

A New Frontier: Developing Competencies in Health Sciences Education Innovation

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Background

- R.I.S.E. (Research. Innovation. Scholarship. Education) aims to improve learning and teaching for better health.
- To achieve this goal, we sought to **identify innovation competencies** deemed most **essential to personal and professional development in innovation** within HSE.

Methods

- We compiled a list of **15 possible innovation competencies** and associated definitions, based on a review of the literature.¹⁻³
- In April 2019, members of the RISE Core team (n=6) and the Advisory Council (n=31) were invited to rank order the list of potential competencies, via an online survey, based on their **perceived level of importance for supporting innovation**.
- Participants represented **diversity** among employee/learner classification, HSE specialties, and innovation expertise and experience.

Results

- Twenty-four individuals** completed the rank-ordering survey.
- Seven competencies** were adopted based on the aggregated mean rankings (Table 1).

Lessons Learned

- These innovation competencies have been used to guide **RISE funding decisions, design curricula, and develop assessments to track longitudinal competency development** among our community.
- During the design of our assessments, we learned the importance of **clarifying competency definitions** to ensure assessors could differentiate behaviors that represent each distinct competency.

Future Application and Next Steps

- We will continue to use these competencies to **develop new and innovative assessments**.
- Next steps include examining the validity of scores generated by our competency assessments.

Table 1. Mean Rankings of Potential Innovation Competencies

INNOVATION COMPETENCY	MEAN (SD)
Creativity: thinks beyond traditional ideas, rules, and patterns to generate meaningful alternatives	3.6 (3.3)
Initiative: independently or collaboratively develops, assesses, and operationalizes ideas that foster positive changes, while overcoming real and perceived constraints that often impede the launching of ideas	4.7 (3.1)
Visioning: assesses future directions and risks based on existing and potential opportunities and threats to implementation	6.3 (3.9)
Intelligent Risk-taking: weighs potential benefits and disadvantages of an action or choice to assume calculated risks	6.4 (3.3)
Intellectual Curiosity: acquires new knowledge, challenges beliefs and knowledge constructs, and seeks explanations—even when the application of that new learning isn't immediately apparent	6.5 (4.3)
Critical Thinking: pinpoints the actual nature and cause of problems and the dynamics that underlie them to logically identify strengths and weaknesses of alternative approaches	7.1 (4.2)
Teamwork: effectively and efficiently collaborates with others in a diverse group; works with stakeholders to assimilate ideas and needs towards outcomes and solutions	7.7 (3.6)
Effective Communication: provides consistent, efficient, and meaningful information; listens carefully to others to ensure message is understood; tailors messaging to audience	9.0 (3.5)
Nonconformity: challenges the status quo in order to set ambitious goals that challenge established practices, especially if tradition impedes improvements	9.1 (4.8)
Enterprising: initiates and leverages available resources to further a goal	9.1 (3.6)
Networking: identifies and engages internal and external stakeholders in common interest/goal	9.3 (2.9)
Leadership: motivates or persuades others to achieve a goal by communicating a vision, committing to the cause of the organization and inspiring trust	9.5 (4.2)
Perceptiveness: recognizes situational forces that promote and inhibit change	9.7 (4.3)
Flexibility: willingness to change or compromise according to the situation and/or new information	9.8 (3.7)
Self-efficacy: trust and expressed confidence in one's abilities, talents, and judgement that s/he is capable of achieving a certain outcome	12.3 (4.0)

References

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