

essence ask, "Exactly which KSAOs do I think will be necessary for (will cause) performance on this task or dimension?" Then the analyst should ask, "Why do I think this?" in order to think through the soundness of the inferential logic. Discussions among analysts about these questions are encouraged.

Our discussion of KSAOs will be grounded in information provided by the US Department of Labor's Occupational Information Network, or O\*NET. The development and refinement of the O\*NET database is ongoing, and many new observations from both job incumbents and trained analysts are being added regularly.<sup>11</sup> O\*NET contains extensive research-based taxonomies in several categories: occupational tasks, knowledges, skills, abilities, education and experience/training, work context, organizational context, occupational interests and values, and work styles.<sup>12</sup> Additionally, O\*NET contains ratings of the specific factors within each category for many occupations, and ratings for additional occupations are continually being added. There are statistical techniques that link O\*NET KSAO ratings for a job to specific selection tools, like standardized literacy tests.<sup>13</sup> Use of O\*NET information is a helpful starting point in preparing KSAO statements, but they will probably have to be supplemented with more job-specific statements crafted by the job analyst. Analysts should be particularly wary of using global terms such as "knowledge of accounting principles" and should instead indicate which accounting principles are being utilized and why each is necessary for task performance.

**Knowledge.** Knowledge is a body of information (conceptual, factual, procedural) that can be applied directly to the performance of tasks. It tends to be quite focused or specific in terms of job, organization, or occupation. O\*NET provides definitions of 33 knowledges that might generally be necessary, in varying levels, in occupations. Exhibit 4.5 lists these knowledges. Knowledge is often divided into declarative and procedural categories. Declarative knowledge is factual in nature, whereas procedural knowledge concerns processes. A surgeon, for example, has declarative knowledge of the symptoms of heart disease and can state them, and also has procedural knowledge of the steps one would take to perform open-heart surgery. Both declarative and procedural knowledge should be reflected in job analysis documents.<sup>14</sup>

**Skill.** Skill refers to an observable competence for working with or applying knowledge to perform a particular task or a closely related set of tasks. A skill is not an enduring characteristic of the person; it depends on experience and practice. Skill requirements are directly inferred from observation or knowledge of tasks performed. Returning to our example, skill refers to the actual demonstrated capacity of the surgeon to perform an operation in an efficient and competent manner.

Considerable research has been devoted to identifying particular job-related skills and organizing them into taxonomies. Job analysts should begin the skills inference process by referring to the results of this research.