Appendix 3-E
Workplace Interview Guides: BCC

Interview Guide for New Engineers
How do new engineers begin their careers and succeed at [company]?

Background Information for Interview Process

Focused Interview • *Maximize range* • *Elicit specific reports* • *Elicit depth—cognitive, affective, evaluative* • *Elicit personal context through prior experiences and personal attributes*	Help interviewee: • Recall past reactions to past events, not present reactions to past events • Link responses to past situation (concrete, not introspection) • Avoid superficial responses • Focus on past situation, not interview
Critical Incidents • *Complete activity* • *Clear intent and consequences*	Incidents • Learning • Exchange • Technical • Social • Task oriented • Group process oriented • Supervisor oriented • Organization oriented
Developing Expertise	How is technical (vs. social/people) defined? Wow factor Applying eng. knowledge and skills to practice Identifying most valuable knowledge/skills from school Perceptual changes of engineering in practice Patterns of continuing education and development
Socialization	Adjusting to fit: assimilating Learning (content) --tasks, group procedures, supervisor expectations, org culture/values Learning (process) informal --trigger, select strategy, implement, assess Social exchange (LMX, CMX) --actors, resources, exchange structure, exchange process (initiate, transact, reciprocate) --amount of interaction --direct, general, productive (negotiated) --LMX: respect, trust, responsibility, autonomy, mutual obligation --role clarity --perceptions of success, commitment, satisfaction

Interview Guide for New Engineers

Introduction	Introductory remarks 1. State purpose and sponsorship of study 2. Group sampled/interviewed (answer "Why me?") 3. Anonymity of data (show how anonymity will be guarded)
Overview of Study	I am with [school] and am are working with HR at [company]. We are interested in improving the educational programs for engineers and the onboarding programs at [company]. Specifically, what helps you work successfully within [company].
Identify incidents **Expertise** ***Problem solving process*** ***Tasks & procedures*** **Socialization** ***Learning process*** ***Exchange process*** **Behaviors** **Thoughts** **Emotions**	Think back to when you started working here. What was the [first, second, third] incident or experience you had: *technical* in which you had to apply your engineering knowledge/skills to solve a problem or accomplish some task *social* that taught you something about how things get done here? That is, the way things are done here and what was expected of you. *[Identify 2-3 critical incidents each (technical & social)]* *Time* When did this incident happen? *Place* Where did this incident take place? *Antecedents* What were the general circumstances leading up to this incident? *Personal Context* What were your circumstances surrounding this incident? *Actors* Who was involved? *Behaviors and interactions* What exactly did the others do? *Behaviors and interactions* What exactly did you do? *Consequences* What was the outcome of this incident? *Motivations* Why did you do this? *Move to technical section* ↴

Expertise: Engineering knowledge, skills, attributes (KSAs) at entry and at present: how changed?	*For 2-3 technical incidents* · *Problem-solving and tasks/procedures* · *Applying knowledge of engineering* · *Management of projects* · *Team work with coworkers, others, supervisor*
	I assume you spend your time at work doing technical type of work, but also you have to work with other people and the procedures of the organization. First of all, I want to focus our discussion today on how you apply your technical knowledge to solving problems and doing engineering tasks. · Think back about a specific technical problem or task · What was the problem? - How did you define/frame the problem? - Conceive - Design · What knowledge and skills did you apply to work on the problem? - Where did you learn the knowledge and skills (topic)?. - How did you learn the topic? *Bookwork, labwork* - Implement - Operate · What questions/concerns did you have? · How did you find answers? · What do you wish you knew then? · Where did you get the knowledge you were missing? · · What did you learn from this situation? · What would you do differently (what did you learn from this experience)? - Operate Are these typical or unique events among your peers? **Transition** Difference between school and work *Move to social/learning section* ↴

Socialization: Informal Learning and Relationship Building	*For 2-3 social incidents* *For each incident, discuss the learning process and learned outcomes related to cognitive affectual, and social*
Transition to social	Now, I would like to talk about the social/people aspects of your work. Specifically, I'd like to talk about how you learned the [company] way to work with other people, other departments, and how you learn what others expect of you on the job.
NORMS **Cognitive** *knowledge* **Behavior** *skills*	**About a specific incident:** Describe what you expected to occur/ought to occur (previous knowledge, mental model) Actually occurred Describe how you handled the experience. Describe what you learned from that incident. *[specific knowledge, skills, meanings, understandings]* *[Specify cognitions in concrete details: range, specificity, depth, personal context]* Do you think this is a typical/common experience?
Affect *feelings, emotions, moods, motivations*	Describe how you felt about that incident. *[specific feelings, emotions, moods, motivations]* *[Specify feelings, emotion, mood, motivation in concrete details: range, specificity, depth, personal context]*
Social *participation, communication, cooperation*	Describe how you interacted with others before, during, and after the incident. *[Specify participation, communication, and cooperation in concrete details: range, specificity, depth, personal context]*
Social Exchange *supervisor, coworkers* *respect, trust, and obligation*	· Describe your relationship with your supervisor. · Describe your relationship with your coworkers. · *Probe for indications of respect (engagement in decision-making), trust (degree of autonomy and responsibility), and mutual obligations (commitment)*
Understanding of success	What do you think will help you and/or others succeed here? What could [company] do to help new engineers succeed? What do you see yourself doing in 3-5 years?
Closing	Any other comments? Advice? For new hires. For school?

Interview Guide for Supervisors
How do new engineers begin their careers and succeed?

Background Information for Interview Process

Focused Interview • *Maximize range* • *Elicit specific reports* • *Elicit depth—cognitive, affective, evaluative* • *Elicit personal context through prior experiences and personal attributes*	Help interviewee: • Recall past reactions to past events, not present reactions to past events • Link responses to past situation (concrete, not introspection) • Avoid superficial responses • Focus on past situation, not interview
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Developing Expertise	How is technical (vs. social/people) defined? Wow factor Applying eng. knowledge and skills to practice Identifying most valuable knowledge/skills from school Perceptual changes of engineering in practice Patterns of continuing education and development
Socialization	Adjusting to fit: assimilating Learning (content) --tasks, group procedures, supervisor expectations, org culture/values Learning (process) informal --trigger, select strategy, implement, assess Social exchange (LMX, CMX) --actors, resources, exchange structure, exchange process (initiate, transact, reciprocate) --amount of interaction --direct, general, productive (negotiated) --LMX: respect, trust, responsibility, autonomy, mutual obligation --role clarity --perceptions of success, commitment, satisfaction

Interview Guide for Supervisors

Introduction	Introductory remarks 4. State purpose and sponsorship of study 5. Group sampled/interviewed (answer "Why me?") 6. Anonymity of data (show how anonymity will be guarded)
Overview of Study	I am with [school] and am are working with HR at [company]. Our interest has to do with how new engineering graduates make the transition from school to work. Specifically, what helps them work successfully within [company].
Identify roles **Identify incidents** **Expertise** ***Problem solving process*** ***Tasks & procedures*** **Socialization** ***Learning process*** ***Exchange process*** **Behaviors** **Thoughts** **Emotions**	What are your roles as a supervisor related to supervising a new engineer(s)? - *Most important* - *Least important* Think back (over the past year) about a specific incident in which you interacted as a supervisor with a new engineer. What was the [first, second, third] incident or experience you had: Describe the incident: - *Context, antecedents* - *Roles* - *Behavior* - *Consequences* - *Relationship factors* - *Exchange factors* - *Expectations* *Time* When did this incident happen? *Place* Where did this incident take place? *Antecedents* What were the general circumstances leading up to this incident? *Personal Context* What were your circumstances surrounding this incident? *Actors* Who was involved? *Behaviors and interactions* What exactly did the others do? *Behaviors and interactions* What exactly did you do? *Consequences* What was the outcome of this incident? *Motivations* Why did you do this? *Move to learning section* ↴

Expertise: Engineering knowledge, skills, attributes (KSAs) at entry and at present: how changed?	*For 2-3 technical incidents* · *Problem-solving and tasks/procedures* · *Applying knowledge of engineering* · *Management of projects* · *Team work with coworkers, others, supervisor*
	First of all, I want to focus our discussion on your observations about how new engineers apply their technical knowledge to solving problems and doing engineering tasks. · What skills do you look for in a new hire? · What important technical skills do you think new hires often lack? · Any characteristics of new hires in the way they solve problems/ work on projects? · What knowledge and skills did you think should apply to work on the problem? · What questions/concerns do you typically have with new hires? · How do you become comfortable with their abilities? · How do help them learn the details of their job? mentors senior eng. · Do you see any differences between new grads and experienced new hires? What are they? · Anything you would do differently? Are these typical or unique events among your peers? *Move to social/learning section* ↴

Socialization: Learning & Relationship Building	
Role	Describe what you see as your role as a manager/supervisor. Describe how you helped the new hire learn what to know and the proper way to do things. Describe what you have learned over time about managing new people. *[specific knowledge, skills, meanings, understandings]*
Culture	Describe important characteristics of the culture of the company. *[Artifacts, values, assumptions]* What are some of the key values and assumptions of the company?
Norms **Social** *participation, communication, cooperation*	Describe what you expected the new employee to know and do. - *Attitudes, Knowledge, Skills, Behavior* Describe how you interact with those that report to you. *[Specify participation, communication, and cooperation in concrete details: range, specificity, depth, personal context]* How do you foster engagement with new hires? How do you integrate new hires into the company?
Social Exchange *supervisor, coworkers* *respect, trust, and obligation*	• Describe how you develop productive relationships with new employees. • How do you develop trust, autonomy, and commitment with employee? • What are the stages of development for new employees? *[first year; first 5 years]* • • How/what kind of help from others? • Probe for indications of ***respect*** *(engagement in decision-making),* ***trust*** *(degree of autonomy and responsibility), and* ***mutual obligations*** *(commitment)*
Understanding of success **Perceptions of commitment**	• What do you think helps new employees succeed here? • What are the attributes of stars/quick starters? • What can you/[company] do to foster success?
Closing	Any other comments?