

# Situational Awareness Development in Undergraduate Nursing Students Using Critical Care Simulations

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# Disclosure

- Susan Bartos and Cynthia Bautista – No Disclosures/conflicts of interest
- Fairfield University, Fairfield Connecticut
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# Background

- Situational awareness (SA) is the **perception** of the elements in the environment, the **comprehension** of their meaning, and the **projection** of their status in the near future (Endsley, 1995).
- The Situational Awareness Global Assessment Technique (SAGAT) is an objective measure of SA.
- In times of difficult clinical placement, bringing the ICU to the classroom is an innovative and pragmatic approach to undergraduate education for those interested in pursuing critical care (Bautista & Bartos, 2019).

Bautista, C & Bartos, S, (2019). "Innovative Classroom Upgrade: Simulating an Intensive Care Unit Environment in an Undergraduate Academic Classroom." *Nursing Education Perspectives* , doi:10.1097/01.NEP.0000000000000609.

Endsley, M. R. (1995). Toward a theory of situation awareness in dynamic systems. *Human Factors*, 37(1), 32-64. doi: 10.1518/001872095779049543

# Purpose

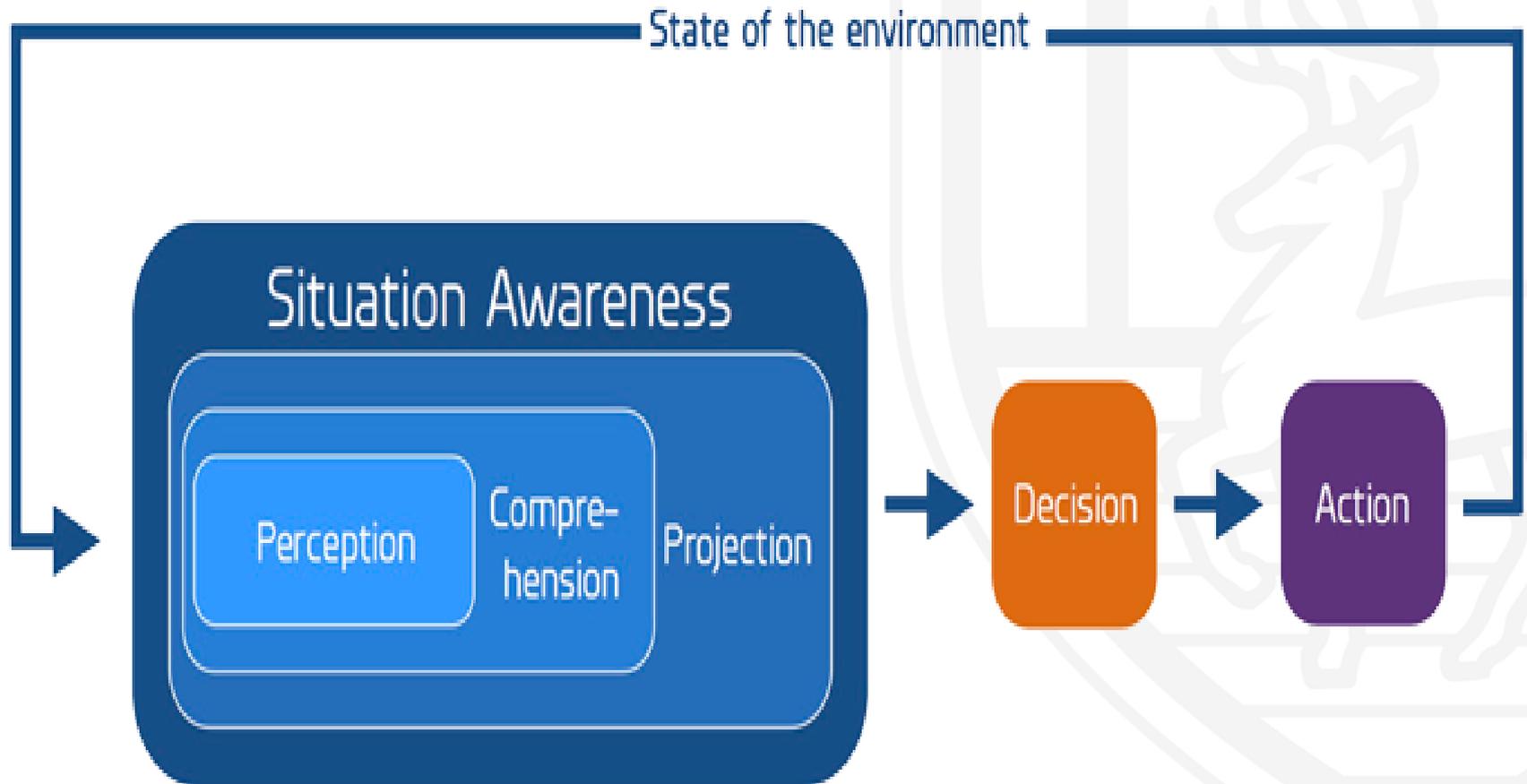
The purpose of this study was to use high-fidelity and best practices in simulation to develop situational awareness in undergraduate nursing students.

# Methods

- Descriptive design
- Jesuit University
  - New England
- Sample: Final semester, senior undergraduate BSN student
- Elective critical care course
- First and last simulation SAGAT scores were used for comparison
  - Students participated in a total of 5 simulations
  - Situational Awareness language was enforced throughout the course

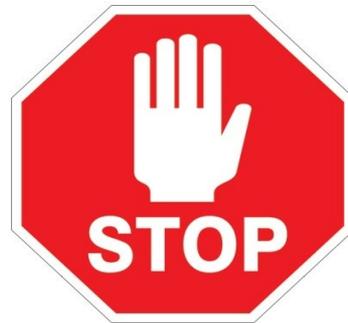
# Intervention

## Situational Awareness as measured by the SAGAT



# SAGAT example questions

- Perception – What do you see?
  - “What is the HR at the moment?”
- Comprehension - What do you understand about the situation?
  - “Is the patient adequately oxygenating?”
- Projection - What will happen if the conditions continue?
  - “If the condition does not improve, what will happen to the HR?”



# Results

	Sim 1 Correctness (n= 73)	Sim 5 Correctness (n=61)	% increase improvement
Perception	2	40	1900%
Comprehension	53	60	13%
Projection	58	32	-45%

# Conclusions

- High-fidelity simulations are a novel and innovative pedagogical approach to develop SA.
- SA is a precursor to clinical decision making and faculty should consider ways to cultivate this attribute.
- Faculty should consider ways of enhancing student projection and anticipating what may happen.