

Case-Based Learning (CBL) Method and Learning Interactive Tools

A Teaching Innovation in Nursing to Enhance Students Active Learning

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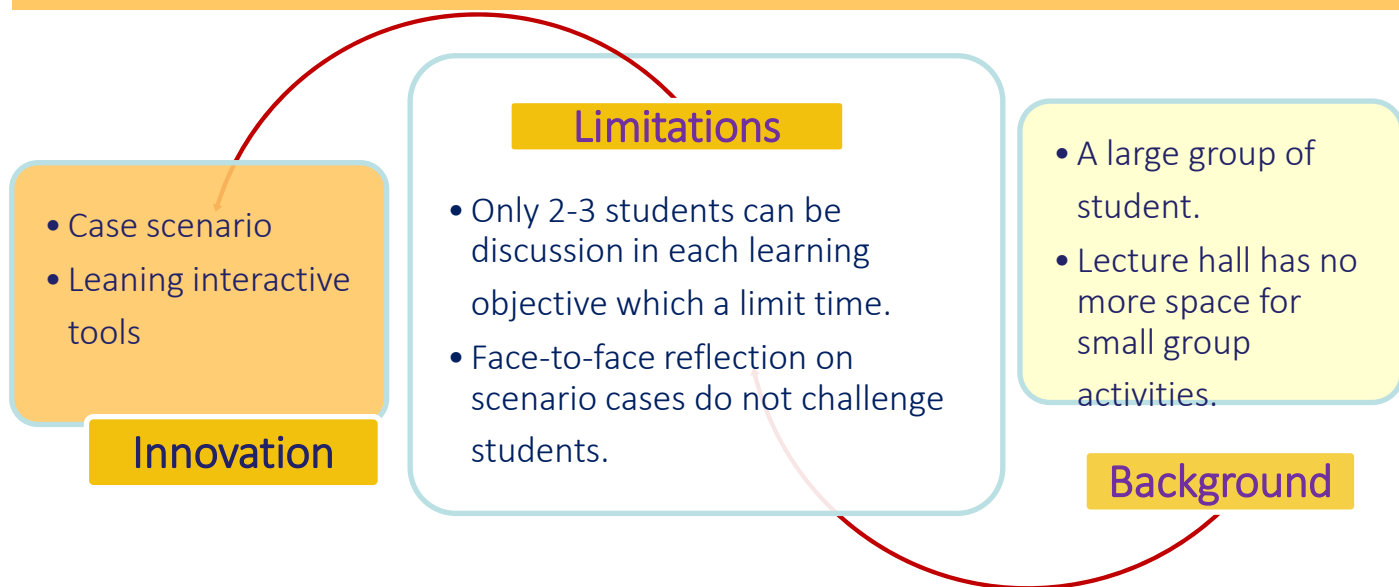
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Background

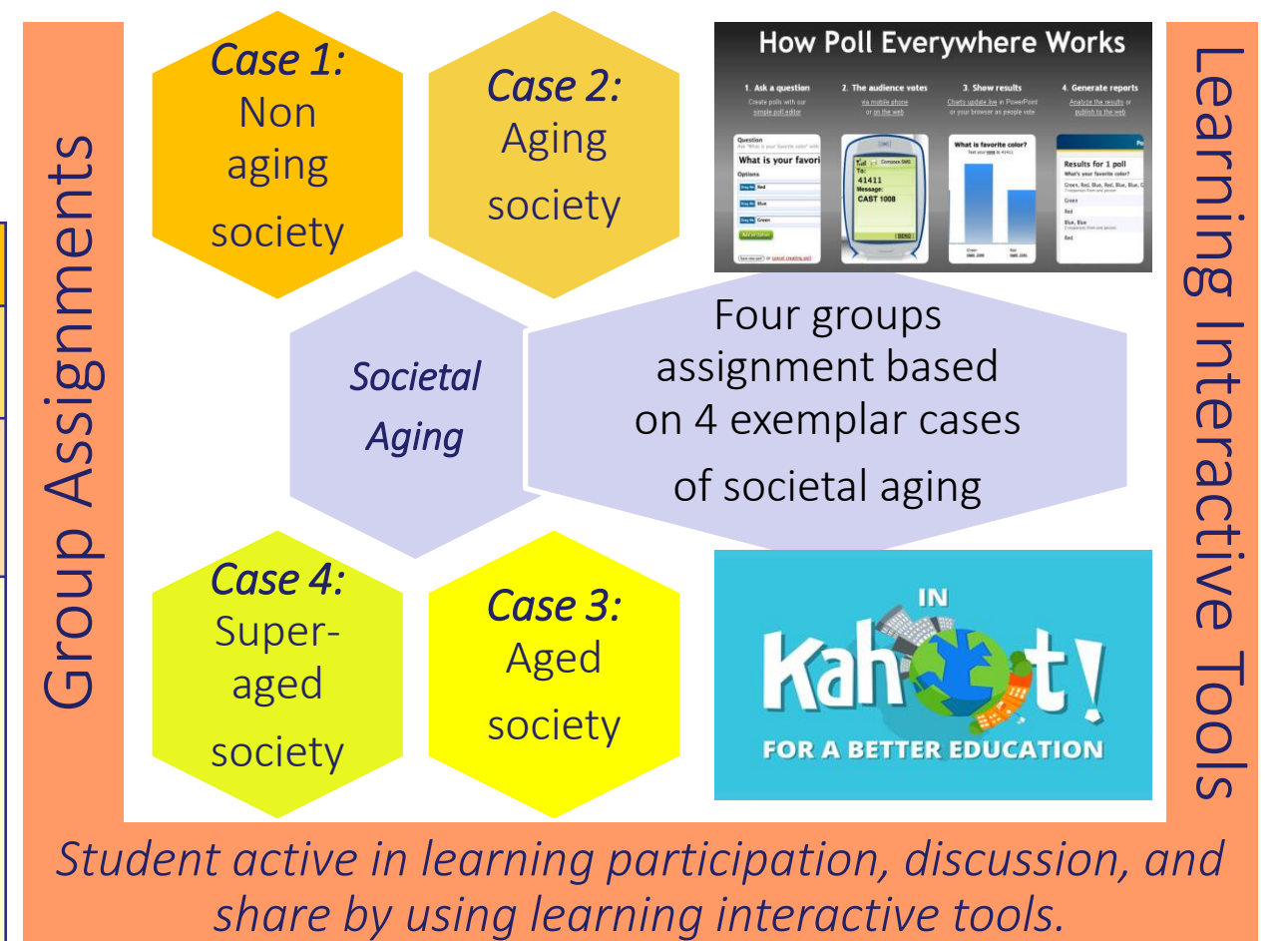
Case-based learning (CBL) has been used in our nursing courses. Despite its enhancing students apply their knowledge to real-world scenarios and promoting higher levels of cognitive learning, we found that in a large nursing class, there were only few students involving in active discussion. In this undergraduate nursing course NUR-225 Health and Illness of Older Adults, the teaching team using CBL pedagogy in congruence with learning interactive tools to reach students active learning.

CBL has a strong history of successful implementation in medical, nursing, and health sciences as well as law, and business school.[1] There are a number benefit to using CBL including of utilizes the integration learning, facilitates the integration of learning, develop student's intrinsic and extrinsic motivation to learn, encourages learner self-reflection and critical reflection, allow for scientific inquiry, integrate knowledge and practice, and supports the development of variety of learning skills.[2]

Teaching Innovation Plan



Components	Module 1	Module 2
<i>Topic</i>	Situation of aging population in Thailand	Geriatrics syndrome: Fall in older adults
<i>Overview</i>	Transitional of aging population, aging indexes, and societal aging.	Fall is one among six common-complex geriatric syndrome.
<i>Expected learning outcomes</i>	<ul style="list-style-type: none"> Develop an awareness of the aging population in Thai context, which includes the transitional of, challenge, impact, and preparation societal aging. Determine five indicators of aging indexes. Classify three levels of societal aging by using aging indexes. 	<ul style="list-style-type: none"> Identify physiological, psychological, cognitive, and environmental risk factors of fall in older adults. Differentiate low, moderate, and high risk levels of fall using Thai Falling Risk Assessment Test (Thai-FRAT). Judge effectiveness of fall risk prevention protocols, and methods.
<i>Pedagogy</i>	Paper-based scenario-4 exemplar cases	Paper-based scenario-4 exemplar cases
	Case 1: Non aging society Case 2: Aging society Case 3: Aged society Case 4: Super-aged society	Case 1: No risk of fall Case 2: Low-to-moderate risk Case 3: High risk of fall Case 4: Experienced of fall
<i>Methods</i>	Paper-based scenario; paper sheets of given number (percent) of population aged 0-5, 6-14, 15-59, 60-64, and ≥65 years old in four communities exemplar; and video on Thai aging population.	Paper-based scenario; paper sheet of Thai-FRAT; video case exemplar of fallen; video case exemplar on balances training, and fall risk prevention strategies; and clinical practice guidelines on fall risk prevention.
<i>Learning assessment</i>	<ul style="list-style-type: none"> Students discussion and make conclusion on transition, challenge, impact, and self-preparation for societal aging. Students list of aging indexes and determinant. Based on 4 exemplar case, students classify level of societal aging. 	<ul style="list-style-type: none"> Students list by grouping physiological, psychological, cognitive or environmental risks. Students using Thai-FRAT to assess and differentiate whether the four scenario case are at low, moderate, high risk, or no risk of fall. Students competition by choosing the correct answer.
<i>Learning interactive tools</i>	PollEveywhere Kahoot Group discussion	PollEveywhere Kahoot Group discussion



Conclusions

Based on case-based learning (CBL) and learning interactive tools we implemented, we have learned that how students engaged in their active learning. They enjoyed the method. Paper based scenarios and video cases exemplar stimuli students cognition and emotion. All of them could be interaction, discussion, share, and learn from each others. By using Polleveywhere and Kahoot, students can share their knowledge, though, inquiry, feeling, emotional, and experience. By the way, we made conclusions linkage to the expected learning outcomes.

References

[1] Herreid CH. Case studies in science: a novel method of science education. J Res Sci Teach 1994;23(4): 221-9.
[2] Williams B. Case-based learning-a review of the literature: is there scope for this educational paradigm in prehospital education? Emerg Med 2005;22: 577-81.