**Project– Designing a Game for an End-User**

**Taking You Through the Applied Design Stages**

As you design and program, you are going to complete some of the Applied Design stages. By following the steps below and answering the questions, your project will be better planned, better designed and better implemented.

You will revisit these Applied Design stages throughout the course.

Your task is to create a computer game for an end-user (a friend, classmate, teacher, relative, etc). You can create a program similar to Rock-Paper-Scissors or similar to some type of dice or simple card game that you maybe have encountered before (you can use similar rules, similar game play, etc). “War” is an interesting card game that you could alter for this purpose and “Pig” is an interesting dice game. You can read the rules for each of these online.

You will first learn about and understand the interests/likes/passions/hobbies of your end-user by interviewing them and asking them questions. You will then, in collaboration with the end-user, decide what type of game you are going to create and what type of changes you might make to an original Rock-Paper-Scissors, card or dice game.

Some examples that you and your end-user might want to change include:

* Different options for play. Rather than playing rock, paper or scissors, the end-user might have suggestions for different plays or attacks, or they might want to add new attacks.
* Different options for scoring. The end-user might want to add scoring features such as players being able to risk double the points on certain plays which would mean they would lose double the points, or win double the point.
* Change the format of gameplay by having players win “two-in-a-row” or by having players win “best of 7” in order to be declared the victor.
* Add the ability to play the computer or another player.
* Add more dice to an existing game and alter the scoring accordingly.
* Create new scoring for a dice game or a randomized number game.

You and your end-user may also choose to create an entirely new game. Just make sure that if you do this, you ensure that the logic of the game is sound. This may require careful design and testing.

**UNDERSTANDING CONTEXT:**

Before beginning your program, select an individual and interview them to understand their likes/dislikes, needs/wants and interests.

Below you will find a series of questions. As you interview your selected individual, write down their responses these questions. Their responses will help you design and plan an animated story that they will enjoy.

What are your favourite sports, physical activities or games? What is it about these that you enjoy?

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What are your favourite dice or card games? What is it about these that you enjoy?

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Explain to the end-user how the game of Rock-Paper-Scissors works (or another dice or card game that might interest them). Ask them the following and record their response:

How would you alter this game to make it more enjoyable for you? What rules would you change? What graphic components would you change?

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**DEFINING:**

Based on the interview responses above, write down any and all ideas that you might have for a potential game for this end-user.

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Identify the rules, logic or game play in the brainstorming above that might be difficult to program based on your current knowledge. What can you do to solve this problem before starting to program?

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**IDEATING/PROTOTYPING:**

Based on the interview responses and brainstorming above, provide a brief description of the game that you are going to create for you end-user.

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Explain why you chose this game and rules after identifying possible difficulties that you might encounter.

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**TESTING:**

Find a friend or classmate and have them test your game. Ask them to comment on the rules, the scoring and the game play. Write down some of their comments below.

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Considering the observations from your friend or classmate above, indicate any changes you might make to the program. If you are not going to make any changes, indicate why.

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It’s now time to have your end-user test your game. Ask them to comment on rules, the scoring, the game play, the programming and the overall appeal of the game. Write down some of their comments below.

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Considering the observations from the end-user above, indicate any changes that you might make to the program. If you are not going to make any changes, indicate why.

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**SHARING:**

When you have completed your game, and made all final changes, share it with your end-user and your friends and classmates. Indicate some of the feedback that you receive on your game in the space below.

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Based on the feedback you have noted above, are there any people or groups (other than your end-user) that might enjoy this game?

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