



Interviewing Subject Matter Experts

June 2015





Agenda

- **Part I: Preparing for the Interview**
 - Recovery vs. Discovery Interviews
 - Doing Your Homework
 - Question Formulation
 - What to Provide in Advance
- **Part II: Conducting the Interview**
 - Behavior and Body Language
 - Techniques for Successful Questioning
 - Active Listening
 - Concluding the Meeting
- **Part III: Follow-up**
 - Maintaining the Relationship



Part I: Preparing for the Interview



Recovery vs. Discovery

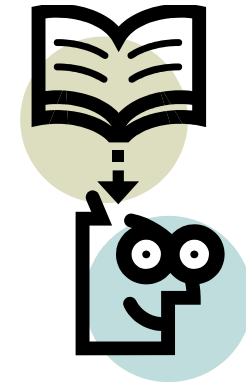
- **Type of Interviews:**
 - **Recovery**
 - Add to personal knowledge or support institutional knowledge
 - Capture knowledge that has been lost over time
 - **Discovery**
 - Obtain new knowledge and new insights
 - Learn about a new product, service or process
- **Type of interview will frame the questions**





Do Your Homework!

- **Domain Knowledge**
 - Industry basics and jargon
 - How design decisions are made
 - Product's or program's successes and failures
- **Functional Knowledge**
 - Scope
 - Requirements and Design
 - Processes
- **Background on the SME**
 - Role on team
 - Areas of expertise
 - Personal information such as interests, recent awards





Question Formulation

An Estimate is only as good as its **Data**

If the SME Interview is being used as a
Data Collection method, then

The **Quality of Questions** Asked
will determine

The **Quality of the Estimate**

Educational Theories on Questioning provides a starting point



Bloom's Taxonomy

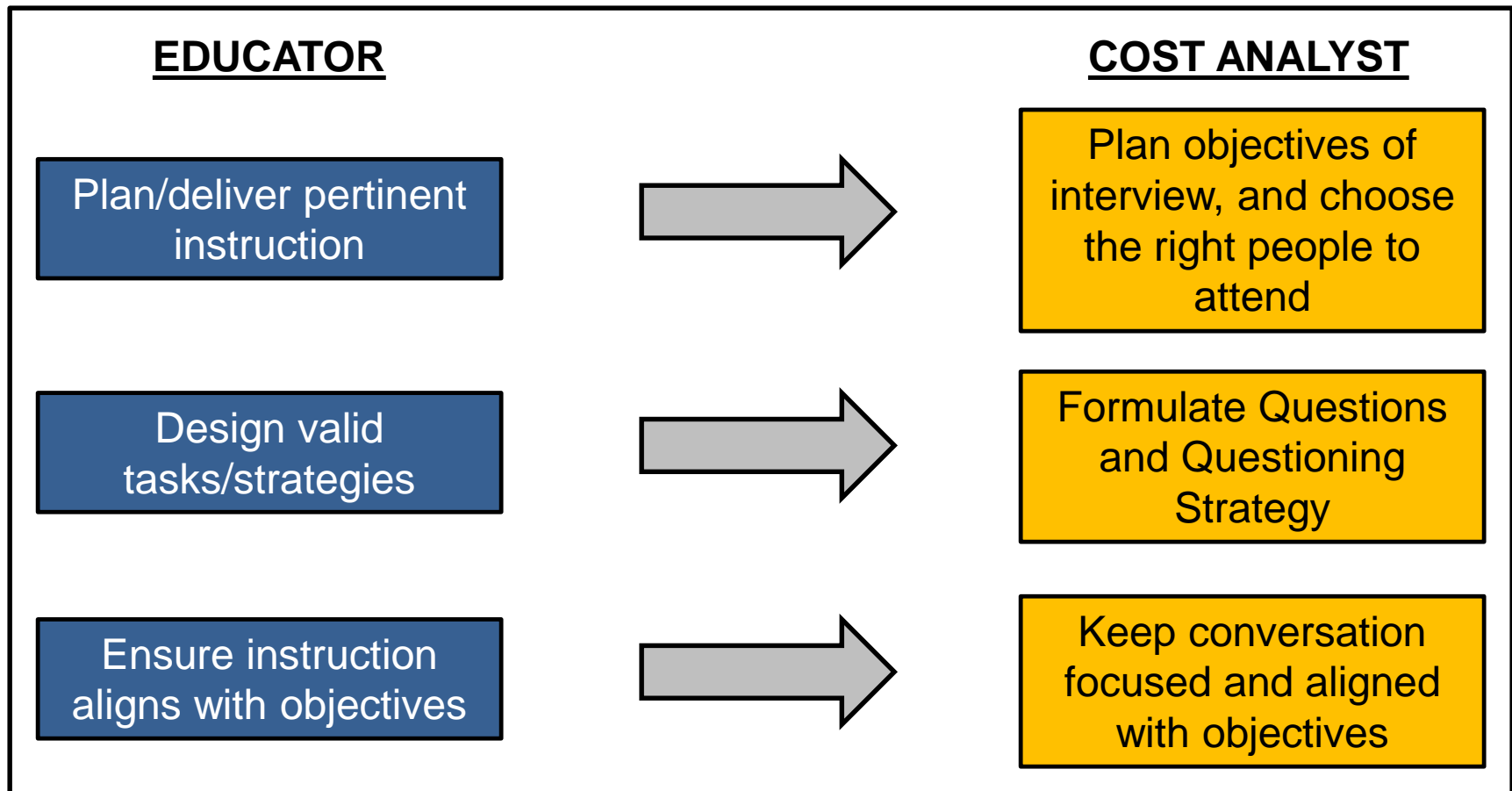
- **Named after Benjamin Bloom, educational psychologist (1913 – 1999)**
- **Classifies how people learn**
- **Provides framework for teachers to develop, organize, clarify objectives**
- **Helps to...**
 - **Plan/deliver pertinent instruction**
 - **Design valid tasks/strategies**
 - **Ensure instruction aligns with objectives**





Bloom's Taxonomy

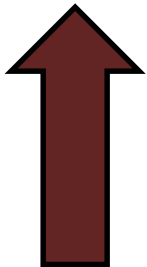
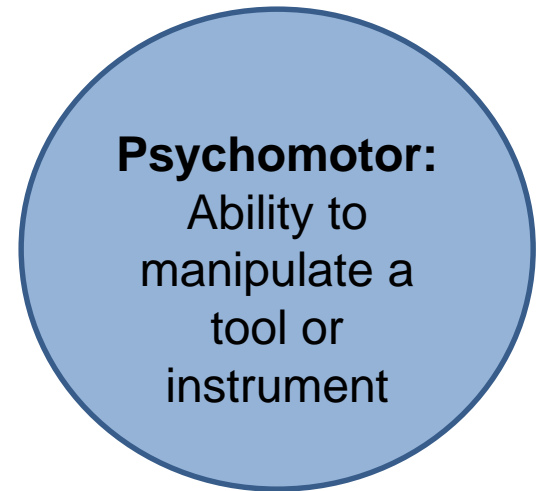
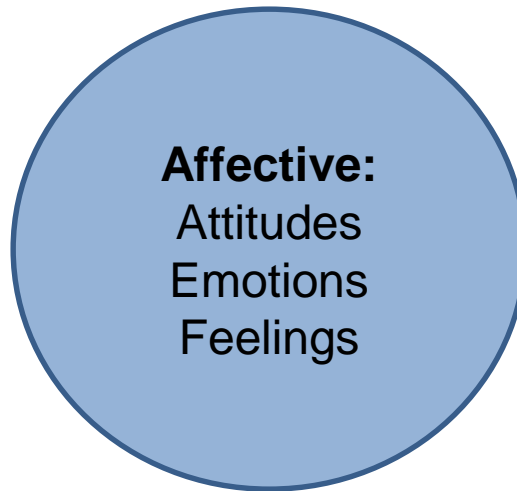
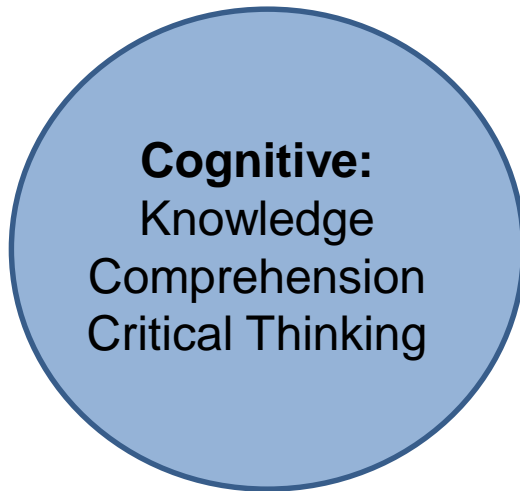
How does this apply to interviewing SMEs?





Bloom's Taxonomy

Educational Objectives divided into 3 domains:



Cognitive Domain broken into 6 subsets



Bloom's Taxonomy

Cognitive Domain

Knowledge:

Recall Facts &
Basic Concepts

Application:

Solving problems
using acquired
knowledge, facts,
techniques, rules

Synthesis:

Compiling
information &
proposing alternate
solutions

Comprehension:

Demonstrate
understanding by
comparing, interpreting

Analysis:

Identifying motives &
causes, categorizing,
making inferences

Evaluation:

Making judgments
based on a set of
criteria



Bloom's Taxonomy

Subdomain	Keywords
Knowledge	What, When, Who, Define, Distinguish, Identify, List, Name, Recall, Reorganize, Show, State, Write, Which, Indicate, Tell How
Comprehension	Compare, Conclude, Contrast, Demonstrate, Predict, Reorder, Distinguish, Estimate, Explain, Extrapolate, Give an example of, Relate, Tell in your own words, Illustrate, Hypothesize, Outline
Application	Apply, Develop, Test, Consider, Build, Plan, Choose, How would, Construct, Solve, Demonstrate, Indicate
Analysis	Analyze, Categorize, Describe, Classify, Compare, Distinguish, Relate, Explain, What assumption, What do you
Synthesis	Think of a way, Create, Propose a plan, Put together, What would be, Suggest, Develop, Make up, What conclusion, Formulate a solution
Evaluation	Choose, Decide, Evaluate, Judge, Check, Select, Which would you consider, Defend, What is most appropriate, Indicate, Prioritize, Rate



Quality of Questions

Weaker question:

Is this feature important?

Weak question:

Why is this feature important?

Strong question:

Can you give me three reasons why this feature is important?

Stronger question:

How is the system or user impacted by not having this feature?



Questioning Formulation

Dos and Don'ts

Do

- ✓ Use open-ended questions
- ✓ Ask clarifying questions which help to understand root issue or bottom line
- ✓ Ask about his/her perspective, assumptions, actions to get understanding of how they think
- ✓ Keep questions short and to the point
- ✓ Consider sequence/order of questions

Don't

- × Don't ask questions that can be answered with yes or no
- × Don't ask leading questions or rhetorical questions with a predetermined conclusion
- × Don't ask questions in a way that would be perceived as manipulative or dishonest
- × Don't ask about assumptions or beliefs of other people
- × Limit the use of questions beginning with "why"



What to Provide in Advance

- **Date & Time**
 - Provide two or three choices in the initial request
 - Duration
- **Location**
 - Consider layout and ambience
 - Minimum distractions
- **Context**
 - Set the Stage by providing the purpose of the interview
- **Agenda**
 - High level topics
 - Determine case by case if providing detailed questions will help or hinder





Part II: Conducting the Interview



Conducting the Interview

- **Establish rapport and build credibility**
 - Identify yourself and your position
 - Thank the SME for taking the time to meet with you
 - Review purpose of meeting and agenda
 - Address who will have access to the information discussed
- **Behavior**
 - Be confident, but not overly confident
 - Use positive facial expressions such as smiling and nodding
 - Maintain Eye Contact
 - Be aware of loudness of speech and tone
 - Keep an alert posture
 - Be conscious of your gestures and expressions
 - Dress appropriately



Body Language

- **Body language can convey internal emotions and mental states**
- **Examples**
 - **Aggressive:** frowns, pursed lips, interrupting
 - **Bored:** doodling, staring around the room, watching the clock, yawning
 - **Relaxed:** torso is well balanced but not tense, steady breathing
 - **Trustworthy:** maintaining relaxed expression without extremes, sustaining steady gaze, maintaining appropriate distance while still being close enough to show interest
 - **Attentive:** nodding, ignoring distractions, leaning forward slightly



Active Listening

- **Communication technique that provides feed-back to the speaker or presenter**
- **Creates an atmosphere of cooperation, while avoiding misunderstandings and resolving conflicts**
- **Tactics**
 - **Maintain eye contact**
 - **Nodding and Yes's**
 - **Raising eyebrows in anticipation**
 - **Listen for content and underlying emotions**
 - **Reflect what you heard back to the SME by paraphrasing**
 - **Show empathy and concern where appropriate to form a more powerful bond**





Socratic Questioning

- **Named after Socrates, Greek philosopher (470 – 399 BC)**
- **Socrates believed we have the answers inside of us, but we are often unaware of them**
- **Method of inquiry and discussion that uses series of questions to get to underlying **assumptions, beliefs** and **contradictions****
- **Used by**
 - Educators to stimulate critical thinking
 - Psychologists for cognitive restructuring, understanding the underlying logic to illogical reactions and thoughts
- **Best known for being used in law schools to find the holes in arguments**



Socratic Method

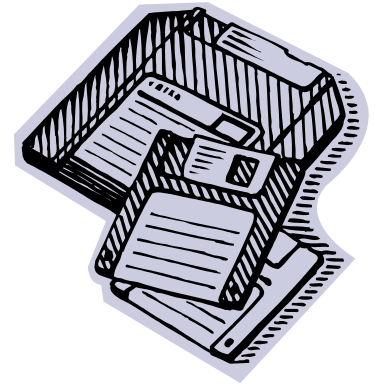
- Play devil's advocate
- Challenge assumptions
- Pose hypothetical situations
- Eliminate contradictions
- Test the logic
- Ask clarifying questions
 - Can you please elaborate?
 - Why is that important?
 - Can you provide an example?
 - Can you say that another way?
 - How would you explain that to a non-technical person?





Possible Issues

- **“There is no data”**
 - There is **ALWAYS** data!
 - Ask for analogous programs
 - Technical
 - Schedule
 - Acquisition Process
 - Separate elements
- **Point estimate is very optimistic and/or schedule is overly aggressive**
 - Get ranges
 - Push boundaries
 - Ask about hypothetical situations





Possible Issues

- **Discussion becomes extremely technical**
 - Ask for “dumbed-down version”
 - Ask how the expert would explain this to someone outside of the industry
 - Ask for examples
- **Analyst cannot visualize what expert is describing**
 - Ask to see demo, prototype, videos
 - Ask to visit facilities, see production line





Possible Issues

- **Not getting the type of answers expected**
 - Remind yourself of the objective of the question
 - Reword the question
 - Ask clarifying questions
- **Expert does not know answers to questions**
 - Ask to be referred to the right person
 - Get contact info and permission to contact directly, or ask SME to initiate meeting with that person





Tips

- **Ask questions one at a time**
- **Word questions clearly**
- **Remain as neutral as possible**
- **Encourage responses**
- **Provide transitions between topics**
- **Keep control of the interview**
- **Be in the moment**
- **LISTEN!**



Part III: Following-up



Last Step

- **Following-up is ESSENTIAL!**
 - Relationship is made during interview, but relationship is sustained by following-up
- **Send Thank You email**
- **Review notes and make annotations**
 - Identify areas that are still misunderstood or need clarification
 - Clear up misunderstandings
- **Action Items**



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