

# The Grip of Outdated Representational Mind In Teaching and Learning Strategies in Academia and In Nursing.

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# Skilled Know-How

<https://www.youtube.com/watch?v=1-rmGy9gWvE>

Traditional cognitive theory is “distanced from experience” and divides the learning mind from the world. (Lave, 1996, p. 7).

“the problem of how social and physical context influences individuals’ mental processes is overlooked in educational research.”

*Understanding Practice, Perspectives on Activity and Context*  
(Chaiklin & Lave, (1996) :

# What Computers Still Can't Do, A Critique of Artificial Intelligence 1999

- The Successive Replacement of GOFAI with Neural-Networks Sealed the death of Representational AI:
- 'Assuming the brain worked by Large Complex Belief and making our inarticulate , preconceptual background knowledge explicit was hopeless...the know-how that made up our background pre-conceptual common sense understanding could not be represented by facts, rules, formal concepts.'
- The Dreyfus Model of Skill Acquisition provided proof of this.

# Authentic Inquiry Oriented Learning

- We must teach for curiosity, understanding, and the natural desire to know and solve puzzles.
- In our best teaching practice, we look for learning because of given curiosity, not because of will alone, or even primarily.

# All Practice Disciplines Have Specific Teaching and Learning Challenges

- Learning in High Stakes Environments
- Confronting Suffering and Vulnerability
- Expertise Depends on Relational Skills
- Dealing with the Person's Life World for Motivation, Meaning, Recovery and More.....

# Perceptual Grasp of the Particular Case in Relation to the General (EVBP) is Essential

- Students must be able to grasp the nature of whole, particular clinical situation in relation to the general.
- Applying the general without an understanding of the particular is not how human being learn a practice discipline.
- Practical Reasoning- I.E., Clinical Reasoning is equally as Important as Critical Thinking (See Sullivan and Rosin: **A New Agenda for Higher Education: Shaping a Life of the Mind for Practice 208, Carnegie: Stanford**)

# Clinical Expertise Requires Reasoning Between the Particular and General and Perceptual Grasp of Whole Situations

- Particular = Understanding in the Clinical Situation
- Engaged Thinking and Action across Time
- Particular Cases Required
- Fabrication of Patient Responses creates a problem
- “Singular Universal” Paradigm Cases needed for understanding
- Commonalities, Similarities and Contrasts between real whole cases

## Explanation AND Understanding

- **Explanation for science methodologies and Disciplinary Knowledge.**
- **For knowing “that” and “why”**
- **Characterized by formal models of causality and inter-connectedness of variables in science, and tenets in Philosophy, Theory, Science, Technology**



# And Understanding

- For Knowing how, when for the sake of what, in order to accomplish or understand what?
- Skilled know-how and perceptual grasp are essential
- Situated knowledge use
- To teach for practice: get beyond a narrow rational technicality to a broader understanding of rationality
- Clinical Reasoning---Practical Reasoning

# Practical and Theoretical Knowledge

- Skilled know how and When
- Sense of salience
- Skill of involvement
- Perceptual acuity/ skill of seeing
- Transitions in patient/family/ and clinicians' concerns
- Judgment for Particular Case
- Knowing that and Why
- Medical facts related to case
- Ethical Principles
- Legal Concerns
- Hospital Policy

# Clinical Knowledge Development in a Clinical Practice Requires:

- **Experiential teaching and learning**
- **Situated cognition—Thinking-in-Action (The logic of practice)**
- **Situated teaching and learning (Readiness)**
- **A community of practice learning together**
- **Reflection on particular cases and situations**
- **The ability to get around in and understand the practice world**

# Learning a Practice Requires Learning What is Most and Least Important

- Being able to notice what is most and least important is learned from theory and science, but is ultimately situated in *using that knowledge in practice, and learning experientially from knowledge use over time*

# Teaching for a Sense of Saliience

- Developing a Sense of Saliience for what stands out as *more or less* important in unstructured, under-determined, open-ended clinical situations
- A built-in crisis in continuing to break complex situations down into simple parts
- Developing a Sense of Saliience requires integrating and embodying domain-specific knowledge in particular clinical situations

# *Dreyfus: What Computers Still Can't and Mind over Machine*

- Inevitably, he said, artificial intelligence ran up against something called the common-knowledge problem: the vast repository of facts and information that ordinary people possess that they have learned directly from being in the world, and can draw on to make inferences and navigate their way through the world.

# Pierre Bourdieu, *The Logic of Practice*: = Practical Knowledge, Requires Recognizing the Nature of the Whole Situation

- Old Fashioned Artificial Intelligence built situation up element by element.
- Human Experts Start with a Deep Background Understanding of the Situation and proceed from there to address the situational demands. Closer to **Neural-net** Style Computer Programs

# What's Ahead for Improved Learning Outcomes??

- Revolution in Neuro-Cognitive Science...and Computer's use of Neural-Net
- Representational Mind and Rational Calculation, Out...Embodied Realism and Immersion in experience IN.
- Skills of Engagement and Human Curiosity are Central



Alva Noe: Out of our Heads (2009)

“The last 25 years have witnessed the gradual shaping of an embodied, situated approach to the mind...”

“But this has been ignored in neuroscience, in mainstream linguistics, and, more generally in the domain of consciousness studies.”

AND

IN Teaching and Learning Strategies

# Authentic Inquiry Oriented Learning

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## Excellent Teachers Show the way to get beyond our Narrow Rational Technical Visions of Generalization.

- Unfolding Authentic Clinical Cases
- Online Unprompted Simulated Authentic Cases
- Use of First Person Experience-Near Narratives
- Presenting Particular Authentic Clinical Cases as Paradigm Cases of the Summary Statistics of the General.
- Debriefing Real Whole Cases Experienced by Students

# Formation and Ethical Comportment: Integrating the three Apprenticeships

“The way I differentiate that, is that we can talk about the specific technical skills that we need and what we need to look out for and watch out for. But I am trying to show them what is at stake and then ask them what do you think we should we should be paying attention to? That gets at the character development. These are the questions that you should be asking. And these are the concerns you should have. And these are responses that those concerns should generate. This is a way of trying to develop a habit of thinking that is patient focused, and focused on what is at stake for the patient. . .”

Lisa Day

EducatingNurses.Com

## Teaching Approach and Response to the Patient's Plight

“In the clinical de-briefing the students are asked to bring a story from your clinical: She told this story about this patient she had picked, because she had heard that this patient would need an N.G. tube.. She was just going to confront this fear of putting in an N.G. tube, so she signed up for this patient. She was wakeful at night and worried about putting in the N.G. tube. Then she heard in report that the patient needed an N.G. tube because she had a bowel obstruction. But the patient had refused the N.G. Tube. The student was relieved and thought “Thank God she is refusing this.” But when she met the patient she found that the patient was really in such distress from her abdominal distention and after talking with the nurse and her clinical instructor, she realized that the best thing she could do for this patient was to put in the N.G. tube.”

# Teaching Approach and Response to the Patient's Plight

“She worked with the nurse and talked the patient into having the procedure done. The student put the N.G. in and then saw the change in her patient....how it relieved her patient. She came into this rotation thinking that learning this dreaded procedure and how it was a horrible thing for her to have to do. She realized that putting in the N.G. was the best thing that she could do for the patient, not just another notch in her skill belt. It was the most appropriate response in this situation. It was the best thing that she could do for her patient. She was led by the concern for the patient rather than the checking off another procedure that she had done.”

Lisa Day

# The Approach and Response to Patient Needs.

“I tell them that this is a really heavy and difficult course, not because of the academics, nor all the studying and memorizing that they are going to do. But because of what they are confronted with in the clinical setting and because of what is at stake in terms of taking care of patients and doing the right things for patients.”

Lisa Day

# Approach and Stance of Students in Lisa's Integrative Unfolding Case

- Case evolves over time as patient's condition changes, students and teacher reasons through patient changes...transitions
- Case is presented in terms of patient-nurse concerns, what the patient is experiencing and what actions should be taken by the nurse
- Students are placed in a collaborative nursing role with the instructor
- What the student learns to pay attention to is both a clinical and ethical issue
- Student is oriented to respond to the patient's situation



# Lisa Day: Teaching for a Sense of Salience

- Unfolding case in the midst of teaching pathophysiology, diagnosis, signs and symptoms, and interventions
- Reasoning through patient transitions
- Concerns for the patient
  - What are your concerns about the patient?
  - What is the cause of the concern?
  - What information do you need?
  - What are you going to do about it?
  - What is Ms. G. experiencing?

# Clinical Reasoning - A Type of Practical Reasoning, Phronesis

- Reasoning across time about the particular through transitions in the patient's condition and/or in the clinicians' understanding
- In-Depth teaching about patient transitions...trends and trajectories

The Nurse is the Patient's First and Last Line of Defense and Care: Students Must be Test Ready and Practice Ready

**Early Warnings ! Clinical Reasoning Across Time**

**Making a Clinical Case**

**Developing Habits of Thinking and Action**

**Knowing That and Why AND When and How...Situated Thinking**