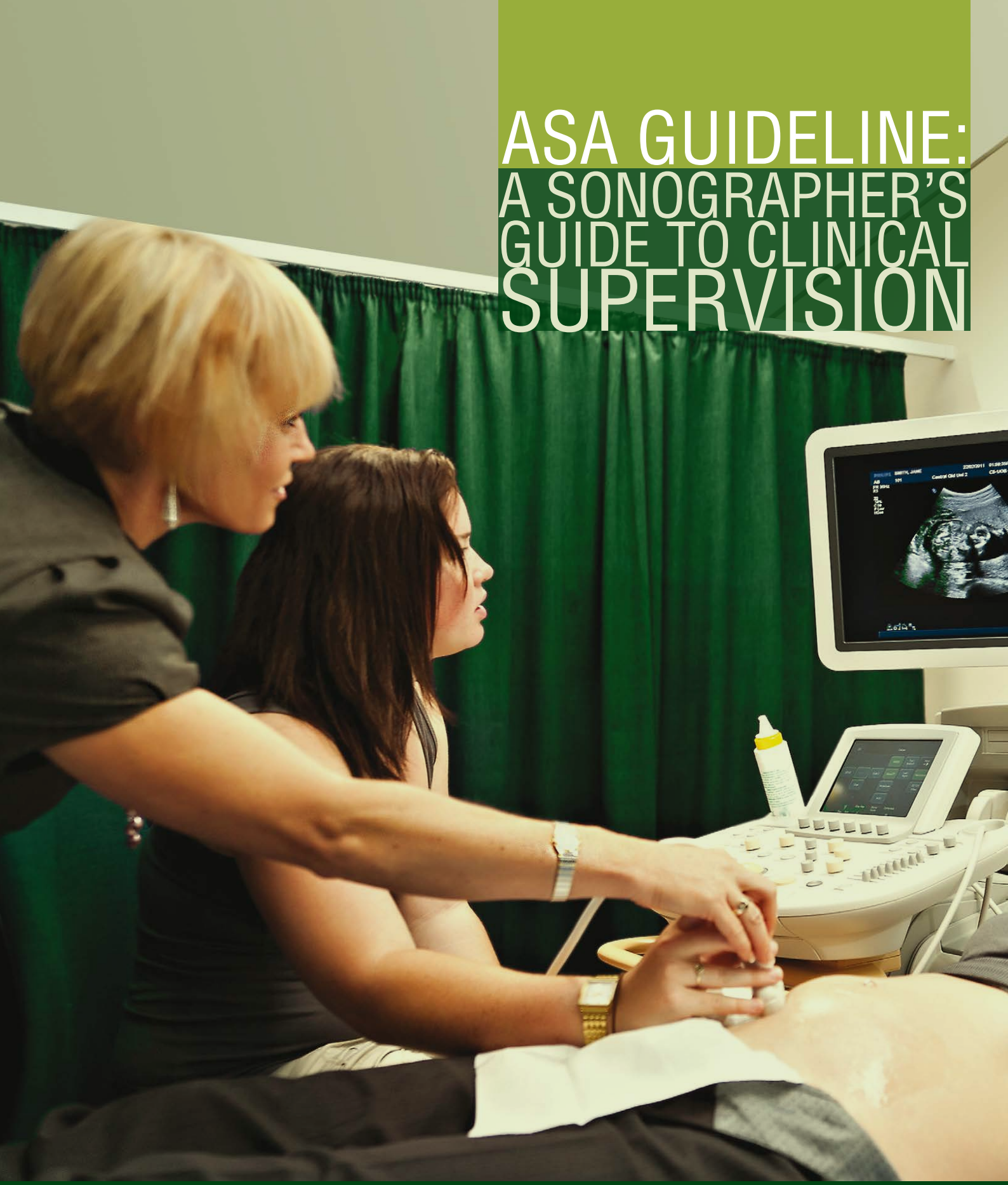
ASA GUIDELINE: A SONOGRAPHER'S GUIDE TO CLINICAL SUPERVISION



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1. Introduction

A sonographer's guide to clinical supervision has been developed by the Australasian Sonographers Association (ASA), with the support of the Victorian Government, to improve the quality and consistency of clinical training of sonographers.

This guide is not a policy document. Building on a 2012 literature review commissioned by Health Workforce Australia,[1] it gives strategies based on published evidence on what makes good supervision. It provides information to equip supervisors with practical strategies to facilitate adult learning and the acquisition of skills and knowledge.

This guide is an introduction to the fundamentals of supervision and includes useful resource materials that can be used to support the clinical supervision of trainee sonographers. This document should be used in conjunction with existing site-specific supervision requirements and policies, and will be reviewed regularly to ensure the information made available is current and useful.

2. Background

Health Workforce Australia (HWA) was an Australian Government initiative that focused on addressing health profession workforce shortages and the significant challenges they present to the quality and sustainability of healthcare in Australia. This issue was highlighted for sonography in a 2009 study conducted by the Australian Health Workforce Institute, which found growth in ultrasound services exceeded the growth of the workforce. This study determined that one of the main barriers to increasing the supply of qualified sonographers was a shortage of training places.[2]

To support clinical training for all health professions, HWA developed the Clinical Supervision Support Program (CSSP) that supports projects and activities that promote the quality and capacity of clinical training and supervision across Australia. The CSSP framework is built upon three key areas considered imperative to clinical training: clarity, quality and culture.[3] The primary strategy of the ASA to address the importance of high quality clinical training has focused on effective supervision through the development of this handbook: *A sonographer's guide to clinical supervision.*

As allied health professionals, sonographers have a critical role in the identification and management of health problems and disease. Effective supervision is essential to the development of competent graduate sonographers. Despite the well-documented support and importance placed on effective supervision, historically less attention has been directed towards the training of supervisors. There are excellent clinical supervisors that have no formal training; however, many tend to supervise or educate based on their own educational experiences. This cycle can be potentially limiting and can result in the perpetuation of suboptimal teaching and learning practices.[4] Competency in supervision requires training.[5] Sonographers undergo years of training to gain expertise; however, few have gained formal training in educational practices. This guide gives an introduction to these practices to support the development and quality of clinical supervisors.

Clinical supervisors need a supportive workplace to deliver training, and this is often underestimated and underappreciated. The workplace needs to value the importance of quality teaching and training and support strategies to facilitate this process. It is important that training be seen as a long-term investment. High quality teaching and training produces high quality sonographers. A workplace that embraces a culture of quality will have greater sonographer contentment and morale, which can lead to increased productivity and higher retention rates in the long term. A culture of lifelong learning will assist the next generation of trainee sonographers and promote best practice within the profession.

3. Objective

The objective of this guide is to support quality clinical supervision through the provision of educational knowledge and information with practical approaches for clinical training. Clinical supervisors need to ensure high quality care and patient safety while promoting students' professional development.[6] This can be challenging for the supervisor and the trainee in busy workplace environments.

This guide outlines the expected knowledge gain and outcomes through the recommendations of evidence-based supervisorial and educational practices. Through the understanding of education theory and the development of practices that embrace effective supervision, improvements can be made in the quality of the supervisor, the student, the supervisor-student relationship and, overall, the effectiveness of clinical training. This guide will support supervisors to:

- understand the purpose of clinical supervision
- understand the roles and responsibilities of clinical supervision
- understand the key components to effective supervision
- identify the supervisory skills and barriers to effective supervision
- understand the current theory behind adult education principles and learning styles
- engage in methodology to facilitate clinical learning, including reflective practice
- identify the key components of effective feedback and clinical assessment
- evaluate the supervision process and one's own supervision skills
- recognise underperforming students and understand effective management strategies to deal with these situations.

4. Definitions

Clinical placement – an opportunity in a professional setting for the education and training of trainees for the purposes of integrating theory into practice; familiarising the trainee with the practice environment; and building the knowledge, skills and attributes essential for professional practice and registration as identified by the education institution and ASAR or NZMRTB registration.

Clinical supervision – the oversight (direct or indirect) by a clinical supervisor of professional procedures and/or processes performed by a trainee or a group of trainees within a clinical placement for the purpose of guiding, providing feedback on, and assessing personal, professional and educational development in the context of each trainee's experience of providing safe, appropriate and high quality patient care.

Clinical supervisor – an appropriately qualified and recognised professional who guides trainees' education and training on clinical placements. The clinical supervisor's role may encompass educational, support and managerial functions. The clinical supervisor is responsible for ensuring safe, appropriate and high quality patient care.

The role of the clinical supervisor and the functions of clinical supervision may be provided by more than one individual. The definitions encompass situations where the clinical supervisor is simultaneously conducting his or her own professional practice and also situations where the education and training element is conducted independently of professional practice.

Competency – the ability of an individual to do a job (in this case, clinical supervision) properly. A competency is a set of defined behaviours that provides a structured guide to the identification, evaluation and development of particular skills and knowledge in individual workers. A person is deemed competent when they have acquired sufficient competencies to perform the (clinical supervision) work required of them to an acceptable and agreed standard.

Learning plan – a document that is used to plan and facilitate learning of an individual or group, usually over an extended period of time (for instance, the length of a clinical placement).

Trainee or student – an accredited student sonographer on the Australian Sonographer Accreditation Registry (ASAR) register or trainee sonographer on the New Zealand Medical Radiation Technologists Board (NZMRTB) register. The terms 'student' and 'trainee' may be used interchangeably.

5. Clinical supervision

The aim of supervision is to ensure the delivery of high quality service and patient care whilst simultaneously facilitating the learning and development of students through the acquisition of knowledge and skills. The ability to provide this level of supervision requires more than good ultrasound skill and experience. A supervisor needs to understand the fundamentals of supervision and acquire the skills and knowledge that facilitate effective supervision. Additionally, a workplace that has committed to student training has a responsibility to support the supervisor by providing the time, resources and the training needed to perform their role.

> *'Providing effective clinical supervisory support enhances quality, safety and productivity and improves competence and confidence in clinical practice.'*[7]

5.1 Functions of supervision

An understanding of what supervision involves gives clarity and raises awareness that supervision goes beyond the traditional view of 'keeping an eye on the student'. Supervision is a critical aspect of both service quality and safety and student learning and development.[8] The functions of supervision can be defined as educational (formative), supportive (restorative) and administrative (normative).[9,10]

> *'While the main function of supervision is overseeing the provision of practical training and/or a learning experience for the learner, supervision also includes providing various forms of support.'*[11]

5.1.1 Educational

Educational support for students focuses on the students learning through:

- providing knowledge
- teaching and demonstrating clinical skills
- developing self-awareness in abilities and skills
- developing self-evaluation and reflection on practice
- addressing blind spots in practice, attitudes and knowledge
- integrating theory into practice
- explaining rationale/theory of actions
- developing goals and monitoring achievement
- facilitating professional reasoning.

5.1.2 Supportive

Trainees need stability through emotional support. This can be achieved through the maintenance of a harmonious supervisor-student relationship, which involves:

- sustaining trainee morale
- dealing with trainee stresses
- validating ideas, feelings and experiences
- developing professional self-worth
- supporting work-life balance.

5.1.3 Administrative

Positive administrative functions ensure the promotion and maintenance of good work standards, ethical practice, accountability measures and adherence to policies and procedures. This also includes:

- promotion of high quality standards of work
- clarification of roles and responsibilities
- clarification of performance standards

- review and assessment of work
- compliance with policy and procedures
- support for evidence-based healthcare.

Notably there is the potential for conflict of interest where a clinical supervisor is also involved in operational management. This may impact on the supervisor-student relationship due to the inherent power imbalance that exists with a line manager's role.[12] Some authors suggest that separate individuals should conduct these roles; however, this may be impractical, particularly in the rural and remote setting with less staffing. Supervisors with a dual role in management may need to consider strategies such as liaising with a third party in situations when objectivity has the potential to be compromised.

In 2014, Health Workforce Australia released the *National Clinical Supervision Competency Resource*[13] which outlines the core competencies of a clinical supervisor, provides a baseline for uniform quality and supporting the continuation and further development of a high quality clinical supervision workforce. This resource is complemented by the Victorian Government *Clinical Supervision Skills Review Tool*[40] to assess clinical supervision competency.

The *Clinical Supervision Skills Review Tool* can be accessed via the Victoria Government's Health Workforce Information Portal, KnowledgeBank, at https://vicknowledgebank.net.au/wp-content/uploads/Clinical-Supervision-Skills-Review-Tool.pdf

6. Effective supervision

Compared to other allied health professions, sonography is unique in that approximately 80% of its trainees are postgraduates that are employed in the workplace. This can complicate the relationships and boundaries between the education institution, the workplace and the trainee.

The foundation of effective clinical supervision begins with the need for a workplace to value its importance. Without a strong commitment to support effective supervision, the quality of the trainee's education, the standard of work performed, and the patient care provided could all be diminished.

> *' Direct supervision and the quality of the supervisory relationship is also key to effective supervision.'*[14]

Effective clinical supervision relies on three important components:

- the principles of supervision (7.1)
- the supervisor and trainee roles, responsibilities and relationship (7.2)
- evaluation of the supervision (7.3).

7. The supervision process

7.1 Principles of supervision

The clinical supervisor needs to facilitate the learning process with their understanding of education methodology and principles, and implementing strategies that support adult learning. Other factors that influence this process include the environment in which the learning takes place, the style of teaching and the learning style of the trainee.

Supervisors need to be aware of the educational theory, including adult learning principles and learning styles that facilitate effective learning, growth and professional development. It is essential supervisors have the educational competency, as well as the clinical skill, to deliver quality training and teaching.

7.1.1 Principles of adult learning

Clinical supervision of adult students requires a different approach to the traditional pedagogical model of the expert teacher passing on his or her knowledge to the student, with the supervisor deciding what and how the student should learn.

Adult learning theory, also termed andragogy, is a set of assumptions developed by Knowles[15] about how adults learn. The emphasis is on equality between the teacher and student and with a more collaborative approach to learning.

Adult learning principles

Theory	Clinical practice questions
Adults like to have input into their learning and are goal-orientated.	Does your student have the opportunity to be actively involved in the learning process? Do you allow your students to help set the goals and outcomes as part of their learning program?
Adults have a tendency towards self-directed learning and are internally motivated.	Do you show an interest in your students' thoughts and opinions? Do you lead your students towards inquiry before supplying them with facts?
Adults bring life experiences and knowledge. They need to be respected, valued and acknowledged for their past experience.	Have you established the students' level of knowledge and experience so that the learning is pitched at the appropriate level for the student?
Adults require an understanding of why they should learn something and why something should be done in a certain way.	Have you made the importance of the topic clear? Is there relevance to the clinical context?
Adults need feedback to develop.	Do your students know how they are going? Have you told them what they are doing well and what they could improve?
Adults learn more effectively through experiential techniques such as discussion and problem-solving.	Do you encourage reflection on practice? Do you explain your clinical reasoning and invite questions?

7.1.2 The style of teaching

The attitude and actions of a teacher greatly influence the students' learning. Behaviourism is a style of learning theory that is based on the idea that all behaviours are acquired through conditioning. A change in knowledge or behaviour occurs through a stimulus, with positive reinforcement after the correct response or negative reinforcement with an incorrect response. This style of learning is teacher-oriented, with students effectively being dependent learners. This style of teaching does not engage the student to develop the skills needed to become an independent learner.

A more flexible teaching approach, whereby students construct knowledge and understanding through their experiences, and on reflection of their experiences, is more appropriate for adult students. This style of learning theory is known as constructivism. It requires the trainer to pose questions and problems and then guides students to help them find their own answers. Students develop the ability to become autonomous learners.

> *'We think of the mind as a storehouse to be filled when we should be thinking of it as an instrument to be used.'*
>
> *John W Gardner*

Students may be at different stages along the path from being a dependent learner to an autonomous learner. It is important to identify students' approaches to learning and to support them becoming the primary drivers of their own learning.[16]

7.1.3 Learning style

Student learning can be far more effective if a supervisor has an understanding of the different learning styles and knows what works best for the individual in a given situation. These differences in learning styles are influenced by our personality and the way we process information. By understanding the way your trainee learns, you can adapt your teaching to be more effective. Your trainee may need a different approach for different circumstances. Trainees may employ a variety of different learning styles, such as:

- **Visual** – you learn by watching and observing
- **Aural** – you learn by listening and enjoy discussions
- **Verbal** – you learn by written or spoken explanations
- **Physical** – you learn by being 'hands on'
- **Logical** – you learn by using logic and reasoning
- **Social** – you learn by working in groups or with other people
- **Solitary** – you learn by working alone and use self-study.

Alternatively, the supervisor could think of a trainee's learning style in four categories (i.e. the Reflector; the Theorist; the Pragmatist; the Activist) adapted from Honey & Mumford.[17] These are presented below with suggestions on how to approach the different styles to optimise learning.

The Reflector

Prefers to stand back and watch. They will think and review what has happened and respond cautiously. They tend to listen to others before contributing their own points.

Trainees that are reflectors don't like being rushed and need time to reflect on what they have observed, assimilate, and then they are ready to attempt a new skill or task.

The Theorist

Prefers to think a problem through in a step-by-step manner. They like learning through lectures, analogies, case studies, models and written material. They spend time analysing and rationalising new information before proceeding. They tend to be perfectionists and need time to question and probe.

Trainees that are theorists need to understand the purpose of what they are doing so there is context to the task. They also need to have an opportunity to ask questions before they attempt the task. The theorist likes to be intellectually challenged.

The Pragmatist

Prefers to apply new learnings in practice to see if they work. They like to watch a peer or go through a case study, assess how it was done, and then have an immediate opportunity to implement what they have learned. They then like to receive feedback to determine if they have emulated the task.

The pragmatist does not like to put a new skill into practice if they do not have clear guidelines on how to proceed. They like clarity so they can get on with the task and problem solve.

The Activist

Prefers the challenge of a new experience. They tend to be enthusiastic and will 'have a go'. They are happy to be thrown in the deep end with a new task without setting too high an expectation for themselves. They learn least by taking a passive role like listening to lectures or watching.

The activist enjoys involvement with others, role-playing and group discussions about cases. They are not afraid to make mistakes and they learn through action.

7.1.4 The learning environment

Clinical supervision needs to be acknowledged and valued by all employees of the workplace, including non-supervisory practitioners and management. An organisation that takes on trainee sonographers needs to explicitly recognise clinical supervision in the workload allocation and planning. A culture of learning and teaching with collaborative approaches from all parties should be in place to support the trainee sonographer and clinical supervisor alike.

Every workplace that takes on trainees needs to have a structured approach to facilitate training. Policies and guidelines should be in place to ensure the trainee is supervised in accordance with defined standards. The quality of trainee education and safety of patients may be compromised if these processes are not in place. A clear policy framework outlining the roles and responsibilities of the organisation and individuals involved is essential to enable process failures to be readily identified. The framework should also include management pathways when failures occur through the provision of clear procedural guidelines to ensure the appropriate course of action is taken to remedy the situation. There should also be ongoing monitoring of the policies and guidelines in keeping with quality clinical governance.

7.2 The supervisor and trainee roles, responsibilities and relationship

7.2.1 The clinical supervisor

From the very beginning both parties need to have clear expectations of the supervisory process and an understanding of the supervisor and trainee roles. Like any relationship it takes time to build and requires a foundation of clarity and trust. Both parties have a responsibility to work on developing the relationship and to maintaining a healthy relationship.

The clinical supervisor role is multifaceted with numerous responsibilities. It can sometimes feel like a juggling act balancing the needs of the trainee, patients and workplace whilst attending to your own clinical commitments. Supervisors need protected time to plan, deliver and monitor training.

The safety and care of the patient must remain a focus for supervisors undertaking this role. Importantly, both the supervisor and the supervision process need to be evaluated regularly to ensure maintenance of the quality and efficacy of trainees' education and surety of quality and safe patient care.

Employers need to ensure that the arrangements for the delivery and monitoring of supervision are practical, robust and transparent, although ultimately the supervisor is responsible for the trainee and needs to ensure the supervision takes place in accordance with local clinical guidelines[18], state law and other professional practice requirements.

There are a number of core competencies and skills supervisors should ensure they actively focus on developing to provide high quality clinical supervision and training. Time spent developing these skills will increase supervisory ability, which can be both professionally and personally rewarding.

Reflect on the skills and attributes listed opposite and consider if there are any areas of supervision competency that could be further developed.

Personal skills

Supervisors should be positive role models. Maintaining a friendly, approachable manner will put trainees at ease. Key attributes of a successful clinical supervisor include having:

- a positive attitude
- good interpersonal skills
- an ability to build the supervisory-trainee relationship
- good organisation skills
- ethical principles.

Key attributes of a successful clinical supervisor include being:

- motivated (and motivational)
- respectful
- empathetic
- flexible
- sensitive to diversity
- honest and trustworthy
- an effective communicator
- professional.

Knowledge

Clinical knowledge is fundamental to the teaching role; however, a skilled supervisor does not need to be an expert in all areas of ultrasound. Being a good clinical educator requires:

- a high level of clinical knowledge
- knowledge of adult learning and contemporary teaching methodologies
- knowledge of professional development
- knowledge of ethics and legal issues specific to supervision.

Clinical skills

The modelling of good clinical skills that are up to date and evidence-based demonstrates the ongoing learning process and promotes high quality standards. The clinical supervisor should:

- demonstrate a high level of clinical competence and standard of work
- support evidence-based clinical practices and the implementation of these practices
- demonstrate enhanced clinical reasoning
- develop self-awareness and know their own limitations.

Teaching skills

Effective supervisors also continuously invest in their own professional development to enhance their teaching skills. Supervisors need to develop the skills to:

- provide effective formative and summative feedback
- assess the learning needs and developmental level of the trainee
- promote growth and development of the trainee
- promote the use of self-assessment through reflective practice
- encourage trainees to become autonomous learners
- effectively question trainees to promote higher order thinking
- encourage and use evaluative feedback from the trainees
- seek consultation when supervisory issues are outside the domain of their own supervisory competence.

Clinical supervision extends beyond the teaching of skills; it involves considerable time and energy to supervise well. A good supervisor is professionally committed to the progress of their trainees and shows concern for their trainees' wellbeing.

> *'One mark of a great educator is the ability to lead students out to new places where even the educator has never been'.*[19]

7.2.2 The trainee

Supervision is a two-way process. The supervisor has a responsibility to be competent and engage with the trainee to facilitate training and learning; however, the trainee's role in this process is equally as important. The trainee also has responsibilities to their clinical training, their supervisor and the workplace. It is important that trainees are aware of what they need to do to fulfil their role and to get the most out of the experience.

Key attributes of effective trainees

- Take responsibility for self-directed learning.
- Actively participate in the supervision process.
- Be prepared for one-on-one training sessions, tutorials and meetings.
- Openly express needs and expectations related to training and ensure they are included in a supervision agreement.
- Establish and understand the expectations of their supervisor.
- Work on developing trust in the supervisory relationship so issues can be freely and honestly discussed when they arise. Like any relationship there will be problems; however, both parties have a responsibility to confront issues. Learn and be willing to practise the art of constructive confrontation with their supervisor.
- Contribute to reflective discussion about experiences.
- Be open and flexible to learning new ways and attempt to incorporate these practices.
- Openly seek and be open to feedback and respond to the feedback through engaged discussion.
- Ask questions in a considered and thoughtful manner. Think about the timing of your questions. Perhaps open with 'Is it a good time to ask some questions now?'
- Seek help when required to ensure patient safety and care remains a priority.
- Be empathetic with your supervisors' time and pressures by being patient and understanding.

7.2.3 The supervisor–trainee relationship

Developing a meaningful, healthy relationship between the supervisor and trainee is another foundation needed to support and facilitate effective clinical training. This essential relationship relies on both parties taking equal responsibility to build and maintain good communication and trust.

> *The quality of the relationship between the supervisor and the student is the most important factor of effective supervision.*[20]

A formal meeting prior to the onset of clinical training should be arranged between the supervisor and trainee to establish the boundaries and expectations of the supervision process and clinical training. This meeting should be documented with both parties signing to verify agreement. A *Learning Agreement* template is included in Appendix 2.

Points to consider and discuss at the meeting, as part of the orientation process, should include:

- expectations of the supervisor
- expectations of the trainee
- assessment of the expectations and goals of the educational institution
- assessment of workplace expectations and goals
- development of a learning plan – short-term and long-term goals with consideration of the objectives of the educational institution and workplace

- frequency and format of feedback
- utilisation of reflective practice as part of ongoing development
- frequency of formal meetings to discuss progress
- clinical assessment process
- methods of communication between trainee and supervisor – in person, emails
- confidentiality parameters within the supervisory relationship
- perceived strengths of both parties
- trainee concerns
- evaluation of the supervision process
- procedure if either party feels the supervisory relationship is not working or that the supervisor–trainee agreement is not being upheld.

7.2.4 Factors affecting the relationship

Understanding the roles, responsibilities, boundaries and factors that influence and affect the relationship will support the growth of high quality supervision, training and patient care. The following are factors that may impact on the supervisor–trainee relationship, adapted from the Health, Education & Training Institute, Hospital Skills Program.[21]

Power differential

The supervisor's authority, knowledge base and professional experience can be intimidating for a trainee. There is an unequal power relationship between the supervisor and trainee that may influence the degree a trainee expresses their views or even whether they ask for help.

Availability of the supervisor

Limited supervision can lead to anxiety if the trainee is left alone too often. This may result in the trainee feeling isolated and unsupported and they may even feel they are working beyond their capability. This has a potential impact on the delivery of high quality, safe, patient care.

Potentially damaging supervisor attitudes and behaviours

Being rigid

Setting rules without giving reasons or giving instructions without an explanation enhances the power differential and can undermine the relationship. When there is a shortage of time, it may be worth deferring a discussion (e.g. saying 'I will explain later'). Statements such as 'My way or the highway' are seen as inhibiting, as they do not demonstrate you have the capacity to consider new ideas or information. As an adult learner, the trainee may be able to contribute to the process.

Stress

A clinical environment can be full of high stress situations. It is important for supervisors to effectively manage their stress to ensure their actual or perceived stress is not transferred onto the trainee. For example, angry or frustrated tones are easily detected, which can damage a supervisory relationship.

Criticism

Publicly criticising a trainee or making fun of their mistakes is humiliating and damaging to the relationship. This behaviour demonstrates a lack of empathy, erodes trust and can lead to trainees not taking risks in their learning.

Blame

Blaming is not helpful when a trainee makes a mistake. A culture of 'finger pointing' to determine fault can lead to bad practices, such as hiding errors. Trainees, as with all employees, need to be aware of their mistakes and know

that they need to be discussed. An environment that supports transparency and openness when mistakes occur is beneficial, not only for trainees but all staff, so we can learn and prevent them recurring. Supervisors could consider giving an example of a mistake they made during their training to demonstrate empathy, and highlighted mistakes are a normal part of development in the learning cycle.

Intolerance

A passive demeanour that conveys to the trainee that they are disliked and barely tolerated is unhelpful behaviour that diminishes the quality of the clinical experience.

Trust

Trust is a crucial element of quality relationships. Only when there is trust will a trainee feel comfortable to put themselves at risk. Trust begins with respect and develops from support provided by the supervisor through demonstrating concern for the wellbeing of the trainee, attentive listening, as well as providing affirmation and constructive feedback.

Culture

An awareness and respect for gender, race, diversity, sexuality and our beliefs is essential to developing harmonious relationships. It is important that a supervisor does not make assumptions about people and reflects on how their cultural beliefs and experiences may influence the supervisory relationship.

7.2.5 Barriers to effective supervision

Effective supervision can be compromised when there is a lack of understanding of what supervision involves and when the fundamental principles are not applied. Defined below are some recognised barriers to effective supervision.

Trainers who have poor supervisory skills

An incompetent supervisor is detrimental to the trainee, workplace and potentially the patient's wellbeing and safety.

Organisational barriers

A workplace needs organisational support and a commitment from management to create an environment in which training is valued.

Poorly organised training programs

A well-structured framework is essential for guidance and development.

Workplace culture

Trainees feel positive about the clinical placement experience if the culture within the department is positive towards trainees and their learning.

Over-focused on assessment rather than learning

Assessment is an important part of the learning process; however, it can be limiting in that the focus on one goal can compromise the achievement of other objectives.

Excluding trainees from experiences

It may seem easier to take on complex cases without a trainee; however, these are important learning opportunities.

Avoiding management of trainees in difficulty

Suboptimal trainees performance needs to be addressed promptly and follow an established protocol, otherwise the quality of patient care is at risk.[22]

7.2.6 Clinical-based learning and the learning plan

Clinical-based learning requires preparation and good organisation through the development of a learning plan. An understanding of the theory behind the way in which we learn, as described above, helps to identify the stage the trainee is at in their learning so as to individualise the learning plan. With this, supervisors can guide the implementation of strategies to support the trainee's learning most effectively and promote autonomy and self-evaluation. It is also a critical process that enables supervisors and trainees to both review and amend their practice in mutual agreement and understanding.

The learning plan assists both the supervisor and trainee to navigate smoothly through clinical training. It helps to establish goals and objectives, and plan how these will be achieved, whilst providing a clear framework tailored for the individual as a mechanism for reflecting during the training period.

The learning plan should also include a timeline with regular formal meetings, feedback sessions and clinical assessments clearly outlined. There should be opportunities to evaluate the supervision process and the plan should be regularly reviewed in consultation with workplace policies, ASA guidelines and any other state or localised practice requirements. A *Learning Plan* template is provided in Appendix 2.

Orientation

A workplace orientation should be part of the learning plan. Ensure the trainee knows relevant workplace protocols and resources available to them, such as:

- computer access, including any recommended/useful websites
- access to textbooks and journals, including electronic resources
- hospital library, if available
- access to department protocols and policies
- attendance at inservice and local educational meetings.

Establishing goals and objectives

The learning goals and objectives should be clearly defined in the learning plan, together with the desired outcomes or performance measures against specific timeframes. Importantly, this learning plan should reflect the university course structure and the needs of the workplace.

The learning goals should be SMART (i.e. Specific, Measurable, Achievable, Realistic and Timely).[23]

Specific	■ Goals must be well defined. ■ What skills does the student need to develop? ■ How is the trainee going to develop the skills? ■ Who is going to be involved? Tutor sonographer, specialist sonographer or sonologist?
Measurable	■ Criteria need to be defined to enable progress to be measured. ■ What assessment is needed to determine whether the trainee has successfully completed the goal? ■ The trainee may benefit from completing a reflective practice exercise or undertaking a formative assessment at the end of the timeframe.
Achievable	■ Goals must be attainable. ■ Consider whether the goal is at the appropriate level for the trainee. ■ Are there any barriers to achieving the goals?
Realistic	■ Goals must be realistic. ■ They need to be balanced between the trainee's ability and the desired level of performance for that goal, as unrealistic goals can lead to anxiety and overwhelming pressure.
Timely	■ Goals need to have a timeframe. ■ The trainee and supervisor should aim to acquire skills within an appropriate time period, noting this will vary between students and for the type of skill being acquired.

One of the most important aspects of setting goals is the level of challenge. A balance is needed to ensure the trainee is adequately challenged, without the goal seeming either out of reach or too easy. An attainable yet challenging goal is highly motivating when it is achieved. It is important to develop the goals with the trainee to ensure mutual agreement and understanding. To enhance the process there should be feedback on goal attainment.

Trainee example

Your trainee is six months into their clinical training, having developed solid skills in abdominal scanning. The next course subject is small parts and you need to assist your student to set new goals on scanning the thyroid.

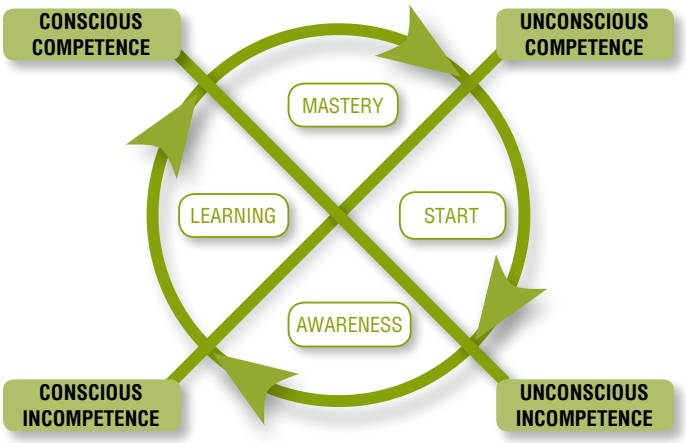
SMART goal: 'Within four weeks I will be able to independently perform a thyroid ultrasound.'

Specific steps

- Establish background knowledge of the anatomy and physiology of the thyroid.
- Refer to the department protocol on performing a thyroid scan.
- Observe sonographers performing thyroid ultrasounds.
- Define the normal ultrasound appearance of the thyroid gland.
- Describe the ultrasound appearance of common thyroid abnormalities.
- Practise the scanning technique on colleagues.
- Practise the scanning technique on patients, under direct supervision.
- Perform the examination according to the departmental protocol.
- Support the trainee to attain the goal through weekly meetings to discuss their progress.

7.2.7 The learning cycle

Kolb's learning cycle is a theoretical model that explains the process of learning a new skill or technique. This learning cycle is composed of four main stages.



Kolb learning cycle, modified from Peyton[24]

The 4 stages of Kolb's learning cycle

1. **Start:** the student may have existing knowledge of the skill to be achieved and may feel quite capable of carrying out the technique or procedure. However, at this stage the student is still *unconsciously incompetent* (i.e. they don't know what they don't know).
2. **Awareness:** the student tries to complete the technique or procedure and realises that it is not as easy as it appeared and they become *consciously incompetent* (i.e. they are aware of their ability level).
3. **Learning:** the student has been given specific, clear instructions to carry out the technique or procedure, and as they complete the procedure, the student becomes *consciously competent* (i.e. they still have to think about the task, but given time are able to perform the procedure satisfactorily).
4. **Mastery:** with practice, the student enters the fourth stage whereby the technique or procedure has been mastered and they become *unconsciously competent* (i.e. the technique or procedure becomes routine without having to think about it).

7.2.8 Experiential learning

Davies and Lowe[25] have adapted the theoretical model of the Kolb learning cycle, taking into consideration the need for a trainee to reflect on their clinical experience and seek ways in which they can improve their performance. This model is termed 'experiential learning'.

Experiential learning ensures knowledge is sought and applied and promotes self-evaluation by the learner. This process leads to learning autonomy and is more likely to have the positive effect of the trainee becoming a lifelong learner.

Davies & Lowe experiential learning model

Trainee sonographers' cycle of learning for an examination begins with the direct observation of the scan. When the supervisor and trainee collectively decide the trainee is ready to attempt the examination, or part thereof, the trainee gains a **concrete experience**.

From this experience the trainee needs to review and reflect on what they did well and what areas need improving. This self-evaluation is termed **reflective observation**. The supervisor should allow discussion time with the trainee about their self-evaluation. This will give them an opportunity to think further about the input and consider a plan for what should be done differently next time. The supervisor may also need to refer the trainee to relevant literature to assist with their learning. The trainee can then come to a conclusion about their practice, known as **abstract conceptualisation**.

The final stage of **active experimentation** occurs when the trainee attempts the scan again with the necessary changes to their practice. The learning cycle recommences with the generation of another **concrete experience**.

This cycle can similarly be used to address supervisors' own skills growth and development. It is important supervisors continue to learn new practice and review and reflect on their performance to grow their skill. Supervisors' ability to maintain their learning continuum and self-evaluate their performance is paramount to maintaining high quality practice and professionalism.

7.2.9 Reflective practice

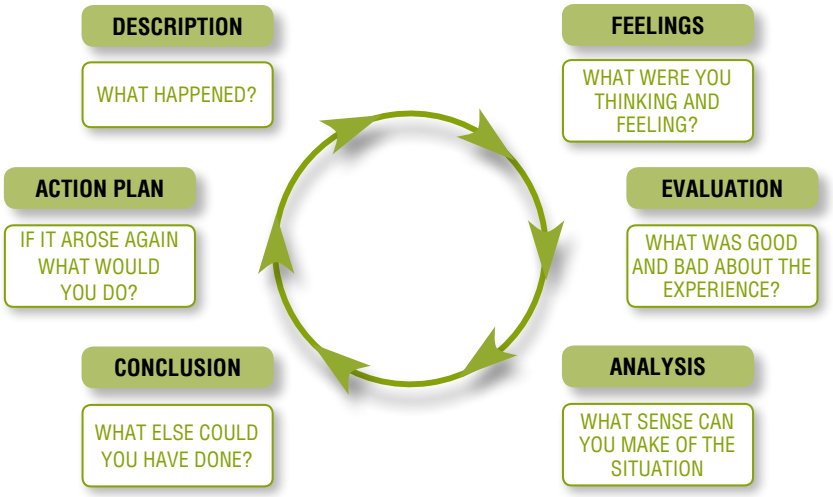
Reflective practice is a process that enables practitioners to learn from experience to expand and critically evaluate their knowledge base. It is one of the most important skills to develop as a health professional. Reflective practice assists optimising quality in practice and promotes the development of expertise.[26] This self-awareness activity provides a health practitioner with greater insight into their practice and knowledge.

By implementing critical reflection into the daily routine, it becomes an integral part of professional development. It assists in identifying strengths and weaknesses and assessing areas for possible improvement. Workplaces need to provide a supportive environment that encourages the transparency needed to promote a culture of reflective practice and lifelong learning.

Opportunities for reflection are typically most useful when an incident has arisen or a situation results in dissatisfaction, doubt or discomfort. This may be after working with a difficult patient or following a technically complex case. An analysis of reactions to a challenging situation, exploring the reasons behind the choice of words used, and the associated actions, provide insight that enables improvement in handling future similar scenarios.

Trainees should be encouraged to keep a reflective journal to record their experiences and how they managed issues. These entries can be discussed with their supervisor to assist the reflective process. Reflection helps equip trainees to learn from experience. Behaviour can be adjusted once there is an understanding of our actions and their consequences.

A common model of reflection is Gibbs reflective cycle.[27] This framework can be used by trainees and also by supervisors evaluating the effectiveness of their supervision.



Gibbs Reflective Model[28]

Trainee example

Scenario

A trainee has performed a satisfactory number of first trimester dating scans and is able to scan independently, with their supervisor observing on a monitor outside the room. A woman presents for a routine 12-week ultrasound. The supervisor instructs the trainee to commence the scan and plans to complete the NT measurement at the end of the scan.

Description

'I started scanning the woman and observed the fetus, that looked about 10 weeks, had no heartbeat. The patient asked if everything was OK, and I replied, "No, the fetus is dead". I had not finished the scan and the woman was crying uncontrollably and screaming. The supervisor came into the room, provided care and support for the woman, and completed the scan'.

Feelings

'I felt awful and uncomfortable. I did not know what to do or say when she was so upset.'

Evaluation

'In my limited experience, I had not seen anyone so distressed before. Despite it not being a good experience, it was important for me to appreciate and understand that people can react in different ways when receiving bad news.'

Analysis

'I know that I did not manage the situation very well. My actions and words were not caring, and I was totally unprepared for what I found on the ultrasound.'

Conclusion

'I could have explained to the woman to give me a little longer to finish the scan. I could have used more appropriate language to explain that the baby had died and I should have spoken with empathy and compassion. For example: "I am so very sorry, but your baby has no heartbeat; your baby has died".'

Action plan

'Next time, before I start scanning, I will say to the woman, "I am going to need a little time to look at your baby, take measurements and pictures, and then I will let you know how things are". I have also spoken to other sonographers and discussed ways in which to communicate bad news appropriately. My supervisor is going to arrange a counsellor to give a presentation to our department on delivering bad news.'

7.2.10 Teaching a practical skill

The traditional method of 'see one, do one, teach one' is a limiting, outdated model. A number of attributes are needed to perform a task, such as:

- Knowledge – does the trainee understand why and when to perform the task, contraindications, limitations and difficulties that may be encountered?
- Skill – is the trainee adequately prepared? Do they have the dexterity and technical skills to perform the task?
- Communication – have you explained what they will be doing to the patient? Have you confirmed patient consent? Have you considered the comfort and dignity of the patient?

Rodney Peyton of the Royal College of Surgeons has developed a 4-step approach.[28] When attempting this model the trainer should establish the prior knowledge of the learner about the task so that they can alter the dialogue accordingly. Consider whether the trainee would benefit from prior learning in other forms, such as a role-play or an education session about the task. It may be worth writing the steps out so they are clear, succinct and well structured.

By using this methodology you will be able to establish when the trainee is ready to perform the task on a patient and the trainee will know you have confidence in their ability.

The 4 steps

1. **Demonstration**: the clinical trainer demonstrates the skill/technique at normal speed.
2. **Deconstruction**: the clinical trainer demonstrates the skill/technique at a slower pace while describing the steps involved.
3. **Comprehension**: the clinical trainer demonstrates while the learner describes the steps involved.
4. **Performance**: the learner demonstrates as they describe the steps involved.

Some tasks may need to be broken down further into sections with the trainee performing one part repeatedly before moving on to the next section.

Trainee example

Your trainee is able to perform the third trimester growth scan, but needs to learn how to perform a PW Doppler measurement of the middle cerebral artery (MCA) to assess for brain sparing.

Establish the trainee's knowledge of why and when to perform PW Doppler of the MCA, noting the trainee will need to access textbooks or Google if they can't answer these questions, and look at images of normal and abnormal waveforms.

The steps

1. **Demonstrate:** ensure the trainee has observed you perform this technique whilst you demonstrate what constitutes a high quality waveform.
2. **Deconstruct:** perform the technique and talk through the steps needed to measure the MCA flow:
    a. obtain a transverse view of the fetal head (optimise your B-mode image)
    b. apply colour Doppler (optimise your colour settings; PRF, gain, persistence)
    c. apply PW Doppler (optimise the gate size, scale, gain)
    d. obtain at least three consecutive waveforms
    e. assess the quality of the waveform; does the waveform meet expectations?
    f. apply calipers or trace correctly to measure the PI/RI.
3. **Comprehension:** ask the trainee to prompt you through the above steps.
4. **Performance:** allow the trainee to attempt the task.

Vocalising the steps provides repetition and reinforces the learning. Consider a debriefing session following completion of the task. It is a good opportunity for self-evaluation and feedback.

7.2.11 Providing feedback to the trainee

Giving trainees feedback is essential for their development and performance. It should not, however, be a one-way communication of information from the supervisor to the learner.[15] Feedback is an effective method of letting trainees know how they are going and helps to identify areas for improvement. Feedback needs to be communicated appropriately and in a format that encourages a two-way discussion between the supervisor and trainee. Providing the trainee with the opportunity to evaluate their own performance and how they feel about their performance facilitates reflection and knowledge of self. The timing and frequency of feedback and the setting in which the feedback is given also needs to be considered.

In order to give quality feedback you need to ensure your trainee is clear about the task they are to undertake and that you directly observe their performance.

To be effective at delivering feedback it needs to be:

- specific
- factual
- clear and descriptive
- constructive
- in an appropriate setting
- respectful and sensitive
- directed at the behaviour and not the person
- timely.

Giving positive and negative feedback requires skill and practice. Vickery and Lake[29] describe the following four steps in providing a positive critique based on Pendleton's model of feedback.[30] The positive critique focuses on what can be improved rather than what went wrong, providing guidance for future development. Trainees need the opportunity to comment on the fairness of the feedback and provide explanations.

The 4 steps to provide a positive critique

- Ask the trainee to identify what went well.
- List what you thought the trainee did well.
- Ask the trainee to identify areas for improvement.
- Add anything else you think could be improved and summarise key points for next time.

Guideline for achieving best practice

- Avoid jokes.
- Don't give feedback when you (or the trainee) are stressed or emotion levels are high.
- Avoid general comments such as 'You are doing well'. Trainees who are doing well still want to know how they can be even better.
- Focus on the positive; avoid dampening positive feedback by qualifying it with a negative statement 'You did a great job with a difficult patient, BUT … '
- Praise trainees in the presence of patients and colleagues.
- Give constructive criticism in private.
- Invite comments and questions from your trainee.

Advice for the trainee receiving feedback

- Listen attentively.
- Accept feedback without being defensive.
- Ask questions to clarify your understanding of the feedback.
- Ask about strategies on how to address the areas that need improvement.
- Show your appreciation; thank your supervisor!

Formal feedback should be incorporated as part of the clinical assessment process, which can take place at specific time points in training. When delivering feedback consider all the areas of competency that contribute to the trainees' performance of an examination. Addressing each of these areas separately will give clarity to the performance and allow identification of key strengths and areas that need improving. Speak with colleagues to gather different perspectives and insight into trainee performance.

Informal daily feedback in relation to the trainees' performance of an examination facilitates the delivery of specific feedback in a timely manner. We all thrive on praise and trainees need positive reinforcement of what they do well. This type of regular feedback also allows early identification of problem areas before they become big issues that are difficult for both parties to manage.

7.2.12 Clinical assessment

As a clinical supervisor you may be involved with the clinical assessment of trainees as part of their studies. Clinical assessment is more than a test to see how well a trainee is progressing; it drives learning and should be considered a routine part of the clinical training program within your workplace. It is important that when undertaking a clinical assessment that the expected skills and knowledge are consistent with the learning stage of the trainee.

The Dreyfus model of the five learning stages is used to:

- provide a means of assessing and supporting progress in the development of skills and core competencies
- provide a definition of an acceptable level for the assessment of competency or capability.[31,32]

The table below has been modified from the Dreyfus model, outlining the characteristics for the different competency levels.

The trainee sonographer begins as a Novice (Level 1), with progression through Advanced Beginner (Level 2), while completing tertiary study. The *ASA Competency Standards for the Entry Level Sonographer*[33] is the accepted framework for describing a Competent sonographer (Level 3 of this model). The model below should be read together with this framework when considering a trainee's competency, Levels 1–3.

Level	Knowledge	Standard of work	Autonomy	Coping with complexity	Perception of context
1. Novice	Minimal or 'textbook' knowledge without connecting it to practice	Unlikely to be satisfactory unless closely supervised	Needs close supervision and instruction	Little or no conception of dealing with complexity	Tends to see actions in isolation
2. Advancecd beginner	Working knowledge of key aspects of practice	Straightforward tasks likely to be completed to an acceptable standard	Able to achieve some steps using own judgment but supervision needed for overall task	Appreciates complex situations but only able to achieve partial resolution	Sees actions as a series of steps
3. Competent	Good working and background knowledge of areas of practice	Fit for purpose though may lack refinement	Able to achieve most tasks using own judgment	Appreciates complex situations through deliberate analysis and planning	Sees actions at least partially in terms of longer-term goals
4. Proficient	Depth of understanding of discipline and area of practice	Fully acceptable standard achieved routinely	Able to take full responsibility for own work (and that of others where applicable)	Deals with complex situations holistically; decision-making more confident	Sees overall 'picture' and how individual actions fit within it
5. Expert	Authoritative knowledge of discipline and deep tacit understanding across area of practice	Excellence achieved with relative ease	Able to take full responsibility for going beyond existing standards and creating own interpretations	Holistic grasp of complex situations; moves between intuitive and analytical approaches with ease	Sees overall 'picture' and alternative approaches; vision of what may be possible

From the professional standards for conservation, Institute of Conservation, based on the Dreyfus model of skill acquisition.[34]

Clinical assessment types

Formative assessment

Formative assessment is employed during the learning process in order to modify teaching and learning activities to improve trainee attainment. The process involves feedback on performance, giving the learner an opportunity to improve before the summative assessment.

Trainees will benefit from undertaking regular, formative, clinical assessments, as this encourages them to take greater responsibility for their work. They need to think through the task ahead, consider their strategy and ensure they complete all aspects of the examination. The clinical assessments can be practical, theoretical, based on old case studies or may be based just on image interpretation or an image critique of a study.

Trainee sonographers need real patients to practise on. However, this has potential for errors to occur which could compromise patient safety and care. At some point the supervisor needs to decide when the trainee can perform a study alone. This decision needs to be a competency-based assessment covering a range of skills, knowledge, experience and professional behaviour. By regularly undertaking assessments that have a specific format and objectives, trainees and trainers will be able to readily identify areas that are well-performed or that the student finds challenging. A *Clinical assessment* template is included in Appendix 2. This template should be considered a tool to give performance-based guidance and assist in deciding when the student can work more independently.

Summative assessment

A summative assessment is a formal exam or test whereby marks are given and an overall grade is received at the end of a subject. It is primarily used to monitor whether learning outcomes have been achieved and therefore determine whether a trainee should progress in their course.

Appraisals and evaluations have a different role to assessments. An appraisal is a joint process that reviews the performance and achievements of the trainee and involves the development of a plan to address the learning needs of the trainee. An evaluation in the context of ultrasound training is a judgment by the trainee about the trainer or the training program. Further information can be found under section 7.3 ‘Evaluation of supervision’.

7.2.13 The underperforming trainee

Addressing the underperforming trainee is challenging and confronting. This is particularly difficult in the setting most commonly encountered in sonography, whereby the trainee and supervisor have the same employer.

Trainees are often characterised with typographic labels when they are not meeting expectations[35], such as they:

- avoid work and challenging patients
- seem disinterested and unmotivated
- are bright but unable to communicate well
- are too casual and laid back in their approach
- are over-confident.

Labels are not helpful as this lends our thinking to focus on the problems rather than focusing on the solutions. The solution-focused model addresses this concept[36]. This model is based on the idea that in order for a person to change their behaviour, they need to:

- recognise that the current behaviour is a concern or a problem
- believe they will be better off if they change
- believe they are able to change[37].

There is no easy solution. Raising the situation early and in a non-confrontational way is a good starting point. Regular meetings enable issues to be addressed in a timely manner and should take place conscious of privacy and appropriateness of timing. This helps to avoid the potential of overwhelming trainee anxiety that may ensue if meetings are only held when there is a problem.

Through consistent reflective practice and the use of feedback forms, recognition of problems will become evident early. Early identification of problems helps to avoid unnecessary escalation that can induce stress for both the supervisor and trainee. Written documentation should provide the evidence to support your concerns however and it is important this is not accusatory or isolating.

As with any employees, it is important to consider whether the trainee has any personal issues that may be contributing to their lack of performance or attitude. The trainee may not wish to share their issues, but support and understanding can still be offered. Trainees need encouragement and positive reinforcement of what they do and can do well. As exhausting as teaching the underperforming may be, these trainees often need more one-on-one training and tutorials.

It may be helpful to review the responsibilities and expectations discussed and documented through the learning plan (section 7.2.6) at the onset of training. It is also worth considering how reasonable and achievable the learning plan and SMART goals have been. There may need to be adjustments to the learning plan with revised goals that respond to any identified issues.

Differences in personalities are often more difficult to deal with. If this occurs, maybe the trainee should spend more time with other sonographers or alternately it may be appropriate to refer them to another supervisor.

Finally, consider evaluating the supervision being provided, exploring through analysis and reflective practice if there are areas which could be improved upon to support the trainee.

Lastly, any strategy should be exercised in the context of relevant processes and legal requirements of the workplace and state and territory.

Strategies for helping underperforming trainees

- Offer more one-on-one supervised training.
- Introduce tutorials focused on areas needing improvement.
- Increase the use of reflective practice exercises.
- Identify any confounding personal issues.
- Formulate a strategy by re-evaluating the original learning plan and develop new SMART goals to address key issues.
- Hold regular appraisal meetings to discuss progress.
- Have the trainee spend more time with other sonographers or trainers if available.
- Have the trainee reassessed by an experienced independent sonographer.

7.3 Evaluation of supervision

The third critical component of the supervision process is evaluating the supervision. This can be challenging given the one-on-one supervisory model employed for trainee sonographers. The supervisor–trainee relationship needs to have a solid foundation of trust, honesty and mutual respect for the evaluation process to work. Trainees committed to training deserve assurance from the workplace to provide quality and competent supervision. Workplaces need to promote a culture of transparency, including the evaluation of supervisors to support effective supervision. Supervisors need to be competent and accountable for their contribution to the training process.

It is good practice to evaluate supervision at the end of a training session, at periodic intervals, and at the conclusion of the supervision relationship. Evaluation of supervision encompasses an assessment of the supervisory process, the skills of the supervisor, the supervisory relationship and the outcomes from supervision.

In 2015 the Victorian Government released the *Clinical Supervision Skills Review Tool*[40]. The tool draws from the *National Clinical Supervision Competency Resource*[13] and provides a framework for assessing clinical supervision at two levels: Foundational and Intermediate.

The *Clinical Supervision Skills Review Tool* can be accessed via the Victoria Government's Health Workforce Information Portal, KnowledgeBank, at *https://vicknowledgebank.net.au/wp-content/uploads/Clinical-Supervision-Skills-Review-Tool.pdf*

Other possible evaluation questions

Have you successfully completed a course in supervision?

What are your supervisory skills like? Have you considered developing your skills further? Supervision courses do not need to be expensive or require a huge time commitment. Large public hospitals often have education centres that can provide information on upcoming courses or advise where to access a course. TAFE services offer certificate courses and there are often free online courses and resources. Some universities offer qualifications in health professional education and some professional bodies also provide training.

Have you evaluated yourself by reviewing a checklist of qualities?

Take the time to reflect on what qualities you do have and think about some you could improve on or have not demonstrated. Refer to section 7.2.1 *The clinical supervisor* for recommended qualities.

Have you asked your trainees to give you feedback on your supervision?

Trainees should be provided with the opportunity to provide feedback on their supervision. Supervisors should reassure trainees that they need honest feedback and that trainees can provide it without fear of retribution or reprisal to help the supervisor know what works well and identify areas for improvement.

The giving of honest feedback from a trainee relies on a strong supervisor–trainee relationship whereby the trainee feels safe to say what they think without retribution or reprisal. However, the trainee may still be apprehensive and withhold feedback. Nominating a third person within the department who can be a go-between for the supervisor or trainee is useful. This person can assist both parties when difficult conversations need to be communicated.

Have you asked your colleagues for feedback on your supervision?

Ask a colleague to watch you supervising a trainee during a role-play exercise on a staff member as a patient. Be open and receptive to their feedback.

Another idea is to ask a colleague to make a short video of you giving verbal feedback to your trainee. Review the video and consider the following points:

- Are you clear?
- Have you used appropriate language?
- Are you being respectful?

By observing yourself in action you are able to reflect on your practice and see what you do well and what areas you could improve.

Review the supervision contract. Are both parties fulfilling their obligations and meeting expectations?

By having a written document developed at the beginning of training, there is a clear outline of the responsibilities and expectations for both supervisor and trainee.

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Appendix 2

Template: Reflective practice

Name:	**Date:**
Feelings – What were you thinking and feeling at the time?	
Evaluation – List what was positive and what was negative about the experience.	
Analysis – What is your understanding of what happened? What are the consequences?	
Conclusion – What else could you have done? What could you have done differently?	
Action plan – If the situation arose again, how would you manage it? How will you adapt your practice in light of this new understanding?	
Supervisor comments	

Source: Adapted from Gibbs (1988), Learning by doing: A guide to teaching and learning methods[27]

Template: Learning plan

Name:				**Date:**
Learning goals What skills and knowledge do I need to achieve competence?	**Current status** What level of skills and knowledge do I have now with respect to this learning goal?	**Learning strategies** How will I reach this learning goal?	**Required resources** What resources do I need to achieve this learning goal?	**Key performance indicators** How can I demonstrate to myself and others that I have achieved this goal?
Example: *1. Assist with a thyroid nodule FNA*	*I have performed 15 thyroid examinations independently. I have passed a clinical assessment by my supervisor.*	• *Observe an experienced sonographer; assist the sonologist with the FNA* • *Sonographer articulates what they are doing during the procedure* • *Access the internet to see if there are useful video tutorials* • *Speak to nursing staff about the equipment needed for the procedure and a tutorial on aseptic technique* • *Discuss my role in the technique with the sonologist performing the task* • *Assist the sonologist with the FNA under ultrasound guidance, with clear guidance from the sonologist*	• *Review the departmental protocol* • *Access to the sonologist to discuss the technique* • *Access to nursing staff* • *Video tutorial if available*	• *Sonologist is satisfied that the ultrasound guidance was safely and competently performed*

Learning goals What skills and knowledge do I need to achieve competence?	**Current status** What level of skills and knowledge do I have now with respect to this learning goal?	**Learning strategies** How will I reach this learning goal?	**Required resources** What resources do I need to achieve this learning goal?	**Key performance indicators** How can I demonstrate to myself and others that I have achieved this goal?
2.				
3.				
4.				

Source: Adapted from *Guidelines for the allied health return to clinical practice framework*[38]

Template: Learning agreement

Workplace:	**Date:** *Date the meeting was held to draft this document*
Student:	**Supervisor:**
Nominated 3rd Person e.g. team leader, independent colleague	
Supervision period: Start date:	Finish date:
Documentation Who will document the content of the meeting? The meeting record should be duplicated so both parties hold a copy.	
Meetings How often will you have meetings? How long will they be? Allocate times in advance.	
Agreed content of supervision • Plan daily, weekly, monthly goals to coincide with course subjects • Daily verbal feedback • Monthly written feedback using the feedback template • Keep a logbook of all studies • Hours of one-on-one training per day • Frequency and duration of tutorials, case study reviews • Timing and frequency of formative clinical assessments	
Supervisor expectations • Follow departmental protocols • Don't let a patient leave before checking with me • Ask when you are not sure about something • Discuss the course material and university expectations	**Student expectations** • Work on examinations currently being studied with course • Give clear guidance on what is expected on a daily/weekly basis • Provide assistance when in difficulty
Student concerns (examples) • Breaking bad news, how to tell patients of a missed miscarriage • Missing pathology • Working with staff who all do things differently (keeping everyone happy)	
Clinical assessments • How often will these be undertaken? • What format will these assessments take? e.g. patient examinations, image interpretation, case study quizzes	
Evaluation of supervision • What is the evaluation process? • How often will this process happen?	
Confidentiality A statement of confidentiality can be included. For example: The content of the supervision meeting is confidential between the parties, except when there are issues regarding patient care and safety. In these instances this information will be shared with the appropriate personnel. In terms of student performance, an agreement needs to be reached regarding the parties involved in this discussion and whether the supervisor can communicate directly with the university. Please review privacy policies for your organisation and the educational institution involved.	
Signature: Student: Date:	**Signature:** Student: Date:

Note: This learning agreement is not a legally binding document. It is purely to promote discussion and clearly outline the roles and responsibilities of both parties.

Source: Adapted from *Foundations to Supervision*, WA Country Health Service[8]

Template: Feedback

Before giving feedback, consider the following points:

- Were the goals and objectives clearly explained to the student?
- Are you in an appropriate setting to give the feedback?
- Are you in the right frame of mind to be giving the feedback?
- Do you have the time to adequately discuss the feedback?

The supervisor starts the session by outlining the goals for the examination and then discusses what was done well. Keep the points clear and positive.

The student recounts what they identified themselves doing well.

Consider whether both parties have identified the same strengths. If not, why?

The student can then go through the areas they think need improving.

The supervisor responds with their perspective, giving specific, factual, constructive comments. The supervisor invites the students to ask questions and a discussion about the way forward needs to be included.

SUPERVISOR	**Date:**
Examination:	
What were the goals for the examination?	
What did they do well?	
What areas need improvement?	
Suggestions on how the improvements can be achieved.	
STUDENT	**Date:**
Examination:	
What were the goals or learning objectives?	
What do you think you did well?	
What areas do you think you need to improve on?	
Questions or comments	

Template: Evaluating supervision

Supervisor skills	Always	Most of the time	Some of the time	Never
Communication				
Is an active listener				
Encourages dialogue and questions				
Communicates in a non-threatening manner				
Openly and honestly discusses perceptions and issues				
Supervisory relationship				
Creates a comfortable learning environment				
Provides appropriate support for concerns, frustrations and anxieties				
Demonstrates positive regard for the student as a person				
Is accessible				
Ensures regular meetings are held as per the learning agreement				
Professional skills				
Knowledgeable				
Displays competence				
Sensitive to patient needs				
Demonstrates professional behaviour				
Provides a systematic approach to problem-solving				
Explains the basis of actions and clinical reasoning				
Serves as a role model				
Demonstrates practical applications of knowledge and skills				
Manages time well and demonstrates leadership				
Supervision (teaching, instruction, evaluation)				
Works with the student to develop goals				
Allows progressive and appropriate independence				
Assesses progress systematically				
Provides frequent and constructive feedback				
Questions and coaches to facilitate learning				
Identifies discrepancies in student's performance				
Accurate in documenting student's performance				
Provides the student sufficient time to practise scanning				
Provides adequate one-on-one supervision during a scan				
Are the goals and objectives within the learning agreement or learning plan being met?				
In what way are/are not these goals and objectives being met?				
Are your expectations being met/not met by your supervisor?				
In what way are these expectations being met/not met?				
What areas of your supervision are you most happy about?				
What areas of your supervision are you concerned about?				
What modifications to the current supervision would you benefit from?				

Source: This table has been modified from Emery[39]

Template: Clinical assessment

Date:	**Student:**
Student level: Novice / Beginner / Advanced Beginner	
Supervisor:	
Note: For the novice student unable to perform a full study, sections can be marked not applicable or altered accordingly. Ensure the expectations of the assessment are clearly defined before commencement.	

Skill	**Above satisfactory**	**Satisfactory**	**Below satisfactory**	**Comments**
Checks request				
Understands request				
Patient identity check				
Patient history				
Informed consent				
Communicates effectively with the patient – friendly manner, uses appropriate language				
Introduces self				
Explanation of study given				
'Knobology' – knows how to use the ultrasound machine well				
Image optimisation				
Scan performance – were all the areas of interest adequately visualised and assessed in keeping with protocol?				
Image documentation – was the study appropriately recorded with the correct measurements?				
Written documentation – was the worksheet completed with accurate descriptions and conclusions?				
Checks and discusses the study with the appropriate person – supervisor/sonologist				
Communicates the ultrasound findings to the patient appropriately (in accordance with local protocols)				
Discharges the patient appropriately on completion of the study				
Recognises the limitations of the examination and how the scan results fit within the clinical context of the patient				
Seeks assistance when complexity is beyond own experience, or when further expertise is needed				
Understands the clinical significance of the scan results				

Supervisor comments:

Student comments:

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