



Centre for the Advancement of
Interprofessional Education



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Engaging students to learn in practice: Lessons learnt through interprofessional placements

Professor Elizabeth Anderson



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University of Leicester - Centre for Medicine 2016

Aims

Consider the added value of interprofessional learning (IPL) in practice

- Context
 - Our challenges for Practice-based IPL
- Analyse your clinical area
 - Are you ready?
- Models that work
 - Steps to follow with examples
- Take home messages

Context

Your Vision

*‘To have a health and social care workforce in which individual practitioners fully understand the **value of education** for learners, patients, carers and other health care practitioners’*

Interprofessional Education

World Health Organisation 2010

To prepare you to be '**workforce ready**'

*'Occurs when two or more professions learn about, from and with each other to enable effective collaboration and **improve health outcomes**'*

The World Health Organisation (2010). *Framework for Action on Interprofessional Education & Collaborative Practice*. WHO, Geneva. p13.

Your Challenges

- How IPE is perceived and understood
 - Working culture
 - We train for professional examinations
 - Focus uni professional competence

Working Culture



<http://www.parliamentlive.tv/Main/Player.aspx?meetingId=12578>

Personal responsibility versus culture

Francis Report

Solutions to culture change: Where IPE?

Leadership

Education (uni)

Systems

Patient Safety

Pathways of care

**Being Interprofessional:
Interprofessional education
*not directly implied***

commentaries

Group conformity: the legacy continues

Jennifer M Newton

Recent reports clearly identify that a visible hierarchical culture persists in health care to the detriment of staff welfare and patient safety.^{1,2} The article by Beran and colleagues published in this issue of the journal further demonstrates that there is 'pressure to conform to authority within the health care system'.³ What is interesting and challenging for us as educators is that it would appear that this 'peer pressure to conform'³ is present

graduates and students often confront unique work and organisational requirements that conflict with the values and practices articulated in university courses.⁵ Health care contexts propagate behaviours that focus on the completion of 'tasks' and behaviours that do not 'rock the boat'.⁶ Thus, during clinical placements students are expected to be utilitarian in care delivery, but such utilitarianism does not necessarily lend itself to critical thinking.

Disconcertingly, the health care community has only recently become aware of the need for a culture of collaboration and trust, and it may take more than one generation of health care workers to evolve significant change.^{2,10} In addition, patient safety issues are relevant, not so much in relation to individual error, but in the context of a combination of poor communication, ineffective teamwork and inappropriate resource management.^{1,2} Staff in

Newton, J (2014). Group Conformity: The legacy continues. *Medical Education*, 48, 842-848.

Faculty of Medicine, Nursing and Health Sciences, School of Nursing and Midwifery, Monash University Australia

Concerns raised by Newton

- **Hierarchy** there is a pressure to conform to authority
- **Power relationships** between medicine and nursing
 - Why: Task and finish (don't rock the boat)
- **Patient safety** is about poor communication, ineffective team working and inappropriate management
- **Workplace cultural shift** is required
 - Students under power to conform

Newton: Our response as educators

“..the interprofessional conflict that has dominated, particularly between medicine and nursing, must abate. **Promoting a culture of respect and collaboration needs to begin at undergraduate level through the development of sensitive, interprofessional curricular activities** that are mindful of the knowledge and expertise that each health profession has to contribute to care delivery”

Elizabeth Anderson and Simon Bennett: Are we serious about changing culture?

📅 December 5, 2016

Healthcare education has enormous capacity to equip future practitioners with the right mindset to promote supportive team-based cultures within the NHS. By this we mean that during training all practitioners should develop skills needed to work in a community that is then manifest when working in clinical and other care situations. They should know how to: form a team; use each other's skills appropriately; place patients and families at the centre of care; and support colleagues. Proactive, forward-thinking team players stand the best chance of identifying latent errors (incidents and accidents-in-waiting). [1] Foresight and proaction reduce the risk of death and harm. Following the Francis report there have been numerous initiatives within the NHS, some of which, like the rise and recognition of quality-improvement activities, are reactive, while in contrast, education is proactive. [2,3]

There is a strong desire to ensure delivery of the best care for today's patients, but are our energies focused in the right direction? Changing organisational culture is often tied up with balancing safety and accountability, but Dekker states that creating a "just culture" is incredibly difficult. [4] Changing the culture of the NHS involves helping all employees feel part of meaningful teams where they are valued and supported. The way in which NHS systems are organised has for too long revolved around differences and hierarchies. [5] This approach has alienated patients and families. [6] The World Health Organisation (WHO) argues that health workers must emerge from training as "collaborative practice ready" practitioners. [7] Evidence to date suggests that teamwork training enhances quality and safety and helps people feel valued. [8] These authors reflect that more work in this area is required, and that, at the moment, energy is being directed into considering patient safety issues at the expense of engineered cultural change—something that makes a real difference. With doctors and nurses being taken to court for alleged gross clinical negligence, where does this leave culture, a sense of collective endeavour, and desire to work together?

Anderson E & Bennett S. Are we serious about changing culture. Blog. BMJ 6th December 2016

<http://blogs.bmj.com/bmj/2016/12/05/elizabeth-anderson-and-simon-bennett-are-we-serious-about-changing-culture/>

Stories from medical students

- *'No one welcomes me and no one even says hello'*
- Story of the nursing sister with medical students... *'who gave you permission to...'*
- Foundation doctor: *'....take it from another ward'*

Doves and hawks: practice educators' attitudes towards interprofessional learning

Amanda J. Dutton RMN PGDE MSc, Aidan R. C. Worsley BSc MA CQSW M.Phil FHEA 

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[View issue TOC](#)
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 *Corresponding author. Tel. 01925 534392, leave messages on 01925 534226; e-mail: a.worsley@chester.ac.uk

Abstract

The authors offer a critical account of interprofessional learning and working within the spheres of health and social care. The 'joined up' imperatives promoted by central government are compared to the somewhat contradictory findings of research exploring the effectiveness of interprofessional working. The role of practice educators in developing attitudes, learning and experiences around interprofessional working is heralded as an under-researched area while being of particular significance in the formation of professional identity. This paper uses the term 'practice educators' to capture the shared functions of nurse mentors and social work practice teachers. The authors draw on a small-scale piece of focus group-based research with professional practitioners from health and

The '**doves**' appear to be more accepting of changes around professional boundaries where blurring is taking place. Although they do not ignore the potential conflict that can exist for themselves and their students, the doves largely seek to manage this conflict and look to a consensus approach.

In contrast, the '**hawks**' are more concerned with issues of professional erosion and look to develop more combative strategies around the maintenance of the existing boundaries and their current professional identity. It is argued that this approach has more of a conflict base.

Towards reflective practice—the languages of health and social care

PATRICK C. PIETRONI

Senior Lecturer in General Practice, St Mary's Hospital Medical School, London, UK

Summary *The complexity of interprofessional communication is illustrated by the description of eleven different language sub-sets in current use. The implications for collaborative work is explored and emergence of the reflective practitioner is examined in the light of these different languages.*

Key words: *Communication; health care; language; reflective practitioner; social care.*

Introduction

If one surveys the ever-increasing literature on interprofessional work, one is faced with the 'lit of disappointment and frustration at the patchiness or absence of fruitful and democratic communication between professionals' (Kilcoyne, 1991). This area of study, to paraphrase 'everybody's distant relative and nobody's baby' (Griffiths, 1988).

In this paper I will put forward the view that the 'baby' of interprofessional work is at present separately represented by the different languages we use to describe our own individual work. I describe how these languages perform the function of partial communication systems only. Each language and the associated professional way of thinking can be seen as representing the monosyllabic utterances found in the early communicative life of an infant. If this 'interprofessional' infant is to mature and develop a language that can be shared, then as collective godparents, we shall have to explore how these separate languages or 'word forms' can be strung together to form complete sentences.

Is effective communication possible between professionals who speak different languages? Communication skills training has failed?

Messages from Pietroni

“To encourage such a wide-range reflective process amongst professionals is not at all an easy task, but it is increasingly clear that the high-ground of collaborative work will not be achieved unless attempts are made to integrate ‘language sub-sets’ identified in this paper” p16.

- Points to Schöns work on reflective practitioners
- Address communication issues within interprofessional work and the need for team training

Collaboration, professional identity and reflection across boundaries

STEEN WACKERHAUSEN

Department of Philosophy, Aarhus University, Denmark & Centre for Practical Knowledge, School of Professional Studies, Bodo University, Norway

Abstract

Three supplementary perspectives are presented arguing that interprofessional collaboration is both necessary and desirable. Nonetheless, there are often too many serious intra-professional barriers and obstacles to interprofessional collaboration to make it successful. Some of these barriers, it is argued and illustrated, are found in the multiple ways in which professional identity is tacitly acquired and embodied in the practitioners' habitual, everyday practice. The paper then explores ways in which reflection, especially Second order reflection, can help to elucidate and overcome these obstacles, as well as increasing professional adaptability and competence.¹

Keywords: *Interprofessional, collaboration, boundaries, identity, professions, reflection, network, ontology, epistemology, ethics, philosophy, adaptability, competence, expert, learning, novice, co-operation, working relationship, teamwork, tacit, embodiment, disharmony, colleagues, education, community, apprenticeship, tolerance, dogmas, socialization*

Why interprofessional collaboration?

Wackerhausen, S. (2009). Collaboration, professional identity and reflection across boundaries. *Journal of Interprofessional Care*, 23, 244-473.

Messages: First order reflection

First order reflection: Self-affirmative to profession specific thinking - the topic will result in what our kind normally think about.

Possessing a professional - vocabulary, certain key-concepts, a certain disposition to perceive, to understand and to explain "*the way we do it*".

These types of reflections therefore do not challenge the way this kind does things.

Messages: Second order reflection

‘How do we transgress the boundaries and self-affirmative reflective patterns of first order reflection: i.e. how do we create reflective activities that are not predetermined to stabilize the already stabilized (tradition), but have the potential to de-stabilize the stabilized?’

Answer - increase the number of perspectives from which we reflect....

Effective team working in health and social care is not straight-forward

- Historic power relations ‘Doctors as the leaders in interprofessional collaborations’
- Different culture, language, behaviour
- Different organisational structures, contractual obligations, physical presence
- Distinct professional boundaries – including identity, status, and discretion

Assessment

- Separate and different education and training of the professional groups leading to:
 - Strong perceptions (often negative) of one another
 - Strong emphasise on uni professional assessment

International consensus statement on the assessment of interprofessional learning outcomes

Gary D. Rogers^a, Jill E. Thistlethwaite^b, Elizabeth S. Anderson^c, Madeleine Abrandt Dahlgren^d, Ruby E. Grymonpre^e, Monica Moran^f and Dujeepa D. Samarasekera^g

^aSchool of Medicine and Health Institute for the Development of Education and Scholarship (Health IDEAS), Griffith University, Gold Coast, Australia; ^bSchool of Communication, University of Technology, Sydney, Australia; ^cDepartment of Medical Education, The University of Leicester, Leicester, UK; ^dDepartment of Medical and Health Sciences, Linköping University, Linköping, Sweden; ^eCollege of Pharmacy, University of Manitoba, Manitoba, Canada; ^fSchool of Human Health and Social Sciences, Central Queensland University, Rockhampton, Australia; ^gCentre for Medical Education (CenMED), National University of Singapore, Singapore, Singapore

ABSTRACT

Regulatory frameworks around the world mandate that health and social care professional education programs graduate practitioners who have the competence and capability to practice effectively in interprofessional collaborative teams. Academic institutions are responding by offering interprofessional education (IPE); however, there is as yet no consensus regarding optimal strategies for the assessment of interprofessional learning (IPL). The Program Committee for the 17th Ottawa Conference in Perth, Australia in March, 2016, invited IPE champions to debate and discuss the current status of the assessment of IPL. A draft statement from this workshop was further discussed at the global All Together Better Health VIII conference in Oxford, UK in September, 2016. The outcomes of these deliberations and a final round of electronic consultation informed the work of a core group of international IPE leaders to develop this document. The consensus statement we present here is the result of the synthesized views of experts and global colleagues. It outlines the challenges and difficulties but endorses a set of desired learning outcome categories and methods of assessment that can be adapted to individual contexts and resources. The points of consensus focus on pre-qualification (pre-licensure) health professional students but may be transferable into post-qualification arenas.

iTOFT BASIC Version <i>individual Teamwork Observation and Feedback Tool</i>				Not applicable to this activity	Please tick one			Institution logo	Date
Student ID		Observer ID			Inappropriate	Appropriate	Responsive	Activity observed:	
Profession		Profession						Team composition	
Year level		Student peer observer Yes/No							
Graduate entry Yes/No									
Observable behaviours								Feedback for student	
Shared decision making									
1. Plans patient/client care or group/community intervention with team members									
2. Prioritises actions relevant to the management of the patient/client or the group/community intervention									
3. Reviews patient/client or group/community goals when/if the situation has changed.									
4. Advocates for patient/client/family or group/community as partners in decision-making processes									
5. Shares health care information with patients/clients /families or group/community									
6. Integrates patient's/client's/family's or group/community's circumstances, beliefs and values into care/intervention plans									
7. Includes relevant health professionals in patient/client care management or group/community intervention as appropriate									
Working in a team									
8. Participates in interprofessional discussions about patient/client care or group/community intervention									
9. Demonstrates respect for others in and outside the team									
10. Invites the opinions of other team members									
11. Participates in discussions about team performance									
Overall global impression								Comment:	

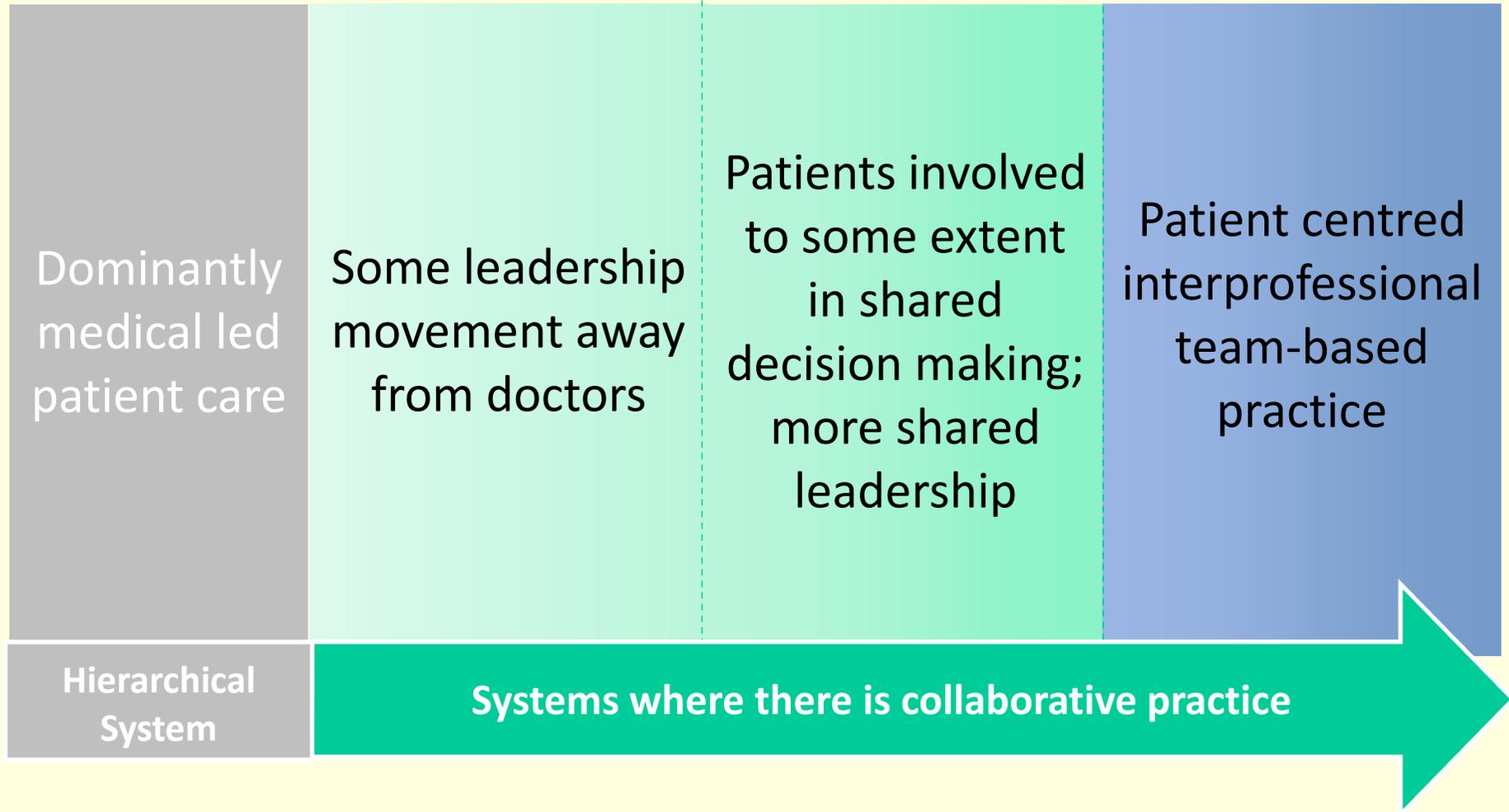
Aims

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- **Models that work**
 - Steps to follow with examples
- Take home messages

1. Analysis of your clinical area: Are You Ready?

Do you understand your local context?



Communities of Practice (Wenger 1998)

- Shared agreements
 - patterns of work and communication exchange
- A team that comes together to reflect
 - seek to constantly improve
- Boundary objects are understood
 - e.g. writing in different records
- Help students move from periphery to centre
 - valued, included, engaged
- Socialise together e.g. coffee

Theory to Practice: Team working

Implementing a daily team huddle

Boost practice productivity and team morale, by communicating in real time about the day's events

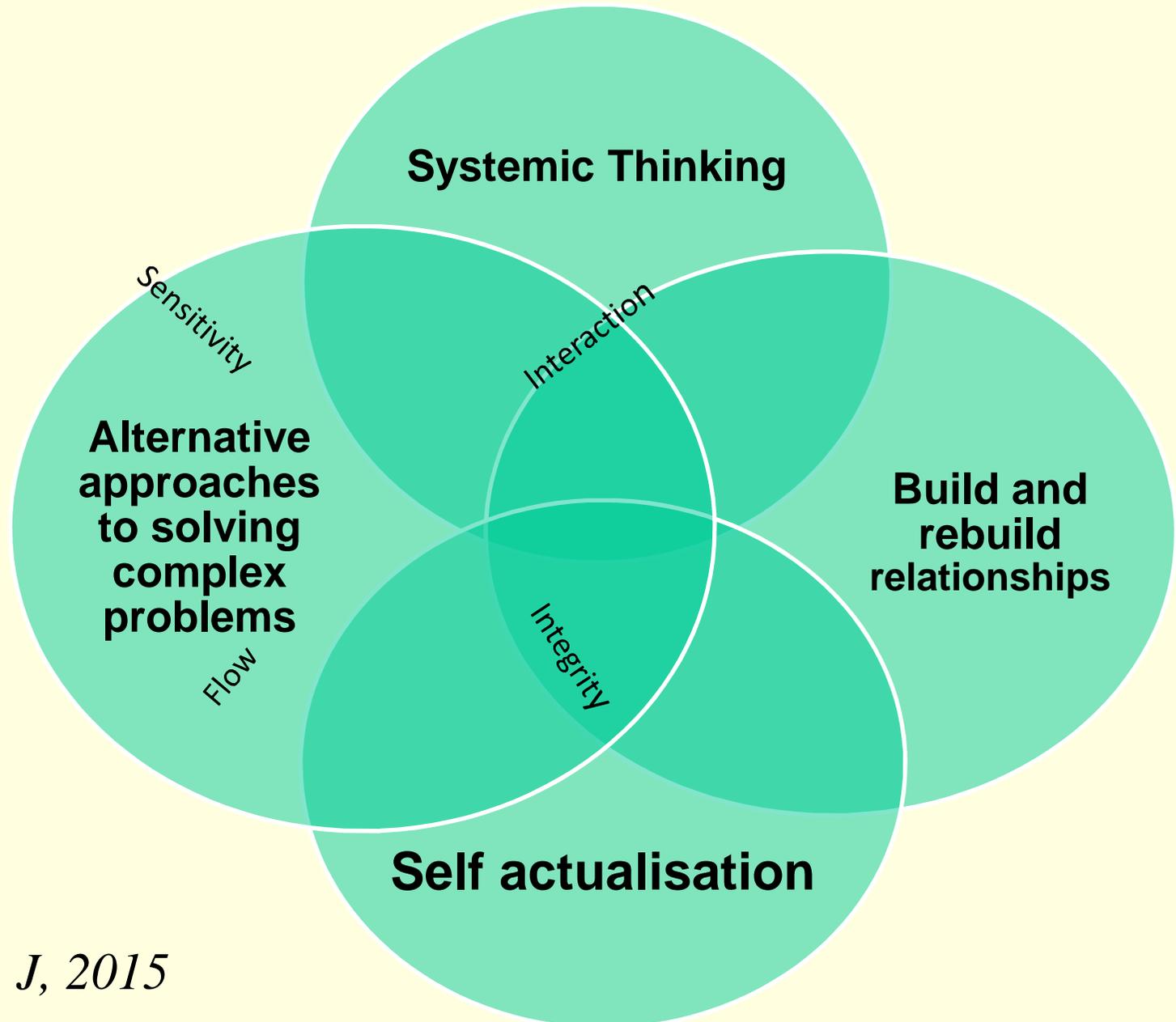
AMA IN PARTNERSHIP WITH



Collaborative Leaders

- Leaders
 - Role models
- Bridge builders link theory to practice
 - Create learning opportunities
 - Explore, explain, challenge, assess
- Attitudes about your own and others identities
 - You have a professional body of capability - identity

Four Collaborative Leadership Qualities



Vaggers, J, 2015

Theory

- Avoid in-groups and out-groups
 - Sharing social capital (Bourdieu, 1997)
- How to form a team:
 - Forming
 - Norming
 - Storming
 - Performing (Tuckman, 1965)

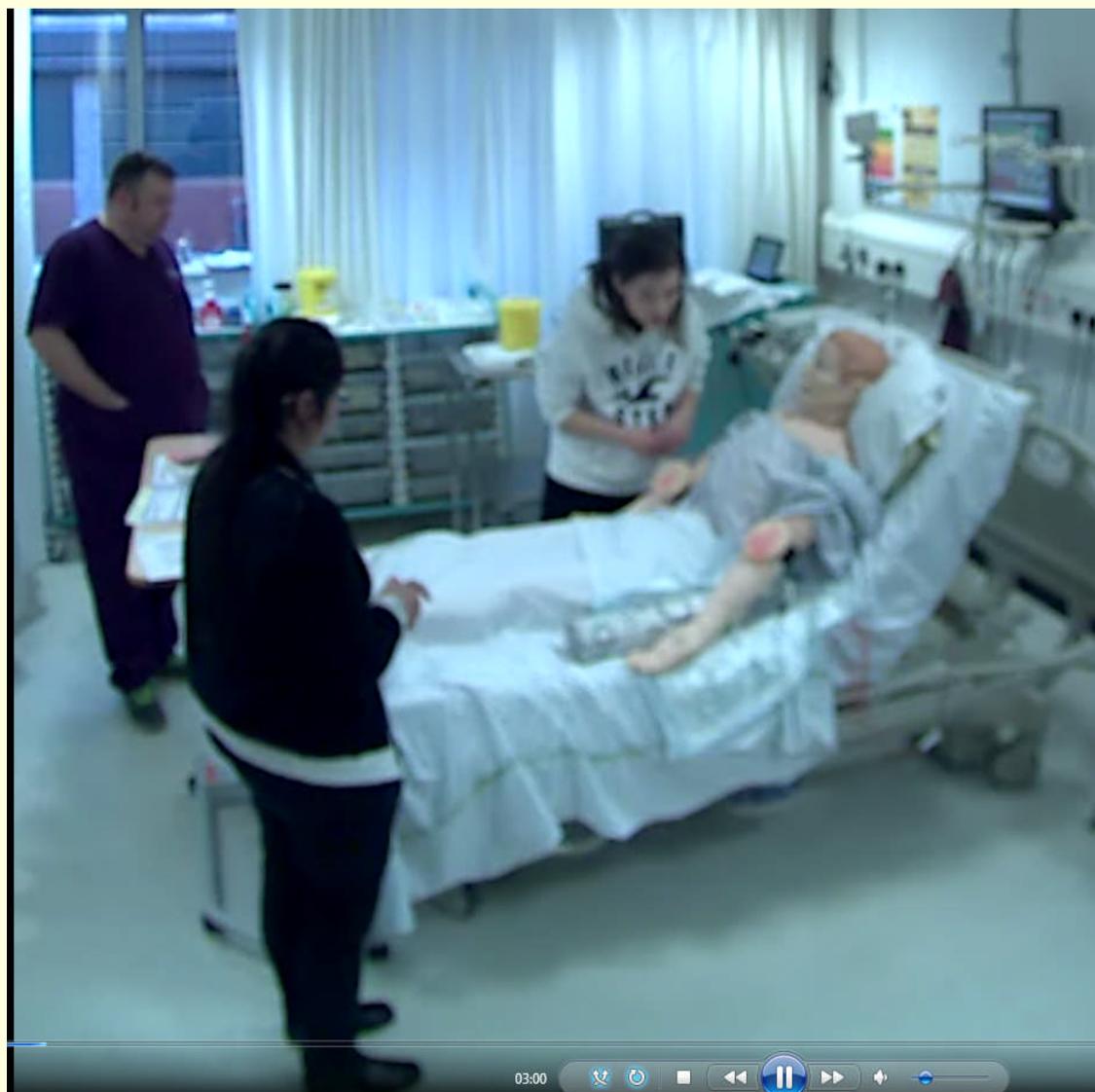


Photo shot of simulation

Collaborative Patient-Centred Practice



Reflecting on Teamwork throughout the process

Step 1

Getting Ready for Collaborative Teamwork

Step 2

Teamwork to:

- **Gather information**
- **Determine the required health/social needs**
- **Obtain further information**
- **Set goals and the treatment plan to address identified patient/family needs**
- **Develop guidelines to measure progress toward patient care goals**

Step 3

Implementing Patient Treatment Plan

Step 4

Assessment of Progress for: **Achievement, revision, expansion of patient treatment goals**

Underpinning Competence Framework www.cihc.ca

- Interprofessional Communication
- Patient/family/community centred care
 - Role clarification
 - Team functioning
 - Collaborative leadership
 - Interprofessional conflict resolution

Aims

Consider the added value of interprofessional learning (IPL) in practice

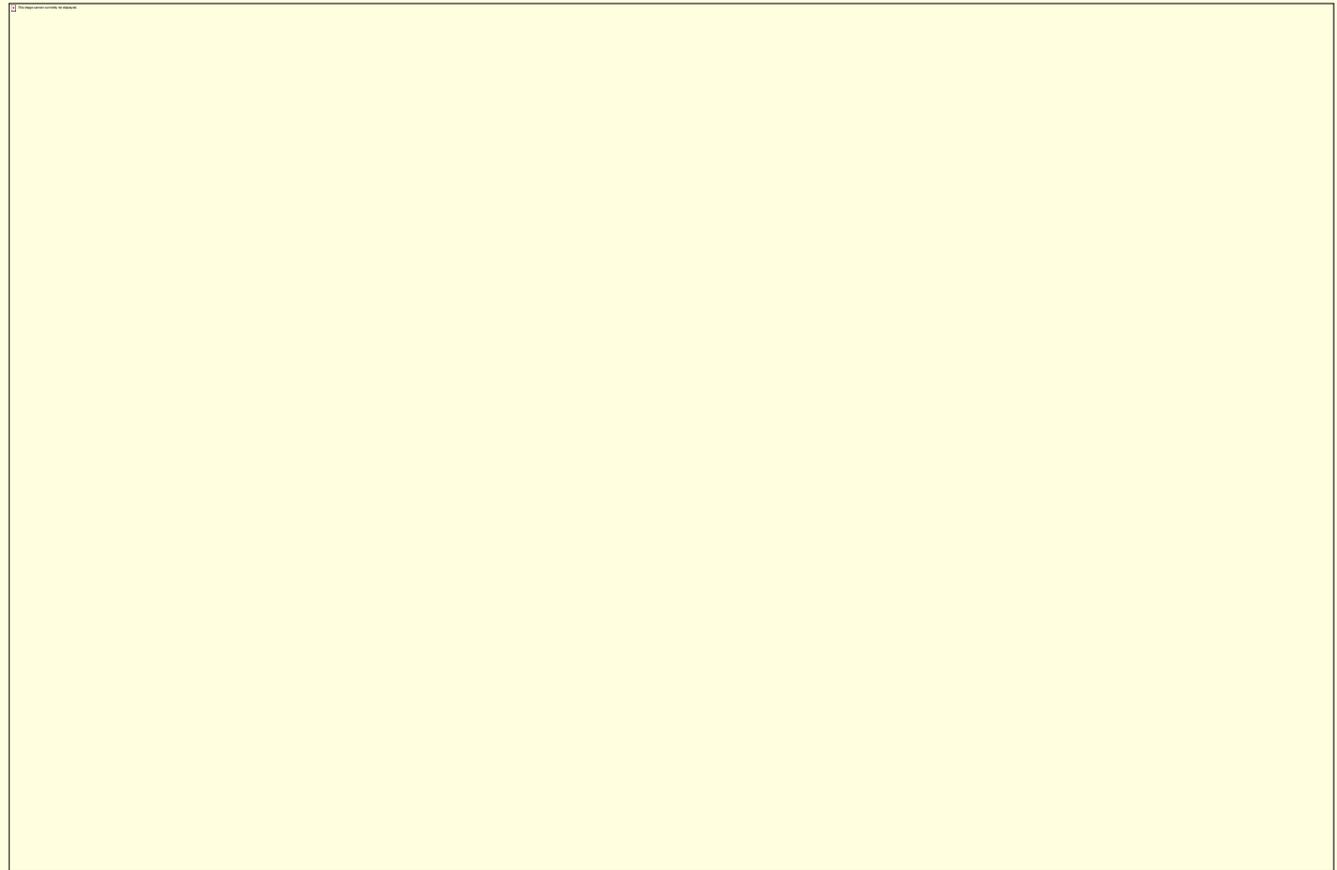
- Context
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- **Models that work**
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- Take home messages

Models with examples

The Leicester Model



Ethics



- Preparation/support for patients (Hospital/Community)
- Consent process
- Confidentiality
- Student professionalism

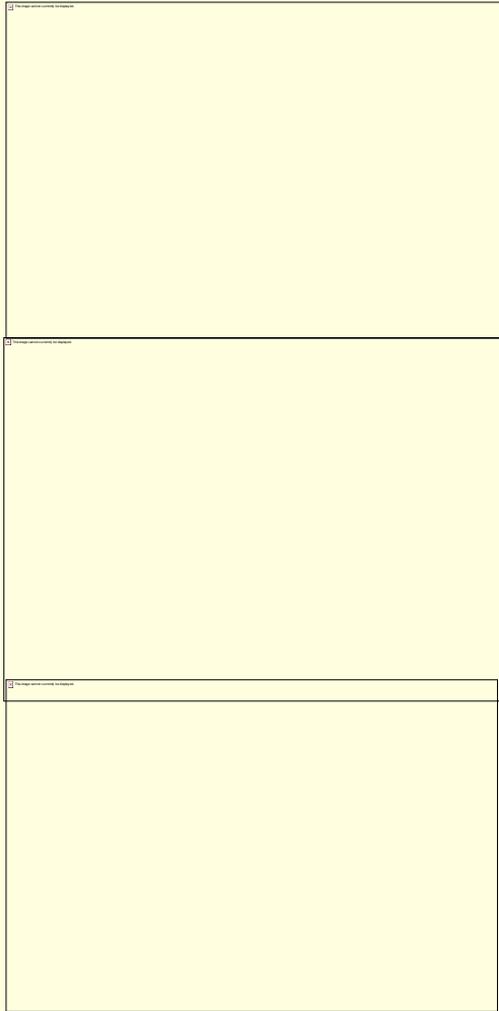
Theory



- **Experiential learning**
(D'Eon 2005; Clarke 2006)
- **Reflective practice**
(Schön 1987; Dewey 1938)
- **Triological learning**
(Hakkarainen & Paavola, 2007)
- **Synthesis**
(Vygotsky, 1978; Wackerhausen, 2009)

Kolb, DA. (1984). *Experiential Learning*. Prentice-Hall, Englewood Cliffs: New Jersey.

What Happens The Leicester Model: Short-Practice Placements



*Preparation for
practice*



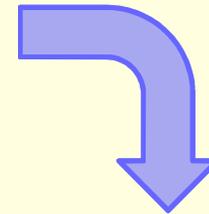
Theory

- Contact hypothesis (Allport 1979; Carpenter and Hewstone, 1996)



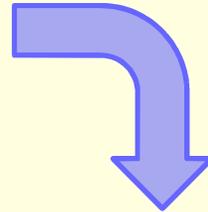
**1. Learning and working
with patients and
practitioners**
(acute hospital ward)

- Theory**
- Experiential Learning
(Kolb, 1984;
D'Eon, 2005;
Clarke, 2006)



Theory

Reflection and
Triological
understanding
(Schön 2004;
Dewey 1938;
Hakkarainen &
Paavola, 2007)



2. Reflection on learning.

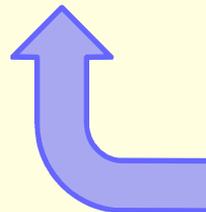
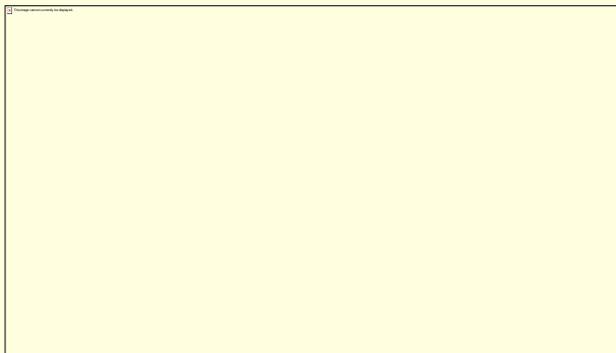
Students apply profession-specific understandings asking questions about what and why decisions have been made.

Guided by facilitators

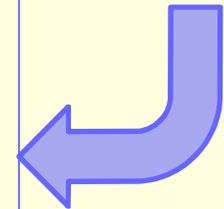
- Changes to patient care
- Students take forward their learning



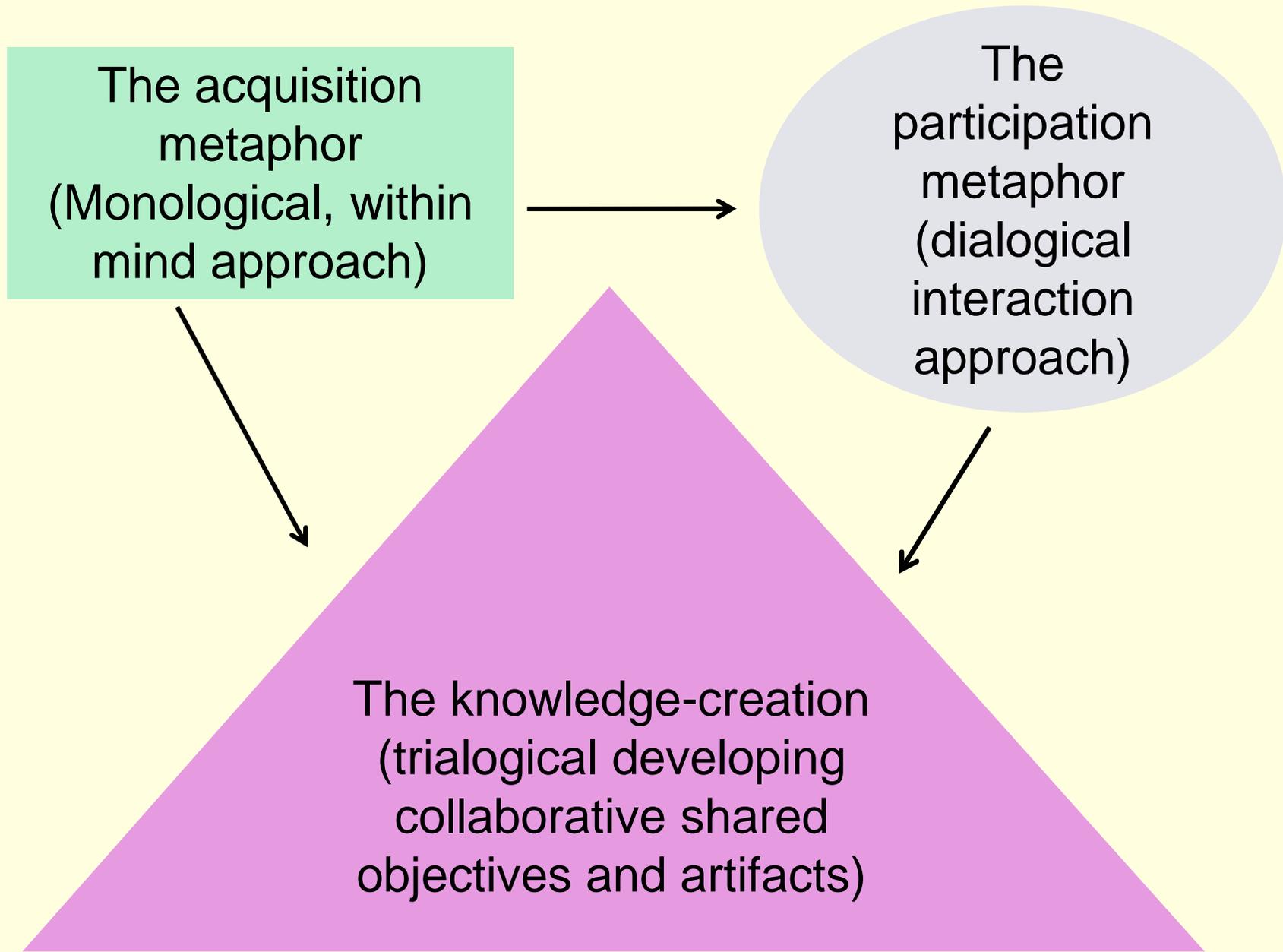
4. Outcomes: Students present their findings and propose solutions in discussion with experts. Clinical errors are referred back to the clinical team.



3. Assimilation: Students agree together potential solutions to problems and begin to make sense of their learning and prepare to present their findings.



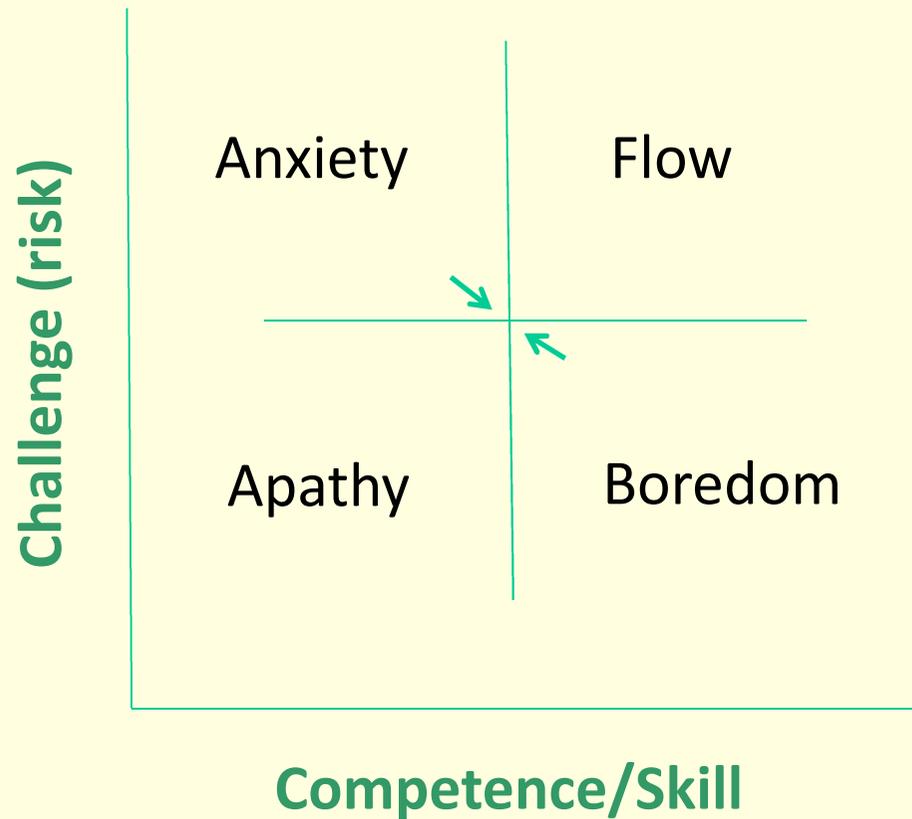
Theory
Synthesising for
change
(Vygotsky 1978)

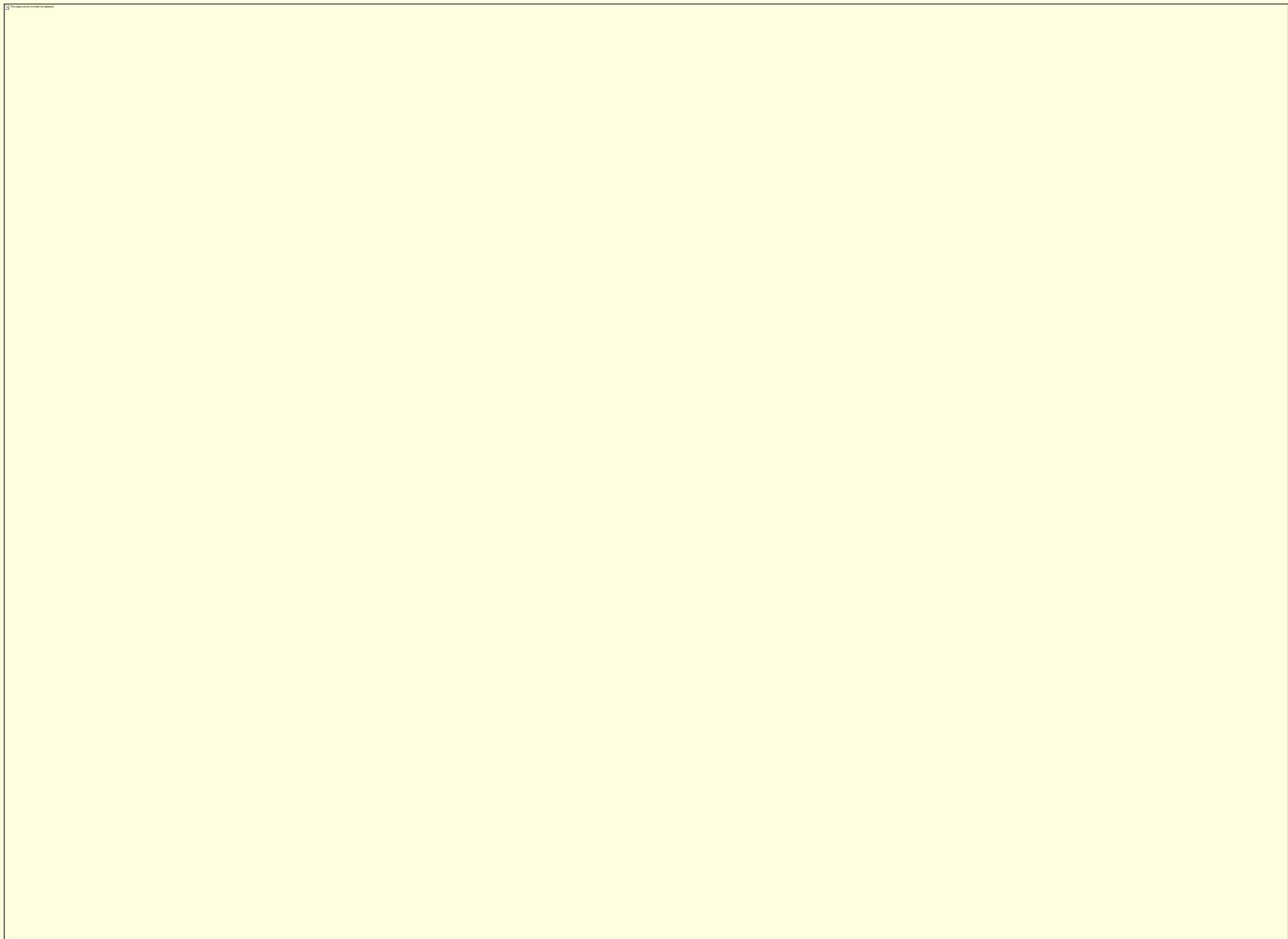


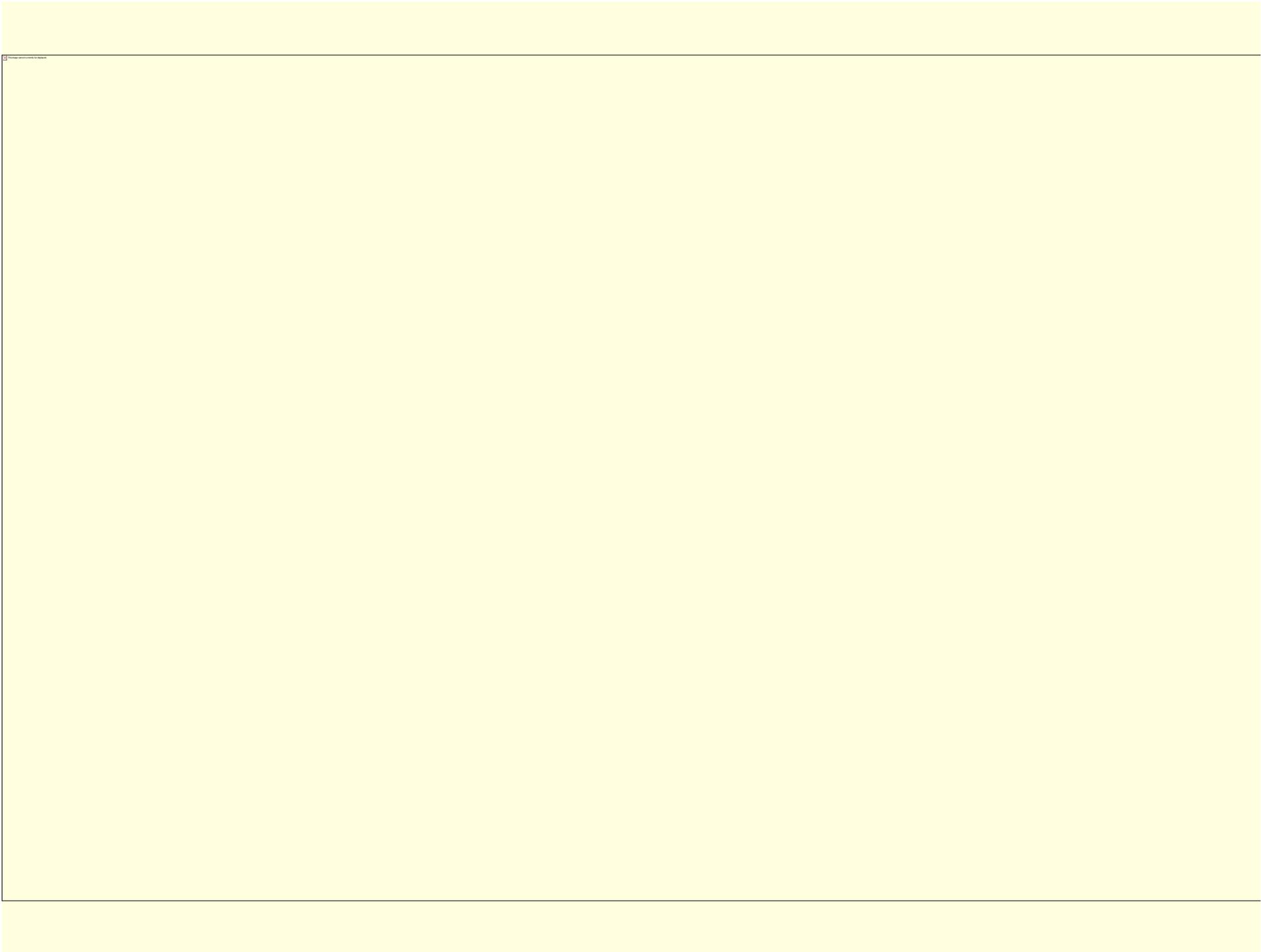
Expanding knowledge learning in groups and communities

Hakkarainen K. & Paavola S. (2007)

Four Channel Flow Model: Engaging learners







Slide 8

*Students
supported to make
meaning together*



Systematic Reviews IPE

- (21+ 25) = 46 High Quality IPE studies
- 19 UK studies
- Positive findings:
 - Student attitudes
 - Collaborative knowledge and skills
- More evidence still required:
 - Changes in behaviour
 - Changes to patient care
 - Organisational impacts

Kirkpatrick Modified by the Joint Evaluation (JET) Team

Originally designed for evaluating training in a business organisation

1. Reaction	Learners views positive +++++++
2. a Modification of attitudes/perceptions	Changes in reciprocal attitudes or perceptions of one another +++++++
2 .b. Acquisition of knowledge and skills	Increases in collaborative knowledge +++++
3. Behavioural change	Limited but growing evidence of changes to behaviour
4. a change in organisational practice	Limited but growing evidence of changes to organisational practice and delivery of care
4. b. Benefits to patients/clients	Limited but growing evidence of improvements to patients/client care

Summary - Take home messages

Challenging and changing



IPE Challenge

- We need to show them that **IPE is the solution**
 - Most healthcare managers, educators, policy writers... still don't get it
- Patients see we don't work together...

'It [IPE] is a good idea.....bringing them all together because it is the problem.....the left hand doesn't know what the right hand is doing.'

'There needs to be a holistic approach... there are so many agencies involved...'

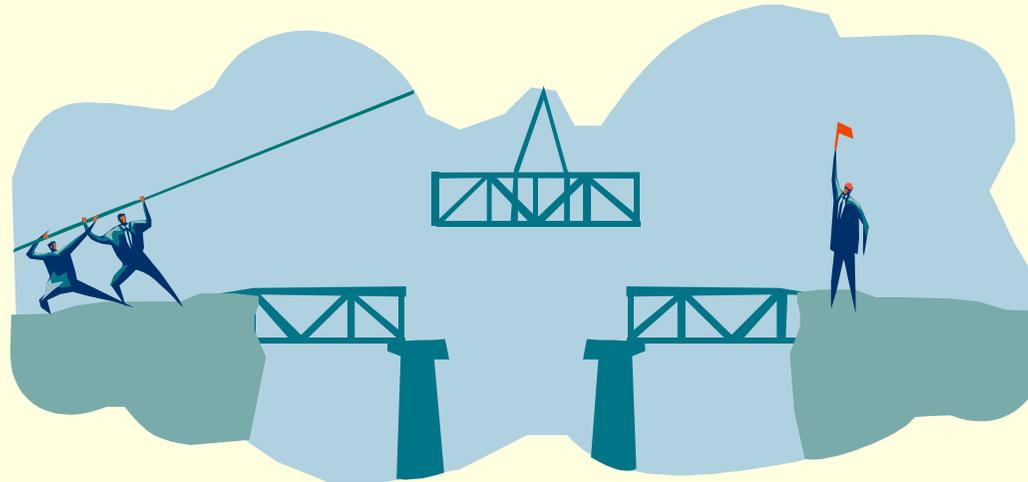
Blog by: Adams Mother: I see both these NHSs frequently. I am sure many others do too.

<http://thetriangulationofthought.blogspot.co.uk/#!/2014/11/patients-first-casualty-of-nhs-at-war.html>

The old NHS is a place of archaic hierarchies; where patients are incidental; where what is important is your job title; where experience; expertise and knowledge count for nothing; where a doctor assumes superiority of status and knowledge irrespective of their actual expertise and knowledge. A place where managers rule with an iron rod of fear, threatening any staff, patients or families who don't tow the line. A place where staff or families who raise concerns are threatened, bullied and abused. A place where social media is feared and those who use it are attacked if they step out of line; a place where healthcare is for the fit and healthy who have a fleeting illness from which they can 100% recover.

The new NHS is a very different world. Patients are at the centre of everything it does. Engagement, participation, feedback, values, #HelloMyNameIs and the 6Cs are not just hollow phrases but realities. All patients are valued, even cherished, no matter how elderly, frail, young or disabled. The new NHS is a partnership of equals where the organisations most senior staff engage with the NHS's most vulnerable patients in this partnership of equals. A place without hierarchies, where everyone from the CEO to the sickest child patient is valued for the experience and expertise they bring; not just to their situation whether as an employee, volunteer, director or patient, but to the organisation as a whole. A place where social media is embraced as a wonderful platform for the exchange of ideas and values

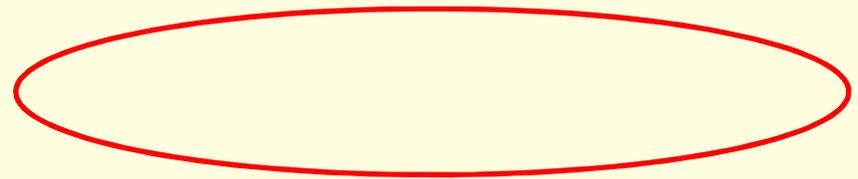
IPL bridges the gap... to achieve change



‘...increase the implementation of research evidence.... An interprofessional and interdisciplinary approach is used and incorporates a range of activities including: applied research, service evaluation and pilot projects, education and training events, knowledge dissemination activities and developing networks...’

Sinfield, P., Donoghue, K., Horobin, A & Anderson ES. (2012). **Placing interprofessional learning at the heart of improving practice:** The activities and achievements of CLAHRC in Leicestershire, Northamptonshire and Rutland. *Quality in Primary Care*, 20(3),191-8.

***Improving Safety Through Education and Training: Report
by the Commission on Education and Training for Patient
Safety: March 2016***



A patient safety culture.... It is about individual, group and organisational values, attitudes and perceptions, competencies and patterns of behaviours. Education and training must start to address the cultural barriers that contribute to unsafe care.

Interprofessional training was repeatedly mentioned as a way of breaking down silos between professions and encouraging teams to work together...

Your Vision

*‘To have a health and social care workforce in which individual practitioners fully understand the **value of education** for learners, patients, carers and other health care practitioners’*

THANK-YOU

esa1@le.ac.uk

References

- Anderson, ES., Hean, S., O'Halloran, C., Pitt, R. & Hammick, M. (2014). *Faculty Development and Interprofessional Education and Practice*. Chapter 14, 287-310. In: Steinert, Y. (Eds *Faculty Development in the Health Professions: A focus on Research and Practice*). New York: Springer.
- Bourdieu, P. (1997) The forms of Capital. In. A. H. Halsey, H. Lauder, P. Brown. & A. Stuart Wells (Eds). *Education: Culture, economy and society* pp46-58. Oxford University press: Oxford UK
- Csikszentmihalyi, M 1990. *Flow the psychology of optimal experience*. New York: Harper Perennial Modern Classics
- Commission on Training and Education: www.hee.nhs.uk/the-commission-on-education-and-training-for-patient-safety.
- Engeström, Y. (2001). Expansive theory at work: Towards an activity theoretical reconceptualisation. *Journal of Education and Work*, 14, 133–156.
- Hakkarainen K. & Paavola S. (2007) *From monological and dialogical to triological approaches to learning*. Paper presented at the international workshop 'Guided Construction of Knowledge in Classrooms'. Available at:http://escalate.org.il/construction_knowledge/papers/hakkarainen.pdf (last accessed 10 December 2010).

Tuckman, BW. (1965). Development sequence in small groups. *Psychological Review*. 63, 384-399.

Wenger, E. 1998. *Communities of Practice. Learning, Meaning and Identity*. Cambridge University Press: Cambridge

World Health Organisation. *Framework for Action on Interprofessional Education & Collaborative Practice*. p13, Geneva: WHO. 2010.

Engeström, Y. (2001). Expansive theory at work: Towards an activity theoretical reconceptualisation. *Journal of Education and Work*, 14, 133–156.

IOM (Institute of Medicine, 2015. *Measuring the impact of interprofessional education and collaborative practice and patient outcomes*. Washington, DC: The National Academic Press.

Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans E, Fineberg, H *et al*. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet* 2010; 275 (9721): 1137-8.

References: The Leicester Model

Lennox, A. & Anderson, ES, (2007). *The Leicester Model of Interprofessional Education. A practical guide for implementation in health and social care*. Higher Education Academy, subject centre Medicine, Dentistry and Veterinary Medicine. Special Report 9. ISBN 978-1-905788-45-3

<https://www.heacademy.ac.uk/sites/default/files/leicester-model-of-interprofessional-education.pdf>

Anderson, ES. & Lennox, A. (2009). The Leicester Model of Interprofessional education: Developing, Delivering and Learning from student voices for 10 years. *Journal of Interprofessional Care*, 23(6), 557-573. <http://dx.doi.org/10.3109/13561820903051451>

Kinnair, D., Anderson ES, Thorpe, LN (2012) . Development of interprofessional education in mental health practice: Adapting the Leicester Model. *Journal of Interprofessional Care*. 26:189-197. <http://dx.doi.org/10.3109/13561820.2011.647994>

Lennox, A. & Anderson, ES. (2012). Delivering quality improvements in patient care: The application of the Leicester model of interprofessional education. *Quality in Primary Care*, 20(3), 219-226.

Anderson ES., Thorpe, LN. (2014). Students improve patient care and prepare for professional practice: an interprofessional community-based study. *Medical Teacher*. 36: 495–504. <http://dx.doi.org/10.3109/0142159X.2014.890703>

Anderson, ES., Lakhani, N. (2016) Interprofessional learning on polypharmacy. *Clinical Teacher*. 13: 291–297.

Anderson, ES., Kinnair, D, Ford, J. (2016). Interprofessional Education and Practice Guide No.6: Developing Practice-Based interprofessional learning using a short placement model. *Journal of Interprofessional Care*, <http://www.tandfonline.com/doi/full/10.3109/13561820.2016.1160040>.