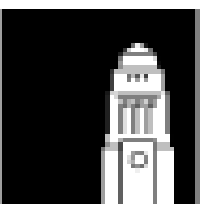


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Graduate Sonographers from classroom to clinical: The emerging workforce for Sonography

Leading Change & Managing Expectations

Presented by :Dr Pauline Mitchell



UNIVERSITY OF LEEDS

Dr Pauline Mitchell



Head of Specialist Science Education Department
Associate Professor Diagnostic Imaging

University of Leeds

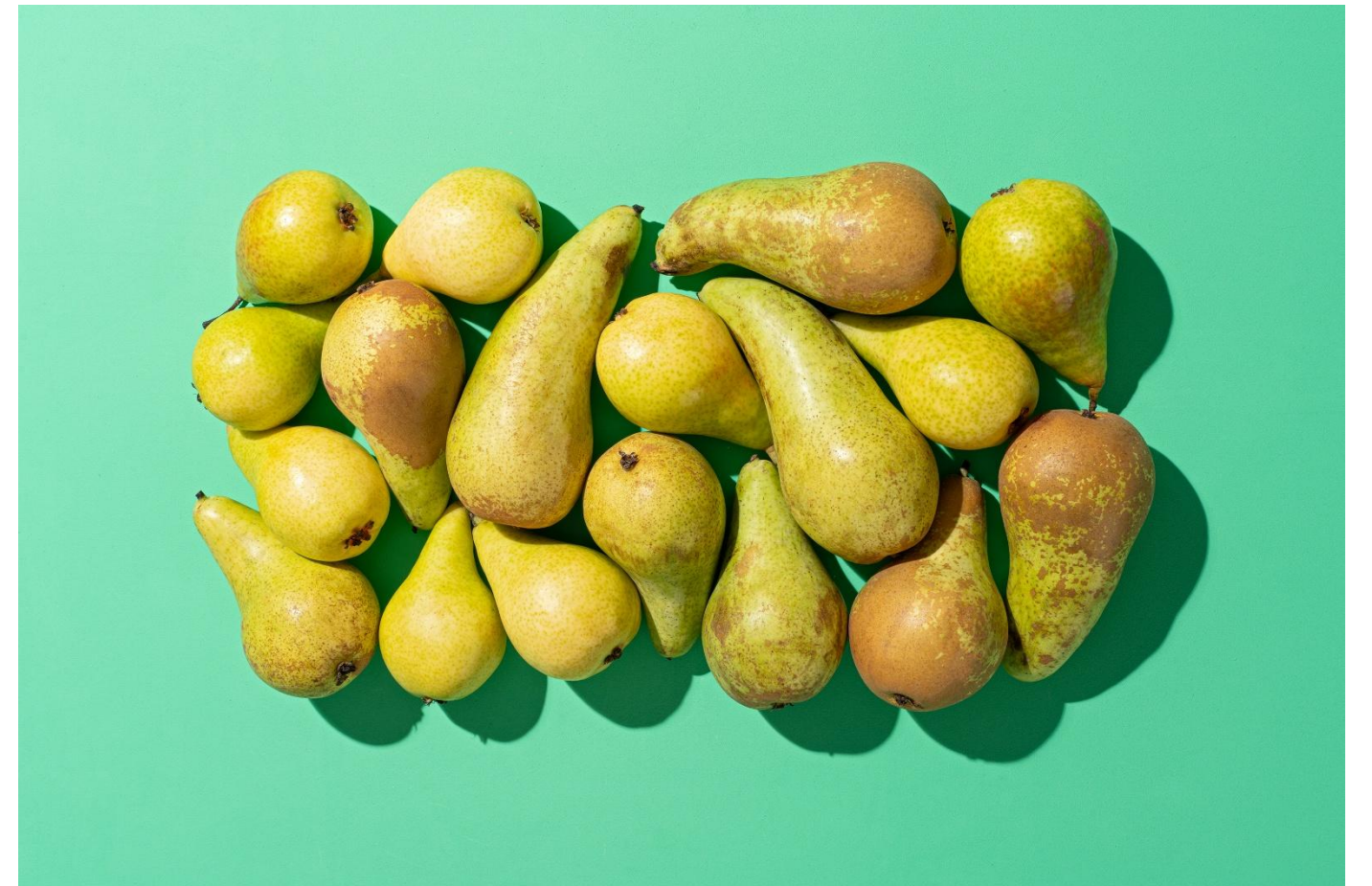
DProf, MA, PG Dip MUS, BSc (Hons), DCR (R)

Disclaimer

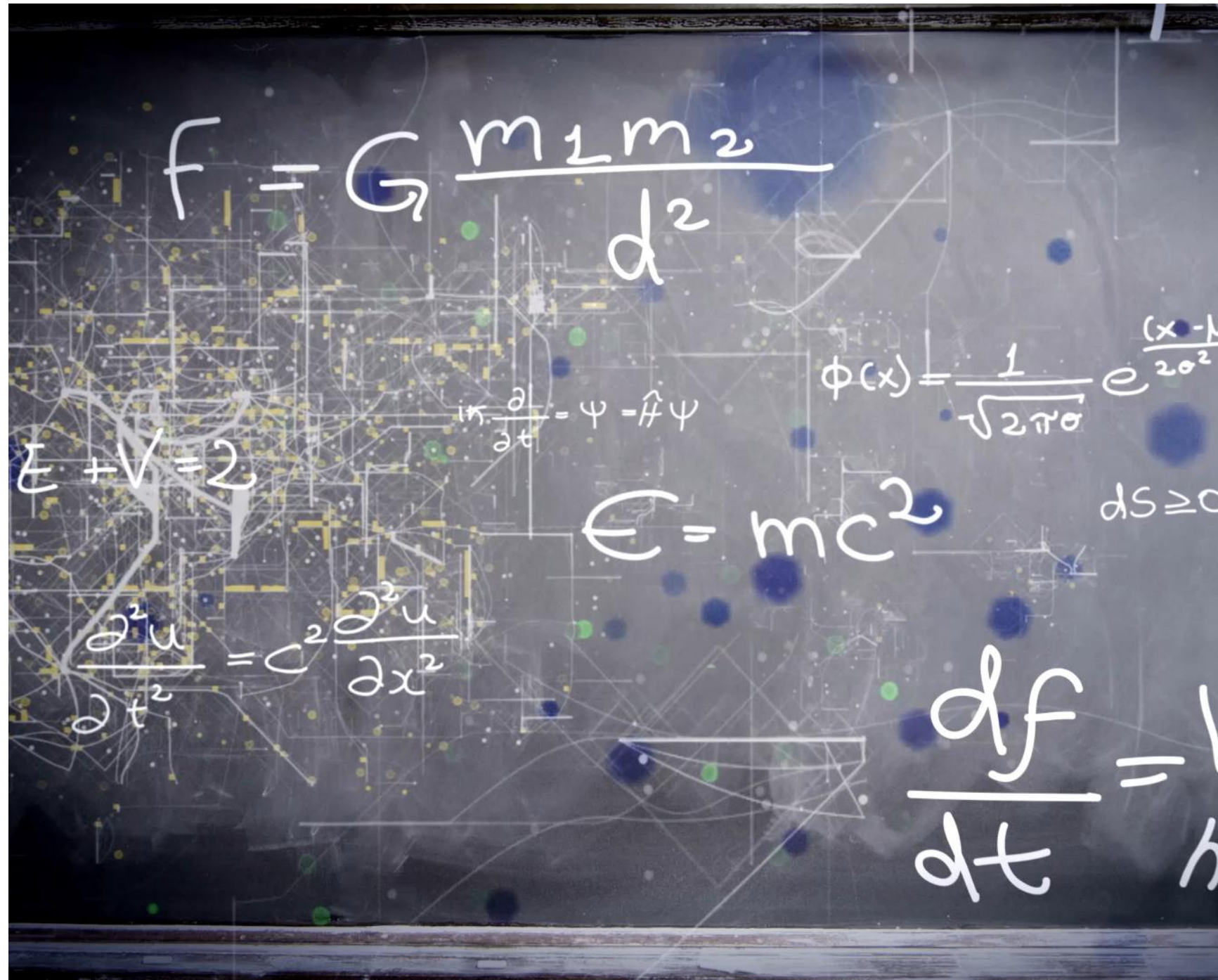
**I am an advocate for the graduate sonographer
and an ambassador for undergraduate
sonographer education**



WHY?



Classroom



BSc (Hons) Medical Ultrasound Model

- **Academic to clinical practice proportion approx. 50:50 – University to Clinical Placement 60:40**
 - Allocated to one clinical site with insight visits to other departments and clinical placement sites
- **State of the art simulation equipment to support clinical skills**
 - Six BodyWorks Eve + Scan Trainer
 - 3 ultrasound machines with live models and a range of phantoms
 - Interactive digital resources & Gerontologic age simulation
- **Varied curriculum – shared learning and service user input**
 - **General Medical** – Abdomen, testes, DVT lower limb & Doppler (across the life span)
 - **Gynaecology** – TA and TV, (across the life span)
 - **Obstetrics** – EPAU, 1st, 2nd and 3rd Trimester, Doppler,
- **Clinical practice**
 - Year 1 – 10 weeks simulated practice at the university and 8 weeks clinical placement
 - Year 2 – 18 weeks – supervised scanning in all areas of ultrasound practice – 2 weeks elective placement
 - Year 3 – 18 weeks – working alongside sonographers – 2 weeks elective placement

- **Beyond the BSc (Hons) – preceptorship and level 7 study**

BSc (Hons) Medical Ultrasound Year 1 content

- **Medical Ultrasound Science 1 – 20 credits**
 - Introduction to the fundamental physical processes in ultrasound production.
- **Medical Ultrasound Clinical Practice 1- 20 credits.**
 - 10 weeks of simulated practice and 8 weeks placement experience.
- **Medical Ultrasound Communication - 20 credits**
 - Introduction to fundamental concepts associated with the communications skills required by sonographers in practice.
- **Sono-embryology- 20 credits**
 - Understanding of embryological development of the fetus and organs linked to ultrasound image interpretation.
- **Interprofessional modules**
 - Professional Practice in Healthcare
 - Introduction to Biological principles of Healthcare

BSc (Hons) Medical Ultrasound Year 2 content

- **Medical Ultrasound Science 2 – 20 credits.**
 - Complex scientific principles to include Doppler and other modes of imaging
- **Medical Ultrasound Clinical Practice 2– 40 credits.**
 - 18 weeks of placement practical experience. Continuation of practice skills.
- **Medical Ultrasound Deductive reasoning – 20 credits.**
 - Understanding of normal and pathological ultrasound appearances and relevance to clinical practice and report writing. Also includes other modes of imaging
- **Pathophysiology and genetics- 20 credits.**
 - Introduction to the pathophysiology and genetics associated with specific ultrasound appearances.
- **Interprofessional modules**
 - Research Methods and Evaluation

BSc (Hons) Medical Ultrasound Year 3 content

- **Medical Ultrasound Clinical Practice 3 – 40 credits.**
 - 18 weeks clinical placement covering all elements of medical ultrasound practice
- **Medical Ultrasound Science 3 -20 credits.**
 - Understanding of specialist ultrasound physical principles such as 3 & 4D, elastography, use of contrast media and AI
- **Sono-pathology-20 credits.**
 - Understanding of the pathological ultrasound appearances, critical decision making and report writing
- **Interprofessional modules**
 - Research Project

BSc (Hons) Medical Ultrasound Assessment

Year 1

- Theoretical assessment is varied
 - Exams
 - Case study
 - Reflective essay and self-audit & Practice Portfolio of Evidence
- Practical assessment through competence observation appropriate for level of study
 - Formative – throughout the year
 - **Summative – to progress to year 2- 18+ years**
 - Normal abdominal examinations (Aorta, KUB, Upper Abdomen)
 - Normal TA gynaecological
 - Normal Obstetrics Dating and growth scan without Doppler

BSc (Hons) Medical Ultrasound Assessment

Year 2

- Theoretical assessment introducing professional modes of communication skills
 - Poster presentation of a case study
 - Exams
 - Reflective essay with self-audit & Practice Portfolio of evidence
- Practical assessment through competence observation appropriate for level of study
 - Formative – throughout the year
 - Summative – to progress to year 3** - common pathology, adapted technique
 - General Medical – Abdomen with Doppler, Lower leg DVT, Testes,
 - Gynae TA and TV + Doppler
 - Obstetrics, 1st Trimester, 3rd Trimester with Doppler (singleton pregnancy)

BSc (Hons) Medical Ultrasound Assessment

Year 3

- Theoretical assessment expanding professional modes of communication skills
 - Oral presentation of a case study
 - Equipment evaluation for procurement
 - Reflective essay with self-audit & Practice Portfolio of evidence
 - Research project
- Practical assessment through competence observation appropriate for level of study
 - Formative – throughout the year
 - **Summative – to progress to graduation and practice** - complex patient, across the lifespan
 - General Medical – Abdomen with Doppler, Lower leg DVT, Testes,
 - Gynaecological – TA and TV,
 - Obstetrics – EPAU, Anomaly Scan (singleton), Growth scan with Doppler

BSc (Hons) Medical Ultrasound Clinical Competences

Level	Expectation
1	The sonographer had to perform the clinical examination whilst the student observed.
2	The student required constant direction.
3	The student required frequent direction.
4	The student required minor direction
5	The student required no direction to complete the clinical examination.

Minimum Threshold competence

YEAR 1 = 3

YEAR 2 = 4

YEAR 3 = 5

Apples and Pears

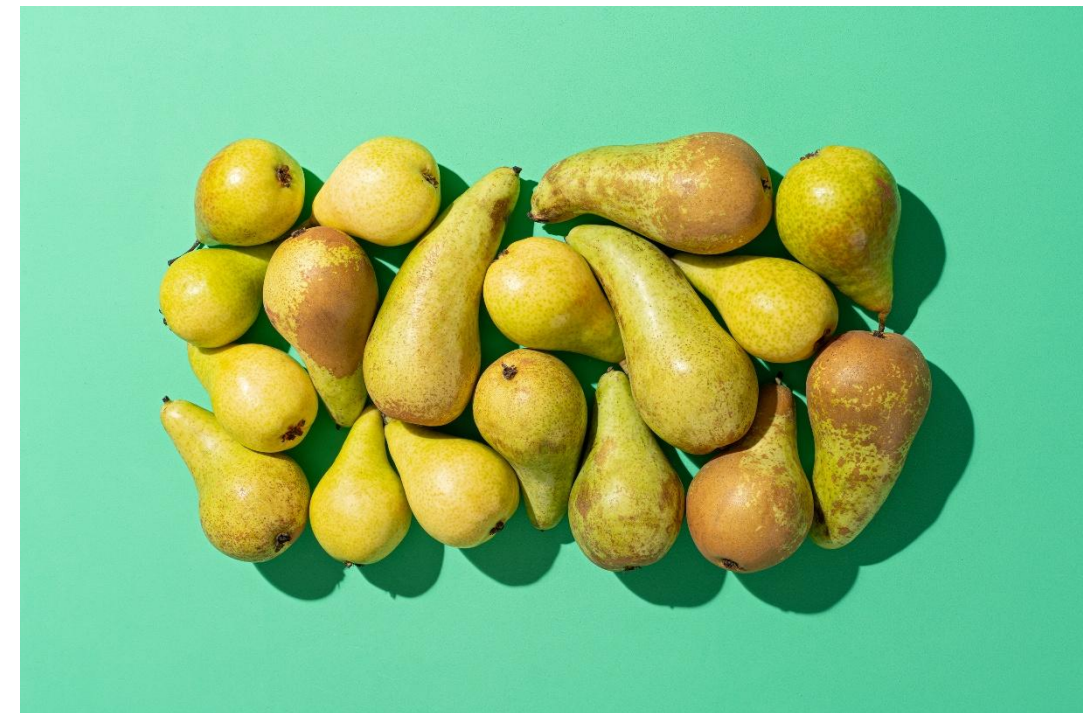
Undergraduate

- Usually no clinical experience
- Duration of study 3 years
- Clinical practice hours = 1,520
- Content of study
- Level of study – 6
- Fees paid by student
- Eligible for placement tariff



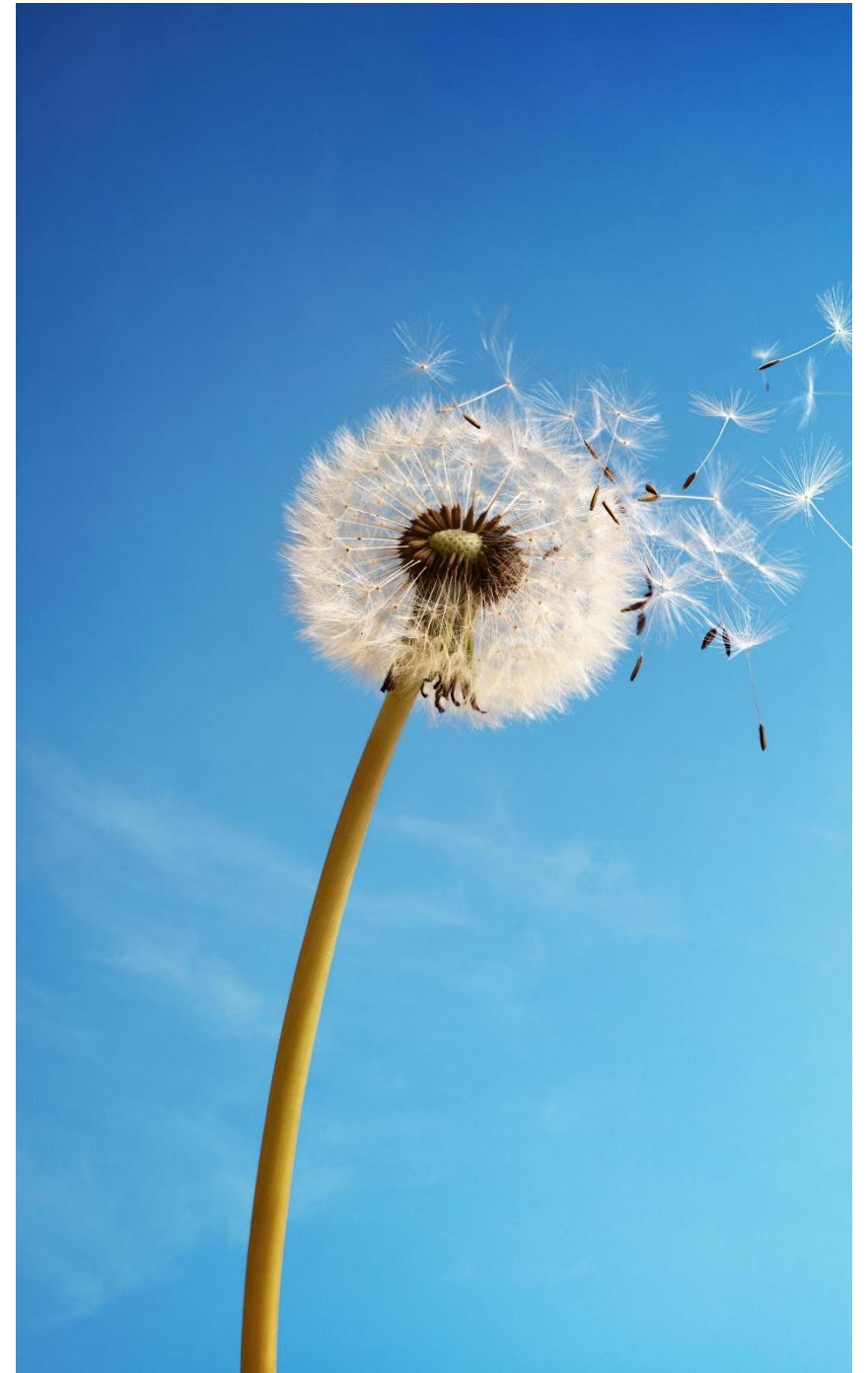
Postgraduate

- Usually already qualified health professional
- Duration for PGC = 12 months – PGD – 24 months
- Clinical Practice hours CASE standard = 1,456
- Content of study
- Level of study – 7
- Fees paid by clinical department
- No tariff for training



BSc (Hons) Medical Ultrasound Clinical Challenges

- Clinical placement capacity for training all levels of practice/study
- Aging workforce – attrition
- 24% vacancy rate – some areas as high as 40%
- 5 applications for each undergraduate student offer
- Student numbers dictated by clinical placement
- Resistance to support due to lack of regulatory body (HCPC) registration although sonographers holding a CASE accredited award can register with RCT
- Viability of UG course needs to be sustained for progression PG to be included in the portfolio
- Traditional recruitment from other professions also with workforce shortages is not sustaining the workforce required to meet service demand.
- Change in education and career models is needed

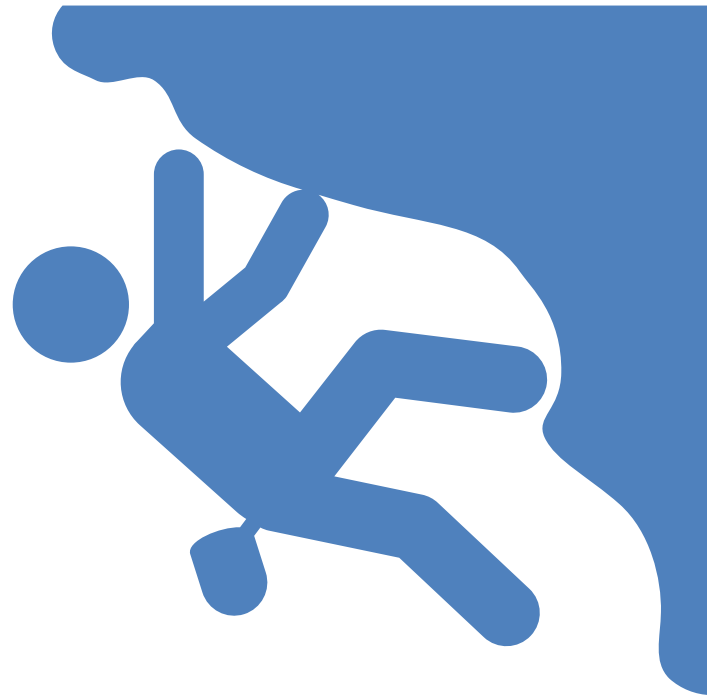


Graduate sonographer in Clinical Practice



Leading and Embedding change

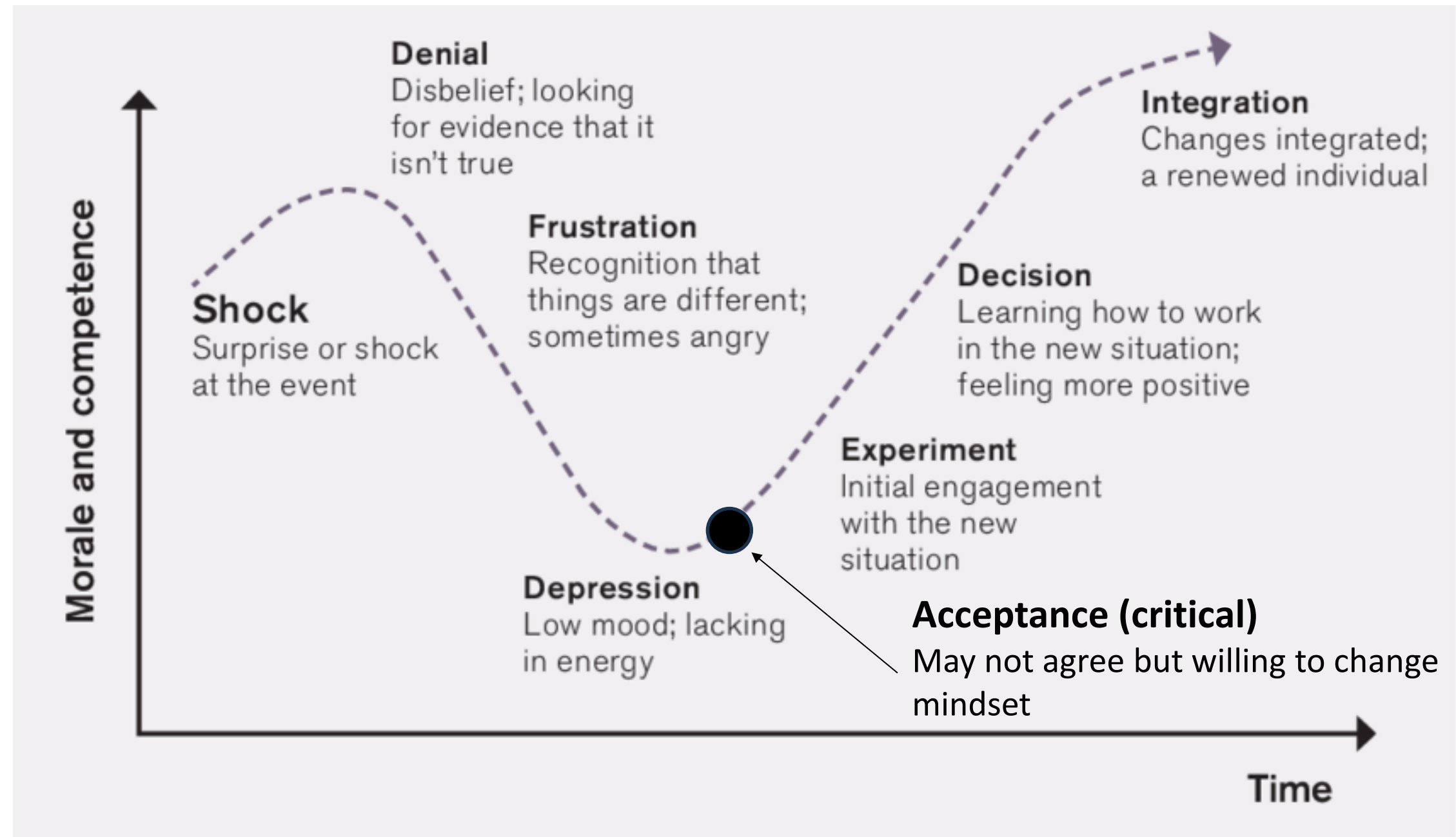
When leading or managing change, often we come across:



- Situations we find challenging
- People who appear/are resistant or difficult to engage
- Getting things resolved in a timely way
- Lack of transparency on decision making
- Ensuring expectations are set and met

How does this resonate with your experiences to date when trying to resolve issues in the workforce or service provision?

The change curve



Source: Kubler-Ross

- There are many versions of this model
- Considering the changes in sonographer education and the career framework where are we on this continuum

Using ADKAR in change management

A	Awareness of the need for change
D	Desire to support change
K	Knowledge on how to change
A	Ability to implement change
R	Reinforcement to sustain change

The five critical outcomes of the ADKAR model

Focusing on how people are feeling about the change in sonographer education, and the introduction of the graduate sonographer practitioner will help us understand where we are as a profession.

We are all at different stages and sometimes take a step backwards

Using ADKAR in stakeholder management

A Awareness of the need for change

Signs that someone is progressing through this stage:

Asking questions about why the change is necessary and engaging in discussions about current problems or opportunities.

“I understand why we need to do this”.

“The current way isn’t working”.

Signs someone might be stuck in this stage:

Lack of interest or avoidance of discussions about the change.

“Why do we need to change anyway?”

“Things are fine how they are”.

Activities to help move people through this stage:

Communications about the reasons for the change, prioritising face-to-face engagements (in-person or virtually)

Leadership announcements to discuss the change in team meetings

Sharing the results from Change Impact Assessments to show what the change means for people and how it will impact them.

Using ADKAR in stakeholder management

D Desire to support change

Signs that someone is progressing through this stage:

Expressing an interest in being involved in the change (Clinical placement providers)

May **not necessarily be happy with the change**, but should be supportive of participating in the process.

May not fully agree with the change but wants to make this work.

“How can I help?”

Signs someone might be stuck in this stage:

Reluctance or vocal opposition to taking part in the change.

“I don’t want to get involved in this.”

“I don’t see the benefit”.

“This isn’t going to work for me.”

Activities to help move people through this stage:

Incentivising involvement or support, for example holding away days

Personalising engagement activity through one-to-one conversations to understand individual motivations and address concerns.

Sharing success stories, testimonials and case studies of successful changes.

Using ADKAR in stakeholder management

K Knowledge on how to change

Signs that someone is progressing through this stage:

Asking detailed questions about new ways of working, attending training sessions, proactive learning. Attending supervisor workshops

“Can you explain how this works?”

Signs someone might be stuck in this stage:

Lack of engagement in learning opportunities.

Attending learning opportunities but still being confused, or spreading misinformation

“I don’t know how to do this”.
“I missed the training session”.

Activities to help move people through this stage:

Building capabilities through workshops, online sessions and hands-on training.

Creating documentation about the change such as detailed handbooks and guidance.

Creating mentoring opportunities by pairing people with experienced colleagues who can offer guidance.

Using ADKAR in stakeholder management

A Ability to implement change

Signs that someone is progressing through this stage:

Successfully applying new skills or behaviours.

Being able to apply new processes or use new systems with minimal errors.

“I’m getting the hang of this”.

“This is becoming easier”.

Signs someone might be stuck in this stage:

Struggling to implement new processes or ways of working.

Making frequent errors or getting frustrated with how to do things.

“I can’t do this”.

“This is too difficult for me”.

Activities to help move people through this stage:

Creating opportunities for **practical application and practicing new skills** in a safe environment.

Feedback loops leading to actual adjustments of how people are supported.

Using ADKAR in stakeholder management

R Reinforcement to sustain change

Signs that someone is progressing through this stage:

Consistently using new processes, systems, behaviours, or other ways of working, helping others to do the same.

Seeing and recognising the positive outcomes from the new ways of working.

“We’re seeing really great results from this”.

Signs someone might be stuck in this stage:

Reverting back to old behaviours or ways of working.

Lack of recognition of the positive outcomes from the change.

“I went back to the old way because it was easier for me”.

“Why should we keep doing this?”

Activities to help move people through this stage:

Provide continued support and access to resources.

Regularly **recognise** people and teams who are consistently demonstrating the new behaviours or ways of working.

**“Improvement usually means doing something we have never
done before”**

Shigeo Shingo

Threatening, confusing, frustrating, Rewarding, Progression, Recognition

BE THE CHANGE

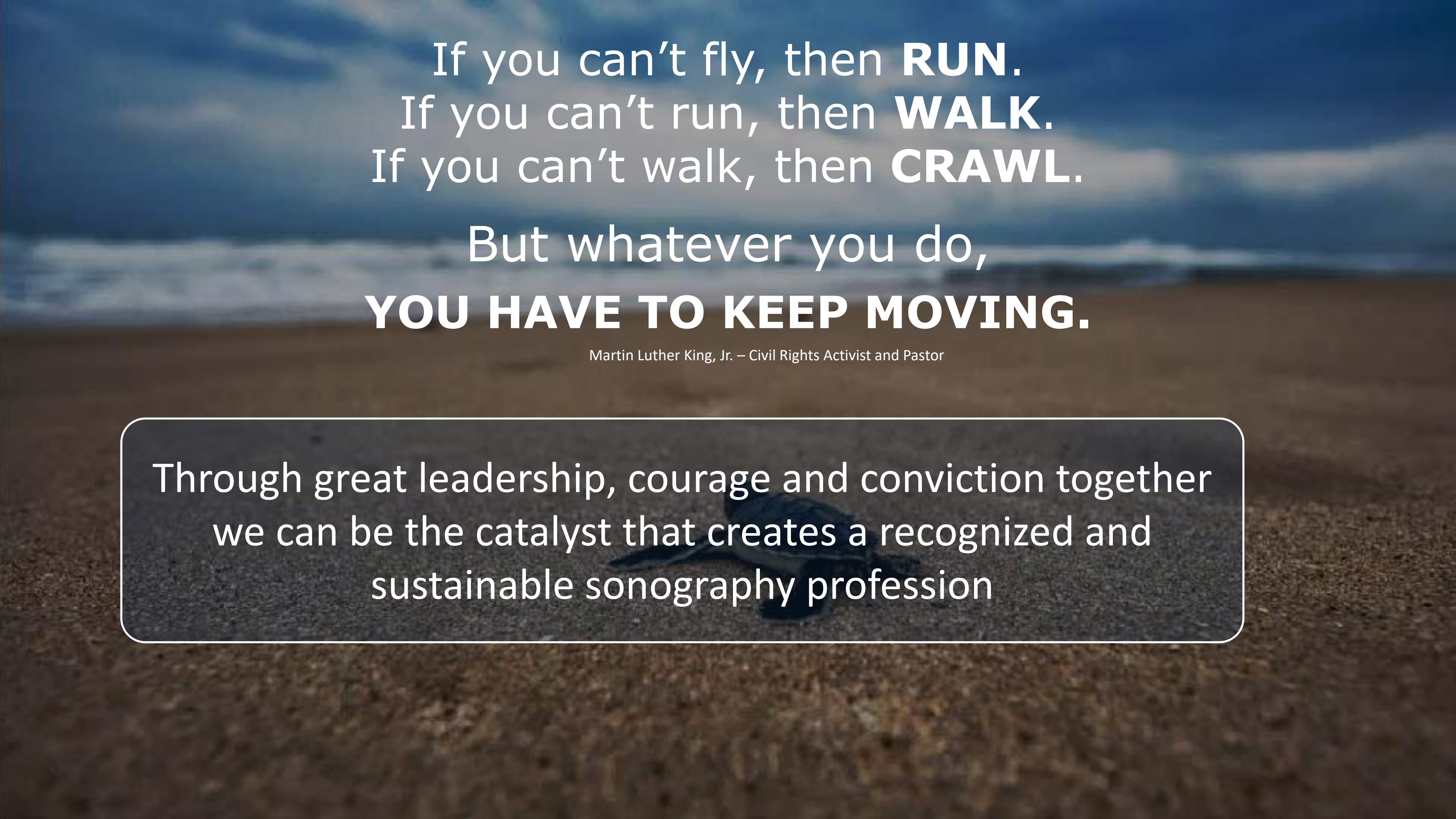
you want to see

IN THE WORLD.

Mahatma Gandhi – Civil Rights Activist

Beyond Qualification – Leading change to embed the sonographer practitioner into the workforce

- Early adopters such as Mid Yorks have established pathways and job descriptions for graduate sonographers, preceptorship and supervision.
- Preceptorship needs to be robust and supportive – suggested Band 5 Sonographer Practitioner
- General medical and gynae ultrasound examinations – independent, but working in a team environment
- Supervision in Obstetric scanning due to FASP requirements until a level 7 qualification is achieved.
- Suggested 12 months consolidation of practice
- PG Cert in Advanced Obstetric Ultrasound to enable independent working– suggested Band 6 Extended Practice Sonographer
- Service demand/expansion will determine areas for study at PG Dip leading to suggested Band 7 Advanced Practice Sonographer.



If you can't fly, then **RUN**.
If you can't run, then **WALK**.
If you can't walk, then **CRAWL**.

But whatever you do,
YOU HAVE TO KEEP MOVING.

Martin Luther King, Jr. – Civil Rights Activist and Pastor

Through great leadership, courage and conviction together
we can be the catalyst that creates a recognized and
sustainable sonography profession

Any Questions

