

Educational Measurement and Evaluation
Types of Questions

Bloom's Taxonomy

To assess specific levels of student mastery of course content, we will need a framework for describing those levels.

Bloom's taxonomy is a system created to improve testing precision by categorizing cognitive functioning into distinct levels. Appropriate questions could then be developed to assess the desired level. Psychologist Benjamin Bloom developed this system at the University of Chicago in the late 1940s. His goal in formulating this classification was to increase precision in the discussion of educational goals among teachers, administrators, and researchers.

Bloom's levels are:

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Taxonomy" is simply a system of categorizing and organizing. In this case, the taxonomy is hierarchical; each level is subsumed by the higher levels. In other words, a student functioning at the "application" level has also mastered the material at the "knowledge" and "comprehension" levels.

Bloom's taxonomy is useful in illustrating how certain question types are better choices for assessing different levels of student mastery. What's important to take from the discussion is the idea that student knowledge is not all equal; there are levels of mastery ranging from simple recitation of facts, to formulating informed opinions regarding complex issues. An awareness of these levels can help you determine how well do your students really know course content (see chart 1).

Chart 1, which lists Bloom's levels.

Level	Learner Action	Question Cues
Knowledge	Recall content in the exact form that it was presented. Memorization of definitions, formulas, or procedures are examples of knowledge-level functioning.	List, define, label, identify, name
Comprehension	Restate material in their own words, or can recognize previously unseen examples of a concept.	Describe, associate, categorize, summarize
Application	Apply rules to a problem, without being given the rule or formula for solving the problem.	Apply, calculate, illustrate, solve
Analysis	Break complex concepts or situations down into their component parts, and analyze how the parts are related to one another.	Analyze, compare, separate, order, explain
Synthesis	Rearrange component parts to form a new whole.	Combine, modify, rearrange, "what-if"
Evaluation	Evaluate or make judgments on the worth of a concept, object, etc. for a purpose.	Assess, decide, grade, recommend, explain, judge

Types of Assessments

Assessments can be classified in many different ways. The most important distinctions are:

- (1) Formative and summative;
- (2) Objective and subjective;
- (3) Informal and formal.

Formative and summative assessments

There are two main types of assessment:

- **Summative Assessment** - Summative assessment is generally carried out at the end of a course or project. In an educational setting, summative assessments are typically used to assign students a course grade.
- **Formative Assessment** - Formative assessment is generally carried out throughout a course or project. Formative assessment is used to aid learning. In an educational setting, formative assessment might be a teacher (or peer) the learner, providing feedback on a student's work, and would not necessarily be used for grading purposes.

Summative and formative assessment are referred to in a learning context as "**assessment of learning**" and "**assessment for learning**" respectively.

A common form of formative assessment is **diagnostic assessment**. Diagnostic assessment measures a student's current knowledge and skills for the purpose of identifying a suitable program of learning. **Self-assessment** is a form of diagnostic assessment which involves students assessing themselves.

Objective and subjective assessment

Assessment (either summative or formative) can be objective or subjective.

Objective assessment is a form of questioning which has a single correct answer.

Subjective assessment is a form of questioning which may have more than one current answer (or more than one way of expressing the correct answer).

There are various types of objective and subjective questions.

Objective question types include true/false, multiple choice, and matching questions. **Subjective questions** include extended-response questions and essays.

Informal and formal assessment

Assessment can be either **formal** or **informal**.

Formal assessment usually a written document, such as a test, quiz, or paper.

Formal assessment is given a numerical score or grade based on student performance.

Informal assessment does not contribute to a student's final grade. It usually occurs in a more casual manner, including observation, inventories, participation, peer and self evaluation, and discussion.

Standards of quality

The considerations of validity and reliability typically are viewed as essential elements for determining the quality of any assessment. However, professional and practitioner associations frequently have placed these concerns within broader contexts when developing standards and making overall judgments about the quality of any assessment as a whole within a given context.

Evaluation standards

The standards provide guidelines for designing, implementing, assessing and improving the identified form of evaluation. Each of the standards has been placed in one of four fundamental categories to promote educational evaluations that are proper, useful, feasible, and accurate. In these sets of standards, validity and reliability considerations are covered under the accuracy topic. For example, the student accuracy standards help ensure that student evaluations will provide sound, accurate, and credible information about student learning and performance.

Validity and reliability

A valid assessment is one which measures what it is intended to measure. For example, it would not be valid to assess driving skills through a written test alone. A more valid way of assessing driving skills would be through a combination of tests that help determine what a driver knows, such as through a written test of driving knowledge, and what a driver is able to do, such as through a performance assessment of actual driving. Teachers frequently complain that some examinations do not properly assess the syllabus upon which the examination is based; they are, effectively, questioning the validity of the exam.

Reliability relates to the consistency of an assessment. A reliable assessment is one which consistently achieves the same results with the same (or similar) cohort of students. Various factors affect reliability – including ambiguous questions, too many options within a question paper, vague marking instructions and poorly trained markers.

A good assessment has both a validity and reliability, plus the other quality attributes noted above for a specific context and purpose. In practice, an assessment is rarely totally valid or totally reliable. A ruler which is marked wrong will always give the same (wrong) measurements, It is very reliable, but not very valid. Asking random individuals to tell the time without looking at a clock or watch is sometimes used as an example of an assessment which is valid, but not reliable. The answers will vary between individuals, but the average answer is probably close to the actual time. In many fields, such as medical research, educational testing, and psychology, there will often be a trade-off between reliability and validity. A history test written for high validity will have many essay and fill-in-the-blank questions. It will be a good measure of mastery of the subject, but difficult to score completely accurately. A history test written for high reliability will be entirely multiple choice. It isn't as good at measuring knowledge of history, but can easily be scored with great precision.

A "multiple choice question" (MCQ)

Definition

A "multiple choice question" (MCQ) is a question in which students are asked to select one alternative from a given list of alternatives in response to a "question stem". One feature of this type of question is that there is a finite possibility of selecting the correct alternative

The so-called "TRUE/FALSE" question, in which the student chooses between two alternatives "True" or "False", is a special case of an MCQ. "

Advantages of Multiple Choice Questions.

- MCQs can be easily marked/scored, and this scoring can be both accurate and objective. In particular, MCQs can be MACHINE SCORED (This means that a computer will do all the marking for you!).
- MCQs can be set at different cognitive levels. For example, a question may simply challenge a student's ability to recall facts, while another may test a student's ability to apply factual knowledge to given situations; or, at a higher level, a question may test a student's ability to evaluate given information.
- MCQs can be designed with a diagnostic end in mind, in order to find out whether specific areas of a given subject are adequately known, or in order to detect misconceptions. This can provide feedback on the effectiveness of instruction.

- Students with poor reading skills and second-language learners need not be disadvantaged, provided the tests are designed appropriately. Misreading of a question stem or an alternative may result in the loss of a few marks only; conversely, the misreading of an essay-type question, followed by the poor writing skills normally associated with a second language, can cause the student to lose an inordinate number of marks.
- Statistical information on performance can be readily obtained. One can not only find out how the class performed on a particular question, but determine whether the question was suitable in the context in which it was presented. The statistics that are gathered may also be used to rank questions with respect to their difficulty and their ability to discriminate between students of different competences.
- Tests made up of MCQs can be administered frequently, and thus provide regular information on student performance, not only to the instructor but also to the students.
- Tests made up of MCQs can provide a better coverage of content than essay-type questions, thus broadening the scope of the test. Such tests can be structured to include questions of defined grades of difficulty and discriminating power
- In MCQ testing, the instructor "sets the agenda", and there are no opportunities for the candidate to avoid complexities and concentrate on the superficial aspects of the topic, as is often encountered in essay-type questions.

Adopting MCQ Assessment

MCQs have a reputation for being 'easy', probably because of a misconception that they can only test knowledge acquisition, and not the understanding, application and writing skills legal teachers traditionally require their students to demonstrate. However, more challenging comprehension or application MCQs can test many of the intended learning outcomes for a module or unit, and can therefore form a valid part of the summative assessment strategy. Some tutors utilise the efficiency of MCQs in covering the syllabus to introduce compulsory sections in exams with the aim of discouraging question spotting on important topics.

All assessment methods have some drawbacks, and it is vital to determine what role MCQs can play in your overall assessment strategy by examining your module's intended learning outcomes. The 'dumbing down' tag also ignores the useful role MCQs can play in formative assessment, in creating self-assessment exercises with feedback for students. You may wish to develop this without altering your summative assessment method. The key - as with any assessment mechanism - is in creating questions which test the required skills at the appropriate level.

Problems associated with Multiple Choice Questions.

- The construction of good test items (questions) requires special care and is therefore time-consuming.
- Instructors tend to favour "recall" type questions, as they are the easiest to design. This manual will provide you with examples which should convince you that it is possible to go far beyond this type of question.
- Experience has shown that in some environments, it may be necessary to win the acceptance of students to this type of testing. Proper communication with the students is therefore essential in order to ensure that they feel comfortable with this type of testing. Feedback from students can be very important and can only lead to an overall improvement of the existing question, for possible inclusion into a question bank.
- Creativity cannot easily be tested. Creativity is best tested by discursive questions such as the "ESSAY-type" question. Bear in mind however that essay questions tend to have a poor sampling of content, have a poor scoring reliability (particularly if several persons are marking large numbers of scripts), and are notoriously time consuming to mark.

The multiple uses of Multiple Choice Question tests

MCQs can be used in a variety of ways in lectures. For example, MCQs can be put on overhead (OHP)

transparencies and students individually or in pairs can come up with answers. This can help to facilitate interactive lecturing and usefully 'break' up lectures. If the distractors are carefully selected to 'catch' misunderstandings, then the response of the class can be used as a diagnostic indicator. MCQs could also be used to test prior understanding and to break the ice when starting a new topic.

Short tests - e.g., of 5 MCQs - can be administered to provide a quick diagnostic feedback on the progress of a class, or as a revision exercise to prepare for exams, or as a bridge into "essay" tasks. They need not carry marks or have the students' names on them: the lecturer could follow up with a general explanation of why one answer was correct and the others were not.

The above suggestions represent just a few of the possible uses of MCQs. Their use in wider contexts than just formal testing is important because it serves to familiarise the students with a range of answering techniques and the MCQ process in general. The methods needed to answer different kinds of MCQs should be made explicit to students and discussed with them. For a variety of reasons there may be considerable resistance from students to MCQs and it is essential that the benefits of MCQs are clearly demonstrated to them.

Success in an MCQ?

An MCQ with four options presents a one in four chance of 'guessing' the correct answer. Arguably this is no worse than a student who adopts the 'write all you know' approach to a problem question for which s/he can generally expect to pick up marks for correct points the marker has laboriously identified within a largely irrelevant answer.

Nevertheless 'rewarding' guesswork (what we would call the lucky monkey syndrome) does present a problem to which there is no definitive solution, although the use of negative scoring may discourage students from equating multiple choice with multiple guess

More general solutions to scoring problems could include:

- raising the pass mark for the MCQ element of assessment.
- making MCQs one component of the assessment strategy.
- concentrating on using MCQs in formative situations where the 'result' is less important than the process

Does using MCQ assessment encourage rote or surface learning?

Rote or surface learning happens whatever the assessment method. Traditional 'problem' questions allow examiners to distinguish between surface learners and those who have shown understanding through a higher level of application and analysis, and hence avoid rewarding (and by implication encouraging) surface learning. Appropriate MCQs can be used in the same way to distinguish the surface learner from the deeper learner, where this is the purpose of your assessment, although this would require a sufficient number of questions to eliminate those 'lucky monkeys'. Do remember however that any form of valid assessment is likely to require the student to display some form of knowledge which is acquired by rote learning. You may wish to utilise MCQs to test this knowledge, and assess other skills in more traditional ways. Knowledge-based questions are also a useful formative assessment tool to check whether students have grasped the basics.

Setting MCQs which demand more than knowledge from students is more difficult than setting factual questions, but can be done. Giving students a sample of the type of questions they can expect is the best way of encouraging them to adopt appropriate learning methods.

What should you think about before you design an MCQ test?

Is your test to be formative or

Summative: there are particular issues with marking schemes/scoring and meeting intended learning outcomes

summative?	Formative: provision of effective feedback is essential. Where combining formative MCQs with non-MCQ summative assessment, remember to make explicit any differences in knowledge/skills required
What are you trying to assess? What are your intended learning outcomes?	Knowledge - these are quite easy to set, but check carefully against your intended learning outcomes
	Comprehension/understanding/application - possible to test, but more challenging to set
	Oral or written skills - MCQs can test the theory but not the practice
How will students complete the test?	On paper? Online? If online, in their own time or at a set time in an IT lab? There are authenticity issues if the assessment is summative and they do it in their own time.
How will the test be marked?	By staff? As a peer assessment exercise by students? By optical reader? Via multimedia? If optical reader, ensure format is compatible.
Are students used to the MCQ format?	If not give them a sample paper - especially important where test forms part of summative assessment. If the test is online, students will need practice in using the software.
How will you pilot your questions?	Piloting is essential - enlist the help of colleagues to check your questions for difficulty, ambiguity and accuracy. It is preferable to test questions separately for subject accuracy/difficulty and for readability/comprehension.

The following are suggestions for writing successful questions

DO	DON'T
Before you start writing each question, identify what it is you are trying to test - knowledge? understanding?	Give away answers to a previous question with a later question - look at your test as a whole.
Consider the use of alternative question formats if the simple format doesn't serve your purpose	Include superfluous or irrelevant information in the stem.
Phrase questions as clearly and concisely as possible, avoiding complex language.	Compose stems which give clues to the key.
Write a stem which clearly specifies what the question is asking for.	Use negatives in the stem too often.
Include common information in the stem rather than repeating it in the options.	Write a key that is longer, more complex or more specific than the distracters.
Ensure any negatives in the stem are clearly highlighted.	Have more than one key (unless this is specified to students).

Make your distracters as plausible as possible.

Forget to randomise the location of the key within the options.

Focus on common student mistakes as areas for questions and/or distracters.

Use questions without piloting them on colleagues first.

Writing the Stem

The "stem" of a multiple-choice item poses a problem or states a question. The basic rule for stem-writing is that students should be able to understand the question without reading it several times and without having to read all the options.

- Write the stem as a single, clearly-stated problem. Direct questions are best, but incomplete statements are sometimes necessary to avoid awkward phrasing or convoluted language.
- State the question as briefly as possible, avoiding wordiness and undue complexity. In higher-level questions the stem will normally be longer than in lower-level questions, but you should still be brief.
- State the question in *positive* form because students often misread negatively phrased questions. If you must write a negative stem, emphasize the negative words with underlining or all capital letters. Do not use double negatives--e.g., "Which of these is not the least important characteristic of the Soviet economy?"

Writing the Responses

Multiple-choice questions usually have four or five options to make it difficult for students to guess the correct answer. The basic rules for writing responses are (a) students should be able to select the right response without having to sort out complexities that have nothing to do with knowing the correct answer and (b) they should not be able to guess the correct answer from the way the responses are written.

- Write the correct answer immediately after writing the stem and make sure it is *unquestionably* correct. In the case of "best answer" responses, it should be the answer that authorities would agree is the best.
- Write the incorrect options to match the correct response in length, complexity, phrasing, and style. You can increase the believability of the incorrect options by including extraneous information and by basing the distractors on logical fallacies or common errors, but avoid using terminology that is completely unfamiliar to students.
- *Avoid* composing alternatives in which there are only microscopically fine distinctions between the answers, unless the ability to make these distinctions is a significant objective in the course.
- *Avoid* using "all of the above" or "both A & B" as responses, since these options make it possible for students to guess the correct answer with only partial knowledge.
- Use the option "none of the above" with extreme caution. It is *only* appropriate for exams in which there are absolutely correct answers, like math tests, and it should be the correct response about 25% of the time in four-option tests.
- *Avoid* giving verbal clues that give away the correct answer. These include: grammatical or syntactical errors; key words that appear only in the stem and the correct response; stating correct options in textbook language and distractors in everyday language; using absolute terms--e.g., "always, never, all," in the distractors; and using two responses that have the same meaning.

Answering multiple choice exams

1. *Do the multiple choice items first* if your exam has types of questions other than multiple choice. Just reading the stems and alternatives acts as a warm-up to the material. (The stem is the question and the alternatives are the choices). Also, the ideas embedded in these multiple choice questions will fuel your thinking for doing the other parts of the exam.
2. *Read the directions carefully.* The directions usually indicate that some alternatives may be partly correct or correct statements in themselves, but not when joined to the stem. The directions may say: "choose the most correct answer" or "mark the one best answer." Sometimes you may be asked to "mark *all* correct answers."
3. Often you are required to answer up to 70 multiple choice questions in an hour or less. (Some have

200 questions to answer in 3 hours). This means you may have less than a minute, on average, to spend on each question. Some questions, of course, will take you only a few seconds, while others will require more time for thought. *Plan to progress through the exam in three ways:*

– Read every question carefully but quickly, answering only those of which you are 100% certain. Put a "?" on those that need more thought.

– Then, examine/study the questions not yet answered. Answer those you are reasonably sure of without pondering too long on each. Erase the "?"

– Finally, study read the remaining unanswered questions. If you cannot come to a decision by reasoning or if you run out of time, guess. Erase the "?". Note that some examinations penalize "guessing" by subtracting points for incorrect answers. Check with your instructor. If there is no penalty, then a guess is better than a blank.

4. *Use the process of elimination procedure.* Eliminate the obviously incorrect alternatives.

5. *Read all of the stem and every alternative.*

– Read the stem with each alternative to take advantage of the correct sound or flow that the correct answer often produces. Also, you can eliminate any alternatives that do not agree grammatically with the stem.

– Some students find it effective to read the stem and anticipate the correct alternative before actually looking at the alternatives. If you generally do better on essay exams, this strategy may help you a great deal. Our research shows that one in three students scores better with this strategy alone!

6. *Consider "all of the above" and "none of the above."* Examine the "above" alternatives to see if all of them or none of them apply *totally*. If even one does not apply totally, do not consider "all of the above" or "none of the above" as the correct answer. Make sure that a statement applies to the question since it can be true, but not be relevant to the question at hand!

7. *Note negatives.* If a negative such as "none", "not", "never", or "neither" occurs in the stem, know that the correct alternative must be a fact or absolute and that the other alternatives could be true statements, but not the correct answer.

8. *Note superlatives.* Words such as "every", "all", "none", "always", and "only" are superlatives that indicate the correct answer must be an undisputed fact. In the social sciences, absolutes are rare.

9. *Note qualifying words.* "Usually", "often", "generally", "may", and "seldom" are qualifiers that *could* indicate a true statement.

10. *Study Qualifications.* Break the stem down into grammatical parts. Pull out the *bare subject* and *verb* (if it is in the stem), and then examine all the modifiers (qualifiers) to the subject and verb. This process ensures that you will examine every part of the stem.

11. *Changing Answers.* Research has shown that changing answers on a multiple choice or true-false exam is neither good nor bad: if you have a good reason for changing your answer, change it. The origin of the myth that people always change from "right" to "wrong" is that those (i.e. the wrong ones) are the only ones you will see when you review your exam – you won't notice the ones you changed from "wrong" to "right."

Useful pointers for feedback

- Ideally, write your feedback as you write the questions. Alternatively, make notes of why you are using particular distracters, as your expertise in identifying the mistakes students are likely to make will help you write effective feedback later.
- Give feedback which is as detailed as possible - 'no' or 'wrong' does nothing to help the student identify the reason for their mistake, although with some simple factual questions, and with less plausible distracters, it can be difficult to do otherwise.
- Consider, where appropriate, directing students to the resources required for them to correct their understanding and try again, rather than simply giving them the correct answer.
- Where appropriate acknowledge, by writing encouraging feedback, those students who have answered questions well, or who have got something 'nearly right' by choosing a particularly plausible distracter.

What can I learn from the student responses to the MCQs?

It is important (although time consuming in a paper-based assessment) to analyse the overall response to individual questions in your test, although drawing definite conclusions can be difficult. A low percentage of correct answers to any particular question, for example, may indicate that the question was very difficult, or on a topic which was not covered sufficiently in teaching or guided reading, or simply badly drafted or misleading. A high percentage of correct answers could indicate the question is easy or contains an unintended clue to the correct response, or that you have a class of unusually lucky monkeys!

To some extent it will be a matter of common sense to compare the scores with what you 'felt' the level of difficulty for the question to be. Notable discrepancies might require a look at the wording of the question and/or the emphasis on that area in your teaching. Again liaison with colleagues makes this process more effective.

Matching Questions

Matching questions involve paired lists that require students to correctly identify, or “match,” the relationship between the items.

Advantages:

Matching items can assess a large amount of information in a confined space on the exam page, relative to multiple-choice questions; if developed carefully, the probability of guessing is low. To decrease that probability further, avoid equal-sized lists by including a few “distractor” items in the second (answer) column.

Disadvantages:

Matching assesses recognition rather than recall of information.

Most Appropriate For:

Assessing student understanding of related information. Examples of related items include terms and definitions, tools and uses.

True/False Questions

True/false questions present a statement, and prompt the student to choose whether the statement is truthful. Students typically have a great deal of experience with this type of question.

Advantages:

True/false questions are among the easiest to write.

Disadvantages:

True/false questions are limited in what kinds of student mastery they can assess. They have a relatively high probability of student guessing the correct answer (50%). True/false also assesses recognition of information, as opposed to recall.

Most Appropriate For:

Factual information and naturally dichotomous information (information with only two plausible possibilities). Dichotomous information is "either/or" in nature. Examples include male/female, and internal/external.

Short-Answer Questions

Short-answer questions are “constructed-response,” or open-ended questions that require students to create an answer. Short-answer items typically require responses of one word to a few sentences. “Fill in the blank” and “completion” questions are examples of short-answer question types.

Advantages:

Short-answer questions assess unassisted recall of information, rather than recognition. Compared to essay questions, they are relatively easy to write.

Disadvantages:

Short-answer items are only suitable for questions that can be answered with short responses. Additionally, because students are free to answer any way they choose, short-answer questions can lead to difficulties in scoring if the question is not worded carefully. It’s important when writing short-answer questions that the desired student response is clear.

Most Appropriate For:

Questions that require student recall over recognition. Examples include assessing the correct spelling of items, or in cases when it is desirable to ensure that the students have committed the information to memory (medical & Nursing students, for example, will require recall of information more than recognition by the nature of their jobs).

Essay Exams

Essay questions can test complex thought processes, critical thinking, and problem solving, and essays require students to use the English language to communicate in sentences and paragraphs -- a skill that undergraduates need to exercise more frequently.

Essay questions are categorized as "supply" items (questions for which students must develop the answers themselves) to distinguish them from "select" items (in which students choose a response from a menu). The cognitive capabilities required to answer supply items are different from those required by select items, irrespective of content. Since short-answer and identification questions are also supply items, they can be serviceable alternatives to multiple-choice questions -- they also measure very specific elements of learning without taking much time to score. Indeed, a set of short essay questions may be more appropriate for some testing situations than the traditional lengthy essay.

Advantages:

Essay questions are the only question type that can effectively assess all six levels of Bloom’s Taxonomy. They allow students to express their thoughts and opinions in writing, granting a clearer picture of the level of student understanding. Finally, as open-ended questions, they assess recall over recognition.

Disadvantages:

There are two main disadvantages to essay questions: time requirements and grading consistency. Essays are time-consuming for students to complete, and require careful instructions on the part of the test writer. Scoring can be difficult because of the variety of answers, as well as the “halo effect” (students rewarded for strong writing skills as opposed to demonstrated mastery of the content).

Grading of Essay Exams

Good grading practices can also increase the reliability of essay tests. In the first place, all tests should be graded anonymously to counteract the "halo effect" of a student's prior performance. Some teachers require students to write their social security numbers (or some other code) on test papers rather than signing their

names, to eliminate accidental identifications during the grading process.

It is also a good idea to grade each essay question separately rather than grading a student's entire test at once. A brilliant performance on the first question may overshadow weaker answers later on (or vice-versa), and it is easier for the grader to keep in mind one answer key at a time. Shuffling the papers after grading each question will help compensate for the tendency to give later papers lower scores as the grader grows tired and increasingly bored.

Unless elements of grammar, syntax, spelling, and punctuation are being evaluated as part of the examination, the grader should try to overlook flaws in these elements of composition. In this case, accuracy and completeness should be the only criteria against which the answers are judged.

As a matter of practice, quickly skimming several essays before beginning the formal process of grading will help determine whether or not the model answer needs to be modified. If, through some quirk in wording, students misinterpret your intent, or if your standards are unrealistically high (or low), you should alter the model answer in light of this information. This procedure is preferable to altering the grading scheme *ex post facto*, since grades tend to lose their meaning if the system is altered to compensate for poor testing practices.

Make a key for each question that lists the main points that should be in the answer.

Read through several tests to check the key, perhaps to add some points mentioned by students, or drop one if no one included a certain point.

It is important to write comments on the test papers as you grade them, but comments do not have to be extensive in order to be effective (especially if you provide a model answer).

What is a well written answer to an essay question?

Well Focused

Be sure to answer the question completely, that is, answer all parts of the question. Avoid "padding." A lot of rambling and ranting is a sure sign that the writer doesn't really know what the right answer is and hopes that somehow, something in that overgrown jungle of words was the correct answer.

Well Organized

Don't write in a haphazard "think-as-you-go" manner. Do some planning and be sure that what you write has a clearly marked introduction which both states the point(s) you are going to make and also, if possible, how you are going to proceed. In addition, the essay should have a clearly indicated conclusion which summarizes the material covered and emphasizes your main point.

Well Supported

Do not just assert something is true, prove it. What facts, figures, examples, tests, etc. prove your point? In many cases, the difference between an A and a B as a grade is due to the effective use of supporting evidence.

Well Packaged

People who do not use conventions of language are thought of by their readers as less competent and less educated.

How do the student write an effective essay exam?

1. Read through all the questions carefully.
2. Budget your time and decide which question(s) you will answer first.
3. Underline the key word(s) which tell you what to do for each question.

4. Choose an organizational pattern appropriate for each key word and plan your answers on scratch paper or in the margins.
5. Write your answers as quickly and as legibly as you can; do not take the time to recopy.
6. Begin each answer with one or two sentence thesis which summarizes your answer. If possible, phrase the statement so that it rephrases the question's essential terms into a statement (which therefore directly answers the essay question).
7. Support your thesis with specific references to the material you have studied.
8. Proofread your answer and correct errors in spelling and mechanics.

Specific organizational patterns and "key words" (for the student)

Most essay questions will have one or more "key words" that indicate which organizational pattern you should use in your answer. The six most common organizational patterns for essay exams are definition, analysis, cause and effect, comparison/contrast, process analysis, and thesis-support.

Using Tests in Instruction

Always provide a model answer when returning essays and, when possible, provide time to discuss the questions in class. Students are usually anxious to find out how well they performed and their motivation and attention levels are quite high, so the instructor can use this opportunity to correct errors in their learning and to reinforce important points.

Some teachers use essay questions as teaching tools throughout the course by making them the focus of class discussions. Students are given the questions prior to the day of the discussion so they can prepare answers. The class discussion is an exercise in exploring the ways the questions can be answered. Students thereby have an opportunity to practice their thinking skills and also become familiar with the type of questions favoured by the teacher. Teachers who use this method report that it not only improves student performance on essay exams, but it also raises the quality of class discussions.

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