White Paper

Alignment of Content in Simulation Learning System to Clinical Judgment Competencies

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ALIGNMENT OF CONTENT IN SIMULATION LEARNING SYSTEM TO CLINICAL JUDGMENT COMPETENCIES:
A Quantitative Ethnographic Examination of Fundamentals of Nursing Scenarios

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INTRODUCTION

The field of nursing is at an inflection point. Patients of increasing diversity and complex health conditions are becoming the norm in health care settings. The introduction of the Next Generation National Council Licensure Examination (NCLEX®) is also on the horizon. These changes have amplified the need for competency-based education and assessment in nursing. That is, students will need to go beyond mastery of foundational and procedural knowledge to succeed as new nurses. They will also need to demonstrate competency in psychosocial and cognitive skills such as clinical judgment, therapeutic communication, cultural awareness, and bedside care. As such, improving students' practice readiness and learning outcomes are high priority goals for nursing education. Organizations such as American Association of Colleges of Nursing (AACN) and National Council of State Boards of Nursing (NCSBN) have established policies and standards for guiding professional nursing education, research, and practice towards meeting these goals. An area where these guidelines get applied frequently is the content embedded in learning solutions designed for nursing curricula.

Quality content provides nursing programs with building blocks for their curricula so that educators can facilitate students' enculturation in the profession. The research team at Elsevier regards it as a responsible practice to examine and raise awareness about the extent to which content or the embedded curricula in learning solutions (a) align with specific policies and (b) reflect the interconnectedness of concepts characterized in professional practice. Doing so can benefit stakeholders across the product and practice ends of the nursing education spectrum, and aid them in taking action towards meeting the expectations of nursing standards.

In light of the current nursing discourse, it is important to examine and explain content-product-policy alignment in relation to NCSBN's Clinical Judgment Measurement Model (NCJMM, n.d.) and AACN Essentials (2021). Establishing and communicating such an alignment in nursing simulations may be particularly relevant. The reason being that the content used to design scenarios and simulation activities is intended to help faculty expose students to a variety of clinical situations, facilitate theory-practice integration, and cultivate a range of competencies. Faculty begin to complement clinical experiences with simulations starting as early as students' first year and with basic courses such as Fundamentals of Nursing (FUN) (Stroup, 2014). Thereafter, simulations are threaded throughout the curriculum.

OBJECTIVE

In this quantitative ethnographic study, the research team at Elsevier examines the alignment between nursing competencies and curriculum within a simulation system. Specifically, the goal of the study is to understand how and whether Layer 3 of the NCJMM—namely, recognizing cues, analyzing cues, prioritizing hypotheses, generating solutions, taking actions, and evaluating outcomes—is reflected in Elsevier's Simulation Learning System (SLS). Twelve FUN scenarios, available in both SLS hands-on and virtual reality (VR) simulations, are examined using associated curricular content in pre-briefing/preparation, scenario facilitation and debriefing phases. The four spheres of care described in the AACN Essentials; namely, (a) restorative and regenerative care, (b) chronic disease care, (c) disease prevention/promotion of health and well-being, and (d) hospice/palliative/supportive care are used to group the scenarios; this provides additional context to interpret SLS curriculum alignment to the clinical competencies.

OVERVIEW

In what follows, the Elsevier research team explains the concept of an alignment study and establishes its relevance in the context of this study. Next, we provide an overview of quantitative ethnography and relevant research. We introduce Simulation Learning System (hands-on and VR) and situate it within Elsevier's suite of clinical experience solutions. In the methods section, we outline the data sources and scenario groupings. We also elucidate the process applied in this alignment study.

Results indicate that across all FUN scenarios, SLS (hands-on and VR) content connects with all competencies in NCJMM Layer 3. While all twelve scenarios address the competencies, there is a statistically significant difference in the relationships between NCJMM competencies in scenarios grouped under regenerative and restorative and chronic disease spheres of care. Furthermore, content available in each phase of the FUN scenarios reflects a statistically significantly different set of relationships to the NCJMM competencies. These findings are visualized and explained in greater detail below. For each set of findings, we also discuss how nursing faculty may interpret them to enhance their simulation practices with SLS (hands-on and/or VR). We close this white paper with a summary of key takeaways for our readers and future directions for our expanding research portfolio on Elsevier's simulation offerings.

ALIGNMENT STUDIES

Alignment studies allow researchers to conduct a systematic analysis of the relationships between curriculum components, especially within a policy ecosystem. Typically, these studies assess the degree of agreement between a set of standards and the curriculum or activities that intend to address those standards (Bhola, Impara & Buckendahl, 2003; Fulmer, Tanas & Weiss, 2018). Traditional alignment studies have compared standards and assessments (Porter, 2002; Webb, Herman & Webb, 2007); however, alignment can be a useful frame to compare any combination of standards, texts, instruction, teacher training, tests, or other components of a curriculum (Kurz et al., 2010).

In this study, measuring alignment between nursing standards (NCJMM Layer 3 competencies) and teaching activities (FUN scenarios) can give educators more information about each component (i.e., scenarios grouped by the AACN spheres of care; pre-briefing/preparation, scenario facilitation and debriefing phases in scenarios) within a system (SLS hands-on and VR). Learning how the components align to the standards will provide nursing faculty with a degree of consistency about content embedded in FUN scenarios. They can make informed decisions about which scenarios

to use and how to leverage each phase in SLS (hands-on and/or VR) to facilitate a specific set of clinical judgment competencies. Similarly, inconsistencies in alignment can lead to unmet clinical objectives in simulation labs or faculty having to spend extra time designing curricular activities or implementation processes.

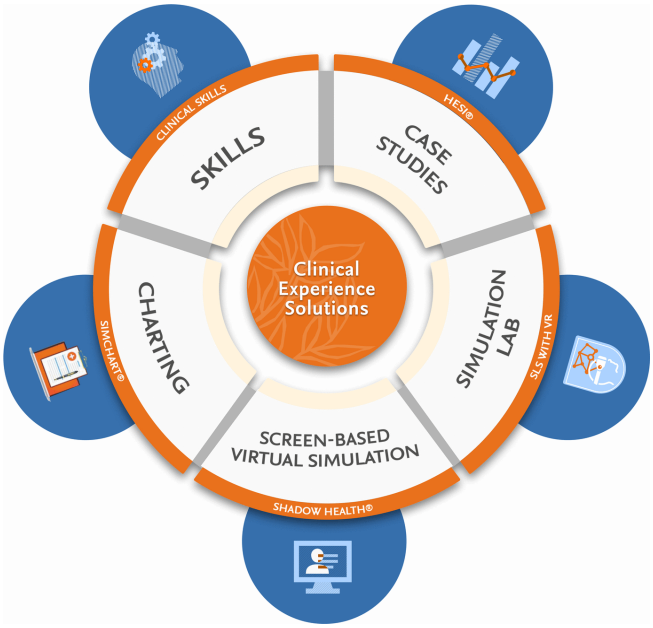
QUANTITATIVE ETHNOGRAPHY

Quantitative Ethnography (QE) is an emerging research paradigm that allows researchers to apply computational and statistical tools for making qualitative claims—about complex learning and professional practice such as in the nursing domain—at scale (Shaffer, 2017). There is a growing body of applications of QE in policy analysis (Eagan, et al., 2021). For example, Siebert-Evenstone (2020) used QE methods to analyze Next Generation Science Standards (NGSS) and real-world science curricula to build and test a method (Siebert-Evenstone Alignment Method) for measuring three-dimensional learning. Epistemic network analysis (ENA) has been used to analyze and visualize a wide range of learning processes including the patterns of connections between ideas that learners make while working through complex problems. ENA models of three-dimensional learning were used to understand and communicate the alignment between textbooks and classroom discourse to the science standards. Quantitative ethnographers are also examining learning processes and outcomes mediated through curricular interventions in health professions education (Shah et al., In Press). For instance, in a series of recent reports, the research team examined the effectiveness of SLS with VR. Classroom discourse data obtained from use of a FUN scenario (no. 7 in Table 2) revealed that the instructor was able to make stronger connections to concepts with NCJMM Layer 3 and Quality and Safety Education for Nurses (QSEN) competencies (safety, patient-centered care, teamwork and collaboration) using SLS with VR (Shah et al., 2021). For the same case study, Shah, Siebert-Evenstone, Moots and Eagan (2021) also traced student learning trajectories. They found that each phase within SLS with VR (pre-briefing/preparation, scenario facilitation, debriefing) made a distinct contribution towards students' ability to engage in cue-based reasoning and provide safe and coordinated care (Shah et al., 2022). While alignment studies provide a way to frame this study, QE methods and tools provide the means to expand and scale our investigations on SLS (Shah, Gouveia & Barakat, 2022).

SIMULATION LEARNING SYSTEM (HANDS-ON AND VIRTUAL REALITY)

SLS is a part of Elsevier's expansive portfolio of clinical experience solutions (see Figure 1). It can be described as a comprehensive online toolkit designed to help instructors incorporate manikin-based, standardized patient-based, and virtual reality simulations into their curriculum. SLS offers an ecosystem of content including a rich array of simulation scenarios with associated faculty resources and student-facing activities. Coverage includes but is not limited to health assessment, medical-surgical, pediatrics, and leadership scenarios. The simulation scenarios feature QSEN-based performance objectives, an electronic health record powered by SimChart, pre- and post-simulation activities, and skills drills. Whereas SLS hands-on helps nursing faculty maximize the capabilities of human patient simulators, SLS with VR provides students with an immersive and interactive virtual environment. In both modalities, students gain valuable hands-on patient care experience and opportunities to deepen their psychomotor, psychosocial, and cognitive skills. Students can have a safe way to practice critical skills before working with real patients, and faculty may incorporate SLS hands-on and/or SLS with VR in a lab or for simulation sessions.

Figure 1. Elsevier's Suite of Clinical Experience Solutions



METHODS

For this study, the research team was interested in examining the alignment of content in SLS (common to hands-on and VR modalities as described above) to NCJMM Layer 3 competencies. There are three phases to every simulation experience in SLS—Preparation/Prebriefing, Scenario Facilitation and Debriefing. For each scenario, faculty have access to comprehensive content relevant to the three phases in SLS (see Table 1). Furthermore, each SLS scenario features facilitator's packets, patient reports, performance checklists, algorithm quick cards and pre- and post-simulation activities. We examined select content within and across these phases for the 12 FUN scenarios in SLS.

Table 1. Overview of Content Structure for Each Scenario in SLS (Hands-On and VR)

Preparation Phase	Scenario Phase	Debriefing Phase
Staging instructions feature detailed directions to guide faculty through preparing the setting and simulator for each scenario.	Patient reports in SBAR format feature patient status updates and set the stage for the scenario.	Debriefing/reflection guide and guided discussion questions ensure a structured and successful debriefing session.
Performance objectives outline the expected student actions based on QSEN competencies.	Detailed descriptions of each scenario phase, including expected student performance objectives, help you conduct the most realistic simulation possible.	The observer evaluation rubric and performance checklist facilitate a collaborative evaluation and analysis of student performance.
Pre-simulation learning resources include a reading assignment from an Elsevier text, an exercise, and a quiz to prepare students for the simulation experience.	Response guides provide detailed patient and participant scripts, fostering communication and evaluation skills.	Animations, skills videos, and audio clips offer review of physiologic processes and nursing procedures.
	Clinical decision support resources in the EHR give students evidence-based tools during simulation that mirror the resources they will use in practice.	

The twelve FUN scenarios in SLS were grouped by the four spheres of care documented in AACN Essentials: Disease prevention (FUN 11), Chronic Disease (FUN 4, 7, 9), Regenerative Care (FUN 1, 2, 5, 6, 8, 10, 12), and Palliative Care (FUN 03). Table 2 outlines this grouping and briefly describes the patient and scenario information. The distribution of scenarios in the respective groups is expected in a FUN course and is reflective of what students will encounter in clinical settings during training.

Table 2. FUN Scenarios in SLS (Hands-On and VR): Overview and Grouping by AACN Spheres of Care

Number	Patient and Scenario Information	AACN Sphere of Care
FUN-01	Alice Morrison, 7-year-old Female – Gastrostomy Tube Care in Pediatric Patient – Primary Diagnosis: Acute bronchitis – Secondary Diagnosis: Esophageal atresia with gastrostomy	Regenerative/ Restorative Care
FUN-02	Bernadette Jackson, 85-year-old Female – Confusion in Older Adult with Infection – Primary Diagnosis: Dehydration – Secondary Diagnosis: Urinary retention	Regenerative/ Restorative Care
FUN-03	Samuel Green, 75-year-old Male – End-of-Life Care – Primary Diagnosis: Adenocarcinoma bilateral lungs – Secondary Diagnosis: Bone and lymph metastasis	Hospice/Palliative/ Supportive Care
FUN-04	Jesus Garcia, 28-year-old Male – Colostomy Care and Teaching – Primary Diagnosis: Dehydration – Secondary Diagnosis: Ulcerative colitis; status post partial colectomy with transverse colostomy	Chronic Disease Care
FUN-05	Lisa Rae, 78-year-old Female – Fall and Pressure Ulcer Risk Assessment – Primary Diagnosis: Hypotension – Secondary Diagnosis: Mechanical fall	Regenerative/ Restorative Care
FUN-06	Nancy Gilbert, 65-year-old Female – Tracheostomy Care – Primary Diagnosis: Pneumonia – Secondary Diagnosis: Laryngeal cancer, tracheostomy	Regenerative/ Restorative Care
FUN-07	Carl Rogers, 67-year-old Male – Diabetic Wound Care and Insulin Administration – Primary Diagnosis: Stage II non healing ulcer on right heel – Secondary Diagnosis: Diabetes mellitus type I	Chronic Disease Care

Number	Patient and Scenario Information	AACN Sphere of Care
FUN-08	Maurice Arviso, 60-year-old Male – Oxygenation and Hygiene – Primary Diagnosis: Pneumococcal pneumonia	Regenerative/ Restorative Care
FUN-09	Mary Bailey, 30-year-old Female – Fluid and Electrolyte Management in Pregnant Patient – Primary Diagnosis: Hyperemesis gravidarum – Secondary Diagnosis: Dehydration	Chronic Disease Care
FUN-10	Boyd Dubois, 58-year-old Male – Postoperative Pain Management and Care – Primary Diagnosis: Osteoarthritis – Secondary Diagnosis: Total hip replacement	Regenerative/ Restorative Care
FUN-11	Kyle Miller, 41-year-old Male – Basic Assessment and Care Management – Primary Diagnosis: Cellulitis	Disease Prevention/ Promotion of Health and Well-Being
FUN-12	Lillian Chambers, 40-year-old Female – Postoperative Assessment and Surgical Site Care – Primary Diagnosis: Acute appendicitis with rupture	Regenerative/ Restorative Care

STUDY PROCEDURE

We applied the Siebert-Evenstone Alignment Method (SEAM, Siebert-Evenstone, 2020). This method enables researchers to create a measurement space based on one dataset and then code all related materials, making it possible to analyze the degree of alignment between any type of data. In this analysis, the NCJMM Layer 3 competencies served as the codes to create the measurement space. FUN scenarios in SLS served as comparison data sources. To code the content, we developed an automated coding scheme that used regular expression matching to reliably identify the NCJMM competencies. We used the nCoder webkit (Hinojosa et al., 2019) to develop automated classifiers for each of the six competencies and then tested for inter-rater reliability between the human rater and automated classifier. For each code, we achieved a kappa greater than 0.9 and rho less than 0.05. Rho is a Monte Carlo rejective method that tests the generalizability of a given kappa to the rest of the data (Eagan et al., 2017). After validating each code, we applied the automated classifiers to the data set to code the data. We conducted a grounded analysis to identify how NCJMM Layer 3 competencies (or codes) existed in the data and to determine the appropriate level and manner with which to identify connections between these codes. We identified the type and size of segmenting the data that appropriately captured

connections based on the grounded analysis and conducted an epistemic network analysis (Shaffer, 2017) of all data sources. Finally, and most importantly, we checked for consistency between qualitative and quantitative interpretations of the data sources. This process guided our decisions to examine the alignment of SLS content and NCJMM Layer 3 competencies across all FUN scenarios, between scenarios grouped by the AACN spheres of care, and between phases for all scenarios.

RESULTS, DISCUSSION, AND IMPLICATIONS

Below, the research team presents findings that demonstrate how curricular content in SLS (hands-on and VR) scenarios for FUN aligned with NCJMM competencies in Layer 3. First, we report the connections across all twelve scenarios. This is followed by a comparison of connections in the scenarios based on their AACN spheres of care groupings. In addition, we report the content-NCJMM connections for the distinct phases across the scenarios. For each set of findings, we visualize the connections using epistemic network graphs and provide statistical support where essential. We discuss these findings in the context of extant nursing literature and policy discourse, and draw practical implications for nursing faculty.

Alignment Across All Scenarios

Figure 2 illustrates that the content in all FUN is connected with the six competencies outlined in NCJMM Layer 3. There are two sets of relationships that are particularly noteworthy.

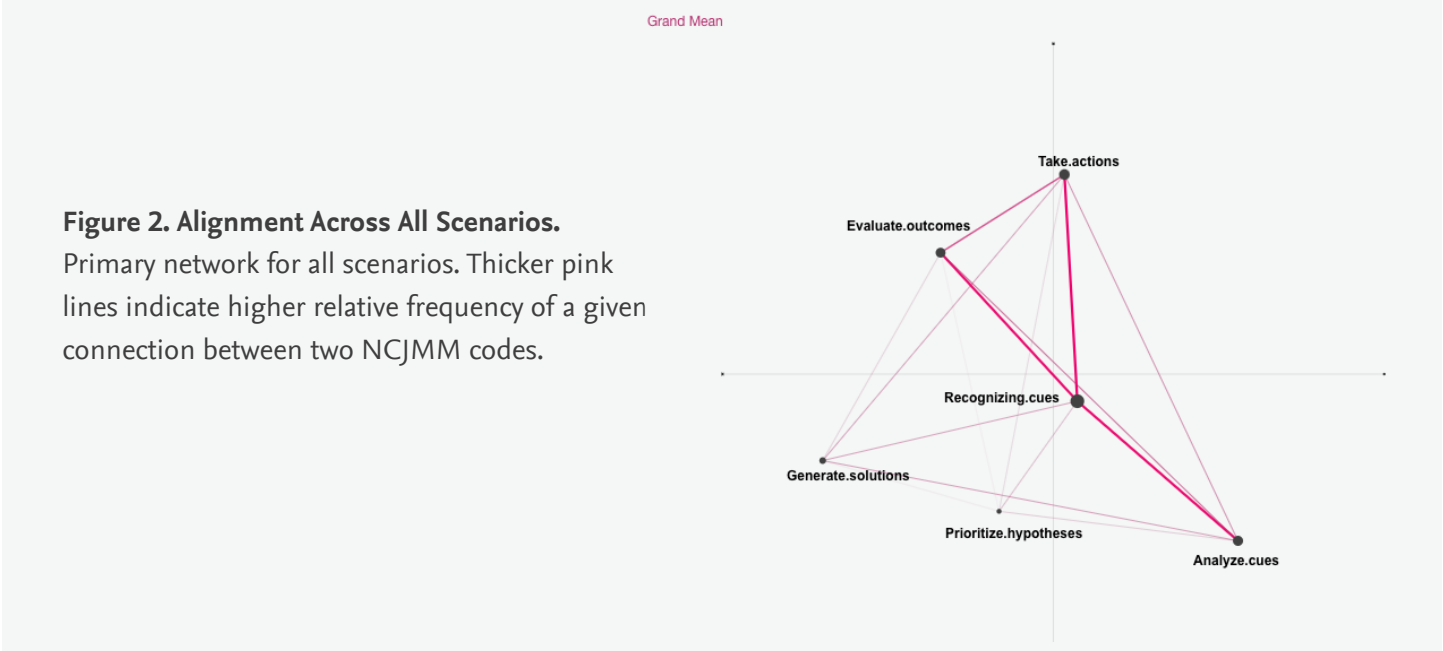


Figure 2. Alignment Across All Scenarios. Primary network for all scenarios. Thicker pink lines indicate higher relative frequency of a given connection between two NCJMM codes.

First, each clinical judgment competency connects with every other competency. This finding can help address an important gap in existing research. The early years in nursing students' programmatic journey are characterized by anxiety about patient interaction, emerging practice with critical thinking, and psychomotor skills that need further mastery. The use of simulation at this level has proven to be beneficial in all these areas (Dearmon et al., 2013).

However, much of the existing literature considers simulation as a means of assessing the competency of psychomotor skills (Bornais et al., 2012; Yang et al., 2019). Beyond the assessment of psychomotor skills, there is a glaring need for furthering our understanding of how simulations help students achieve clinical objectives within a fundamentals course. Knowledge about a set of simulation scenarios and its alignment across NCJMM Layer 3 competencies can be used to create formative and summative assessments for clinical judgment in Fundamentals courses.

Second, recognizing cues is a central construct in these scenarios, followed by strong connections to analyzing cues, taking actions, and evaluating outcomes. This finding is relevant for practice. The objective of a fundamentals course may include an emphasis on developing students' competencies in "communication and collaboration; implementation of holistic, evidence-based, patient-centered care; providing safe patient care; and demonstration of professional values of caring: altruism, human dignity, and social justice (Konrad, Fitzgerald & Deckers, 2021, p. 23)." However, fundamentals clinical experiences often focus on routine task completion without the opportunity for higher-level thinking, problem-solving, or collaboration (McKenna et al., 2019). Knowledge about a set of simulation scenarios and the alignment between NCJMM Layer 3 competencies can be used to help students target and master specific clinical skills in fundamentals courses.

Alignment Across Groups of Scenarios

As seen in Table 2, seven FUN scenarios are grouped under the regenerative and restorative sphere of care (FUN 1, 2, 5, 6, 8, 10, 12). Our analysis revealed that content in these scenarios have strongest connections to recognizing cues, analyzing cues, taking actions, and evaluating outcomes. This is followed by three scenarios that are grouped under the chronic disease sphere of care (FUN 4, 7, 9). Content in these scenarios align strongest with recognizing cues, analyzing cues, and taking actions. The smallest groupings contain one scenario each on hospice/palliative supportive care (FUN 3) and disease prevention and promotion of health and well-being (FUN 11); the content embedded in these scenarios have the strongest connections between recognizing cues and evaluating outcomes.

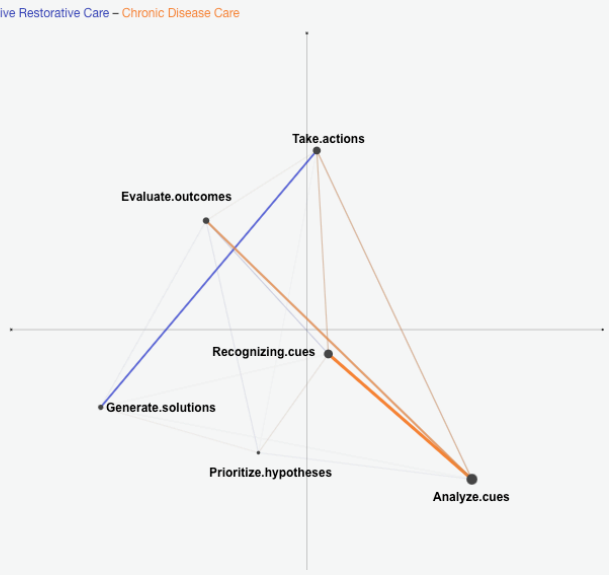
These groupings and findings are relevant in the context of AACN's Vision for Academic Nursing (2019). The association suggests that "entry-level professional nurses need competencies in team-based and coordinated care across a variety of venues. Consequently, the task force recommends that entry-level professional nursing education prepare a generalist for practice across the lifespan and continuum of care with emphasis in four areas or spheres of practice (pp. 15)" As such, knowledge about each simulation scenario and its alignment between NCJMM Layer 3 competencies can be used to expose students to diverse patients across the lifespan and clinical situations across the spectrum of care in fundamentals courses.

We are aware that a fundamentals course is characterized by a heightened focus on regenerative care to introduce students to acute care problems involving complications of specific disease processes. Only the basics of disease prevention are introduced in a fundamentals course (e.g., how can a patient prevent getting an infection?); advanced studies in health promotion are a focus of a community health course. Furthermore, only a basic framework on how to provide end-of-life care is introduced at the fundamentals level. A more detailed application of caring for a patient

needing palliative care would be expected in a medical-surgical course. Finally, in a fundamentals course, students may begin to understand how to support patients in preventing long term complications of chronic diseases (e.g., diabetes); however, a medical-surgical course allows the space for a detailed study of this sphere of care. The focus of a fundamentals course is to provide students with the basic skills essential for patient care and to prepare them for the complex processes they will encounter in a medical-surgical course.

Keeping this dominant focus in mind, we wanted to know what additional value nursing faculty can derive from FUN scenarios in SLS (hands-on and VR) to meet clinical judgment goals in a fundamentals course. Along the X axis, a Mann-Whitney test showed that alignment for Chronic Disease Care (Mdn=-0.14, N=56) was statistically significantly different at the alpha=0.05 level from Regenerative Restorative Care (Mdn=0, N=130 U=2865.50, p=0.02, r=0.21). Figure 3 shows that scenarios grouped in regenerative and restorative care can be advantageous in helping students make strong connections between generating solutions and taking actions. Scenarios grouped in chronic disease care can be advantageous in helping students make strong connections between recognizing and analyzing cues, taking actions, and evaluating outcomes.

Figure 3. Alignment Across Groups of Scenarios
Difference network between Regenerative and Restorative Care vs Chronic Disease Care, in which blue connections occur more frequently in the Regenerative and Restorative care scenarios and orange connections occur more frequently in Chronic Disease Care scenarios



Alignment Within and Across Scenario Phases

According to The International Nursing Association for Clinical Simulation and Learning (INACSL) and Standards of Healthcare Simulation for preparation/prebriefing, scenario facilitation and debriefing phases are considered among best practices for simulation education across modalities (Watts et al., 2021). Researchers such as Sharoff (2015), and Sabei and Lasater (2016) have adopted surveying and reviewing approaches to examine the contribution of specific phases for facilitating clinical judgment. We found that the content in each phase across all FUN scenarios in SLS (hands-on and VR) offers a distinctive curricular advantage for faculty to facilitate clinical judgment.

The focal point of all phases is recognizing cues; this is expected broadly in the context of NCJMM Layer 3 but more specifically in the context of fundamentals when students may be practicing this primary cognitive operation in clinical settings. However, Figures 4, 5 and 6 illustrate the strongest alignment for content within each phase when compared to another. Faculty can leverage each phase in the FUN scenarios to help students make connections to competencies in Layer 3. The strongest connections may be orchestrated for cue-based reasonings (i.e., recognizing and analyzing cues) and clinical decision-making (i.e., taking actions and evaluating outcomes). Along the X axis, a Mann-Whitney test showed that the alignment in the Preparation/Pre-briefing phase (Mdn=-0.19, N=73) was statistically significantly different at the alpha=0.05 level from the Scenario Facilitation phase (Mdn=0.34, N=47 U=3069.00, p=0.00, r=-0.79). Along the X axis, a Mann-Whitney test showed that alignment in the Preparation/Pre-briefing phase (Mdn=-0.19, N=73) was statistically significantly different at the alpha=0.05 level from the Debriefing phase (Mdn=-0.06, N=83 U=4287.50, p=0.00, r=-0.42). Finally, along the X axis, a Mann-Whitney test showed that alignment in the Scenario Facilitation phase (Mdn=0.34, N=47) was statistically significantly different at the alpha=0.05 level from the Debriefing phase (Mdn=-0.06, N=83 U=840.00, p=0.00, r=0.57).

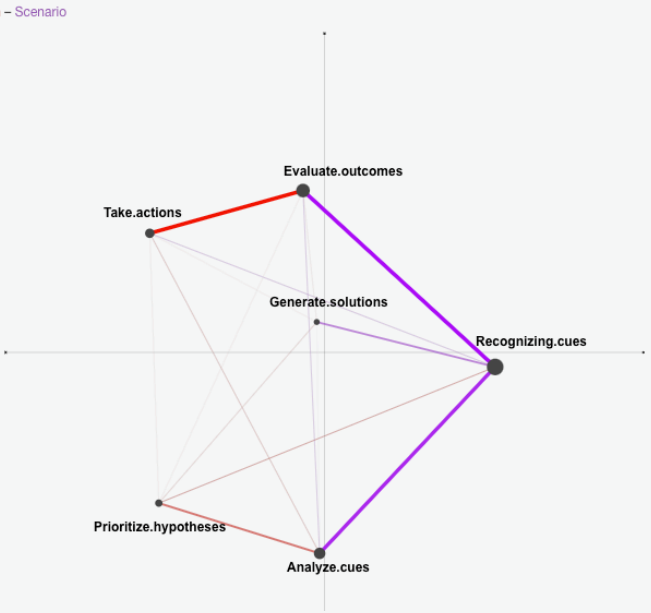


Figure 4. Alignment Within and Across Scenario Phases
Difference network between Preparation vs Scenario phases, in which red connections occur more frequently in the Preparation phase across the scenarios and purple connections occur more frequently in Scenario facilitation phase across scenarios.

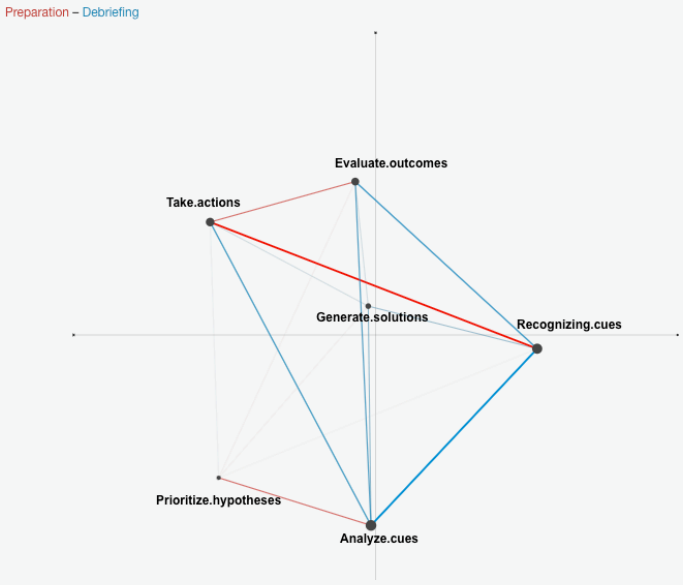


Figure 5. Alignment Within and Across Scenario Phases
Difference network between Preparation vs Debriefing phases, in which red connections occur more frequently in the Preparation phase across the scenarios and blue connections occur more frequently in the the Debriefing phase across scenarios.

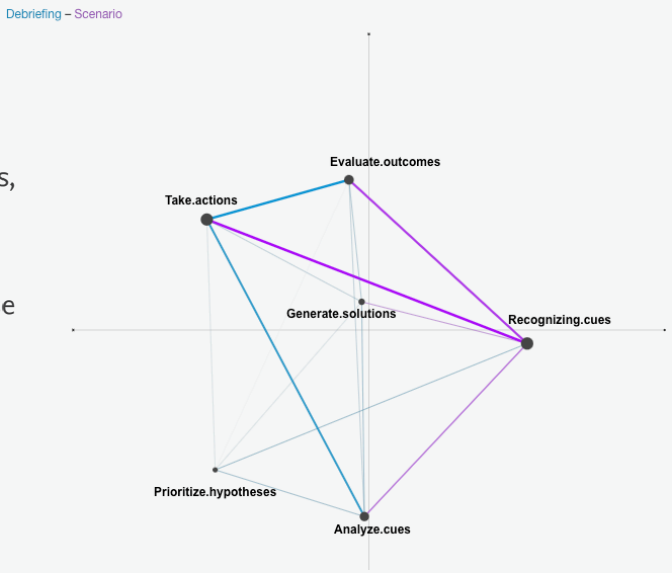


Figure 6. Alignment Within and Across Scenario Phases
Difference network between Scenario vs Debriefing phases, in which purple connections occur more frequently in the Scenario facilitation phase across the scenarios and blue connections occur more frequently in the Debriefing phase across scenarios.

KEY TAKEAWAYS

The need for competency-based education and assessment has gained importance in undergraduate nursing programs because of recent changes in policy and practice. It is crucial that we support faculty in meeting these needs. This study provides a quantitative model of NCJMM Layer 3 in content (Table 1) embedded within twelve FUN scenarios (Table 2) in SLS (hands-on and VR). The alignment or connections reflected in the models (Figures 2 to 6) should be seen as curricular opportunities for cultivating students' knowledge, skills, and attitudes for success as future entry-level nurses. We hope faculty teaching a fundamentals course will use SLS scenarios as their pedagogical partners to:

1. Complement students' clinical experiences.
2. Nurture students' practice of recognizing cues, analyzing cues, prioritizing hypotheses, generating solutions, taking actions and evaluating outcomes.
3. Expose students to (a) restorative and regenerative care, (b) chronic disease care, (c) disease prevention/promotion of health and well-being, and (d) hospice/palliative/supportive care situations.
4. Deepen students' practice of recognizing cues, analyzing cues, taking actions, and evaluating outcomes in patients needing restorative and regenerative and chronic disease care.
5. Scaffold students' clinical judgment competency development strategically during preparation/prebriefing, scenario facilitation and debriefing phases.

FUTURE DIRECTIONS

In this study, the application of the Siebert-Evenstone Alignment Method (SEAM, Siebert-Evenstone, 2020) provided a way to test and model whether and how a planned curriculum is aligned to specific policies and standards. We demonstrated a novel method of assessing NJCMM Layer 3 competencies in content embedded in SLS (hands-on and VR) FUN scenarios. This sets the foundation for many future studies including but not limited to:

1. Comparing planned curriculum within SLS with enacted curriculum by nursing faculty.
2. Assessing students' development of clinical judgment.
3. Investigating the unique contribution of each simulation modality (hands on vs VR) in helping nursing faculty orchestrate clinical judgment development.
4. Examining alignment of SLS content from content areas (e.g., Health Assessment) to NCJMM and/or AACN competencies.
5. Applying the method to examine interactions between content, policy, and discourse in planned and enacted curriculum using other learning solutions (e.g., Shadow Health® Digital Clinical Experiences™).

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