WEBINAR

GPSA
GENERAL PRACTICE SUPERVISORS AUSTRALIA

Teaching techniques and the General Practice Study System

When planning your in-practice teaching, it is beneficial to be open-minded to alternative instructional designs, and using a navigation tool such as the GP Study (GPS) System to assist these methods.

This resource looks at alternative approaches to in-practice teaching to enhance a GP registrar's understanding of the GP domains, while exploring the populations, presentations and processes in general practice – and how the GPS System can help GP supervisors on their teaching journey.

Why should I adopt more than one teaching technique for formal in-practice teaching?

Every registrar who starts their term in your practice will arrive with varied experience, knowledge, confidence level, and learning style. So, it makes sense a one-size-fits-all teaching approach will not efficiently guide every registrar on their journey to fellowship. A predictable technique for every in-practice teaching session may also, over time, become less engaging and effective for GP registrar learning.

How should I approach the content of my registrar's protected learning time?

Reflecting on what behaviour you want to change in your GP registrar is a good starting point for teaching.

For example, ask yourself: *"What do I want my registrar to do differently after today's session?"*

This approach will help you build your teaching session around the behaviour you want to change, rather than what piece of knowledge you want to achieve.

Be flexible to who leads the content. That is, mix up how each session is run. For example:

- Registrar-led topics facilitated by the supervisor

- Supervisor-led topics

- Combination of registrar-led and supervisor-led topics

- Refer to RTO guide

- Use General Practice Supervisor Australia (GPSA) resources, such as GPSA teaching plans, available at http://gpsupervisorsaustralia.org.au/teaching-plans/ and GPSA flash cards, available at http://gpsupervisorsaustralia.org.au/flash-cards/ See more GPSA educational resources at http://gpsupervisorsaustralia.org.au/

What do I need to consider when planning each registrar's learning?

You need to consider your GP registrar's breadth of knowledge and experience. So, make a point of learning about their learning journey before they joined your practice. For example, what they want to learn, and what they don't realise they need to learn. Ask them what teaching styles did and did not work for them before they joined your practice. You should have this conversation during your GP registrar's orientation to the practice.

I am already an experienced GP supervisor, so do I really need to adjust my style for formal in-practice teaching sessions with my GP registrars?

Experience should not mean settling for the same approach each session: there is always opportunity to become a more effective teacher. If you have always taught and learnt in a certain way, you may naturally always refer to that method; but if you challenge yourself to try something different, you may discover more efficient, engaging and beneficial teaching methods for individual situations and learners, and specific topics.

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What reflections can I make to improve my teaching style?

Whether you are experienced or new to supervision, you should continually reflect on your teaching methods. For example, ask yourself the following:

- *What is my GP registrar's learning style, learning experience, life experience and work experience?*
- *How often does my GP registrar's learning plan inform the teaching session?*
- *How often do we explore non-clinical topics? That is, the non-applied knowledge domains of general practice?*
- *How often do I ask my GP registrars how they like to learn?*
- *Do I have a favoured way of teaching?*
- *How do I know if my GP registrar has learnt anything?*
- *Who else can assist with the teaching?*
- *What else does my GP registrar need to do in addition to passing exams?*

Should our teaching sessions focus only on what GP registrars need to know for exams?

Fellowship is not just passing exams, which is largely what GP registrars want to focus on: there are a lot of other components to fellowship which you also need to guide your GP registrar.

So, while exams measure the science of general practice, the art of general practice is measured by GP supervisor reports, patient feedback, ECT visits and reports, etc.

What do I need to keep in mind to help my GP registrar prepare for the exams component of fellowship?

To help your GP registrar prepare effectively for exams, you should make yourself familiar with the exam technique and common content, as well as timing of exams.

For more information, read: GPSA FAQ resources Preparing your GP Registrar for the KFP and Supporting GP Registrars Who Have Failed an Exam at http://gpsupervisorsaustralia. org.au/frequently-asked-questions-more/

How much input should my GP registrar have in their learning plan?

The GP supervisor should not shoulder the responsibility for driving the teaching content. Remember, your GP registrars are adult learners and should help direct what they need to learn under your mentorship.

How can I further enrich my GP registrar's learning?

You do not need to be your GP registrar's sole teacher! Enrich their learning environment by promoting a culture of integrated and interprofessional teaching, involving your GP colleagues, other GP registrars and allied health professionals in the practice. Not only will this enrich the learning and teaching environment, it will also relieve the workload on you as their primary GP supervisor.

For more information, read Vertical and Horizontal Learning Integration in General Practice at http://gpsupervisorsaustralia.org.au/guides/

What instructional design theories can I use to enhance my GP registrar's learning?

Instructional design is a model used to define the activities that will guide the development of a learning (usually elearning) project. Instructional design is the purpose and reason behind a strategy.

There are four common models:

1. ADDIE
2. Merrill's Principles of Instruction
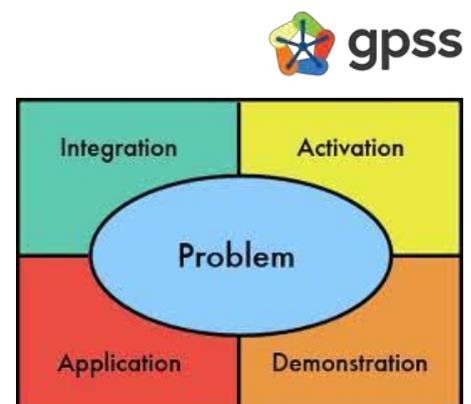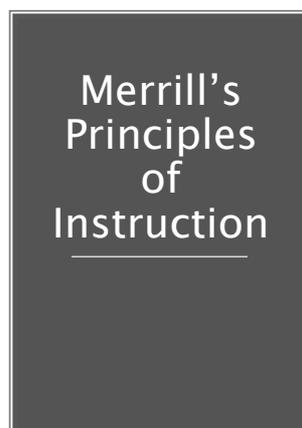3. Gagne's Model
4. Bloom's Taxonomy

The ADDIE MODEL

This is the model is commonly used by supervisors to organise their teaching. It is a continuous cycle of reviewing needs, educating, reviewing performance and then making changes to the design of a teaching session, analysing the situation, redesigning, and re-evaluating.

The ADDIE Model
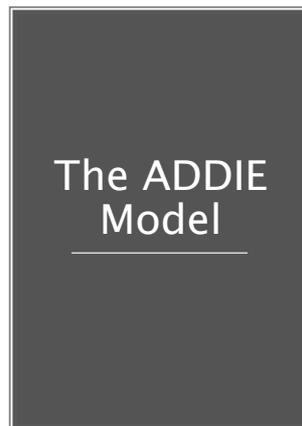
MERRILL'S PRINCIPLE OF INSTRUCTION

This is the model on which 'teaching on the run' is based, as well as random case analysis (RCA).* Merrill's model is very task centred, which is ideal for adult learners, such as GP registrars. Adult learners always want to know how they are going to use the information and it needs to be relevant before they will learn it.

Merrill's Principles of Instruction

MERRILL'S PRINCIPLE OF INSTRUCTION

Task-centred principle	Learner generates a problem or task in the real world. I.e. registrar generates a clinical case.
Activation principle	The teaching activates existing knowledge in the learner and that helps them connect the case and the knowledge.
Demonstration principle	Teaching involves a demonstration (visual or auditory) to promote depth of learning.
Application principle	Encouragement for the learner to apply the new information in their real-world environment. E.g. *"Let's talk about a case."* *"Let's learn something new about …"* *"How are you going to do it differently next time?"* *"Why don't you try that with the next patient you see who presented with that problem?"*
Integration principle	Discussion, reflection and presentation of the new knowledge, which encourages all to be integrated.

*Teaching on the run is when a GP registrar comes to you with a problem, and you need to explore it. RCA is when a supervisor randomly chooses a clinical case to discuss with their GP registrar, exploring the different domains of general practice.

For more information about RCA, read:

- GPSA guide Random Case Analysis in General Practice http://gpsupervisorsaustralia.org.au/guides/

- Random Case Analysis FAQs https://gpsupervisorsaustralia.org.au/download/3676/

GAGNE'S NINE EVENTS OF INSTRUCTION

Gagne's model is the most common design model in e-learning. It divides teaching into nine steps. This is a very behaviouralist approach to learning, and it can be used in different learning environments and situations. Gagne's model enhances knowledge retention and how to transfer these skills to the real world. The GP supervisor can enhance this style of teaching by using tools, such as mind mapping, summarising, flash cards, job aids such as flow charts, etc.

Gagne's Nine Events of Instruction

GAGNE'S MODEL

GET	Get their attention	E.g. A short video related to the topic.
INFORM	Inform objectives	Inform the outcomes of the lesson, and how it will be measured.
STIMULATE	Stimulate recall	Leverage on the learner's existing knowledge and build on it with new knowledge.
PRESENT	Present the content	Present small amounts of content, and often.
PROVIDE	Provide guidance	Give real-life examples or case studies.
ELICIT	Elicit performance	Use varied activities to assist the registrar in recall of that knowledge and to evaluate if they have put those changes in place.
PROVIDE	Provide feedback	Immediate, informative, remedial, as required.
ASSESS	Assess performance	Assess and test performance against criteria that you previously discussed with the registrar.
ENHANCE	Enhance retention and transfer to the job	Use tools such as mind mapping, summarising, flashcards, flow charts and other tools you can develop within your practice.

BLOOM'S TAXONOMY

The principles of this teaching rely on ensuring baseline knowledge is adequate for the GP registrar to advance their ability to clinically reason or contextualise that knowledge. So, when planning learning objectives, the GP supervisor needs to consider the GP registrar's depth of knowledge and synthesise what they want the GP registrar to have.
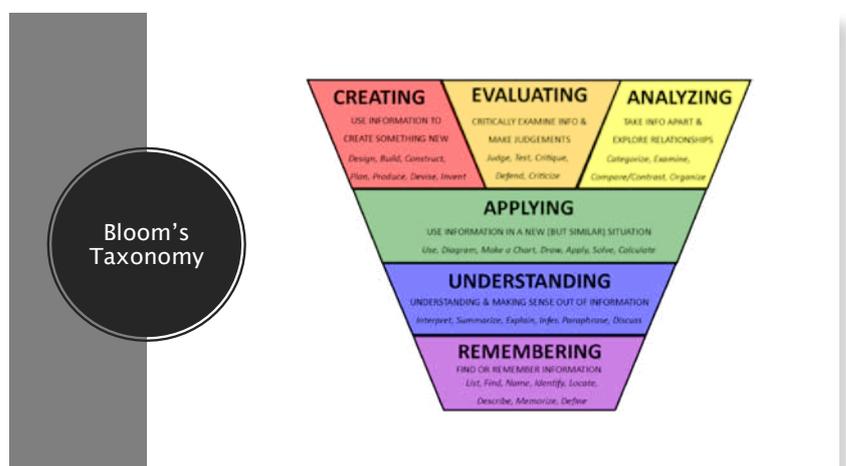
Bloom's Taxonomy

How should I choose which method(s) to use in different teaching sessions?

The four instructional design theories (ADDIE, Merrill's Principles of Instruction, Gagne's Model, and Bloom's Taxonomy) have a starting point in common: start with a learning objective. So, it's important for you to work out the learning goal first.

Here are some things to consider when choosing a method for different topics:

- Work out your learning objective first, and then consider which models serve these learning goals.

- Don't be tempted in choice by bias to past experience and preference.

- Evaluate the pros and cons of the model – you can mix and match models.

- As a teaching team, work with strengths and ensure you a have a co-ordinated approach to teaching models.

- Consider the audience. That is, your GP registrar's skills, abilities and traits.

- Assess the required resources.

- Make the session interactive and engaging, and consider learning styles.

- Consider your future audience. Is the model you have chosen for this teaching topic adaptable for future learners?

Should I write a new teaching plan each time I teach a particular topic with a new GP registrar?

GP Supervisors don't have time to continuously rewrite teaching sessions. So, try and choose a model for each teaching session that is adaptable for use with different learners on other occasions. Choosing a plan that is adaptable means you will be able to predominantly use the same session on other occasions, no matter what stage of learning your GP registrar (or medical student) is at.

What is the GPS System?

The GPS System is a resource designed to stimulate learning across the domains, populations, presentations and processes within Australian General Practice.

It can be used for individual or small group learning, in conjunction with a study plan, and as a prompt for in-practice teaching.

The GPS is available as a boxed set of 90 topic cards, education cards and learning tools, or an electronic web-based version accompanied by linked resources.

It allows users to choose a topic, review the focus areas, try suggested activities and explore a learning tool.

The GP Study System is available from Medical Education Experts, and is endorsed by GPSA.

Does the GPS System provide a GP supervisor options to alternate teaching techniques?

Yes. The GPS System resources apply different instructional designs to a level of the college curriculum, allowing GP supervisors to alternate teaching techniques.

What are the components of the GPS System?

The GPS System provides a structured, scaffolded approach to helping GP registrars successfully prepare for exams. The first tier of the system is a study planning app, the second tier is the GP Study System which explores the domains of general practice, and the third tier focuses on clinical reasoning.

This system contains the Medical Assessment Preparation (MAP) App, which can help GP registrars prepare for the Applied Knowledge Test (AKT); GP Study (GPS) System, which helps GP registrars prepare for the Key Feature Problems (KFP); and clinical reasoning module.

| Medical Assessment Preparation (MAP) App | → | GP Study System (GPS) | → | Clinical Reasoning Module |
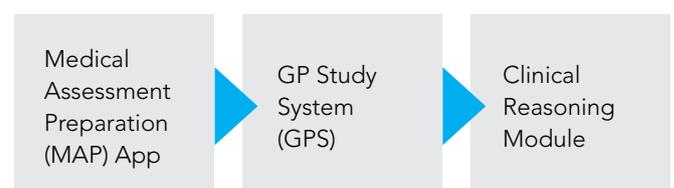
Who can use the GP Study System?

While the system is written from a level of curriculum for a GP registrar, it can be used by anyone who is involved in teaching or learning in general practice. The resources can be used for individual study, as a prompt for a small group, in-practice learning, as a scaffold for protected teaching time, a way to plan activities, and a way of calibrating and evidencing your learning (looking at what your registrar should know as compared to the curriculum).

For example, the system is a great educational tool for:

- Medial students and pre-vocational doctors undertaking rotations in general practice.

- Doctors studying for the RACGP Fellowship exams.

- GP supervisors and GP mentors.

- GPs undertaking their PLAN QI and PD requirements.

When can the GPS System be used?

This system is appropriate to use as follows:

- An adjunct to a plan for learning for individual study.

- A prompt for small-group in-practice learning.

- A scaffold for protected teaching time.

- A way of informing different approaches to plan activities.

- A way of calibrating and evidencing learning.

- A way of exploring the diversity of educational techniques.

How does MAP work?

Doctors enter their personal details, such as age, gender, country they trained in, predominant group of patients they see, what exams they have sat/passed/failed, and what exam they are sitting next. Doctors are then asked to rank their confidence level on 30 different topics within the curriculum.

Once the doctor has recorded their demographic profile and confidence against various topics, MAP creates a study plan suited to their needs. Doctors check in with their learning plan at any time and rate their confidence again, to reset a new study plan.

For example:

- **Profile: Dr John**
  Dr John Male doctor, older than 35 years, trained overseas in his primary medical qualification, working in a large urban practice and mainly seeing an elderly demographic, and has failed the Objective Structured Clinical Exam (OSCE).

- **MAP study plan: Dr John**
  Focus on women's health, mental health and paediatrics with the prominent domain being communication skills because this doctor failed the OSCE.

FREQUENTLY ASKED QUESTIONS

How does the GPS System work?

The GPS System has the same 30 curriculum-based topics as the app. Each topic has list of topics where GP registrars should focus their learning, based on BEACH data and other common presentations in general practice.

GP STUDY SYSTEM

30 topics based on RACGP curriculum	Each topic provides: • Focus areas – where to target learning. • Education cards – activities based on each domain of practice. • Learning tools – learning approaches for each domain of practice.
20 learning tools	• Recognised learning approaches detailed in a simple stepwise fashion. • Supporting resources.
Available in two forms	• GPSA flash cards • Online
Access to forums	Online forum for everything GP Study System related.

What do the GPS System flash cards and online formats provide?

Both systems provide the same content. However, they are suitable for different learning occasions.

GPSA flash cards: GP Supervisor Australia flash cards are ideal for tearoom teaching, and can be used for individual or small group learning.

For example, you can place a box of cards in the middle of the tearoom table and the GP registrar following a MAP study plan might say, *"This week I need to do Aboriginal health, and I'm not really confident with communication skills."*

You can then pull out a card (for example Custodial health), refer to its communication skills section, and use that activity with your GP registrar, or group of GP registrars.

The flash cards are good for GP registrars who are kinaesthetic and visual learners. The flash cards are a problem-based approach, as per Merrill's design of them.

For more information, visit http://gpsupervisorsaustralia.org. au/flash-cards/

GPS System online: This web-based resource provides the same 30 topics as the flash cards and is hyperlinked to the curriculum and electronic resources. It is a valuable educational resource for individual study before exams. The online system is available for subscription.

For more information, visit https://mededexperts.com.au/the-map-app-and-gps-system-resources/

Online – Education Topics

Does the GPS System provide efficiencies for the evaluation phase of teaching?

Since the GPS System facilitates the GP registrar completing a lot of the groundwork in self-learning the content and exploring the domains, it frees more time for you as the GP supervisor to help your GP registrar look for evidence, and give feedback.

The GPS System provides learning tools to teach looking for evidence, including:

• Case report

• Chart audit

• Clinical audit

• Critical appraisal

• Direct Observation of Practice

• Direct Observation of Procedural Skills

• Mini-Clinical Examination (Mini-CEx)

• Multisource Feedback (MSF)

• Other: Quizzes (for example AFP Clinical Challenge), Check online

Thanks to:

Dr Rebecca Stewart
Medical Education Experts

Does this resource need to be updated? Contact GPSA: P: 03 5440 9077, E: ceo@gpsupervisorsaustralia.org.au, W: gpsupervisorsaustralia.org.au
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