

# Development and Evaluation of Reflective Program Using Concept mapping for Clinical Nurses

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## Introduction

• Using concept mapping strategies have been used to help student nurses to achieve desired nursing competency, but their effectiveness has not been examined for clinical nurses.

• Adults learn effectively through using their own experiences and knowledge(Mezirow, 1981), and reflection is important enhancing competency education method for nurses.

• Self-regulated learning theory(Kuiper, 1999) is composed of behavioral, environmental, and metacognitive self-regulation. These three components enhance self-regulated learning leading to improve interpretation, inference, explanation, and evaluation. In addition, self-regulated learning is a process of reflection.

• Concept mapping is a good reflecting method to show complicated situation like fever management of cancer patients. Thus, using concept mapping for reflecting nursing experiences based on self-regulated learning theory can improve their nursing competencies.

### AIM

Develop a reflective program using concept mapping on clinical nurses.

Evaluate the effect of a reflective program on competency of clinical nurses.

### Methods

• Experimental research and comparisons within one group in different times using paired *t*-test were made. The same group did nothing for the first three weeks, and the group applied a reflective program for next three weeks.

• Each time had checked of nursing core competency scales(Lee et al, 2010) and reflective learning continuum score(Peltier, Hay & Drago, 2005).

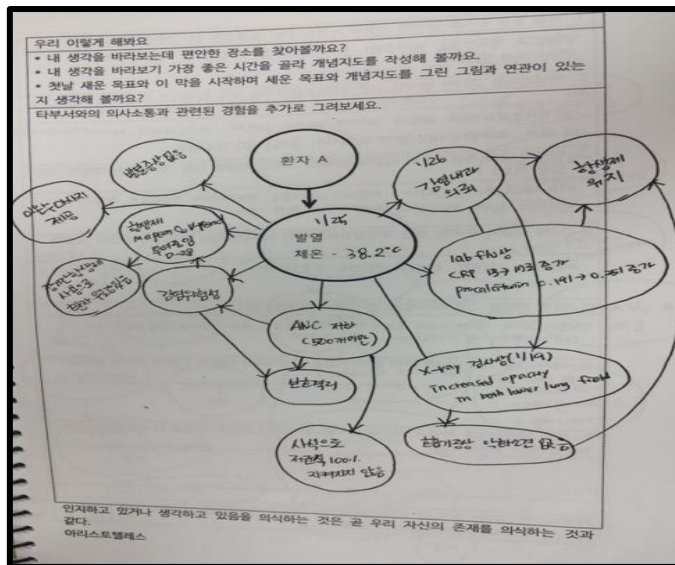
• Nursing core competency scale has 5 domains and those are Human understanding and communication, Professional attitude, Critical Thinking, General nursing performance, and Special nursing performance. High score means having good nursing competency.

• Reflective learning continuum is presenting level of reflection. High score means high level of reflective learning.

• In 2015, total of 19 clinical nurses in two different hospital in Korea were participated.

• The reflective program was consulted by a professor in nursing, nurses, educators, and graduate students.

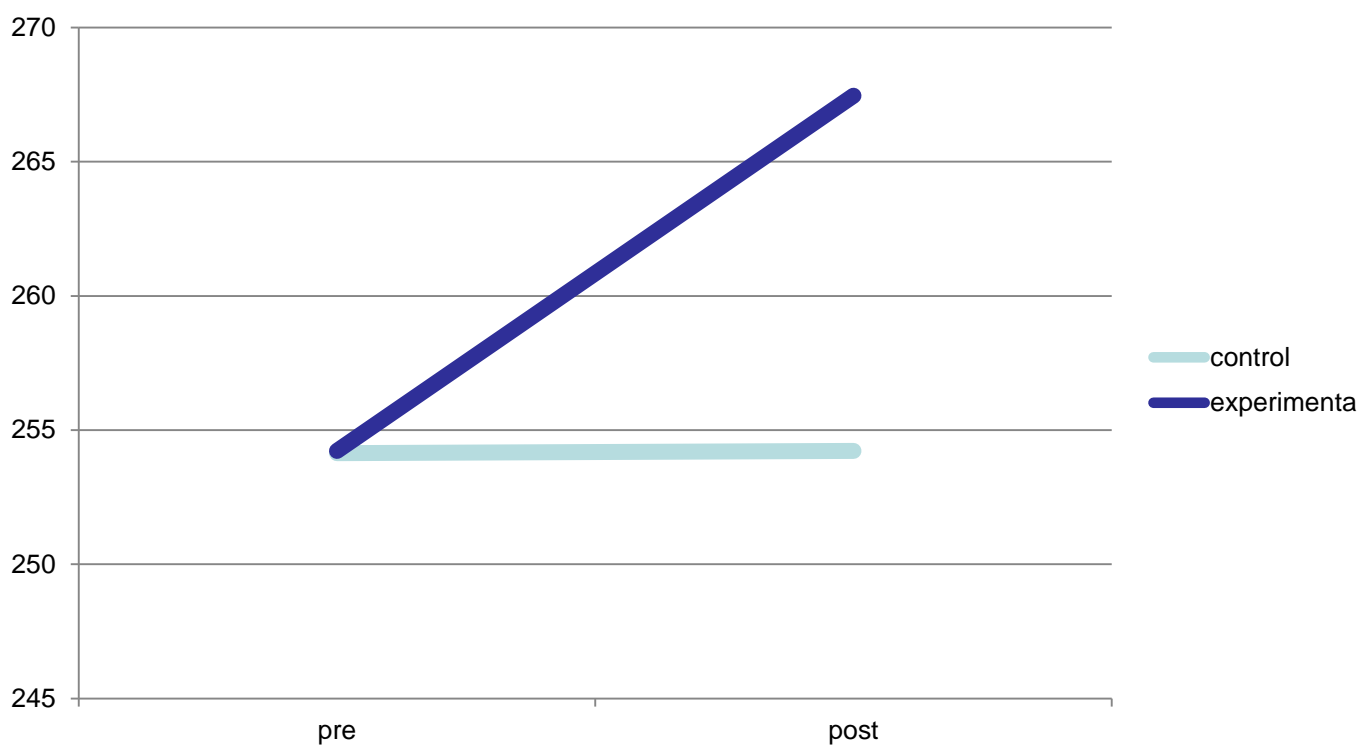
## Reflective Program



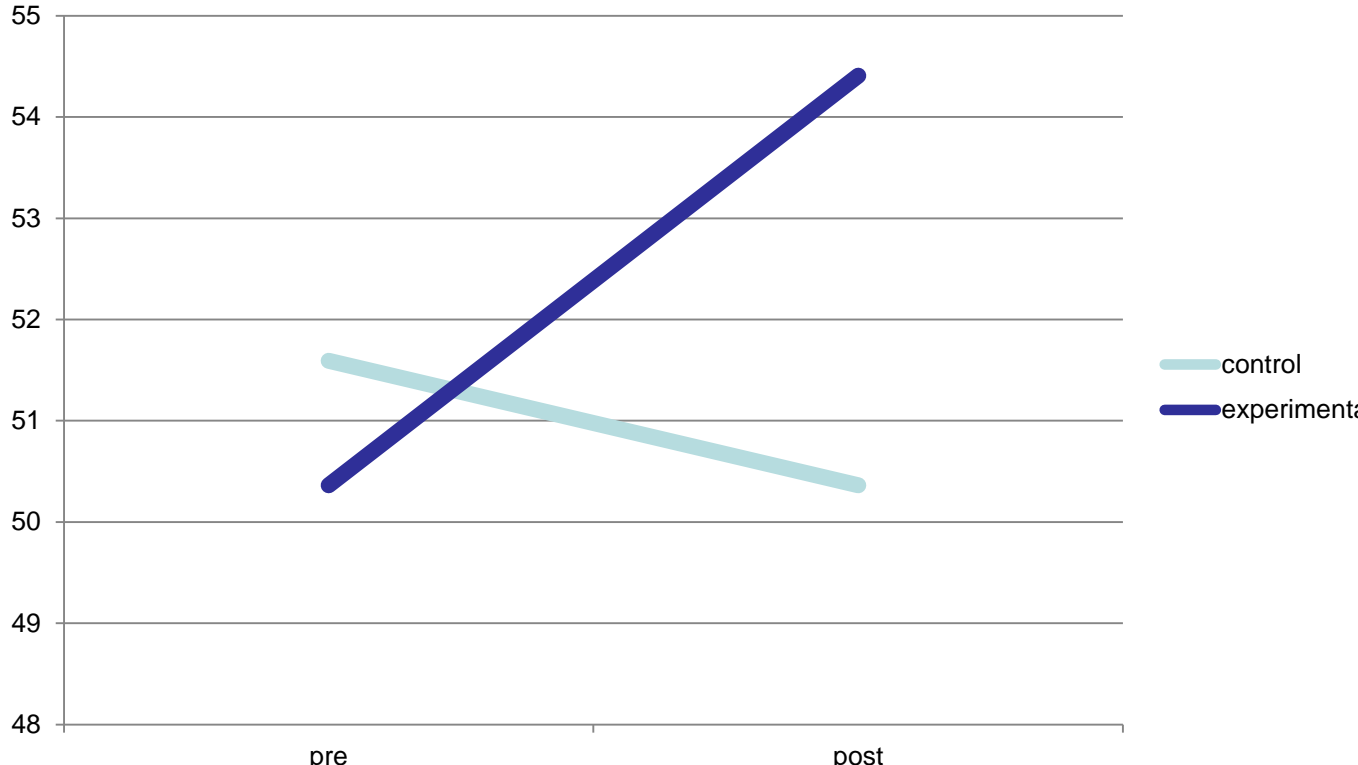
- **Concept mapping + Reflection Diary**
- **6 Episodes for 3 weeks**
- **Each episodes have goals based on self-regulated learning theory**
- **Episodes components : 1<sup>st</sup>-Finding own nursing pattern, 2<sup>nd</sup>-With coworkers, 3<sup>rd</sup>-Interacting with multidisciplinary teams, 4<sup>th</sup>-Making Rapport with patients and families, 5<sup>th</sup>-Finding new Information, 6<sup>th</sup>-Finishing**
- **Reflecting on one fever management of cancer patient after shift's over & sharing with colleagues**
- **Thinking every possible concept of the fever patients and drawing concept mapping freely**
- **Group mapping on 2<sup>nd</sup> reflecting episode**
- **Group mapping - Using Ward Conference, Gathering individual into groups, Applying Concept mapping and Reflection diary**
- **Self-regulated learning related reflection diary questions**

## Outcomes

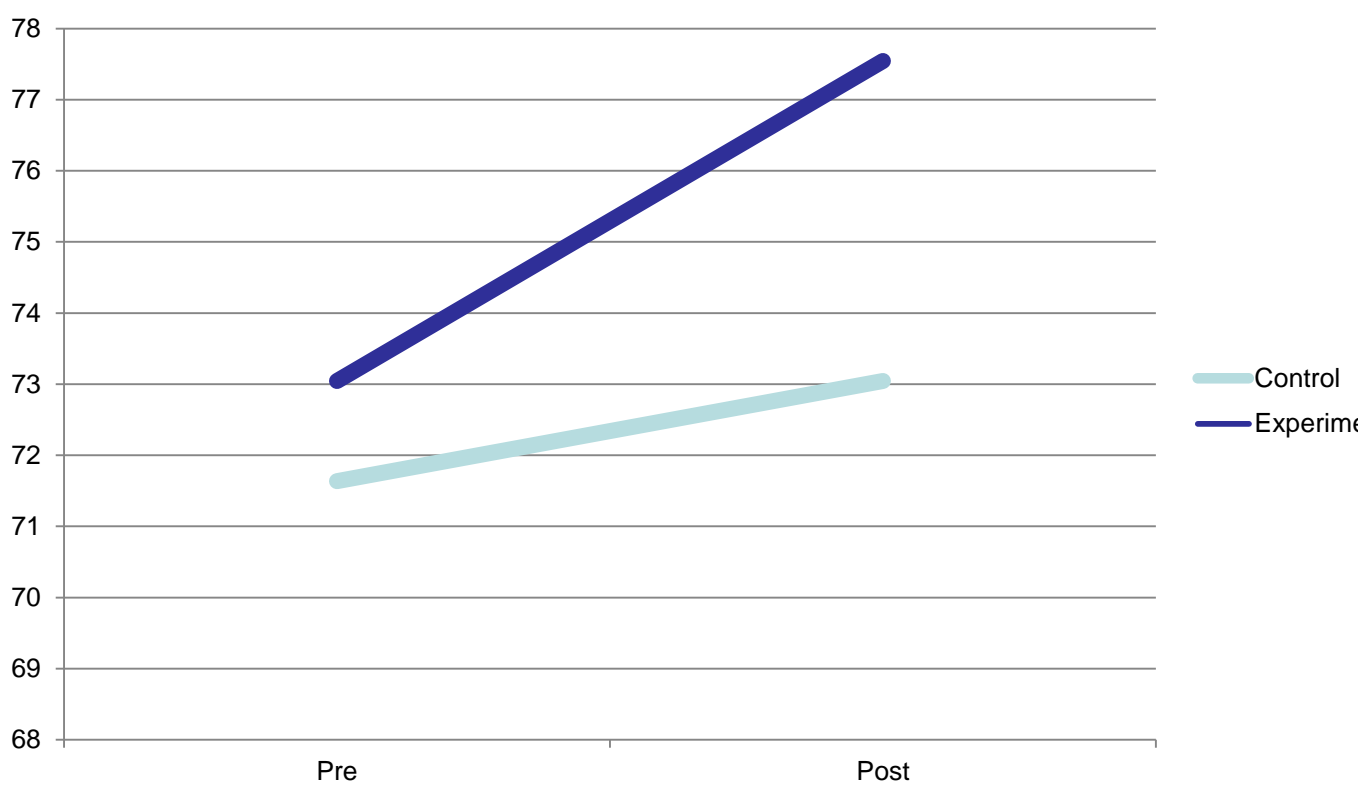
### Nursing Competency Score



### Critical Thinking score



### Reflective Learning score



### Mean Difference

	<i>t</i>	<i>p</i>
<b>Nursing Competency</b>	2.139	.038*
<b>Human Understanding and Communication</b>	0.897	.375
<b>Professional Attitude</b>	1.292	.207
<b>Critical Thinking</b>	3.707	.001*
<b>General Nursing Performance</b>	1.19	.241
<b>Special Nursing Performance</b>	1.569	.124
<b>Reflective learning</b>	2.143	.038*

## Conclusion

• Reflective program is composed of concept mapping and reflective diary using clinical experiences based on self-regulated learning theory.

• Reflective program using concept mapping is one way to improve nursing competencies and reflective learning for clinical nurses.

• The results indicate that concept mapping can be used as an educational method of increasing Critical Thinking skill for clinical nurses.

• This program can be implemented especially for nurses who have to adapt to a new ward as well as ward conference with case study.

• The reflective program using concept mapping is supposed to be continued with reflective program on clinical nurses for a long period of time.

## Bibliography

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