

# Evaluation of the Continuing Professional Development scheme of the Institute of Biomedical Science

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## Introduction

Continuing professional development (CPD) is learning designed to update and enhance a professional's knowledge and expertise after the completion of basic training. For healthcare professionals, the aims of CPD are to keep them up to date, in order to give the best care to patients, a good service to employers and to facilitate personal development.<sup>1,2</sup> In the UK, it is an important aspect of the government's plans for quality and accountability within the National Health Service (NHS).<sup>2</sup>

Each professional group has its own CPD scheme, organised through their respective professional bodies, although the differences appear to be in administrative detail rather than in their aims and objectives. Thus, meetings and courses relevant to more than one group can be credited for each (e.g., The Royal College of Pathologists and Institute of Biomedical Science [IBMS]) and it is possible to claim credits for participating in activities organised within different schemes.

The IBMS scheme started in 1992 and participation is currently voluntary. Research into adults as learners suggests that they respond well to the opportunity to plan and evaluate their individual learning programme.<sup>3,4</sup> The existence of IBMS local discussion groups and the high level of attendance at Triennial Conferences, prior to the introduction of formalised CPD, suggest that many Institute members are self-motivated to develop as scientists and professionals.

However, there is a tension between the professional development needs identified by the individual for themselves and the requirements of the employer.<sup>5</sup> This issue is important when staff are negotiating study leave and financial support for CPD activities in a situation where time and money are finite.

In a survey of schemes around the world, Peck *et al.*<sup>1</sup> compared examples for the medical profession in Europe, North America and Australasia and identified some common

## ABSTRACT

As part of a review of the Continuing Professional Development (CPD) scheme of the Institute of Biomedical Science (IBMS), 10 years after it started, a survey was conducted. A questionnaire was distributed to all Institute members in July 2002. By the end of September, replies had been received from 777 biomedical scientists, representing a range of ages, grades and disciplines, and working for a variety of employers throughout the UK and overseas. The majority of respondents ( $n=687$ ) were current participants in the IBMS CPD scheme, but 74 replies were received from members who had not previously taken part. Half the respondents who were both scheme participants and Associate members of the IBMS and one-third of participating Fellows had yet to claim a diploma. The results showed that the IBMS CPD scheme was well respected among biomedical scientists, but many reported some difficulties in obtaining study leave and financial support to attend credited activities. Although respondents felt that an individual's own time should not be spent on CPD, activities that are performed when off duty (e.g., journal-based learning) are popular, especially among staff in younger age groups and among junior biomedical scientist grades. Respondents suggested that the scheme could be improved by provision of more resources at departmental level to allow regular participation for individual biomedical scientists. They also recommended inclusion of competency testing within CPD and a simplified diploma system. The IBMS scheme has been well received and has the potential to evolve into a good scheme to serve the profession's needs into the 21st century.

**KEY WORDS:** Biomedical technology.  
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Laboratory personnel. Portfolio.

features of CPD. Credits are usually awarded according to the time spent on a given activity and activities fall into the three broad categories of 'external' (attendance at meetings, courses and giving presentations), 'internal' (practical training, journal clubs, teaching) and the use of printed or electronic materials with assessment. All of these aspects are found in the Institute's CPD programme, which has grown into a robust and well-respected scheme.

Another typical feature of professional development schemes is the use of a portfolio, in which participants are advised to compile their evidence of CPD.<sup>6</sup> Schemes for clinicians and nurses in the UK are already linked to the legal requirement for re-registration,<sup>3,6</sup> and a similar

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**Table 1.** Distribution of respondents by IBMS membership grade, age group and employment grade.

Employment grade	Age group												Total
	<25		25-34		35-44		45-54		55-60		>60		
	S	A	A	F	A	F	A	F	A	F	A	F	
Trainee BMS	2	1	3	–	2	–	1	–	–	–	–	–	9
BMS1	1	7	31	15	30	22	24	16	3	4	–	–	153
BMS 2	–	–	16	35	16	89	17	79	1	5	–	1	259
BMS 3	–	–	–	5	3	58	4	88	2	17	–	1	178
BMS 4	–	–	–	1	1	20	–	43	1	17	–	4	87
Retired	–	–	–	–	–	–	1	1	–	3	1	3	9
Locum	–	–	–	–	–	2	–	1	–	–	–	1	4
Clinical scientist	–	–	–	–	–	–	–	3	–	–	–	–	3
Principal clinical scientist	–	–	–	–	–	–	1	2	–	1	–	–	4
Research scientist	–	1	2	1	–	3	–	–	1	1	–	–	9
Non-NHS manager	–	–	–	–	1	2	–	4	–	3	–	–	10
Lecturer	–	–	–	–	–	–	–	2	–	–	–	–	2
Forensic scientist	–	–	–	–	1	–	–	–	–	–	–	–	1
Total	3	9	52	57	54	196	48	239	8	51	1	10	728

39 did not state membership grade, eight did not state age group and 14 did not state employment grade.

arrangement will be in place for professions – including biomedical science – regulated by the Health Professions Council (HPC) in the UK in the near future ([www.hpc-uk.org](http://www.hpc-uk.org)). The IBMS system has the additional feature of following a structure (until September 2003 it was a minimum recommendation of four credits per year, three of which should be in the Educational category), leading to a diploma (25 credits).

This study aims to canvas IBMS membership opinion of the CPD scheme. After 10 years in operation, it was felt that there would be clearly identifiable strengths and weaknesses, and clear opinions about how the scheme should develop. Information about members' perceptions and needs were important to inform decision-making about the future of the scheme, which is also driven by external requirements for CPD by the HPC ([www.hpc-uk.org](http://www.hpc-uk.org))

## Materials and methods

A questionnaire was developed from anecdotal information provided by IBMS members and a pilot study involving 57 CPD volunteers. The final version of the questionnaire was designed to collect qualitative and quantitative data on IBMS members' attitudes towards the CPD scheme.

Qualitative data was obtained through a series of 43 statements, covering a range of CPD issues, arranged into four sections: (A) Basics of the CPD scheme; (B) General details of the scheme; (C) Accredited activities; and (D) CPD and the Health Professions Council. Respondents were asked to indicate their response to each statement on a scale of 1 (strongly agree) to 5 (strongly disagree). Therefore, a score of 1 or 2 would indicate agreement with the statement.

The questionnaire also contained space for 'free response' comments, under four headings: 'Strengths of CPD'; 'Weaknesses of CPD'; 'How would you like to see the CPD scheme develop?'; and 'Any other comments on CPD?'

Questionnaires were distributed to all IBMS members with the July 2002 issue of *The Biomedical Scientist*. The questionnaire was designed to fold into three and become a Freepost letter. Reminders to return a completed questionnaire, published in the July and August issues of the *The Biomedical Scientist* and posted on the IBMS website, were supplemented by a mail shot to local CPD officers, requesting support in encouraging their branch membership to participate.

## Results

By the end of September 2002, usable replies had been received from 777 members. The data was analysed using the Statistical Package for Social Sciences (SPSS).

### Demographic data

Table 1 shows the ages, grades and patterns of respondents. The majority of replies (72%) were received from IBMS Fellows, the most frequently cited grade being biomedical scientist grade 2. Twenty-eight per cent of respondents did not state their gender. Among those who did, 47% were male and 53% were female, which was not significantly different to that of the total membership of the Institute ( $P > 0.01$ ).

Distribution of survey participants by employer is given in Figure 1 and shows that 83% worked in the NHS. A wide range of disciplines was represented, with approximately even numbers from members in each of the main specialties. Figure 2 shows that replies were received from all IBMS regions, plus nine from overseas.

Six hundred and eighty-seven respondents stated that they were currently in the Institute's CPD scheme, a further five stated that they had previously taken part in the scheme, and 25 participated in another scheme. However, 74 questionnaires were received from members who had never attempted CPD.

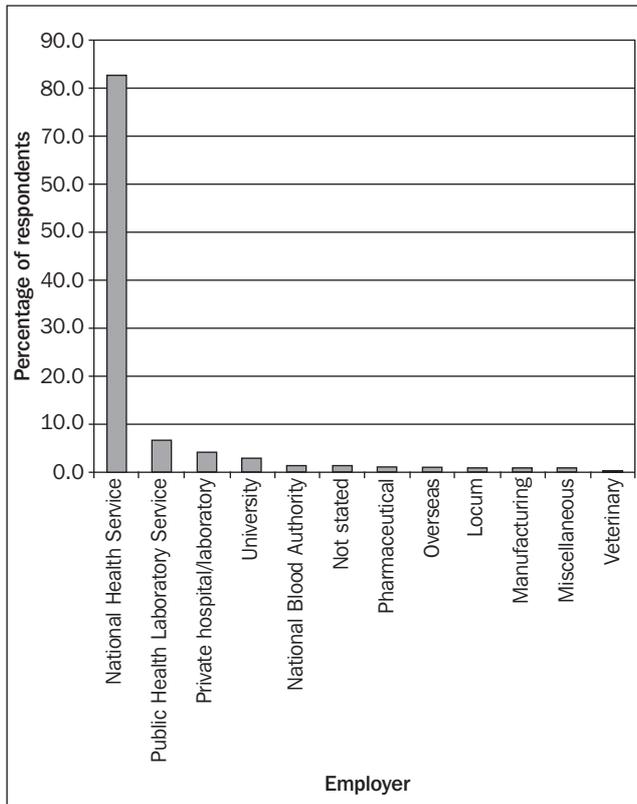


Fig. 1. Distribution of respondents by employer.

Application of Student's *t*-test showed that there was no significant difference in participation in CPD between Associates and Fellows ( $P > 0.1$ ); however, Fellows were more likely to have participated for longer ( $P < 0.01$ ) and to have acquired diplomas ( $P < 0.01$ ). Half of the Associates and a third of the Fellows who stated that they participated in the IBMS CPD scheme had yet to claim a diploma.

#### Quantitative data

Table 2 shows the significant correlations between selected demographic variables and the scores from the 43 statements. As a low score denotes agreement with the statement, the results indicate, for example, that there was a significant positive relationship between participation in the IBMS CPD scheme and agreement that the IBMS should run a scheme. Fellows of the Institute were more likely to concur with the statement: "I've always done CPD but the scheme provides a way to recognise and quantify it". There was a correlation between stating that one did journal-based learning (JBL) on a regular basis and being an Associate, in a lower age group and female (Table 2).

#### Qualitative data

The majority of respondents ( $n=610$ ) made at least one comment in one of the four categories. In the 'strengths of CPD', 'weaknesses of CPD' and 'developments to the CPD scheme' categories, there was considerable agreement about the key points. The five most common comments under each of these headings are shown in Table 3. Clearly, IBMS members perceived the strengths of the IBMS CPD scheme to be its depth and breadth, but the principal weakness was that the scheme is under resourced. The main 'development' identified was a remedy for this situation (Table 3).

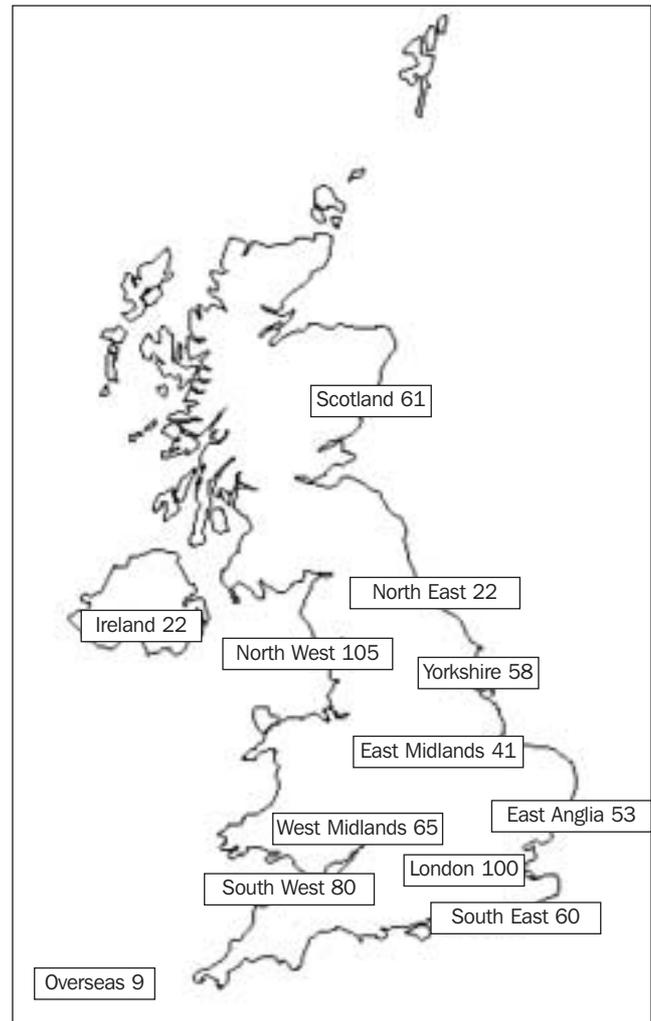


Fig. 2. Total number of questionnaire respondents from each IBMS region ( $n=676$ ).

## Discussion

Clearly, IBMS members value their CPD scheme and are keen to have input into its future. Although the majority of respondents were Fellows, age and gender distributions were representative of the IBMS membership overall, and people from a wide range of employment, grades and geographical areas took part in the survey (Table 1, Figs. 1 and 2).

Approximately 7000 IBMS members were registered for CPD in 2002; thus 10% participated in this survey. Although the questionnaire response rate was low, the absolute number of returns was similar to that reported from a study of nurses and CPD,<sup>5</sup> and almost twice that from a small, targeted investigation of radiographers' attitudes towards CPD.<sup>7</sup>

The finding that significant numbers of respondents had joined the IBMS scheme but had never claimed a diploma was unexpected. In the current situation, where there is no statutory requirement for CPD-linked renewal of registration, a diploma might prove to be a valuable incentive to participate and proof of professional commitment, which could be cited in job interviews or to make the case for award of salary scale enhancements. However, respondents' comments indicated that the opposite is true in some workplaces (Table 3).

**Table 2.** Significant correlations (r) between statements and demographic variables.

Statement	Membership grade <sup>1</sup>	Age band	Gender <sup>2</sup>	Employment grade <sup>3</sup>	Participation in IBMS CPD <sup>4</sup>
The IBMS should run a CPD scheme					0.224**
The IBMS should license schemes to other organisations		0.123**			
There should continue to be a reasonable administration charge for the folder					0.110**
The IBMS scheme should be freely available to members and non-members					-0.134**
I've always done CPD but the scheme provides a way to recognise and quantify it	-0.142 **			-0.186**	0.261**
Doing CPD is an unnecessary burden on staff	0.081*			0.117**	-0.199**
Lab managers should allow time for CPD activities	0.139**	0.118**		0.233**	-0.095*
CPD should be done largely in my own time		-0.078*		-0.177**	
Some of my own time should be spent on CPD				-0.098*	
Blank pages for the folder should be available on the IBMS website		0.186**			
Credits should only be awarded for competence nothing else matters			0.126**	0.074*	
Local CPD officers / hospital reps are accessible /helpful			0.123**		
The local CPD officer is readily available when I need him/her			0.150**		
I do journal-based learning on a regular basis	0.180**	0.134**	-0.214**	0.225**	
Journal-based learning is over-credited relative to other activities	-0.177**	-0.110**		-0.146**	
Structured reading is too expensive		0.165**	-0.133**	0.134**	
Structured reading is too hard or time consuming		0.080*	-0.105*		
Competence can only be demonstrated through practical means				0.083*	
Continuing competence to practice should be assessed at a basic level for all state- registered BMSs, regardless of grade		0.118*		0.081*	
Competence has to be measured as what you actually do in your job today		0.097*			
Participation in CPD should be mandatory for state registration	-0.116**			-0.159**	
Personal development plans should be made up of accredited activities	0.119**	0.073*		0.157**	
Employers should pay for all CPD		0.073*		0.133**	
CPD should focus on the aspirations of the individual		0.128**		0.111**	

<sup>1</sup> Student members omitted (n=2); Associate = 2; Fellow = 3

<sup>2</sup> Male = 1; Female = 1

<sup>3</sup> BMS grades only (n=720) 1=trainee BMS; 2=BMS 1; 3=BMS 2; 4=BMS 3; 5=BMS 4

<sup>4</sup> Yes=1; No= 2

The collation of evidence of CPD in a portfolio is now usual practice for healthcare professionals in the UK,<sup>6,8</sup> and comments made by some respondents in this survey indicated that they were keeping a record of CPD activity but were unable to meet the requirements for a diploma. The results also highlighted a widely held perception that the validation system is too complicated (Table 3).

The main barriers to regular attendance at credited activities appeared to be difficulties for individuals in obtaining study leave and financial restrictions within their departments (Table 3). These problems are reported commonly by non-medical professionals in the NHS.<sup>7,9</sup>

Half of the Associate members of the IBMS in this survey had never claimed a diploma and, together with grade-1 biomedical scientists, were more likely to see CPD as an unnecessary burden (Table 2), suggesting that these were the people experiencing most difficulties in participation. This is consistent with previous reports, which show that staff on lower grades and, in particular, part-time staff find it harder to access CPD.<sup>5,7</sup>

One of the problems noted here (Tables 2 and 3) and elsewhere<sup>5,7,9</sup> is the discrepancy between managers' perceptions that it is reasonable to expect staff to devote some of their own time and money to professional

development and a strong resistance to this in principle among the workforce. Nevertheless, locally organised lunchtime and evening meetings are reported to be popular among other healthcare professionals,<sup>5,7,9</sup> as are the events run by IBMS members at branch and regional level.

Journal-based learning is also an established part of the IBMS CPD scheme, which requires work in one's own time. The uptake of exercises is particularly high among younger people, at lower employment grades and Associate members of the Institute (Table 2). This suggests that while staff may be happy to do some CPD out of normal working hours, they would not want the amount of time increased (Table 2).

Previous reports have concluded that while managers consider that CPD should be directed towards the needs of the service,<sup>2,5,10</sup> individual practitioners are more likely to use it for their own career progression.<sup>5</sup> This is supported by the finding here that younger and more junior staff tended to agree with the statement: "CPD should focus on the aspirations of the individual" (Table 2). Moores<sup>10</sup> resolves this apparent conflict of interest by arguing that although CPD is directed by, and geared towards, the individual practitioner, depending on their role and responsibilities, it must be integrated into the department's and organisation's development needs to be successful and sustainable.

**Table 3.** The five most common 'free response' comments made under the headings of 'strengths', 'weaknesses' and 'developments' of CPD.

Comments	No.
<b>Strengths</b>	
Keeps biomedical scientists up to date	73
Encourages continual learning and development	65
Keeps you interested and informed in your own subject and broadens knowledge of other areas of pathology	64
Accessible to all grades of biomedical scientist	48
Wide variety of accredited activities	41
<b>Weaknesses</b>	
Courses & meetings are expensive and time consuming – employers are reluctant to allow time & funding to attend	103
Folder, divisions and validation system too bureaucratic, time consuming and complex	79
At present, CPD diplomas are not evidence of competence	59
No real incentives or support for participation and no recognition for diplomas within the workplace	52
Not mandatory and therefore not taken seriously by employers or other biomedical scientists	49
<b>Developments</b>	
CPD for all staff should be supported by managers and resourced in terms of time and money by employers	116
Increase elements of practical, competence updating and assessment – assessed locally	77
CPD should become mandatory for all qualified staff and linked to state registration	67
An individuals' CPD to be appropriate to their job and should be integrated into their Personal Development Plans	58
Simplify folder and system for recording credits-remove professional and educational categories	48

This concept is given further recognition by the inclusion in the Department of Health's *Agenda for Change* initiative<sup>11</sup> of proposals that demonstration of professional development is necessary for career progression and that health service employers will be required to provide the appropriate provision for their staff.

At the departmental and organisational level, CPD is an important part of assuring and maintaining the quality of service.<sup>2</sup> A key part of quality is the assessment of competence in the workplace, and integrating this into CPD is a current issue for healthcare practitioners,<sup>2,4,10</sup> including biomedical scientists (Tables 2 and 3).

Research into adults as learners suggests that individuals respond best when they can arrange and appraise their own activities, and retain more when they learn (using previous experience and through problem-solving) about topics they consider to be relevant.<sup>3,4</sup> In order to develop as professionals and practitioners, healthcare professionals are being encouraged to reflect on their practice as part of CPD, both as individual practitioners and in groups or teams.<sup>3,8,12</sup>

Within the laboratory, this could include changing procedures after an audit or error-logging exercise, or by updating techniques using scientific knowledge or technical skills obtained through CPD activities to change practice in their laboratory. For individuals, reflection is an important

aspect of improving practice, as it should help to improve competency and identify training needs.<sup>8,12</sup> Although it is likely that biomedical scientists do reflect in these ways, providing evidence of 'reflection' is yet to be a mandatory part of the IBMS scheme.

In this study, participants were encouraged to reflect on the actual scheme and the results suggest that members recognise the importance of reflective practice. Self-addressed reflection following either theoretical or practical learning has been introduced recently to the IBMS scheme as part of changes driven by the members' 'reflections' in this study.

The respondents to this survey obviously enjoy CPD, generally agreed on the main areas for improvement and believed them to be possible (Table 3). There is some evidence that an active commitment within a department to CPD can be cost effective, both financially<sup>13</sup> and in driving the development of the service,<sup>10</sup> and can enhance recruitment and retention.<sup>14</sup> However, evaluation of the effectiveness of CPD activities, either to the individual or the department, has thus far proved difficult.<sup>1,5,9</sup> This is likely to be an important issue for CPD in the future. □

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