



University of Maribor

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Faculty of Health Sciences

# **SELF-ASSESSMENT OF PROBLEM-BASED LEARNING BY NURSING STUDENTS**

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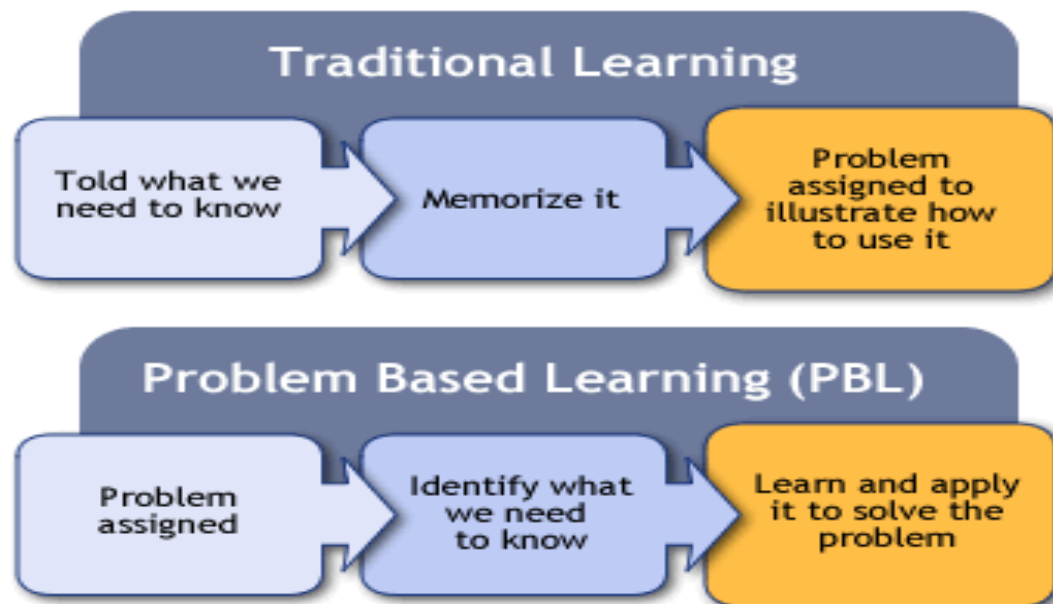
# Introduction

- Changes in nursing require from nurses independence and the ability to take appropriate decisions (Billings & Halstead, 2009).
- One of the objectives of nursing education is also to reduce the gap between theoretical concept and nursing practice (Tiwari et al., 2006; Etheridge, 2007).



# Introduction

- Problem-based learning represents an educational paradigm from traditional to student-oriented teaching and learning.





# Introduction

Learning based on problem solving develops:

- Communication skills
- Problem solving skills
- Teamwork skills
- Leadership skills
- Integration into the clinical environment



# The aim and hypothesis

The purpose of the study was to determine how nursing students are satisfied with problem-based learning.

H1: Part-time students of nursing are more satisfied with problem-based learning than full-time students.

# Methods

- Quantitative research methodology.
- Structured questionnaire (Yuan et al., 2011) – 20 items
- 5 dimensions (construction of professional knowledge, development of problem-solving skills, development of self-directed learning, improvement of motivation, promotion of effective group collaboration).
- 5-point Likert scale
- Cronbach  $\alpha = 0.953$ .
- descriptive statistics, t-test and correlation analysis

# Sample

- 196 nursing students
- 101 (51%) first year; 92 (47%) second year
- 146 (74%) full time; 47 (26%) part time
- 18 (9 %) employed in the healthcare sector, 176 (90 %) were not



# Results

Problem based learning evaluation	$\bar{x}$	SD
Construction of professional knowledge	4,36	0,56
Development of problem-solving skills	4,3	0,69
Development of self-directed learning	4,26	0,69
Improvement of motivation	4,26	0,71
Promotion of effective group collaboration	<b>4,42</b>	0,65
<b>TOTAL</b>	<b>4,29</b>	<b>0,57</b>





# T-test

Problem based learning evaluation	t	p
Construction of professional knowledge	-1.194	0.234
Development of problem-solving skills	-1.010	0.314
Development of self-directed learning	-0.418	0.676
Improvement of motivation	-1.605	0.110
Promotion of effective group collaboration	-0.384	0.701
<b>TOTAL</b>	-0.818	0.414



# T-test

Problem based learning evaluation	t	p
Construction of professional knowledge	2.180	0.52
Development of problem-solving skills	2.197	<b>0.029</b>
Development of self-directed learning	4.443	<b>&lt;0.001</b>
Improvement of motivation	1.493	0.121
Promotion of effective group collaboration	1.699	0.91
<b>TOTAL</b>	<b>2.377</b>	<b>0.018</b>

# t-test and correlation analysis

Variables	n (%)	$\bar{x}$	p
<b>Gender</b>			
Male	22 (11.2)	4.32	p=0.998*
Female	174 (88.8)	4.32	
<b>Study type</b>			
Full-time	146 (74.5)	4.29	p=0.414*
Part-time	47 (25.5)	4.38	
<b>Healthcare employment status</b>			
Yes	18 (9.3)	4.62	<b>p=0.018*</b>
No	176 (90.7)	4.28	
<b>Age</b>			
Minimum	19	4.23	<b>p=0.006**</b>
Maximum	42	4.90	
Average age	21.2		



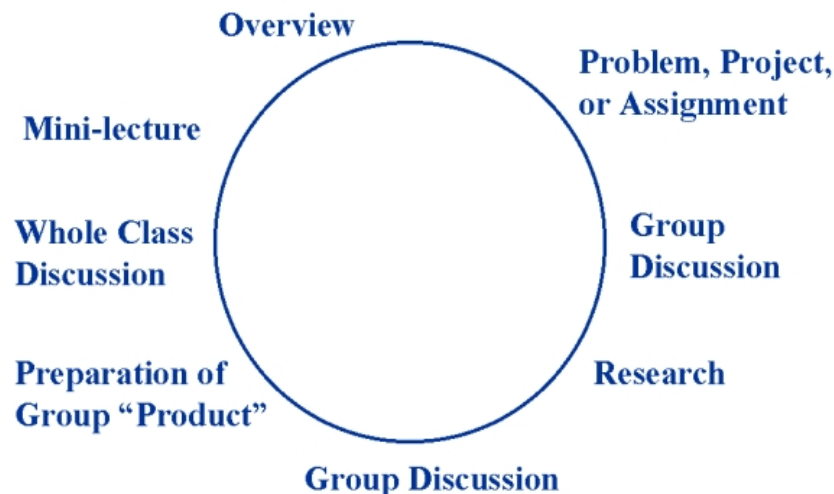
# Discussion

- Average values are high (4.26 from 5).
- Students recognize: effective learning, active cooperation, team-work, improvement of communication skills, identify own learning needs, transfer of theoretical knowledge in nursing practice).
- Students' difficulties are: lack of knowledge and information, difficulty in finding literature, non-cooperation or not-equal cooperation, selection of students in a group.



Problem based learning promotes independent and individual learning, group work, improves motivation and communication skills.

### **The Problem-Based Learning Cycle**





**Thank you for your attention**