Life Is a Multiple-Choice Question

Ann McCormick Scott

WHEN CHARACTERIZED by felicity of insight, accuracy of detail, and grace of expression, the historical essay is the highest measure of a student's understanding and performance. Eyes closed, silver locks flowing, we teachers hope to orchestrate such essays from the diverse human instruments in front of us. But before Mahler reverberated richly throughout the hall, there were scales and etudes, chords and little memory gems. Multiple-choice questions are the Czerny exercises of history. They offer not only a broad spectrum of learning but also test a variety of skills. They can lead students to see historical relationships they may have missed. Multiple-choice questions underscore the coherence of an essay, for they can test close reading and retention of detail. Well-crafted questions can also elicit responses based on logical sequence, interpretation and application, synthesis, analogy, critical capacity, specialized vocabulary, and general knowledge and awareness. Even writing skills can be tested by recognition and discrimination. To call out all of this requires the maestro to go through step-by-step preparation, and to exercise educated fingers, a willing machine, and plenty of Wite-Out in lonely composition.

To ease the loneliness of composition and minimize problems (for both teachers and students), what follows are five specific and prescriptive steps toward the drafting of a multiple-choice test. The first step provides suggestions to consider before actually beginning and urges us to reexamine the goals and contents of our courses. To the extent that these are already clear on the syllabus, in the daily assignments, and in our heads, we can move along. The second step is general advice on drafting a test: how to outline, set up a stem question, its answer, and the distracters, with some warnings on wording. The third step is the core of the composition, with examples offering a variety of question styles, a menu of samples, and a diversity of tasks; each sample question has been tested in battle. Then the test-maestro is asked to survey the masterpiece for content, skills level, style, appearance, and readability. The finale is close proofreading, accomplished by actually taking the test, ideally a couple of days removed from the original drafting. While that is hardly the sort of advice we want to hear with a test due, thirty-six essays to grade, a soccer game to referee, and a curriculum meeting to live through, push onward. Ultimately the aim is to make the maestro's task easier, and the musicians' response more edifying.

Step I. Establishing the Content and Skills to Be Tested

The worst multiple-choice tests are those canned by committees into text supplements. The second worst are produced by a rushed instructor who races paragraph by paragraph through the required reading and lifts sentences to be completed. The best tests are teacher-made, produced when we have clearly in mind the major content and skills goals of the course and of the unit(s) under study. These should be readily discernible by students via the syllabus and daily assignments, which, when thoughtfully prepared, pay off huge dividends in suggesting the material to be tested. Establishing the content and skills framework of the test can be aided by reviewing these questions to remind us of the major themes, important eras, syntheses, and highlights of learning from the course:

- What are the course objectives? Are these stated in the syllabus?
- What are the expectations of external examinations that may apply to the course, especially the Advanced Placement and Achievement tests?
- What are the content objectives of the unit under study? Are these on the assignment sheet?
- What are the skills objectives of the unit? Are these on the assignment sheet?
- What are the questions assigned to guide students' reading and discussion?
- What are the generally agreed historical highlights of the period under study?
- What historical questions have been subject to controversy or revision?

Decide beforehand which objectives you prefer to test by multiple-choice questions and which you want students to write out as identifications or essays. Balanced coverage of the material to be tested should be the first goal of the testing instrument, not an arbitrary number of questions or points. And points awarded should reflect a balance based on the time to be devoted to each segment of the test, and may also account for differing levels of difficulty.

Length. The course level might well dictate the length of the task you set for students. Most students can answer one multiple-choice question per minute in basic secondary-school courses, grades nine and ten. Intermediate students usually can handle two questions in three minutes (about seventy-five in an hour), and advanced placement candidates can work toward the accomplishment of a hundred questions in an hour.

Wording and structure. 1. Use language that is simple, direct, and free of ambiguity. Do not make a question a test of reading ability unless this is the explicit purpose of the question. Consider underlining key words, such as the term to be defined (socialism) or important instructions (e.g., all of the following except; one of the following is the cause of the others).

- 2. Structure the question around one central idea or problem that is clearly presented in the stem and to which all the options relate in the same way.
- 3. When several questions are based on a single setting or on stimulus material such as a passage, graphs, or charts, make certain each question is independent of the others in the set. Students should be expected to arrive at an answer from the material provided in the stimulus material, not from having correctly answered a previous question in the set. Avoid using distracters in one question that may provide clues for answering another question in the set.
- 4. Keep the purpose of each question in mind. That is, if you intend to test factual knowledge, do not "dress up" the question to appear otherwise; if you intend to test critical thinking, be sure the question cannot be answered on the basis of factual information alone.
- 5. If you intend a question to be difficult, make certain it is difficult because it requires sophisticated reasoning or understanding of a high-level concept, not because it tests obscure or esoteric subject matter.
- 6. Do not use double negatives in a question. If you ask students to answer by identifying an option that is not true, or that is false or incorrect, state the option in positive terms.

Advice. To allow for human fallibility, consider giving students a ten percent margin on teacher-prepared tests. This is the beloved "fudge factor," and it can be provided by writing fifty-five questions for fifty points. The student's errors are then subtracted from the larger number; for example, if the student misses ten questions, the score is 45/50 (fifty-five questions minus ten errors = 45/50 total points). This is not an "extra credit" offer; even a perfect paper would receive fifty points, not fifty-five. But this bit of overkill does give the student fifty-five chances to get those fifty points, while discounting ambiguous questions. And the built-in extras allow the instructor, without guilt, to slip in a few especially challenging questions to stretch the most talented minds.

Step II. Writing the Test: Add Water and Stir

- 1. Before composing the test, have before you an outline of the (a) content to be covered; (b) skills to be covered; and (c) types of questions to be considered.
- 2. Good assignment sheets pay their dividend in drafting tests. You can go through the unit objectives and discussion-guide questions and use these as opening statements for multiple-choice questions on a unit test. You may not want to be so specific on a cumulative examination, but there will still be generalizations, comparisons, and syntheses you will want to cover. In fact, one way to make a quick rough outline of a multiple-choice test is to go through chapter titles and subtitles, discussion questions, and important objectives. Write an incomplete statement or question for each. Write the correct answer for each. Later you can go back and fill in the "distracters," the incorrect choices.

Test Construction

- Generally, good multiple-choice questions require five possible answers, and this is the format students face in both the Advanced Placement and Achievement tests. This does not mean, however, that a teacher-made test cannot offer four to six choices. It is said of those choices that one should be clearly correct and one should be clearly incorrect; the others might be correct answers — but not to your question. In any case, the stem and options should stress real information. They should eschew trickery or entrapment.
- Know first the answer you want. Write the question or incomplete statement — what is called the "stem" of the question. Then, as the (a) choice, draft the correct answer. Setting out this correct answer first helps you make the distracters parallel in grammar, form, and length. Test coaches advise students that the longest choice is most often the correct choice. Need it be?

For the final presentation of your test, a simple and effective way to scramble the choices you have drafted with the correct answer first is to alphabetize each option by the first word in it. You will see that method used in the samples given below (Step III). But it is surprising how long it takes for students to discover this arrangement.

Use the option "all of the above" with care. Make sure you have not worded the stem with a superlative or first-choice words such as "best," "most," "of highest importance," "initial," or "primary." Do not stick in "all of the above" or its cousin "none of the above" because you cannot think of a fifth distracter. These call for interpretation and therefore the material should be worthy of interpretation. Be sure you see the distinction between "none of the above" and "no exceptions" as options. They call for a different stem and a different task of sorting information. And remember that any of these choices makes the question more difficult.

Step III. Using a Variety of Multiple-Choice Question Styles

The Madeira history department had a satisfying experience in June 1983. Two students sidled up to the United States history instructors after their final examination. One said: "We want to congratulate you for coming up with a creative test." The other chimed in, "It was fun." They were reacting to sixteen pages containing eighty-eight multiple-choice questions (for eighty points), and of course two more pages containing their three (two short, one long) essay requirements. But every other page of the first sixteen had begun with a different sort of multiple-choice question: a cartoon on page 1, a graph on page 3, then document identifications, a map, a drawing, a pair of cartoons from the McCarthy era, and a chronology spread every other page thereafter. Thus the students' tasks were varied and, we think, their senses sharpened. On the final page, a known character made her farewell appearance, testing knowledge of a constitutional provision: "Molly Madeira, obviously a sophisticated Madeira senior, laid down her pen at the end of the United States history exam and called for her lawyer. 'This violates my Eighth Amendment rights! This exam is definitely a case of

_!" Naturally, all seemed to know that the answer was option (a): "Cruel and unusual punishment." Therefore, the prescription is: use a variety of multiplechoice stimuli and styles. Students' attention spans will stretch, their interest will rise, and who knows, their performances may improve.

And now, a menu of styles and samples:

Completion

Jim Crowism refers to legislation designed to

- benefit railroad workers
- deny equality to blacks
- increase veteran benefits
- restrict immigration
- sell western lands cheaply

Insertion of correct word or phrase

According to Karl Marx, people act and historical changes occur primarily because of ____ causes.

- cultural (a)
- economic (b)
- humanitarian (c)
- nationalistic (d)
- political (e)

Definition

To British leaders since 1938, the term appeasement has most often been equated with

- armistice (a)
- compromise
- negotiation
- surrender (d)
- victory

Match/mismatch

One of the following authors is mismatched with the pivotal work most often associated with that author's name.

- George Kennan "Sources of Soviet Conduct"
- John Locke Of Civil Government
- Thomas Paine Common Sense
- Upton Sinclair The Jungle
- Harriet Beecher Stowe The Red Badge of Courage

Or a more sophisticated mismatch:

A wise host would not invite one of these pairs to a dinner party:

- Jefferson Davis/John Calhoun
- William Lloyd Garrison/Wendell Phillips
- Thaddeus Stevens/William Seward
- (d) Charles Sumner/Preston Brooks
- Nat Turner/Frederick Douglass (e)

5. Cause

One of the following was the cause of the other three:

- Amendment XII
- (b) Election of 1800
- growth of the two-party system
- Washington's farewell warning against factions

6. Result

One of the following was the result of the other three:

- Chiang Kai-shek becomes Kuomintang leader
- Chinese Communist Party is founded
- May Fourth Movement stirs intellectual China
- Long March sets out

Exclusion

One of the following does not belong with the other three:

- John Calhoun
- Alexander Hamilton
- John Marshall
- Daniel Webster

Exception

Examples of powers shared by national and state governments in the United States are all of the following except

- (a) administering justice
- borrowing money through bonds
- levying and collecting taxes (c)
- making internal improvements
- regulating foreign commerce (e)
- no exceptions

Step removed

Modern Republicanism, as reflected in the policies of President Eisenhower, encompassed which of the following? 1) economic aid for underdeveloped nations, 2) military aid for United States allies, 3) a moderate extension of some New Deal and Fair Deal programs, 4) support for the United Nations.

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- (a) 3 only
- 1 and 2 only (b)
- 1, 2, and 3 only
- 2, 3, and 4 only
- 1, 2, 3, 4

10. Data-based questions

Stimulus: A table (see Figure 1), a graph, or a growing of nonverbal data. Types of questions:

- (1) Simple reading of information shown by data.
- Application of data change, direction; use of percentage of change formula (New value – Original value ÷ Original value x 100 = % change).
 - (3) Interpretation of data meaning, implication, cause, result.
- (4) Misinterpretation of data to test what cannot be discerned from data, especially to sort out confusion of quantity and percent.
- (5) Verbalizing data choosing an apt summary or conclusion; choosing appropriate topic sentence or thesis statement as if data were to be summarized verbally.

Figure 1 POPULATION OF EUROPE, 1300-1700 (Estimated in millions)

YEAR	POP.	YEAR	POP.
1300	73	1550	78
	51	1600	90
1350		1650	103
1400	45	1700	115
1450	60	1700	113
1500	69		

Source Shepard B. Clough and Richard T. Rapp, European Economic History: The Economic Development of Western Civilization, 3rd ed. (New York: McGraw-Hill, 1975), p. 52.

From 1450 to 1500, the population of Europe increased by

- 9% (a)
- 15%
- 15% per year
- 9 million per year
- 15 million

The average rate of growth of the population of Europe during the worst period of the religious wars, 1550-1650, was nevertheless approximately

- (a) 25%
- (b) 33%
- (c) 25% per year
- (d) 2.5% per year
- (e) 3.3% per year

Which of the following statements might be the best *topic* sentence for a paragraph summarizing these data?

- (a) After declining to 45 million on account of the Black Death during the 14th century, Europe's population increased steadily by an average of ten million people each fifty years until 1700.
- (b) After 1400, the population of Europe increased steadily, probably due to the improved agricultural techniques.
- (c) The Black Death caused

a decline of nearly fifty percent in Europe's population during the 14th century.

- (d) Despite wars and epidemics, the population of Europe grew by more than fifty percent from 1300 until 1700.
- (e) Treasure coming in from the New World caused the dramatic rise in Europe's population in the 16th century.

11. Cartoon, picture, diagram

Stimulus: Political cartoon (see Fig. 2), historic photo, diagram of a key invention. Types of questions: Similar to those based on data, especially simple reading or recognition; application; interpretation; implication; verbalization.

The historical issue depicted in the cartoonist's invocation of Orwellian images was

- (a) Abscam
- (b) Civil rights
- (c) Nixon's visit to China
- (d) Vietnamization
- (e) Watergate



Herblock, the author of this cartoon, seems concerned about the basic constitutional principle of

- (a) checks and balances
- (b) federalism
- (c) legislative supremacy
- (d) life tenure of federal judges
- (e) states' rights

12. Application of historical concepts to more recent situation

The U.S. policy on grain trade with the Soviet Union in recent years reminds us somewhat of actions taken under _____ during the _____.

- (a) Jefferson, Napoleonic Wars
- (b) Lincoln, Civil War
- (c) Madison, War of 1812
- (d) Monroe, Latin American revolutions
- (e) Polk, Mexican War

13. Categories: classification by titles, themes, characteristics

Scholars of traditional China recorded details of each imperial dynasty. These records were then studied during later eras to detect signs of dynastic growth, strength and decline.

Classify these characteristic situations according to this scheme:

N = if the situation was typical of a new, growing dynasty

P = if the situation was typical of a dynasty at its peak of power

D = if the situation was typical of a dynasty in decline

- (1) A Committee of Regents conducts imperial affairs in the name of an infant emperor.
 - (2) Literature and painting are encouraged by Imperial subsidies.
 - (3) Dikes are repaired and irrigation ditches are built.

Or:

Link each of the following statements of political principle with the political party it most accurately reflects. Use this scheme:

F = if principle is largely Federalist (1790-1814)

D = if principle is largely Democratic (1790-Civil War)

R = if principle is largely Republican (1854-Civil War)

- (1) Both party and president must defend the common man against the monopolies of the aristocratic and the privileged.
- (2) Governments should attract and serve the interests of the rich, well-born and able, while avoiding the dangers of excessive democracy.

Test Construction

- (3) The cause of democracy is best served by making the states the repository and guarantor of our rights.
- (4) There is no liberty outside of the Union; to break the Union is to accept anarchy.

14. Analogy

Afganistan: United Nations, 1980:: ____: League of Nations, 1935.

- Ethiopia
- Manchuria
- Pearl Harbor
- Saar plebiscite
- Sudetenland

15. Chronology

Place the following pre-World War II events into correct chronological order:

- 1) annexation of Austria; 2) invasion of Poland; 3) militarization of the Rhineland;
- 4) occupation of the Sudetenland; 5) takeover of Czechoslovakia.
 - (a) 1, 4, 5, 2, 3
 - (b) 3, 1, 5, 4, 2
 - (c) 3, 1, 4, 5, 2
 - 4, 3, 1, 5, 2
 - 4, 1, 3, 5, 2

16. Reading question

Stimulus: A short, relevant passage.

Task: Answer questions on passage that test comprehension; analysis; interpretation; application. Especially good for recognizing point of view, as in this example:

"Each individual, bestowing more time and attention upon the means of preserving and increasing his portion of wealth than is or can be bestowed by government, is likely to take a more effectual course than what, in this instance and on his behalf, would be taken by government."

The quotation above best illustrates

- classical liberalism
- (b) fascism
- mercantilism
- syndicalism
- utopian socialism

17. Map

Stimulus: Outline map, with areas clearly lettered or numbered.

Task: Simple location (least recommended), location by geographical description, or location by historical description.

Some examples of historical description with an appropriate map of Europe, from which the student answers by letter or number of place described:

- (1) The nobles of ____ started the Thirty Years' War by their hostility to the Holy Roman Emperor.
- (2) revolted against its Hapsburg rulers largely because of religious differences, and obtained a de facto independence in the 1580s.
- (3) Gustavus Adolphus, leader of the Schmalkaldic League in the Thirty Years' War, called his homeland.

18. Document recognition, classification, synthesis

Stimulus: Brief passage from significant, relevant document.

Tasks: Identify by source, title, era, theory advocated, or other classifier.

Or:

Stimulus: Several document excerpts.

Tasks: Match by source, arrange by chronology, synthesize by common theme (religious toleration, growth of parliament, sectionalism).

Match the statements in 1-4 with their most likely speaker, from the list that follows.

- (1) "I did not become the King's First Minister in order to preside over the dissolution of the British Empire."
 - (2) It was a Moslem who did it. "You fool, don't you know it was a Hindu?"
 - "We shall have India divided or we shall have India destroyed."
 - "You shall have to divide my body ... before you divide India."
 - Clement Attlee
 - Winston Churchill
 - Mohammed Ali Iinnah
 - Mohandas K. Ghandi
 - Louis Mountbatten

The basic issue underlying all of the above statements was

- Ghandi's nonviolent resistance
- (b) Indian independence
- (c) Mountbatten's role as viceroy
- Parliament's role in India
- partition of Kashmir

The most logical order in which the above statements were spoken would be

- (a) 1, 3, 4, 2
- (b) 3, 4, 2, 1

Test Construction

- (c) 3, 2, 1, 4
- (d) 1, 2, 4, 3
- (e) 2, 3, 4, 1

19. Writing Skills

By recognition and discrimination, a student should be able to choose the most apt topic sequence, thesis statement, or logical conclusion from a menu of options. This task might be in combination with questions based on data (see no. 10), or on a cartoon or picture. And you might even test that a student knows what a thesis statement is:

A thesis statement differs from a topic sentence, because in a thesis statement the writer

- (a) alludes to the main areas of evidence
- (b) proposes the answer to be supported
- (c) restates the question to be answered
- (d) sets the scene or era of the essay
- (e) traces the roots of an historical event

Which would be the best thesis statement for an essay examining the long-term effects of Eli Whitney's invention of the cotton gin?

- (a) Cotton culture tended to exhaust soil fertility, and southern technology had not developed to meet this problem.
- (b) The gin was developed in 1793 and ten years later, American cotton production had increased more than ten times.
- (c) Since more labor was needed to cultivate cotton once the crop could be easily cleaned, the South relied more on slave labor and slavery became a more divisive sectional issue.
- (d) Whitney reported that if a man used the gin, he could clean cotton tentimes faster than before, but if the invention was used with a horse, then cotton could be cleaned fifty times faster.

20. The study of history

The student may be asked to display all the life skills we have so thoughtfully provided: recognition of primary versus secondary sources; correct citation of sources as notes or in bibliography: most appropriate reference work for a specific task; percentage of change formula; recognition, application to data; national, state, and local government situations; current events; or geographic features and their logical application and interpretation.

21. How do you spell relief?

For psychological uplift, an easy or lighthearted question might be posed. We like this on the bottom of the test's first page — to give a student the courage to move on. You might, depending on your audience, also try for a little levity:

In its first session as part of the Ninety-eighth Congress, the House received a new Equal Rights proposal. What is the final step needed to add such an amendment to the Constitution?

- (a) approval by two-thirds of the Senate
- (b) passage by majorities of both Houses
- (c) ratification by three-fourths of the states
- (d) signature of the President of the United States
- (e) sit-down strikes by American women

Students may never find such relief on a standardized test, but an advantage of the teacher-made test is familiarity and sympathy with the test taker. In any case, the student's task should be varied. Your test will include a wider range of materials and thus enhance the student's ability to handle a wider range of historical sources.

Step IV. Checking the Test

- 1. Review your preliminary outline and check for content, skills, and question-style coverage.
- 2. Closely examine multiple-choice questions and eliminate wordiness. If most of the options begin with the same phrase, then eliminate those words and add the phrase to the stem:

Wordy:

The members of the Constitutional Convention had a view of human nature that can best be described as

- (a) a belief that people are basically good
- (b) a belief that people are basically irresponsible
- (c) a belief that people are naturally selfish and power-hungry
- (d) a belief that people have never governed themselves well
- (e) a belief that people cannot learn to live together

Better:

The members of the Constitutional Convention had a view of human nature that can best be described as a belief that people are basically

- (a) good and capable of moderation
- (b) incapable of self-government
- (c) irresponsible and disorderly
- (d) selfish and power-hungry
- (e) suspicious of their neighbors
- 3. Use "a/an" at the end of an incomplete stem leading to choices beginning with both vowels and consonants. You might also use "(the)" at the end of a stem

to make its use optional in the choices. Keep choices parallel in form. Watch "ing" and "ed" endings. Watch modifier, noun, and verb order.

4. Check your draft with a view to appearance and readability Can you mix questions to provide plenty of white space on the final pages? Are the margins adequate? Is there space between questions? Are the questions varied in length? Are the questions varied in task?

Step V. Final Proofreading

- 1. Go through each page and check that question numbers are in order, with no number skipped. Also, scan the answer sheet and check the numerical order of answer blanks.
- 2. Go through each page again and check that choices are correctly lettered: a, b, c, d, e.
- 3. Finally, here is where your art imitates life. When your complete composition is typed and ready to be reproduced, being careful that your responses will not show up on the students' copies, *take the entire test*.

V

Finished? Take comfort that the time you devote to write the multiple-choice test returns as time you save to grade it. You have covered more material than essay questions alone permit, and have thus enhanced each student's chance of success. You have objective points against which to weigh the subjective points awarded the facile essay, while giving the less talented writer a chance to achieve. You have a means of gauging a student's strengths and weaknesses: literal reader or selective and focused learner; rote memorizer or critical and synthetic thinker? You may—if everyone misses the map questions—discover a gap in your own teaching; should you roll down "Europe" and use the pointer more often? You have steps to guide your work and ideas to goad your colleagues' efforts. And, maestro, you are fine-tuning young instruments toward a greater understanding of history.