

# SIMULATION METHOD IN THE DEVELOPMENT OF HOSPITAL PHARMACY'S PROCESSES

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## BACKGROUND

As resources grow tighter we must take care of the occupational wellbeing of personnel. Work strain may be diminished by eliminating unnecessary and ineffective process parts. **Processes are developed so that "you don't need to run faster but walk a shorter distance"**. This requires time and resources for development work.

The goal for systemic development is to bring life and meaning to Standard Operating Procedures, process diagrams and quality requirements thus creating real commitment and motivation for work. From process development's perspective it is imperative that everyone understands not only his own role but also the process as a whole.

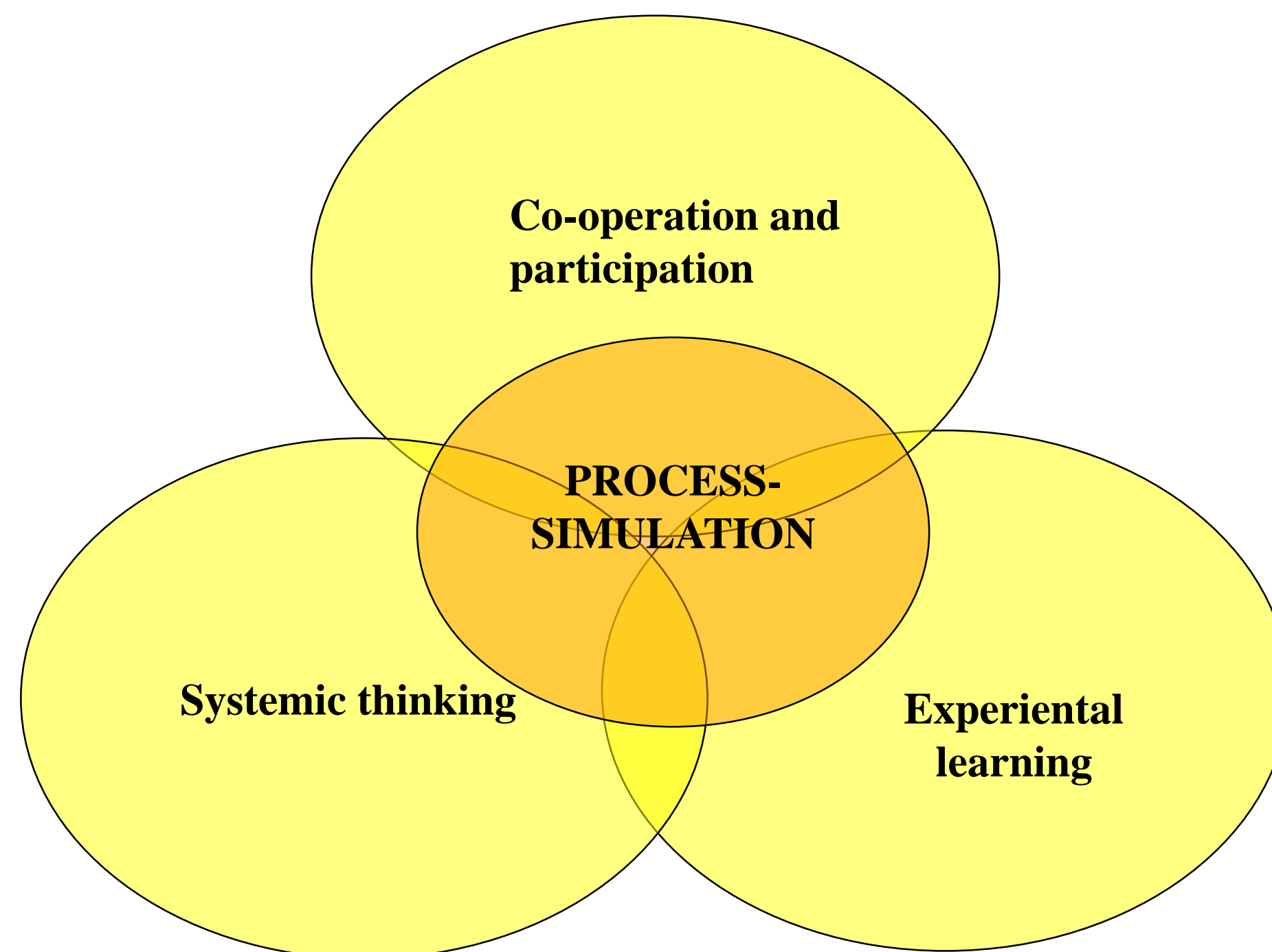
## METHOD

"Simulation game" is a tool for process development designed by the Helsinki University of Technology. The purpose of the game is to find bottle-necks and development opportunities. In a process simulation case studies are used to demonstrate the flow of information and materials within the work process.

**The method was applied in the development of two different processes in HUS-Pharmacy.** In May 2013 simulation method was used with the staff of the medicines dispensing unit in Helsinki and in September 2014 the work was continued in the cytotoxic medicines' unit.

For both simulation days we chose a real case in which the process had gone wrong and patient safety improvements were needed. The day was started by going through the case so that each occupational group's representative explained their role in the case. The representatives were interviewed beforehand so that important details were not forgotten to be addressed.

After the case reports all the process phases were analyzed and discussed as to how the work could be made more fluent and get rid of interruptions. The bottle-necks and obscurities were documented on the papers on the walls. A simulation day report was written where the actions agreed during the simulation day were documented. Feedback regarding the simulation day was collected from the participants.

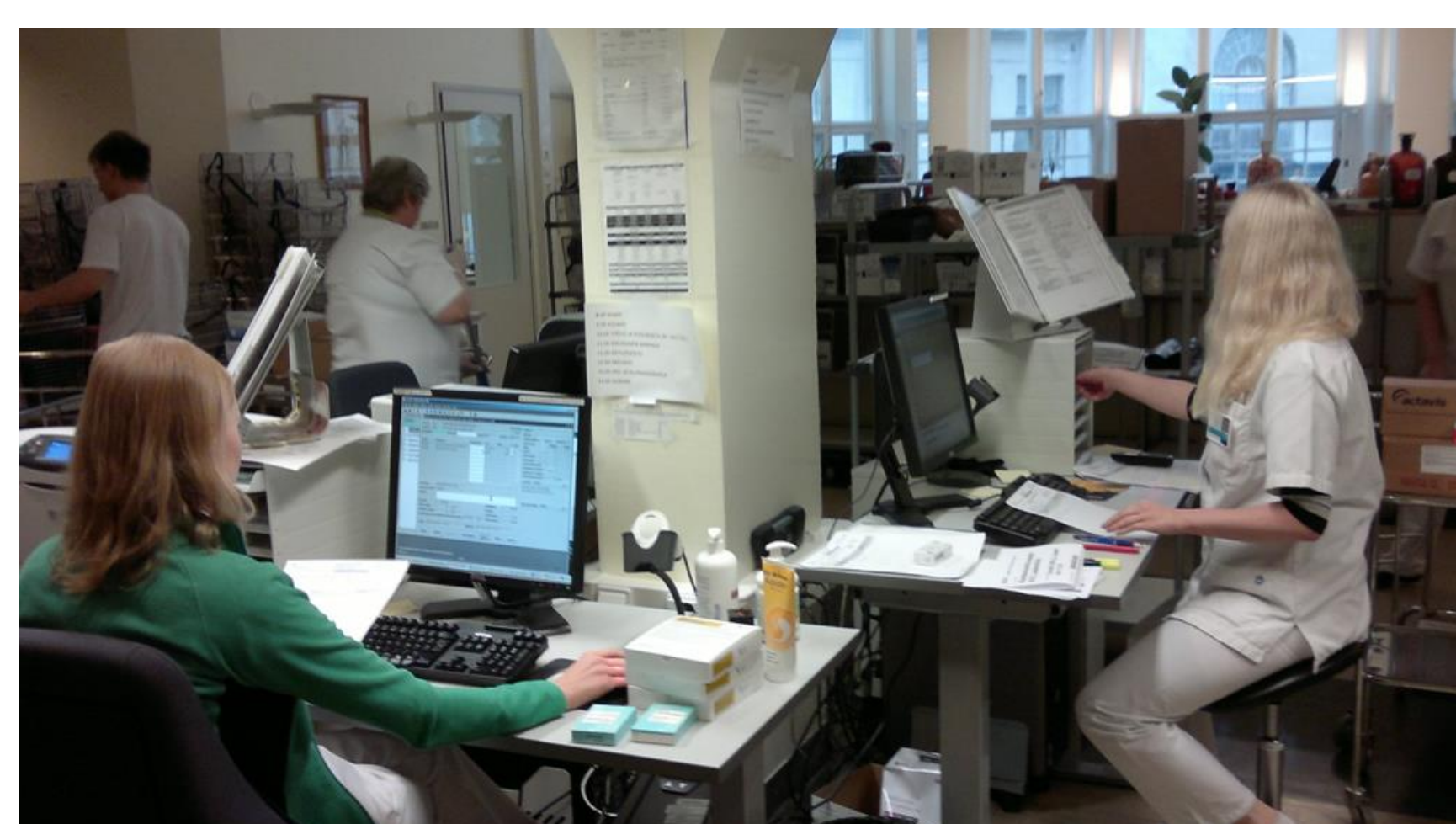


## OBJECTIVE

**The objective for both simulation projects was to develop HUS-Pharmacy's processes by listening to and involving all occupational groups as well as by utilizing the professional know-how of the personnel.**

The objective was to increase medicinal safety, to remove non-value-adding work, to increase occupational well-being and to create a learning organization.

**All occupational groups participated and influenced actively in the development of their own work**



HUS-Pharmacy Helsinki dispensing unit's layout before and after the simulation "game"



## RESULTS

Both days produced many small and larger development points and decisions on standardized work and best practices. Visible changes in everyday work were accomplished during the simulation days. For example the layout of the cramped dispensing unit was redesigned and reorganized.

According to a survey performed amongst the participants, the implemented changes had had an effect on their own work. The results of 2013 occupational wellbeing survey had developed positively for both the working ability as well as the overburden indexes compared to 2012:

- working ability index 3,45->3,68
  - overburden index 2,75->3,12 (scale 1-5; 1 very bad, 5 excellent).
- Development work continues.

### Open responses from the survey:

"The best way to work I've ever seen"

"It was very good to hear experiences and job descriptions from different professional groups. And good that the common "rules" were decided"

"The method is a very good way to notice possible shortcomings and different ways of working. The atmosphere during the development day was nice and I feel that it was very useful to me personally." "Just great! More of these 😊"

## CONCLUSIONS

Simulation method may be utilized diversely in the development of different functions for example as a starting point for change processes. Simulation method may act as an easy way towards implementing Lean-philosophy in the development of processes by involving and considering the know-how and input of the whole personnel in the flow of processes.