Objectives:

- **COMPETENCE:**
  - Identify how the dimensions of expert practice and professional competence apply to you
  - Dr. Spake Factor: High Expectations

- **CARE:**
  - Examine the application of critical thinking, critical reflection, and clinical judgment in your clinical reasoning process
  - Dr. Spake Factor: Virtue and Good Thinking

- **COLLABORATION:**
  - Explore the current and future needs for collaboration within physical therapy and across health professions, across academic and clinical communities, and our social obligations to the communities we serve
  - Dr. Spake Factor: Social Responsibility

What is your Spake Quotient?

Assessing your SQ (Spake quotient):

- Engage in dialogue with a partner
- Address the posed REFLECTION questions
- Record key points
- Share

Professional Competence and Expertise

Assessing your SQ (Spake quotient):

- Describe an expert physical therapist.
- What distinguishes them from an “average therapist?”
- Describe a “promising young novice student.
- What distinguishes them from an average student?
What is expertise?

Simple definition
(Dörner and Scholkopf, 1991)

Expert is someone capable of doing the right thing at the right time

Shared Characteristics of Experts

- Bring more organized knowledge to the problem
- Can figure things out - can detect and recognize deep structure of the situation
- Analyze a problem qualitatively
- Self-monitoring - continue to learn through experience
- Develop skills through intense, focused practice
- Insightful - see entire problem
- Neuroscience of expertise - neural mechanisms
  - Cognitive - Motor - Perceptual

Expertise: Current thinking...

- Expertise is more of a process or continuum of development
- Not a static state through gathering years of experience
- Adaptive expertise is a process of progressive problem-solving as individuals continuously rethink and redefine tasks

We do not learn from our experience; we learn by thinking about our experience

(Shulman, 2004)
Defining Professional Competence

Habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served.

Epstein R, Hundert E. JAMA, 2002

Professional Competence

- Not isolated competencies, BUT multi-dimensional
- Developmental
- Impermanent
- Context-dependent

Theories of expertise

Focus on expert practice
- Thinking
- Practice knowledge
- Skills
- Interactions
- Person/actions

Context/Practice

Mental processing

Expert thinking

Problem solving

Different domains

Knowledge and Problem Solving

Shared Characteristics of Experts

- Traditional List:
  - Excel mainly in own domain
  - Organized knowledge to the problem
  - Flexible/figure things out
  - Work to understand the problem
  - Intense, focused practice
  - Strong self-monitoring skills

- Context of Practice List:
  - Collaboration with clients
  - Multiple forms of knowledge
  - Patient-centered
  - Skilled know-how
  - Perceptual acuity (reframing the situation)
  - Agency

What is the CRITICAL factor here?

Assessing your SQ (Spake quotient):
High expectations

- How do you set high expectations?
  - Students
  - Colleagues
  - Self

Dr. Ellen Spake Factor....

High Expectations

MAGIS

“more” or “greater”
“rising above or beyond normal expectations.”
Expert Clinical Practice: Understanding the Work of Physical Therapists

Working Assumptions
- The work of the physical therapist is complex
- Physical therapist is PART of the intervention or treatment
- We know little about the work of physical therapists
- Shared belief the importance of the Social dimension of Knowledge in physical therapy (social construction)
- Case study design

Expert Sample

Criteria
- 7 or > yrs of clinical experience
- 50% or > direct patient care
- Formal or informal advanced work in clinical area
- Someone the nominator would refer self or family member to for care

Sample
- 12 expert clinicians
- 4 researchers
- 4 clinical areas
- pediatrics
geriatics
neurologyno orthopedics

Exploring Expert Practice

One of the top 5 cited articles in Physical Therapy (Journal of Physical Therapy Science)
Expertise in Physical Therapy Practice

two editions: 1st - 1999 and 2nd - 2007

Contributors:
- Dr. Ian Edwards
- Mark Jones
- Dr. Linda Resnik
- Brown University
- Dr. Elizabeth Mostrom
- Central Michigan
- Dr. Michael Sullivan and Ann Jampel
- MGH

Philo\textsuperscript{phy} Practice

Knowledge
Clinical Reasoning
Movement
Virtue

Student
Novice

Professional Development

Expert Practice Model
Background: 12 therapists; 4 specialty areas (geriatrics, neurologic, orthopedic, pediatric; identified – nomination; geographical convenience)

Expert Knowledge
- Thirst for knowledge/seek mentors
- Multiple sources/multidimensional
- Knowledge is transformed - reorganized over time
- Clinical knowledge situated-in-practice and centered on patients
- Reflection/meta-cognitive skills essential to continued learning/knowledge development

Expert Clinical Reasoning
- Complex and collaborative
- Therapists need continuity of care
- Therapists need to interact with colleagues for reflection
- Necessary element for developing clinical knowledge
Expert Movement

- Experts were observed to move:
  - Central focus on function
  - Appeared effortlessly, fluid
  - Often done simultaneously while:
    - Interacting with the patient/family
    - Thinking/analyzing
  - Done with intense focus and concentration
  - Unconscious/"tacit" skill

Virtues seen in experts

- Care and Compassion
  - Patient advocacy (non-judgmental)
- Moral courage
  - Action or agency that makes a difference in the outcome
  - Respectfulness (more than being polite)
  - Non-judgmental
  - Center of moral compass - RESPECT for Human Dignity

Philosophy of Practice

- Not a single entity but an integration of all dimensions of the model
- Expresses core beliefs about the elements of the model
- Expresses beliefs about the clinician’s role in relation to the patient

Postscript: Experts 10 years later

(Expertise in Physical Therapy Practice: Professional Development and Life Long Learning, in press)

- Life long learning (pursuit of DPT, clinical certifications)
- Reflection in and on Practice
- Grappling and surviving within the healthcare system

Assessing your SQ (Spake quotient): Virtues

- How would you describe your philosophy of practice?
- What is the role of virtues?
  - What are the THREE most important professional core values that you embrace?
  - What does moral courage mean to you? What is an example from your professional work?

Dr. Ellen Spake Factor....

VIRTUES

CURA PERSONALIS

“care for the person”
Ascending Order of Ethical Sensitivity
(E Pellegrino)

Level 3: Practice of Virtue

Level 2: Observance of rights and fulfillment of duties

Level 1: Observance of the laws

Basis of Professional Codes
3-tiered system of obligations

Good CARE requires GOOD thinking

Knowledge and THINKING

CLINICAL REASONING: Critical elements of Care and CONTEXT

CLINICAL REASONING: What we know

- Central component and area of study for all health professionals
- Informed by theories from psychology, education, and expertise
- Many models of clinical reasoning
- Theoretical models are limited
- Depth/breadth of research in health professions comes from medicine
- Despite decades of research - STILL POORLY UNDERSTOOD
Working definition… (Trowbridge, Rencic, Durning, 2015)

- "Cognitive and non-cognitive process by which a health care professional consciously and unconsciously interacts with the patient and environment to collect and interpret patient data, weigh risks and benefits of actions, understands patient preferences to determine the diagnosis and plan of care for a patient."

- Cognitive Theories
  - Dual process (slow/analytic – fast/non-analytic)
  - Cognitive load
  - Schema and Script (knowledge structure)
- Non-cognitive theories
  - Situativity Social cognitive theories
  - Control value theory (Motivation, emotion) engagement


- Analytic, Hypothetico-deductive, or Slow thinking (System 2)
- Backward Reasoning
  - Hypothesis testing
  - Analytical thinking
  - Weighing positive & negative evidence
  - Patient’s clinical presentation (signs & symptoms)

- Non-Analytic, Pattern recognition, or Fast thinking (System 1)
  - Pattern matching
  - Intuitive thinking

- Theories: Knowledge and Learning
  - Cognition
  - Culture
  - Behavior
  - Context
  - Conditioning/B-R
  - Sociocultural theory
  - Situated cognition

- Over emphasis

- Clinical Outcome

- Practitioner Factors
- Patient Factors
- Encounter Factors

- OUR CHALLENGE: Professions of Human Improvement:

  Practitioners cannot succeed without clients (students, patients) who work with them toward that success... Social organization of practice is a potent influence on the mobilization of commitment...

  Practitioners are caught between their claims to specialized knowledge and their dependence on clients... They can regulate work together from the inside...

  Professionals all try to better the human condition... by increasing their Clients’ capacity to think, to feel, or to act...  

  David Cohen, 2005
Assessing your SQ (Spake quotient):
Good Care requires good thinking

- What strategies or tools do you use to get insight into your thinking?
- What strategies or tools do you use to get insight into students’ thinking?

Structures can help
Clinical Reasoning Models

ICF Model - International Classification of Function Model

“Health Condition”
(disorder or disease)

Body Functions and Structures
Activities
Participation

Personal Factors
Environmental Factors

THINKING terms -- Sorting them out
What is the BIG deal about metacognition?

- Thinking about thinking
- Reflective self-awareness
- Allows clinicians to self-monitor data collection, clinical reasoning, judgment and performance
- Consider societal, cultural beliefs, clinical knowledge

Comparison of Novice and Expert Metacognitive Thinking Patterns

<table>
<thead>
<tr>
<th>NOVICE Pattern</th>
<th>EXPERT Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read X</td>
<td>Read X</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analysis XXXX</td>
</tr>
<tr>
<td>Explore XXXX</td>
<td>Explore XXXX</td>
</tr>
<tr>
<td>Plan XXXX</td>
<td>Plan XXXX</td>
</tr>
<tr>
<td>Implement XXXX</td>
<td>Implement XXXX</td>
</tr>
<tr>
<td>Verify XXXX</td>
<td>Verify XXXX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage</th>
<th>Knowledge Use</th>
<th>Action</th>
<th>Orientation</th>
<th>Decision Making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Factual</td>
<td>Rules for action</td>
<td>Cannot see big picture</td>
<td>Rule-governed</td>
</tr>
<tr>
<td>Novice (beginner)</td>
<td>Objective facts</td>
<td>Begin use intuition</td>
<td>Limited situational understanding</td>
<td>Less rule-governed</td>
</tr>
<tr>
<td>Novice (competent)</td>
<td>Hierarchical view</td>
<td>Devise new rules</td>
<td>Aware of situation</td>
<td>Make decisions</td>
</tr>
<tr>
<td>Novice (proficient)</td>
<td>Situational view</td>
<td>Intuitive behavior</td>
<td>Perceives context</td>
<td>Decision making efficient</td>
</tr>
<tr>
<td>Novice (expert)</td>
<td>Situational discrimination</td>
<td>Intuitive and Analytical</td>
<td>Knows when action needed</td>
<td>Goal directed</td>
</tr>
</tbody>
</table>

KEY CONCEPT

Meaningful patterns of information

- Experts recognize features or patterns not recognized by novices

Organization of knowledge

- Knowledge for experts is not a list of facts or formulas but is organized around core concepts and key ideas
- Consider building conceptual understanding as a critical element in curriculum design; teach for depth and not breadth
- Design learning experiences that help students learn about the conditions of application to specific cases or problems (e.g., teach cause and effect, and systematic and accidental errors in patient history taking)

Context and access to knowledge

- Experts do not have to search through everything to know and identify relevant knowledge

KEY CONCEPT

Fluent retrieval

- Experts work toward understanding the problem rather than jump to solution strategies and engage in a process of problem solving
- Instruction and testing should also focus on fully understanding the problem and the situation not just on accuracy

Adaptive Expertise

- Experts use metacognitive strategies and the ability to self-monitor own level of understanding; recognize their limits of knowledge and take steps to remedy
- Help novices understand that an expert is not someone who knows all of the answers; help develop metacognitive skills through teaching and assessing self-awareness; promote intellectual humility
LEARNING

Learner

Learning theories
- Cognitive
- Non-cognitive

Self-assessment skills
- Self-directed learning skills

Influence
- Calibrate
- Inform
- Impact


Adaptive Expertise

- Experts use metacognitive strategies and the ability to self-monitor own level of understanding; recognize their limits of knowledge and take steps to remedy.
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WE need to change - Rethinking LEARNING

Change our perspective......

“Right answer”

WE need to change - Rethinking LEARNING

ASK Reflective Questions about Uncertainty

- If there were data I ignored, what might they be?
- What about this situation was surprising or unexpected?
- Did I avoid premature closure?
- Is there another way I could formulate the patient’s story or my response?

Reflective Questions

- What are important aspects of the situation that differ from previous situations?
- How might prior experiences be affecting my response?
- What would a trusted peer say about how I am managing or feeling about this situation?
- Can I SIFT my mind and examine (Sensations, Images, Feelings, Thoughts)

Reflective Questions

- What didn’t you understand about this case?
- Where did you struggle?
- Why did you struggle?
- What did you learn about YOURSELF?
YOUR Spake assignment:

- List 2 actions that you will do to facilitate GOOD THINKING?

What is your Spake Quotient?

- Competence
  - High expectations
- Collaboration
  - Social Responsibility
- Care
  - Virtue
  - Good thinking

Dr. Ellen Spake Factor....

SOCIAL RESPONSIBILITY

WOMEN and MEN for and with Others

When all are working for and with others, all are equal.

What is social responsibility in the physical therapy profession?

Reflection on Social Responsibility

- What is the primary purpose of physical therapy?
- Health improvement?
- Role of movement and function and health?
- General health of society?
- Health of vulnerable populations?
- Do we have a commitment to health?

APTA Code of Ethics

Ethical Responsibility

- Principle #1: Physical therapists shall respect the inherent dignity and rights of all individuals.
- (Core Values: Compassion, Integrity)
- Principle #8: Physical therapists shall participate in efforts to meet the health needs of people locally, nationally, or globally.
- (Core Values: Social Responsibility)
Social Contract:
Role of health professions in society

- **BENEFITS**: Professions granted by society
  - Professional autonomy to self-regulate and control profession
  - Professional autonomy to self-regulate and control profession
- **In EXCHANGE for meeting/serving societal needs**
- For example: AMA Code of 1847 - stipulates reciprocal obligations between patients and physicians and that Physicians MUST attend to the public health

Empowerment of Practitioners Guided by Accountability to the PUBLIC

- Professionalism flourishes only if the leadership
- Enforces HIGH standards of practice
- Invites public response and involvement in profession’s efforts to clarify mission and responsibilities
- ACTING together as a profession is a rare and difficult achievement

Elements of APTA Vision 2020 - OLD version

- By 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy, recognized by consumers and other health-care professionals as the practitioners of choice to whom consumers have direct access for the diagnosis of, interventions for, and prevention of impairments, activity limitations, participation restrictions, and environmental barriers related to movement, function, and health.
- **Autonomous Physical Therapist Practice**
  - Direct access
  - Doctor of Physical Therapy and Lifelong Education
  - Evidence-based Practice
  - Practitioner of Choice
  - Professionalism

Role of Civic Professionalism

- It’s not really autonomy that we as a profession seek... We seek unfettered practice that allows us to use our skills, knowledge and compassion to our maximal potential. We seek unfettered access to our services...
- Jules Rothstein, PT, PhD, FAPTA, 2002
Transform society by optimizing movement to improve the human experience

Identity
Quality Innovation
Collaboration
Value
Access/Equity

Health
- Many of the influences on health are upstream.....

Health (adapted from http://www.unnaturalcauses.org/ten_things.php)
- Healthcare has a minor influence on health status
- Health is more than healthcare
- Health is strongly linked to distribution of resources
- The choices we make are influenced by the choices we have
- Chronic stress (high demand/low control) is toxic
- Social policy is health policy
- We all pay for poor health

If Physical Therapy has a commitment to health....
what is our social responsibility?
- Do we focus only on delivery of services?
- What is the profession’s responsibility to address factors that influence health?
  - Environment in which we live
  - Distribution of power, money, resources
  - Drivers of daily life

Advocacy or Moral Agency?
How do we.....or do we?
- Become a more visible collective advocate for society?
- Ensure that physical therapists understand the social and economic context of health care?
- Ensure that students and practitioners do not communicate a dislike for the poor?
- Communicate that we understand the REAL meaning of autonomy?

Attitudes and Understanding
- Understand factors of poverty and oppression
  - Have less to do with individual responsibility
- More to do with broad - social structural forces
  - Education - Labor - Capital
- Need to foster in our profession (individually and collectively) stronger self-awareness and broader view of our professional role
Strategies for Change

- Broaden the curriculum:
  - Help students gain a public health perspective on disease, illness and health
  - Grasp the meaning of social determinants and health
  - Learning experiences beyond volunteer experiences at free clinics or screening
  - Role of the humanities - human condition

- Promote a "pedagogy of discomfort"
  - Understanding of how the dominant culture shapes the ways we see the world
  - Increase the socioeconomic diversity of our students
  - Support and shine the light on role models in the profession who believe deeply in compassionate, respectful care across populations

Health care as a “public good”

- Education
- Housing
- Security
- Infrastructure
- Cities
- Environment
- Art
- Recreation

Health professions education

- Compete or collaborate for scarce resources?
- Knowledge/information expansion - Is more better?
- Role of professions in team-based care
- Accreditation requirements for IPE across professions - helpful?
- Will we be able to address the Nation’s health - Triple Aim now Quadruple Aim?
  - Access
  - Quality
  - Cost
  - Practitioner burnout

Highlight Leaders in Humanism:

- Medicine
  - Gold Foundation
    - Defines the attributes of a humanistic doctor as one who demonstrates respect for a patient’s concerns and values and provides compassionate consideration and care for a patient’s physical and emotional well-being.
    - Gold Humanism Honor Society (GHHS)
    - Gold Professorships

- Physical Therapy
  - Humanitarian Award
    - demonstrated leadership and outstanding humanitarian volunteerism have improved the quality of life of individuals worldwide.
  - Societal Impact Award
    - Award recipients will have demonstrated exemplary leadership and volunteerism, commitment and dedication to addressing issues related to societal welfare.
Assessing your SQ (Spake quotient):

- What GRADE would you give the physical therapy profession as a profession that demonstrates social responsibility?

YOUR Spake assignment:

- What will YOU do as a professional to demonstrate your societal responsibility?
- What should our profession do?
- What should the Missouri State Chapter do?

Thank you....