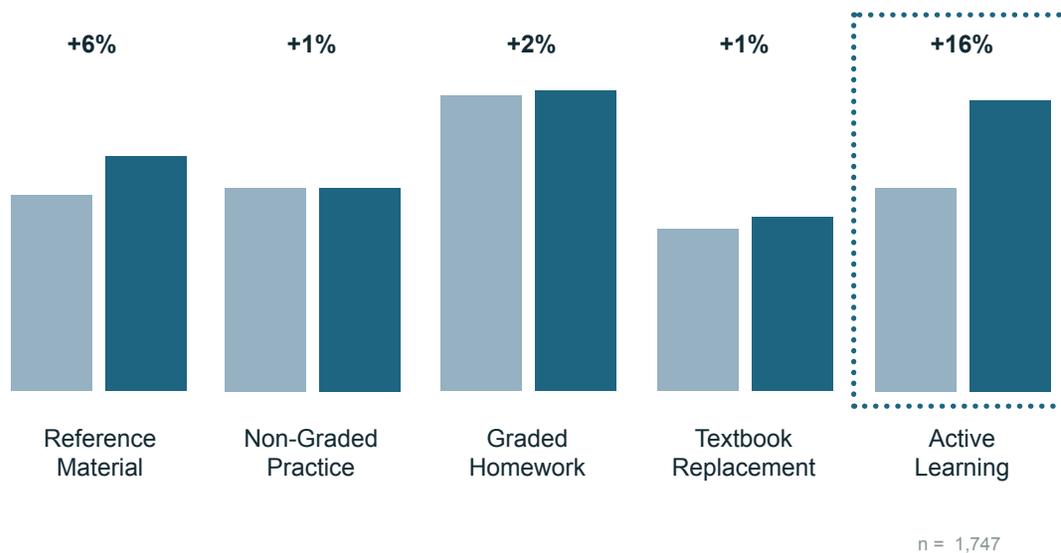
Figure 1: Faculty Use of Active-Learning Instructional Practices⁶



Once redesigners adopt courseware, they are more likely to use it to drive active learning in the classroom, implying that redesign creates opportunities for faculty to implement improved classroom techniques.

Recent Redesigners differ from Non-Redesigners in the way they employ courseware within their classrooms. Although they are about equally likely to use courseware for traditional practices like supplemental reference material or nongraded assignments, Recent Redesigners are 16% more likely to use courseware as a tool for active learning (Figure 2).

⁶Question: "Which of the following instructional practices do you apply throughout a typical course? Please select all that apply."

Figure 2: Faculty Uses of Courseware⁷

KEY:

■ Non-Redesigners ■ Recent Redesigners

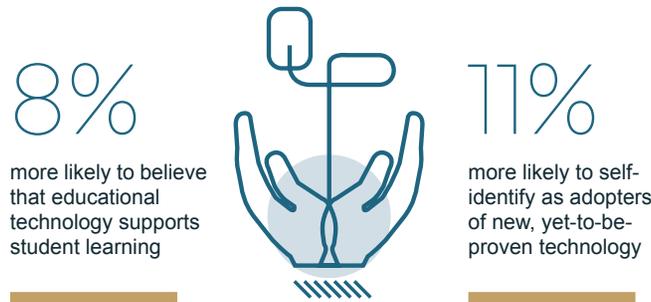
A faculty member's use of advanced teaching techniques in the context of a courseware implementation is limited by his or her knowledge of courseware functionality. As stated in *Lessons in Courseware Development*, "If instructors aren't fully aware of the courseware's features or haven't had time to integrate them into their teaching plans, [the] product may be treated simply as supplemental material, or just another digitized textbook. Instructors might not realize how much more they could do with whole learning courseware."⁸ Once again, this is correlation, not causation, but courseware implementation coupled with redesign appears to increase the likelihood of using courseware features to drive active learning. As institutions evaluate how to implement courseware, it is critical to consider the extent to which they seek to transform the course relative to the time investment they can afford.



⁷Question: "How do you use [this courseware product] in your course? Please select all that apply." ⁸"Supplemental vs. Whole-Course," *Lessons in Courseware Development*, Bill & Melinda Gates Foundation [Webpage]. <https://www.coursewarechallenge.org/supplemental-vs-whole-course>

Faculty who have undergone redesign are more likely to be early adopters of educational technology.

Recent Redesigners hold more open attitudes regarding the use of educational technology. They are 8% more likely to believe that educational technology supports student learning⁹ and 11% more likely to self-identify as adopters of new, yet-to-be-proven technology.¹⁰



Recent Redesigners are more likely to have engaged in professional development. Resourcing professional development is important for successful courseware implementation as part of redesign.

The availability of digital learning professional development leads to significantly more successful courseware implementation.¹¹ At institutions that require training on instructional practice for digital learning, faculty are a full 16% more likely to be promoters. Recent Redesigners are far more likely than Non-Redesigners to have engaged with professional development specific to digital learning.¹²

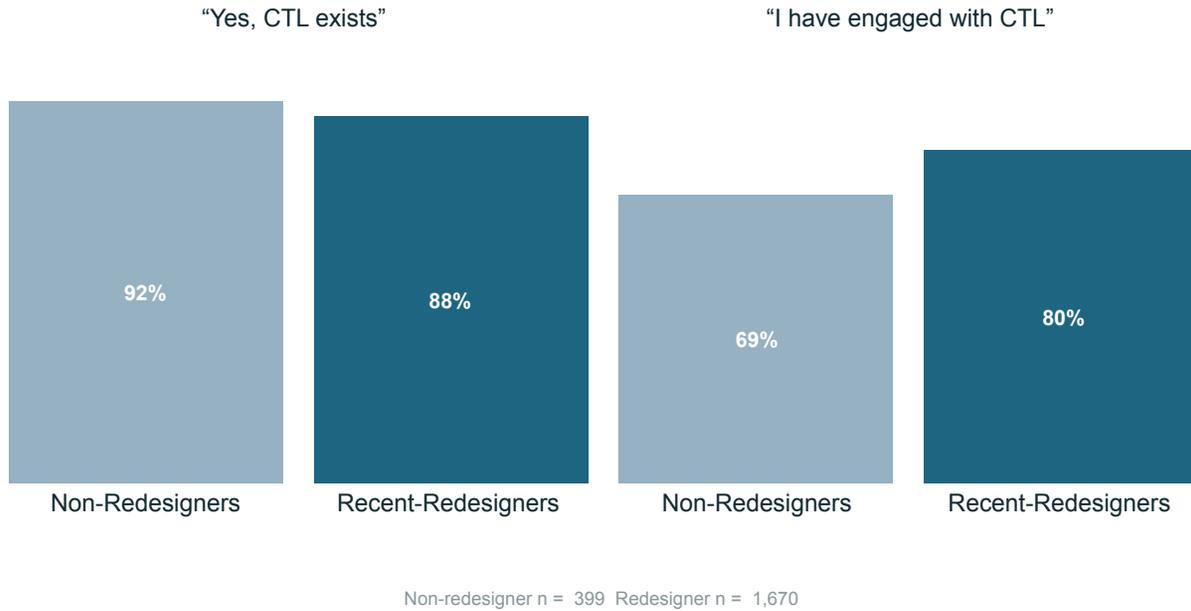
They are:

- 11% more likely to be trained on the incorporation of digital learning tools into existing pedagogies
- 16% more likely to be trained on new pedagogy for teaching online
- 20% more likely to be trained on curriculum and course design to enable them to develop new digital learning resources

These faculty members are not so much better resourced as they are proactive about taking advantage of available institutional supports to support the time-consuming work of redesigning a course and selecting and implementing courseware. Their access to centers for teaching and learning at their institutions is not significantly different than that of Non-Redesigners, but they are more likely to have engaged with these resources (Figure 3).¹³

⁹Question: "Please use the sliders below to indicate where your instructional tendencies and preferences fall on these dimensions." Slider: "Educational technology supports student learning." <-> "Educational technology detracts from student learning." ¹⁰Question: "Please use the sliders below to indicate where your instructional tendencies and preferences fall on these dimensions." Slider: "Adopter of new, yet-to-be proven technology" <-> "Adopter of established, well-proven technology" ¹¹Question: "How likely are you to recommend [this courseware product] to a colleague?" Respondents rating product with scores of 9 or 10 (out of 10) were labeled as "Promoters" and used as a proxy for implementation success. At institutions that require training on instructional practice for digital learning, faculty are a full 16% more likely to be promoters.

¹²Question: "Which of the following professional development topics for digital learning have you engaged with at your current institution? Please select all that apply." ¹³Question: "Does your institution have a center for teaching and learning?" Answers: "Yes, and I have engaged with it." [or] "Yes, but I have not engaged with it."

Figure 3: Center for Teaching and Learning (CTL) Presence and Engagement

In sum, while redesign concurrent with courseware adoption can support faculty in introducing and implementing active learning techniques, stakeholders need to decide what resources they can dedicate to the initiative. A writeup of results from the *Next Generation Courseware Challenge* (NGCC) discusses this balance. "Grantees found that whole-course products are much harder to implement in face-to-face and blended learning environments but reported that students showed significant increases in learning. Supplemental and lighter courseware is easier to adopt and scale, but such products offer shallower opportunities for student engagement."¹⁴ While a full course redesign concurrent with courseware adoption is the right approach in some cases, it is not the only way to experiment with and implement courseware.

¹⁴"Supplemental vs. Whole-Course," Lessons in Courseware Development, Bill & Melinda Gates Foundation [Webpage]. <https://www.coursewarechallenge.org/supplemental-vs-whole-course>

TOOL FOR ACTION

ROI Considerations for Redesign

Given that courseware can be used to address a variety of goals, it is important to be thoughtful in planning for your institution's particular objectives and constraints.

- √ Continue to focus on courseware adoption associated with redesign as the gold standard when the goal of courseware adoption is to transform instructional practice in the classroom.
- √ However, do not assume full redesign is the sole prerequisite for a successful courseware adoption. Consider other adoption points (e.g., use in supplemental contexts) where the time commitment relative to a full course redesign is lower and ability to experiment might be higher.

Return-on-Investment calculations have two key components:

- 1 **Costs:** the time and resources your stakeholders collectively commit
 - 2 **Benefits:** the improvements you drive as a result of your change initiative.
- The impact of costs and benefits should be considered relative to your particular students, faculty, and institution.

Institutions face an enormous variety of challenges and have starkly different assets they can bring to bear in solving them. Considering this, the following framework shows three of many ways to implement courseware as a potential solution.¹⁶



¹⁶House, A., Means, B., Peters Hinton, V., Boyce, J., Wetzel, T., & Wang, S., Next Generation Courseware Challenge Evaluation. (Menlo Park, CA: SRI International, 2018) https://www.sri.com/sites/default/files/publications/next_generation_courseware_challenge_evaluation_final_report_dec_2018.pdf

		Courseware as Supplement	Courseware as Complement	Courseware as Core
		<ul style="list-style-type: none"> Retains the basic structure of a traditional course Adds technology-based, out-of-class activities 	<ul style="list-style-type: none"> Adjusts how some in-class meetings are used Features online, interactive learning activities 	<ul style="list-style-type: none"> Removes traditional lectures from course plan Relies on interactive software and on-demand personalized assistance
Potential Costs	Student	Potentially higher instructional materials costs given additional software license	Potentially lower or same instructional materials costs depending on software license	Potentially lower instructional materials costs depending on software license
	Faculty	Minimal time investment needed to select and implement product	Moderate time investment needed to select, implement, train and adjust course	Significant time investment to select, implement, train, adjust, and build courseware experience
	Institution	Minimal investment required for technology integration and support	Moderate investment required for technology integration and support, faculty training, classroom infrastructure, and instructional modification	Significant investment required for technology integration and support, faculty training, classroom infrastructure, and instructional redesign
Potential Benefits	Student	<ul style="list-style-type: none"> Some opportunities for individual practice Some personalization of content and learning path Increased student learning Reduction of failed course attempts 	<ul style="list-style-type: none"> More opportunities for individual practice More personalization of content and learning path Increased student learning Reduction of failed course attempts 	<ul style="list-style-type: none"> Most opportunities for individual practice Most personalization of content and learning path Increased student learning Reduction of failed course attempts
	Faculty	<ul style="list-style-type: none"> Some data and analytics to personalize learning and inform intervention Some grading and assessment time savings 	<ul style="list-style-type: none"> More data and analytics to personalize learning and inform intervention More grading and assessment time savings 	<ul style="list-style-type: none"> Most data and analytics to personalize learning and inform intervention Most grading and assessment time savings
	Institution	Increased persistence Better student learning outcomes Capacity to serve more students		
		<i>This lower investment option is appropriate when looking for a faster time to implementation and when pursuing goals that require less content modification (e.g., increased engagement).</i>	<i>This moderate investment scenario should be leveraged when looking to achieve greater impact without a full redesign.</i>	<i>This intensive investment should be pursued when the potential depth and scale of impact is high and when sufficient time and support can be committed to initiative success.</i>

To understand which courseware implementation style is right for you or your institution, consider:

- What is the most pressing problem you are trying to solve? (e.g., access, engagement, affordability)
- What access do your students have to technology? (e.g., personal devices, learning lab, home WiFi)
- Are there specific faculty who are willing to experiment with and learn to use new digital tools? (e.g., identify as early adopters of technology, believe technology can be used to support student learning)
- What instructional design resources do you already have available? (e.g. CTL, dedicated instructional designers)



ADDITIONAL RESOURCES

For more information, visit [Every Learner Everywhere Resources](#) or the [Tyton Partners Library](#).



ABOUT

Time for Class is a comprehensive longitudinal survey of 4,000+ higher education faculty and administrators, fielded since 2014 by [Tyton Partners](#) and the [Babson Survey Research Group](#) and underwritten by the [Bill & Melinda Gates Foundation](#). Results inform a comprehensive fact base focused particularly on the postsecondary digital courseware landscape, in the service of making this diverse and complex market easier to navigate for institutions and education professionals.



Tyton Partners is the leading provider of investment banking and strategy consulting services to the education sector and leverages its deep transactional and advisory experience to support a range of clients, including companies, foundations, institutions, and investors.

For more information, visit www.tytonpartners.com.



The Babson Survey Research Group is a survey design, implementation, and analysis organization. Founded in 2005, the organization has worked on a number of large surveys including an annual survey of online education that includes all colleges and universities in the United States.

For more information, visit www.onlinelearningsurvey.com.



Every Learner Everywhere is a network of 12 partner organizations focused on providing a comprehensive, coordinated approach to help colleges and universities take advantage of the rapidly evolving digital learning landscape.

For more information, visit www.everylearnereverywhere.com.

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