

Nurse leaders & the innovation competence gap

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What drives my interest?



- **Acknowledgement of nurses as healthcare’s “original innovators”**
- **Exposure to innovations in research, education, and practice**
- **Inspiring examples of nurse entrepreneurs**



One nurse's story

“Some of our frailest hospitalized patients would require frequent enemas for their underlying conditions ... And too often, the patients experienced incontinence and sat in their [own] stool [increasing the] risk of skin breakdown ...”

**“We never thought of it as an innovation.
It was a creative solution to meet patient care needs.**

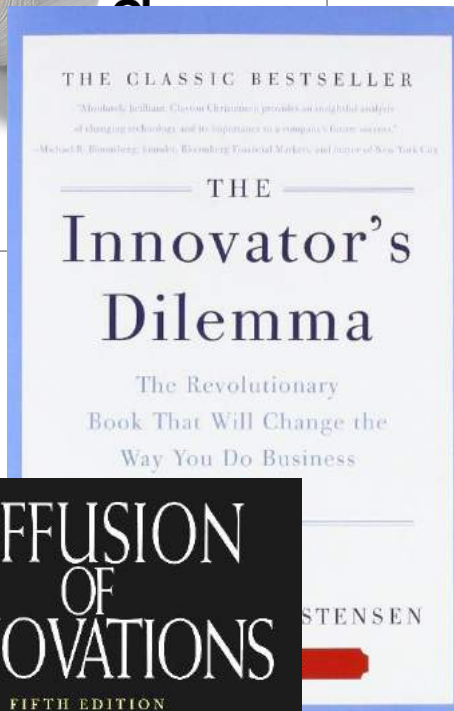
It was just what we did.”



**What innovations
can
YOU
think of?**



Background



- **Drucker (1985) – “The Discipline of Innovation” *Harvard Business Review***
- **Rogers (2003) – *Diffusion of Innovations*, 5th ed.**
- **Christensen (1997) – *The Innovator's Dilemma***
- **Malloch (2010) – “Innovation Leadership” (*Nursing Clinics in North America*)**
- **Herzlinger et al. (2013) – “Benchmarks for confronting the challenges for innovation in health care with a modern curriculum” (white paper and conference proceedings)**
- **Pillay and Morris (2016) – “Changing healthcare by changing the education of its leaders: An innovation competence model” (*Journal of Health Administration Education*)**

What do we know about innovation?



- **Its FLAVOR**
- **Its FEEL**
- **The TIME it takes**

What was our study's purpose?

- 1. Validate the innovation competence model for nurse leaders**
- 2. Assess the innovation competence of nurse leaders**
- 3. Identify the most significant innovation competence gaps**
- 4. Identify the preferred methods of developing innovation competencies**

Our methods & design

- **Online survey to 1,459 nurse managers, leaders & academics**
- **24% response rate**
- **Quantitative + qualitative perspectives**
- **Questions included:**
 - *How important are the innovation competencies?*
 - *What is your level of competence?*
 - *What is the importance of various teaching tools in developing competencies?*
 - *How would you rate your organization's innovation orientation?*

Respondents



89% female



88% > age 50



57% academics

n=290

Respondents



**24% had formal
innovation training**

A donut chart with a dark blue segment representing 24% and a light blue segment representing 76%.



**78% self-taught
innovators**

A donut chart with a dark green segment representing 78% and a light green segment representing 22%.



**63% have
> 10 years
management
experience**

A donut chart with a dark orange segment representing 63% and a light orange segment representing 37%.

n=290

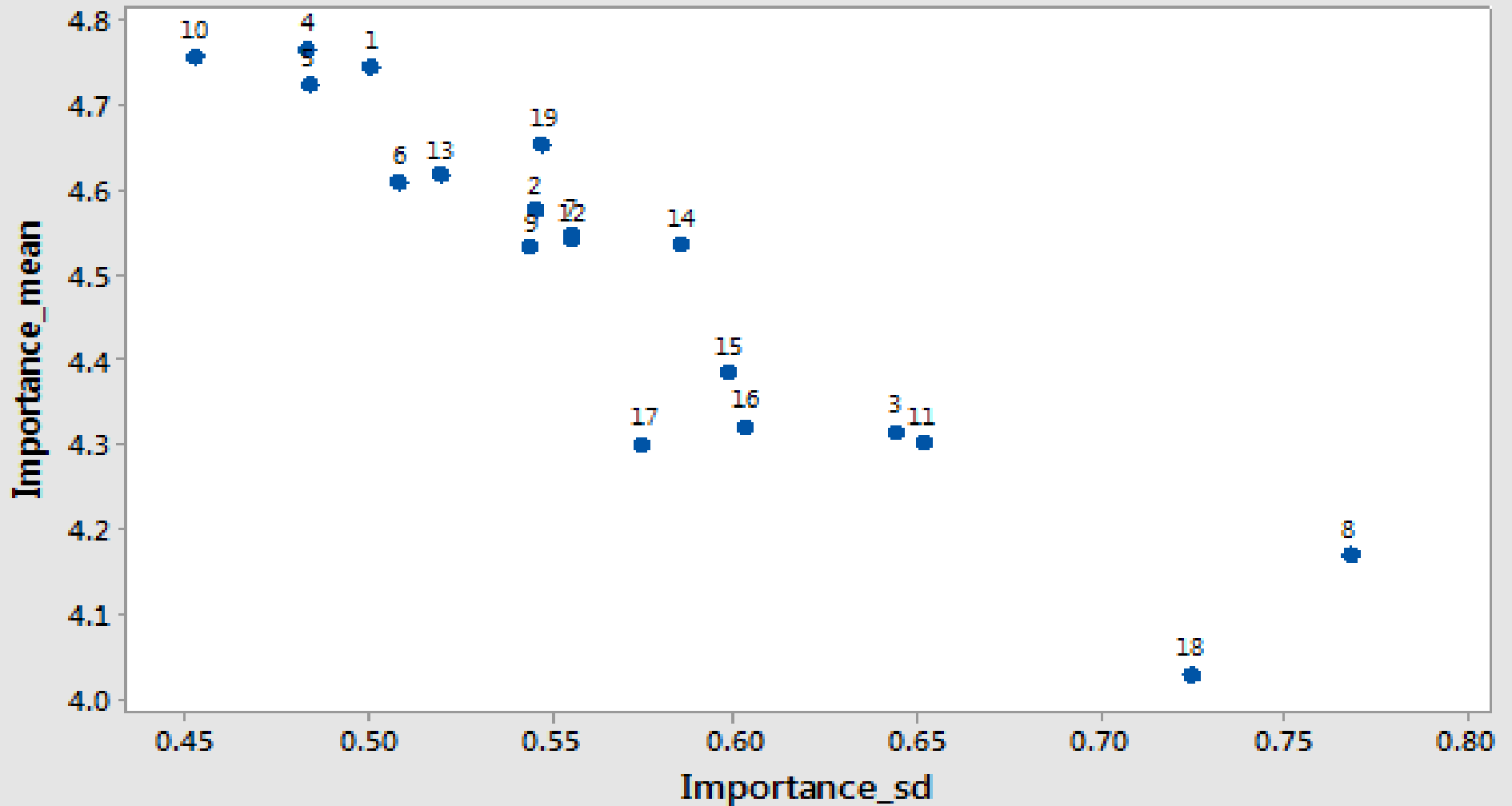
For innovation, what are the

**most important
competencies?**

Innovation competencies

- Recognition of opportunity
- Ability to assess an opportunity's feasibility
- Risk management/mitigation
- Ability to convey a compelling vision
 - Tenacity and perseverance
 - Creativity problem solving/imaginativeness
 - Ability to leverage resource/bootstrapping
- Guerilla skills/ use of unconventional approaches
 - Ability to maintain focus yet adapt
 - Resilience
- Design thinking: Value creation with new products, services and business
- Self-efficacy/confidence
- Building and using networks
- Change management
- Understanding of healthcare systems
- Cross disciplinary knowledge
- Information management
- Understanding of behavioral economics
- Interdisciplinary teamwork and collaboration

Scatterplot of Importance_mean vs Importance_sd



Most important:

- 10 Resilience
- 4 Ability to convey a compelling vision
- 5 Tenacity and perseverance
- 1 Ability to recognize an opportunity

Least Important:

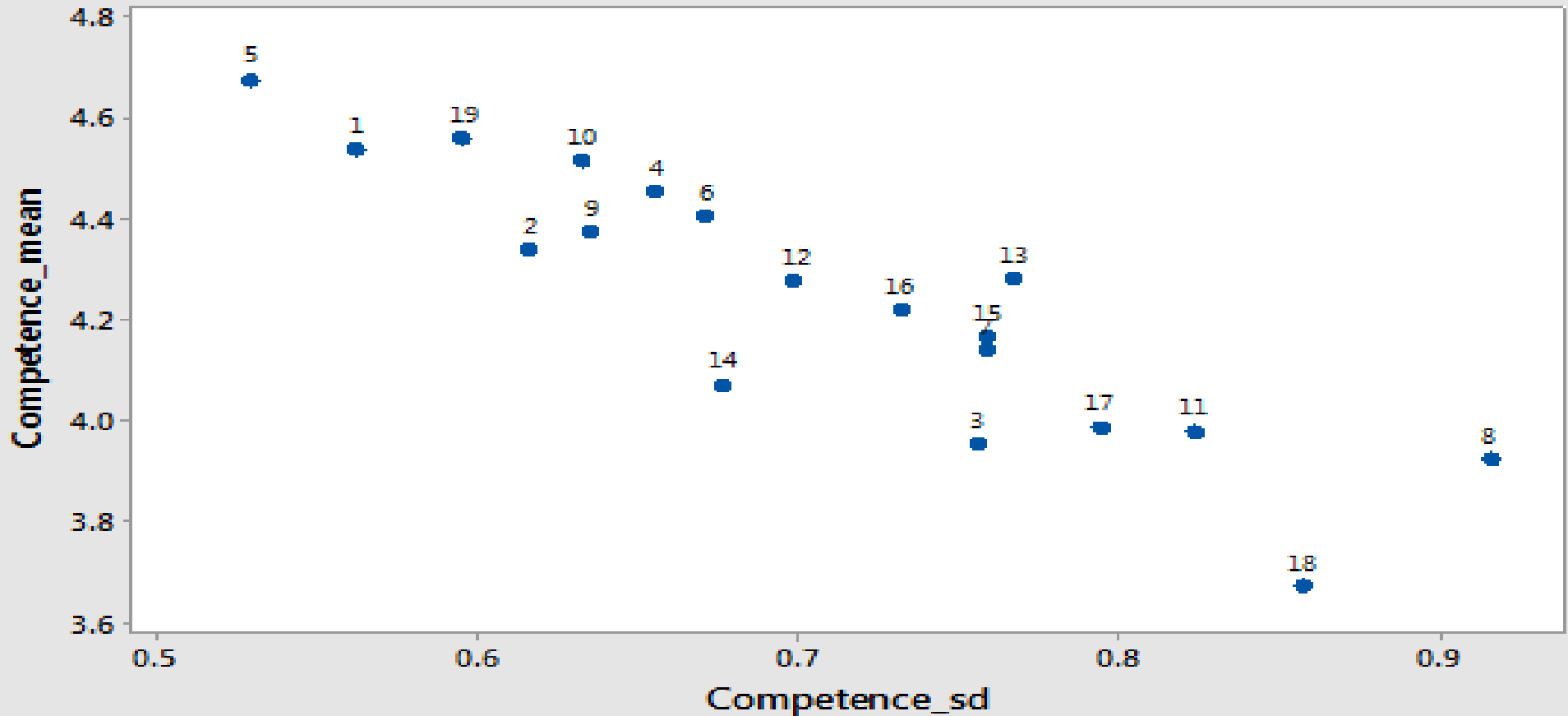
- 8 Guerilla skills/use of unconventional approaches
- 18 Understanding of behavioral economics

Where are the gaps?

MIND THE GAP

- **Significant gaps in 18 of 19 competencies**
- **Tenacity and perseverance were the only competencies without a gap**

Scatterplot of Competence_mean vs Competence_sd



Strengths:

- * 5 Tenacity and perseverance
- * 1 Ability to recognize an opportunity
- * 19 Interdisciplinary team work and collaboration

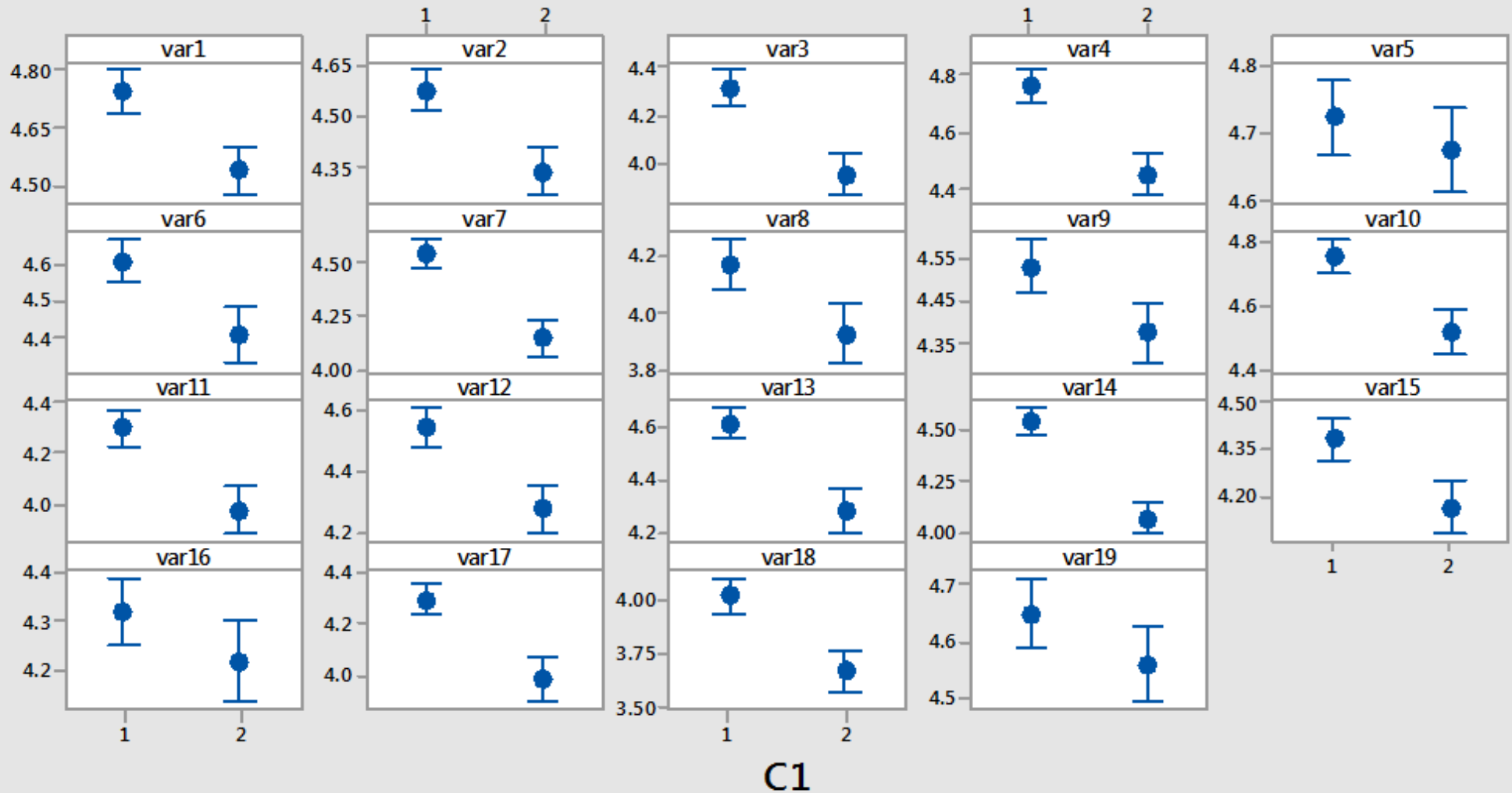
Weaknesses:

- * 18 Understanding of behavioral economics
- * 8 Guerilla skills/ use of unconventional approaches

Innovation Competency Gap

(*5 not significant - Tenacity and Perseverance)

Interval Plot of var1, var2, var3, var4, var5, var6, var7, var8, ... 95% CI for the Mean



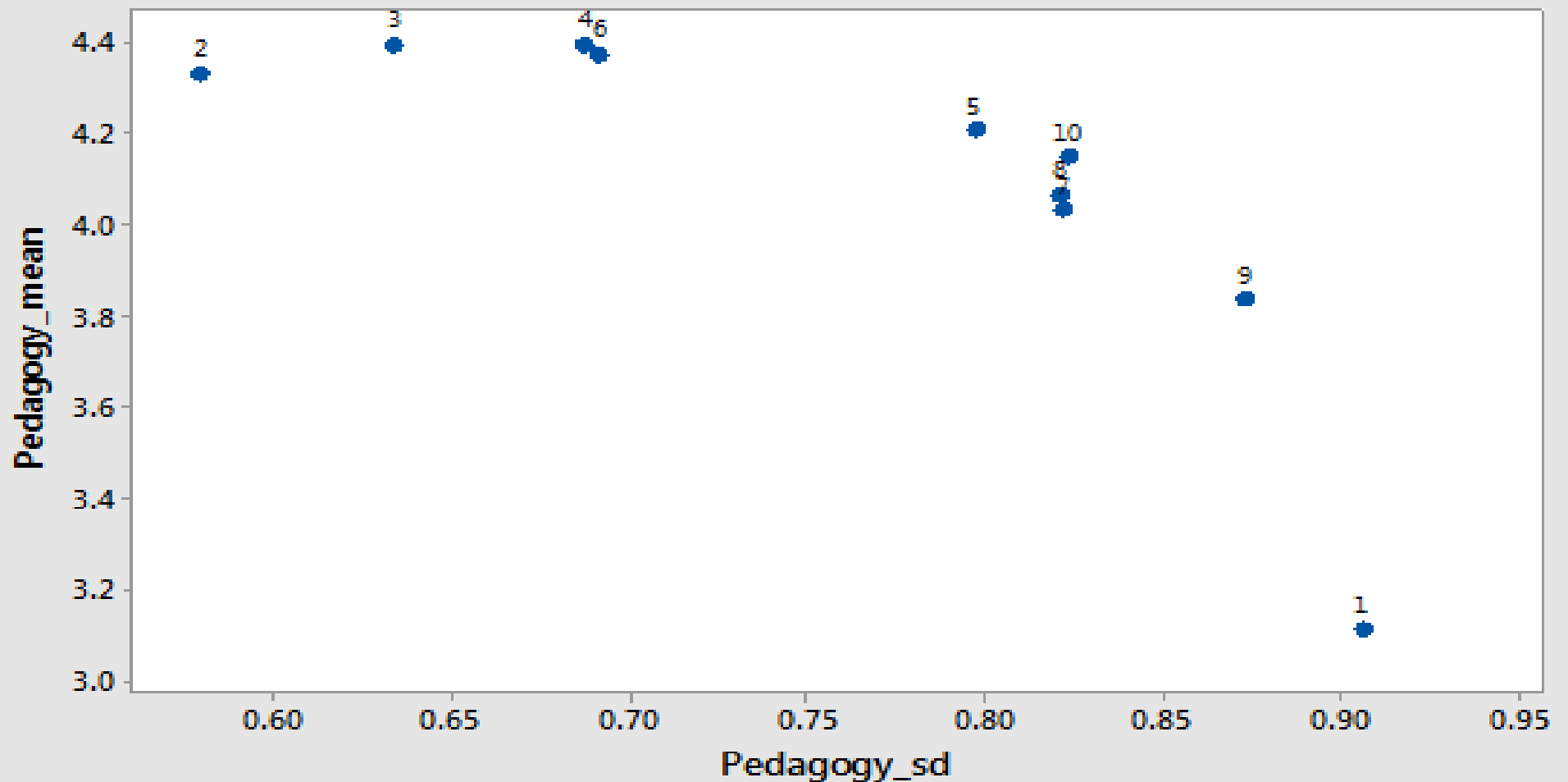
Individual standard deviations were used to calculate the intervals.

**How might innovation
competencies be **learned**?**

Pedagogical approaches

- Traditional lectures**
- Case studies of successes**
- Case studies of failures**
- Project-based learning**
- Mentoring by industry professionals**
- Field based experience**
- Global experience**
- Interactive learning**
- Team-based contests**
- Continuing education**

Scatterplot of Pedagogy_mean vs Pedagogy_sd



Most favored:

- 3 Case studies of failures
- 2 Case studies of successes

Least favored:

- 1 Traditional lectures

Innovation orientation

Variable	N	Mean	Std Dev	Minimum	Maximum
Proactiveness	257	3.3976654	0.6820196	1.8000000	5.0000000
Unconventional problem solving	260	3.7750000	0.7321558	1.0000000	5.0000000
Risk Propensity	252	2.7673611	0.6376772	1.1250000	5.0000000
Competitive Angst	254	2.4783347	0.7165429	1.0000000	5.0000000
Autonomy	258	2.5838921	0.5496319	1.0000000	5.0000000

Conclusions

- **Tool is valid and reliable**
- **Innovation knowledge is mostly self-taught**
- **The nursing organizations in this study do not have an innovation orientation (overall score < 3)**
- **Hindrances to innovation include risk aversion, competitive angst, and lack of autonomous decision-making**

Implications

- **Programmatic and curricular design**
 - Degree programs
 - Continuing education programs
- **Future research opportunities**
- **Revenue opportunities – Entrepreneurship!**
- **The creative work of nurses for the good of our patients could be recognized and rewarded financially**
- **Licensing, patents, copyrights, trademarks, and legal agreements protect innovations**

**How would
YOU rate YOUR
innovation competencies?**



Consider the
innovation orientation
of the organization
where you work.

Start small...

- **Partner with other academic units to bring in guest speakers, teach courses, serve on doctoral committees**
- **Partner with nurse and healthcare leaders for learning experiences**
- **Introduce innovation competencies in all nursing programs; share across DNP/PhD**

Grow larger!

- **Partner with other academic units for interdisciplinary entrepreneurship competitions**
- **Designate individuals to develop strategic partnerships and innovation**
- **Add more experiential partnerships in health systems management and leadership programs**



Compassionate
Care Initiative

UVA's story



LPHM



Prof. Tim Cunningham
drama & nursing

- Teaching compassion & resilience
- Shared faculty hires in design thinking & innovation
- Partnership programs & initiatives
 - Leadership Partners in Healthcare Management (business)
 - Interprofessional education (medicine)
 - Healthcare design (architecture)
 - Compassionate care (religious studies, drama, medicine)
 - Health policy (public policy)
 - Medical Center (practice and leadership)

YOUR innovation story



Reflect on your nursing career: how have you introduced innovations?

What will motivate you to turn your ideas into practices for patients to derive benefit?

How will you introduce innovation competencies in your classroom and area of expertise?

Innovation:

It's just what we do.

Thank you!

Any questions?

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