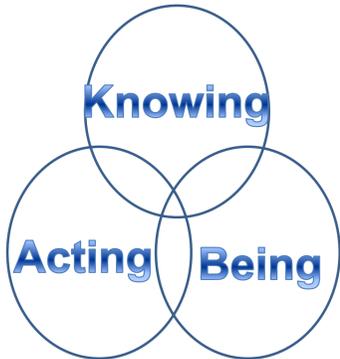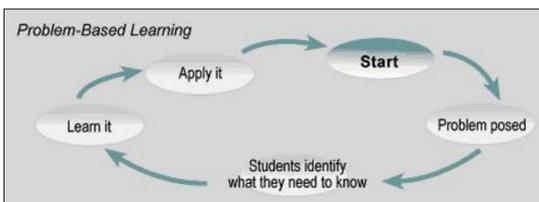# Activity Led Learning: A Contemporary Faculty-Wide Approach to Engaging Engineering & Computing Undergraduates in Active Learning and Research

Sarah Wilson-Medhurst, Principal Lecturer in Learning & Teaching, Coventry University

Related learning theories

Barnett & Coate: 3 domains of curricula

Barrows and Tamblyn: Problem-based learning

Definitions and principles

"Activity Led Learning requires a self-directed process in which the individual learner, or team of learners, seek and apply, knowledge, skilful practices, resources (personal and physical) relevant to the activity being undertaken." (based on definition in Wilson-Medhurst et al, 2008).

Examples of activities: a research question, problem, case-study, project, portfolio building, scenario, enquiry and many others.

Tutor's role shifts from transmitter of knowledge to facilitator and co-learner.

Integrative learning

Included in *all* undergraduate programmes in Engineering, Computing and Mathematics starting from 2009/10 onwards. Ultimately over 3000 students.

Related learning principles and theories

"Learning takes place through the active behaviour of the student: it is what *[s]he* does that [s]/he learns, not what the teacher does" (Tyler, 1949)
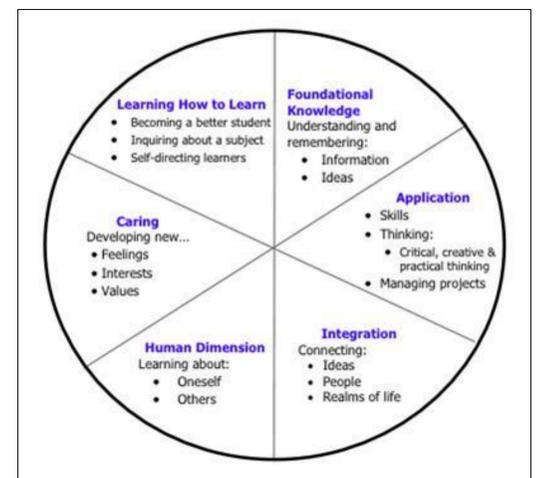
Fink: Significant Learning Experiences

Social learning spaces

sigma's learning space (see Solomon et al, 2010) for mathematics students

Activity Led Learning

Engaging students through challenges requiring them to develop and apply their technical and scientific knowledge, whilst simultaneously developing their team working, leadership, problem solving and life-long learning skills

Activity Led Learning in practice

See (Wilson-Medhurst, 2008)

Learning Spaces for ALL

What do staff want for themselves and their students?

Feedback from Faculty away-day (July 2008):
• Flexibility, i.e. space which can be reconfigured
• Visibility, e.g. of support, facilities
• Personalisation, e.g. for feeling of ownership
• Accessibility to meet different individual and group needs
• Spaces to celebrate achievement
• Safe learning spaces, e.g. can learn from mistakes
• Good equipment

Other key aspects of Activity Led Learning

• **Communities of Learners** (Wenger, 1998) – An environment for learning comprising students, staff and others where all members contribute to their own learning and the learning of others
• **Employer and profession focused education** – A close partnership between the Faculty, employers and professional bodies to develop appropriate curricula and learning environments through inputs from practising professionals, student placements, sponsorship, part-time study, projects, case studies and visits and ultimately leading to opportunities for employment and knowledge exchange
• **New Learning (building) facilities** – by mid 2012 new and enhanced building (learning) facilities planned and designed specifically with the Activity Led Learning pedagogy in mind

Architect's impression of new faculty building, © Arup Associates.

References

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