In the fields of education and operations research, the Dreyfus model of skill acquisition is a model of how students acquire skills through formal instruction and practicing. Brothers Stuart and Hubert Dreyfus proposed the model in 1980 in an influential, 18-page report on their research at the University of California, Berkeley.


In the novice stage, a person follows rules as given, without context, with no sense of responsibility beyond following the rules exactly. Competence develops when the individual develops organizing principles to quickly access the particular rules that are relevant to the specific task at hand; hence, competence is characterized by active decision making in choosing a course of action. Proficiency is shown by individuals who develop intuition to guide their decisions and devise their own rules to formulate plans. The progression is thus from rigid adherence to rules to an intuitive mode of reasoning based on tacit knowledge.
Michael Eraut summarized the five stages of increasing skill as follows:

1. Novice
   - rigid adherence to taught rules or plans
   - no exercise of "discretionary judgment"

2. Advanced beginner
   - limited "situational perception"
   - all aspects of work treated separately with equal importance

3. Competent
   - "coping with crowdedness" (multiple activities, accumulation of information)
   - some perception of actions in relation to goals
   - deliberate planning
   - formulates routines

4. Proficient
   - holistic view of situation
   - prioritizes importance of aspects
   - "perceives deviations from the normal pattern"
   - employs maxims for guidance, with meanings that adapt to the situation at hand

5. Expert
   - transcends reliance on rules, guidelines, and maxims
   - "intuitive grasp of situations based on deep, tacit understanding"
   - has "vision of what is possible"
   - uses "analytical approaches" in new situations or in case of problems

http://www.sld.demon.co.uk/dreyfus.pdf
http://litemind.com/expert-roadmap/