

A Case Study : Evaluating the Effectiveness of Inter-professional Collaboration In A “Flipped Classroom”

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“Educators who facilitate learning for students in the health professions are faced with increasing challenges to promote “higher order learning,” the deep and applied learning required for providing patient care in today’s complex healthcare settings” (Billings 2008:ix).

The UK Commission for Employment and Skills (2009) stated that *“...employability skills are the lubricant of our increasingly complex and interconnected workplace. They are not a substitute for specific knowledge and technical skills: but they make the difference between being good at a subject and being good at doing a job”*

“So many of our curricula are designed to cover the content deemed essential for the discipline...it is rare that application of knowledge is the cornerstone of the curriculum’s design” (Parmelee 2008:4).

The dilemma...

Design a meaningful learning experience to achieve
“higher order learning”

Employability skills for an inter-professional environment

Inter-professional team:

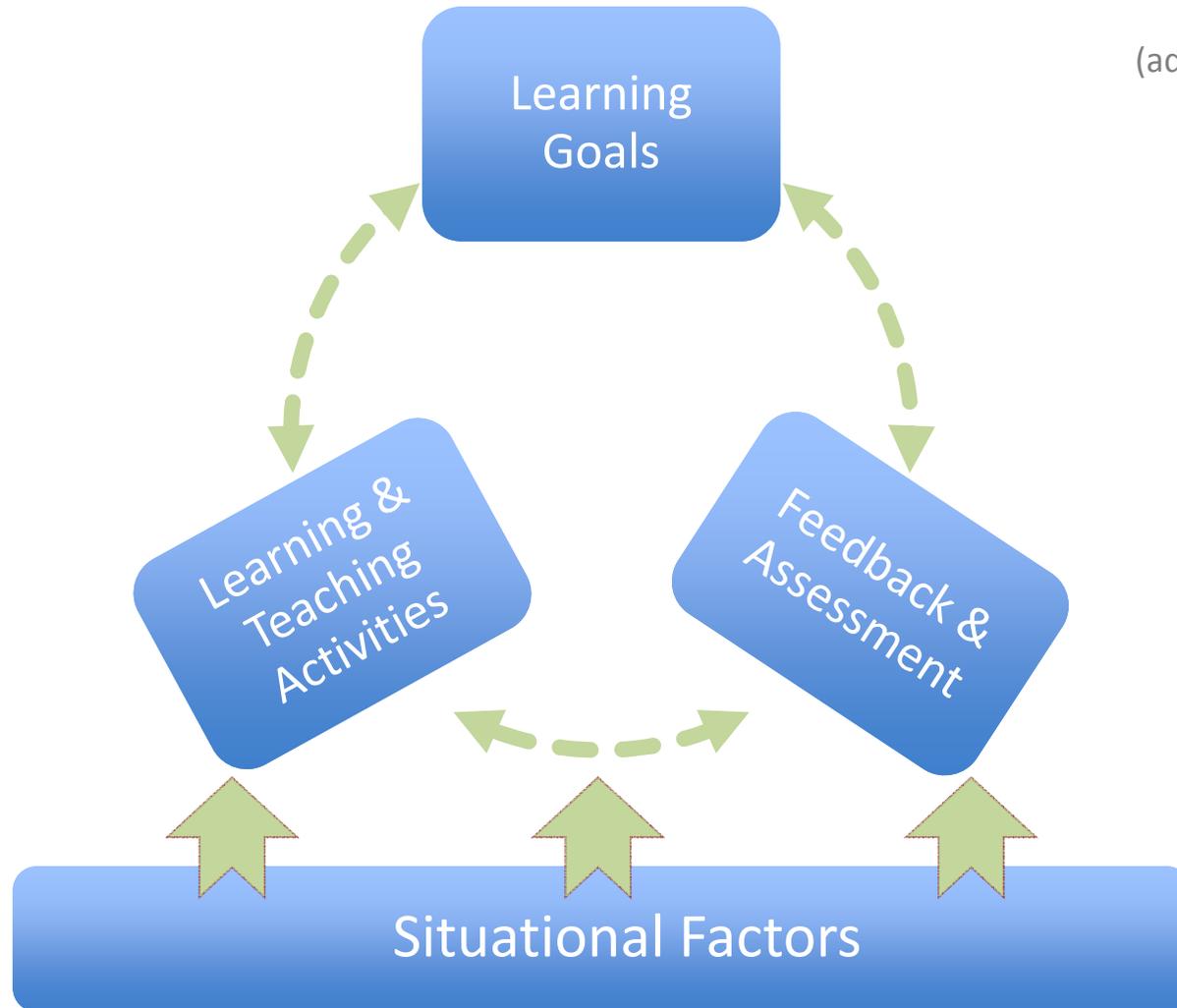
Medical Imaging Technologists/ Educators

Anthropologist

eLearning advisor

The solution...

(adapted from Fink, 2003)



Characteristics of learners,
characteristics of teachers,
the relationship between them,

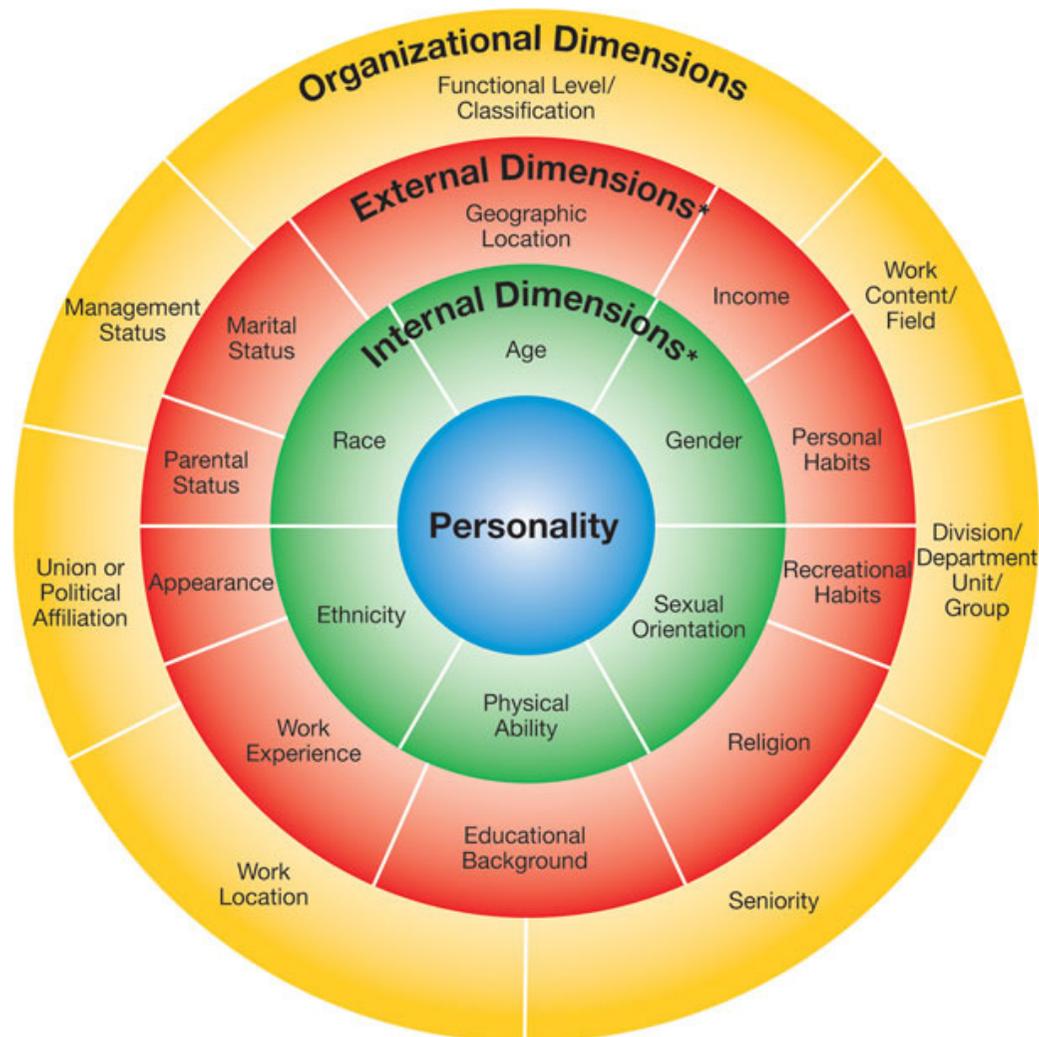
The reality of the learners

Who they are...

Where they come from...

Where they are heading...

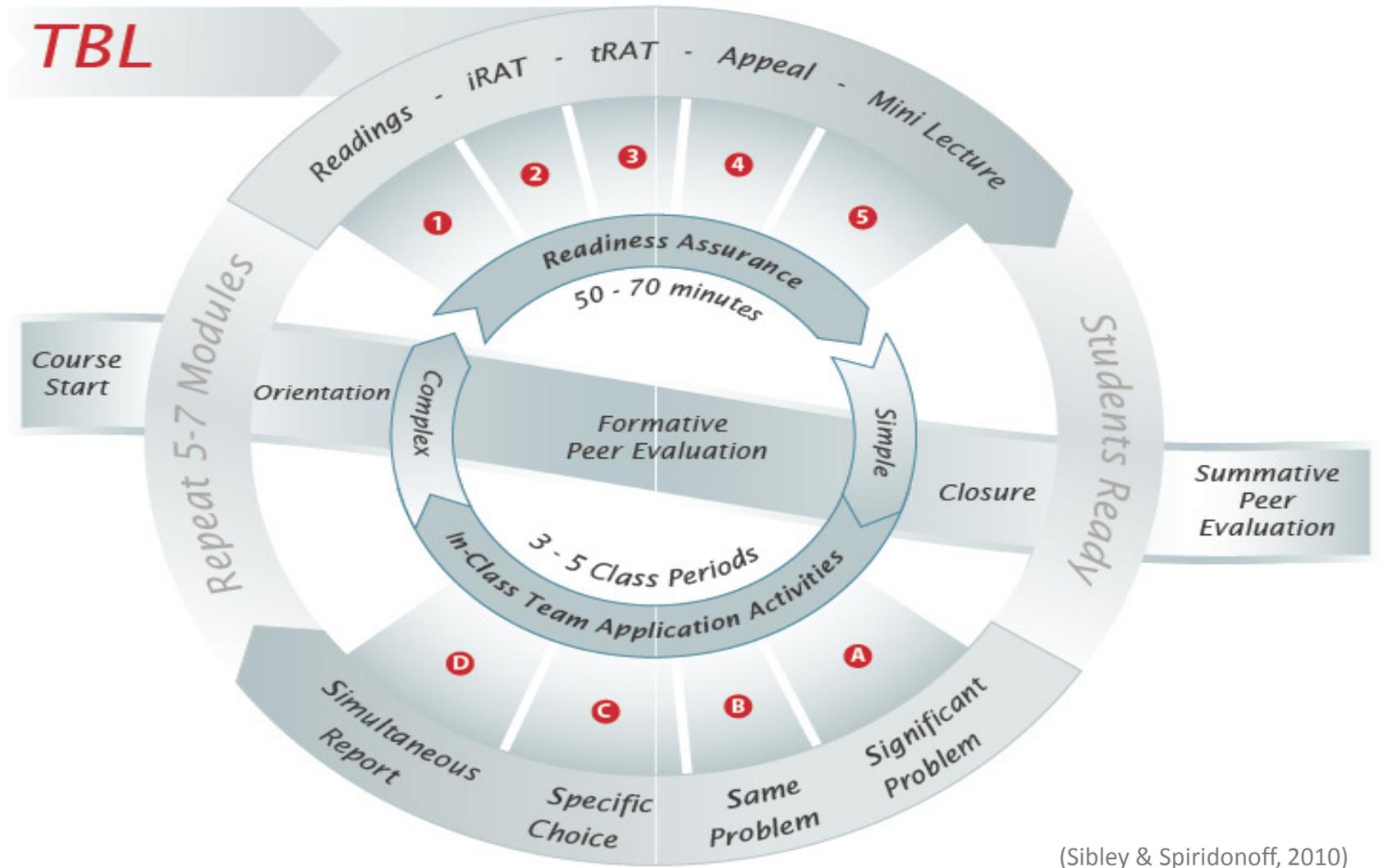
Situational Factors



Adapted from a figure in *Diverse Teams at Work: Capitalizing on the Power of Diversity*. By Lee Garden-swartz and Anita Rowe

Learning & Teaching Activities

1	Identify the construction and principles of operation of contemporary imaging systems <i>(Foundational Knowledge)</i>
2	Identify the characteristics of ionising radiation and its interaction with matter. <i>(Foundational Knowledge)</i>
3	Adjust and manipulate the factors required to produce high quality diagnostic images. <i>(Application)</i>
4	Ensure radiation safety of self, patients, staff and visitors in a Medical Imaging environment <i>(Application)</i>
5	Integrate theoretical knowledge into clinical practice <i>(Integration)</i>
6	Become a self-reflective practitioner in a bi-cultural environment <i>(Human Outcomes)</i>
7	Demonstrate social interaction skills to enhance intra-professional and inter-professional team work <i>(Human Outcomes)</i>
8	Recognise the value of the Medical Imaging Technician in the provision of effective imaging. <i>(Caring)</i>
9	Identify and access professional development opportunities to maintain currency of knowledge <i>(Learning how to learn)</i>



“Team-based learning creates conditions in which people who are very different from one another learn that they need to work together and that they can work together. They find ways to make their differences an asset rather than a liability....the conditions necessary to make this happen are the same conditions that make groups evolve into teams: time together, freedom to find ways to work out their differences, feedback on their individual and group performance, and incentives.

When teachers can create these conditions, students who are very different from one another have a reason to want to work together effectively” (Fink 2002:22)

Team Based Learning

The story...1st year presentations

- ⦿ Seven first year Medical Imaging students were required to undertake a presentation in relation to an artefact they have seen in the clinical department, and to discuss its impact on image quality and the patient or staff.
- ⦿ They were also asked to describe rectification and prevention measures.
- ⦿ The students identified an equipment artefact seen on all paediatric chest x-rays taken with a specific piece of equipment.
- ⦿ This had not been identified as something which could potentially obscure a pathological condition by the liaison radiologist reporting on the images.
- ⦿ The net result was that a training programme was set up for all staff in the use of this equipment; plus a suggested change of policy in relation to the use of this equipment when taking baseline images.

Outcomes...

- ◉ *“Working in a team and getting along with a diverse group of people is essential for becoming an MRT. I feel as though I have become better at working in a team ...”*
- ◉ *“Learning to co-operate with other members of the team I was not comfortable dealing with at the start of the year. I have felt have come out of my shell by not being in my comfort zone anymore. .. I have found my confidence has been boosted as I stand up for my ideas and justifying them when everyone is questioning them.”*
- ◉ *“I have learnt listening to others and accept other opinion”*
- ◉ *“... I respect everyone in the team and I understand that everyone works differently, because there is a range of diversity among individuals. Diversity allows me to adjust the way I am working to help others, which in turn can benefit me by making me develop alternative working processes. These strengths benefit me in the clinical environment ...”*
- ◉ *“I have learnt to listen to others to hear how they understand things, especially working with a variety of people who all have their own thinking process and understanding.”*

Student Reflections

“Different teams have different justifications to use so you get to hear all of the different viewpoints- outside of your team as well as inside your team.”

“This model is congruent with holistic learning and will produce better individuals, people who are able to work together in teams and this is what this world is about, we’ve got this global society coming in, and we’re forced to work with people from all over the world, different countries, different cultures and the best ideas come from people who are able to work together with diversity and its a no brainer, you see that time and time again so why not learn in that way.”

Student interviews

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