



Develop Case Based Tasks and Scenarios

Janet MacDonald

Case studies and scenarios have been used in a variety of different formats in medical education as ways to assist learning. Problem Based Learning is now a common mode of delivery for many undergraduate programmes, whilst others use Case Based Learning. Both approaches rely heavily on the use of case studies, triggers and scenarios as methods to support and develop student reasoning, problem solving and decision making skills. Case studies can be derived from real life settings, while scenarios, although similar, are often orientated towards developing communication and interpersonal team skills.

Unlike conventional medical education, where experts identify the knowledge and the competencies that learners need to learn and set the objectives for each session; the use of case studies is underpinned with a constructivist perspective. Here learning is perceived as a process in which learners are actively constructing, rather than passively acquiring knowledge and teaching becomes facilitative, with the teacher supporting knowledge construction, rather than simply transmitting knowledge.¹

It is accepted that contextual learning is vital in allowing learners to identify their individual learning needs, establish the relevance of learning resources and locate their learning within the context of their own practice as a healthcare professional². The use of case studies and scenarios can certainly help to achieve this as they are powerful learning tools, designed to replicate real world situations which enable learners to engage meaningfully with a variety of situations in small group formats.

It is often, mistakenly, assumed that case studies and scenarios can be straightforwardly developed. After all, clinicians interact with patients daily and therefore, can readily access a large bank of potential cases to use

for learning. However, the reality is not quite so easy, as individual patient scenarios may not quite fit precisely with what it is that you are trying to teach. Other elements associated with the particular case may serve as distractors and so interfere with the learning experience.

Essentially the purpose of designing these learning activities is to help ensure that the required learning outcomes can be met. However, good case design can prove problematic, their role is not to simply provide a narrative account, but rather need to be designed such that they can promote discussions around specified educational principles which are embedded in the case scenario³. Much can be learned from the design of PBL cases and scenarios and over time their compositions have become much more diverse and sophisticated.

Educators may often think only of using patient cases to develop the learning scenarios to be used in their sessions. However it is helpful to consider other ways in which cases might be developed and any of the formats identified in **Table 1** can be used to creatively enhance learning events.

Table 1: Resources for case based scenario development

Format	Examples	Potential Purpose
Story	Description of a day in the life of a carer, coping with a spouse with Alzheimer's	Learn about the potential impact on carers where their partner has a degenerative condition. Explore the manifestation of this particular condition
Pictures	Images of fit and unwell older people	Exploration of attitudes to older people in society
Case Notes/records	Drug chart with brief patient information	Learn about specific drug interactions
Drawings	A flowchart of a patient's journey from GP consultation to recovery from hospital treatment	Explore management of a particular illness at different stages
Strategy Task	Learner could design a patient information leaflet about 'living with diabetes'	Communication – learn and practice explaining and giving advice to patients. Learn about specific diagnosis
Segmented Progressive Disclosure	Very brief information about a patient given to the learner and they go and research what investigations would need to be conducted. Some results and more information given and learner needs to research and consider diagnosis. More information then given etc.	Learner can start to identify gaps in their own knowledge and explore how these can be closed. Learn about specific diagnostic tests. Develop diagnostic skills

The examples used here and the potential purpose are merely suggestions of the ways in which these formats could be used and each could be developed in very different ways and customised to meet specific needs. You would need to identify the learning outcomes that are required from a session and then select a format that could be utilised to help enable your learners achieve these outcomes

Key things that need to be considered when designing the task, scenario, case or trigger for learning are shown in Table 2 and include:

Table 2: **Key considerations in case design**

- ▶ **Level of the learner** – the task should not be too easy or difficult as this will affect motivation to engage with this
- ▶ **Relevance** – the learner needs to be able to identify that this learning has specific relevance to them, their needs, required assessments etc.
- ▶ **Easily understood** – it should not be difficult to decipher the content so that the focus can be on the learning
- ▶ **Brief** – again, the focus should be on learning rather than time taken to read and understand the material provided
- ▶ **Avoid hidden meanings** – the learner should not have to second guess what you were thinking or look for hidden meanings
- ▶ **Achievable** – the time required/available to achieve the activity should be carefully considered
- ▶ **Impact** – where there is something controversial or evokes emotion then this will arouse the learner's interest

It is important to focus on the ways in which you want the learners to engage with the case scenario at an early stage of the development. Do avoid the 'here's one I did earlier approach' or worse still, 'here's one I found on the internet' by trying to impose your learning outcomes on something that wasn't originally designed to meet those particular criteria.

In order to keep development of these cases on track, it is useful to constantly interrogate the design and you may find it helpful asking the following questions of yourself and others involved in the compilation of these learning cases:

- ▶ Will this be an activity for an individual learner or is it something that will be explored as a group of learners?
- ▶ Will the teacher be present when the learner is working through the task or will students research and investigate and then present/discuss findings with a teacher?

The case should always begin with an engaging trigger which has an innovative design that reflects a realistic scenario. Whether in text or image format the trigger should aim to address the key learning outcomes, highlight cues or key problems, provide relevant information and be written in a way which will encourage students to engage in broad discussions. The more engaging the case, the better equipped the learners will be to deal with uncertainties and in the safety of small group environments they can work towards constructing solutions to the challenges presented³. Case based scenarios provide students with opportunities to engage with current issues in a safe environment; their use can promote reasoning and decision making skills. Case scenarios enable facilitators to observe student interactions and their ability to identify issues, generate hypotheses, investigate options, interpret findings and construct a management plan.

However, constructing a good case is a complex art which requires patience and planning. Careful piloting and reviewing is always to be recommended, as feedback from students and facilitators will ensure that the quality of these scenarios and their value as learning tools is maximised.

Once developed, the cases and scenarios should be regularly reviewed, adapted and updated to ensure that they continue to reflect current thinking, development and accepted current practise. It is also essential that the updated case is reviewed so that it still enables the learners to achieve the required learning outcomes. By doing this, the case based tasks and scenarios will continue to provide valuable learning opportunities.

Further Information

1. **Twomey Fosnot, C.** (editor) (2014) (2nd Ed). *Constructivism, Theory, Perspective and Practice*. Teachers College Press: New York.
2. **Jarvis, P.** (2011). *Adult Learning in the Social Context*. Routledge: Oxford.
3. **Azer, S. A.** (2008). *Navigating Problem Based Learning*. Elsevier Press: Australia

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Janet MacDonald is Senior Lecturer and Director of the E-Learning MSc in Medical Education Programme, Postgraduate Medical and Dental Education, Cardiff University.

Series Editor
Dr Lesley Pugsley – formerly Senior Lecturer in Medical Education, Postgraduate Medical & Dental Education (PGMDE), Wales Deanery, Cardiff University.

