

Teaching and learning through active observation

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This paper was first written in 2003 as part of a project led by the London Deanery to provide a web-based learning resource to support the educational development for clinical teachers. It was revised by Judy McKimm in 2007 with the introduction of the Deanery's new web-based learning package for clinical teachers. Each of the papers provides a summary and background reading on a core topic in clinical education.

Aims

This paper offers an opportunity to explore the ways in which active, purposeful observation can be used to structure and guide learning in opportunistic settings such as those commonly encountered in health care.

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- Developing purposeful observation: guiding principles
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Introduction

'Watch me –shadow me...look at the patient...observe how I do it...'see one, do one, teach one'...

Observation is a core approach to clinical teaching in the health care professions. At best it is an active, purposeful task that stimulates deep learning and the development of professional 'know-how'. At worst it is a passive process that leads to either heightened anxiety or total 'shut down' in the learner.

This paper explores the ways in which observation can be used as a core approach to teaching and learning in opportunistic settings. It will lead you to consider ways in which to structure observation activities relevant to your own work activity. This paper will demonstrate ways to enable learners to look *purposefully*, in order to further develop their knowledge, their skills and appropriate professional attitudes towards the situation being observed.

Learning activities and reflection

“I think its absolutely of minimal value to sit somebody down in a room and say watch me, because they don't know what they are looking for, there is a huge range of things that I would want them at different times to be observing, but with structure – different expectations at different points.” Quote from a clinical teacher

Thinking point: approaching an observation scenario

For a moment imagine you are a student health care professional. You are sitting in on an outpatient clinic and have been told that the next patient to be seen is Mr Jones, a 64 year old man who has signs and symptoms that may be indicative of Parkinson's' Disease. Your clinical teacher asks you to 'just watch this consultation'.

Take a few minutes to jot down the kinds of things you might 'just watch' for.

Some typical responses to specifically what the learner might watch include:

- Mr Jones to see if you can identify signs and symptoms that fit a diagnosis of Parkinson's' Disease
- The clinical teacher to see how s/he interacts with Mr Jones to gather case history information
- The way your clinical teacher conducts a cranial nerve/ neurological examination
- The impact Mr Jones' condition is having on his activities of daily living
- For clues as to how best manage a case like Mr Jones'
- Any referrals the clinical teacher makes or investigations they request or medications they prescribe

You may have come up with something very different, but equally legitimate. The range of responses to this task leads us to realise:

1. there are different ways of 'looking' at the same situation – influenced by the professional background and experience of the observer
2. unless structure is given there is a danger that students either try to observe everything (at a superficial level) or observe something quite different from your intended learning task
3. observation is not an objective, theoretically neutral activity

Developing purposeful observation: guiding principles

In his thesis 'Conjectures and refutations: the growth of scientific knowledge', Karl Popper warns "*Clearly the instruction "observe!" is absurd. Observation is always selective. It needs a chosen object, a definite task, an interest, a point of view, a problem.*" (Popper, 1972, page 46)

We have seen that the moment you ask a learner to 'just watch' you are asking them to select from a range of 'watching' parameters

- Who to observe
- What to observe
- How to observe
- For what purpose

By asking a student to 'just watch' you are making assumptions about their ability to access and choose from a range of observation frameworks – this might be the ultimate target of your teaching – but students, on the whole, need help and guidance to reach that end point.

One of the ways to do this is to develop **observation guides** to act as 'advance organisers' (see White and Ewan, 1991 and Hinchliff 1992.) An observation guide can structure the learners' observations, bringing to the fore relevant existing knowledge, skills or attitudes in readiness for further learning.

"Clinical teachers need to make students' observational experiences as active and productive as possible, helping them not only to see what is going on at surface level, but also to be aware of the thinking activities hidden from view." (Stengelhofen, 1996, page 92).

Thinking point: analysing observation parameters

Let us return to outpatients and Mr Jones. Three possible observation guides follow. For each one consider the following questions:

1. What is the learner being asked to observe?
2. What prior knowledge does the observation guide assume?
3. What might be the intended learning outcomes (the purpose) of the given observation guide?

Observation guide 1: watch Mr Jones during this consultation and see if you can identify any typical features of Parkinson's' Disease he seems to present with. I also want you to think about the ways in which his condition might impact on his activities of daily living and who else in the multi-disciplinary team should be involved in his care.

1. The learner is asked to focus their attention on Mr Jones and identify presenting signs and/or symptoms of Parkinson's Disease. They are being asked to interpret these signs and symptoms from a functional perspective and consider who else in the healthcare team should therefore be involved.
2. This guide assumes a prior knowledge of typical features of Parkinson's Disease and an awareness of members of the MDT and their roles.

3. Possible learning outcomes: to review typical features of Parkinson's Disease (and other diseases of the extra pyramidal system); to recognise presenting signs and symptoms of Parkinson's Disease; to consider the ways in which an illness such as Parkinson's Disease might impact upon activities of daily living; to be aware of other members of the MDT and the roles they play in the management of patients with Parkinson's Disease; to look at Parkinson's Disease at the level of impairment, disability and handicap

Observation guide 2: during this consultation with Mr Jones I am going to demonstrate a Cranial Nerve examination – you'll be doing one later so watch carefully what I do and how I do it. At the end of the consultation I want you to report the findings of the CN examination to me and indicate how they are related to Mr Jones' reported difficulties with speech, swallowing and movement.

1. The emphasis here is on specific clinical examination skills – how to conduct a CN examination , how to report/record and interpret findings
2. The clinical teacher assumes the learner has knowledge of the cranial nerves and an awareness of dysarthria, dysphagia and movement disorders
3. The intended learning outcomes might include: to review the cranial nerves and their examination; to demonstrate a CN examination in preparation for learner practice; to rehearse approaches to reporting clinical findings; to provide an opportunity to interpret clinical findings and relate them to patients presenting symptom

Observation guide 3: our next patient is Mr Jones, a 64 year old man. I am not going to tell you any of his history – I want you to consider what the differential diagnosis might be and any further investigations you might want to conduct or arrange to confirm or reject it.

1. This guide is asking the learner to organise their own observations which are likely to include history information elicited from Mr Jones, the patients reported symptoms and clinical observations of the patients presenting condition
2. This guide assumes an awareness of possible presenting conditions and investigations that may be used to support differential diagnosis
3. the learning objectives might be: to encourage the learner to organise their own clinical observations; to provide the opportunity to develop illness scripts for Parkinson's Disease and other neurological conditions; to become aware of the investigations that may support the process of differential diagnosis and their strengths and limitations

This illustrates the ways in which observation activities can be adapted depending on factors such as the type of health care learner, their level of training and existing learning needs and the intended learning outcomes for your clinical teaching. They can also be adapted to the situation and the information available to the clinical teacher beforehand.

In each of these examples the clinical teacher has made choices about

Target of observation e.g. the patient, the clinician or the context in which they live or work

Focus of observation e.g. the patient's condition at the level of impairment, disability or handicap or the knowledge, skills or attitudes underpinning the health care professionals work

Nature of observation e.g. is the student required to make a behavioural observation or are they being asked to interpret or analyse the information they gather during their observations

These examples have as their starting point an assumption that the consultation with Mr Jones has some degree of predictability. Clearly not all encounters will be easy to anticipate, and learners can be primed to look out for the unexpected. One of the most powerful ways to prime for observation is to ask the learners to identify what aspect of the consultation/contact seemed to take you or them by surprise or what piece of information had most impact on the differential diagnosis/management plan.

Developing observation as a teaching and learning tool

The examples so far have illustrated ways in which the clinical teacher can prime students to learn by giving them observation tasks to carry out. However, what these examples don't acknowledge is any involvement of the student in producing the observation plan. As we suggested in the introduction, the ability to organise one's observations is a fundamental skill of all healthcare professionals and a necessary stage in the learners' transition to professional autonomy.

Thinking point

Take a few minutes to consider how learners might be involved in developing their own observation plans.

Examples

- Learners are given a few minutes to read a referral letter/last entry in the patients notes and identify one or more things they might want to look out for and why
- At the end of the consultation learners identify the one aspect of the consultation/examination that merited most attention and why
- Learners working in pairs can set each other observation tasks
- Learners can be asked to identify something that happened or something they noticed during the session that caused them to think differently about the management of the patient or the presenting diagnosis
- Learners can be encouraged to work in pairs to develop a series of observation tasks around key themes or topics they are exploring during their attachment with

you e.g. taking a full case history/conducting a physical examination/assessing activities of daily living/management of MI/interpretation of X-rays etc

- Learners can be given the responsibility of developing a pack of observation tasks for the next firm/group of students to use
- Learners towards the end of their training might be asked to develop a 'ladder' of observation activities for a situation, that would be appropriate for first year learners in the same professional group or for learners from another profession
- An index box of observational resources can be developed for learners to select from during clinics/rounds etc

Observation tasks are a flexible tool that can be used in a range of healthcare contexts, with learners of the same or mixed professional groups, in one to one settings and in situations where a group of learners are working together. They also offer flexibility in terms of follow up and feedback. For example:

- You may have time to discuss their observations at length and develop ideas through a question and answer session
- You may want 2 or more students to observe the same aspects, then ask them to debrief with each other (while you write up notes etc) and come back with any points of disagreement or confusion
- You may ask each student to observe a distinct aspect and then ask them to pool observations to draft what they would write in the notes or in the letter to the referring agent – this can be matched against your own write up and the learners can see where they differ
- Students may set tasks for each other (perhaps reflecting personal areas of strength or interest) and then feedback to their peer after the session
- Observation tasks can be set around a theme that extends over a whole afternoons clinic or a morning round etc – the students take time to jot down ideas over the course of the session and at the end are invited to provide a succinct summary of what they have learned and future learning needs they have identified

You may have other ideas of your own.

Putting active observation into practice

The examples given throughout this paper demonstrate the ways in which observation guides can be used to help learners:

- meet intended learning outcomes in opportunistic settings
- develop an understanding of how theoretical knowledge underpins practice
- develop student skills in making routine observations and being able to describe, explain, analyse or interpret them in the light of information gathered
- move students from 'knowing that' to knowing why and how and when
- allow students into the health care practitioners mind – helping them to think like a doctor, or a nurse, or a physiotherapist ...
- think beyond the immediate environment or situation
- compare different health care practitioners practice of core tasks e.g. taking a case history, giving information or advice
- prepare students to take a hands-on role in future consultations

Here are some examples of how other clinical teachers have used observation schedules in their work context / specialty

1 Orthopaedics

I am about to see an 8 year old child who has a bone lesion that I am worried may be a cancer. During the consultation

- Notice how I examine the patient
- Consider any investigations I might plan – write them down and we will compare them with what I order
- Notice how I approach the discussion of potential diagnoses with the parents

This example could be extended across a clinic by asking students to record all investigations ordered over the afternoon, and to try and identify the factors that lead to you requesting them. They might also want to consider the risks associated with procedures, the kind of information they yield and how that would inform or influence care.

2 Renal medicine

During this afternoon's clinic I am going to be seeing follow up patients. I want you to focus your observations on drug management of renal illness. Note down

- Any medications mentioned
- Any reported side effects
- Any changes to medication I make and the factors I seem to be taking into account when doing this

3 Obstetrics and gynaecology

During this antenatal clinic I want you to focus on the topic of elective caesarean sections. Specifically note down

- Factors in the obstetric history that may influence method of delivery
- Reasons mothers give when asking about or requesting elective sections
- Information I give to mothers about risks and benefits of caesarean sections

An experienced student may manage to do all of these and more. Students new to the setting may wish to divide up responsibility during consultations so they can concentrate on one aspect and pool ideas at the end.

4 Chest medicine

Mr A is a man with newly diagnosed lung cancer. I want you to

- Observe Mr A.'s non-verbal and verbal communication for indications of anxiety and what you think he wants to know about his condition and management
- Notice how I explain the illness to him
- Consider who else might become involved in his care – how and why?

5 Psychiatry

We are going on this home visit to do a mental health assessment on a 74 year old man. There has been a complaint from his neighbours that he has been banging on the walls and shouting. During this visit I would like you to

- Observe his behaviour and circumstances
- Comment on any presenting signs and symptoms you observe
Consider what the differential diagnosis might be and possible drug treatment

6 Speech and language therapy

This afternoon I am going to be seeing three new patients referred from ENT. I want you to focus your observations on these three areas – chose a different one to concentrate on for each consultation. (With more than one student you can allocate an area each during a consultation)

Area 1: voice

- Comment as you can on the patients posture, their breath support and any visible tension.
- Notice any changes in voice quality during the consultation and the way they describe their own voice.
- How would you rate their voice quality on the GRBAS scale

Area 2: explanations of illness

- Note down any explanations / beliefs the patient raises about the cause or nature of their voice problem
- Note down any explanations I give to the patient about the cause/nature of their voice problem

Area 3: case history

Note down examples of questions I ask to

- Establish onset and progression of the voice problem and exacerbating factors
- Explore possible psychogenic origin
- Gain an impression of the functional impact of the voice problem on their life

7 Multidisciplinary team working

You are going to be sitting in on the ward meeting today. I want you to think about the roles of different members of the healthcare team in managing patients who have had a CVA or MI.

In particular jot down examples of (1) what they have been concentrating on in managing the patient and (2) factors that seem to be influencing their decisions about readiness for discharge.

This example works well in a multidisciplinary setting. Learners from different healthcare professions can set each other tasks or each share the following task

Think about the roles of different members of the team in managing patients who have had a CVA or MI. What are the priorities for each of the following team members and what particular expertise do they seem to offer:

- Medical staff
- Nursing staff
- Dietitian
- Occupational Therapist
- Physiotherapist
- Speech and Language Therapist etc

Thinking point

How will you put this into practice?

Review your work activity over the past day or so and identify a situation where you may have asked students to observe.

Your task is to develop an observation guide for them.

Start by identifying the purpose(s) of the observation i.e. what you hope they will learn during this session and what information (if any) you might give them about the patient(s) they will see.

What will be the target, focus and nature of their observations on this occasion?

Reflect and review

Go back to your observation guide and take a few minutes to reflect upon it and to consider

- Which aspect of your observation guide is the easiest or hardest for a student and why?
- How might you make the task more challenging for a very able or experienced student – or less challenging for an inexperienced student
- How might you change the task if your observer was a student from a different healthcare background or discipline to your own

Teaching and learning through observation: review and round up

This paper has provided an opportunity to consider ways in which observation guides can be used to structure teaching and learning in opportunistic settings such as those encountered in health care. It has provided opportunities to consider observation parameters, to consider how other health care practitioners use observation and to develop observation guides relevant to your own healthcare settings and professional activity.

“Observation necessarily takes place in a certain activity, context or thought community, using the concepts, instruments and conventions historically developed in that context. They steer the observations, and with them the observer interprets and generalises what is seen and regarded as problematic and important.”
(Miettinen, 2000, page 63).

References

Hinchliff, S. (Ed) (1992) *The practitioner as teacher*. London: Scutari Press

Miettinen, R. (2000) The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education*, Volume 19(1), p. 54-72

Popper, K. (1972) *Conjectures and refutations: the growth of scientific knowledge*

Stengelhofen, J. (1996) *Teaching students in clinical settings*. London: Chapman and Hall

White, R. and Ewan, C. (1991) *Clinical Teaching in nursing*. London: Chapman and Hall