CPD Standards for Chartered Scientists

Definitions and examples of learning activities

Registrants' CPD should be a mixture of learning activities relevant to current or future practice and should include activities in at least three (exceptionally two) of the following categories:

1. **Work based learning**
2. **Professional activity**
3. **Formal / Educational**
4. **Self-directed learning**
5. **Other**

Descriptions of the different categories and examples of activities can be found below.

Work based learning

Work based learning is professional development that takes place by fulfilling the current job role. Such development naturally takes place as experience is gained in the role, greater independence and responsibility is given, and the complexity and scope of work undertaken increases.

Work based learning also includes in-house learning activities and development opportunities that are provided by the employer as part of staff orientation and development in support of organisational performance and objectives.

Work based learning – examples:

- Experiential learning: Learning by doing the job – gaining, and learning from, experience – expanding role.
- In-service training – includes orientation programs, standard operating procedures and employee development.
- Receiving coaching from others.
- Work shadowing.
- Peer review of own work, including presentations to colleagues.
- Review of case studies and literature
- Participating in journal club.
- Discussions with colleagues – idea generation, problem solving, etc.
- Presentations to external clients, regulators, policy makers.
- Supervising colleagues or students.
- Job rotation, secondments, sabbaticals.
- Involvement in the wider work of employer – beyond scope of role.
- Post-mortem and lessons learnt activities following significant projects, events.
- Requesting and analysing feedback on performance from colleagues, clients.
- Participating in the employer's performance appraisal and goal setting process.

Professional activity

Professional activities that support professional development include participating in the management and organisation of a professional body; and also participating in activities that develop the professional skills and knowledge of other professionals, and participating in activities that apply scientific expertise in the wider community.

Professional activity – examples:

- Involvement in the management of a professional body – officer, organiser, committee member, working group member.
- Organiser of a conference, scientific meeting or course.
- Being an examiner.
- Being a referee for a journal.
- Supervisor of research.
- Membership of a technical expert group – e.g. special interest group, section or study group.
- Being an expert witness.
- Lecturing or teaching (new material).
- Giving presentations or being a discussant at conferences or scientific meetings.
- Networking with professionals in other organisations.
- Coaching or mentoring.

Formal / educational

Formal/educational professional development includes the participation in activities that lead to gaining academic/professional qualifications and the attendance at structured learning activities organised by professional bodies, learned societies or training providers; and also the preparation of papers, articles or presentations for a professional audience.

Formal / educational – examples:

- Undertaking a program of learning or research for an academic qualification.
- Attending training courses.
- Attending conferences or scientific meetings.
- Undertaking distance learning or e-learning activities.
- Reading to understand the legal, regulatory framework for professional work.
- Maintaining or developing specialist skills.
- Writing articles or papers.
- Preparing presentations for conferences or scientific meetings.
- Preparing material for training courses.

Self-directed learning

Self-directed learning takes place when the individual takes the initiative in diagnosing learning needs, formulating learning goals, designing learning experiences, identifying and using human and material resources and evaluating learning outcomes.

Self-directed learning – examples:

- Reading books, journals and articles.
- Reviewing and summarising books and articles.
- Upgrading knowledge through internet searches and the use of electronic information sources.
- Reflective practice – assessing benefit of CPD activities to self, client or employer – identifying next steps.

Other

Activities which may not require scientific expertise, but which help develop transferable skills and gain experiences that are valuable in the current professional role or in future career directions. These would include involvement in strategic activities for the employer; and activities carried out outside of professional life.

Other – examples:

- Strategic thinking (e.g. projects for employers such as organisational restructuring, strategic planning and resourcing, external/community relations, facility development).
- Leadership skills (e.g. managing a children's sports team, leader of a scouting/guides activity, Chair person for a club or society).
- Organisation and planning skills (Secretary for a club or society, school governor, Parent Teacher Association organiser, church parish councillor).
- Finance skills (e.g. treasurer for a club or society).
- Coaching and counselling skills (e.g. Sports coach, Samaritans volunteer, Mentoring, Tutoring).

The lists of example activities should not be considered exhaustive but are intended to give an indication of the range of activities that may constitute CPD. For further guidance please refer to the CSci website www.charteredscientist.org or contact your Licensed Body.