

# Integrating Research-informed Teaching into Radiography Education



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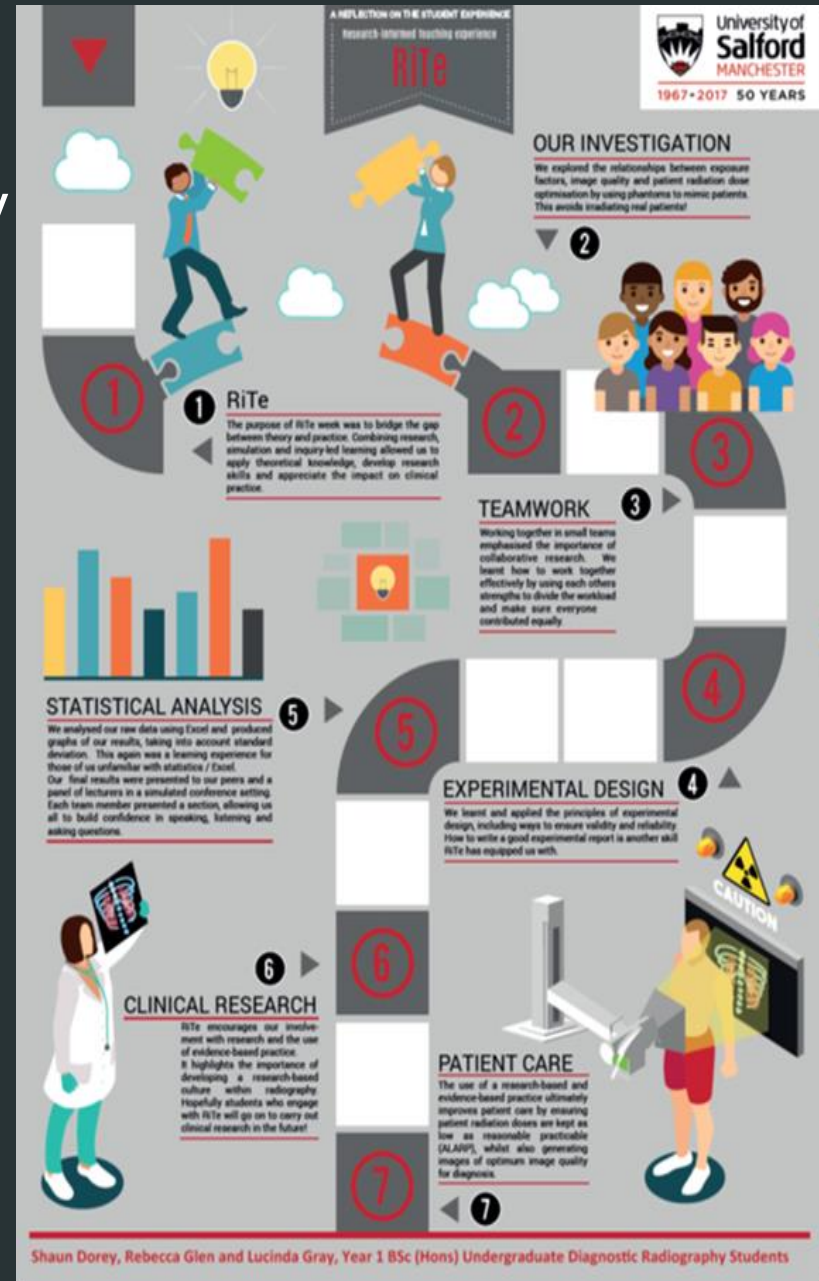
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- **Research-informed Teaching (RiT)** links research with teaching.
- Focuses on the processes through which knowledge is produced, places emphasis on developing skills of research and enquiry.

- We developed and integrated the **Research-informed Teaching experience (RiTe)** within our UG curriculum in 2009 [1-5].

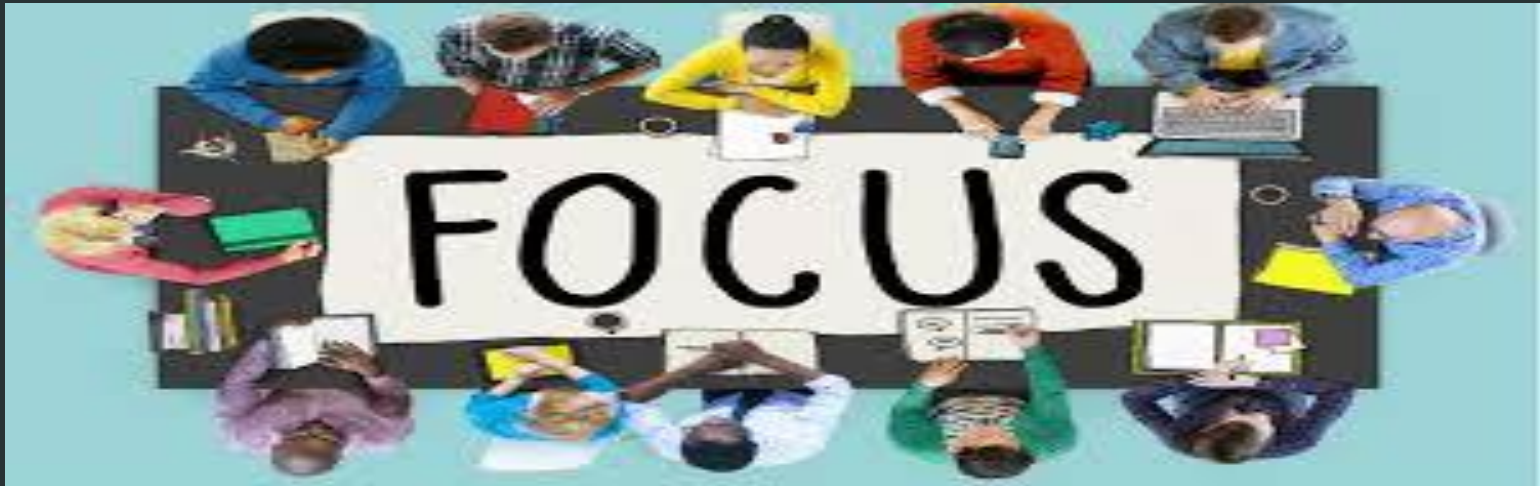
- RiTe develops student research skills from year 1 and links theory with their area of practice.
- Work in collaborative enquiry based learning groups (6 students per group).
- Explore the relationship of image quality and radiation dose optimisation (links to a key area of practice).







- The student's perspective in how they experience learning is an important area in contemporary teaching and learning research [6,7].
- We evaluated the student experience and learning process of RiTe in years 1 and 2.
- Perceptions of RiTe by academic tutors and clinical placement educators also explored.

- Exploring the process of learning is complex!



- Mixed methods research  Focus group & survey
- (Produced data on the same topic from different angles)
- Also interested in the academic tutor and clinical placement educator perspectives of RiTe  Online focus group

# Student Focus Group



*“I learnt a lot from the peers in my group ... it was great to share ideas and learning.”*

*“Although we are taught about it [kVp], we never really knew what difference an additional 5 [kVp] would make.”*

*“One thing that I did learn from the RiTe was that there is little research in radiography.”*

*“I have to confess I did come out of it [RiTe] feeling a load more confident”*

# Student Survey



- Strong agreement that RiTe was a valuable learning experience.
- Strong agreement that enquiry-based collaborative group working process helped with learning and skills development within RiTe.
- Agreed RiTe helped to link theory with practice (image quality and dose optimisation).
- Agreed RiTe raised their awareness of research and helped developed their research skills.

Students felt that they gained a greater awareness of how research could inform their practice and developed their own research skills.

Supported the development of cognitive and psychomotor competencies through trial and error (Enquiry-based learning).

## **RiTe: Student Perspective**

Group working a key element of the learning process and experience.

Supported the cross-proliferation of ideas by students and knowledge acquisition.





*“... Provides a unique opportunity to develop theoretical understanding and to see the differences to their x-ray images and dose to the patient.”* (Clinical Placement Educator)

*“... It makes them question clinical practice and to look at evidence based research.”* (Academic Tutor)

*“... Promotes the culture of research within the radiography profession.”* (Clinical Placement Educator)

# Academic Tutor and Clinical Placement Educators Focus Group



RiTe seen as important learning intervention.

Supported students into entering into discipline related research and developed their research skills.

**RiTe:  
Academic  
and Clinical  
Perspective**

Supported student understanding of dose optimisation and image quality (linking theory with practice).

Supported the development of key employability skills (communication and team working).

# Further Work



- Evaluate the resulting increase in knowledge and capability before and after RiTe.

**(Learning Evaluation)**

- Is the knowledge and research skills development from RiTe maintained following qualification in practice?

**(Behaviour Evaluation)**



# Further Work

- Findings also suggested that students did not feel they could challenge practice or influence change:
- Student FG: *“No way would you say to a qualified radiographer, ‘Well in our RiTe week...’*
- How can we provide the impetus for students to have these requisite skills?



# References

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# Questions?



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Second RiTe II student presentation  
researching image quality and dose with  
pelvis imaging 👍



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