Faculty Manual for Creating an Effective Student Learning Outcomes Loop for Courses and Programs

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Loop: The more or less circular figure formed by a line, thread, wire, etc., that curves back to cross itself.
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The Student Learning Outcomes Assessment Mandate

The Western Association of Schools and Colleges (WASC), the accreditation agency for California Community Colleges, is requiring student learning outcomes assessment as part of the accrediting process. WASC 2002, Standard H: Section A 1 c., specifically requires community colleges to:

1. Identify student learning outcomes for courses, program, degrees, and certificates;
2. Assess progress toward achievement of the identified student learning outcomes;
3. Use assessment results to make improvements.

Benefits to the Faculty, Department, Program, and College of Implementing This Assessment Process

All people involved in higher education care about the results of the instruction they provide to students. The new WASC standard formalizes this concern into a concrete process. It merely asks faculty, department chairs, program directors, and administrators to document the ways in which they are assessing the results of student learning and then using that knowledge to improve the instructional process.

Timeline for Full Implementation

Over the course of the next three and a half years, College of the Canyons will be first identifying student learning outcomes for all courses, programs, degrees, and certificates, next determining the proper assessment tools for those outcomes, and finally collecting data which will then be used to make improvements in the learning process. The goal is to be able to document to the WASC accreditation team that we have an effective system during our next accreditation visit.

Responsibility for the Process

At the course and program level, departments are responsible for identifying student learning outcomes, assessing the results, and making decisions about what actions to take once the results have been analyzed. Every faculty person who teaches a course or who teaches students enrolled in a particular program must know the outcomes of the course or program and assess students with an appropriate assessment tool. Departments should decide if the best way to assess outcomes is through shared assessment tools or coordination of different assessment tools.
Departments are aided in this process through two channels, one near the beginning and the other near the end of one loop: the course outline approval process in Curriculum Committee and the Academic Program Review. When a proposal for a new course or for modification of an existing course comes before the Curriculum Committee, members will assist faculty in reviewing the student learning outcomes and the proposed assessment tools. This begins the process. During Program Review, departments will document the data they have collected showing the results of the outcomes, and they will describe the changes called for by their analysis of the data.

**From Learning Objectives to Student Learning Outcomes**

We are so used to periodic changes in educational jargon that it is easy sometimes to become jaded and then dismiss any new terminology as a mere fad that will in turn be superseded by some new one. But there are signs that the shift from learning objectives to student learning outcomes is more than a fad and therefore deserving of our attention.

First, what are being called “student learning outcomes” do not represent a completely new direction in teaching and learning but rather a continuation of a trend that began with “learning objectives.” That change was from a primary focus on the subject matter or body of knowledge to a concentration on the skills or application derived from the teaching of the subject matter. Verbs emphasizing what students would be able to do or know after the learning process was complete replaced the rather vague verbs “comprehend” and “learn.” Learning objectives had to be measurable tasks or skills. The purpose was to redirect the energies of the teaching and learning process towards its effects on the students. In general, this was seen as making education more responsive to the needs of students and to the sectors of society that depend upon the successful results of higher education, such as the business world.

That emphasis on results, which is sometimes encapsulated in the more odious term “accountability,” has not been replaced by a new fad. Instead, the trend has continued in the same direction. Student learning outcomes are like learning objectives in their focus on the measurable results of student learning. They differ in scope, however. The main difference between student learning outcomes and learning objectives is that learning objectives are discrete, individual tasks or skills that must be accomplished before the larger, broader goals of the course can be achieved. The overarching goals of the course, however, are the student learning outcomes.
The other change between learning objectives and student learning outcomes is that the new accreditation standards now require colleges to collect data on the relative success of students meeting those overarching goals. Colleges are then charged with analyzing the data and making changes that will result in more effective student learning. Yes, accountability. Because student learning outcomes need to be assessed in a more organized, concrete way than the old learning objectives, and because student learning outcomes are seen as being broader than learning objectives, it makes sense for a course to have a limited number of student learning outcomes. While many courses in the past have had upwards of 15 or more learning objectives (some science courses have over a hundred), it is now necessary for faculty to rewrite many of those discrete, individual tasks or skills into broader outcomes. However, because it is still important to provide specifics about the course content, especially for articulation purposes, the details which need to be removed from the student learning outcomes should be transferred to the Course Content Outline, which will now be labeled “Course Topics.”

Student Learning Outcomes are the measurable skills or accomplishments which embody the overarching goals of a course. They represent the most important learning that takes place in a course. It may be helpful to think of them this way: when your students leave your course at the end of the semester, you want them to be in firm possession of certain abilities or knowledge, and you want them to retain those abilities or that knowledge. Those are the Student Learning Outcomes.

Appendix A contains some examples of learning objectives and student learning outcomes. Look at them and try to distinguish the crucial differences.

**Beginning the Process for Existing Courses**

All existing courses already have student learning outcomes in their course outlines; however, some of them may be too much like learning objectives rather than student learning outcomes. To determine whether the existing outcomes in a course you are revising will qualify as true student learning outcomes, evaluate them according to these questions:

1. Does the outcome identify something important that students will be able to do or know at the end of the course?
2. Does the outcome identify an overarching goal of the course rather than a discrete task that you would not consider an end result of the entire course?
3. Does the outcome involve the highest level of critical thinking appropriate to the goals of the course?

4. Can the outcome be assessed so that you can determine whether or not students have actually met the goal?

Many existing outcomes will merely need to be revised to meet the new requirements. Some may be removed from the student learning outcomes section and moved to the Course Topics if they are deemed discrete tasks rather than overarching goals. Consult the Curriculum Handbook, which is available on-line via the Curriculum webpage on the Intranet, for information on writing strong student learning outcomes. There are additional resources also available on that page. To get there, click on www.canyons.edu/intranet. Then click on “Committee Directory.” Finally, click on “Curriculum.” The links to the Curriculum Handbook and the other resources are in a table at the bottom of the page.

The “Methods of Evaluating Student Achievement” section of the course outline form is being renamed “Methods of Assessing Student Learning Outcomes” to emphasize the relationship between the outcomes of the course and the assessment tools being employed. Departments should also review the assessment tools they have described in that section of the course outline. If the outcomes they are putting in place, whether slight revisions of the old ones or significantly altered ones, cannot be properly assessed by the tools listed in the course outline, then the assessment methods should be modified also.

No other changes need to be made to the course outline for it to meet the new standards. This review and possible revisions should be done during the regular cycle of course revision required by the curriculum process at COC: once every three years. This means that courses that are revised during 2004-2005 should be ready for the new standards by the end of Spring 2005. Departments may step up their regular revision cycle if they want to finish the revisions to the course outlines before they begin the assessment stage of the process.

The Process for Creating New Courses

New courses should follow the same guidelines described above.

The Process for Existing Programs

All departments identified at least two or three potential student learning outcomes for their program in the Annual Program Review for 2002-2003. During Program Review for 2003-2004, departments revisited
those outcomes and applied the same standards as those stated for course outcomes above:

1. Does the outcome identify something important that students will be able to do or know at the end of the program?
2. Does the outcome identify an overarching goal of the program rather than a discrete task that you would not consider an end result of the entire program?
3. Does the outcome involve the highest level of critical thinking appropriate to the goals of the program?
4. Can the outcome be assessed so that you can determine whether or not students have actually met the goal?

Keep in mind that departments will probably want to declare separate SLO’s for different segments or threads of the department based upon the different populations of students served. For example, the English Department declared SLO’s for four different programs representing the different levels of its curriculum: developmental English; Associate degree English requirement; transfer composition, literature, and critical thinking; and English major. Also keep in mind that it is most desirable that the program SLO’s be closely aligned with the SLO’s of cumulating or capstone courses so that the program SLO’s are actually embedded in the course SLO’s. However, a department may decide to conduct separate assessment of program SLO’s if it wants to establish SLO’s for the program that are not assessed through the courses. Appendix D contains some examples of program SLO’s. Appendix E contains examples of program SLO assessments. Program SLO assessments may coincide with course SLO assessments, especially for the cumulating or capstone courses.

**The Process for New Programs**

New programs should follow the same guidelines described above.

**The Assessment Stage**

Setting goals for their courses is not a new idea to faculty; it is an integral part of teaching. And assessing students also is not a new concept; teachers know that they have to give grades, and to do that they have to assess students. In the day-to-day flurry of teaching, however, it is possible for the connection between a teacher’s goals and the assessment of student learning to lose some clarity. The new Student Learning Outcomes Assessment mandate refocuses all of us on the strong links between
statements of goals (SLO’s) and their assessment. Here is a concise definition of assessment that explains those connections:

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education (Thomas A. Angelo, AAHE Bulletin, November 1995, p. 7).

**Moving into the Assessment Stage**

Once the course outline has been revised to include student learning outcomes that fulfill the criteria discussed above and assessment tools that have been deemed sufficient to measure those outcomes, faculty must set the parameters of the assessment process for each course and program. They should begin by asking the following questions:

1. How many assessment tools will be necessary to assess the student learning outcomes?
2. If multiple sections of a course are offered, will all sections use the same assessment tools?
3. If multiple instructors are using different assessment tools, how will consistency between instructors and sections be achieved?
4. How will data that documents the results of the assessment be collected, and in what form? For example, data can be quantitative (numeric scores) or qualitative (narratives, observations, interviews).
5. Who will be responsible for collecting the data for a course with multiple sections?
6. Who will be responsible for analyzing the data for a course with multiple sections?
7. How will the analysis of the data be used to improve teaching and learning?
The Assessment Stage: Collecting the Data

The WASC accreditation standard that has launched this project does not micromanage the assessment process. Instead, it leaves to faculty the decisions that will determine how useful the assessment process will be in improving teaching and learning. In other words, faculty members decide how they will assess the student learning outcomes.

Each department should undertake a commitment to developing strong principles and practices of assessment. Appendix B and C in this manual, “Launching a Learning-Centered College” and “Nine Principles of Good Practice for Assessing Student Learning,” provide a foundation for understanding the purpose of assessment. There will also be a number of Flex workshops focused on the subject of assessment. Additionally, professional organizations and discipline-specific journals can also provide useful information.

In considering the type of assessment to be used, faculty should keep in mind that any tool that measures the degree to which students have met a learning outcome qualifies as assessment. Such tools include skills performances or demonstrations, portfolios, productions (essay, oral presentation, visual artifact, speech), surveys, quizzes, and tests. Most outcomes can be measured in a variety of ways.

The necessity of collecting data may sound like a burden, but the task can and should be kept manageable. However, the results of the assessment need to be kept in records that can be accessed during the analysis stage. It is probably a good idea for the department chair to undertake this responsibility or to delegate it to a full-time department member.

The Assessment Stage: Analysis of the Data

Recall that the purpose of this entire assessment process is to improve teaching and learning. It is important to keep in mind that WASC Standard H: Section A 1c. does not suggest that if the assessment process reveals that some outcomes are not being met by a number of students, the institution or instructor will be punished. Rather, it requires that the information gained through the assessment process be used to improve teaching and learning. This is how the loop is closed: faculty return to the student learning outcomes and reassess them and the teaching and learning process, making appropriate adjustments based on the specific knowledge of how well students are meeting the outcomes.

Departments should document both the assessment results and the analysis stage. Just as there are a variety of ways to assess student learning outcomes, there are many ways to provide this documentation. If
departments hold meetings to discuss the analysis of the data, minutes from those meetings can be used. Surveys from individual instructors can ask for suggestions for changes in curriculum and teaching practices. Department retreats can be focused on specific courses or programs.

Ultimately, Academic Program Review will be the main place to provide documentation of both data from student learning outcomes and the manner in which the loop was closed: how faculty have used the information from the assessment of student learning outcomes to improve teaching and learning.

**Summary of the Student Learning Outcomes Assessment Process**

1. Review and revise student learning outcomes in course outlines.

2. Coordinate assessment of student learning outcomes.

3. Collect some form of data on the results of the assessment.

4. Close the loop by deciding how the analysis can be used to improve teaching and learning.
A Quick Checklist to Follow Your Progress

1. Have you revised the student learning outcomes and methods of assessing student learning outcomes on the course outline?

2. Have you made sure that the student learning outcomes are stated in your syllabus?

3. Have you designed assessment tools that can accurately measure the student learning outcomes?

4. Have you collected some form of data, whether qualitative or quantitative, on the assessment results?

5. Have you analyzed the data?

6. Have you created an action plan for improving teaching and learning, based on the analysis of the data?

7. That’s it. You’ve closed the loop!
Appendix A

Learning Objectives vs. Student Learning Outcomes

Learning objectives are measurable skills or results of the learning process, as are student learning outcomes. However, learning objectives are individual, discrete skills or tasks that need to be accomplished during the course, while student learning outcomes are broader skills or results that are deemed overarching goals for the entire course.

Here are some typical learning objectives:

- Assess the effects of the Civil Rights Movement and the Immigration Act of 1965 on the cultural diversity of American society from 1960 to the present.
- Examine the societal effects of commercial sex.
- Analyze the registration and driver’s licensing requirements and exceptions depicted in Divisions 3 and 6 of the Vehicle Code.
- Retrieve information using print periodical indexes (for example, Reader’s Guide).
- Review the functions of the lymphatic system.
- Describe how to modify products for the United States market.
- Differentiate between MLA and APA documentation style.
- Compare and contrast the text and film versions of a literary work.
- Solve problems using percentages and the percentage proportions, also ratio.
- Arrange an interview with an interior design professional.

Here are some typical student learning outcomes:

- Evaluate U.S. economic policies and their ability to alleviate economic problems.
- Differentiate the various welding techniques and operations to transform a piece of metal.
- Explain how Geographic Information Systems (GIS) can be used in scientific, business, and government applications.
• Analyze a modern political system using the major criteria for democracy.
• Demonstrate mastery of the major tools of social science research and the basic mechanics of a formal research paper.
• Solve equations involving linear, quadratic, rational, and radical expressions.
• Compose well-organized source based paragraphs with parenthetical citations.
• Administer medications according to legal guidelines.

A few points to note:

1. While student learning outcomes are broader than learning objectives, they must still be measurable. It is not appropriate to write student learning outcomes with verbs such as “learn,” “understand,” or “comprehend.”

2. In general, student learning outcomes from vocational and scientific disciplines will sound more technical than those from humanities and social science disciplines. This is normal and acceptable. However, student learning outcomes from vocational and scientific disciplines should still be overarching goals of the course rather than narrow tasks. In the example above, administering medication is a specific skill, but the outcome as stated will encompass a number of discrete tasks and types of information: different ways of administering medication, different types of medication, and the specifics of the legal guidelines. The outcome therefore qualifies as a student learning outcome because it is an overarching goal and one of the most important outcomes of the learning process of the entire course.

3. Although there is no set number for how many student learning outcomes a course should have, the logic behind the meaning of a student learning outcome suggests that they should be limited. Having too many student learning outcomes might mean that the instructor has not actually defined the most important learning to take place in the course. Also, the assessment stage will be simpler if the learning goals of the course have been stated in a reasonable number of student learning outcomes.
Appendix B

Launching a Learning-Centered College

Terry O’Banion in a monograph entitled Launching a Learning-Centered College speaks about a revolution that took place in the last decade of the twentieth century, where colleges refocused mission statements on the learning process and transformed their institutional structures in learning enterprises. Learning is the focus of the educational process. It focuses on the student and what the student has to achieve and has achieved. It puts the student in the center and acts to realign all other systems: teaching, research and support services – around the goal of helping students achieve learning outcomes. O’Banion named this revolutionized college the “Learning College” and developed six guiding principles:

1. The Learning College creates substantive change in individual learners.

2. The Learning College engages learners in the learning process as full partners who must assume primary responsibility for their own choices.

3. The Learning College creates and offers as many options for learning as possible.

4. The Learning College assists learners to form and participate in collaborative learning activities.

5. The Learning College defines the roles of learning facilitators in response to the needs of the learners.

6. The Learning College and its learning facilitators succeed only when improved and expanded learning can be documented for learners.

Appendix C

Nine Principles of Good Practice for Assessing Student Learning

1. The assessment of student learning begins with educational values. Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only what we choose to assess but also how we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time. Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations -- those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.
4. **Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.** Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way -- about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

5. **Assessment works best when it is ongoing not episodic.** Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

6. **Assessment fosters wider improvement when representatives from across the educational community are involved.** Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

7. **Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.** Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to
issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8. **Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.** Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

9. **Through assessment, educators meet responsibilities to students and to the public.** There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation -- to ourselves, our students, and society -- is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

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Appendix D

Sample Program SLO’s for various kinds of departments

Sample Program SLO’s for a large department offering basic skills classes, Associate degree requirements, transfer requirements, and an Associate degree.

English Department
We have chosen to declare student learning outcomes for each part of our program, since they serve very different groups of students and incorporate very different focuses.

Developmental English: (English 071 and 081)
SLO #1: Compose well-organized source-based paragraphs with parenthetical citations.
SLO #2: Recognize and differentiate the basic elements of fiction and non-fiction, including plot, setting, characterization, point of view, conflict, resolution, and theme for fiction, and including thesis, main points, supporting details, and organizational strategy for non-fiction.
SLO #3: Recognize and define patterns of development such as narration, description, process analysis, illustration, definition, and problem/solution.

English Requirements for the Associate Degree (English 091 or 094):
SLO #1: Compose well-organized, source-based short essays with parenthetical citations and a works cited page.
SLO #2: Explain the use of the elements of non-fiction, including thesis, main points, supporting details, and organizational strategy, and apply this understanding in their essays.
SLO #3: Apply a variety of patterns of development, including cause/effect, compare/contrast, persuasion, and analysis.

Transfer English Composition, Literature, and Critical Thinking (English 101 and 102 or 103):
SLO#1: Compose well-organized expository essays at least 5 pages long that include appropriate supporting details and citation format and that develop the writer’s own argument.
SLO#2: Analyze and evaluate the explicit and implicit meanings of a wide variety of written and visual materials, including academic essays, short stories, poems, advertisements, films, novels, and plays.

SLO#3: Explain the basic principles of argumentation and apply them in their essays.

**English Major (Creative Writing and/or Literature Elective Courses)**

SLO#1: Analyze a variety of literary genres in their social context.
SLO#2: Evaluate the artistic contributions made by key poets, writers, and dramatists in the English and American literary traditions by analyzing the stylistic, formal, and thematic elements of their works.
SLO#3: Compare and contrast the literary works of one historical period with literary works from other periods.
APPENDIX E
Program SLO Assessment

A department may break down its course offerings into several programs. These may include

- certificates
  i. GE and transfer courses
  ii. associate degree
  iii. personal development courses
  iv. job skills courses

Each program should have separate SLO’s and separate methods of assessments.

Methods of assessments in capstone course (if available) can include:

v. term projects
vi. performances and/or portfolios
vii. separate exams or as part of a final exam
viii. separate assignment(s)
ix. certification exams
x. local, state or federal exams (if available)
xi. professional licensing

If capstone course does not exist, the following assessments can include:

xii. surveys of current students or students who have completed their studies at COC
xiii. surveys of employers
xiv. select specific course(s) in a specific semester and assess the students
xv. certification exams
xvi. local, state or federal exams (if available)
xvii. professional licensing

Each program should have an assessment cycle that is performed on a yearly basis and includes:

xviii. creating SLO’s
xix. assessment methodology
xx. grading criteria/rubric
xxi. passing criteria
xxii. evaluation of results
xxiii. methods for improvements
### APPENDIX F - SLO Verbs

(From the Curriculum Handbook – 10/7/07)

**Verbs Requiring Cognitive Outcomes**

<table>
<thead>
<tr>
<th>Critical Thinking</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: UC:CSU schools require a majority of the outcomes demonstrate critical thinking.</td>
<td>Synthesis compose plan propose design formulate arrange assemble collect construct create set up organize prepare develop</td>
</tr>
<tr>
<td>Analysis distinguish analyze differentiate appraise design evaluate propose plan rate arrange value revise select score assess estimate measure</td>
<td></td>
</tr>
<tr>
<td>Comprehension dramatize practice illustrate operate schedule shop sketch translate restate describe recognize explain identify locate report review</td>
<td>Application interpret apply employ demonstrate dramatize practice illustrate operate schedule shop sketch calculate experiment test compare contrast criticize diagram inspec rate value rate value revise select score assess estimate measure</td>
</tr>
<tr>
<td>Knowledge locate solve examine categorize delineate define report examine</td>
<td>Repeat review recall name relate</td>
</tr>
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</table>