

Classroom Techniques

Techniques for Assessing Subject-Related Knowledge and Skills

Assessing Prior Knowledge, Recall, and Understanding

Background Knowledge Probe – short, simple questionnaires prepared by faculty for use at beginning of a subject, at the start of a new unit or lesson, or prior to introducing an important new topic. This is used to collect much more specific, and more useful, feedback on students' prior learning.

Focused Listing – focuses students' attention on a single important term, name, or concept from a particular lesson or class session and directs them to list several ideas that are closely related to that "focus point." Quickly determine what learners recall as most important points.

Misconception/Preconception Check – also assesses students' prior knowledge, but focuses on uncovering prior knowledge or beliefs that may hinder or block further learning.

Empty Outlines – faculty provides students with empty or partially completed outline of in-class presentation or homework assignment and gives them limited amount of time to fill in the blanks. This helps faculty find out how well students have 'caught' important points.

Memory Matrix – two-dimensional diagram, rectangle divided into rows and columns used to organize information and illustrate relationships. The row and column headings are given, but the cells, the boxes within, are left empty. Students fill in blank cells. This provides feedback that can be quickly scanned and easily analyzed.

Minute Paper – provides a quick and extremely simple way to collect written feedback on student learning. Typically students answer some variation of "What was the most important thing you learned during this class?" or "What important question remains unanswered?"

Muddiest Point – students jot down a quick response to one question: "What was the muddiest point in _____?" The focus might be a lecture, discussion, homework assignment, play, or film.

Assessing Skill in Analysis and Critical Thinking

Categorizing Grid – students are presented with a grid containing two or three important categories — superordinate concepts they have been studying — along with a scrambled list of subordinate terms, images, equations, or other items that belong in one or another of those

categories. They are given limited time to sort subordinate terms into correct categories on the grid.

Defining Features Matrix – requires students to categorize concepts according to the presence (+) or absence (–) of important defining features, thereby providing data on their analytic reading and thinking skills.

Pro and Con Grid – gives faculty quick overview of class’s analysis of pros and cons, costs and benefits, or advantages and disadvantages of an issue.

Content, Form, and Function Outlines – also called “What, How, and Why Outlines.” To respond, the student carefully analyzes the “what” (content), “how” (form), and “why” (function) of particular message.

Analytic Memos – simulation exercise. Students write one- or two-page analysis of a specific problem or issue. The person for whom memo is being written is usually identified as an employer, client, or stakeholder who needs the student’s analysis to inform decision making.

Assessing Skill in Synthesis and Creative Thinking

One-Sentence Summary – students answer the questions “Who does what to whom, when, where, how, and why?” (represented as WDWWWHW) about a given topic, and then synthesize those answers into single informative, grammatical, and long summary sentence.

Word Journal – prompts a two-part response. First, the student summarizes short text in single word. Second, the student writes a paragraph or two explaining why he or she chose that particular word to summarize the text. The completed response to Word Journal is an abstract or synopsis of the focus text.

Approximate Analogies – students complete the second half of an analogy — A is to B as X is to Y — for which faculty supplied first half (A is to B). Students can respond in as little as two words.

Concept Maps – drawings or diagrams showing mental connections that students make between major concept faculty focuses on and other concepts they have learned. Students sketch the important features of ‘geography’ around major concepts.

Invented Dialogues – by inventing dialogues, students synthesize knowledge of issues, personalities, and historical periods into form of carefully structured, illustrative conversation. Two levels are possible: on the first level, can create invented dialogues by carefully selecting

and weaving together actual quotes from primary sources; the second, more challenging, level, may invent reasonable quotes that fit the character of speakers and the context.

Annotated Portfolios – a very limited number of examples of creative work, supplemented by students’ own commentary on significance of those examples.

Assessing Skill in Problem Solving

Problem Recognition Tasks – present students with few examples of common problem types. The students’ task is to recognize and identify particular type of problem each example represents.

What’s the Principle? – provides students with a few problems and asks them to state principle that best applies to each problem.

Documented Problem Solutions – prompts students to keep track of the steps they take in solving a problem — to ‘show and tell’ how they worked it out. Each solution step is briefly explained in writing.

Audio- and Videotape Protocols (A/V Protocols) – by studying audio or video recording of a student talking and working through process of solving problem, faculty and students can get very close to ‘inside view’ of problem-solving process.

Assessing Skill in Application

Directed Paraphrasing – students are directed to paraphrase part of a lesson for a specific audience and purpose, using their own words.

Applications Cards – after students have heard or read about an important principle, generalization, theory, or procedure, the faculty member hands out an index card and asks them to write down at least one possible, real-world application for what they have just learned.

Student-Generated Test Questions – students prepare test questions and model answers. This shows students how well they know the material and what they think is important.

Human Tableau or Class Modeling – students respond with their minds and bodies. Groups of students create ‘living’ scenes or model processes to show what they know.

Paper or Project Prospectus – paper prospectus prompts students to think through elements of assignment, such as topic, purpose, intended audience, major questions to be answered, basic organization, and time and resources required; project prospectus may focus on tasks to be accomplished, skills to be improved, and products to be developed.

Techniques for Assessing Learner Attitudes, Values, and Self-Awareness

Assessing Students' Awareness of Their Attitudes and Values

Classroom Opinion Polls – instead of asking students to raise their hands in class to indicate their agreement or disagreement with a statement, this method is a written form. This provides anonymity for the students and more accurate and honest data for the faculty.

Double-entry Journals – first half is where students note ideas, assertions, and arguments in assigned readings that they found most meaningful and/or most controversial. The second half is where students explain the personal significance of the passage selected and respond to that passage. The students engage in dialogue with text, exploring their reactions.

Profiles of Admirable Individuals – requires students to write brief, focused profile of an individual — in field related to subject – whose values, skills, or actions they greatly admire.

Everyday Ethical Dilemmas – students presented with abbreviated case study that poses ethical problem related to discipline or profession they are studying. They respond briefly and anonymously to these cases, and faculty member analyzes the responses in order to understand students' values.

Subject-Related Self-confidence Surveys – consist of a few simple questions aimed at getting rough measure of students' self-confidence in relation to specific skill or ability.

Assessing Students' Self-Awareness as Learners

Focused Autobiographical Sketches – students directed to write one- or two-page autobiographical sketch focused on a single successful learning experience in their past — an experience relevant to learning in that particular subject.

Interest/Knowledge/Skills Checklist – brief, faculty-made versions of commercial interest and skills inventories. The faculty member creates checklists of topics covered in subjects and skills strengthened by or required for succeeding in those subjects. The students rate their interest in various topics, and assess their levels of skill or knowledge in those topics, by indicating the appropriate responses on the checklist.

Goal Ranking and Matching – students list a few learning goals they hope to achieve through the subject and rank the relative importance of those goals. If time and interest allow, students can also estimate the relative difficulty of achieving those learning goals. The faculty member collects and matches these goals against his or her own subject goals.

Self-Assessment of Ways of Learning – prompts students to describe their general approaches to learning, or their learning styles, by comparing themselves with several different profiles and choosing those that, in their opinion, most closely resemble them.

Assessing Subject-Related Learning and Study Skills, Strategies, and Behaviours

Productive Study-Time Logs – thumbnail records that students keep on how much time they spend studying for particular subject, when they study, and how productively they study at various times of the day or night.

Punctuated Lectures – requires students and faculty to listen, stop, reflect, write, and give feedback. Students begin by listening to a lecture or demonstration; then, after a portion, the faculty member stops the action; for quiet moment, students reflect on what they were doing during presentation and how their behavior while listening may have helped or hindered their understanding of that information; they then write down any insights they have gained; finally, they give feedback to the faculty in form of short, anonymous note.

Process Analysis – focuses on students' attention on the process — on how they do their academic work. This requires that students keep records of the actual steps they take in carrying out representative assignment and asks them to comment on the conclusions they draw about their approaches to that assignment.

Diagnostic Learning Logs – students keep records of each subject or assignment. When responding to class sessions, students write one list of main points covered that they understood and second list of points that were unclear. For assignments, students record problems encountered or errors made, as well as excellent and successful responses. At regular intervals, students reflect on, analyze, and summarize the information they have collected on their own learning. They then diagnose their strengths and weaknesses as learners and generate possible remedies for the problems.

Techniques for Assessing Learner Reactions to Instruction

Assessing Learner Reactions to Faculty and Teaching

Chain Notes – students have been given index cards beforehand. An envelope circles around with a question written on it by the faculty about the class. When the envelope reaches a student, he or she spends less than a minute writing a response to the question, then drops the

card into the envelope and passes it on. This allows the faculty to view the class through the eyes of the students.

E-mail Feedback – the faculty poses a question to the class, via email, about his or her teaching, and invites student responses. This is a paper-and-pencil alternative.

Faculty-Designed Feedback Forms – short, simple, subject-specific evaluation forms, usually three to seven questions in multiple-choice, Likert-scale, or short fill-in answer formats.

Group Instructional Feedback Technique – getting student responses to three questions related to their learning in the class. However they are worded, these three questions basically ask “What works? What doesn’t? What can be done to improve it?” In an ideal world, someone other than one teaching the subject would quickly poll the students on these questions, determine which are the most frequent responses, summarize them, and then report back to the teacher.

Classroom Assessment Quality Circles – involving groups of students in structured and ongoing assessment of subject materials, activities, and assignments.

RSQC2 (Recall, Summarize, Question, Comment, and Connect) – this five-step protocol guides students quickly through simple recall, summary, analysis, evaluation, and synthesis exercises focusing on a previous class session. Faculty can use the whole thing or select individual components to administer.

Group-Work Evaluations – simple questionnaires used to collect feedback on students’ reactions to cooperative learning (where students work in structured groups toward an agreed-upon learning goal) and study groups.

Reading Rating Sheets – short, simple assessment forms that students fill out in response to their assignment subject readings.

If you have any questions, email teaching@senecacollege.ca.