

IOP | CPD

CPD at the IOP

Enhancing your career through CPD



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Overview

The Institute of Physics (IOP) is the home for physicists and, as a professional body and learned society, we champion excellence and promote the professional development of our members. We do this by offering a variety of CPD activities and the opportunity to become professionally registered. We award our own professional registration, Chartered Physicist (CPhys) and, to reflect the diverse roles of our members, we are licensed by the Engineering Council and the Science Council to award several of their professional registrations.

Expectations

As a member of the IOP, you are obliged to take responsibility for the maintenance and enhancement of your knowledge and skills as stipulated in the IOP Code of Conduct.

iop.org/about-code-conduct

If you hold a professional registration, i.e. **RSciTech, RSci, EngTech, IEng, CSci, CEng** and/or **CPhys**, it is mandatory for you to undertake CPD and provide evidence when requested. If you do not, you could lose your professional registration. Included in this guide is information about the CPD monitoring process and the assessment criteria that will be used for reviewing submitted records.

This CPD guidance document explains:

- What CPD is
- How to plan, carry out, and evaluate your CPD
- The importance of reflective practice
- CPD requirements for maintaining your professional registration
- The CPD monitoring process.

This guide is not designed to outline what CPD is right for you, so you will need to judge how best to apply the information provided to your own circumstances; examples can be found on page 5. However, we recommend you follow this approach regardless of your area of practice or professional activity.

Professional development is championed by the IOP. We are committed to providing comprehensive guidance, appropriate resources and activities that best support you in undertaking your CPD requirements.

CPD enables you to identify gaps in your skills and undertake activities to:

- continually improve your professional competence;
- develop or maintain expertise in your field;
- identify opportunities to develop your career;
- maintain your professional registration;
- help you maintain your resilience, credibility and confidence, and gain a new perspective.



What is CPD?

Continuing professional development (CPD) is a combination of approaches, ideas and techniques that will help you manage your learning and growth.

This could mean maintaining current skills, developing them to a new level, or learning new ones that will allow your job role to expand, prepare you for a potential promotion, or enable you to volunteer in a professional capacity.

Essentially, it is the learning and development undertaken by professionals. For the IOP, professionals are those who are using their physics knowledge and applying it in work or a voluntary capacity. Our approach is flexible with respect to how the knowledge is applied, and examples of application can stem from formal employment, voluntary activities or outreach programmes.

The IOP places emphasis on the outcome of an activity rather than the length of time engaged in it. This is an ongoing process where learning outcomes and, where relevant, their application should be recorded and reflected upon for each piece of CPD undertaken.

What should I include?

- The IOP is not prescriptive as to what your CPD activities might be, as the learning categories you use will depend on your own circumstances and preferences.
- There is an expectation that a number of learning categories are present in the different activities you undertake. The possible learning categories are as follows: professional activity; self-directed learning; formal/educational; work-based learning; and informal learning.

CPD shopping list

Professional activity:

- consulting on projects
- mentoring
- contributing at conferences
- engaging with a professional body

Self-directed learning:

- reading
- online learning
- podcasts
- research

Work-based learning:

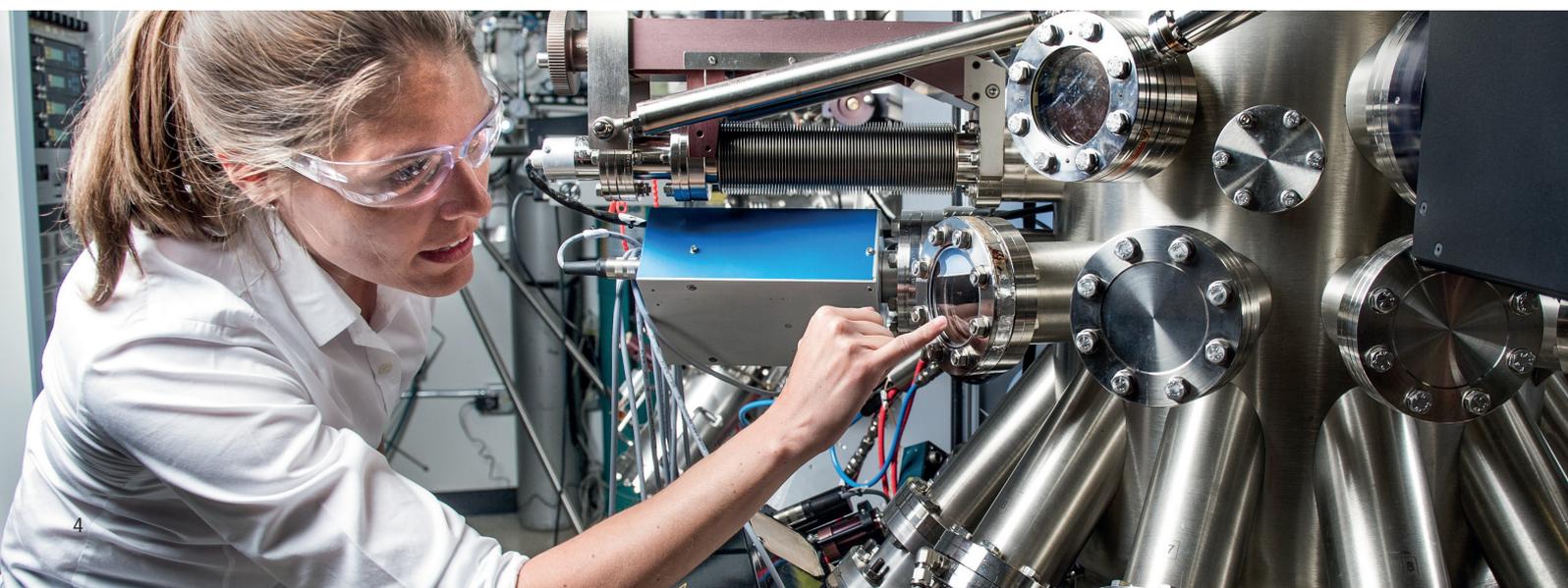
- on the job training
- mentoring/coaching
- peer review of own work
- job rotation

Formal/educational:

- training courses
- conferences
- seminars

Informal learning:

- networking
- volunteering outside of work
- informal conversations
- sharing information or exchanging ideas



Learning categories explained

Professional activity

Activities that support professional development can include participating, engaging and volunteering with the IOP or another professional body. It can also include participating in activities that develop the professional skills and knowledge of other professionals, and in activities that allow you to apply your expertise in the wider physics community.

Here are some examples of professional activities:

- Engaging with the IOP or another professional body in roles such as a committee officer, committee member, working group member and volunteer;
- Organiser of a conference, meeting or course;
- Being an examiner;
- Assessing applications for registration or fellowship (either at the IOP or another professional body);
- 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 contributor at conferences or meetings;
- Networking with professionals in other organisations;
- Coaching or mentoring;
- Outreach/STEM activities.

Self-directed learning

Self-directed learning takes place when an individual takes the initiative in diagnosing their learning needs, formulating learning goals, designing learning experiences, identifying and using a variety of resources.

Here are some examples of self-directed learning CPD activities:

- Reading books, journals and articles;
- Reviewing and summarising books and articles;
- Enhancing knowledge through online learning;
- Listening to podcasts or TED Talks.

Formal/educational

Formal/educational professional development includes the participation in activities that lead to gaining academic/professional qualifications. It also includes attendance at structured learning activities organised by professional bodies, learned societies or training providers.

The preparation of papers, articles or presentations for a professional audience can also be used.

Here are some examples of formal/educational CPD activities:

- Undertaking a programme of learning or research for a recognised qualification;
- Attending training courses;
- Attending conferences or 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.

Work-based learning

Work-based learning is professional development that takes place by fulfilling your current 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.

Here are some examples of work-based learning:

- Experiential learning – gaining and learning from experience;
- In-service training – includes orientation programmes, 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 a journal club;
- Discussions with colleagues – idea generation, problem solving etc.;
- Presentations to external clients, regulators, policy makers etc.;
- Supervising colleagues or students;

- Job rotation, secondments or sabbaticals;
- Involvement in the wider work of an employer, i.e. beyond scope of role;
- Reflective and lessons-learned activities following significant projects, events etc.;
- Requesting and analysing feedback on performance from colleagues, clients etc.;
- Participating in an employer's performance appraisal and goal setting process.

Informal learning

This involves activities which may not require expertise. However, it helps you to develop transferable skills and gain experiences. These are valuable in the maintenance of our professional competences.

Here are some examples of informal learning CPD activities:

- 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, chairperson for a club or society;
- Organisation and planning skills, e.g. secretary for a club or society, school governor, Parent Teacher Association (PTA) organiser and councillor;
- Finance skills, e.g. treasurer for a club or society;
- Coaching and counselling skills, e.g. sports coach, Samaritans volunteer, mentoring, tutoring.

These activities should not be considered exhaustive but are intended to give an indication of the range of activities that may constitute CPD. If you are unsure which category your CPD activity falls into, please send your enquiry to registration@iop.org

Learning category requirements for fulfilling your membership obligations and mandatory CPD requirements:

- If you are in **full-time employment**, you must demonstrate CPD activities across at least three of the learning categories.
- If you are in **part-time employment**, you must demonstrate CPD activities across at least two of the learning categories.
- If you are **retired**, you must demonstrate a minimum of one of the learning categories.

Guidance on competencies

CPD can also be analysed across different subject areas, or competencies. The broad areas recognised and required for professional registration are technical, application, communication, leadership and ethics. It would be expected that CPD would cover all of the subject areas over time. For more information about competencies for professional registration visit

membership.iop.org/professional-registration

If you are currently **on a break** from practice, we understand you may not be able to undertake CPD activities. A break in practice can include maternity/paternity/adoption leave, ill-health, a sabbatical or a career break such as changing sector or taking time out of work to care for a dependant. However, we will consider circumstances that may fall outside of the above on a case-by-case basis. For more information, contact registration@iop.org

We have developed a range of resources and activities to support you in maintaining your CPD. You can access the resources through the Career Development Hub

membership.iop.org/career-development-hub-0

and/or by contributing to IOP branches and the work of our special interest groups. You can also play a part in our professional standard processes (e.g. registration, fellowship, accreditation) by becoming a panel member.

A record should be kept of the activity undertaken, its purpose, what was gained, and your reflection on the benefits and next steps. The record should always be relevant to you. If you have multiple roles, specialisations or areas of interest this should be reflected in your records and the examples provided.

If you are in employment you should not include activities that are a routine aspect of your job. You will need to demonstrate how you have developed these skills and applied the learning to a different situation in order for this to count as CPD. For example, an academic supervising a PhD student may be required to develop understanding in a process or area that is relevant to the student, but not one previously covered by the academic that results in learning. The important thing to consider is that the activity needs to result in an appropriate form of learning. Your CPD record is a tool by which you highlight the range of knowledge and skills you have acquired. If you keep a detailed CPD record that spans a number of years and which references different learning objectives and activities (that may be highly specific to your role or personal development), you then have the option to edit and provide a more abridged version of your record should you need to submit this for professional or regulatory purposes.

Recommended approach for undertaking CPD

There are different ways in which you can approach the planning of your CPD that meets your objectives and is suitable for your learning preferences.

Here is a four-step process you may wish to follow when undertaking your CPD:

1. Plan – consider your professional role and set your benchmark

You should take responsibility for identifying your own CPD needs and plan how they could be addressed. Development areas can cover both knowledge and skills. An action plan can be a useful aid to help you create a timeframe for when you want to achieve your learning goals. An action plan is easy to review at regular intervals and helps you track your progress against your goals. At this stage, it is important to consider the range of activities that can be undertaken to achieve your objectives.

2. Act – address your learning and development needs

The CPD activities you choose should contribute to the type of the work that you do, whether this comprises formal employment, outreach activities, consulting or any task that allows you to use your knowledge. Your CPD activities should also cover different learning categories and vary in terms of learning methods.

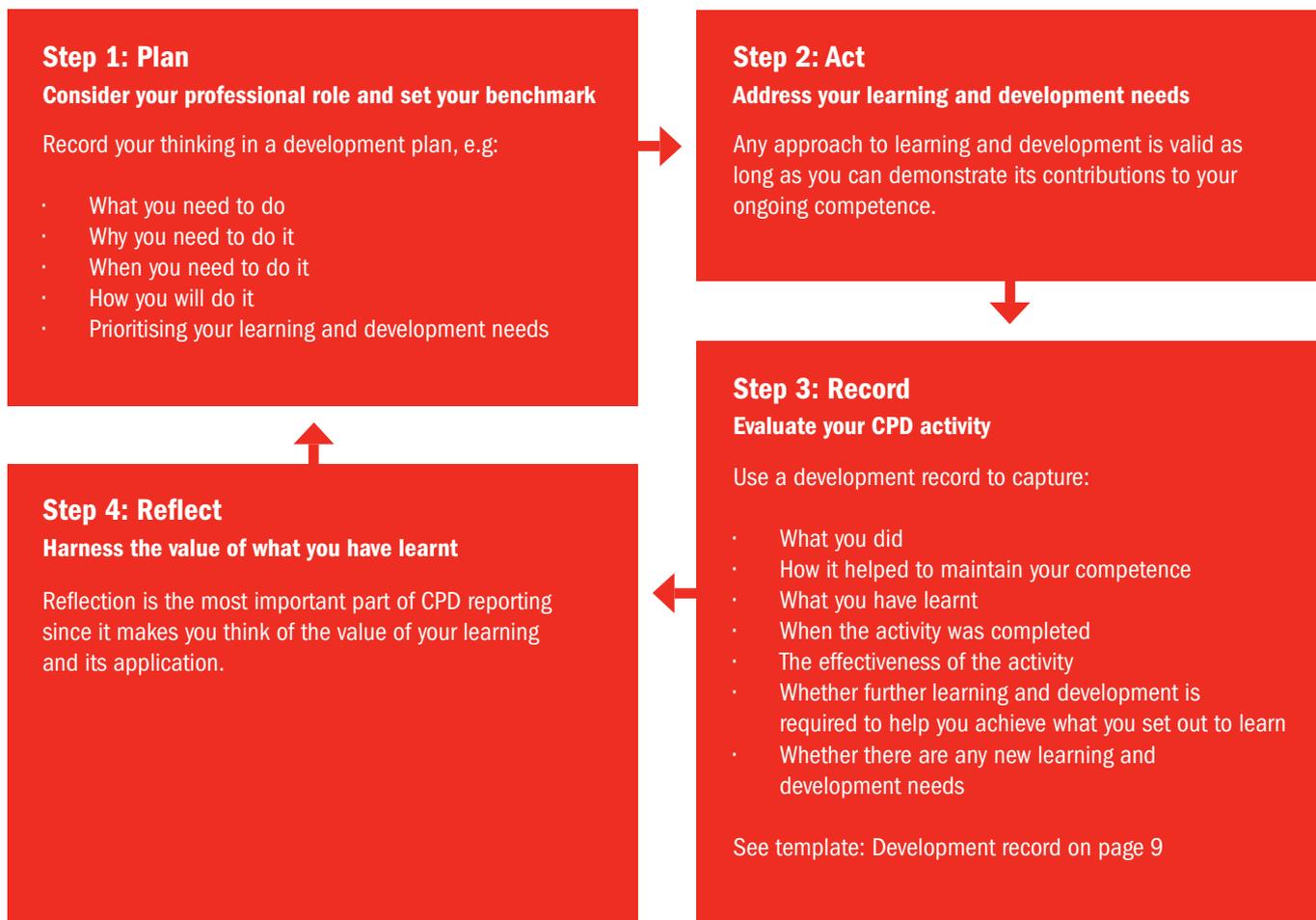
3. Record – document your CPD activity

Documenting and reviewing your CPD plan on a regular basis is essential as it can help you identify areas of improvement, as well as highlight achievements. Make sure to set time aside to focus on updating your record.

4. Reflect – evaluate what you have learnt

Reflecting on the learning activity and its outcomes maximises learning. It is important that the record includes what has been gained by the activity undertaken. It may be the maintenance of a competence, gaining a new skill or increased knowledge in a particular area. Members should also, where possible, comment on the application of the learning obtained and its impact (or expected impact) on performance and practice. By considering this, you can assess the added value that has occurred as a result of the learning activities.

Plan, Act, Record, Reflect (PARR)



By taking the above steps, you will always have an updated CPD record that can be kept and referred to for personal and professional reasons. For example, keeping a personal record for development and accountability if required for employment appraisals, as a requirement for regulators or as part of the CPD monitoring process for members who hold one or more professional registration.

What should it look like?

You are responsible for maintaining your CPD record. All members have access to the My CPD recording tool through the IOP website, which allows you to build your CPD record. You can add details of the activities, as well as relevant files and references. The tool has been designed to allow you to reflect on the CPD activities you have undertaken. You will also have the option to export the record for your personal use, for your employer or to provide to another authority such as another professional body. You are also free to use your own format to record your CPD. Even a simple spreadsheet with activities presented in a chronological order will suffice.

Regardless of the format you wish to use to present your records, the following must be included for each activity:

- Date
- Title of CPD activity
- The learning category
- Why did you choose this activity?
- What were the outcomes?
- Who benefits from you carrying out this CPD activity, and how?
- What are your next steps?

An example of how you might record a learning activity for CPD is included below. This is not designed to be a perfect example of reflection but aims to give you an idea of the minimum standard expected.

Learning category: Professional activity

Why did you choose this activity?

I would like to act as a mentor to physicists who wish to obtain professional registration. As a Chartered Physicist, I'm keen to support others on their journey to becoming professionally registered.

What were the outcomes?

I learnt about:

- The role of a mentor;
- The different types of mentoring (traditional, distance, group);
- The main stages of mentoring (preparation, negotiating, enabling growth and closure);
- The key qualities of a successful mentor (ability and willingness to listen, preparedness, approachability, honesty with diplomacy, inquisitiveness, objectivity and fairness, and compassion and genuineness).

Who benefits from you carrying out this CPD activity, and how?

In the short term I have benefited because I have a clear understanding of the role, requirements, skills and qualities that make for a successful mentoring relationship. However, in the long term, mentees and peers will also benefit from my knowledge and skills because I will become a mentor and an advocate for mentoring.

What are your next steps?

I will investigate if my organisation has a formal mentoring scheme for staff working towards professional registration. If they do, I will volunteer to become a mentor. I will also read around mentoring and refamiliarise myself with the competencies for obtaining professional registration.

If you already record your CPD on another web-based platform or use an alternative template, you may continue to do so. We will not expect you to duplicate your work. Whichever way you choose to record your CPD, we recommend that, as a minimum, the information covered in the examples above is included in the record you keep.

Reflective practice – CPD record

Reflective practice is a way of learning from your experiences. It is an active process of considering your thoughts and actions and is particularly useful for capturing learning from informal activities. The process of reflection is more than just a tick box exercise. It provides a meaningful way of looking at activities and identifying progress, and turns your learning into CPD. Through this process you recognise the purpose of each activity, the appropriate application of knowledge and skills gained, and the related outcomes. It allows you to modify attitudes and behaviour, and then formulate new learning objectives whilst considering the impact on yourself and others. For example, in the case of a training course, you would need not only to say that you have been on the course, you would also need to describe the benefits gained from it, and how you have, or will be, applying those benefits.

In recognition of this, and in order to ensure that individuals understand the outcomes of their CPD, we ask that members provide evidence of reflection for each learning activity in order for it to count towards their CPD.

We also recognise that learning can be prompted by your practice. In the case of a less formal learning experience, such as that gained while undertaking new work or solving a problem, you might think in terms of the lessons learned. Another way to look at it is to ask yourself 'what?' (was the activity), 'so what?' (did you learn) and 'now what?' (are you going to do with that learning). In all cases you might consider the benefits to other stakeholders in your work and activities (e.g. your clients, employer, students, the general public).

There are situations where you have completed a learning activity and have found there has been no benefit to you and your role. Being aware of this and commenting on why you have not applied something from an activity to your practice is valid. If there weren't any benefits, that's fine to say so. It's a learning point in itself!

By recording your CPD in this way and taking a reflective approach, you will also be prompted to comment on future CPD plans and activities. You may wish to address a new learning need or have identified a different area of study or interest. Be sure to include this in your record as it will act as a reminder to plan for future CPD activities.

There are several different models of reflective practice that you can use to help shape your CPD record. Below is one approach you can adopt.

With each learning activity undertaken consider the following:

What:

- is the situation?
- was I trying to achieve?
- did others do?
- did I do?
- did I feel?
- was good or bad about the experience?

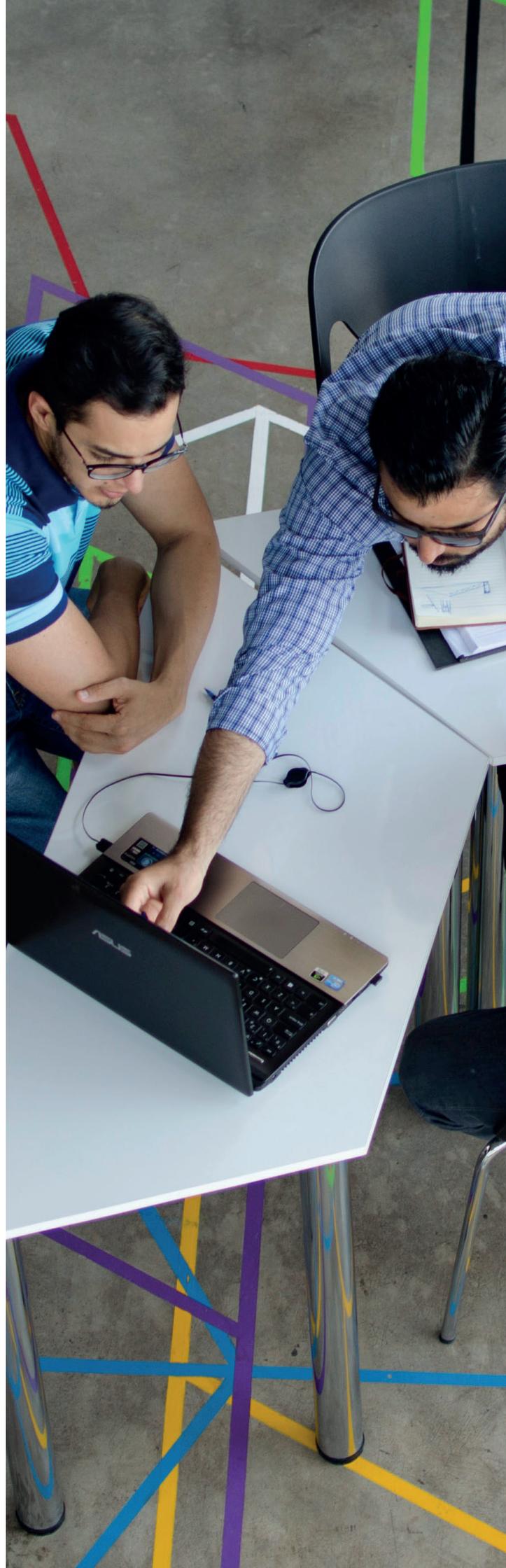
So, what:

- do I know about this?
- is the importance of this?
- have I learnt about this?
- more do I need to know about this?

Now what:

- should I do next?
- will I do differently next time?
- might be the consequences of this action?

It is essential to factor in time to reflect. After completing the activity, always give yourself the space to collect your thoughts, review the learning and consider what happens next. Immediately or soon after completing the activity is preferable as the details are fresh. Make a note of any ideas, feelings and observations from the activity completed. You can always come back and continue your reflection after attempts at application, so you can identify the impact. This process is one that should be ongoing and, while there are also benefits of undertaking an overall reflection of all learning activities within a particular timeframe, please ensure this is not the only time you have engaged in reflection.



Members with professional registration

The following section is geared towards members who hold one or more of our professional registers. While all members are welcome to review this section and apply the information to their CPD record, this section will focus on the IOP's formal review processes and expectations.

Outlined below is the monitoring process and assessment criteria for the full range of professional registrations offered by the IOP.

Overview of CPD Monitoring Process

- Registrants are contacted via email and asked to submit their CPD record.
- CPD record to be submitted with an up-to-date CV by the deadline stated in the email. This can be done via email or through the online portal.
- CPD submissions received will be assessed.
- Feedback is provided to all those submitting a CPD return.
- If your submission is acceptable, no further action is needed and registrants should continue to complete their CPD record as before.
- Submissions deemed below an acceptable standard are returned with advice on improvements. The registrant may be required to resubmit.
- Those who fail to provide a submission, or are asked to resubmit, are provided a second opportunity to do so.
- Failure to provide an acceptable return may result in removal of registration status. The Science Council and/or the Engineering Council will be informed of decisions to remove their registrations, respectively, due to non-compliance with CPD.

Assessment criteria for all professional registrations

All submitted CPD returns will be reviewed by a panel comprising trained registrants who hold the same professional registration as those submitting records.

All registrants must ensure their returns meet the following:

Relevance

Learning activities completed are relevant to registrant's current practice or future development objectives.

Learning category

A range of CPD activities that cover different learning categories should be completed.

Reflection

A registrant must reflect on the learning activity including how the activity will be applied in the future and its likely impact.

In order to fulfil the requirements, the following number of learning categories are expected to be met across the CPD activities undertaken for registrants in different professional situations:

Full-time employment	3
Part-time employment	2
Retired	1

NB: Members selected for CPD monitoring whilst on a break in practice can request an exemption and will not be required to submit a return.

A break in practice can include maternity/paternity/adoption leave, ill-health, a sabbatical or a career break, such as changing sector or taking time out of work to care for a dependant. However, we will consider circumstances that may fall outside of the above on a case-by-case basis.

When you return to work or consider yourself to be professionally active again, you will need to let us know so we can update your record. You will then have one year to build up your CPD, following which you will be asked to submit a CPD record. A career break or a break from practice can be up to three years, after which you will be asked to submit a CPD record. Three years is currently the standard period of time stipulated by several professional and regulatory bodies.

Further advice

If you would like further advice or support in maintaining your record or submitting a return for monitoring purposes, please contact the team at registration@iop.org. If you would prefer to talk to someone please ring 020 7470 4800 and ask to speak to one of our registration officers.

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