Apprenticing with the customer.

1. The Designer as an Apprentice
   1. Teaching ability is not needed
      1. Master Crafter teaches by doing the work and talking about it
      2. The work itself presents the teaching without any need of going into the background of it
      3. You don’t have to ask the customer his motives or to develop a way to present them, just to observe and explain while they do their work.
   2. Seeing the work reveals what matters
      1. “Nobody can talk better about what they do than while they are doing it.” \*\*\*
      2. The customer is not aware of everything they do, they only become aware of those things as they do them.
   3. Seeing the work reveals details
      1. The details of work come out better while you are doing it, than if you try to talk about them.
      2. Customers have a propensity to generalize their work when they talk about it.
   4. Seeing the work reveals structure
      1. Seeing many ways of doing the work, shows common underlying strategies for getting them done.
      2. This will help designers in building systems with those common strategies.
   5. The apprentice can learn from the master’s experience
      1. Working on a task will initiate talks about past experiences, which will gain more experience for the apprentice.
      2. Designers can learn about events from the past and apply them to their system.
2. Building an apprenticeship
   1. The designer must be responsible for seeing work structure
      1. The customer cannot see all the system at work, so the designer must understand the structure, strategy, constraints, physical environment, division of work, and patterns in the work.
   2. Designers must articulate their understanding
      1. They must share their interpretation with the customer in a way that verifies their understanding of the customer’s needs are correct.
   3. The designer’s job is to improve work
      1. The role of the designer is to improve the work of the customer.
      2. By involving the customer after initial work, the customer can give their input in iterations to make a more correct output.
   4. The designer has a specific focus
      1. The focus determines the scope of the project
3. Apprenticeship in Practice
   1. Falling into other relationship models
      1. A designer must not get stuck in one of three roles, Interviewer, Expert, or Personal friend, or else they will only concentrate on that aspect of the model.
   2. Talking in the abstract
      1. A designer must recognize when the customer is either talking with experiences, or abstractly and pull them from that abstract back to experience.
      2. The designer must ask details of the customer about each process.
   3. Tuning an interpretation
      1. Avoid open ended questions that give customers less guidance about their work which results in less insight about the process.
      2. Be prepared to recognize when the customer is indirectly saying no about their needs.
   4. Adjusting Focus
      1. The designer’s initial focus may be wrong or limited when compared with the customer’s focus and may limit the amount of information.