

5 Ways to stretch your 'credit crunched' training budget

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LEARNING AT WORK

Training know-how applied to laboratory science



The training budget is one of the first casualties of the cost-cutting exercises required in a recession. Whilst it is undoubtedly true that effective training of staff remains a key contributory factor in the success of a business, the money required just isn't always there. This means that you may struggle to get the training that you need (or want), and if you are responsible for the training needs of others then you have to find a cost effective way to provide the necessary learning.

In the past, extensive training programmes were common in a pharmaceutical industry flushed with profits. These programmes were implemented not only to ensure that people were able to perform their

day-to-day duties but they were also an important incentive during the recruitment process. The development of new drugs is heavily dependent on the abilities of the scientists performing the work and so a long term learning and development strategy makes business sense. However the current economic situation, coupled with massive redundancies caused by mergers of big Pharma companies, has led to a less secure working environment and less emphasis on investment in training programmes. For many employees in most industries the feeling of relief at having a job has led to a resigned acceptance of reduced training budgets.

The skills and knowledge required for pharmaceutical analysis involves the manipulation of a range of different types of analytical equipment and instrumentation (often very expensive). Inevitably this requires suitable training, not just to operate the equipment but also to understand the chemistry and other factors associated with these analytical tools. This ensures that it is used appropriately and that troubleshooting can be performed as and when required. Typically this type of technical training is delivered using one of four methods. These are:

- i. External training courses
- ii. Internal training delivered by an external provider
- iii. Internal training delivered in-house
- iv. Self paced learning

i. External training courses

This type of training is usually organised by an external provider, either on their premises (more common when 'hands-on' training is offered), or at a location such as a conference centre. The

dates for the training are arranged by the provider and advertised. Delegates from different companies may attend the training.

Pros :-) Training is delivered by an expert in the subject matter and in delivery of training (hopefully); Suitable for individual delegates (good if only one person from a company needs the training); Good for obtaining training on technologies which are not currently being used by a company; Useful for an individual's personal development and for networking; Lunch is usually provided.

Cons :-) Schedule is fixed by the provider and may not be convenient; Travel and accommodation costs may need to be added to the cost of the training; Training is not tailored to the learners needs, it may not be fully relevant, or indeed at all relevant, to the learner's workplace; The learner may find the training very interesting but struggle to implement it into their workplace (this explains why sometimes training is very well received and highly praised but there is no noticeable improvement in performance); Relatively high cost option; Lunch is usually provided (I have attended some training where this was definitely a con!).

ii. Internal training delivered by an external provider

In this method of training an external training provider delivers the training at the company site. Traditionally this is a classroom based format comprising a trainer and a group of learners from the company. 'Hands-on' training may be included. Another option which is gaining popularity is the use of web-based training, where the training is delivered to the desktop computer of the learner using the internet and combined with a method of audio, and sometimes video, communication.

Pros :-) Training is delivered by an expert in the subject matter and in delivery of training; The schedule is dictated by the needs of the company and the learners; The content of the training can be tailored to the needs of the learners and can incorporate the actual equipment used in the workplace; No travel or accommodation costs for learners are incurred.

Cons :-) The flexibility of schedule, customisation of training, and numbers of learners which can be catered for, is dependent on the training provider used; An on-site training room is required (and also access to potentially busy instruments for hands-on training); Relatively high cost option.

iii. Internal training delivered in-house

This method of training is also delivered at the company site but in this case it is delivered by a subject matter expert who works for the company, who may or may not have a formal training role. This also includes on-the-job training where a current employee demonstrates and explains what they are doing in order to train another person.

Pros :-) The training can be developed to match the exact needs of the workplace; The training can be scheduled to suit the learners and the company; Utilises in-house talent and develops training capabilities; Can be a relatively low cost option, although a realistic estimate of costs incurred is advisable; On-the-job training involves learning whilst doing the required skill and thus is a very good way to ensure learning is effectively implemented, if it is delivered well.

Cons :-(The subject matter expert may not have the necessary skills to design and deliver effective training; The quality of on-the-job training can be variable depending on the skills of the individuals involved. The cost of developing training in-house is often underestimated because the time taken to develop effective technical training is not fully appreciated; There may not be an in-house subject matter expert for the required training.

iv. Self paced learning

This method refers to those types of learning which are led by the learner. This includes knowledge and skills obtained by the learner's own research efforts such as reading books and finding useful resources on the internet but it also includes more formal self-paced options such as e-Learning.

Pros :-) Training may be scheduled to fit in with the learner's workload; The learner is in control of their own development; Usually it is relatively low cost; No formal training events need to be set up.

Cons :-(May not suit some learners, usually works better with self motivated people but suitability may also be influenced by the learner's background (e.g. in some cultures self improvement by learning is very popular); Although the timing of self paced learning is very flexible it can be very difficult to fit it in to a busy work schedule; Many technical skills are difficult to learn without practical experience; Developing suitable e-Learning materials in-house can be very expensive.

So far I have discussed the pros and cons of current methods of training. What you probably want to know now is: 'How can I get better value from these options and thus stretch my 'credit crunched' training budget?' I have 5 suggested ways in which you may achieve this:

Match the training to the individual's learning needs

Seems obvious, doesn't it? But how often has someone been sent on a training course because they were free on the day. In my experience of working as a training consultant time and again I talk to people who have received training that either they didn't really need, or they didn't get a chance to implement what they learnt and thus need a refresher before they can perform the task in question. Identification of learning needs is a key step in ensuring that the right training is delivered at the right time. Sometimes this process is referred to as a training needs analysis, or TNA. The term often conjures up the impression of a big expensive learning and development project. In reality you can carry out a very simple TNA for yourself and discuss it with your manager to ensure that any information that they have about future deployment is included.

Include the following in your assessment:

What tasks do I perform on a day-to-day basis?

What do I need to learn to perform these tasks?

What learning options are available?

What is likely to have the best results?

What tasks will I need in the future?

What tasks would I like to be able to do in the future (consider your plans for career development)?

Everyone has a preferred way for learning new skills and knowledge. Consider the introduction of a new piece of equipment into the lab, e.g. a UV/vis spectrophotometer. Some staff will prefer to get a colleague who knows about the instrument to show them how to use it and then practise a few times to make sure that they are comfortable with all the features; some will prefer to find out about the theory of the instrument in advance and then try some experiments with assistance; and some will prefer to work through it themselves and ask for assistance when they get stuck. All approaches are equally valid and could work well for the individuals involved.

Conclusion

Make sure you get involved in identifying your training needs and how best to address them. If you are responsible for the learning of others remember that including the individual in the planning of how they will learn new skills and knowledge will ensure that the process is more effective, and that any investment made produces a suitable return.

Make the best use of your existing talent

In almost every laboratory there is a wealth of knowledge, skills and experience. It makes sense to utilise these assets for the purposes of learning and development but it can be challenging to do it effectively. In most laboratories training is performed by everyone, even if they do not recognise it as such. Tasks as simple as 'showing John how to use the glass washer' are training activities. This type of in-house training, if performed well, benefits everyone. The learner gets the training they need and the trainer has a very valuable skill to add to their CV. Also when you train someone you inevitably learn a lot more about the task and increase your own expertise. However if in-house training is not done well the result is poorly trained staff. Moreover, errors and misunderstandings are passed on and multiplied.

The solution is to recognise when people are acting as trainers and provide the support necessary to do a good job. To suddenly announce that "from now on, everyone is going to be a trainer" may not get a very positive response, but a more subtle approach which provides support to those acting as trainers is likely to be well received. Developing training in-house can be costly due to time required to design the training and prepare the required training materials. However often it is easier to get agreement for this type of project than it is to get money added to the training budget, probably since it is perceived to be the cheaper option. A word of caution, if you are developing training in-house then remember that it is very similar to HPLC, i.e. 'rubbish in, rubbish out'. Good training design and delivery skills are vital for the success of any in-house training initiatives.

Another use of in-house knowledge and experience is mentoring. This activity often takes place in an informal way where an experienced member of staff will act as an advisor and sounding board for a newer member of staff. This type of 'organic' mentoring is the most successful and should be gently encouraged as far as possible. Setting up a mentoring scheme is attractive due to the low costs involved but it can lead to mixed results. The rapport between the mentor and the person to be mentored is the key feature and this will depend on the personalities involved. It doesn't always work if you assign people to a scheme based only on their learning needs. If mentoring relationships develop then they should be nurtured by acknowledging that they exist and allowing adequate time.

Conclusion

Using in-house trainers benefits everyone but needs to be fully supported to be successful. Mentoring is a very productive and low cost learning method.

Negotiate the best deal from your external training suppliers

As a training provider myself I can let you in on the questions that you should be asking your external trainer.

Do you customise the training to suit our requirements?

The whole point of training is that it attains the learning objectives that you have set. Your provider should be keen to tailor training to suit your needs.

How will you do that?

If the training provider asks you to specify what you want without contributing themselves then they are asking you to devise the agenda for the training. That's what you are paying them for! They should determine the requirements of the training by asking a series of content related questions, this should also reassure you about their competence to deliver the training.

How will you check that the learners are taking it in?

The design of the training should incorporate exercises which practise the skills being learnt and demonstrate that the learning is effective (on that day anyway). These should be relevant and if possible based on real life scenarios. There should also be an assessment at the end to demonstrate that the minimum standard has been achieved.

What is your cost structure for different numbers of learners?

You should expect to pay less per person if more people are to be trained but beware of any eagerness for very large class sizes. A low training to learner ratio is best, particularly for practical 'hands-on' training.

Who is the trainer? What is their background?

The relationship with the person who is actually delivering the training is very important. You should expect to be in contact with them prior to the training and preferably they should be the one to organise the customisation. You should ensure that they are both a subject matter expert and a qualified and experienced trainer.

What follow-up is available after the training?

The provider should provide support for learners after the training and offer evaluation and workshops if required. They should also follow-up any problems or complaints immediately.

Conclusion

Don't just order training, make sure that it is exactly what you need.

Make the most of free and low cost resources

Free and low cost learning resources can be found in two major locations: Libraries and the internet. I will deal with libraries first since it is quicker. The type of information that you are likely to need in an analytical laboratory will usually require a university library or the resources of a very large Pharma company. If you have access to one then you have a source of books and access to scientific journals. These are both superb sources of learning resources. To identify which library resources are useful you will probably use the second location, the internet. The internet is an amazing source of information on everything under the sun; the difficult bit is sifting the useful from the useless. Useful information is posted by booksellers, publishers (e.g. ScienceDirect <http://www.sciencedirect.com>, LCGC <http://chromatographyonline.findanalytichem.com/lcgc>), interest groups (e.g. Shula Levin's page of HPLC and LC-MS <http://www.forumsci.co.il/HPLC/>), societies (e.g. The Royal Society of Chemistry <http://www.rsc.org/>), collaborative groups (Wikipedia http://en.wikipedia.org/wiki/Main_Page), suppliers, manufacturers and probably many more.

Search engines are probably the best place to start looking for information on a particular topic but bear in mind that some interest groups and societies who post very useful information are not optimised for search engines and thus may appear on later pages. The suppliers are more likely to invest in search engine optimisation. The words that you choose to search on will dictate the results that you get so it is a good idea to try a few variations of your key terms.

Suppliers and manufacturers websites often contain very good information on analytical equipment and techniques since they need to add value to their services and be seen as the experts. You need to be able to recognise the useful information in among the inevitable sales message. (I own up to being fully aware of the irony of giving that piece of advice in the blog that I use to promote my own products and services.)

The biggest problem with identifying useful low cost learning resources is that it can take some time. To improve your effectiveness, I suggest that you share your information with colleagues or even with a wider audience using social networking sites. However I urge you to make it clear why the resource that you have identified is useful and what it is applied to, otherwise you may end up with a long list of website addresses. You may then find yourself in that position familiar to all of us who don't organise our bookmarks well, you know you have seen a site which has the information you want, but you can't remember which one it is! A useful online tool for bookmarking useful sites and sharing with others is Delicious <http://delicious.com/>. Please feel free to use the comments at the bottom of this article to share your suggestions for good resources relating to pharmaceutical analysis.

Conclusion

Seek out useful low cost resources but if possible share the effort involved. Organise your identified resources so that they are easily used.

Be realistic and get proactive about learning

In the immortal words of Eric Idle in *The Life of Brian*, "Always look on the bright side of life". If the reality is that you don't have any available funds in the training budget then you need to seek out ways of developing your learning without it (possibly using some of the ways that I have suggested).

The benefits extend past getting your job done (and potentially decreasing the chances of you being the unfortunate one in a redundancy situation) to increasing your prospects of career progression and ultimately making your job more interesting. If you can manage a collaborative effort among your colleagues then the learning culture that you create will be of as much, or more, benefit to those involved as to the company that you work for.

Conclusion

Think positive

I hope that these ways of stretching your training budget help you to consider the way you learn and train others and how it could be done in a smarter way. I am sure that these suggestions could equally well be applied in other work environments.

Oona McPolin

Training Services Manager

MOURNE TRAINING SERVICES

Tel: +44 (0)28 30268236

Email: info@mournetrainingservices.co.uk

Web: www.mournetrainingservices.co.uk

