Writing for mixed-media training programmes

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Abstract
Effective learning and development tools are important in spreading and consolidating knowledge within any pharmaceutical or biotechnology company. Medical communications professionals may be involved in creating training materials for many purposes, from disseminating scientific concepts to helping employees refine their customer engagement skills. Creating effective training solutions that offer the right training and development opportunities for the intended audience may require harnessing a blend of virtual, self-directed, and face-to-face approaches, and will almost certainly entail an understanding of the principles of instructional design. eLearning will often form the core of a training programme, offering flexibility for both employer and learner. However, despite the current focus on digital materials, face-to-face training remains essential in any well-rounded learning approach. Whatever the training method, to ensure that newly-acquired knowledge becomes embedded, the content of each training element must be written in a style that suits the learning needs and delivery method.

Introduction

The pharmaceutical environment is constantly evolving, and is now more complex and unpredictable than ever before. One constant in this is the need for effective training programmes that allow personnel to meet the demands of their industry, from understanding scientific content through to refining the skills needed to engage a customer.

Traditional training methodologies – such as classroom training, coaching, mentoring, and 360-degree feedback (a system in which employees receive confidential, anonymous feedback from the people who work around them, typically the employee's manager, peers, and direct reports) – remain essential learning tools. Nonetheless, when it comes to developing a world-class training programme, mixing these traditional tools with digital media is vital. A phased process that comprises a variety of tailored mixed media elements can ensure that the right training and development opportunities are offered to the right people, the right way, at the right time. A training curriculum may leverage virtual, self-directed, and face-to-face approaches, as well as digital and traditional reinforcement tools to embed newly acquired knowledge.

It is critical to the success of a training programme that each element is planned, and that appropriate content for each element is written in a suitable style. Consequently, when planning each element of the programme the writer should consider the following:

- Who is the intended audience, and what is their level of understanding of the subject area and related terminology?
- What will be the value and the end goal of each piece?
- What level of referencing is required? Each document should obviously be fully referenced to support all statements, but is it necessary to provide pdfs of each reference with cited statements highlighted and/or reference management via a software package?
- Will any assessments be created to track learner performance, and if so how regularly will these occur?
- What are the timelines for each element in terms of the stages of development and for final rollout?
- How does the individual learning piece relate to other materials in the programme, in terms of rollout timing and content?
- A wide variety of training materials could be created as part of a multimedia programme. In this article, we will focus on two core aspects of a training curriculum – writing for eLearning and face-to-face training – before describing some different tools that may be used to reinforce learning.

Adult learners have different learning styles and preferences for the way that they like to receive and interpret information, so a training programme should be written in a balanced style that allows all users to remain focused and engaged throughout the learning process, whether they learn best through reading or looking at visuals, listening to audio, or doing something (so-called visual, auditory, and kinaesthetic learners).

The importance of instructional design

When creating any training programme, the principles of instructional design should be followed. Instructional design is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. Instructional design can ensure that the user achieves the programme goals and learning objectives, and that knowledge is retained. Adult learners have different learning styles and preferences for the way that they like to receive and interpret information, so a training programme should be written in a balanced style that allows all users to remain focused and engaged throughout the learning process, whether they learn best through reading or looking at visuals, listening to audio, or doing something (so-called visual, auditory, and kinaesthetic learners). In addition, the use of measurable behavioural learning objectives helps to establish the direction the learning will take, so that the user gets the most out of the training. Learning objectives are statements that clearly describe what the learner will know or be able to do when they have completed the training course i.e. recognise the differences between acute and chronic pain. They should contain action verbs like, analyse, compare, design, and explain that describe measurable behaviours. Verbs such as know, appreciate and understand should be avoided, as they are vague and difficult to measure.

Once the target audience is defined, and their needs and motivations are understood, the learning design process can begin. The first step is to determine the learning outcomes: this will focus the content and any stakeholder requirements. Then it is important to decide what would constitute evidence for the learner having reached the desired learning outcomes. Finally, consider the most effective and engaging ways of training or communicating the content.

In summary, instructional design dictates a backwards design process: identify desired results, determine acceptable evidence, and then plan the learning experiences and instruction accordingly.[1]

These ideas apply to all forms of training, and so should be kept in mind when writing content for any element of a training programme. In-person activities such as face-to-face mentoring and workshops are likely to involve a variety of different learning inputs, e.g. slide presentations, role playing, competitions, and group discussions. By contrast, an eLearning course could be very linear and isolating if consideration is not given as to how the information can be delivered in a variety of ways and how the user can be made to feel as though they have some control over the programme rather than it being something they 'must see through to the end'. In this regard, making good use of the ability to layer information in eLearning by using pop-up windows, or allowing the user to choose their own route through the training (neither of which is possible in traditional paper-based training), can help to engage the learner. This also applies to the use of a voiceover and in-training games or quick-fire questions.

How to put together an eLearning training programme

In today's digital world, eLearning forms the core of many training programmes. The flexibility that this type of training provides can be of great

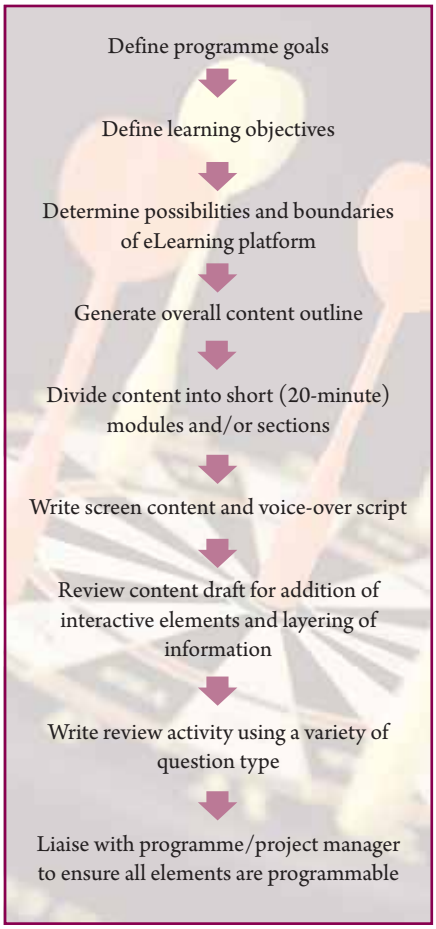

Figure 1. Process for creating an eLearning training course

benefit to both the employer and the learner. The employer is able to deliver comprehensive training without the need to organise expensive in-person courses that require coordination among multiple employees' schedules, and the learner can fit their training around their work and other commitments.

Before you start writing

Writing valuable content for an eLearning programme can be tricky, as it is likely that the learner will be undertaking this training whilst also doing their normal job. Consequently, the content needs to deliver information efficiently and in a way that holds the user's attention. This need for concise, effective content applies whether the training is on a disease or product, or about company procedures or the development of new skills, such as learning a new selling technique.

When deciding how to present information, you should keep the end user in mind at all times. What are the **learning objectives** of the training, what does the learner **need** to know? How can the content be made **engaging**? How does the eLearning element add **value** to the overall training programme? And finally, what checks can be put in place to make sure the learners actually **remember** what they have learned and can effectively **put it into practice**? To address these questions, an eLearning programme should contain the following elements:

- Well-defined course goals
- Results-oriented learning objectives
- Clear and concise text
- Layering of information – core versus in-depth
- Engaging imagery
- Numerous interactive elements
- Effective assessment activities
- A voice-over

An ideal process that a writer should follow when creating an eLearning programme is given in Figure 1.

Once the learning objectives are clear, it is important to define which platform the eLearning will be run on, as this will have an impact on the space that is available on each screen, and the capacity to incorporate unique features of eLearning such as pop-ups or animations that can help to break up text and focus the learner. It is critical to have a clear understanding of both the possibilities and limitations of the programme by liaising and communicating with the programmer or project manager, so that the full value of eLearning can be exploited and boundaries justified.

Writing eLearning-friendly content

When writing content for eLearning, smaller chunks of information across more screens is more effective and less intimidating for the learner than lots of text on one screen; if the learner doesn't see the scroll bar, they may miss important content. Identifying the size of the training piece at the outset and splitting the content into modules or sections that each take no longer than 20 minutes to complete should make the content more digestible for the learner.

Understanding the level of complexity of the content is probably going to be the greatest test of a medical writer's skills. Tailoring it to the intended audience involves an appreciation of their prior level of knowledge and the appropriate language; for example, content could patronise one audience (e.g. key opinion leaders) or baffle others (e.g. sales representatives). It is also crucial to understand whether the training is foundation-level or a refresher course. In any case, an eLearning course allows for layering of information, with core on-screen text that is critical for the learner to work through, and pop-ups that lead to in-depth information or glossary terms. The eLearning may also link to an earlier part of the course (or a previously completed course) if the learner needs to revisit a concept they have already worked through.

It is important to use concise yet clear messages rather than dense, heavy sentences and to use active rather than passive prose. Colloquial terms need to be avoided for any material that will be used in different localities, as they may literally become lost in translation. Although the content may be about serious medical conditions, don't be afraid to keep it light in places (where appropriate). Additionally, eLearning doesn't have to involve page after page of bulleted lists – there is a time and a place for these, but there are also much more creative ways of presenting your content, such as text boxes, icons, labels around a graphic, click and reveal buttons, and tables.

It is good practice to create review activities to assess whether the user has effectively digested the information in the course. These activities should tie in with the learning objectives. Creating short 'knowledge check' activities within each section can also help to refocus a learner's attention and reinforce the learning, and will particularly appeal to kinaesthetic learners. These activities usually comprise questions on the content the learner has just worked through. A variety of question types can be used including simple multiple choice questions, dragging and dropping labels onto a diagram or locating a 'hotspot' in an image e.g. pinpointing the left ventricle in a diagram of the heart.

Adding value with a voice-over script

Tailoring the eLearning for all learning styles as prescribed by instructional design should include the use of a voice-over to narrate what is on-screen. This is where the short and snappy bites of information from the screen are fleshed out to

create a full script. Be aware that as some people are not auditory learners, or indeed may simply not like the sound of the narrator's voice, they may switch off the voiceover during the training. Consequently, the script should not contain any key information that does not appear on the screen. Make sure the script sounds natural – read it aloud if necessary. In particular, consider the places where brackets, bulleted lists, acronyms, and abbreviations have been used, and make adjustments as required to improve the flow of each full sentence.

How to create a face-to-face training package

Face-to-face training can take many different forms, from straightforward classroom-based teaching, through to the development and practice of specific skills or the development of tailored action plans during workshop sessions. These in-person activities remain an essential part of any well-rounded learning approach, despite the current inevitable focus on digital materials. Writers creating training for the modern pharmaceutical industry may be asked to create slides and workshop materials to support any of these types of classroom learning. These may include materials that are directly relevant to a therapy area, as well as those related to a skillset such as customer engagement.

Initial considerations

A key challenge in writing material for face-to-face training is understanding how the session fits into the audience's broader training programme. A complete learning and development programme will often have an eLearning course at its core, with practical in-person sessions designed to complement it; alternatively, a workshop or classroom-based learning activity may sometimes need to stand alone. If the in-person sessions are designed to complement other training materials, it is important to understand what these are (and see them if possible) and then tailor the content accordingly.

As with an eLearning programme, it is essential to understand the overall objective of the face-to-face training at the outset; for example, is it to convey information, or to allow individuals to develop a plan (such as how to train their staff on a new standard operating procedure) or practice a skill such as responding to objections from doctors during a sales call? It is common for a classroom-based training session to start with an outline of the session goals, and to end by revisiting these goals, allowing the training facilitator to work with the audience to assess whether and how those goals have been met.

Once the objectives of the training are defined, it is useful to consider what activities will be needed to support them, and to develop an agenda for the session. The agenda essentially forms the outline for the content, and will determine what deliverables need to be created in terms of on-screen slide content and supporting materials (Table 1). Outlining the goals at the outset, and then creating workshop activities or slide content to address each goal, is an efficient way of structuring the content and ensuring all learning objectives are met.

Keeping learners engaged

To keep learners engaged and to appeal to different learning styles, an in-person training session will ideally include a mixture of facilitator-led on-screen information sharing and small and large group breakout activities such as those listed in Table 2. If broken up into smaller discrete activities, the training session should meet the needs of different learning styles and prevent the drift in concentration that is almost inevitable if participants are asked to sit through long slide presentations. The balance between facilitator-led and group-work activities will depend on whether the main purpose is to convey information, or to practice a skill or work through scenarios with colleagues. Table 2 contains a list of interaction types that can be included in the agenda of face-to-face training.

Facilitator guides

Another key challenge in developing in-person training is understanding the needs of the facilitator(s) who will be delivering it. If the content is for a global pharmaceutical company as part of an overall learning plan, it may be necessary to create centralised resources that can be shared with and adapted by members of affiliate organisations around the world. In this case, it is critical to realise that the facilitator may not have been privy to discussions about how the training should work and so particular care should be taken to ensure that instructions are clear and that materials are self-explanatory. Creating a facilitation guide can be helpful here. This document leads the facilitator through each

Table 1. Items that should be considered when preparing face-to-face training

Item	Description
Agenda	Should be provided to all attendees and be closely tied to learning objectives
Invitations to attendees	Informative invitations that explain the reason for the training session, any prior knowledge expected of participants, and whether attendees need to prepare anything for the session
Facilitator guide	Critical if training is a centralised resource Needs to describe what the facilitator needs to do with the training materials, clearly explain breakout activities, and highlight key messages. May also describe ideal room set up, Wi-Fi requirements, documents that need printing etc.
Exercise materials	Materials for the breakout activities, e.g. question/scenario cards, posters, source documents, PowerPoint templates, and 'how to' leaflets
Participant workbooks	Summary of the training session, with sections for the learner to complete during the training
Training evaluation	A method by which participants can give feedback on the training
Post-meeting embedding tools	A variety of tools that require the learner to recall or revisit information gained at the training session, e.g. quiz questions, follow-up video conference sessions, or online resources from the meeting
Printing guide	A document containing print guidelines to allow facilitators to print materials correctly

Table 2. Types of activity that can be used during face-to-face training sessions

Activity	Description	Content	Useful for
Role-playing	Participants work through scenarios responding 'in character' using their newly-gained knowledge	May involve writing scenarios or questions to 'seed' a role-play, or full scripts for actors that attendees have to interact with	• Practising skills • Embedding knowledge
Problem solving	Small groups work together to come up with a response to a set problem. The responses are then reported back to the whole group	Generation of one or several scenarios and thought given on how participants report back on their discussion, e.g. a PowerPoint template for each group to fill in	• Embedding knowledge • Encouraging team work
Presentations from attendees	Each participant gives a very short pre-prepared presentation to the whole group	May need to assign topics and provide a PowerPoint template	• Skill practice • Conveying information
Competitions/games	Small groups compete with each other in either a straightforward quiz or a more complex game	Develop questions and format of the game, a 'how to play' document, and a method for recording scores	• Embedding knowledge • Engaging attendees with competitive elements • Injecting fun
Creation of a poster on a topic relevant to the training	Small groups create a visual representation of an assigned topic that is then presented to the rest of the group. Photos can be taken as a record of the outcome	May need to assign topics to each group, generate an instruction leaflet to explain the activity, and generate source material for the groups to summarise	• Encouraging teamwork • Conveying information • Embedding knowledge

of the activities in the training session, explaining the aims and content developed for each activity, and how to run each of them. The guide may even provide suggested room layouts, IT and audio/visual requirements and recommended participant numbers.

Post-training: Tools to embed and reinforce knowledge

Engaging and innovative reinforcement tools can enhance and embed learning to help ensure long-term knowledge retention. Below are some examples that may be used for this purpose:

Quick-fire smartphone/tablet quiz questions provide an innovative learning solution that allows users to test their knowledge after they have undertaken a training programme. Proprietary systems and systems built by an in-house digital team can be used to deliver multiple choice questions, which are ideally followed up with a short, fully referenced rationale to accompany the answer and ensure the opportunity to learn from any mistakes. The tone, style, and level of complexity of the questions should match the training material content and be tailored to the learners.

An **online learning portal**, such as a learning management system, is a useful source of information to support and enrich the learning experience. Via an online portal, self-directed learning can be encouraged and users can access resources. As well as text for the online portal, internal communications may be created to increase awareness of this resource. These internal communications should be short yet engaging, to drive traffic to the portal. You may also consider creating questionnaires that users can complete to give feedback on the overall training curriculum. Once again, the tone and style should be aligned with all other materials.

Video conferences are simple yet valuable tools for holding live training sessions for multiple countries. These sessions may involve the trainer presenting content from slide decks that have been adapted from the eLearning programme, using the audio script as notes. Past video conferences can also be recorded and stored on the online learning portal for future reference.

Conclusion

The way in which training material is delivered is changing, with new trends and technologies shaping the future of training. Alternative, innovative approaches are needed to encourage more adaptive behaviours and approaches to developing training programmes, to meet ever-changing organisational goals and expectations. With new approaches come the requirement to adapt writing styles, not just for the target audience but also to complement the type of material that is being created. This will ensure that the training strategy has value for the learner.

Reference

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