



## **WORK BASED LEARNING FOR THE DEVELOPMENT OF THE CHEMISTRY PROFESSIONAL**

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Changing employment patterns together with changing competencies and skills requirements and the rise of the so-called ‘knowledge economy’ has driven innovation and development in training and education addressing the need of modern societies to implement continuing life long education.

The Life long learning agenda is clearly articulated in the UNESCO declaration which has a specific reference to Environmental Education for sustainable development. It reflects the need to access learners at ‘non traditional/conventional’ situations taking advantage of learning potential located outside higher education institutions.

Barnett (1999) sets out the context of the modern work place and the worker within it. He describes working life as “supercomplex” with the need to accommodate technological, social, managerial, patterns of consumption at increasingly rapid rates.

Chemical scientists and technologists are at the forefront of these changes and need to embrace a culture of life long professional development. This ethos has long been recognised by the learned societies and chartered institutes in the UK. For example this is recognised by the RSC for chartered scientist status that states twelve professional attributes against which a Candidate's performance is continually judged. As well as understanding of the pure knowledge base the attributes include being part of a community of practice or team, in which people share learning and development in their professional field (see <http://www.rsc.org/Education/Qualifications/AttributesCChem.asp>).

The Work based learning framework (as developed at Middlesex University) provides the opportunity to integrate and utilise these principles to accommodate work place projects in real world scenarios. A project based framework, incorporated into a rigorous academic framework, can



enable learners to achieve professional qualification at different levels ranging from first degrees to doctorate level.

This paper describes and critically analyses the experience at Middlesex University in developing a viable work-based framework for professions. The paper will also consider the relationship between the needs of the profession and the educational pathways that can be utilise to achieve a culture of continuous professional development. Key themes will also include the role of mentoring by a co-professional to support ongoing professional practice and consideration of the practicalities of building mutual support through learning projects.