Lesson Plan Template

STEP 1: Learning Objectives

Identify what you want students to know, understand, and be able to do at the end of class, lab, or recitation.

Examples: By the end of class today, students will be able to:

- 1. Identify the steps involved in the 'loop-the-loop' shoe-tying strategy.
- 2. Compare the 'bunny ears' and 'loop-the-loop' shoe-tying strategies.
- 3. List the types of shoes that are tie-able.
- 4. Execute the 'bunny ears' shoe-tying strategy.

Learning Objective(s)

Select which learning objective you prefer from the above examples:

What makes this a good learning objective?

Notes:

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STEP 2: Assessment

How will you know if students have met this learning objective during the lesson?

By the end of this lesson, students will be able to execute the 'bunny ears' shoe-tying strategy.

Common Classroom Assessment Techniques (CATs):

Think-Pair-Share. Students share and compare possible answers to a question with a partner before addressing the larger class.

What's the Principle. After recognizing the problem, students assess what principle to apply in order to solve it.

"**Real-World**". Have students discuss in class how a topic or concept relates to a real-world application or product.

Minute Papers. Students write for one minute on a specific question (which might be generalized to "what was the most important thing you learned today").

Muddiest Point. Like the Minute Paper but asks for the "most confusing" point instead. **One-Sentence Summary.** Summarize the topic into one sentence that incorporates all of who/what/when/where/why/how creatively.

Concept Mapping. Students write keywords onto sticky notes and then organize them into a flowchart.

Assessment (CAT)

I will assess to what extent students have met the learning objective by using:

STEP 3: Agenda

What will you do? What will students do?

Agenda

Content: What information will you convey to your students?

Activities: How will your students practice the content?

Sequence: How will you order the content and activities?

Georgia Tech TA Orientation

August 16, 2019

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Lesson Plan Template Example

STEP 1: Learning Objectives

Identify what you want students to know, understand, and be able to do at the end of class.

Learning Objective(s)

At the end of today's "Teaching tips" session, students will be able to:

- 1. Explain the role of learning objectives in lesson planning
- 2. Select an assessment that measures their learning objectives
- 3. Apply active learning techniques in their own teaching
- 4. Describe different ways to sequence a lesson

STEP 2: Assessment

How will you know if students have met the learning objective(s)?

Assessment (CAT)

We will assess to what extent students have met the learning objectives by:

- 1. Circulating during the exercises to see what is written and discussed
- 2. Having participants share their work
- 3. "Minute paper" at end of session

STEP 3: Agenda

What will you do? What will students do?

Agenda

Sequence: Content/activity (time)

Chunk 1: Introduction to the session/Think-Pair-Share. (3 minutes)

Chunk 2: Lesson planning overview. (1 minute)

Chunk 3: Writing learning objectives/practice. (7 minutes)

Chunk 4: Connecting learning objectives to CATs/practice. (6 minutes)

Chunk 5: Active learning and sequencing/Interactive lecture. (7 minutes)

Chunk 6: Wrap-up and minute paper. (5 minutes)

How can you incorporate active learning into your classroom?

The following list summarizes some of the many approaches.

- Clarification Pauses: This simple technique fosters "active listening." Throughout a lecture, particularly after stating an important point or defining a key concept, stop presenting and allow students time to think about the information. After waiting, ask if anyone needs to have anything clarified. Ask students to review their notes and ask questions about what they've written so far.
- Writing Activities such as the "Minute Paper": At an appropriate point in the lecture, ask the students to take out a blank sheet of paper. Then, state the topic or question you want students to address. For example, "Today, we discussed emancipation and equal rights. List as many key events and figures as you can remember. You have two minutes – go!"
- Self-Assessment: Students receive a quiz (typically ungraded) or a checklist of ideas to determine their understanding of the subject. Concept inventories or similar tools may be used at the beginning of a semester or the chapter to help students identify misconceptions.
- Large-Group Discussion: Students discuss a topic in class based on a reading, video, or problem. The instructor may prepare a list of questions to facilitate the discussion.
- Think-Pair-Share: Have students work individually on a problem or reflect on a passage. Students then compare their responses with a
 partner and synthesize a joint solution to share with the entire class.
- Cooperative Groups in Class (Informal Groups, Triad Groups, etc.): Pose a question for each cooperative group while you circulate around the room answering questions, asking further questions, and keeping the groups on task. After allowing time for group discussion, ask students to share their discussion points with the rest of the class.
- Peer Review: Students are asked to complete an individual homework assignment or short paper. On the day the assignment is due, students
 submit one copy to the instructor to be graded and one copy to their partner. Each student then takes their partner's work and, depending on
 the nature of the assignment, gives critical feedback, and corrects mistakes in content and/or grammar.
- Group Evaluations: Similar to peer review, students may evaluate group presentations or documents to assess the quality of the content and delivery of information.
- Brainstorming: Introduce a topic or problem and then ask for student input. Give students a minute to write down their ideas, and then record them on the board. An example for an introductory political science class would be, "As a member of the minority in Congress, what options are available to you to block a piece of legislation?"
- Case Studies: Use real-life stories that describe what happened to a community, family, school, industry, or individual to prompt students to
 integrate their classroom knowledge with their knowledge of real-world situations, actions, and consequences.
- Hands-on Technology: Students use technology such as simulation programs to get a deeper understanding of course concepts. For
 instance, students might use simulation software to design a simple device or use a statistical package for regression analysis.
- Interactive Lecture: Instructor breaks up the lecture at least once per class for an activity that lets all students work directly with the material. Students might observe and interpret features of images, interpret graphs, make calculation and estimates, etc.
- Active Review Sessions (Games or Simulations): The instructor poses questions and the students work on them in groups or individually. Students are asked to show their responses to the class and discuss any differences.
- Role Playing: Here students are asked to "act out" a part or a position to get a better idea of the concepts and theories being discussed. Roleplaying exercises can range from the simple to the complex.
- Jigsaw Discussion: In this technique, a general topic is divided into smaller, interrelated pieces (e.g., a puzzle is divided into pieces). Each
 member of a team is assigned to read and become an expert on a different topic. After each person has become an expert on their piece of the
 puzzle, they teach the other team members about that puzzle piece. Finally, after each person has finished teaching, the puzzle has been
 reassembled, and everyone on the team knows something important about every piece of the puzzle.
- Inquiry Learning: Students use an investigative process to discover concepts for themselves. After the instructor identifies an idea or concept
 for mastery, a question is posed that asks students to make observations, pose hypotheses, and speculate on conclusions. Then students
 share their thoughts and tie the activity back to the main idea/concept.
- Forum Theater: Use theater to depict a situation and then have students enter into the sketch to act out possible solutions. Students watching
 a sketch on dysfunctional teams, might brainstorm possible suggestions for how to improve the team environment. Ask for volunteers to act out
 the updated scene.
- Experiential Learning: Plan site visits that allow students to see and experience applications of theories and concepts discussed in the class.

Sources

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Active Learning Techniques Complex **Experiential Learning** (site visits) Forum Theater **Jigsaw Discussion** Inquiry Learning Role playing Active Review Sessions Interactive Lecture (Games or Simulations) **Case Studies** Hands-on Technology Brainstorming **Group Evaluations** Peer Review Informal Groups Triad Groups Large-Group Discussion Think-Pair-Share Writing Self-Assessment (Minute Paper) Pause for reflection Simple This spectrum arranges active learning techniques by complexity and classroom time commitment.

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50 CATS by Angelo and Cross

Techniques for Assessing Course-Related Knowledge & Skills

I. Assessing Prior Knowledge, Recall, and Understanding

The CATS in this group are recommended to assess declarative learning, the content of a particular subject.

- 1. <u>Background Knowledge Probe</u>: short, simple questionnaires prepared by instructors for use at the beginning of a course or at the start of new units or topics; can serve as a pretest; typically elicits more detailed information than CAT2.
- 2. <u>Focused Listing</u>: focuses students' attention on a single important term, name, or concept from a lesson or class session and directs students to list ideas related to the "focus."
- 3. <u>Misconception/Preconception Check</u>: focus is on uncovering prior knowledge or beliefs that hinder or block new learning; can be designed to uncover incorrect or incomplete knowledge, attitudes, or values
- 4. <u>Empty Outlines</u>: in a limited amount of time students complete an empty or partially completed outline of an in-class presentation or homework assignment
- 5. <u>Memory Matrix</u>: students complete a table about course content in which row and column headings are complete but cells are empty
- 6. <u>Minute Paper</u>: perhaps the most frequently used CAT; students answer 2 questions (What was the most important thing you learned during this class? And What important question remains unanswered?)
- <u>Muddiest Point</u>: considered my many as the simplest CAT; students respond to 1 question (What was the muddiest point in ______?); well suited to large, lower division courses but not to those which emphasize integration, synthesis and evaluation

II. Assessing Skill in analysis and Critical Thinking

The CATS in this group focus on analysis—the breaking down of information, questions, or problems to facilitate understanding and problem solving

- 8. <u>Categorizing Grid</u>: student complete a grid containing 2 or 3 overarching concepts and a variety of related subordinate elements associated with the larger concepts
- 9. <u>Defining Features Matrix</u>: students categorize concepts according to presence or absence of important defining features
- 10. <u>Pro and Con Grid</u>: students list pros/cons, costs/benefits, advantages/disadvantages of an issue, question or value of competing claims
- 11. <u>Content, Form, and Function Outlines</u>: in an outline form, students analyze the "what" (content), "how" (form), and "why" (function) of a particular message (e.g. poem, newspaper story, billboard, critical essay); also called "What, How, & Why Outlines
- 12. <u>Analytic Memos</u>: students write a one- or two-page analysis of a specific problem or issue to help inform a decision-maker

III. Assessing Skill in Synthesis and Creative Thinking

The CATS in this group focus on synthesis—each stimulate the student to create, and allow the faculty to assess, original intellectual products that result from a synthesis of course content and the students' intelligence, judgment, knowledge, and skills.

- 13. <u>One-Sentence Summary</u>: students answer the questions "Who does what to whom, when, where, how, and why?" (WDWWWWW) about a given topic and then creates a single informative, grammatical, and long summary sentence
- 14. <u>Word Journal</u>: involves a 2 part response; 1st the student summarizes a short text in a single word and 2nd the student writes 1-2 paragraphs explaining the word choice
- 15. <u>Approximate Analogies</u>: students simply complete the 2nd half of an analogy—a is to b as x is to y; described as approximate because rigor of formal logic is not required
- 16. <u>Concept Maps</u>: students draw or diagram the mental connections they make between a major concept and other concepts they have learned
- 17. <u>Invented Dialogues</u>: students synthesize their knowledge of issues, personalities, and historical periods into the form of a carefully structured illustrative conversation; 2 levels of invention (select and weave quotes from primary sources or invent reasonable quotes that fit characters and context)
- 18. <u>Annotated Portfolios</u>: students assemble a very limited number of examples of creative work and supplement with own commentary on significance of examples

IV. Assessing Skill in Problem Solving

The CATS in this group focus on problem solving skills of various kinds—recognition of types of problems, determining principles and techniques to solve, perceiving similarities of problem features and ability to reflect and then alter solution strategies.

- 19. <u>Problem Recognition Tasks</u>: students recognize and identify particular problem types
- 20. <u>What's the Principle</u>?: students identify principle or principles to solve problems of various types
- 21. <u>Documented Problem Solutions</u>: students track in a written format the steps they take to solve problems as if for a "show & tell"
- 22. <u>Audio- and Videotaped Protocols</u>: students work through a problem solving process and it is captured to allow instructors to assess metacognition (learner's awareness of and control of thinking)

V. Assessing Skill in Application and Performance

The CATS in this group focus on students' abilities to apply important—sometimes referenced as conditional knowledge—knowing when and where to apply what know and can do.

- 23. <u>Directed Paraphrasing</u>: students paraphrase part of a lesson for a specific audience demonstrating ability to translate highly specialized information into language the clients or customers can understand
- 24. <u>Application Cards</u>: students generate examples of real-work applications for important principles, generalizations, theories or procedures
- 25. <u>Student-Generated Test Questions</u>: students generate test questions and model answers for critical areas of learning
- 26. <u>Human Tableau or Class Modeling</u>: Students transform and apply their learning into doing by physically modeling a process or representing an image.

27. <u>Paper or Project Prospectus</u>: Students create a brief plan for a paper or project based on your guiding questions.

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

VI. Assessing Students' Awareness of Their Attitudes and Values

The CATS in this group are designed to assist teachers in developing students' attitudes, opinions, values, and self-awareness within the course curriculum.

- 28. <u>Classroom Opinion Polls</u>: Students indicate degree of agreement or disagreement with a statement or prompt.
- 29. <u>Double-entry Journals</u>: Students record and respond to significant passages of text
- 30. <u>Profiles of Admiral Individuals</u>: Students write a brief description of the characteristics of a person they admire in a field related to the course
- 31. <u>Everyday Ethical Dilemma</u>: Students respond to a case study that poses a discipline-related ethical dilemma
- 32. <u>Course-related Self-Confidence Surveys</u>: Students complete an anonymous survey indicating their level of confidence in mastering the course material

VII. Assessing Students' Self-Awareness as Learners

The CATS in this group are recommended to help students express personal goals and clarify self-concept in order to make a connection between the articulated goals and those of the course.

- 33. <u>Focused Autobiographical Sketches</u>: Students write a brief description of a successful learning experience they had relevant to the course material.
- 34. <u>Interest/Knowledge/Skills Checklists</u>: Students complete a checklist survey to indicate their knowledge, skills and interest in various course topics.
- 35. <u>Goal Ranking and Matching</u>: Students list and prioritize 3 to 5 goals they have for their own learning in the course.
- 36. <u>Self-Assessment Ways of Learning</u>: Students compare themselves with several different "learning styles" profiles to find the most likely match.

VIII. Assessing Course-Related Learning and Study Skills, Strategies, and Behaviors

The CATS in this group focus both student and teacher attention on the behaviors the student actually engages in when trying to learn.

- 37. <u>Productive Study-Time Logs</u>: Students complete a study log to record the quantity and quality of time spent studying for a specific course.
- <u>Punctuated Lectures</u>: Students briefly reflect then create a written record of their listening level of a lecture. Repeat twice in the same lecture and 2- 3 times over 2 to 3 weeks.
- 39. <u>Process Analysis</u>: Students outline the process they take in completing a specified assignment.
- 40. <u>Diagnostic Learning Logs</u>: Students write to learn by identifying, diagnosing, and prescribing solutions to their own learning problems.

Techniques for Assessing Learner Reactions to Instruction

IX. Assessing Learner Reactions to Teachers and Teaching

The CATS in this group are designed to provide context-specific feedback that can improve teaching within a particular course.

- 41. <u>Chain Notes</u>: On an index card that is distributed in advance, each student responds to an open-ended prompt about his or her mental activity that is answered in less than a minute.
- 42. <u>Electronic Survey Feedback</u>: Students respond to a question or short series of questions about the effectiveness of the course.
- 43. <u>Teacher-designed Feedback Forms</u>: Students respond to specific questions through a focused feedback form about the effectiveness of a particular class session.
- 44. <u>Group Instructional Feedback Technique</u>: Students respond to three questions related to the student's learning in the course.
- 45. <u>Classroom Assessment Quality Circles</u>: A group or groups of students provide the instructor with ongoing assessment of the course through structured interactions.

X. Assessing Learner Reactions to Class Activities, Assignments, and Materials *The CATS in this group are designed to give teachers information that will help them improve their course materials and assignments.*

- 46. <u>RSQC2 (Recall, Summarize, Question, Connect and Comment)</u>: Students write brief statements that recall, summarize, question, connect and comment on meaningful points from previous class.
- 47. <u>Group-Work Evaluation</u>: Students complete a brief survey about how their group is functioning and make suggestions for improving the group process.
- 48. <u>Reading Rating Sheets</u>: Students complete a form that rates the effectiveness of the assigned readings.
- 49. <u>Assignment Assessments</u>: Students respond to 2 or 3 open-ended questions about the value of an assignment to their learning.
- 50. <u>Exam Evaluations</u>: Students provide feedback about an exam's learning value and/or format.