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Tacit knowledge: Key to growth from novice to expert researcher
Janet Bond-Robinson and **Randall E. Robinson**

True knowledge lies in our ability to use it. Those with practical intelligence are characterized by their facile acquisition and use of tacit knowledge (TK). Our ethnographic study, using a framework of situated cognition, examined how novice scientists, i.e., graduate and undergraduate students, acquire the knowledge to become effective scientific researchers over time. At least two ways exist to acquire expertise. (a) One of them is to acquire TK from one's own work and insights over a long period of time. TK of an individual becomes explicit knowledge (EK) if considerable work has been done translating tacit understanding into meaningful explanations, or if an event explodes the presence and use of TK. (b) Another way to gain expertise is to use the social environment of the laboratory to observe and talk to others, thus augmenting acquisition of TK and then gaining of EK, especially if TK directs attention. Examples will be given.