Development of a ludo-pedagogic training programme for the management of a robotised system for cytotoxic compounding

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Game-based training: play instead of reading boring procedures!

Introduction

Why developing this training?

Robot issues
- Recurring problems

Operator issues
- Disparity in training/knowledge
- Loss of motivation

Robot not fully used

Material & Methods

Survey about the knowledge of the operators on the robot

Before
Training in teams
Right after
Six months later

1 team = 1 mentor + 1 apprentice

Creation of the educational strategy

1. Understand the circuit
- Knowing the steps → game 1
- Knowing the criteria for using a molecule with the robot → game 2
- Knowing how to handle errors during production → game 3

2. Be autonomous (practical exercise)
- Peyton method:
  - The mentor is the trainer for the apprentice
  - The real trainer becomes an observer and is ready to help/give feedback

The robot challenge!

Game 1: Prégent cards
Manufacturing steps are printed on cards to put back in the right order. Teams confront their answers.

Game 2: Pokémon\textsuperscript{®} cards
Molecules and their specificities are on cards. Teams guess if the molecules can be used with the robot and why.

Game 3: Who wants to be an Operator?
Four answers are suggested for an error. Teams collaborate to give the correct answer.

Results

Effect of the training on the knowledge about the robot (means on 0-24)

- Before: 13.5
- Post Training: 18.5
- Six months later: 18.4

p<0.005

n=14 operators

Conclusion

- Short/playful training appreciated by the operators
- Improvement of knowledge with a remanence until 6 months