From Theory to Practice — Practical Theoretical Applications to Improve Outcomes

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Disclosures

• I am currently employed as Associate Director, Medical Education at Teva Pharmaceuticals

• I am a doctoral candidate in the Educational Leadership program at Rowan University

• The views and opinions expressed in this presentation are solely my own and do not express the views or opinions of my employer or my university.
How do we want to lead?

A Framework for Leadership

Change really isn't as hard as we thought if we capture people's interest and give them enjoyable, worthwhile experiences.

— Michael Fullan
The Yin & Yang of the Theorist & Practitioner
Education Defined

• Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits.

• Educational methods include storytelling, discussion, teaching, training, and directed research.

• Education frequently takes place under the guidance of educators, but learners may also educate themselves.

• Education can take place in formal or informal settings and any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

• The methodology of teaching is called pedagogy.
Scientific Method

**PURPOSE**
What do I want to learn?

**RESEARCH**
Find out as much about your topic as you can.

**HYPOTHESIS**
Predict what the answer to the problem is.

**EXPERIMENT**
Design a test to confirm or disprove your hypothesis.

**ANALYSIS**
Record what happened during the experiment.

**CONCLUSION**
Was my hypothesis correct?

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Think of Interesting Questions
Why does that pattern occur?

Make Observations
What do I see in nature? This can be from one's own experiences, thoughts, or reading.

Refine, Alter, Expand, or Reject Hypotheses

Formulate Hypotheses
What are the general causes of the phenomenon I am wondering about?

Develop Testable Predictions
If my hypothesis is correct, then I expect a, b, c, ...

Gather Data to Test Predictions
Relevant data can come from the literature, new observations, or formal experiments. Thorough testing requires replication to verify results.

Develop General Theories
General theories must be consistent with most or all available data and with other current theories.
Educational Research Methodology

Deming Cycle – Plan, Do, Study, Act

1. Establish Outcomes or Goals
2. Provide Learning and Development Opportunities
3. Assess Student Learning and Development
4. Use the Results

Figure 1  Model of research process.
Research Methodology Types

• Quantitative

• Qualitative

• Mixed Methods Approach
Moores Outcome Levels Re-Re-framed

• Learner Insights
• Individual Behavioral Change
• Organizational Change
• Systems Integration & Compatibility
Moores Outcome Levels Re-Re-framed

Learner Insights

<table>
<thead>
<tr>
<th>LEVEL 1</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL 2</td>
<td>Satisfaction</td>
</tr>
<tr>
<td>LEVEL 3A</td>
<td>Learning: Declarative Knowledge</td>
</tr>
<tr>
<td>LEVEL 3B</td>
<td>Learning: Procedural Knowledge</td>
</tr>
<tr>
<td>LEVEL 4</td>
<td>Learning: Competence</td>
</tr>
<tr>
<td>LEVEL 5</td>
<td>Performance</td>
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<tr>
<td>LEVEL 6</td>
<td>Patient Health</td>
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<tr>
<td>LEVEL 7</td>
<td>Community Health</td>
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Six main characteristics of adult learners according to Malcolm Knowles

1) Adult learning is self-directed/autonomous
Adult learners are actively involved in the learning process such that they make choices relevant to their learning objectives.

2) Adult learning utilizes knowledge & life experiences
Under this approach educators encourage learners to connect their past experiences with their current knowledge-base and activities. Educators must know how to relate the sum of learners’ experiences to the current learning experiences.

3) Adult learning is goal-oriented
The motivation to learn is increased when the relevance of the “lesson” through real-life situations is clear, particularly in relation to the specific concerns of the learner. The need to acquire relevant and adequate knowledge is of high importance.
Six main characteristics of adult learners according to Malcolm Knowles

4) Adult learning is relevancy-oriented
One of the best ways for adults to learn is by relating the assigned tasks to their own learning goals. If it is clear that the activities they are engaged in directly contribute to achieving their personal learning objectives then they will be inspired and motivated to complete them.

5) Adult learning highlights practicality
Placement is a means of helping learners apply the theoretical concepts learned inside the classroom into real-life situations. Learning is facilitated when appropriate ways of implementing theoretical knowledge in real life situations are made clear.

6) Adult learning encourages collaboration
Adult learners thrive in collaborative relationships with their educators. When learners are considered by their instructors as colleagues, they become more productive.
Application – Satisfaction Surveys

Example of Evaluation Level 2 – Satisfaction

Please check the ratings that best describe your reaction to this session:

A. Were the session objectives clear?
   ___ No ___ Somewhat ___ Yes, definitely

B. Were the instructional techniques and materials helpful to your learning the material?
   ___ No ___ Somewhat ___ Yes, definitely

On a scale of 1 to 5, with 5 being the highest rating, please circle the number that best describe your reaction:

C. I would rate the instruction overall as ...
   [1 2 3 4 5] high

D. I would rate the activity overall......
   [1 2 3 4 5] high

What about...
- Goals?
- Relevancy?
- Motivation?
Moores Outcome Levels Re-Re-framed

Individual Behavioral Change

<table>
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<tr>
<th>Level</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>1</td>
<td>Participation</td>
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<td>2</td>
<td>Satisfaction</td>
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<td>Learning: Declarative Knowledge</td>
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<tr>
<td>3B</td>
<td>Learning: Procedural Knowledge</td>
</tr>
<tr>
<td>4</td>
<td>Learning: Competence</td>
</tr>
<tr>
<td>5</td>
<td>Performance</td>
</tr>
<tr>
<td>6</td>
<td>Patient Health</td>
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<tr>
<td>7</td>
<td>Community Health</td>
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Miller’s Framework

MILLER’S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

it is only in the "does" triangle that the doctor truly performs

Performance Integrated Into Practice
- eg through direct observation, workplace based assessment

Demonstration of Learning
- eg via simulations, OSCEs

Interpretation/Application
- eg through case presentations, essays, extended matching type MCQs

Fact Gathering
- eg traditional true/false MCQs

KNOWS

KNOWS HOW

SHOWS

DOES

KNOWLEDGE

SKILLS

ATTITUDES

Based on work by Miller GE, The Assessment of Clinical Skills/Competence/Performance; Acad. Med. 1990; 65(9); 63-67
Adapted by Drs. R. Mehay & R. Burns, UK (Jan 2009)
**Fox - Motivation**

**NEEDS**

What is → What ought to be → Discrepancy

Figure 1  The elements of needs.

**Perceived vs Actual Needs**

<table>
<thead>
<tr>
<th>Actual Needs</th>
<th>Perceived Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High*</td>
<td>High*</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

- High*: High motivation, Inaccurate self-perception
- Low: No motivation, No learning, No need for learning

*not extremely high

Figure 2  Implications of different combinations of perceived and actual needs.
Self Authorship – Baxter Magolda

Journey to Self-Authorship

Phases

Following Formulas

- Believe what “authority” believes

Crossroads

- See need for own vision
- Choose own beliefs

Author of One’s Life

- Grounded in internal belief system

Internal Foundation

Cognitive development: How do I know?

Intrapersonal development: Who am I?

- Define self through external others
- See need for internal definition

Author of One’s Life

- Choose own values, identity

Grounded in internal coherent sense of self

Interpersonal development: How we construct relationships

- Approval-seeking in relationships
- See need for authenticity
- Being true to self - mutual needs met

Grounded in mutuality

Adapted from Baxter Magolda (2001)
Self-Determination Theory

• A theoretical basis for understanding professional identity development in health programs is unavailable.

• An understanding of the mechanism behind human identity development is required in order to accurately inform curriculum initiatives for the formation of professional identity.

• Deci and Ryan from the University of Rochester developed self-determination theory (SDT) to explain identity development and define the role of motivation regulators in the formation and maintenance of identity.

• Describes human motivation as lying on a continuum that features three categories of motivation
  • amotivation
  • extrinsic motivation
  • intrinsic motivation (most autonomous)
Cognitive Dissonance Theory

- **Leon Festinger (1957) - Social Psychologist**
  - A tendency for individuals to seek consistency among their cognitions (i.e., beliefs, opinions)
  - Inconsistency between attitudes or behaviors (dissonance)
  - Discrepancy = attitude will change to accommodate the behavior.
Cognitive Dissonance Theory in Behavior Change

• **individuals tend to seek consistency among their cognitions (i.e., beliefs, opinions).**
  - When inconsistency exists between attitudes or behaviors (dissonance), something must change to eliminate the dissonance.
  - In the case of a discrepancy between attitudes and behavior, it is most likely that the attitude will change to accommodate the behavior.

• **Strength of the dissonance**
  - The number of dissonant beliefs,
  - The importance attached to each belief.

• **Three ways to eliminate dissonance:**
  1. Reduce the importance of the dissonant beliefs,
  2. Add more consonant beliefs that outweigh the dissonant beliefs,
  3. Change the dissonant beliefs so that they are no longer inconsistent.

• **Dissonance occurs most often in situations where an individual must choose between two incompatible beliefs or actions.**
  - The greatest dissonance is created when the two alternatives are equally attractive.
  - Attitude change is more likely in the direction of less incentive since this results in lower dissonance.
  - In this respect, dissonance theory is contradictory to most behavioral theories which would predict greater attitude change with increased incentive (i.e., reinforcement).
Mezirow – Transformative Learning Theory

1. A disorienting dilemma
2. A self examination with feelings of guilt or shame
3. A critical assessment of epistemic, sociocultural, or psychic assumptions
4. Recognition that one’s discontent and the process of transformation are shared and that others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning a course of action
7. Acquisition of knowledge and skills for implementing one’s plan
8. Provision trying of new roles
9. Building of competence and self-confidence in new roles and relationships
10. A reintegration into one’s life on the basis of conditions dictated by one’s perspective
Some Theoretical Foundations of Distance Education

Table 2.1 - Philosophical Correspondence to the Psychological Foundations

<table>
<thead>
<tr>
<th>Philosophical Foundations</th>
<th>Psychological Foundations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empiricism</td>
<td>Behaviorism, Cognitivism</td>
</tr>
<tr>
<td>Rationalism</td>
<td>Cognitivism, Cognitive constructivism</td>
</tr>
<tr>
<td>Pragmatism</td>
<td>Behaviorism, Cognitivism</td>
</tr>
<tr>
<td>Humanism</td>
<td>Constructivism</td>
</tr>
</tbody>
</table>

Table 2.2 - Overview of Psychological Learning Theories

<table>
<thead>
<tr>
<th>LEARNING THEORIES</th>
<th>Behaviorism</th>
<th>Cognitivism</th>
<th>Constructivism</th>
<th>Connectivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>What learning is:</td>
<td>Change in behavior and absorption of predefined knowledge</td>
<td>Storing information in an organized, meaningful manner, retrieving it when needed and transferring it into new situations</td>
<td>Constructing own knowledge in a real-world situation (context) and using observed behaviors and the previous experiences as a guideline for new behaviors</td>
<td>Recognizing and interpreting patterns and connections in networks that can be not under control of learners</td>
</tr>
<tr>
<td>Some key concepts</td>
<td>Classical conditioning, operant conditioning, reinforcement, punishment</td>
<td>Memory (sensory, working, long-term), chunking, schema</td>
<td>Situated learning, cognitive constructivism, social constructivism</td>
<td>Network, personal learning environments</td>
</tr>
</tbody>
</table>
Moores Outcome Levels Re-Re-framed

- Organizational
- Change
Path Goal Theory

- Theory based on specifying a leader's style or behavior that best fits the employee and work environment in order to achieve a goal (House, Mitchell, 1974).

- The goal is to increase your employees' motivation, empowerment, and satisfaction so they become productive members of the organization.

- Path-Goal is based on Vroom's (1964) expectancy theory in which an individual will act in a certain way based on the expectation that the act will be followed by a given outcome and on the attractiveness of that outcome to the individual.
Capra’s Living Systems Theory

- Structure
- Patterns
- Process
# Four Frame Theory – Bolman & Deal

## Four Frames

<table>
<thead>
<tr>
<th>Structural</th>
<th>Human Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Formal relationships</td>
<td>- Extended family</td>
</tr>
<tr>
<td>- Rules, policies and procedures</td>
<td>- Tailor the organization to the individual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Political</th>
<th>Symbolic</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Arena, contest, jungle</td>
<td>- Culture, theater</td>
</tr>
<tr>
<td>- Bargaining, negotiation, coercion &amp; compromise</td>
<td>- Ritual, ceremony, stories and myths</td>
</tr>
</tbody>
</table>
Stage Theory of Organizational Change

Four Stages of Stage Theory:

- Awareness of a problem and possible solutions
- Decision to adopt the innovation
- Implementation that includes redefining the innovation and modifying organizational structures to accommodate it
- Institutionalization or making the innovation part of the organization's ongoing activities
Kotter Change Model – 8 Step Process

• Establish a sense of urgency.
• Form a powerful coalition.
• Create a Vision.
• Communicating the Vision.
• Empowering others to act on the vision.
• Planning for and creating short term wins.
• Consolidating improvements and producing still more change.
• Institutionalizing new approaches.
What about a level 7? Is there a level 8?

Systems Integration & Compatibility
Kegan’s Theory of Evolution of Consciousness

Orders of Consciousness

• Zero – Objectless World
• First – Meaning Making
• Second – Instrumental Mind
• Third – Socialized Mind
• Fourth – Self-Authoring Mind
• Fifth – Self-Transforming Mind
What if your HCPs understood the impact of...

• Leadership on politics?
• Politics on health policy?
• Health policy on the economy?
• Economy on health insurance?
• Health insurance on formularies?
• Formularies on treatment selection?
• Treatment selection on quality of life?
• Your quality of life on leader selection?
Questions and Answers

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• Grant requestors can contact Teva via email at: tevarequestmanagement@tevapharm.com

• or call 800-961-3604

My email address is Hong.Na@tevapharm.com
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