

Transitions

The **main** reason professors should give frequent exams is that . . . (par. 4)

Another, closely related argument in favor of multiple exams is that . . . (par. 6)

Moreover, professors object to frequent exams because . . . (par. 10)

Still another solution might be to . . . (par. 12)

Furthermore, professors could . . . (par. 13)

Finally, if headings or visuals (such as flowcharts, graphs, tables, photographs, or cartoons) are included, determine how they contribute. Notice whether visuals are referred to in the text and whether they have titles or captions.

Readings

To learn about how O'Malley responds to professors' likely objections to his proposed solution and argues against their preferred solutions to the problem, look at A Writer at Work on pp. 347–48.

Patrick O'Malley *More Testing, More Learning*

FRUSTRATED BY what he calls “high-stakes exams,” Patrick O'Malley wrote the following proposal while he was a first-year college student. To conduct research into opposing viewpoints, O'Malley interviewed two professors (his writing instructor and the writing program director), talked with several students, and read published research on testing. He cited his sources using APA style, as his instructor had requested.

As you read, consider the questions in the margin. Your instructor may ask you to post your answers or bring them to class. Also consider the following:

- How does O'Malley respond to likely objections?
- How does he respond to preferred alternative solutions?

Basic Features

A Focused, Well-Defined Problem

A Well-Argued Solution

An Effective Response to Objections and Alternative Solutions

A Clear, Logical Organization

What is the function of the opening paragraph?

How does framing the problem this way set up the solution?

1 It's late at night. The final's tomorrow. You got a C on the midterm, so this one will make or break you. Will it be like the midterm? Did you study enough? Did you study the right things? It's too late to drop the course. So what happens if you fail? No time to worry about that now—you've got a ton of notes to go over.

2 Although this last-minute anxiety about midterm and final exams is only too familiar to most college students, many professors may not realize how such **major, infrequent, high-stakes exams** work against the best interests of students both **psychologically and cognitively**. They cause unnecessary amounts of stress, placing too much importance on one or two days in the students' entire term, judging ability on a

single or dual performance. Reporting on recent research at Cornell University Medical School, Sian Beilock, a psychology professor at the University of Chicago, points out that “stressing about doing well on an important exam can backfire, leading students to ‘choke under pressure’ or to score less well than they might otherwise score if the stakes weren’t so high.” Moreover, Cornell’s research using fMRI brain scans shows that “the pressures of a big test can reach beyond the exam itself—stunting the cognitive systems that support the attention and memory skills every day” (Beilock 2010).

So, not only do high-stakes exams discourage frequent study and undermine students’ performance, they also do long-term damage to students’ cognitive development.

If professors gave brief exams at frequent intervals, students would be spurred to learn more and worry less. They would study more regularly, perform better on tests, and enhance their cognitive functioning.

Ideally, a professor would give an in-class test or quiz after each unit, chapter, or focus of study, depending on the type of class and course material. A physics class might require a test on concepts after every chapter covered, while a history class could necessitate quizzes covering certain time periods or major events. These exams should be given weekly or at least twice monthly. Whenever possible, they should consist of two or three essay questions rather than many multiple-choice or short-answer questions. To preserve class time for lecture and discussion, exams should take no more than 15 or 20 minutes.

The main reason professors should give frequent exams is that when they do and when they provide feedback to students on how well they are doing, students learn more in the course and perform better on major exams, projects, and papers. It makes sense that in a challenging course containing a great deal of material, students will learn more of it and put it to better use if they have to apply or “practice” it frequently on exams, which also helps them find out how much they are learning and what they need to go over again. A 2006 study reported in the journal *Psychological Science* concluded that “taking repeated tests on material leads to better long-term retention than repeated studying,” according to the study’s coauthors, Henry L. Roediger and Jeffrey Karpicke (ScienceWatch.com, 2008). When asked what the impact of this breakthrough research would be, they responded: “We hope that this research may be picked up in educational circles as a way to improve educational practices, both for students in the classroom

How does O'Malley use the key terms introduced here throughout the essay?

What does par. 3 contribute to the argument?

How does O'Malley introduce this reason? What kinds of support does he offer?

How does O'Malley integrate and cite sources in pars. 4 and 5?

and as a study strategy outside of class." The new field of mind, brain, and education research advocates the use of "retrieval testing." For example, research by Karpicke and Blunt (2011) published in *Science* found that testing was more effective than other, more traditional methods of studying both for comprehension and for analysis. Why retrieval testing works is not known. UCLA psychologist Robert Bjork speculates that it may be effective because "when we use our memories by retrieving things, we change our access" to that information. "What we recall," therefore, "becomes more recallable in the future" (qtd. in Belluck, 2011).

5 Many students already recognize the value of frequent testing, but their reason is that they need the professor's feedback. A Harvard study notes students' "strong preference for frequent evaluation in a course." Harvard students feel they learn least in courses that have "only a midterm and a final exam, with no other personal evaluation." Students believe they learn most in courses with "many opportunities to see how they are doing" (Light, 1990, p. 32). In a review of a number of studies of student learning, Frederiksen (1984) reports that students who take weekly quizzes achieve higher scores on final exams than students who take only a midterm exam and that testing increases retention of material tested.

How does O'Malley support this reason? Why does he include it?

6 Another, closely related argument in favor of multiple exams is that they encourage students to improve their study habits. Greater frequency in test taking means greater frequency in studying for tests. Students prone to cramming will be required—or at least strongly motivated—to open their textbooks and notebooks more often, making them less likely to resort to long, kamikaze nights of studying for major exams. Since there is so much to be learned in the typical course, it makes sense that frequent, careful study and review are highly beneficial. But students need motivation to study regularly, and nothing works like an exam. If students had frequent exams in all their courses, they would have to schedule study time each week and would gradually develop a habit of frequent study. It might be argued that students are adults who have to learn how to manage their own lives, but learning history or physics is more complicated than learning to drive a car or balance a checkbook. Students need coaching and practice in learning. The right way to learn new material needs to become a habit, and I believe that frequent exams are key to developing good habits of study and learning. The Harvard study concludes that "tying regular evaluation to good course

How does O'Malley introduce and respond to this possible objection?

organization enables students to plan their work more than a few days in advance. If quizzes and homework are scheduled on specific days, students plan their work to capitalize on them" (Light, 1990, p. 33).

By encouraging regular study habits, frequent exams would also decrease anxiety by reducing the procrastination that produces anxiety. Students would benefit psychologically if they were not subjected to the emotional ups and downs caused by major exams, when after being virtually worry-free for weeks they are suddenly ready to check into the psychiatric ward. Researchers at the University of Vermont found a strong relationship among procrastination, anxiety, and achievement. Students who regularly put off studying for exams had continuing high anxiety and lower grades than students who procrastinated less. The researchers found that even "low" procrastinators did not study regularly and recommended that professors give frequent assignments and exams to reduce procrastination and increase achievement (Rothblum, Solomon, & Murakami, 1986, pp. 393-394).

Research supports my proposed solution to the problem I have described. Common sense as well as my experience and that of many of my friends support it. Why, then, do so few professors give frequent brief exams?

Some believe that such exams take up too much of the limited class time available to cover the material in the course. Most courses meet 150 minutes a week — three times a week for 50 minutes each time. A 20-minute weekly exam might take 30 minutes to administer, and that is one-fifth of each week's class time. From the student's perspective, however, this time is well spent. Better learning and greater confidence about the course seem a good trade-off for another 30 minutes of lecture. Moreover, time lost to lecturing or discussion could easily be made up in students' learning on their own through careful regular study for the weekly exams. If weekly exams still seem too time-consuming to some professors, their frequency could be reduced to every other week or their length to 5 or 10 minutes. In courses where multiple-choice exams are appropriate, several questions could be designed to take only a few minutes to answer.

Moreover, professors object to frequent exams because they take too much time to read and grade. In a 20-minute essay exam, a well-prepared student can easily write two pages. A relatively small class of 30 students might then produce 60 pages, no small amount of material to read each week. A large class of 100 or more students would

How effectively does O'Malley use this source?

What is the purpose of this question?

How does O'Malley argue against possible objections in pars. 9 and 10?

produce an insurmountable pile of material. There are a number of responses to this objection. Again, professors could give exams every other week or make them very short. Instead of reading them closely, they could skim them quickly to see whether students understand an idea or can apply it to an unfamiliar problem; and instead of numerical or letter grades, they could give a plus, check, or minus. Exams could be collected and responded to only every third or fourth week. Professors who have readers or teaching assistants could rely on them to grade or check exams. And the Scantron machine is always available for instant grading of multiple-choice exams. Finally, frequent exams could be given *in place of* a midterm exam or out-of-class essay assignment.

11 How effectively does O'Malley present alternative solutions in pars. 11 and 12?

Since frequent exams seem to some professors to create too many problems, however, **it is reasonable to consider alternative ways to achieve the same goals.** **One alternative solution** is to implement a program that would improve study skills. While such a program might teach students how to study for exams, it cannot prevent procrastination or reduce "large test anxiety" by a substantial amount. **One research team** studying anxiety and test performance found that study skills training was not effective in reducing anxiety or improving performance (Dendato & Diener, 1986, p. 134). **This team,** which also reviewed other research that reached the same conclusion, did find that a combination of "cognitive/relaxation therapy" and study skills training was effective. **This possible solution** seems complicated, however, not to mention time-consuming and expensive. It seems much easier and more effective to change the cause of the bad habit rather than treat the habit itself. That is, it would make more sense to solve the problem at its root: the method of learning and evaluation.

12 How do the highlighted words and phrases make the argument easy to follow?

Still another solution might be to provide frequent study questions for students to answer. These would no doubt be helpful in focusing students' time studying, but students would probably not actually write out the answers unless they were required to. To get students to complete the questions in a timely way, professors would have to collect and check the answers. In that case, however, they might as well devote the time to grading an exam. Even if it asks the same questions, a scheduled exam is preferable to a set of study questions because it takes far less time to write in class, compared to the time students would devote to responding to questions at home. In-class exams also ensure that each student produces his or her own work.

13 Furthermore, professors could help students prepare for midterm and final exams by providing sets of questions from which the exam questions will be selected or announcing possible exam topics at the beginning of the course. This solution would have the advantage of reducing students' anxiety about learning every fact in the textbook, and it would clarify the course goals, but it would not motivate students to study carefully each new unit, concept, or text chapter in the course. I see this as a way of complementing frequent exams, not as substituting for them.

14 From the evidence and from my talks with professors and students, I see frequent, brief in-class exams as the only way to improve students' study habits and learning, reduce their anxiety and procrastination, and increase their satisfaction with college. These exams are not a panacea, but only more parking spaces and a winning football team would do as much to improve college life. Professors can't do much about parking or football, but they can give more frequent exams. Campus administrators should get behind this effort, and professors should get together to consider giving exams more frequently. It would make a difference.

How effective is this conclusion?


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