

# One Sentence Summary Example

## Example from a Class on Action Research in the Classroom

In the following example, the task is to summarize the information provided throughout this handbook on Classroom Assessment in just one sentence. The matrix immediately below is a helpful intermediate step leading to the One-Sentence Summary.

<i>Who?</i>	teachers
<i>Does what?</i>	assess
<i>To what or whom?</i>	their students' learning
<i>When?</i>	regularly during the semester
<i>Where?</i>	in their own classrooms
<i>How?</i>	using Classroom Assessment Techniques and any other appropriate tools and methods of inquiry
<i>Why?</i>	so that they can understand and improve teaching effectiveness and the quality of student learning
<i>In sentence form:</i>	Teachers assess their students' learning regularly during the semester in their own classrooms, by using Classroom Assessment Techniques and any other appropriate tools and methods of inquiry, so that they can understand and improve teaching effectiveness and the quality of student learning.

## Example from a Physics Class

To make sure that his students really understood the process of generating electricity by converting fluid energy to mechanical energy, this instructor asked the part-time students in his evening class to write a One-Sentence Summary. They were asked to summarize the hydroelectric power generation process in one sentence. To help them get started, he provided a photocopied matrix with the questions "What? Does what? To what? When? Where? How? Why?" listed down the left side of the page. He suggested that they begin by answering the first "What?" with "water."

After reading their summaries, the instructor picked three of the clearest correct summaries and read them to the class. After he was sure that everyone understood the process, he gave his students a follow-up homework assignment. The task was to draw a schematic illustration of the hydroelectric power generation process, briefly explaining each step in writing. He provided the students with a few relevant facts about the system and asked them to calculate force and torque exerted on the turbine, and the maximum ideal power output as well.

# Defining Features Matrix Example

## Example from a Class on Action Research in the Classroom (show how a matrix can be set up)

<i>Features</i>	<i>Institutional Assessment</i>	<i>Classroom Assessment</i>
Teacher-designed and directed	-	+
Large sample sizes required	+	-
Sophisticated statistical data analysis required	+	-
Standardized and validated instruments preferred	+	-
Focused on classroom teaching and learning	-	+
Replicable and comparable	+	-
Useful to students and teachers	-	+
Useful to administrators	+	-
Aims to improve quality of higher education	+	+

## Example from an Introductory Psychology Class

After lectures and assigned readings on Freudian and behaviorist views of human psychology, this instructor constructed a Defining Features Matrix form to assess students' ability to distinguish between these two schools.

## Example from History and Development of the Romance Language

To assess how clearly students understood the surface differences between modern Spanish and Portuguese, two closely related Romance languages, this linguistics professor created a Defining Features Matrix focused on the characteristic syntactic, morphological, and phonological contrasts.

# Misconception/Preconception Check Example

**Confidence and True/False  
Statements**

**Open-Ended Questions**

Several weeks into the semester, before students in his large general education course began the unit on sexually transmitted diseases and AIDS, this biology professor constructed a Misconception/Preconception Check focusing on these related topics. He developed a simple questionnaire containing ten prompts designed to uncover commonly held, incorrect ideas and beliefs about how diseases such as gonorrhea, syphilis, hepatitis, and AIDS are transmitted; how prevalent these diseases are among college students; and how individuals can avoid exposure entirely or greatly reduce the risks of infection. Each prompt was a statement, such as "Most of those now infected with the AIDS virus became infected through homosexual activities or intravenous drug use." In response to each statement, the student was to circle one of the answers below.

I'm absolutely certain this is true	I'm pretty sure it is true	I have no idea whether it's true or false	I'm pretty sure it is false	I'm absolutely certain it is false
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He asked students to circle the one most appropriate answer for each question, but not to put their names on the questionnaires. After class, he quickly tallied the responses and found that a majority of his students were either operating under dangerously incorrect notions or simply unsure about nine out of the ten issues. The Misconception/Preconception Check also revealed that his students felt more certain about some wrong answers than others. Knowing what the common misconceptions were, and just how common they were in that class, the biology professor could tailor his teaching plan to respond to the particular needs of that group. And knowing that some incorrect notions were more deeply ingrained than others, he could prepare more effectively to meet different degrees of resistance.

At the beginning of the first class meeting on this topic, he displayed a series of ten overhead transparencies, each illustrating the range of responses to each statement. In the lecture and discussion that followed, he explained why the incorrect answers were incorrect and what implications the general "true" information he presented might have for specific individuals. He also talked with students about the evolution of knowledge about these diseases over time, and ways in which the media sometimes encourage or reinforce misconceptions.

On the first day of class, after initial introductions, the instructor in this upper-division course on pre-Columbian history administered a Misconception/Preconception Check. She explained to the twenty-five or so students that she was gathering information on what the class as a whole already knew about the Americas and Native Americans before 1492, so that she could better tailor her teaching to fit them. She then passed out sheets of lined paper and asked the students to write their best answers to three questions, but not their names. She told them they would have five minutes to write. The three questions she wrote on the chalkboard were:

1. About how many people lived in North America in 1491?
2. About how long had they been on this continent by 1491?
3. What significant achievements had they made in that time?

After five minutes, she collected the papers, shuffled them, and handed them back, asking anyone who got his or her own paper back to trade with someone else. Once everyone had someone else's paper, she asked the students to share those responses. First, she elicited the lowest and highest numerical answers for questions 1 and 2, establishing the ranges. The ranges were quite spectacular, and there wasn't much agreement between the poles. For question 3, she simply listed answers on the board until they began to repeat. The list was not particularly long.

Having finished the list, the history professor stood quietly. Finally, one of the students asked her what the right answers were. She allowed that his was an important question, but one that would have to wait until they had explored an even more critical question. She collected their responses again, so that she could read them at home, and then wrote her fourth question on the board: "Where did you get those first three answers?" The students spent the rest of that session trying to answer question 4. Most of them soon realized that their impressions of pre-Columbian America were based on shaky ground. Then the professor gave them their first library research assignment. They were to work in pairs to double-check the accuracy of their first three answers and, in the process, to find the "right" answers. The students found, of course, that there are no generally accepted right answers but that some answers are more plausible and better supported than others.

# What's the Principle? Example

## Example from Principles of Financial Accounting Class

Although this accounting professor put great emphasis on the basic principles of financial accounting in his lectures, he suspected that many of his students were not making connections between the problems on their homework assignments and those principles. To find out, he created a simple What's the Principle? form, listing five major principles the class had heard and read about, and seven problems. The accounting principles were numbered I through V; so the students simply had to put the correct principle number in front of each problem.

The professor administered this CAT to his large class during the last ten minutes of the period, sure that he had given students more than enough time. To his surprise, about half of the students did not complete their assessments by the end of class, and many still had not finished when he collected the forms five minutes later. When he quickly tallied the results, he found widespread confusion and evidence of much guessing. He used this feedback to justify his decision to give the financial accounting class more assignments requiring them to connect principles and problems.

# Minute Paper Example

Intrigued by a demonstration of the Minute Paper during a faculty development workshop at his college, this mathematics instructor decided to adapt the technique for use in his intensive Introductory Statistics course. He decided to ask students to come up with several significant points instead of one. A few minutes before the end of each lecture, he asked students to list the five most important questions they had. He then collected the responses and quickly read them after class, making a list of the “important points” and questions and tallying how often each item was repeated.

At first, the variety of points that students listed as important astounded the instructor. He found that, as a group, his 35 students came up with as many as 20 different important points from the same lecture. Many of the points they listed were ones he considered details; others were distortions of things he had said; still others were points he was sure he had never mentioned at all! The bewildering variety of responses to the Minute Papers from the first few classes convinced him of the need to teach students how to tell the “wheat from the chaff.”

He began by listing the 10 or 12 most common responses on the board before class. He then took the first five to ten minutes of class to explain the relative importance of these points and their relationship to one another. He also let students know which points were definitely not related. In the course of these feedback sessions, he could often weave in responses to two or three commonly asked questions as well. The Minute Paper responses convinced him that his students needed a more explicit road map than he had been providing. Therefore, in addition to the list of responses to the preceding lecture, he wrote his own list of most important points for that day. With both lists on the board, he could make connections between one class and the next graphically clear.

After a month of giving the Minute Paper at the end of one class with a feedback session at the beginning of the next class, the average total number of different “important points” had dropped from nearly 20 to eight or nine. That was a level of variation he could live with. Repeated use of the Minute Paper helped his students learn to listen more carefully and focus more effectively during lectures. The CAT helped the instructor realize the importance of being explicit in teaching statistics to student with very little or no previous knowledge of the subject.

Materials adapted from: Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers*. San Francisco: Jossey-Bas.

# Directed Paraphrasing Example

## Example from Nursing Class

In one or two sentences, paraphrase what you have learned about hospice care to inform a dying, but still lucid, patient of its possible advantages over hospital or home care.

## Example from Computer Science Class

In plain language and in less than five minutes, paraphrase what you have read about computer viruses—such as the Michelangelo virus—for a vice president of a large insurance firm who is ultimately responsible for database security. Your aim is to convince her to spend time and money “revaccinating” thousands of workstations.

## Example from Secondary Science for Teachers Class

First, in no more than two or three sentences, paraphrase the “punctuated equilibrium” theory of evolution advanced by Niles Eldredge and Stephen Jay Gould. Direct your paraphrase to a veteran science teacher who has taught the “modern synthesis” view for years and has never heard of this more recent theory. Next, write a paraphrase of the same theory but for a very different audience. Paraphrase “punctuated equilibrium” in two or three sentences for a bright seventh grader who knows a lot about dinosaurs but little about evolutionary theory.