Helping your registrar plan their learning

in general practice

GPSA

GENERAL PRACTICE SUPERVISION AUSTRALIA

About this guide

The transition from the hospital setting to general practice is a significant challenge for many new GP registrars. General practice is a unique clinical setting, characterised by a diverse scope of practice, comprehensiveness of care, chronic disease management and continuity of care. Additionally, new GP registrars face relative independence of decision-making, time pressures, clinical uncertainty, unfamiliar practice systems, and financial and billing issues.

The scope of possible learning needs is therefore vast. Not surprisingly, it can be a daunting prospect for the GP registrar to consider 'What do I need to learn?'.

While learning is ultimately the responsibility of the registrar, the GP supervisor has an important role to help their registrar identify, clarify, prioritise and address learning needs. This activity will hereafter be called 'planning learning'.

Planning learning is an ongoing, iterative process for the registrar. Early in the placement, it is more likely to be a deliberate, structured activity based on specific resources and tools. During the placement, it usually occurs in a more ad hoc and opportunistic manner, based on patient encounters, formative assessment and feedback. Planning learning for exam preparation is often a more formal process guided by the curriculum and exam format. At all stages, planning learning may be documented, formally or informally, or not.

This guide has been developed to support the GP supervisor to help their registrar plan their learning. It should be read in conjunction with the GPSA 'Practice-based Teaching in General Practice' guide.

Contents

Introduction

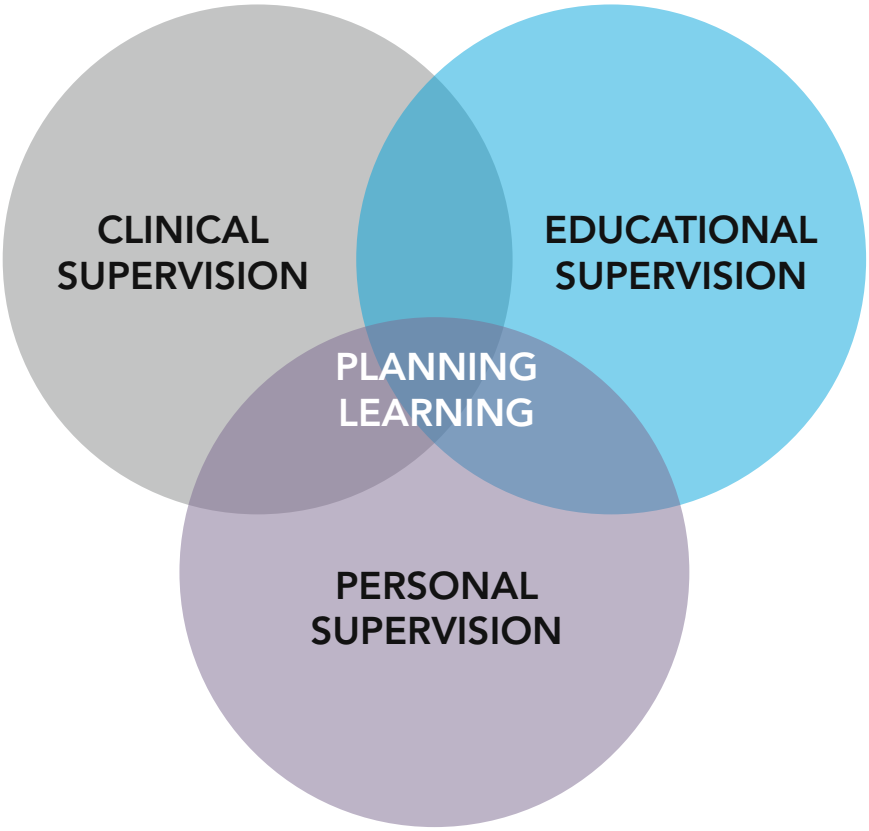
The GP supervisor has been defined as '*a general practitioner who establishes and maintains an educational alliance that supports the clinical, educational and personal development of a resident.*'[1]

In practical terms, this means that supervision in general practice has three core aspects:

1. 1. Clinical supervision, ensuring that the patient is safe.
2. 2. Educational supervision, ensuring the registrar is learning.
3. 3. Personal supervision, ensuring that the registrar is 'OK'.

While planning learning might seem to be exclusively an educational supervision task, it also has a direct impact on clinical supervision, patient safety and registrar wellbeing.

Figure 1. Planning learning sits at the intersection of clinical, educational and personal supervision



Useful concepts for effective learning planning

There are a number of concepts that are helpful to understand and apply when supporting a registrar plan their learning.

Domains of competence

Blooms taxonomy of educational objectives defines three domains of competence, namely cognitive (knowledge), psychomotor (skills), and affective (attitudes).[2] This provides a useful framework for planning learning with registrars, namely:

- What knowledge do I want the registrar to have?
- What skills do I want the registrar to have?
- What attitudes do I want the registrar to hold?

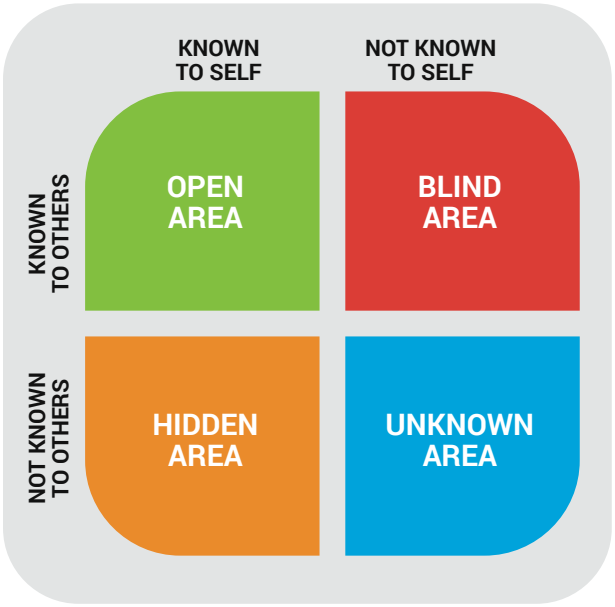
Learning needs, self-assessment and the Johari window

The concept of learning needs arises from adult learning theory, whereby the leaner, through a process of reflection, identifies deficiencies in competence, with the aim of meeting these needs through deliberate action.[3]

The literature distinguishes between 'perceived' learning needs, based on self-assessment, and 'true' learning needs.[4] Evidence suggests that doctors have a limited ability to accurately self-assess.[5] The risk of relying on self-assessment is that perceived needs are unlikely to reflect the true breadth of learning required for competency. Identification of 'true' learning needs requires triangulation of self-assessment with information from multiple other sources.

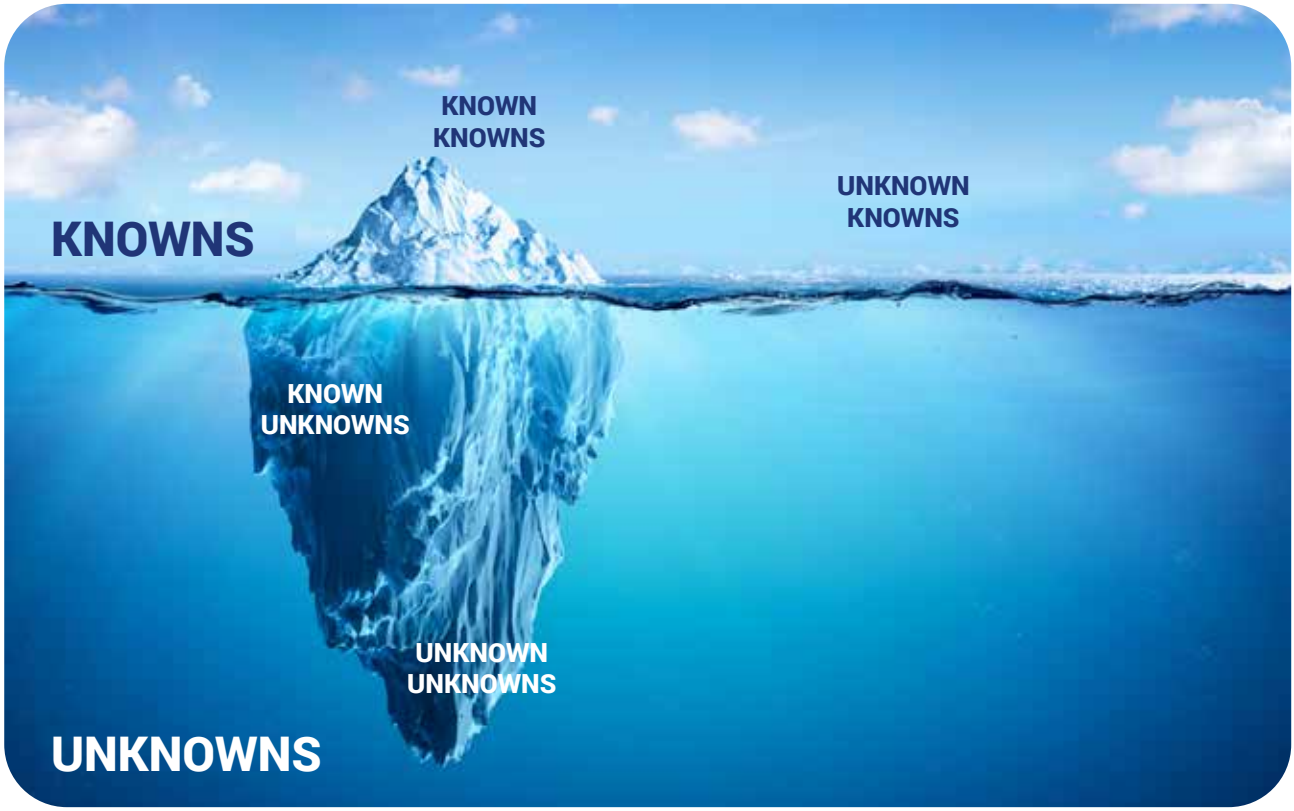
The concept of the Johari window can be useful to consider perceived and true learning needs.[6] It was initially developed as a graphical representation of interpersonal awareness, and has since been adapted to medical education. The supervisor can play a critical role in helping registrars uncover 'unknown unknowns'; those learning needs that the registrar is unaware of. Common unknown learning needs for GP registrars include skills like patient-centred care, professionalism and managing uncertainty.

Figure 2. The Johari Window[6]



Another way of thinking about this is the learning needs 'iceberg', where the unknowns lie below the surface.

Figure 3. The learning needs iceberg



Learning 'wants' versus 'needs'

Another way of conceptualising this is to differentiate learning 'wants' from learning 'needs'. Learning 'wants' are what the registrar **wants** to learn – driven by what they are seeing in practice, identified knowledge and skill gaps, and their interests. Learning needs, on the other hand, are what the registrar needs to learn – dictated by the broader curriculum, the **needs** of the practice and community, and the exams. Asking the registrar 'What do you want to learn, and what do you need to learn?' can help differentiate 'wants' from 'needs', and additionally uncover their motivations to learn and areas that may choose to avoid.

Learning needs identification

Learning needs identification is the process of using tools and methods to identify the learning needs of the registrar, both known and unknown. However, it is artificial to consider learning needs identification (and planning learning) as an activity separate from assessment, feedback and teaching, as they are so interconnected, and the available tools cross all aspects of a supervisor's role. Tools and methods used in learning needs identification are described later in this guide.

A helpful parallel can be made between using tools for learning needs identification and testing for disease in clinical practice. Tools can be used to identify learning needs in a registrar without any specific concerns, as a GP would 'screen' an asymptomatic patient. On the other hand, tools can be used to help identify specific learning needs and plan learning in a registrar who is struggling for any reason, equivalent to using appropriate tests to 'investigate' a patient with symptoms. This is elaborated on the greater depth in the GPSA Guide to the Registrar at Risk.

Learning plans

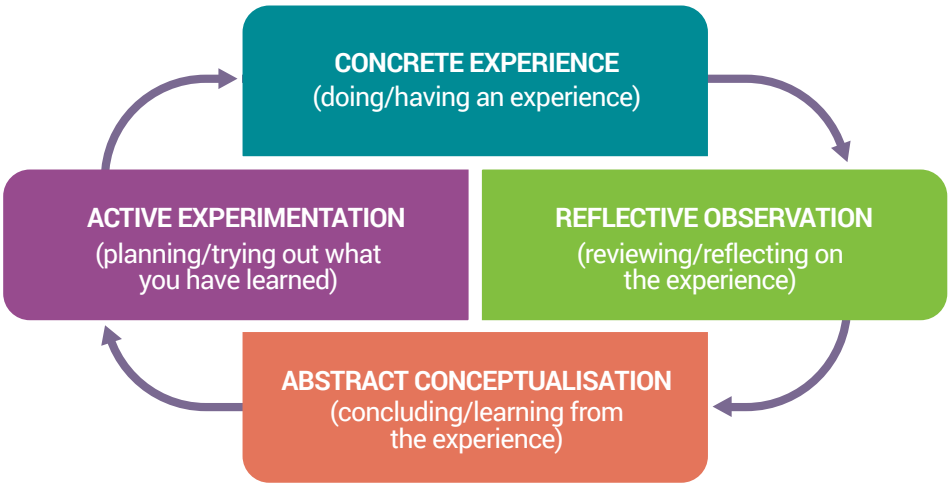
A learning plan is a formal document created to help a registrar better reflect upon and structure their learning. It is based upon self-reflection and other assessments of knowledge and skills. Ideally, it also specifies which learning methods and activities need to be undertaken, and a record of satisfactory completion. Formal learning plans are best developed and monitored jointly by the registrar and supervisor.

Over recent years, there has been a move away from formal learning plans to the more dynamic process of planning learning on an ongoing basis. Learning plans have been found to be perceived as having little value for registrars - a '*bureaucratic hurdle serving as a distraction rather than an aid to learning*'.[7] GPSA does not strongly endorse the development of a formal learning plan, but supports the registrar capturing and documenting learning needs and discussing these with their supervisor.

Reflective practice

Reflection in medical education has been defined as '*a metacognitive process that occurs before, during and after situations with the purpose of developing greater understanding of both the self and the situation so that future encounters with the situation are informed from previous encounters*'.[8] Reflection is critical to identifying learning needs, but also to effective learning. Kolb described a four-stage learning cycle of reflective practice based on experiential learning[9] (see figure 4).

Figure 4. Kolb's experiential learning cycle[9]



Signposting

Another useful concept is the notion of 'signposting'; making explicit when a learning need arises. This involves making clear records of learning needs that arise and making sure they are addressed. This may occur in formal teaching activities, formative assessments, or ad hoc supervision.

TOP TIPS

EFFECTIVE LEARNING PLANNING

- Differentiate registrar learning needs into knowledge, skills and attitudes.
- Be aware of the pitfalls of self-assessment.
- Consider 'perceived' versus 'true' learning needs, and the unknown unknowns.
- Consider using tools for learning needs identification as you would use tests in clinical practice – for screening or diagnosing.
- Discuss the critical role of self-reflection.
- Signpost learning needs as they arise.
- Use a framework for assessing learning needs like the 4R tool (see on page 8).

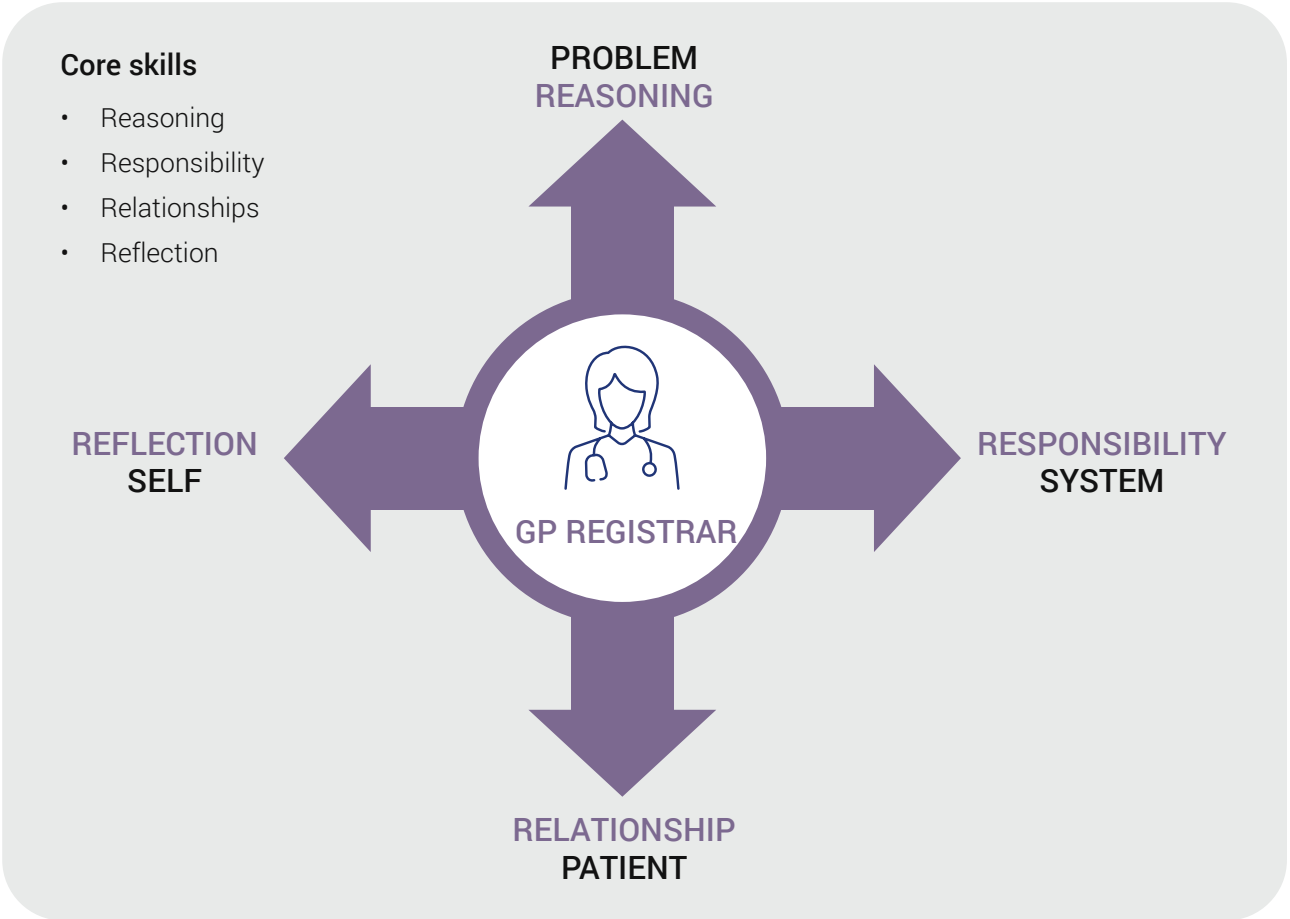
The 4R framework of learning needs identification

As discussed, the supervisor plays a key role in helping their registrar identify learning needs as part of planning learning. It is commonly observed that identified registrar learning needs are primarily (or exclusively) clinical, and the other domains of practice are not considered, or overlooked. These include areas such as professionalism, communication skills, and organisational skills.

GPSA have developed the 4R framework to encourage a broader approach to learning needs identification. The 4R framework is based on the concept that the GP engages with four 'spheres' in their day-to-day practice, namely the patient, the problem, the system, and themselves. This provides a useful framework for exploring and identifying learning needs, characterised by the '4Rs':

1. Relating to the patient.
2. Reasoning the problem.
3. Being responsible to the system.
4. Self-reflecting.

Figure 5. The 4R framework of learning needs identification



Reasoning – 'How well does the registrar engage with the problem?'

Perhaps the most fundamental skill of the competent GP is being able to effectively reason. Clinical reasoning encompasses skills in data gathering (history taking and physical examination), data synthesis and interpretation, generation and prioritisation of a differential diagnosis, rational use of investigations, rational prescribing, formulating a management plan, and evidence-based medicine. It also includes the ability to manage uncertainty.

Responsibility – 'How well does the registrar engage with the system?'

GPs engage with the 'system' in a number of ways, both within and beyond the consultation room – navigating the consultation, patient advocacy, interacting with colleagues, referring for investigations and specialist care, billing Medicare, documentation, writing medicolegal reports, certifying sickness, etc. There are a range of responsibilities associated with this, most prominently the need to maintain a high standard of professional practice.

Relationships – 'How well does the registrar engage with the patient?'

Effective communication and being able to relate to patients are essential skills in general practice. There is strong evidence linking good communication with improved outcomes for both patients and doctors.[10] Building a relationship requires sound skills in communication, patient-centred care, and cultural competence.

Reflection – 'How well does the registrar engage with themselves?'

Reflective practice can improve skills in professionalism and clinical reasoning, and lead to better patient management. Effective reflection also relates to lifelong learning and self-care.

Methods and tools to help identify learning needs

Methods and tools to identify learning needs can be categorised in a few different ways, including:

1. What type?
2. Which tool for which aspect of practice?
3. Which tool for which registrar?
4. Which tool for which stage of training?

1. What type of method/tool?

The tools used to identify learning needs can be classified by type, including review of past experience, registrar self-assessment, formative assessment, formal teaching and objective assessments.

Past experience

The most fundamental way to gauge a registrar's learning needs is to ask them about their past experience and qualifications. This can be done informally or as part of a more formal assessment using a tool like the supervisor assessment tool for IMG registrars.

Registrar self-assessment

Self-assessment tools are good for identifying and clarifying 'known knowns' and 'known unknowns' quadrants of the Johari window (see page 5). While self-assessment is known to be a flawed method, it can provide a good starting point for discussion. There are a range of self-assessment tools, as below.

GPSA 4R self-assessment tool	The GPSA **4R self-assessment tool** (see appendix 1) was developed by GPSA as a tool for registrars to reflect on their perceived competence across the breadth of domains. It aligns to the 4R framework – relating with patients, reasoning the problem, responsibility to the system and self-reflecting.
Clinical self-assessment tool	Clinical self-assessment tools are more specific and allow registrar to reflect on their perceived confidence and /or competence across a range of clinical topic areas. One well known tool for this purpose is the **WentWest Confidence Self-Assessment Grid**.
High risk areas	There are a number of specific clinical presentations that are classified as 'high risk' on the basis of their potential for patient harm. Such a list can be used to identify critical learning needs that may impact on patient safety. Recently, a **Call for Help List** was published which is an excellent tool for this purpose.[11] and FAQ resource.

Learning log	Most learning needs are generated from patient exposure, where the registrar recognises a knowledge or skill gap during or after the consultation. Learning logs are a mechanism to capture identified learning needs as they are generated. **Learning logs** can be anything from an Excel spreadsheet to something as simple as an exercise book ('Post It notes' are not ideal!).
Discomfort Log/ PUNS and DENS	**Discomfort logs**, comprising PUNS (patient unmet needs) and DENS (doctor educational needs) are commonly used in the UK. The registrar records aspects of their practice that cause them discomfort, including any negative emotions experienced during the day. This can serve as a reflective tool and as the basis for discussion with the supervisor.

Formative assessment

There are a range of formative assessment tools and methods commonly used in GP training that can effectively identify learning needs.

Direct observation (DO)	There is perhaps no better way for a GP supervisor to assess their registrar's clinical, consultation and communication skills than by directly observing their interactions with patients. Many tools exist for this purpose, including the RCGP (UK) consultation observation tool (COT). One commonly used tool to assess a registrar's communication skills more specifically is the **Kalamazoo consensus statement**.
Case discussion	**Random case analysis** (RCA) is a form of case discussion that allows identification and exploration of areas where the registrar either does not recognise a clinical knowledge gap ('unconscious incompetence'), or those they wish to avoid ('conscious incompetence')[13]. This can be enhanced by asking hypothetical questions, so-called '*what ifs?*'. As a result, RCA is a particularly effective method to identify unknown learning needs. For more information read the article here. Other methods of case discussion which can highlight specific learning needs are **test result audit and feedback (TRAFk**[14]**)**. (Note this is not a tool but research with more information) or inbox review[14], for rational test ordering) and **critical incident review**, including 'near miss' discussions. Another powerful method is to use role play of **simulated cases**, covering key areas where registrars are known to commonly struggle e.g. undifferentiated presentations, challenging consultations, professionalism issues.
Multi source feedback (MSF)	Feedback from colleagues and patients has been well-established in personal development planning for several years. More recently, MSF has started to incorporate doctor self-evaluation to allow greater reflection on personal performance.[15]

Formal teaching

Many of the formative assessment methods listed above (direct observation, RCA etc.) are also methods of formal teaching. Other formal teaching methods can also be used to identify learning needs. These include problem case discussion (PCD) using the **PQRST framework**[16], procedural teaching, and topic tutorials using the **GPSA teaching plans**. One specific tool commonly used in teaching professional and ethical practice, and an effective method in which to uncover learning needs, is the GPSA Scenario App

Objective assessments

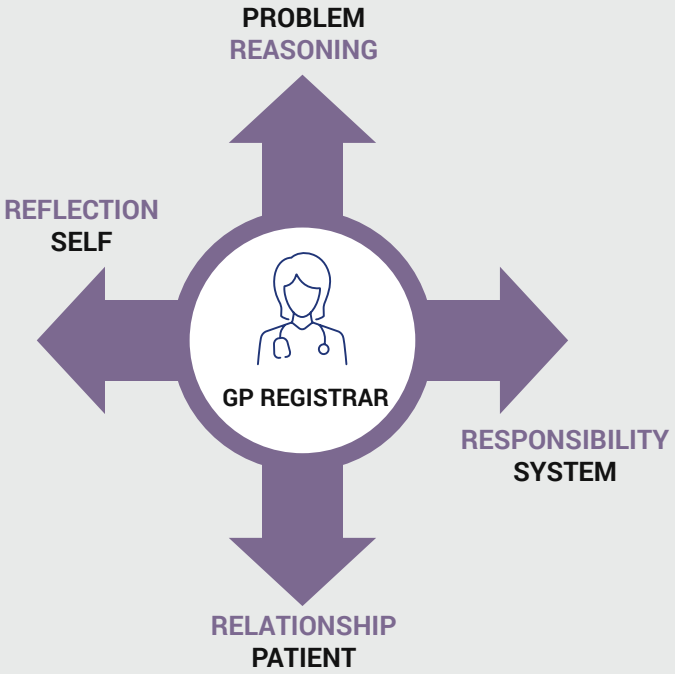
Another broad mechanism of identifying learning needs is review of the registrar's formal assessment activities, for example pre-GPT1 assessment or looking at quiz results. Similarly, registrars who have been unsuccessful in the exam can use this as a learning needs assessment.

2. Which tool for which area of practice?

As above, many of the methods and tools used to identify learning needs are broad, and not specific to one domain of learning. Generally, this is a good thing, as the aim is to uncover unknown learning needs and to cast the net as widely as possible.

However, there are some specific tools available to identify needs in specific domains. The following image identifies which methods and tools are suitable for global or more specific learning need identification.

Figure 6. Learning needs identification - 'Which tool for which area of practice?'



GLOBAL

- 4R learning needs self-assessment tool
- Random case analysis
- Direct observation
- Problem case discussion

REASONING

- Clinical knowledge self-assessment
- High risk presentations
- Quizzes
- Random case analysis
- TRAFk - inbox review
- Simulated cases

RESPONSIBILITY

- Random case analysis
- Simulated cases
- Scenario App

RELATIONSHIP

- Direct observation
- Kalamazoo tool
- Simulated cases

REFLECTION

- PUNS and DENS
- Learning log

3. Which tool for which registrar?

One practical way of working out 'which tool for which registrar?' is to consider the range of scenarios in which a supervisor may need to help their registrar assess learning needs. See table below.

Table 1. Learning needs identification - 'Which tool for which registrar?'

Scenario	Method/tool
I have a registrar who has just started at the practice and I want to help them identify their overall learning needs.	Review of past experience
	IMG self-assessment tool
	4R learning needs self-assessment tool
	Confidence assessment of clinical conditions and presentations
	Roleplay of simulated cases
	Call for help list[11] and FAQ resource
	Direct observation, random case analysis, problem case discussion
	Review of past objective assessments
I have a registrar who is struggling with clinical knowledge and doesn't know where to start.	Confidence assessment of clinical conditions and presentations
	Learning log
	Random case analysis, problem case discussion
	GPSA teaching plans
I have a registrar who is overconfident and I am keen to identify their unknown learning needs.	Direct observation, random case analysis, problem case discussion, inbox review
	Learning log
	Scenario App
	PUNS and DENS[12]
I have a registrar who was born and trained in a country where English was not their first language and is struggling with patient connection and engagement.	IMG self-assessment tool
	Roleplay of simulated cases
	Direct observation, problem case discussion
	Kalamazoo assessment

I have a registrar who is clinically competent and preparing for their exams.	4R learning needs self-assessment tool
	Confidence assessment of clinical conditions and presentations
	Learning log
	PUNS and DENS[12]
	Scenario App
	GPSA teaching plans

4. Which tool for which stage of training?

Early in the placement, it is likely that learning needs assessment is a more formal, deliberate activity. During the placement, it usually occurs in a more ad hoc and opportunistic fashion. The following table gives an idea of when tools and methods may be best used.

Table 2. Learning needs identification - 'Which tool for which stage of training?'

Time	Method/tool
Commencement of term	IMG self-assessment tool
	4R learning needs self-assessment tool
	Confidence assessment of clinical conditions and presentations
	Roleplay of simulated cases
	Call for help list[11] and FAQ resource
First couple of weeks	Direct observation, random case analysis, problem case discussion
Throughout term	Direct observation, random case analysis, problem case discussion, inbox review
	Learning log
	PUNS and DENS[12]
	GPSA teaching plans
	Scenario App
Mid term	4R learning needs self-assessment tool
	Call for help list[11] and FAQ resource

Putting it all together

CASE STUDY

This case study is based on the case from the Practice-based teaching guide.

Harriet is a GP supervisor in a regional town. Her new GP registrar is Veronica, a second term registrar who spent the first six months of her training in a large urban practice. Harriet is an enthusiastic and passionate supervisor and is keen to ensure that Veronica's learning needs are identified and met as comprehensively as possible during the placement. She accesses the new GPSA 'Helping your registrar plan their learning' guide (this resource) for guidance.

On their first day, Harriet ensures a couple of hours are blocked off and sits down with Veronica to start the practice orientation. This includes explicitly discussing Veronica's learning needs, including her unknown unknowns using the Johari window (though she prefers the iceberg!). They talk about Veronica's previous training and experience and review the 4R self-assessment tool and a clinical self-assessment checklist that Veronica has already completed. They also work through the 'call for help' list together. Harriet ensures that the discussion covers non-clinical aspects of practice, including consultation skills, professionalism and medicolegal practice.

That afternoon they undertake an hour of 'reverse direct observation', with Veronica watching three of Harriet's consultations and reflecting on her knowledge and skills.

At their first formal practice-based teaching session a few days later, Harriet sits in on Veronica as she consults with two patients. This raises a number of additional unknown learning needs.

Harriet's early learning needs are described below.

Veronica's learning needs

Type of tool	Learning need
Previous training and experience	PGY6, two years prior to entering general practice doing O&G. Total of 12 months in emergency medicine. Confident in these areas as well as paediatrics. Saw lots of patients with mental health issues in GPT1.
Self-assessment • **4R tool** • **Confidence assessment of clinical conditions and presentations** • **High risk clinical areas**	Clinical learning needs are in men's health, dermatology and management of chronic disease. Consultation structure is sometimes a little disorganised, especially when the patient presents with multiple issues. Time management is also an issue. Other areas include workers compensation and DVA patients.
Formative assessment • **Direct observation**	Needs support in consultation structure and giving explanations to the patient.

They agree to undertake a session of random case analysis in the next couple of weeks in addition to problem case discussion which is likely to occur every session. They also plan for a range of other activities to occur later in the term, including inbox review and role playing a few scenarios. Harriet encourages Veronica to keep a learning log as well as capturing PUNS and DENs.

References

1. Wearne S, Dornan T, Teunissen PW, Skinner T. General practitioners as supervisors in postgraduate clinical education: an integrative review. *Med Educ.* 2012;46(12):1161-73. doi:10.1111/j.1365-2923.2012.04348.x.
2. Bloom BS, Engelhart MD, Furst EJ, Hill WH, Krathwohl DR. *Taxonomy of Educational Objectives, The Classification of Educational Goals. Handbook 1: Cognitive Domain.* David McKay Co Inc;1956.
3. Knowles S, Holton F, Swanson R. *The adult learner: The definitive classic in adult education and human resource development.* 7th ed. Elsevier, Butterworth-Heinemann;2011.
4. Laxdal O. Needs assessment in continuing medical education: a practical guide. *J Med Ed.*1982;57(11) 827-34.
5. Davis D et al. Accuracy of physician self-assessment compared with observed measures of competence: a systematic review. J*AMA 2006*;296(9)1094-102.
6. Luft J, Ingham H. *The Johari window, a graphic model of interpersonal awareness. Proceedings of the western training laboratory in group development.* University of California, Los Angeles;1955.
7. Garth B, Kirby C, Silberberg P, Brown J. Utility of learning plans in general practice vocational training: a mixed-methods national study of registrar, supervisor, and educator perspectives. *BMC Med Educ* 2016;16(1)211. doi:10.1186/s12909-016-0736-8.
8. Sandars J. The use of reflection in medical education: AMEE Guide No. 44. *Med Teach.* Aug 2009;31(8):685-95. doi:10.1080/01421590903050374.
9. Kolb D. *Experiential learning: Experience as the source of learning and development.* Prentice-Hall;1984.
10. Warnecke E. The art of communication. *Aust Fam Physician* 2014;43(3)156-8.
11. Ingham et al. A 'call for help' list for Australian general practice registrars. *AJGP* 2020;49(5)280-7.
12. Eve R. *PUNs and DENs: Discovering Learning Needs in General Practice.* 1st ed. CRC Press; 2002. doi:10.1201/9781315376745
13. Morgan S, Ingham G. Random case analysis A new framework for Australian general practice training. *Aust Fam Physician* 2013;42(1)69-73.
14. Morgan S. Test result audit and feedback (TRAFk) as a supervision method for rational test ordering in general practice training. *Aust Fam Physician* 2016;45(7)518-22.
15. Wood L, Hassell A, Whitehouse A, Bullock A, Wall D. A literature review of MSF systems within and without health services, leading to ten tips for their successful design. *Med Teach.* 2006;28:e185–91.
16. Morgan S. PQRST: A framework for case discussion and practice based teaching in general practice training. *AJGP* 2021;50(8)603-6.

GPSA
GENERAL PRACTICE SUPERVISION AUSTRALIA

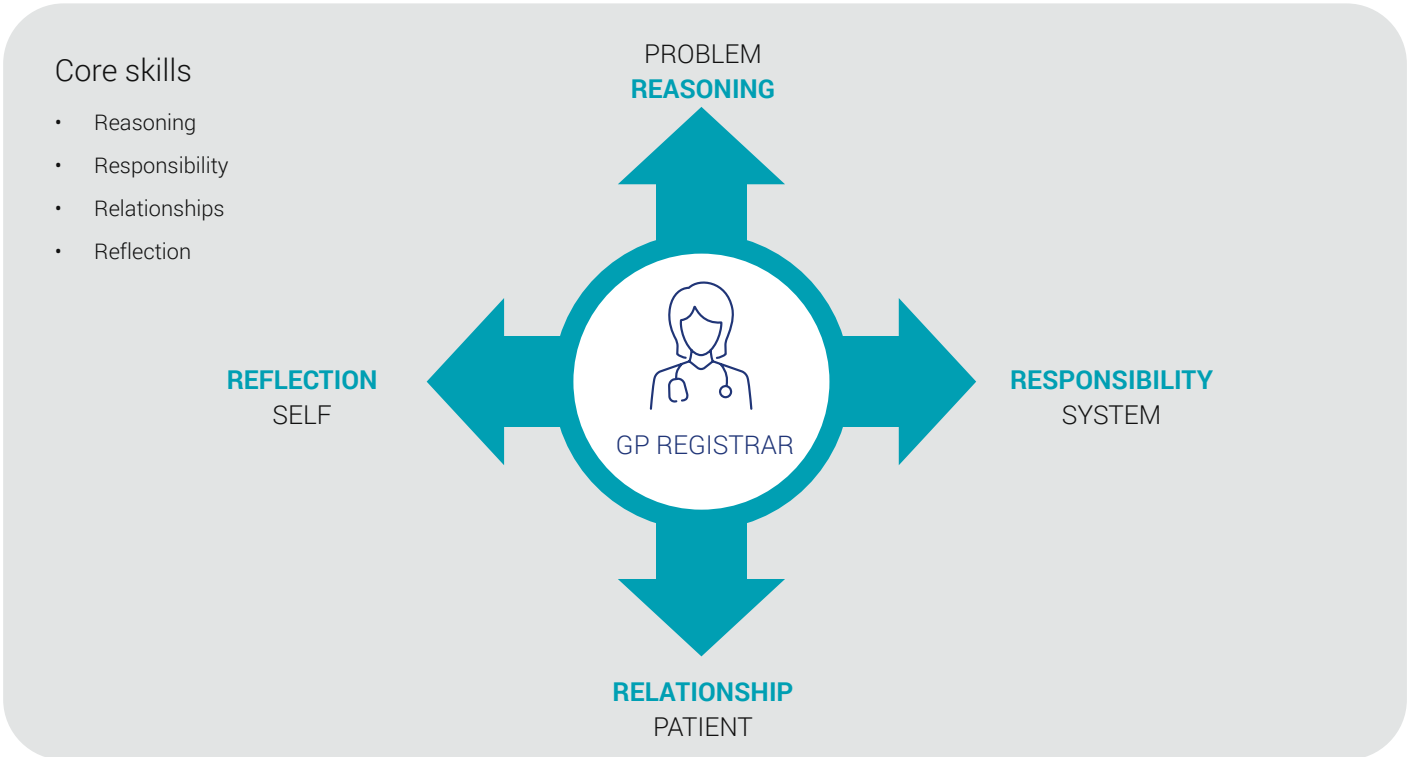
4R learning needs

SELF-ASSESSMENT TOOL FOR GP REGISTRARS

INTRODUCTION

It can be conceptualised that the safe and effective GP interacts with four 'spheres' in their day-to-day practice, namely the patient, the problem, the system, and themselves. This provides a useful framework for the registrar and supervisors to explore learning needs, namely competence in:

- Relating to the patient
- Reasoning the problem
- Being responsible to the system
- Self-reflecting



4R LEARNING NEEDS SELF-ASSESSMENT TOOL

The GPSA 4R learning needs self-assessment tool was developed for registrars to reflect on their perceived competence across a range of skills. While self-assessment is known to be a flawed method of assessment (respondents commonly under- or over-estimate their competence!), it can provide a good starting point for discussion.

We recommend that this tool be implemented at the commencement of term and at the mid- and end-of-term supervision meetings.

Thank you for creating
a positive learning environment

4R LEARNING NEEDS SELF-ASSESSMENT TOOL

INSTRUCTIONS

Complete the following self-assessment tool by rating your competence for each item, where:

1 – VERY GOOD	2 – GOOD	3 – FAIR	4 – POOR

Include comments where relevant. Discuss with your supervisor once completed.

	Rating				Comments	Supervisor notes
	1	2	3	4		
RELATING TO THE PATIENT						
Communication						
Speaking and writing English						
Communicating in challenging scenarios e.g. breaking bad news						
Patient-centred care						
Building a relationship with my patient and developing rapport						
Identifying my patient's agenda						
Sharing decisions with my patient						
Cultural competence						
Managing patients from different cultural backgrounds, including Aboriginal and Torres Strait Islander people						

	Rating				Comments	Supervisor notes
	1	2	3	4		
REASONING THE PROBLEM						
Clinical skills						
Data gathering (history and examination)						
Choosing investigations wisely						
Prescribing medications rationally						
Developing a management plan						
Clinical reasoning skills						
Weighing up, synthesising and interpreting information						
Generating a differential diagnosis						
Managing uncertainty						

	Rating				Comments	Supervisor notes
	1	2	3	4		
BEING RESPONSIBLE TO THE SYSTEM						
Navigating the consultation						
Structuring the consultation and managing time						
Professional, ethical and medicolegal						
Managing professional and ethical issues e.g. boundaries, consent						
Managing medicolegal issues e.g. consent, confidentiality						
Organisational issues						
Understanding the Australian health care system, Medicare, PBS						
Organising and managing workload						
Documenting notes and using practice systems						
SELF REFLECTING						
Studying and learning effectively						
Receiving feedback						
Self-care						
Looking after myself						

GPSA

GENERAL PRACTICE SUPERVISION AUSTRALIA

gpsa.org.au

facebook.com/GPSupervision

twitter.com/GPSupervision