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**Professional Expertise:
A Model for Integration and Change**

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Abstract

The nature of professional expertise has been widely debated in the literature. However it has been examined primarily from a dichotomy of perspectives – either from an experiential or a cognitive focus, without the attempt to integrate these, and other aspects of expertise, into an integrated and coherent model.

This research is structured in two sections. The first part incorporates a philosophical discussion, which advances an integrated model of professional expertise. The second part uses a case study focused on the field of medical imaging to illustrate and refine the model. Ten professionals identified as experts in the various sub-specialties within medical imaging were guided through a sustained period of interviews and logging of critical incidents in order to elicit in-depth data in relation to the *process* of expertise.

Findings showed that while expertise is situated in the context of practice, it incorporates several dimensions working together in an integrated, seamless fashion through the medium of the individual practitioner. The proposed model integrates five main aspects, namely: knowledge base; cognitive processes; internal integrative processes; interpersonal relationships; and professional practice. That is, it is a synthesis of a particular knowledge base, the cognitive processes, personality and internal processes of the practitioner. It manifests through, and builds on, interpersonal relationships with clients and other professionals, and is expressed through the actual *doing* of professional practice. It is through the reflexive examination of practice and management of change that professionals may transform these five integrated aspects into the qualitative state of expertise. One of the implications of these findings for higher education are that institutions providing professional education need to value all the dimensions of expertise and their effective integration in order to promote the learning required to advance professionals towards this level of practice.

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