BIRZEIT UNIVERSITY

Computer Science Department

SERIOUS GAMING –COMP2331

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<<Project 2 : Star Hunter>>

<<Section Num : 1>>

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Chosen Learning Skill

The chosen learning skill for this game is basic mathematics
The game helps children practice the main math operations in a simple and enjoyable way

- Addition

- Subtraction

- Multiplication

- Division

The game is designed for children aged 7 to 12 years
Questions start easy and become harder over time, helping children improve their math skills through repeated practice while having fun

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How the Gameplay Mechanics Support Learning

Learning is directly built into the gameplay.

- A math question appears at the top of the screen

- Four stars appear, each showing a possible answer

- The player moves the character to collect the correct answer

Immediate feedback helps reinforce learning:

- Correct answer:

  o Points are awarded

  o Positive sound and visual feedback are shown

- Wrong answer:

  o One life is lost

  o Error sound and visual feedback are shown

The game also uses progressive difficulty, where:

- Early levels include simple questions

- Later levels introduce harder operations

This approach helps children learn gradually without feeling overwhelmed.

Win and Loss Conditions

Winning conditions:

- Answer 15 questions correctly before time runs out

- Win before losing all lives

When the player wins:

- Final score is displayed

- Accuracy percentage is shown

- Highest level reached is presented

Losing conditions:

- All five lives are lost

- The 90-second time limit expires

After losing:

- A game over screen appears

- Final results are shown

- The player can retry or return to the menu

Motivation Elements Used

Several elements are used to keep players motivated:

- Points are earned for each correct answer

- Bonus points are given for finishing quickly

- A progress indicator shows completed questions

- Level progression gives a sense of improvement

- Positive sounds and visual effects encourage success

Mistakes are handled gently:

- Losing a life does not reduce points

- Players are encouraged to try again without fear