Improving Time Management for students through the use of an educational game

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Why?

- Why time management?
  - The poor time management skills of Hong Kong students have raised many problems in meeting deadlines
- Why a game?
  - It helps students to learn a skill as they play, this way of learning is attractive and interesting

Objective: for Teachers

- The teaching materials can be distributed easily
  - through CDs or Internet
- Students can learn during the time outside class
- Performance can be reviewed easily
- A type of management practice which is hard to imitate in classroom can be achieved

Objectives: for Students

- The multimedia techniques are interesting to encourage students' learning
- They can practice more their time management in environment
- Their performance are shown and stored in the game which can be retrieved easily
- They can adjust their learning pace

Agenda

Analysis of necessary features

↓

Design of the game

↓

**Implement demo version** ——— Current status

↓

Testing, debugging, & evaluation

↓

Final version and evaluation

Analysis of Features

- The game should:
  - Have content which should be measurable
  - Be configurable for different machines
  - Have user-friendly functions for basic operations
 - Give tasks which are easy to understand

Analysis of necessary features
Design of the game
Implement demo version
Testing, debugging, & evaluation
Final version and evaluation
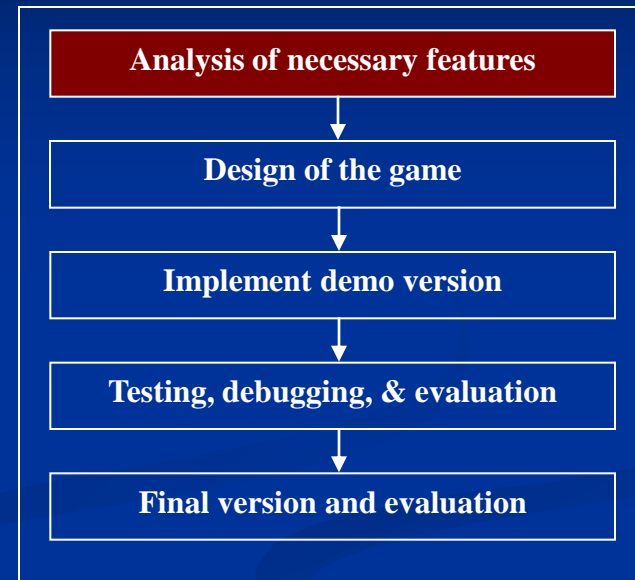
Overview – Design of the Game

1. Game Engine & Software
2. Story Design
3. Progress Logs for Players
4. Teaching Material in the Game
5. Examination and Application

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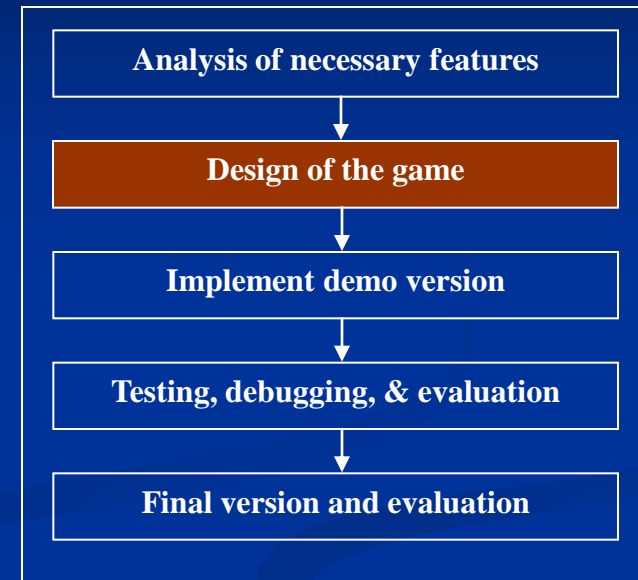
1. Game Engine & Software

- Engine - *RealityFactory*
  - import models and scenes
- Character modeling software – *Milkshape*
- Texture generation – *GIMP*, *LithUnwrap*
- Terrain generation – *GMax*
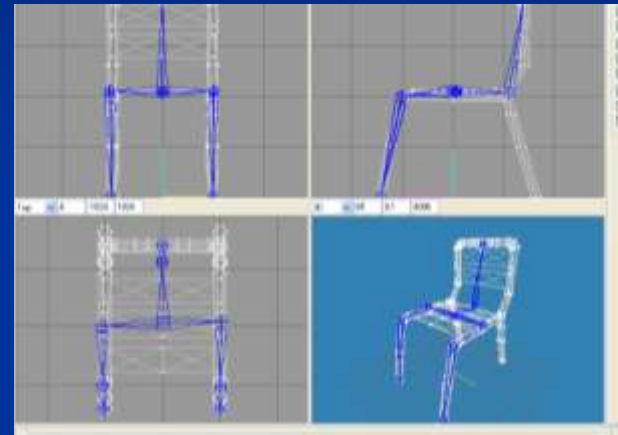
- Most of them are open source software – **Free**!

2. Story Design

- Story criteria:
    - It is related to daily student life
    - It needs to be interesting and understandable to most players
- Therefore, a typical undergraduate student becomes the main character

3. Progress Logs for Players

- **Progress Indicators**
  - Reviewing previous performance
  - Display four main attributes
    - health, concentration, relationship, and knowledge.
- **Difficulty Levels**
  - A new level contains more challenging tasks

4. Teaching Material in the Game

- A game is very different from typical teaching materials. E.g. notes, speech, and PowerPoint presentations.

- The game converts those information into accepted game format. For example:
    - Rules and theories → conversations
    - knowledge acquired from characters
    - Speech → television programs in the game
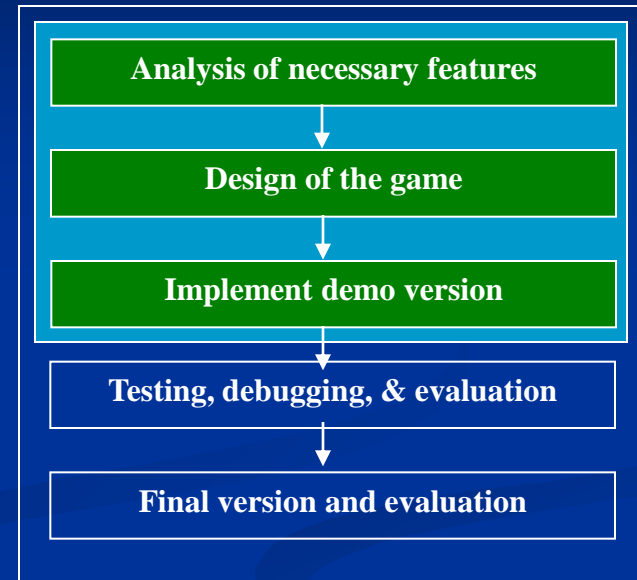
5. Examination and Application

- Examination
  - Provides questions before the difficulty level changes
  - Contains content acquired from the game or basic knowledge about time management
- Application of time management
  - Time is limited for each task
  - Players need to achieve certain goals within a time range
  - This situation imitates real life problems with deadlines

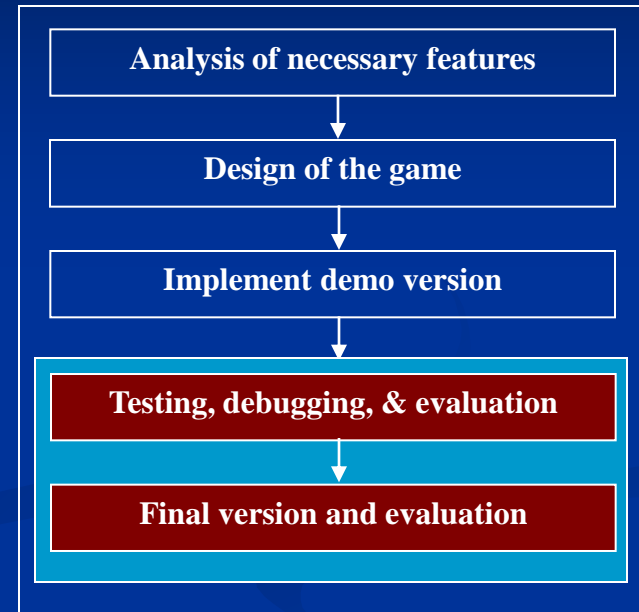# Demonstration

- Let's see the game demo

Current Status

- Designed and tested the essential functions and software
- Implemented some scenes for the demonstration
- Drawn the basic GUI
- Imported a few characters for the game
- Programmed simple interactions among characters and the player

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Future Development

- More characters and scenes
- More contents and teaching materials
- More interactive activities among the player and models in the game are necessary
- More difficulty levels
- A user manual

Analysis of necessary features
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Finally

- Q&A

The End

- Thanks!