

Assessing capability levels

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- 1 The following seven capability categories are helpful to measure a person's capability, or assess the ability level that a product demands in order to use it.
- 2 **Vision** is the ability to use the colour and brightness of light to detect objects, discriminate between different surfaces, or the detail on a surface
- 3 **Hearing** is the ability to discriminate specific tones or speech from ambient noise and to tell where the sounds are coming from.
- 4 **Thinking** is the ability to process information, hold attention, store and retrieve memories and select appropriate responses and actions.
- 5 **Communication** is the ability to understand other people, and express oneself to others (this inevitably overlaps with vision, hearing, and thinking).
- 6 **Locomotion** is the ability to move around, bend down, climb steps, and shift the body between standing, sitting and kneeling.
- 7 **Reach & stretch** is the ability to put one or both arms out in front of the body, above the head, or behind the back.
- 8 **Dexterity** is the ability of one or both hands to perform fine finger manipulation, pick up and carry objects, or grasping and squeeze objects.

Sensory capability includes vision and hearing. Cognitive capability includes thinking and communication. Motor capability includes locomotion, reach & stretch and dexterity.

*APPLY TO Teams
Assess better: demand vs. capabilities - (team perspective)*



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A model of product interaction

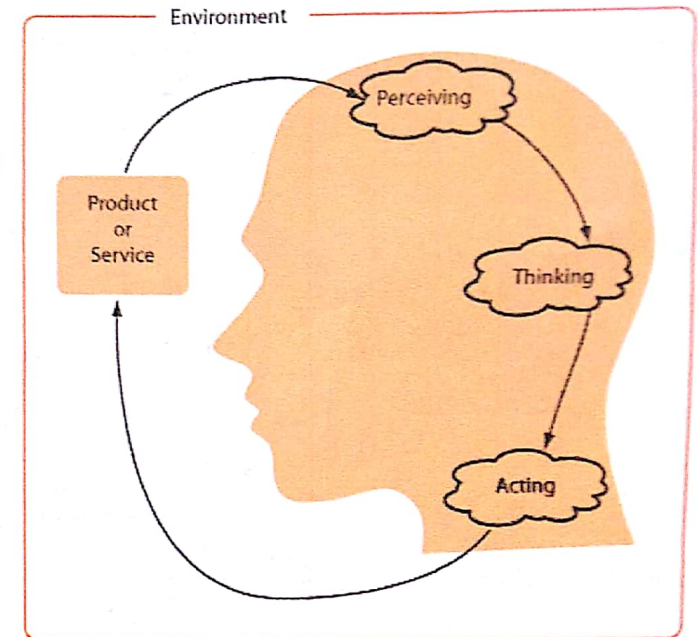
Any interaction with a product or service typically requires a cycle where the user

1.
 - Perceives
 - Thinks
 - Acts

2. Perceiving and acting both require sensory and motor capabilities. In addition, the body's sensory and motor resources are controlled by the brain and therefore require cognitive capability.

4. *step. discuss in teams which apply to this.*
For example, perceiving text on a product can rely on the hands to move and orientate the product for visual examination or the eyes could guide the fingers to press particular buttons. However, for the most part, perceiving requires sensory capability, thinking requires cognitive capability, and acting requires motor capability.

3. The interaction between a product and the user's capabilities is also influenced by the environment in which the product is used. For example, low, or indeed high, ambient light levels can compromise a user's ability to read.



An interaction with a product involves a cycle where the user's capabilities are used to perceive, think and then act