

The Smurfs: Miloš, Gurpreet, Patrick, Zach

Hadron Therapy Tech

- * Levels (Novice → Advanced)
- * Difficulty (Simple → Complex)

→ Control

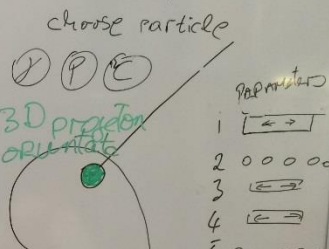
→ Beam (Energy, Position, Type)

→ Accelerator (Magnets, etc.)

→ Imaging (PET, CT, MRI)

→ 3D imaging of organs with explanations.

FUN
SUCCESS



COLLABORATORS

LIVIA ANNE RIGONDA THOMAS

SUBJECTS

IMAGING
CT/PET

TREATMENT
PLAN

DIGITAL

GAME

ADVENTURE
STRATEGY

LEVEL I
II

DIAGNOSIS
TREATMENT
TEACHER

CLASSROOM



Level 1

① Build Medical Physics Facility

- * Provided with annual fund
- * Students buy parts eg CT scanner
- * Construct different areas in CC (parts given)
- * Discount for parts if a test (If incorrect → points lost)

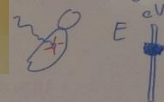
Level 2 Competition

- * Two hospitals compete to save the most patients.
- * Student selects the dosage/energy/location of markers/angles of gantry/treatment type/number of sessions.
- * Hospital receives more money for surviving patients.

different difficulty levels:
- difficult quiz
- yields bonus pts
- more bonus pts
→ higher cure rate
→ more funds

Scott, Miko, Silvia, 'Nando

particle energy: given imaging ailment, adjust energy



- Hadron treatment (energy deposit)
- How +/- particles are accelerated
- Future possibilities?

C. Control room: Given particle E arrange synchrotron and beam
↓ E fields, dipoles, quadrupoles
Assemble parts?
(like LHC control room)

3) A) Imaging: Assign ailment
lung brain pancreas etc...

choose appropriate imaging

PET e^+ etc...
0 0

D. R&D - arrange raw age laser propulsion detector?

Note: Each part (A,B,C,D) could have different levels of achievements. Each could be