

A Content Means to a Critical Thinking End: Group Quizzing in History Surveys

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DISTURBING NEWS from Richard Arum and Josipa Roksa was announced in their recent book, *Academically Adrift: Limited Learning on College Campuses*. Although entire careers will probably be built on challenging their conclusions, the duo produce data showing that many college students' critical thinking abilities hardly budge, especially during the first two years of enrollment—this despite the fact that professors themselves overwhelmingly point to critical thinking as the most important learning component for students to master.¹ To college history instructors, the message seems clear: greater emphasis on analysis and reasoning skills is imperative, even if it means skimming on fundamental content.

But wait. At the same time, a steady stream of bad news indicates that history students, and even broader society, are hopelessly ignorant of the most basic knowledge about the past.² Once again, the logical conclusion appears straightforward: stronger emphasis on nuts-and-bolts history, rigorous objective exams to measure progress, and an end to the dubious goals of fostering analysis and creativity.

History professors thus find themselves in a perplexing, “damned-if-they-do, damned-if-they-don’t” situation. Particularly in survey courses,³ where thousands of years and the histories of billions of people might be taught in the span of just fifteen weeks, there is a constant tension between how much material to try to cover, and how in depth to go on any given

topic. Moreover, the pedagogical challenges—to say nothing of the time requirements—of actually teaching and assessing critical thinking are so potentially daunting that a facts-based approach may present itself as the only possibility. Arum and Roksa's conclusions may be disturbing, but they are hardly surprising to many practitioners.

This article seeks to promote contemplation, even debate, among history professors on how to balance factual content with historical thinking, with the latter term incorporating those elements of critical thinking that Arum and Roksa say are conspicuously absent in many college students. Although K-12 teachers often must teach to a preset curriculum or assessment, college-level instructors guard the right to teach their courses as they see fit.⁴ But with that freedom comes responsibility, lest outside agencies, sensing systemic failure, take over.⁵ As such, this study emphasizes the importance of thoughtful, deliberate course planning that is built solidly around desired learning outcomes, whatever those may be. In addition, it offers a specific technique for treating large chunks of historical content quickly and effectively, freeing up precious class time to develop students' critical thinking and other skills. My case study focuses on one of the most challenging of introductory courses: the first half of a world history survey. However, I suggest that the techniques and rationale described here can apply equally well to other introductory classes.

Debating the Role of Content

If textbooks are any indication, teaching world history is an inherent impossibility. Even limiting ourselves to the first half of a two-semester sequence (usually broken up by origins to ca. 1500, and ca. 1500 to present), there is a sheer volume of material that lends itself poorly to meaningful coverage. Consider brief editions of some of the most popular world history textbooks on the market today. These texts are broken into anywhere from fifteen to eighteen chapters, ranging from twenty to thirty pages each.⁶ Using this as a framework for a typical fifteen-week course, an instructor would be hard-pressed to cover one chapter's worth of material per week—and thereby allocating little or no class time to course orientation, skills sessions, assessment, holidays, and countless other non-trivial requirements. Already at this early juncture, there are hints of a real need to pare down valuable content, or simply to double up chapter coverage in certain weeks and race through it as quickly as possible.⁷

Of course, these are not the only choices instructors have, but they reveal the tyranny that knowledge acquisition potentially exercises over course design. Nor should we assume these choices are purely demonstrative; although there are few studies of how history professors actually teach their

classes, those that exist suggest that coverage remains the predominant model.⁸ Robert Boice points out in his early-career college teaching guide that professors are often mistakenly of the belief that “good content knowledge = good teaching.”⁹ It is thus only a small step to thinking that content coverage alone constitutes quality instruction, as Maryellen Weimer, an acclaimed expert on university-level pedagogy, seems to verify. “Our thinking about content,” she states in a chapter devoted to its role in any class, “has long been dominated by one assumption: more is better.”¹⁰

If a comprehensive coverage approach (primary as defined by textbook content) in an introductory world history survey is impractical or undesirable, what should one do? Perhaps more to the point, what should the role of content be, if any, in such a course? In response to the latter question, there is a growing consensus that content alone is not particularly useful. In an interview with CNN, Linda Salvucci of Trinity University was asked if there was “a better way” to teach students about the past. Although her reply addressed K-12 learning, her remedy is nonetheless instructive for her fellow faculty: “Rather than requiring students to memorize endless lists of facts that are mandated in many state standards and reflected in conventional textbooks, we should organize significant content around principles of historical thinking.”¹¹

In other words, content matters, but primarily in that it works toward a more ambitious cognitive outcome. It would be disingenuous to suggest that most professors disregard the need to instill any development of critical thinking, just as it would be foolish to posit that content serves no useful purpose. But how content and thinking skills are most effectively brought together is a matter of some debate. Weimer adduces findings showing that students may be perfectly capable of reproducing content without understanding it. For this reason, she argues, discipline-specific content remains essential, but it must be “de-centered” and “used” via active learning, not simply “covered”—a position that resonates with L. Dee Fink’s stance.¹² Patrick Allitt’s acclaimed video series on effective teaching similarly cautions against coverage for the sake of coverage; rather, learning goals should determine what content receives treatment, not the other way around.¹³ Ken Bain’s study of highly effective professors likewise finds merit in a simultaneous approach to content and analysis.¹⁴

But not everyone agrees. The de-emphasis of content as a primary focus is taken to its logical conclusion by Sam Wineburg, the godfather of the “historical thinking” school. Wineburg argues that the time-honored Bloom’s Taxonomy, which posits that higher thinking abilities are predicated on a mastery of content, should be stood on its head. Rather than using factual material as a basis, Wineburg suggests a course design wherein students focus on analysis and interpretation, and develop these

thinking skills at the outset as a way to learn content instead of the other way around.¹⁵ As support, he points to an ingenious series of “think aloud” experiments where history students and professional historians analyzed sets of primary sources. The study found that the historians did so with far greater effect and much deeper insight than did the students. This may sound utterly unsurprising, until one considers that the historians consistently outperformed the students even when the latter possessed greater knowledge of the documents’ historical context than did the professionals. An ability to think historically, concludes Wineburg, is not predicated on factual knowledge, but on ways of thinking that are not adequately addressed by a facts-driven curriculum.¹⁶

Strongly influenced by Wineburg, Joel Sipress and David Voelker, in two studies on the teaching of college-level history, argue against what they and others call the “coverage model.” Especially in surveys, the authors take issue with the “absorb and replicate” approach that predominates, suggesting instead an “uncoverage” pedagogy where historical thinking is the goal. Content is not viewed as unessential, but the idea that students must first gain control over a body of factual material before grappling with critical-thinking and problem-solving issues, they say, is incorrect. They conclude by calling for an unceremonious burial of the history survey as we know it in favor of a problems-based approach even at the introductory level.¹⁷

To be sure, there are skeptics of any approach that somehow appears to sideline content. Coming at this issue as a cognitive psychologist, Daniel Willingham says that critical thinking is not just facilitated by content knowledge, but requires it. Nor is this simply a matter of teaching philosophy; rather, it is a function of how our brains work. While admitting that having students memorize lists of facts is “not enriching,” he argues strenuously that teaching them analysis or evaluation without content knowledge is impossible. “Thinking well requires knowing facts,” Willingham writes. “The very processes that teachers care most about—critical thinking processes such as reasoning and problem solving—are intimately intertwined with factual knowledge that is stored in long-term memory.” For this reason, he specifically highlights a non-negotiable cognitive principle: “Factual knowledge must precede skill.”¹⁸

Such polarizing positions as Wineburg’s and Willingham’s seem to be exceptional, as exemplified by the accommodation stances of Weimer, Allitt, and Bain. Most recently, Stephen Brookfield argues directly against Willingham, showing that students do not require significant content knowledge before they can learn how to think critically.¹⁹ History instructors will have to deploy their own critical thinking skills to decide where they stand on this important issue: Does basic content matter? Has

the pendulum swung too far in the direction of favoring critical thinking over factual knowledge? And if factual material will be emphasized in a course, when and how will it come into play?

Rethinking the World History Survey

It was these types of issues that compelled the history faculty at my institution to step back and identify learning goals for our history majors, and to engineer a curriculum geared toward those goals. Our motivating question was “What should history graduates be able to *do* at the end of a four-year curriculum?”—not merely “What should they *know*?” This was an especially important distinction, since we purport to establish our students as independent learners who are capable of critical thinking and problem solving even after they graduate.²⁰ Because about half of our history majors embark on careers in teaching, it is crucial that those students, in particular, have the skills to acquire and use new knowledge and techniques when faced with novel classroom challenges. (As one researcher warns, “When we teach only for facts, we teach students how to get out of date.”²¹) At the same time, external licensing bodies require, even emphasize, factual command for would-be teachers. A balance of content knowledge and critical thinking skills would thus necessarily drive out redesign efforts.

Having identified our desired learning outcomes for history major graduates, however, it became apparent that students would have to be trained in at least some of them from the outset. To take but two examples, leaving the ability to assess opposing viewpoints of the past could not wait until a junior-level methods class or senior-level seminar. Likewise, the ability to write like a historian, and all its attendant style and sourcing requirements, is something that develops only with time and repetition. Because both of these constitute complex ways of thinking that demand significant practice and development, they must be addressed, even if not mastered, beginning in freshman-level courses.²² In addition, there is the critical but tricky issue of sequencing learning goals and assignments in such a way that students are progressively challenged to tackle tasks that are more complex. These are problems that crop up irrespective of subject matter—another indication that leading with content or simple knowledge acquisition is a poor way to design a course, given our desired outcomes. As is often the case at the college level, individual professors retain control over their courses and how they are set up; yet, for my part, it made sense to redesign my introductory classes with our history graduate learning outcomes in mind.²³

The six key learning goals that have arisen out of this exercise (and some amount of trial and error) for my introductory world history course are as

follows: (1) a certain mastery of raw facts relating to the subject matter; (2) an ability to interpret primary sources in a sophisticated manner; (3) an appreciation for historiography; (4) a reasonable command of written English; (5) a willingness and ability to discuss historical issues with faculty and peers; and (6) an awareness of one's own thinking and learning (metacognition).

The above goals are general enough that they could be applied to any history course—and that is precisely the point, since they derive from the graduation learning expectations for history majors. It is fully expected that students will need to work on these skills not only within the micro-cycle of an introductory world history course, but also within the larger macro-cycle of the entire history curriculum. In addition, it is understood that not every course can (or even should) try to tackle every learning goal for the major. For example, the six learning goals above do not address students' skills at locating and evaluating sources on their own, though this is dealt with explicitly in other courses. Moreover, some classes may require interpretive, linguistic, research, or other skills specific to them, but not others. Lastly, the scheme does not preclude addressing any of the more traditional themes of world history courses (e.g., comparisons and contrasts, continuity and change over time). Those themes can certainly constitute second-order learning goals within and between individual units, but they are done inside of a cognitive framework that transcends the course.

Laying out the learning goals is the comparatively easy part. Ensuring that those goals are adequately addressed and assessed in a progressively more challenging manner, all within the context of an introductory world history course, is considerably more complex. Once again, this has been a work-in-progress, but the assessment scheme and rationale (which is provided to students in the syllabus) is as appears in **Figure 1**.

The reader will ascertain a number of things from this scheme. First, content still matters and is assessed, but it is not the be-all, end-all of the course; rather, the focus is more on developing higher-order cognitive skills that will serve students well beyond this particular setting. Second, most assignments address multiple learning goals simultaneously, though greater emphasis may be placed on some goals over others. Skills in which students have been historically weak, especially primary source analysis and writing, are emphasized and assessed several times in different contexts.²⁴ There is no assumption that students master these skills in one try; on the contrary, these are learning goals not just for this course, but also for the entire history major curriculum. Third, the scheme acknowledges that individuals have strengths and weaknesses: some are wonderful writers, but are poor with factual details; some excel in class discussions, while others perform best when given preparatory time outside of class.

Assignment	Points	Main Learning Goal(s)
Individual and Group Quizzes (6 @ 5 points each)	30	content, communication, group work
In-class Exam	10	primary source analysis
Papers (2 @ 20 and 25 points each)	45	historiography, primary source analysis, writing ability
Group Poster Project	10	historiography, communication, group work
Video Reviews (2 @ 3 points each)	6	content, writing ability, metacognition
Self-Assessment I (start of semester)	3	writing ability, metacognition
Self-Assessment II and Portfolio (end of semester)	3	writing ability, metacognition
Participation	10	communication, group work
Extra credit (*5 points not included in total)	*	writing ability, metacognition
TOTAL	117	

Figure 1: Assessment scheme and learning goals of an introductory world history course.

And although researchers can find no firm evidence for the existence of different learning styles, students certainly have unique preferences for the type of work they do.²⁵ Finally, the table says nothing about how these assignments are arranged in order to challenge the class progressively throughout the semester. It is to this last issue that we now turn.

What to Treat—and How to Treat It?

There is no shortage of important topics that might be examined in the first half of a world history course, the earlier textbook discussion being but one indication. Scholarship devoted to world history pedagogy further indicates the strong gravitational pull of content coverage and broad themes specific to the field. One recent edited collection of thirty-two essays on teaching world history has much to say about possible themes and how to cover them effectively, but precious little about learning goals that transcend the course.²⁶ Similar is a recent primer on world history instruction.²⁷ The e-journal *World History Connected* regularly runs collected essays organized around a selected theme, or individual pieces on teaching a particular topic.²⁸ Trevor Getz's essay on teaching university-level world history largely eschews the content issue and,

despite its title, is more concerned with his evolving conceptualization of the field than it is with pedagogy.²⁹

Rather than beginning with a content- or theme-driven construct, my aim has been to lay out a world history course where the learning goals come first, and where said goals become more challenging as the semester progresses—“backward design,” in other words.³⁰ As such, the cognitive arc steepens throughout the fifteen weeks. On the macro-level, the arc steadily rises as a function of the evermore challenging skills and post-assessment demands imposed (**Figure 2**). For example, the unit exam calls on students to analyze primary sources, akin to the document-based questions or DBQs with which Advanced Placement teachers are familiar; the first paper likewise requires primary source analysis, but with the added complexity of having to accommodate secondary readings. And while students are provided with a thesis statement for the first paper, the second paper requires them to formulate and defend a thesis of their own. On the micro-level, there is a series of arcs within discrete units, with each essentially comprised of three stages: a content-focused pre-assessment stage, a skills development stage, and a post-assessment stage, where the demands on students get progressively heavier. In the pre-assessment, content is effectively “front-loaded” in the form of a quiz (more on this later), thereby leaving more valuable class time to develop steadily more ambitious skill sets.

The actual content of the units ceases to be of primary importance in this scheme. Given that no world history survey can possibly look at everything—even the pared down history encountered in textbooks—instructors should select content that, first and foremost, is conducive to instilling the learning goals set for the class. In an ambitious learner-centered course as described here, anxiety about the omission of myriad topics is eased, since content acquisition is just one goal among many—and not even the most important. Following an introductory unit (including an explanation of how the class is designed and why), my most recent iteration of the course consists of five units ranging from the formation of early societies to comparative connections across waterways. These can be (and are) changed periodically, but the learning arcs remain constant, as described above.

All of this may seem abstract, so an example is in order. Consider one unit that investigates not just the civilization of the Maya, but conflicting explanations for its putative collapse. Not surprisingly, this unit introduces students to the problems of historiography, and ultimately calls on them not merely to summon up content relating to the Maya, but to grapple with how and why historians tell different stories about the society, especially its fate. The two-and-a-half-week unit is problem-based, and is arranged as seen in **Figure 3**.

				Topic 4	Topic 5
		Topic 2	Topic 3		
	Topic 1				
<i>Key Assessment</i>	Self-Assessment	In-class Exam	Group Poster Project	Paper 1 (thesis provided by instructor)	Paper 2 (thesis formulated by student)
<i>Key Learning Goal(s)</i>	metacognition	primary source analysis	historiography	historiography, primary source analysis, writing ability	historiography, primary source analysis, writing ability
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5

Increasing Complexity

Figure 2: A structured course sequence based on progressive learning challenges. Rather than simply covering additional material as the class progresses, each unit is designed so that its summative assessment is more challenging than the previous. Note that only key assessments are indicated. Based on L. Dee Fink’s 2005 *A Self-Directed Guide to Designing Courses for Significant Learning*, 26.

<i>Unit framing questions:</i> What role does the environment play in the success or failure of societies? Why do historians reach different conclusions on what happened to the Maya?		
<i>Unit learning goals:</i> Ability to assess historiographical debates; ability to work and present as part of a group.		
Unit Mtg.	Readings (see note for full citations) ³¹	Class Activity or Assessment
1	Bulliet et al., <i>Earth and Its Peoples</i> , ch. 7: Peoples & Civilizations of the Americas (can ignore material covering North America)	Content-based quiz (individual & group); introduction to the topic of historiography
2	Diamond, <i>Collapse</i> , ch. 5: The Maya Collapses; Demarest, “Violent Saga of a Maya Kingdom”	In-class discussion, assessment of assigned secondary literature
3	Drew, “Lost Chronicles of the Maya”; Sheets, “Warfare in Mesoamerica”; Gugliotta, “The Maya: Glory & Ruin”	In-class discussion, assessment of assigned secondary literature
4	No readings	Group poster preparation
5	No readings	Group poster presentations (unit assessment)

Figure 3: Course unit sequence on the Maya, with historiography as the key learning goal and communication as a secondary goal. This course meets twice per week, so the unit transpires over two-and-a-half weeks.

In class		Readiness assurance test • Individual • Group		Application problems • Small groups • Whole class		Culminating project • Content • Application
Out of class	Read text(s)		Homework exercises		Review	

Figure 4: “Castle top” teaching model, where typical content overview is “outsourced” as homework, freeing up in-class time for more challenging exercises. Based on Fink, *A Self-Directed Guide to Designing Courses*, 27-28.

Here, one can see that content is front-loaded to the unit (Meeting 1), and thus serves two important roles: providing students with a factual basis for the topic at hand, and freeing up precious time to examine the more advanced arguments of working academics on crises that afflicted the Maya (Meetings 2 and 3). Because the unit culminates in a group project, Meeting 4 is, of necessity, given over to students to receive help from the instructor, as needed, and prepare for the unit assessment. The latter comes in Meeting 5 in the form of simultaneous poster presentations, akin to what one encounters at professional conferences. The chief learning goal, as outlined in **Figure 1** above, is a rudimentary grasp of historiography, since unit readings indicate that scholars do not agree on what befell the Maya. In the most recent pedagogy-speak, the unit is an example of “flipping the classroom,” where much of the traditional content is effectively “outsourced” as homework, thus freeing up class time to tackle more challenging concepts.³² Because historiography is almost always a new concept to introductory-level students, the additional time made available by outsourcing content is invaluable. A way to envision this scheme generally is the “castle top” model of teaching (**Figure 4**).

To sum up this first section: We know surprisingly little about what actually goes on in the majority of college history classrooms, but the little we are aware of suggests that the “coverage model” still predominates—so much so that it has been called the “signature pedagogy” of history instruction at the college level.³³ There is double irony here: first, that the way historians tend to teach their subject is not the way that practitioners do it, think about it, or discuss it with their peers (and my conversations with faculty in other disciplines lead me to believe that history is not unusual in this respect); second, that despite college faculty’s identification of critical thinking as the most important thing for their students to develop, history faculty tend to favor a coverage model which is ill-suited to achieving that goal. Yet, there is strong evidence that basic facts do



Figure 5: The quizzing protocol. In the first step (top left), students take the quizzes individually. The second step (top right) places students into randomly assigned groups to retake the same quiz as in step one. The final step (bottom) involves whole-class discussion and debate of quiz items. Because each group holds aloft its selected response simultaneously, debate between groups with different answers often happens organically (fall semester 2011; photos courtesy of Dan Landau Photography).

play a crucial role in the learning process. The question is not so much whether content matters, but how students might best gain control over it and use it as a basis for cognitive development. The second part of this article thus turns to examination of a method by which content is not entirely sacrificed, but which allows adequate time and opportunity to address the critical thinking skills that are deemed quintessential of the college learning experience.

A Content Means to a Critical Thinking End: The Quizzing Protocol

The first step of the quiz protocol is surely familiar to readers. Students complete a brief (five- to ten-item), multiple-choice quiz of my own creation on content from a given textbook chapter (**Figure 5**, top left). These are not pop quizzes; rather, they are clearly indicated

on the syllabus, and reminders are always made in the preceding class meeting. Because the quizzes are short, the class typically finishes them in well under ten minutes, after which they are collected.³⁴ Of particular importance, however, is the fact that these quizzes are given on the first day of any new unit, before content has been discussed or “covered” in a more traditional sense. In this way, unit content is effectively “front-loaded,” so there is no opportunity for students to mentally coast into a new segment of the course.³⁵

Once quizzes are collected, students are randomly assigned, via counting off, to a group of three to four persons.³⁶ An essential rule at this juncture is that, except for the counting itself, talking among students is strictly forbidden, lest they discuss the quiz with persons not in their group. Having been assigned a number, the students assemble in their teams and are encouraged to introduce themselves. One fresh copy of the exact same quiz just completed is then distributed to each group, whose members must come up with a common response for each item. Although they cannot use any texts or notes, and although they are prohibited from conversing with other groups, team members are free to talk with one another as much as they want. They can discuss each item, reflect on their individual quiz choices, debate responses, vote, and change answers—it is up to them to strategize, persuade, and come to a consensus. Needless to say, the level of participation within each team is almost always high, and the classroom is full of energy as students work their way through the group portion of the quiz (**Figure 5**, top right). Final responses for each item must be circled in pen; as instructor, I make my way around the groups to ensure this, and I indicate any changed answers with my initials. It is also at this point that I administer a folder of response cards to every team. The groups retain the quizzes, but are barred from writing on them further; any evidence of changed responses from this point on—and this is an extremely rare occurrence—results in a zero grade for the whole group on this portion of the quiz.

With one person from every team handling the response cards (color-coded and marked A through E to correspond to the multiple-choice entries), the class, as a whole, goes through the quiz. After reading aloud the question stem for an item, each group simultaneously indicates its chosen response by holding aloft the appropriate response card (**Figure 5**, bottom). If there is all-around consensus (typically a good sign), I nevertheless lead the class through the responses, asking for explanations for why each one is incorrect or correct. More often, however, there is at least some disagreement among groups as to the best answer for each quiz question. Because it is clear from the response cards who disagrees with whom, the groups must then publicly justify their response, and/or

Instructor Use Only			
	raw		weighted
Individual	/ 5	x 4	.
Group	/ 5	x 1	.
TOTAL POINTS			.

Figure 6: Grading rubric for quizzes, where the individual score counts for 80% of the five-point total, and the group score 20%.

argue for why another group’s selection is incorrect. This is likewise a moment when debate, though this time inter-group, is vigorous, but usually it becomes apparent to all why one answer wins out over others. If not, I will ultimately reveal the correct response, carefully explaining why it is superior to other possibilities. This process repeats for each question item, after which the group quizzes and response cards are collected. In sum, the entire quizzing protocol might take thirty to forty minutes, leaving ample time to move on to treatment of more cognitively ambitious material, or to return and go over students’ summative assignment for the previous unit (e.g., in-class exam, paper).

Grading the Quizzes

As shown in **Figure 1** above, the quizzes constitute a significant, though not overwhelming portion of the students’ course grades. There were six quizzes administered during fall semester 2011, worth five points each. To ensure accountability—always an issue when group efforts are involved—the individual’s score is weighted at 80% of the quiz grade (four points), while the group score constitutes 20% (one point). So, for example, assume that a student answered three questions out of five correctly on her own, and four out of five correctly with her group. Her individual raw score of three-fifths (or 0.6) multiplied by four points results in a weighted score of 2.4. Her group raw score of four-fifths (or 0.8) multiplied by one point results in a weighted score of 0.8. Adding these two weighted results (2.4 and 0.8) reveals the student’s total quiz grade of 3.2 points out of 5, or 64%. An easy-to-use grading rubric, included on each quiz, can be filled in by hand (**Figure 6**).

In the case above, we see that the student did benefit from collaborating with her classmates, but not so much that she could simply rely on the group to achieve a high score. Individual preparation and effort really matter, even if the group portion results in a higher grade.

	Year in College				Major		Sex	
	1 st	2 nd	3 rd	4 th	History	Non-History	Male	Female
Section 1 (N = 21)	11	5	4	1	6	15	14	7
Section 2 (N = 19)	15	3	1	0	6	13	15	4
Combined (N = 40)	26	8	5	1	12	28	29	11

Figure 7: Demographic breakdown, by section and combined; two sections of a world history survey course, fall semester 2011.

Student Demographics

The data examined here derive from two sections of an introductory world history class (World History I: Origins to 1500), taught during fall semester 2011. This is part of a two-course world history sequence required of history majors, though the class draws students from other majors as well. As seen in **Figure 7**, well over half the students (65%) were freshmen. Only 30% were history majors, but at least some of the remaining 70% intended to pursue history and subsequently went on to declare a major in the following semesters. Nearly three-quarters of the students were male. In terms of ultimate performance in the course, the difference in average grades earned by section was statistically insignificant (Section 1 = 2.38/4.00, Section 2 = 2.60/4.00).

Analysis 1: Student Performance on Quizzes

Did the group-testing portion of the quizzes help students relative to their individual performance? An analysis of the data yields an unambiguous “yes.” Forty students took six quizzes over the fifteen weeks of the semester,³⁷ meaning that, in theory, there were 240 individual and group quizzes taken. In practice, due to one missed quiz that was never made up, there were 239 actual quiz attempts, either as an individual or as part of a group.

The average individual score on all six quizzes was 3.61 out of 5 (72.2%), while the average group score was 4.30 out of 5 (86.0%)—a sizeable and statistically significant difference of 0.69 (13.8%), though note from above that the individual result counts for more than the group. It is not surprising, then, that students were more likely to be helped by the group effort than unaffected or hurt by it. In Section 1, students did better as part of a group (relative to their individual performances) 52.4% of the time; they performed more poorly as part of a team with only 12.1% frequency, and were unaffected in 35.5% of the quiz sessions. Section 2’s results differed somewhat, with 49.1% of the time better, 5.4% worse, and

	Quiz 1		Quiz 2		Quiz 3		Quiz 4		Quiz 5		Quiz 6	
	Ind.	Grp.	Ind.	Grp.	Ind.	Grp.	Ind.	Grp.	Ind.	Grp.	Ind.	Grp.
Student 1	4	5	5	4	4	5	5	5	5	5	3	3
Student 2	4	5	4	3	5	4	4	4	3	4	5	5
Student 3	3	5	5	5	4	5	2	5	5	5	3	3

Figure 8: Three examples of student performances on quizzes, individual vs. group. The gray shade indicates that the student did better on the quiz as part of a group than as an individual; black shade shows poorer group performance than individual; no shade signals no change between individual and group score. Overall, students tended to do better as part of a group than as individuals, though not always.

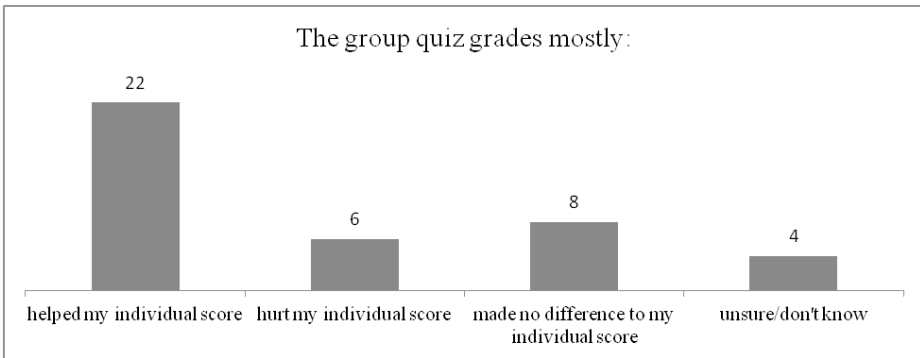


Figure 9: Student survey responses on perceived effects of group quizzes on individual scores (N = 40).

45.5% no change. All told, there was a 50.8% chance of doing better as part of a team, a 40.3% likelihood of no effect, and only an 8.9% chance of doing worse (**Figure 8**). Students’ perceptions varied somewhat with these numbers: 55% expressed that the group quizzes usually augmented their individual scores, 20% believed group quizzes made no difference, and 15% felt they hurt them, with the remaining 10% unsure (**Figure 9**).

Analysis 2: Students’ Perceptions of the Quizzing Protocol

Although basing a testing scheme solely around students’ perceptions of it would probably be a mistake, I was nevertheless interested in what the classes thought of the quizzing protocol. An anonymous survey was therefore administered to students at the end of the semester, with all forty students in both sections completing it. Of foremost interest was whether they felt the quiz approach to content was effective. The results are

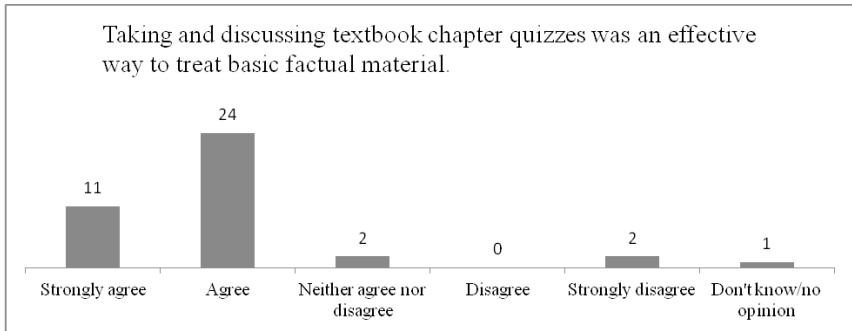


Figure 10: Student survey responses on perceived efficacy of the quiz protocol in treating course content (N = 40).

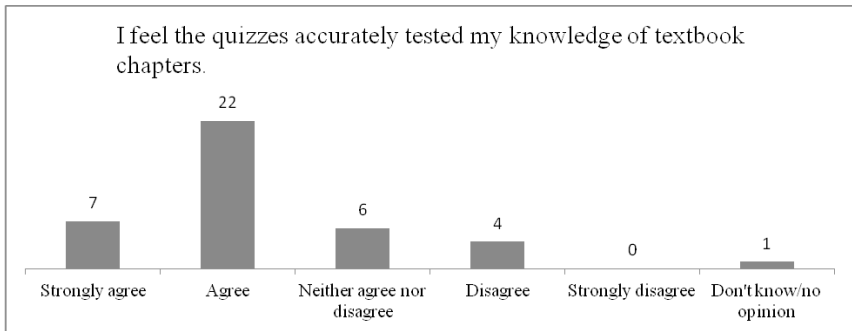


Figure 11: Student survey responses on perceived fairness/accuracy of the quiz protocol in assessing knowledge (N = 40).

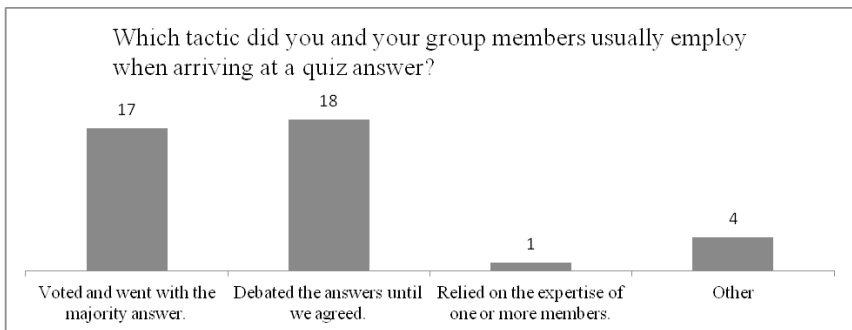


Figure 12: Student survey responses on tactics utilized in group portion of quiz protocol (N = 40). Two of the “other” respondents indicated they used a combination of two or more tactics.

encouraging, especially as there was little visceral reaction against it, and even strong approval as a learning technique. Asked whether the protocol was an effective way to treat basic factual material, 35 out of 40 (87.5%) agreed or strongly agreed that it was, with only 5% expressing a negative view (**Figure 10**). Students registered similar approval in terms of whether the quizzes accurately tested textbook chapter knowledge (**Figure 11**).

In response to which tactics they used during the group portion of the quizzes to arrive at an item answer (**Figure 12**), roughly as many indicated that their groups voted and went with a majority answer (42.5%) as debated the responses until an agreement was reached (45%)—two others, or 5%, said they used a combination of two or more methods. Relying on the perceived expertise of any particular group member was exceedingly rare, with only one respondent reporting it as a technique. This is noteworthy, as it demonstrates that, as designed, the group portion of the quiz was not conducive to simply allowing stronger students to carry their less-prepared peers. Moreover, it indicates that discussion with fellow students, be it in the form of a simple vote or by way of vigorous debate, is an indispensable part of the quiz protocol. This bodes well if social learning with peers is a vehicle to enhanced classroom experiences, as one researcher argues.³⁸

If the quizzes are not simply assessments of acquired knowledge, but inducements or opportunities for students to learn the material, when and in what form did that learning take place? Once again, it is discussion of the quiz material that registered the most attention on the survey. However, the point identified by the classes as being most helpful to learning was the whole-class discussion, wherein debates between the groups and explanations from the professor occurred. More than half (55%) of the survey respondents selected this as the moment of most learning, while only 5% chose the discussions that transpired solely within small groups. It is possible that students more frequently selected the whole-class segment simply because this is when they ultimately learned the correct answers for the quiz. But this explanation is insufficient, since 27.5% reported that studying the textbook on their own was most conducive to learning (**Figure 13**). One might be tempted to argue, on this basis, that a traditional individual quiz with whole-class discussion thereafter would be just as effective as the protocol described here, but that line of thinking is probably misguided. The lively debates that transpire between groups are likely only possible because the teams have already discussed the items and can defend (or question) their responses as a group. Moreover, the revealing of response cards by group instantly registers who stands where, and naturally sets up debate pairings. In this way, the low-tech response card system is more useful (and more reliable) in this setting than the anonymous, higher-tech “clicker” technologies.³⁹

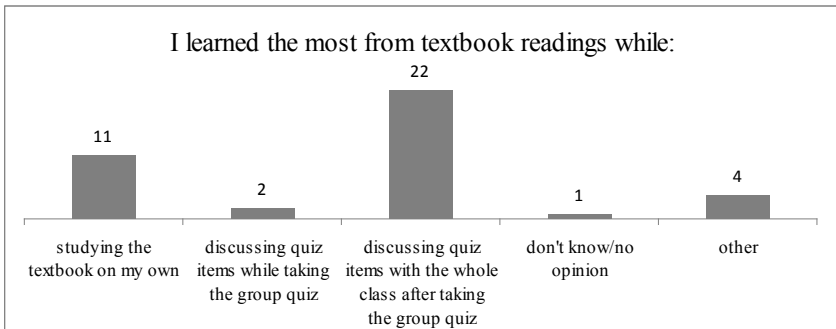


Figure 13: Student survey responses on perceived moment of greatest learning during the quiz protocol (N = 40).

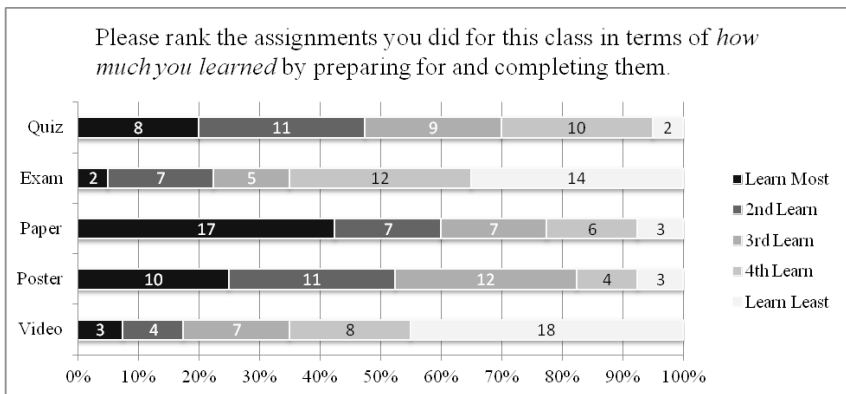


Figure 14: Student survey responses on perceived learning by assignment type (N = 40). Choices were quizzes, in-class exam, unit paper, poster project, and video reviews. Only one paper had been completed at time of survey (the second paper was pending).

Some of the most interesting survey results derive from two questions asking students to compare the quizzes with other course assignments. The first asked students to rank their assignments according to how much they felt they learned by preparing for and completing them (**Figure 14**). The overwhelming “winner” here was the unit paper, where nearly half (17 of 40) said it was the most conducive to learning, while an additional seven individuals ranked it second. (Note that students had completed only one unit paper when they took the survey; the second paper was in process.) Next was the poster (52.5% ranked it first or second), followed closely by the quizzes, which garnered eight first-place and eleven second-place votes. Students’ reported learning experiences for the paper are especially

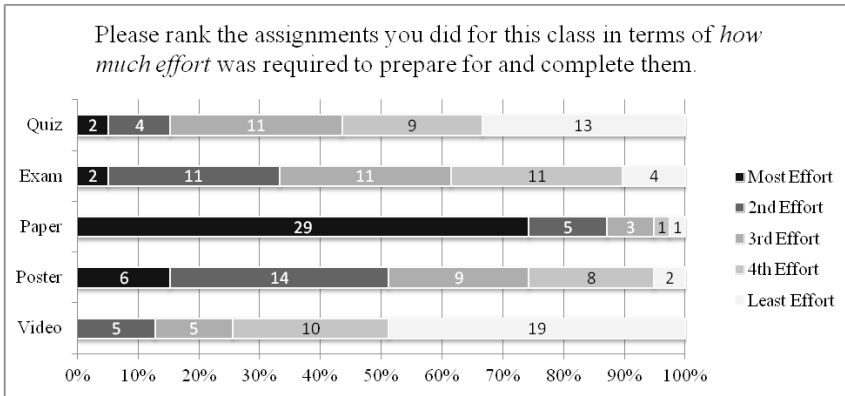


Figure 15: Student survey responses on perceived effort by assignment type (N = 39; one student answered item incorrectly, so the responses are omitted). Choices were quizzes, in-class exam, unit paper, poster project, and video reviews. Only one paper had been completed at time of survey (the second paper was pending).

encouraging, since this assignment is certainly the most complex and ambitious type of task.

The related survey question asked students to rank these same assignments based on how much effort was required to complete them (**Figure 15**). Once again, the unit paper was the clear first choice, with 72.5% saying it was the most demanding. Nothing else really came close: only six students rated the poster number one, while the quizzes and in-class exam netted just 5% of students each. On the other end of the spectrum, students felt quizzes were the second least-demanding task. Thus, at the poles, their rankings were roughly proportional to the emphasis placed on the assignments in the course design (see **Figure 1** above), with some variation in between. Like with the previous survey item, it comes as little surprise that the unit papers are considered hard work—and one sees that, in this case at least, students perceived a strong link between hard work and learning.

Analysis 3: Instructor’s Perceptions of the Quizzing Protocol

My own experiences with the individual/small-group quizzes as a means to examine material have been decidedly positive in a number of ways.⁴⁰ First, as suggested by the data above, the team-based approach to the quizzes is effective not only at assessing students’ knowledge, but at helping them learn content as well.⁴¹ Because of the group component, the quizzes are ultimately not acts done in isolation, but legitimate opportunities for students to collaborate on and debate content that will be in play for that

unit. The protocol thus serves as a vehicle to active learning instead of simply registering a snapshot of what students know about any particular chapter reading. Nor is that content acquisition for naught, since the class returns to material treated in the quiz as the unit progresses to see how it measures up against other readings. As such, students get a sense of how historians know what they know about the past: textbooks are not holy writ, but are based upon, and are highly simplified versions of, a complex chain of primary and secondary evidence that is often open to interpretation. The fact that the content-based quizzes constitute a formal assessment is important, since researchers agree that students learn primarily what they are assessed on.⁴²

Second, students and groups get nearly instantaneous feedback on their performances from the peer group, the whole class, and the instructor. They thereby learn not only the best answer to each quiz item, but why it is the best answer—and perhaps equally important, why the other options are incorrect. This quick and detailed feedback is of paramount importance to improved student learning.⁴³ On the other side of the equation, the instructor also gets immediate indications of where factual problems are occurring, and can address those issues directly. This requires confidence and an ability to think on one's feet, but it is far better to head off such problems at the beginning of a unit than to encounter them on a summative assessment.

Third—and this does happen occasionally—students have the opportunity to challenge the instructor's intended correct answer. For example, one chapter quiz item asked which people built the largest, most advanced ships in the fifteenth century, with options including the Chinese, Polynesians, Vikings, and Europeans. Based on the chapter reading, the intended best answer was the Chinese, but a group of students protested, pointing out that the textbook included an eyewitness description of European vessels as being “the best ships that sailed the seas.”⁴⁴ Although the size differences were made explicit elsewhere in the text, it was apparent that these students had read the chapter closely; moreover, it led to a brief and unintended—though valuable—discussion of objective measures versus contemporary perceptions. In the end, I gave credit to the group that raised the issue. The ability to challenge the assessment instruments themselves may be a reason the students viewed them as mostly fair and accurate.

Fourth, the quizzes reasonably ensure that students have read the textbook, at least insofar as not doing the chapter readings has a negative impact on grades.⁴⁵ This may seem like a trivial point, but complaints about students not doing their readings are among the most frequent laments I hear from faculty in my teaching development program. Indeed, one recent study found that students tend not to read an assigned text if they know they can do well in the course without doing so, and that a full

33% of professors teaching introductory-level courses do not even use the required texts.⁴⁶ One can thus hardly blame so-called “strategic learners” for ignoring readings that essentially bear no weight.⁴⁷ Certainly, quizzes are not the only mechanism to promote reading, and they are not terribly effective for helping students understand more complicated texts such as primary sources or advanced secondary works.⁴⁸ But for the content-driven textbooks, quizzes have proven useful, especially in the interactive group setting described here.⁴⁹

Fifth, the individual/group approach to the quizzes can be used to reinforce a learning point that transcends the history classroom, namely: it is usually to students’ advantage to work with others toward an educational goal. It is one thing to make trite statements about several heads being better than one; it is altogether different for the students to experience this first-hand. Note from the discussion above (Analysis 1: Student Performances on Quizzes) that students had very little to lose and much to gain by collaborating with their peers. A show of hands after the first quiz registering who did better, the same, or worse as part of the group quiz is powerful evidence that there is value in teamwork.

Sixth, the quizzing protocol is not particularly onerous from a faculty standpoint. My formal grading of the quizzes and posting individual grades online takes only about fifteen minutes per class, so the procedure is quite efficient from a time management standpoint. And although my present class sizes are admittedly small, I have used the individual/group quiz technique in settings with as many as sixty students (and no teaching assistants) without being unduly burdened. As a rule, testing for factual knowledge can be more straightforward, while assessing higher-order thinking skills is often more difficult and time-consuming.⁵⁰ There are no quick shortcuts for the latter, leading some faculty to sidestep them altogether and focus instead on the simpler, less demanding tasks of coverage and testing for content knowledge. Indeed, faculty express that the surest path to promotion and tenure is to minimize teaching while pouring as much time and effort as possible into research and publication. If true, the faculty rewards structure of higher education bears some of the blame for students’ inability to think critically. But even with this prevailing attitude, professors still report that the bulk of their time each week is spent on teaching or teaching-related activities, not research.⁵¹ The fact that the short, easily graded quiz scheme described here is minimally invasive of a faculty member’s time is a virtue—but only if it serves as a springboard to critical thinking, not a substitute for it.

Most importantly, the procedure is conducive to helping realize the goal of historical thinking as a main component of the course. There is no suggestion that the quizzing protocol per se is especially effective at

promoting critical thinking, even if it does include the social learning component that Brookfield says is crucial.⁵² But that is not the aim; rather, the protocol helps establish a knowledge base, frees up a great deal of class time that might otherwise be devoted to mere coverage, and allows expanded opportunities for more complex tasks for which the students need the most assistance. Content does matter, but it can become tyrannical, especially in such broad courses as a world history survey. By “flipping the classroom” or “outsourcing content,” the bulk of each class meeting can be devoted to close readings of primary source materials, whereby students come to learn how historians know what they purport to know; grappling with scholars’ contrasting views on a topic, which is always a challenge, given most students’ predominantly fact-based relationship with the past; or even basic writing and argumentation skills with which many students need a great deal of help.⁵³ These latter approaches are more authentic and demanding of the students, and directly promote the skills they will need as they make their way through the history major. Waiting to tackle such issues and proficiencies until upper-division courses is simply too late for most students—and we have Arum and Roksa’s disturbing findings to show for it.⁵⁴

Conclusion

In a well-known national survey of the American public’s attitudes towards the past, historians Roy Rosenzweig and David Thelen found that most people’s experiences with history in elementary and high school settings were quite poor. “A giant memory dump” is how one respondent expressed it, while others used such negative terms as “boring” and “irrelevant” to describe their content-driven classrooms. Those experiences improved somewhat at the college level, where history professors were viewed as bringing interpretations and nuances to their topics that were often lacking at the K-12 level.⁵⁵ But ultimately, many college students express disappointment in their curricula as well: they expected to be challenged and enlightened, only to find low expectations and an ability to achieve high grades with minimal effort.⁵⁶ Little wonder that Rosenzweig and Thelen’s subjects advocated a more robust and exciting curriculum to replace the content-driven drudgery they had slogged through. Yet those same respondents paradoxically insisted that their own children be taught the same way they were.⁵⁷ As pointed out earlier, historians might view themselves as caught in a no-win situation when it comes to teaching their students.

This study does not purport to solve the dilemma above, but it does suggest that deliberate construction of history courses around such

challenging and important goals as “critical thinking” or “thinking historically” is essential. It is too convenient to assume that students will simply pick up on higher-order thinking skills when the latter are not explicitly taught or carefully built into the course, just as it is dubious to think that factual knowledge plays no useful role. The inherent challenge of content, especially the sheer potential volume of it to be covered in history survey courses, is daunting, but primarily because teachers often base their course design off of that content. This study suggests there is another way to envision the survey, one where learning goals of critical thinking, analysis, and evaluation start the course design process, and content is built in to serve those goals—“backward design,” as famously termed by two experts. The quiz protocol described here is an efficient method for laying a foundation, and it leads to an understanding of factual material while freeing up class time for the more complicated work that professors themselves identify as crucial. It is worth the effort, even if it ultimately means greater commitment on the part of instructors and their students.

Notes

Some of the ideas and data in this study were presented at the Fourteenth Annual Meeting of the Mid-Atlantic World History Association, at two meetings of the Faculty Teaching Development Committee at Fairleigh Dickinson University, and at the Twenty-Second Annual Meeting of the World History Association. Special thanks are owed to my colleague, Krista Jenkins, for help running statistical analyses, and to Kate Spence-Ado for reading and commenting on an earlier draft of the manuscript.

1. Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses* (Chicago, IL: University of Chicago Press, 2011), 35-36. Unfortunately, the authors never define what they mean by critical thinking. On the latter, see Stephen Brookfield, *Teaching for Critical Thinking* (San Francisco, CA: Jossey-Bass, 2012), who shows that critical thinking can take on many meanings (p. 27). For his part, Brookfield identifies four key steps in critical thinking: identifying one’s own assumptions, checking the validity of those assumptions, seeing different viewpoints, and taking informed action (pp. 11-13).

2. There are myriad popular press pieces highlighting Americans’ historical ignorance. See for example “History Literacy Failing Among American Students, Study Faults Colleges [*sic*] Lack of Core Subject Requirements,” *The Huffington Post* (10 October 2012), <http://www.huffingtonpost.com/2012/10/10/study-rates-colleges-base_n_1954987.html>; and Jacob Soboroff, “If Students Fail History, Does it Matter?” CNN (28 July 2011), <http://www.cnn.com/2011/US/07/26/education.history.soboroff/index.html?hpt=hp_bn1>, which includes ostensibly alarming statistics on what and how much American schoolchildren do not know about the past. Broader society’s historical ignorance is featured in Andrew Romano, “How Dumb Are We?” *Newsweek* (20 March 2011), <<http://www.thedailybeast.com/newsweek/2011/03/20/how-dumb-are-we.html>>.

This Chicken Little outlook itself has a long history; see Sam Wineburg, *Historical Thinking and Other Unnatural Acts* (Philadelphia, PA: Temple University Press, 2001), vii-viii. A more sober snapshot of students' shallow history knowledge base is Frederick Hess, *Still at Risk: What Students Don't Know, Even Now* (Washington D.C.: Common Core, 2008), <http://www.commoncore.org/_docs/CCreport_stillatrisk.pdf>.

3. I use the term "survey" here in a generic sense, applying it to introductory-level classes. But the term has taken on negative connotations; see the works of Sipress and Voelker (note 17 below), and of Wiggins and McTighe (note 23).

4. A state-of-the-question essay on the problems facing high school history teachers is Robert Bain, "Challenges of Teaching and Learning World History," in *A Companion to World History*, ed. Douglas Northrop (Malden, MA: Blackwell, 2012), 111-127; and the series of columns appearing in "Forum: Training Teachers of World History," *Perspectives on History* 47, no. 7 (October 2009): 33-43 and "Forum: Possibilities of Pedagogy," *Perspectives on History* 50, no. 5 (May 2012): 20-42.

5. Arum and Roksa, *Academically Adrift*, ch. 5: A Mandate for Reform, addresses the warnings and possible solutions alluded to here. Although it primarily speaks to the challenge of massive online open learning to traditional institutions, a recent piece by Cathy Davidson is relevant here as well; "If We Profs Don't Reform Higher Ed, We'll be Re-Formed (and We Won't Like It)," *HASTAC* (1 January 2013), <<http://hastac.org/blogs/cathy-davidson/2013/01/13/if-we-profs-dont-reform-higher-ed-well-be-re-formed-and-we-went-it>>.

6. See for example Jerry H. Bentley, Herbert F. Ziegler, and Heather E. Streets-Salter, *Traditions and Encounters: A Brief Global History, Volume 1: To 1500*, third ed. (New York: McGraw Hill, 2014), which contains eighteen chapters of around twenty pages each; and Richard W. Bulliet, Pamela Kyle Crossley, Daniel R. Headrick, Steven W. Hirsh, Lyman L. Johnson, and David Northrup, *The Earth and Its Peoples: A Global History, Volume 1: To 1500, Brief Edition*, fifth ed. (Boston, MA: Wadsworth, 2012), comprising fifteen chapters of about twenty to thirty pages each.

7. Much has been written about the shortcomings of history textbooks; see Wineburg, 46-48, 79-82; and Niall Ferguson, "How to Get Smart Again," *Newsweek* (20 March 2011), <<http://www.thedailybeast.com/newsweek/2011/03/20/how-to-get-smart-again.html>>. My own view is that, while textbooks have inherent problems and some are better than others, they are ultimately a tool that can be leveraged for learning or misapplied for failure. The real issue is when instructors use textbooks to achieve learning goals for which the books are incommensurate. But the same thing can be said for any text from or about the past.

8. Joel Sipress and David Voelker, "From Learning History to Doing History: Beyond the Coverage Model," in *Exploring Signature Pedagogies*, ed. Regan A. R. Gurung, Nancy L. Chick, and Aeron Haynie (Sterling, VA: Stylus, 2009), 19-35 at 23.

9. Robert Boice, *Advice for New Faculty Members* (Boston, MA: Allyn and Bacon, 2000), 12.

10. Maryellen Weimer, *Learner-Centered Teaching: Five Key Changes to Practice* (San Francisco, CA: Jossey-Bass, 2002), 46.

11. The interview, which originally ran on 28 July 2011, no longer appears on CNN's website, but a version of it has been copied to the National Council for History Education's site; see "Only on The Blog: Answering today's five OFF-SET questions is Linda Salvucci, Chairwoman-elect of the National Council for History Education," <<http://www.nche.net/document.doc?id=57>>.

12. Weimer, 48-53; L. Dee Fink, *Creating Significant Learning Experiences* (San Francisco, CA: Jossey-Bass, 2003), 36-38, 57, though he prefers to call it "foundational knowledge."

13. Patrick N. Allitt, *The Art of Teaching: Best Practices from a Master Educator* (Chantilly, VA: The Great Courses, 2010), Episode 5: Planning the Work. A professor of American history at Emory University, Allitt ran the Center for Teaching and Curriculum at Emory for five years.

14. Ken Bain, *What the Best College Teachers Do* (Cambridge, MA: Harvard University Press, 2004), 29-30, 83-85.

15. Sam Wineburg and Jack Schneider, "Was Bloom's Taxonomy Pointed in the Wrong Direction?" *Phi Delta Kappan* 91, no. 4 (December 2009-January 2010): 56-61.

16. Wineburg, *Historical Thinking*, ch. 3. The power of these observations continues to hold sway: the incoming President of the American Historical Association, Kenneth Pomeranz, drew on Wineburg's experiment heavily (and approvingly) in his opening written address: "Not by Numbers Alone," *Perspectives on History* 51, no. 1 (January 2013), <<http://www.historians.org/Perspectives/issues/2013/1301/Not-By-Numbers-Along.cfm>>. Within *The History Teacher*, there are numerous articles since 2000 that invoke Wineburg's historical thinking in some way; just in the past year, see David Neumann, "Training Teachers to Think Historically: Applying Recent Research to Professional Development," 45, no. 3 (May 2012): 383-403; Tim Keirn and Daisy Martin, "Historical Thinking and Preservice Teacher Preparation," 45, no. 4 (August 2012): 489-511; and the collection of essays headed "Historical Thinking and the Teaching Methods Course," also 45, no. 4 (August 2012). My own article, "Getting Medieval on American History Research: A Method to Help Students Think Historically," appears in 43, no. 4 (August 2010): 545-562.

17. Joel Sipress and David Voelker, "From Learning History to Doing History"; and "The End of the History Survey Course: The Rise and Fall of the Coverage Model," *Journal of American History* 97, no. 4 (March 2011): 1050-1066.

18. Daniel T. Willingham, *Why Don't Students Like School?* (San Francisco, CA: Jossey-Bass, 2009), ch. 2, with quotes at 25, 28. Willingham's response to Wineburg's think aloud experiments would be that experts are capable of translating their expertise to new situations in ways that students cannot (pp. 131-132). And students, even at the college level, cannot be considered experts; see note 22 below.

19. Brookfield, 160-162. Brookfield's contention is that critical thinking in general can be taught by having students use their own life experiences. How usefully and accurately those personal experiences could inform students about people long ago and/or far away is another matter entirely.

20. On dependent vs. independent learners, see Weimer, 15-16.

21. Robert Sternberg, "Assessing What Matters," *Educational Leadership* 65, no. 4 (December 2007-January 2008): 20-26 at 21.

22. Researchers have found that expertise in any field comes only with significant, prolonged study, generally known as the "ten-year rule"; see Willingham, 139-140.

23. The best introductions to the topic of course design are Fink, *Creating Significant Learning*; Grant Wiggins and Jay McTighe, *Understanding by Design*, expanded second ed. (Upper Saddle River, NJ: Pearson, 2005); and L. Dee Fink and Arletta Knight Fink, eds., *Designing Courses for Significant Learning* (San Francisco, CA: Jossey-Bass, 2009). A highly useful guide, including design templates, is L. Dee Fink, *A Self-Directed Guide to Designing Courses for Significant Learning* (s.l., s.d.), available in PDF format at <<http://www.deefinkandassociates.com/index.php/resources/>>. A short, practical overview is Maryellen Weimer, ed., *Course Design and Development Ideas that Work*, Faculty Focus Special Report (Madison, WI: Magna Publications, 2010).

24. An ability to write effectively was deemed the second-most important learning goal by college faculty for their students. But like the ability to think critically, the evidence indicates that students are falling well short; Arum and Roksa, 35, 143.

25. On this important point, see Willingham, *Why Don't Students Like School*, ch. 7.
26. Heidi Roupp, ed., *Teaching World History in the Twenty-First Century: A Resource Book* (Armonk, NY: M. E. Sharpe, 2010).
27. Antoinette Burton, *A Primer for Teaching World History: Ten Design Principles* (Durham, NC: Duke University Press, 2012). To be fair, Burton emphasizes “the urgency of sedimenting protocols of historical thinking and analysis” in world history courses (p. xii), and she has much to say that is useful. But it is primarily built around world history themes, content, and teaching technologies, not learning goals beyond world history courses.
28. See, for example, the “Special Issue on Re-Conceptualizing Asia in World History” of *World History Connected* 9, no. 1 (February 2012), <<http://worldhistoryconnected.press.illinois.edu/9.1/>>; and Richard Byers, “‘Reel Germans’: Teaching German (And World) History with Film,” *World History Connected* 7, no. 1 (February 2010), <<http://worldhistoryconnected.press.illinois.edu/7.1/byers.html>>.
29. Trevor Getz, “Teaching World History at the College Level,” in *A Companion to World History*, ed. Douglas Northrop (Malden, MA: Blackwell, 2012), 128-139.
30. This is nothing new, as numerous course design guides and articles suggest; yet, having pored over hundreds of syllabi from a variety of disciplines, I have found it to be the exception to the content-driven course design rule. See Wiggins and McTighe, *Understanding by Design*, ch. 1, on “backward design.” The necessity of engineering a course or curriculum in reverse order is emphasized in Mary Huba and Jann Freed, *Learner-Centered Assessment on College Campuses* (Needham Heights, MA: Allyn and Bacon, 2000), 65.
31. Bulliet et al., *The Earth and Its Peoples* (see note 6 above for full information); Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin, 2005); Arthur Demarest, “The Violent Saga of a Maya Kingdom,” *National Geographic* (February 1993): 94-111, reissued in *Microsoft Encarta 2007 Edition*; David Drew, “Lost Chronicals [sic] of the Maya Kings,” and Payson Sheets, “Warfare in Mesoamerica: A Summary View,” in *Taking Sides: Clashing Views in World History: Volume 1: The Ancient World to the Pre-Modern Era*, ed. Joseph Mitchell and Helen Mitchell, third ed. (Dubuque, IA: McGraw-Hill, 2007), 136-151; Guy Gugliotta, “The Maya, Glory and Ruin,” *National Geographic* (August 2007): 71-109.
32. Classroom flipping is usually associated with students viewing online content outside of class, and then working on more challenging material in class. The epitome is the Khan Academy approach, which has become popular at the K-12 level; see <<https://www.khanacademy.org/>>. But an online or technology-driven approach is not the only way; see “Flipped Classroom Offers New Learning Path,” *Electronic Education Report* 18, no. 23 (28 November 2011), 1-3.
33. Sipress and Voelker, “From Learning History to Doing History,” following Lendol Calder, “Uncoverage: Toward a Signature Pedagogy for the History Survey,” *Journal of American History* 92, no. 4 (March 2006): 1358-1370.
34. Students who need extended time due to learning disabilities are easily accommodated simply by giving them a head start, usually at my office before class.
35. This not a trivial point: about 20% of college students report that they “frequently” arrive at class unprepared, and that their schools see little importance in academic preparation; Arum and Roksa, 37.
36. My motivation for the randomization of groups was originally to get students to work with a variety of their peers, and not let them lapse into familiar cliques. But this method may have real advantages beyond that. One study on the productivity of groups found that a low level of familiarity among members carried benefits, but too much familiarity was associated with diminished productivity; see the summary in Jonah Lehrer,

“Group Think: The Brainstorming Myth,” *The New Yorker* (30 January 2012), 22-27 at 24-25. Similar advice is found in Larry K. Michaelsen, “Getting Started with Team-Based Learning,” in *Team-Based Learning: A Transformative Use of Small Groups*, ed. Larry K. Michaelsen, Arletta Bauman Knight, and L. Dee Fink, (Sterling, VA: Stylus, 2004), 27-50 at 28-30.

37. There was one quiz in the first four units and two quizzes, on separate days, in the fifth.

38. Brookfield, 55-60.

39. On clickers as a tool for interactive learning, see Leslee Shepard, “Using Student Clickers to Foster In-Class Debate,” *Faculty Focus* (5 November 2012), <<http://www.facultyfocus.com/articles/effective-teaching-strategies/using-student-clickers-to-foster-in-class-debate/>>, as well as the literature cited there.

40. See Weimer’s successful experiences with a roughly similar testing technique; *Learner-Centered Teaching*, 89-90. Faculty discussions of group exams constitute a section of Michelle Achacoso and Marilla Svinicki, eds., *Alternative Strategies for Evaluating Student Learning*, New Directions for Teaching and Learning, No. 100 (San Francisco, CA: Jossey-Bass, 2005).

41. This is consistent with Fink’s findings on team-based learning of basic content; “Beyond Small Groups,” in *Team-Based Learning: A Transformative Use of Small Groups*, ed. Larry K. Michaelsen, Arletta Bauman Knight, and L. Dee Fink, (Sterling, VA: Stylus, 2004), 3-26 at 19-20.

42. Weimer, 16-17; Mary Piontek, “Best Practices for Designing and Grading Exams,” *CRLT Occasional Papers* 24 (University of Michigan, s.d.), 1, <http://www.crlt.umich.edu/sites/default/files/resource_files/CRLT_no24.pdf>; Marilla Svinicki and Wilbert McKeachie, *McKeachie’s Teaching Tips*, thirteenth ed. (Belmont, CA: Wadsworth, 2011), 72.

43. Michaelsen, “Getting Started with Team-Based Learning,” 33-34, and the literature cited there; Graham Gibbs and Claire Simpson, “Conditions Under Which Assessment Supports Students’ Learning,” *Learning and Teaching in Higher Education* 1 (2004-2005), 3-31 at 18-19; Helen Puntha, “Effective Feedback Practices,” *CADQ Resources* (Nottingham Trent University, 2011), available online at <http://www.ntu.ac.uk/cadq/quality/res_learn_teach/en-us-114379gp.html>.

44. Bulliet et al., 361.

45. Nor should one fear that an extrinsic motivator such as a graded quiz would necessarily decrease students’ intrinsic motivations to learn, or that an extrinsic motivator is an inherently bad thing; see Barbara Walvoord and Virginia Johnson Anderson, *Effective Grading*, second ed. (San Francisco, CA: Jossey-Bass, 2010), 25-27; and Svinicki and McKeachie, *McKeachie’s Teaching Tips*, 142-143.

46. Regan A. R. Gurung and Ryan C. Martin, “Predicting Textbook Reading: The Textbook Assessment and Usage Scale,” *Teaching of Psychology* 38, no. 1 (January 2011): 22-28. See also note 35 above.

47. On strategic learners, see Bain, *What the Best College Teachers Do*, 34-35. A view on reading from the students’ side of things, and the power of quizzes as an inducement to read, is given in Rebekah Nathan, *My Freshman Year: What a Professor Learned by Becoming a Student* (Ithaca, NY: Cornell University Press, 2005), 137-139.

48. For the pros and cons of various instruments for assessing different types of learning, see Piontek, “Best Practices” and Allitt, *Art of Teaching*, Episode 18: Exams, Evaluation, and Feedback.

49. Other mechanisms to encourage reading are laid out in Maryellen Weimer, “A Couple of Great Strategies to Improve Student Reading,” *Faculty Focus* (17 October 2012), <<http://www.facultyfocus.com/articles/teaching-professor-blog/a-couple-of-great->

strategies-to-improve-student-reading/"; Maryellen Weimer, ed., *11 Strategies for Getting Students to Read What's Assigned*, Faculty Focus Special Report (Madison, WI: Magna Publications, 2010); and Svinicki and McKeachie, 30-34.

50. See Piontek, "Best Practices"; Weimer, *Learner-Centered Teaching*, 120.

51. The faculty views described here are from surveys summarized in Arum and Roksa, 5-13. But note that attitudes on paths to promotion and tenure can vary, depending on type of institution; see Robert B. Townsend, "What Makes a Successful Academic Career in History?" *Perspectives on History* 50, no. 9 (December 2012), esp. Fig. 3: Perceived Value of Particular Activities for Promotion and Tenure at Institution, by Carnegie Type, <<http://www.historians.org/perspectives/issues/2012/1212/What-Makes-a-Successful-Academic.cfm>>. On average hours per week devoted by historians to teaching vs. research, see Robert B. Townsend, "Gender and Success in Academia: More from the Historians' Career Paths Survey," *Perspectives on History* 51, no. 1 (January 2013), esp. Fig. 3: Average Number of Hours per Week Spent on Academic and Personal Activities, <<http://www.historians.org/perspectives/issues/2013/1301/Historians-Career-Path-Survey-Gender-and-Success.cfm>>. The latter should be compared with Jeffrey F. Milem, Joseph B. Berger, and Eric L. Dey, "Faculty Time Allocation: A Study of Change over Twenty Years," *Journal of Higher Education* 71, no. 4 (July-August 2000): 454-475, which gives strikingly different data.

52. See note 38 above.

53. An excellent investigation into the learning "bottlenecks" that hamper students' efforts is Arlene Díaz, Joan Middendorf, David Pace, and Leah Shopkow, "The History Learning Project: A Department 'Decodes' Its Students," *Journal of American History* 94, no. 4 (March 2008): 1211-1224.

54. In particular, they show that nearly half of college students exhibit no critical thinking gains in the first two years of college, with only minimal gains thereafter; see note 1 above.

55. On K-12 views, Rosenzweig and Thelen, *The Presence of the Past: Popular Uses of History in American Life* (New York: Columbia University Press, 1998), 31, 109-114; on college views, which are certainly not all positive, 102-105.

56. Arum and Roksa, 73-77; Ken Bain, *What the Best College Students Do* (Cambridge, MA: Harvard University Press, 2012), 49. Many of the subjects profiled in journalist John Merrow's documentary express similar views; *Declining by Degrees: Higher Education at Risk* (Alexandria, VA: PBS Video, 2005).

57. Rosenzweig and Thelen, 128.