NUDGE STRATEGIES TO IMPROVE STUDENT SUCCESS IN ONLINE LEARNING

A Guide for Faculty and College Administrators

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Online learning presents unique challenges for faculty and college administrators as they strive to keep students engaged, motivated, and on track. Fortunately, behavioral science research has identified evidence-based nudge strategies to support student success in online courses. The purpose of this guide is to provide faculty and administrators with a quick reference to behaviorally informed strategies that could be deployed as they navigate the shift to online teaching and learning. The end of this guide includes links to the evidence that underlie these recommendations.

	NUDGE STRATEGY			
	Encourage goal-setting	**Prompt plan-making**	**Eliminate hassles**	**Manage attention**
AT THE START OF THE COURSE	Ask students to **write down and submit a goal** they have for the course—e.g., "What do you want to get out of this course? How will this course help you achieve something you care about?"	Encourage students to make a schedule and **block off time** for class, homework, and other activities. For students living with a partner or children, suggest they make a **household schedule** to minimize interruptions during working hours.	Make sure that students know **how to use your school's learning management system (LMS)**. Send out an FAQ or spend some time in the first class going over how to ask questions, find and submit assignments, and take exams.	Offer tips on how to minimize distractions, such as **identifying a work space**. If this is an area like the kitchen table, suggest that students set up a work station at the beginning of their work period and put it away at the end.
DURING LECTURES OR CLASS TIME	**Connect lecture material to goals** that students have identified—e.g., "Today, we'll learn about physiology, which will interest those who want to go into sports medicine."	Suggest that students **stick to a routine** to signify that it's class time, like keeping this time as consistent as possible from week-to-week and/or telling others in the household that class is starting.	Consider setting aside time each class to go over student's questions or **holding virtual office hours**. Send reminders to students with a calendar link to make signing up easy.	Ask students to **write out their answers to a discussion prompt(s)** in a word doc, and then submit it after class to receive credit for participation (or within 48 hours of watching a lecture recording).
THROUGHOUT THE SEMESTER	**Send students reminders of their goal** periodically. Prompt them to reflect on their progress and to think about how good it will feel to achieve that goal.	**Break down assignments**, especially large ones, into smaller tasks and provide estimates of how long each task will take. Consider making these smaller tasks due throughout the course, rather than all at once.	Students may have limited internet access. Make sure that **course materials can be downloaded** simply and quickly.	**Identify tools students can use to limit distractions**, such as browser extensions that block websites or time management methods like the Pomodoro Technique. Build these tools directly into the LMS if possible.

NUDGE STRATEGY

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BEFORE MAJOR ASSIGNMENTS OR EXAMS	Ask students to **set task-based goals** and to connect these to their goal for the course—e.g., "What tasks will you need to complete in order to write your essay? How will this essay help you achieve the goal you set for the course?"	Suggest that students 1) **create a plan** for how, when, and where they will complete each task; 2) **identify potential obstacles** to completion and how they might address them; and 3) **submit their plan** for extra credit or share it with others to strengthen their commitment.	Ensure that students have access to everything they need to complete assignments or study for exams. **House all course materials in a clear location** on the LMS. If this is not possible, provide students with clear instructions and assistance for accessing external materials.	Make sure due dates are clear, and **send reminders of upcoming deadlines** with links to relevant resources. These can be delivered via the LMS, email, and/or text.
AFTER MAJOR ASSIGNMENTS OR EXAMS	**Provide students with feedback** on their performance—i.e., how they did relative to their classmates, what they have accomplished so far, and/or what they are doing well and where they could improve.	Have students look back at their plan and **pinpoint any issues** with it. For example, did they not build in enough time to study chapter 1? How would they adjust this plan for a future assignment or exam?	Ask students to **reflect on what was challenging** about the assignment or exam, and what resources would be useful to have for the next one. **Incorporate these suggestions** into helping students prepare for the next course milestone.	Once an assignment or exam has been graded, **remind students to log on** to the LMS and see how they did. For those who did poorly, consider sending an additional reminder to schedule a time with their instructor to discuss results, including a calendar link.
AT THE END OF THE COURSE	Have students **reflect on their goal** for the course and identify what they could do next to further this goal (e.g., take a higher-level course, or gain more experience in the subject at work).	Send students reminders to **make a plan to register** for next term's classes, including when and where they will do so. Like the plans they created for coursework, remind them to identify potential obstacles to registration and how they might address them.	To help students continue their education, **recommend courses** that will build off of the current one and count toward their degree. Also, **provide a list of scholarships** they should look into.	**Capitalize on students' attention** while you have it: Set aside time during the last class for students to complete a feedback form or register for next term's classes.

What is Behavioral Science?

Behavioral science is the study of how people make decisions in the context of a complicated world. Notably, humans don't make decisions in a completely rational manner; we don't consider all available information, weigh the costs and benefits of each option, and then act on the choice that's in our best interest. Rather, the environment in which we make these decisions really matters. The design of an online course—such as the way information is presented, the ease or difficulty of various actions, and the availability of resources—can have a meaningful impact on students' behavior and academic success. The University of Virginia's Nudge[4] Solutions Lab and the non-profit design firm ideas42 created this guide to help faculty and college administrators create a behaviorally informed online learning environment that can support students as they pursue their degree.

Why These Nudge Strategies?

We've focused on the application of four nudge strategies in this guide. What are they and what does the research say about them?

1 **Encourage goal-setting:** Online learning lacks many of the natural cues that keep students engaged, such as peers, the physical presence of an instructor, and the classroom setting. Articulating goals is especially important for maintaining motivation in this environment.

> **Research study:** *College students with low GPAs completed an intensive and personal goal-setting exercise. This exercise increased their GPA by an average of .5 points and their likelihood of maintaining a full course load, relative to students in the control group.*

2 **Prompt plan-making:** Students may struggle to set aside time for online coursework due to competing demands at home and the increased flexibility that online learning provides. Making concrete plans can help combat these challenges, as well as remind students of their goals and renew their commitment to them.

> **Research study:** *High school students who were asked to do a planning exercise for completing exam practice problems, including ways to overcome obstacles they anticipated, completed 67% more problems than a control group.*

3 **Eliminate hassles:** Hassles are seemingly small inconveniences that often have a surprisingly large impact on our behavior. These small impediments, like slow internet, are especially prevalent in the online context. Eliminating hassles can free up students' time, effort, and energy to focus on what really matters: learning.

> **Research study:** *High school students who received hands-on, one-on-one assistance from tax-prep service H&R Block were 16% more likely to fill out the Free Application for Federal Student Aid (FAFSA) and 24% more likely to enroll in college than students who simply received information about the FAFSA.*

4 **Manage attention:** Humans have limited cognitive capacity, which often leads us to overlook important information, to focus on what is immediately in front of us, and to forget some details. Managing students' attention can help address these common pitfalls.

> **Research study:** *Tools that allowed students to block distracting websites like Facebook increased the number of students who completed a Massive Open Online Course (MOOC) by 40%.*

Additional Resources:

❯ For more information on applying behavioral science to online learning, check out: Improving Student Outcomes in Online Learning

❯ For information on nudge strategies for getting students to and through college, check out: Nudges, Norms, and New Solutions