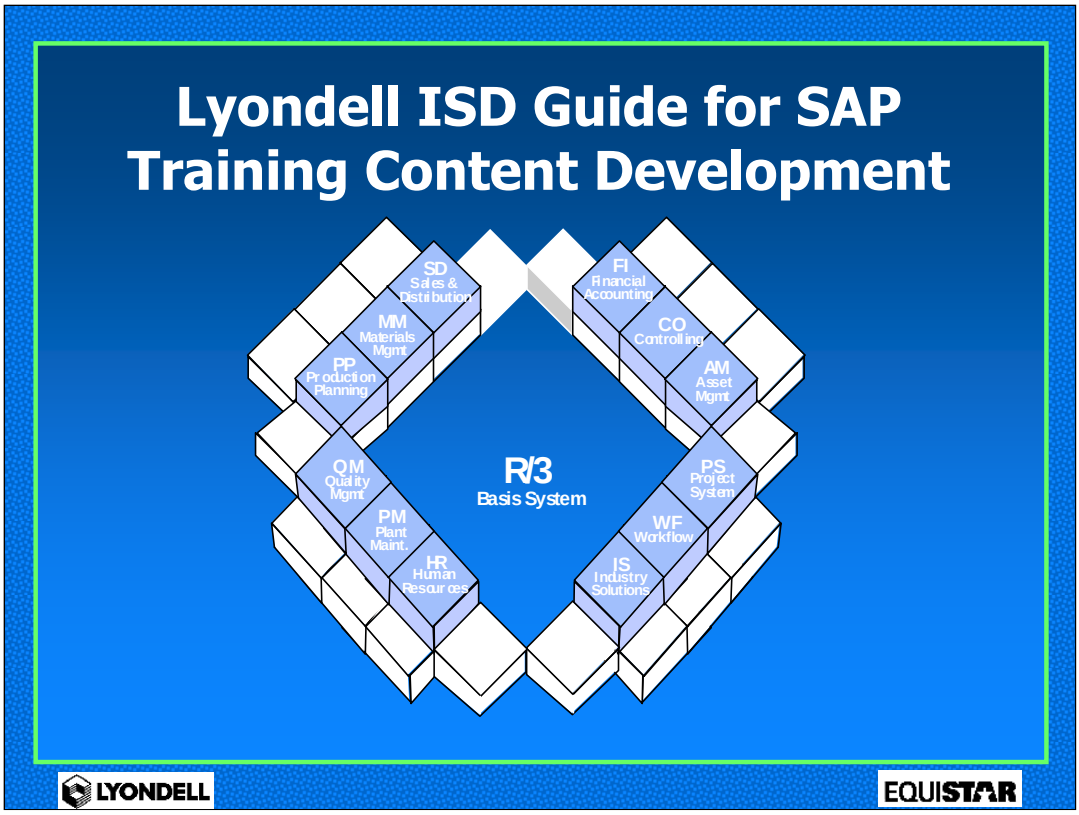
Lyondell ISD Guide for SAP
Training Content Development
SD Sales & Distribution
MM Materials Mgmt
PP Production Planning
QM Quality Mgmt
PM Plant Maint.
HR Human Resources
FI Financial Accounting
CO Controlling
AM Asset Mgmt
PS Project System
WF Workflow
IS Industry Solutions
R/3
Basis System
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The Two Types of Objectives

- Course Objectives
- Section (in Lyondell materials: Learning) Objectives

Course Objectives are…

- in the course introductory lesson (look for the slides with "Expectations", "Your Role", "Agenda", etc.)
- high level and "fuzzy" (they are not usually measurable)

Section Objectives are…

- in each section (i.e., lesson)
- focused and performance-based (they are measurable)

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Example Course Objectives

- Know the SAP installed Modules at Lyondell/Equistar.
- Comprehend how SAP functionality optimizes business at Lyondell.
- Learn the supply chain business process at Lyondell.
- Understand how you fit into the global process through the concept of global job roles.
- Apply the business processes for finding <critical business information> in the SAP database.
- Build a greater appreciation of the complex relationships of global processes, job roles, and systems (including SAP and Bolt-ons).

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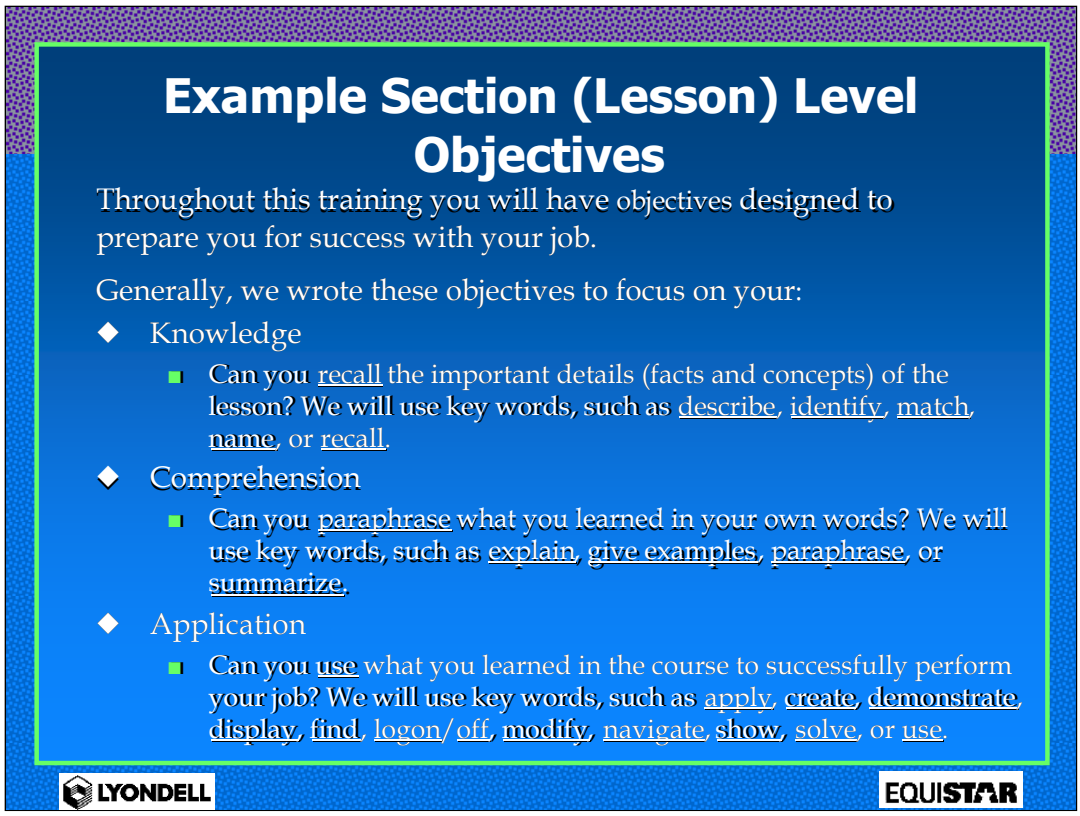


Notes:About writing instructional objectives

An important individual who has produced extremely useful tools in adult learning theory is Benjamin Bloom. Bloom developed a taxonomy of what we can call the cognitive domain. In this taxonomy, Bloom identified 6 levels that represent the spectrum of novice to mastery. The levels are the following:

•Knowledge: Recall information. In SAP training, this is usually the key terms and concepts we present. This could also be the presentation of business process flows the instructor introduces in class.

•Comprehension: Understand the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words. In SAP training, this means the learners demonstrate their understanding of key terms and business processes through their restatement, or paraphrasing of concepts the instructor presents.

•Application: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the workplace. In SAP training, this means the learner demonstrates their ability to complete a business transaction. In so doing, the learners demonstrate they recall the key facts and concepts, they comprehend how what they learned fits together, and they then apply the knowledge and skills by successfully completing the transaction.

•Analysis: Separates material or concepts into component parts so that its organizational structure may be understood.

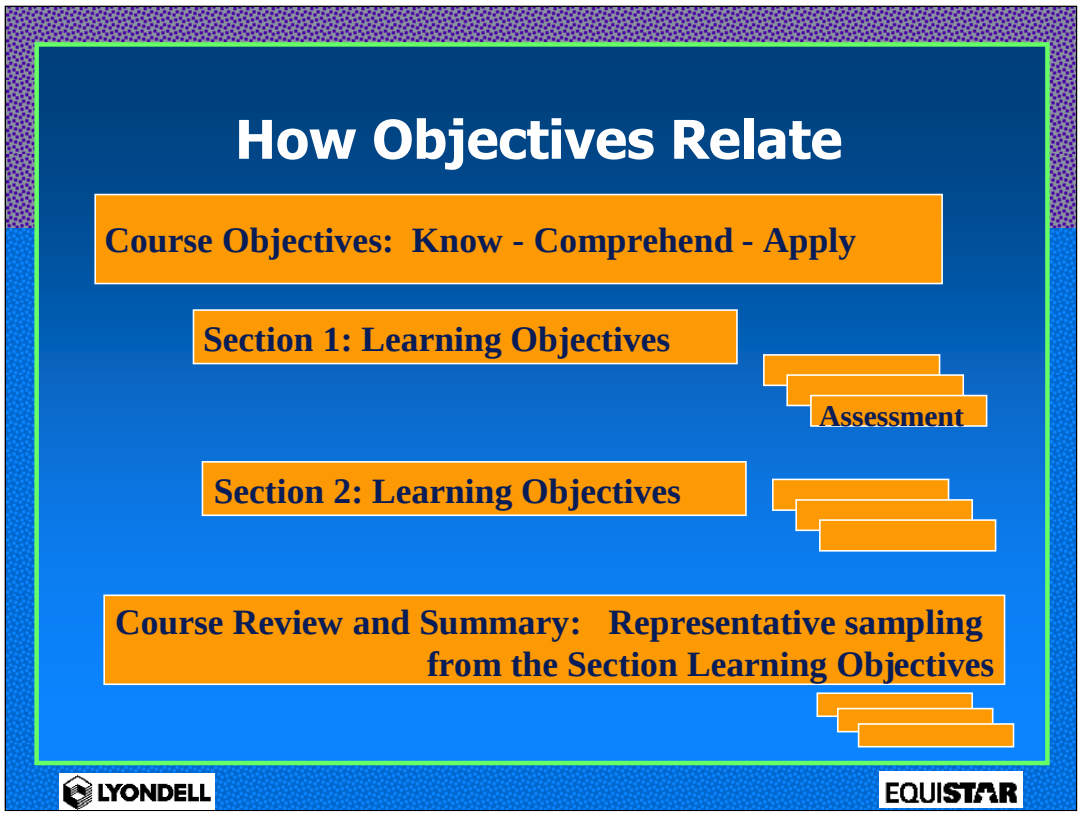
•Synthesis: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.

•Evaluation: Make judgements about the value of ideas or materials.

We separate the final 3 because for the type of SAP training we conduct, we do not require these high skill levels: these levels are typically the mastery level SMEs hold.

Using this concept, we present the learners with the specific focus areas of the training and the identifiers (i.e., the verbs) they will see that will concisely express what they will be expected to do.

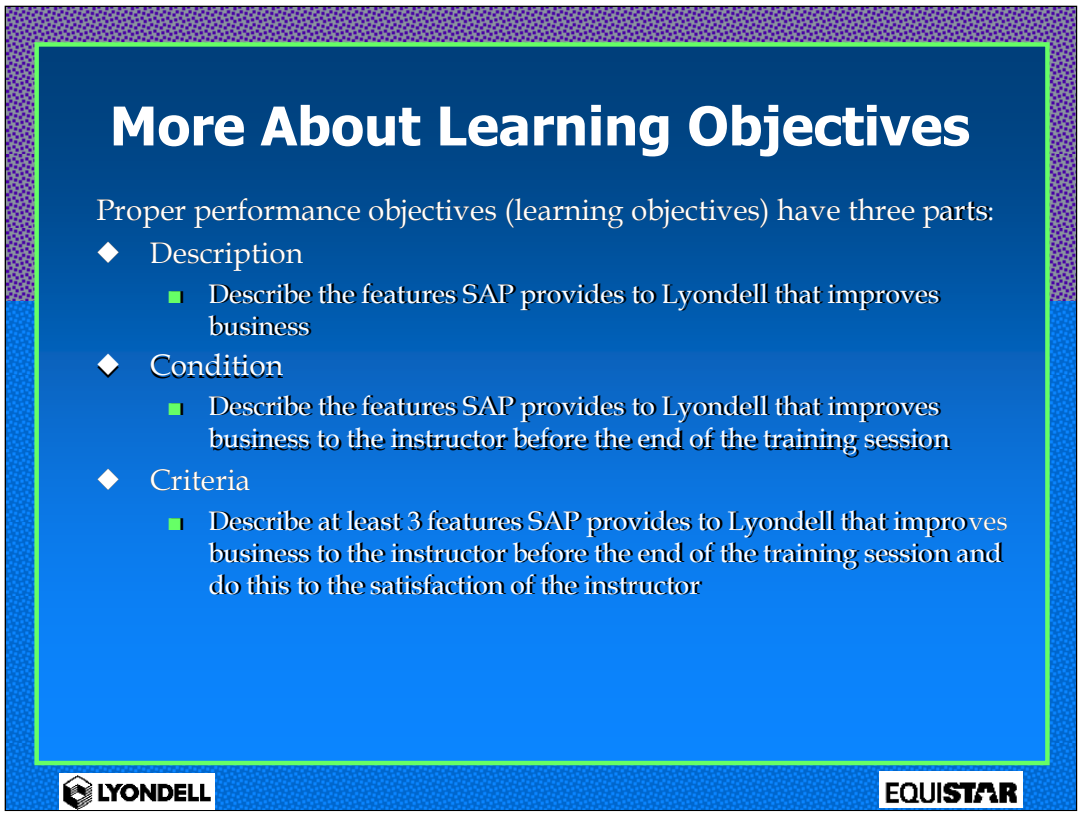
RULE: These verbs should be standardized as presented in the slide throughout all of the lessons. Also, keep in mind that these 3 first levels describe a natural learning progression: to be able to successfully complete a transaction, the learner must first know key terms and concepts, and then understand what the instructor presents and how it fits into what they need to do for their job. Use this as a general guideline for sequencing your instruction.



Course objectives are written for the scope of the course and are written at a high level. For this reason they are "end of course" or terminal objectives. The Course level objectives define the scope (what will/will not be covered) and level of learning of the instructions.

Learning objectives are written in terms of performance (description, condition, criteria) so that they can be measured. This is the Sectional level objectives and they are written at the expected level of learning. Developers will focus here.

Assessment is the measurement of the learning outcome or (performance) objectives. They are written as discussion or practice exercises. Developers will focus here.



Notes: How to write true instructional objectives

True, proper, instructional objectives have 3 parts: the description, the condition, and the criteria:

•Description: What performance will the learner be able to do at the conclusion of the training event? In SAP training, this text is usually what we write. Consider the following as examples of the descriptive portion of an instructional objective:

- Name what the letters in SAP stand for
- Describe at a high level what SAP is

•Condition: Under what circumstances will the learner need to perform? In SAP training, this means the learners will perform within a time constraint, use their access to a SAP training environment and a particular transaction, etc. Consider the following as a examples of the condition portion of an instructional objective:

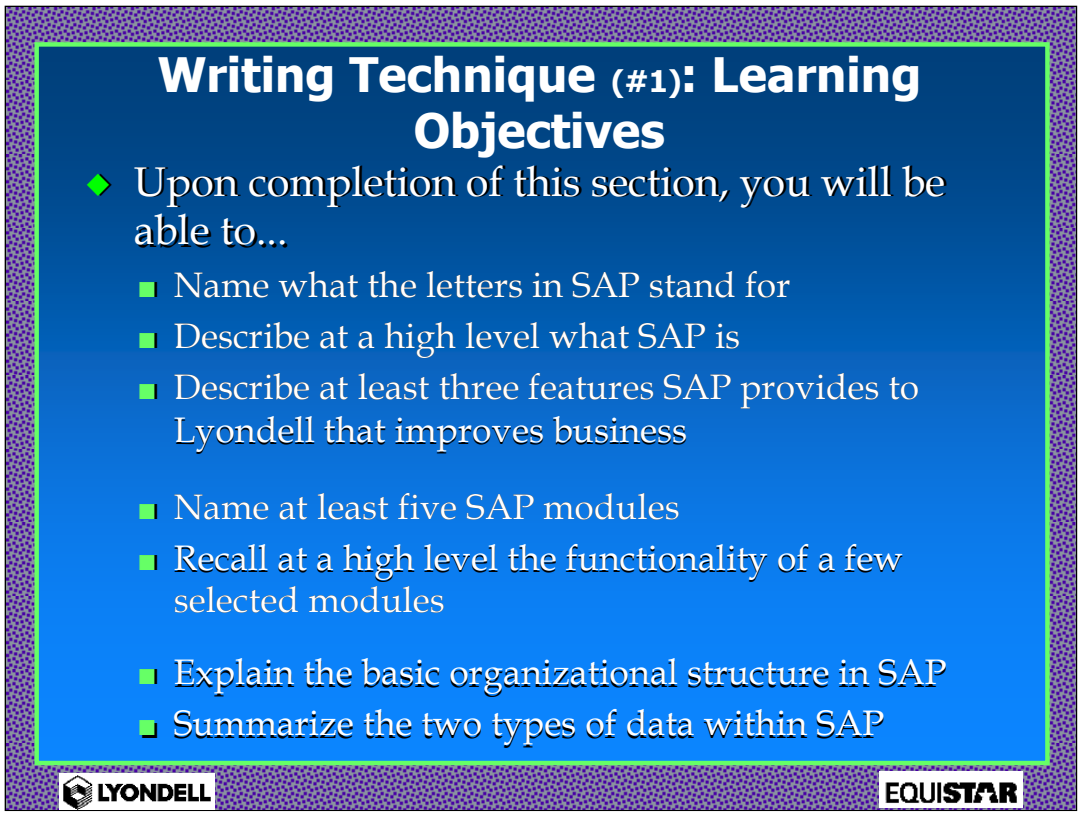
- Name what the letters in SAP stand for to the entire class before the end of the training session
- Describe at a high level what SAP is to first a fellow classmate and then to the entire class before the end of the training session

•Criteria: What differentiates a successful performance from one that is not? In SAP training, this means the learner demonstrates their ability to complete a business transaction with, perhaps, no mistakes. Or the learner recites or correctly paraphrases important concepts. Consider the following as a examples of the condition portion of an instructional objective:

- Name what the letters in SAP stand for to the entire class before the end of the training session and do this without a mistake
- Describe at a high level what SAP is to first a fellow classmate and then to the entire class before the end of the training session and do thisto the satisfaction of the instructor

Why do we have 3 parts to an objective? The answer is that if the client wishes to determine whether the performance objectives have been achieved upon the conclusion of the training, the designer will need to prove this. Creating evaluations is a simple task if the objectives are authored with these three parts. Remember to include the client in discussions about what conditions and criteria are necessary for the target performance.

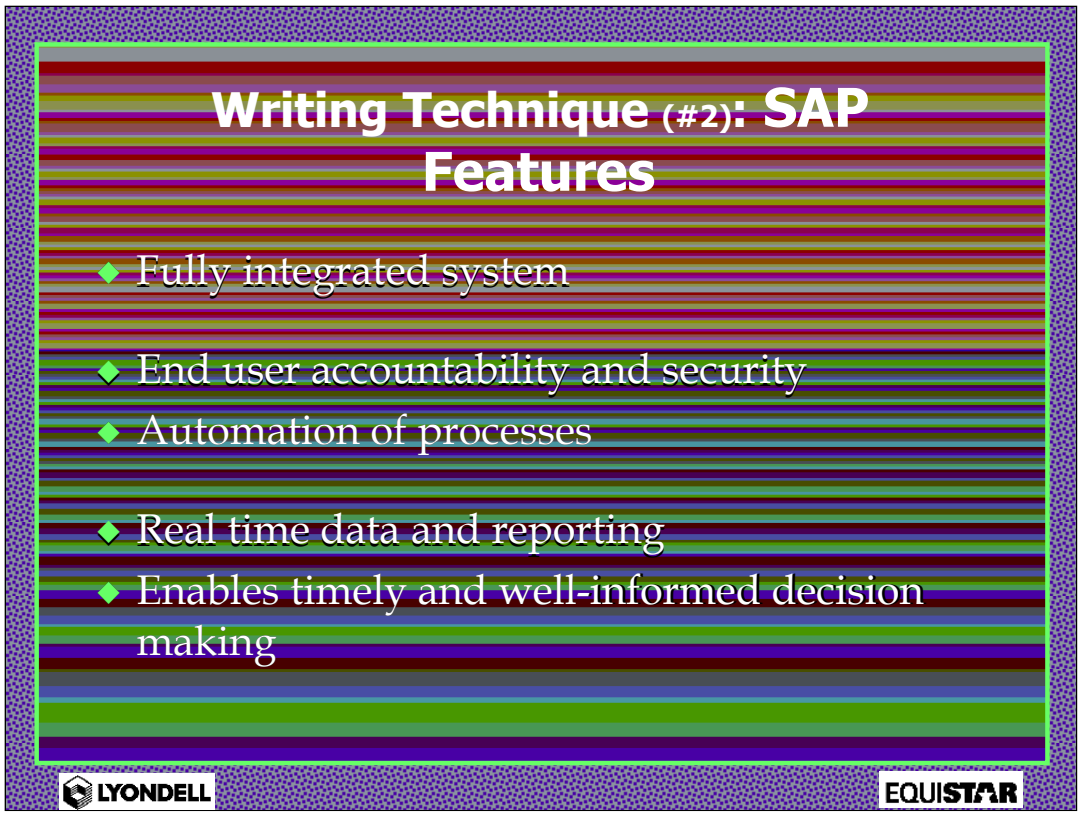
RULE: As well as you are able, always write the 3 parts of your objectives. However, it may not be necessary to put the condition and criteria text in the slides. Check with your client.



Notes:

Note how white space is used above to separate the bullets. Note also that all of the objectives above use the standardized verbs presented in the previous slide.

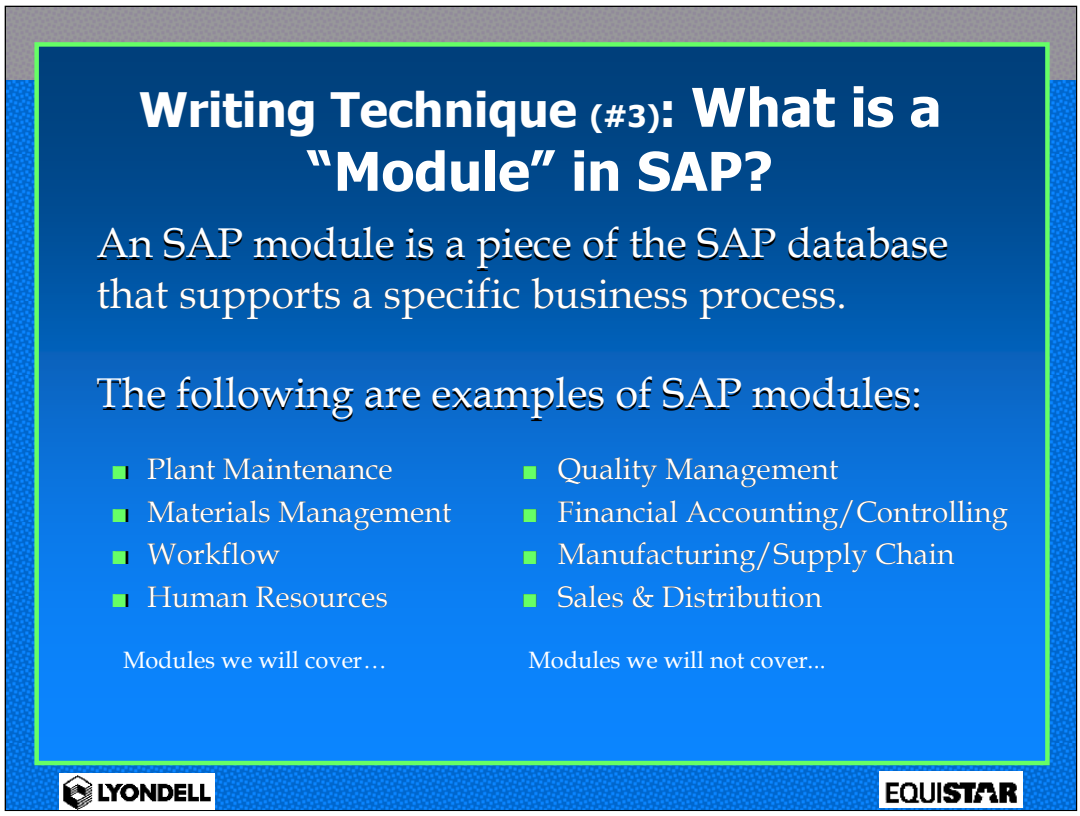
RULE: Chunk like topics together and separate different topics using white space. By grouping information in this manner, not only is the information easier to read, but it becomes easier to understand.



Notes:

Often times content authors fit a lot of material on a single slide, but learners have a limit to what they can absorb. At a very simple level, the process of learning involves incorporating new information into short-term memory that then can be moved into long-term memory. The problem is, short-term memory usually can only "process" chunks of information that are greater than 5, but less than 9. If you give more than 9 chunks of information to the learner, there is a very high likelihood that some information will be lost.

RULE: Use the 7±2 rule to never exceed 9 items on a slide. Also, use white space to chunk similar information together.



Notes:

If you have a slide that presents examples that will not be covered in depth in the training, as well as examples that will, then include a statement to cover this.

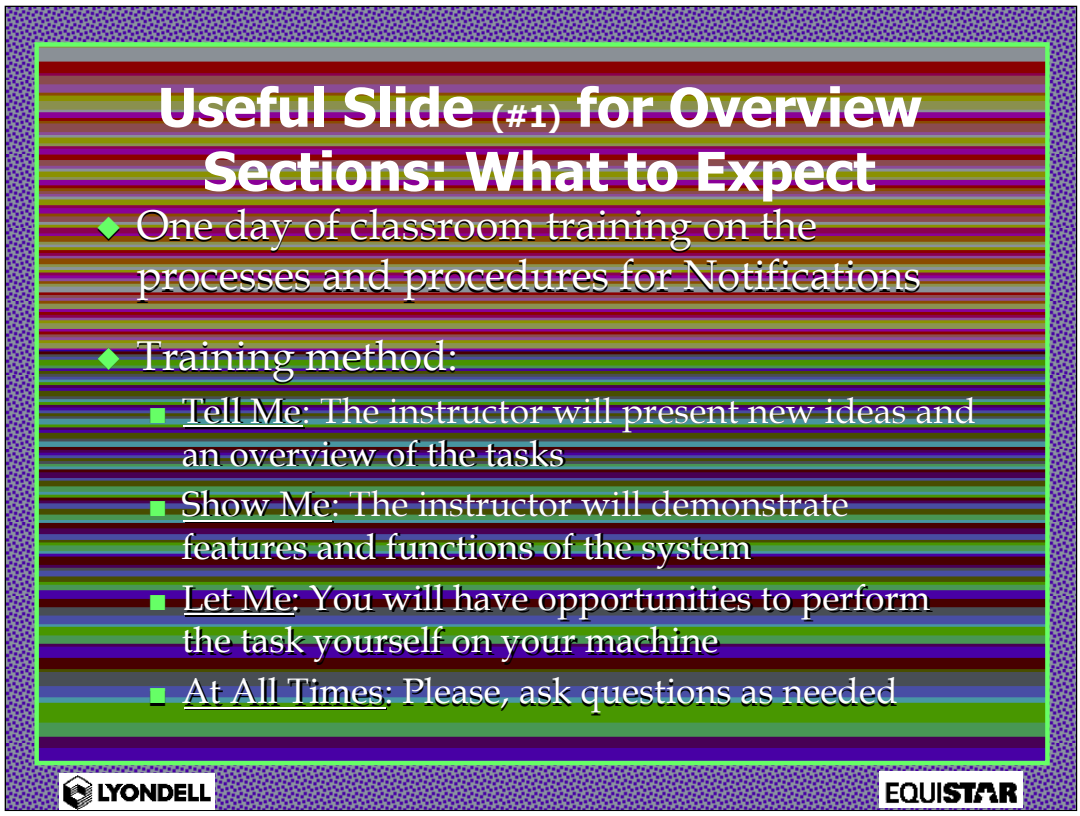
RULE: Keep your focus on what your learners are required to know, and be certain to tell them what they are not required to know.

Notes:

Note that I reworded this slide to create a parallel sentence structure. What we know about adult learning is that shifts in language creates a temporary or potentially critical distraction that may prevent comprehension from occurring.

Also, note that using passive voice requires more mental processing and becomes more subjectively interpreted by the reader.

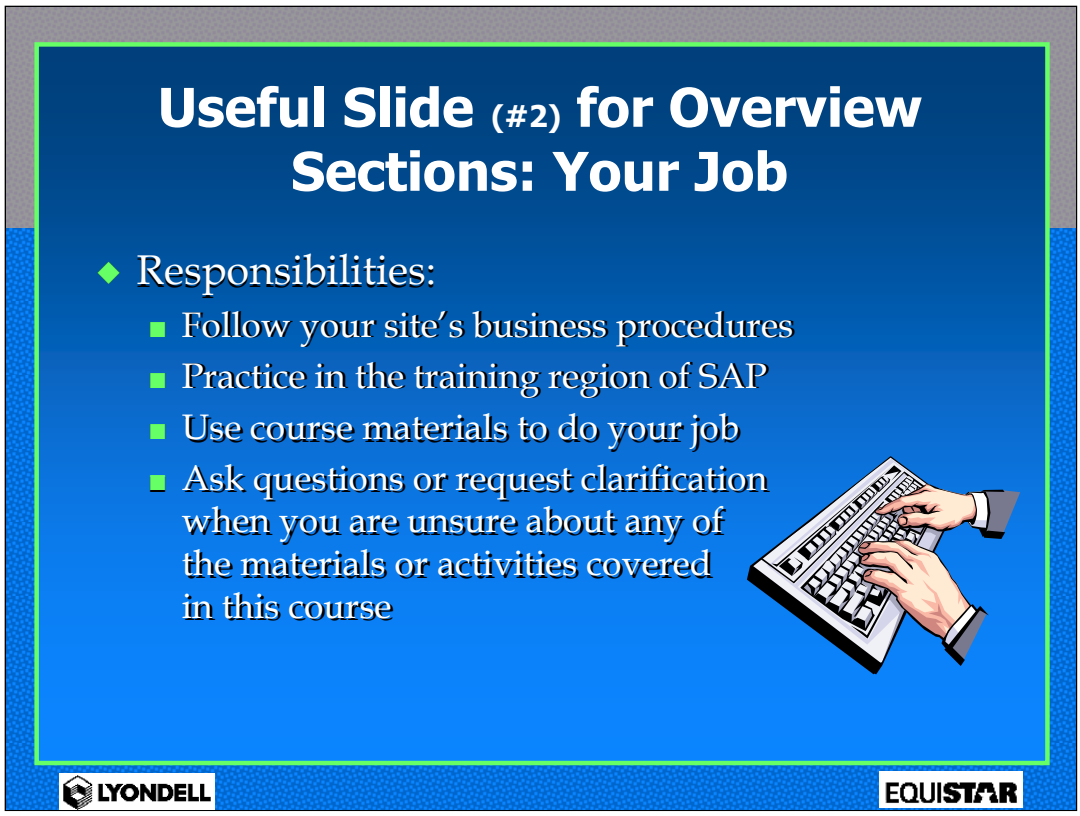
RULE: Use active voice (never passive) and parallel sentence structures.



Notes:

Note that I increased line spacing to separate (this is a chunking example) the two primary concepts, and that I also incorporated the RWD adult learning model.

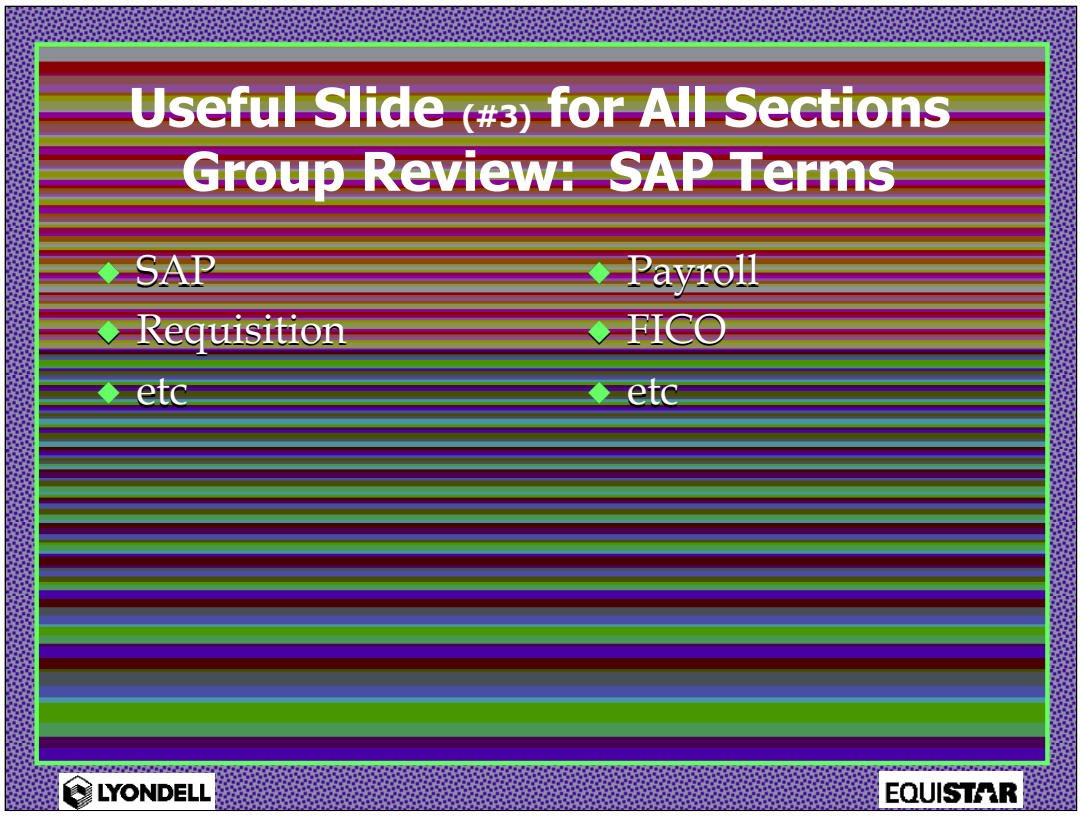
RULE: Incorporate the bullet text from the training method above into all Section Overview lessons. The simplicity of the learning model is easy to understand and will prepare the learners of what to expect about the structure of the lessons they will cover.



Notes:

In Overview sections when discussing learner responsibilities, emphasize the importance of dialog between instructor and learners, and between learners. Encourage questions. Let the learners talk, and have them paraphrase concepts where it makes sense.

RULE: The more passive the learning experience is for the learners, the less likely the training will be successful. Dialogue makes the training a more active experience and increases the likelihood that learning will take place.



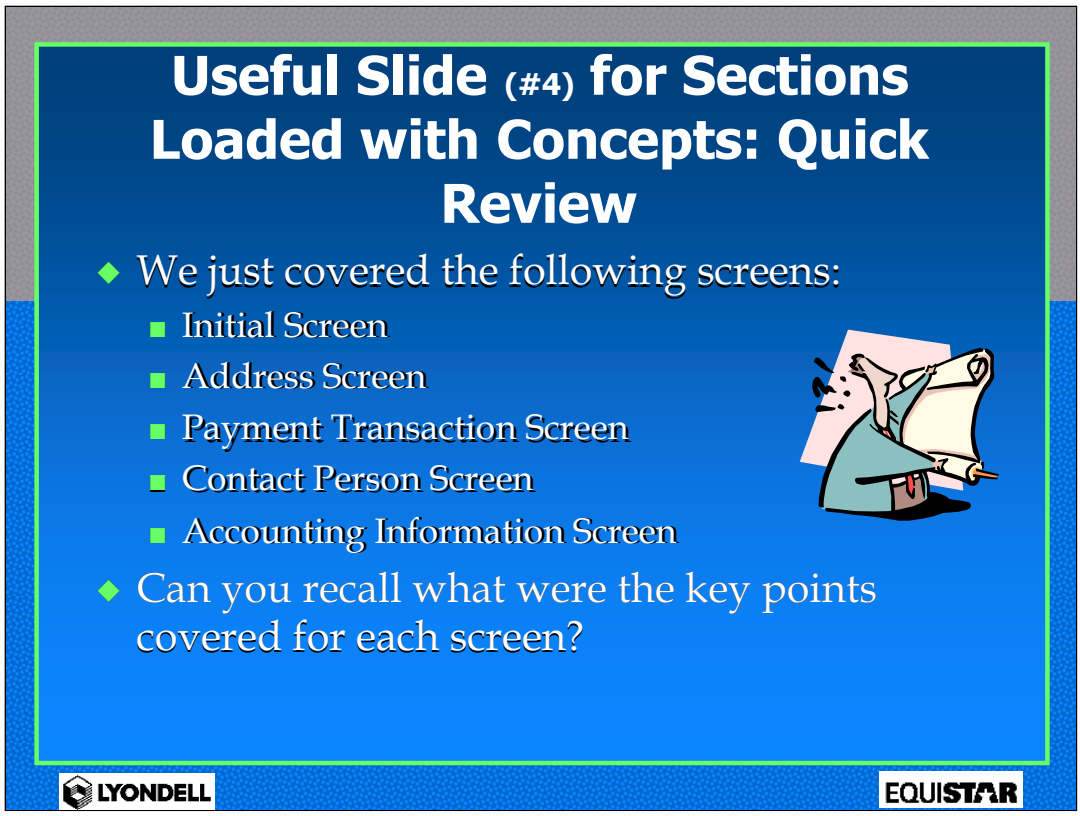
Notes:

The Group Review of SAP terms serves two purposes. First, it gives you a chance to review the terms introduced in this section and get learners to simply repeat the phrases and their definitions. Second, it re-enforces SAP syntax. This will make communicating SAP information easier as users are learning a common vocabulary.

RULE: Use this slide in all of your course sections (except the first section).

Include a Lesson Objective such as:

"Recall and paraphrase key SAP terms covered in this section."



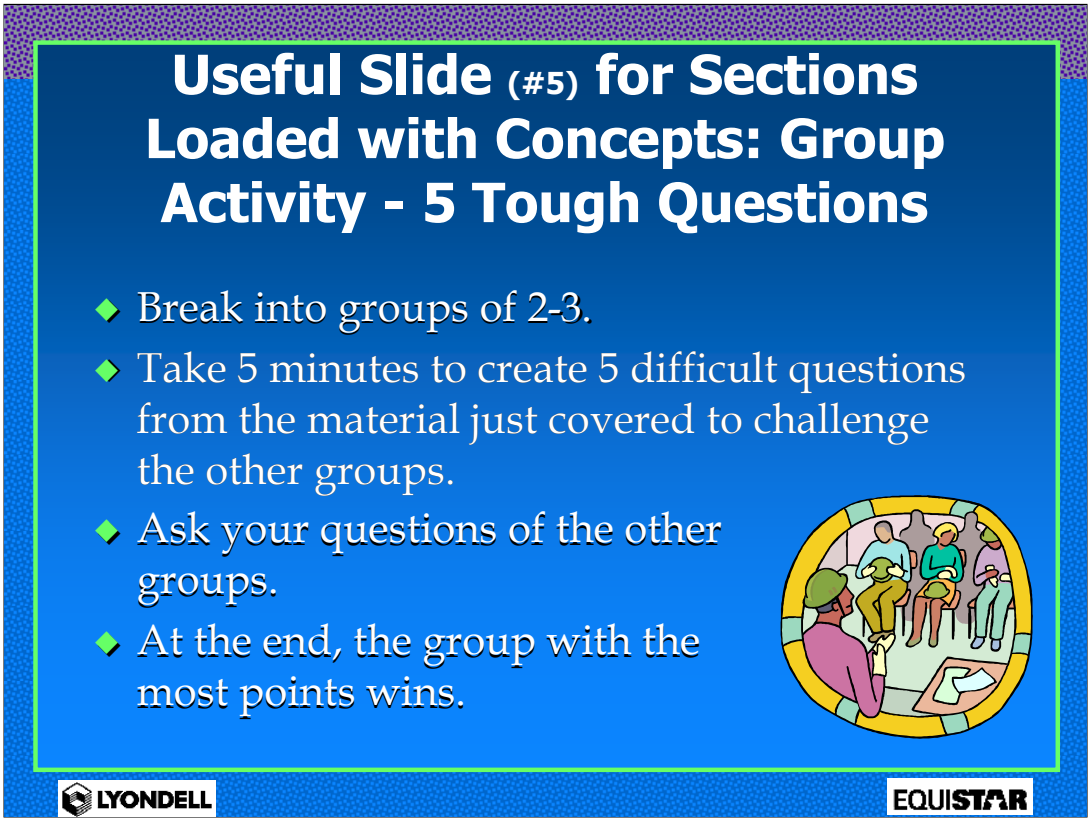
Notes:

This slide is inserted when the number of reviewed slides containing concepts becomes numerous. In this particular case, there were 10 SAP screens reviewed that covered nearly 20 slides.

This amount of material will not be retained by the learner because the quantity is too high: without some form of remediation or activity, the purpose of the presenting the material will be lost. In adult learning terms, this involves the principle of moving information from short-term memory into long-term memory. Without some form of strengthening/reinforcing activity, information will move into short-term memory only to “push out” other items already there. The result is a loss.

In project terms, one would question the worthiness of covering it all if it is only going to be lost.

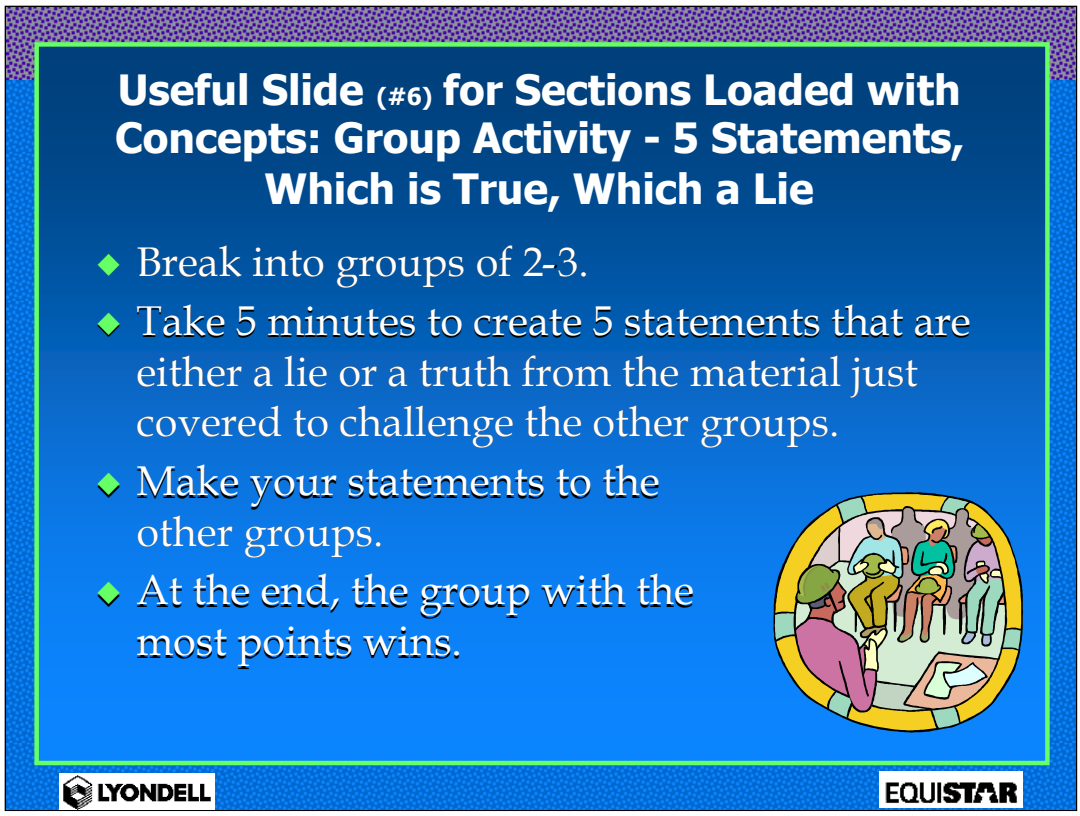
Rule: If you have more than 10 consecutive slides containing conceptual information, insert a quick review slide or some other reinforcing activity slide. This number 10 is not absolute: think what will be reasonable for your situation.



Notes:

The material from which to draw the statements should span about 20-25 conceptual slides.

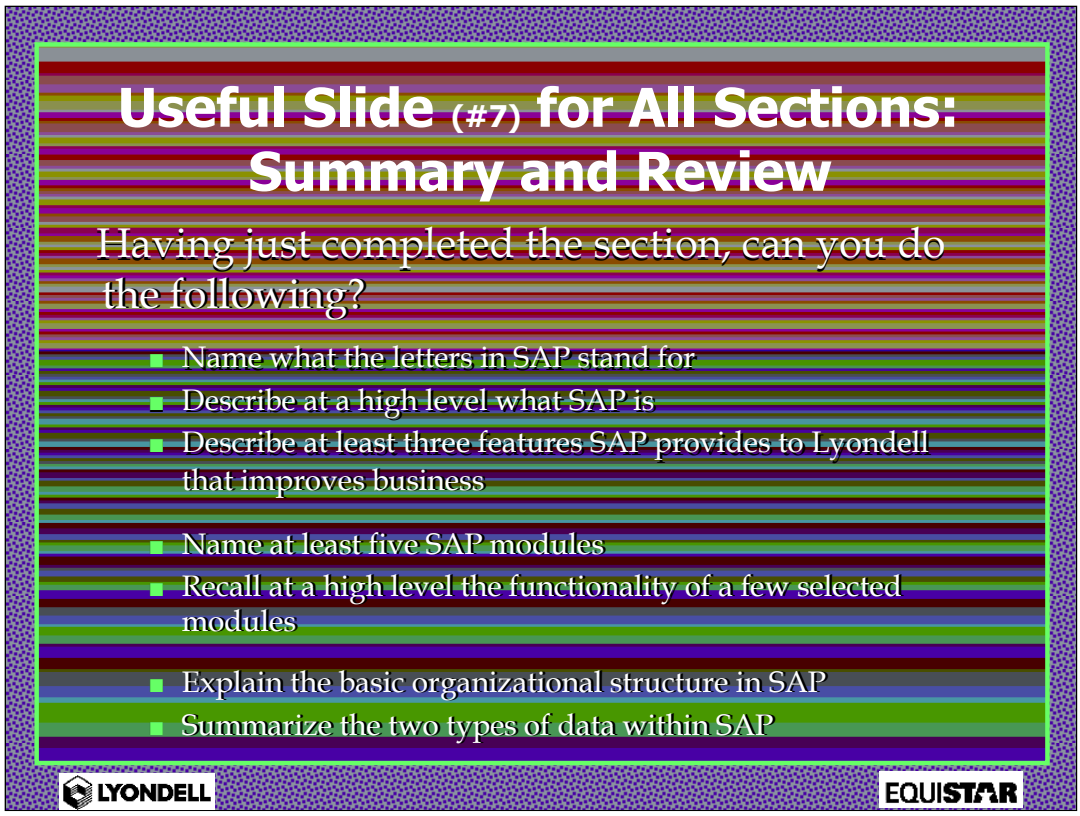
Every group has a chance to ask their questions to the rest of the class. The question must be correctly answered within 20 seconds. If answered correctly, that group receives 1 point, otherwise the asking group receives the point. Group with most points wins. If 20 seconds is too little, double the allotted answer time.



Notes:

The material from which to draw the statements should span about 20-25 conceptual slides.

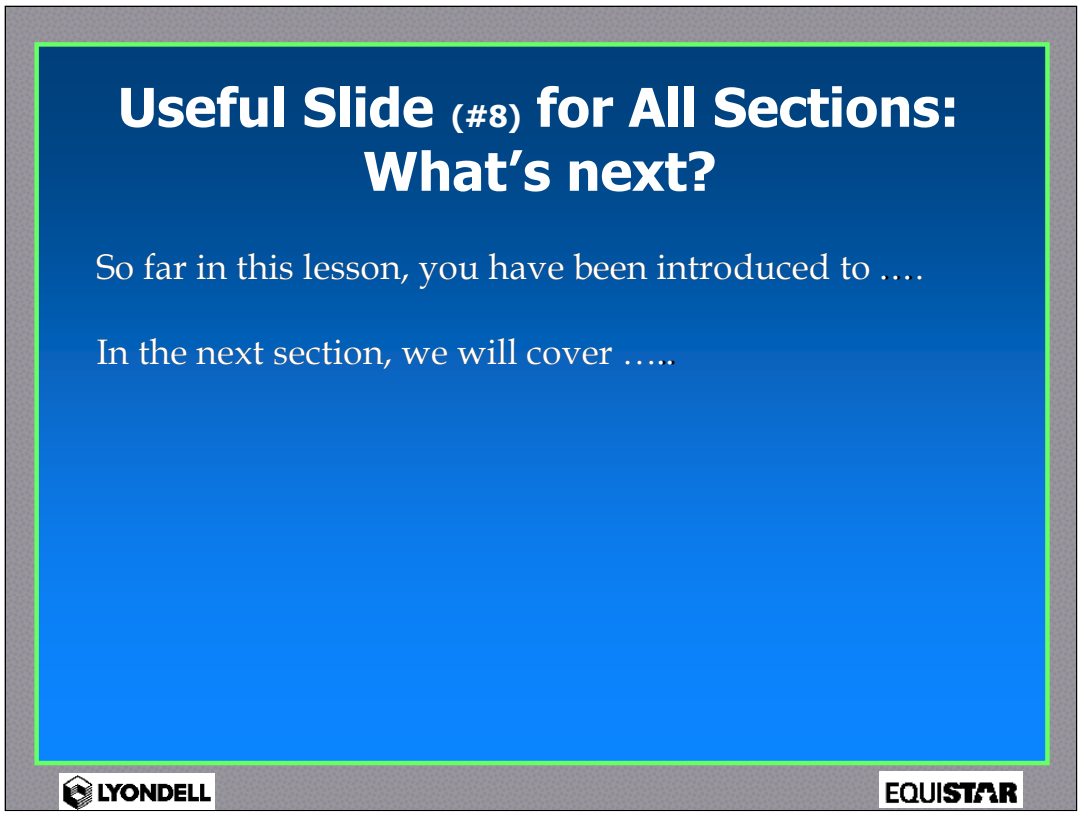
Every group has a chance to present their statements to the rest of the class. Groups not presenting must choose within 15 seconds whether the statement is a truth or a lie. If answered correctly, that group receives 1 point, otherwise the asking group receives the point. Group with most points wins. If 15 seconds is too little, double the allotted answer time.



Notes:

The summary page in most of Lyondell materials has “Summary” at the top of the page and includes all of the objectives restated. The purpose of a summary page is to have an opportunity before moving to the next course to check that everyone is comfortable with what they have just learned. The above example slide has a different title and topic text to create an opportunity for the instructor and the learners to review what they have covered.

RULE: Use the slide title and the introductory topic text (modified to fit the course you are covering) in your course materials. As an instructor, use the moment to ask learners to paraphrase or recount what they have done in the lesson: create an atmosphere of dialog, and let the learners do the talking, but correct them appropriately and refer to the course material as necessary.



Notes:

A lesson bridge prepares the learner to what the next lesson will be as a natural follow-on to what they have just learned. Smooth transitions creates a more organized learning environment that learners perceive as more professional and well thought out. Lessons become choppy when the transitions are abrupt, and do not properly prepare the learner as to what comes next.

RULE: Use the slide above with text for the lesson covered and the following lesson as the last formal training slide in your courses. If this is the end of the training, use this slide to transition into their return to the job. If this is the last section in a course, but the learners will continue with another course, then use this slide to transition to that follow-on course.

File Naming Convention

This Character	Indicates
WW	Functional module **Example:** ♦ MM (materials mgmt) ♦ PP (prod planning) ♦ SD (sales/distribution) ♦ FI (finance) ♦ CO (controlling) ♦ IM (inventory mgmt)
Y	Course number within module
X	Type of document **Example:** ♦ C (concept slides) ♦ X (exercise) ♦ Q (quick reference guides)
ZZ	Module number
P	Version **Example:** ♦ P (preliminary) ♦ D (draft) ♦ R (revision)
1	Version control indicator **Example:** ♦ A (letter designator for preliminary and draft version) ♦ 0 (numeric indicator for revision number)
.XXX	Default file extension **Example:** ♦ .DOC (Word) ♦ .PPT (PowerPoint)

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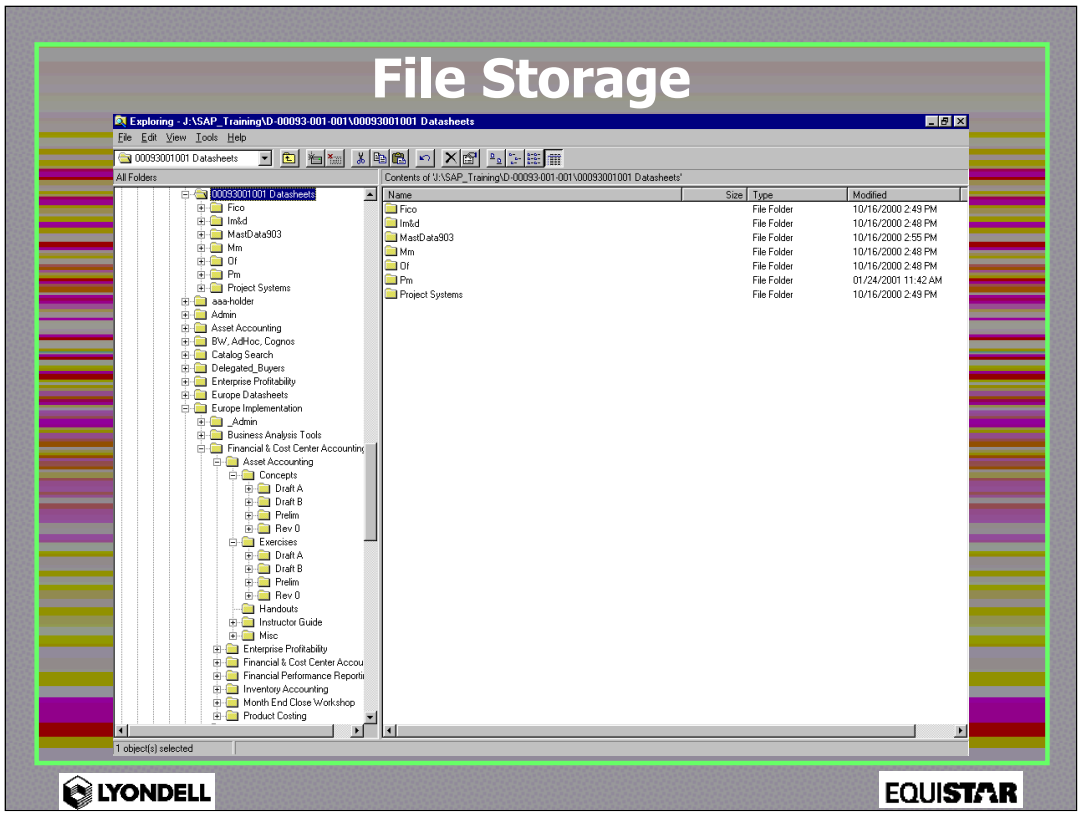
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File Edit View Tools Help
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Pm
Project Systems
aaa-holder
Admin
Asset Accounting
BW, AdHoc, Cognos
Catalog Search
Delegated_Buyers
Enterprise Profitability
Europe Datasheets
Europe Implementation
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Business Analysis Tools
Financial & Cost Center Accounting
Asset Accounting
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Draft B
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Rev 0
Exercises
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Draft B
Prelim
Rev 0
Handouts
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Misc
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Financial & Cost Center Accou
Financial Performance Reporti
Inventory Accounting
Month End Close Workshop
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