# Criteria E -

Method of data collection:

(O) - Observation

(Q) - Questionnaire

Evaluation of Product against Success Criteria: Refer to appendix 1.3 for questionnaire

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| Success Criteria | Evaluation |
| The client must be able to navigate the CLI with ease: within 5 buttons presses the required function must be found | [Q] The client was able to navigate the system with ease under 5 steps “I didn't have to input more than 5 times to achieve my desired selection” (Ruzzman, Jahsh) |
| The client must be able to search for specific players and obtain statistics and ranking | [Q] The client successfully searched and sorted the ranking and found it to be efficient. |
| The client must be able to edit, enter and delete specific players if necessary | [Q] The client was able to edit, enter and delete any player as required within the system and was pleased with the options provided in terms of removal by ID and name which was found to be easier. (Ruzzman, Jahsh) |
| The system must allow the head coach some influence on the ranking | [Q] The user was able to input “significance” values attributed to each player which was used in the ranking algorithm and given significant weightage. He was content with this as it enabled him to continually change significance values as needed reflecting on previous performances. |
| The system should be able to validate and verify data entry (incorrect format/data type) witch appropriate error catching | [Q] The user was not able to input invalid data which he described as an advantage due to possibilities of mistyping during input, ensuring the system continued to work as intended. |
| The data must be able to export as a CSV file for the whole team | [O] - Evidenced in code, successfully saved root csv file |
| The system must only allow for basic statistics to be edited, processed data can not be accessed or manipulated | [Q] - The client was not able to change the calculated rankings however was able to influence it. |
| The system should be able to save data preventing a reset with each use of the program | [Q] - The system successfully saved any edits made after terminating the application which the client described as advantageous “ values I entered stayed the same, and I could also access this in the excel sheet with the data”. (Ruzzman, Jahsh) |

### Recommendations for Future Improvements:

**Client recommendations:**

Provide more sorting options

The client recommended to add more sorting options such as through individual statistics. Sorting is currently done via ranking only, the client proposed extra sorting options i.e sort by individual statistics. This will improve the product due to the versatility added by expanded sorting options.

Improved ranking algorithm

The client believes that the current ranking algorithm is not optimised as certain statistics are weighted highly “I noticed the red and yellow cards have a big influence” (Ruzzman, Jahsh). This is understandable and refines the ranking which provides a more accurate rank.

More robust searching

My client suggested to include greater searching options from the current name search. He would like to search by statistic as well as search using multiple parameters (e.g goal keeper with less than 1000 minutes played).

**Self recommendations:**

Implementation of a GUI:

For this to be a refined system, a GUI using windows, icons, menu and pointers (WIMP) would greatly benefit the product. It also enables the system to be more user-friendly as it would look similar to common applications allowing for each of navigation.

Complexity of statistical analysis

Binomial distribution is restrictive as I am limited to the analysis of 2 variables at most, using a normal/poisson distribution, more variables may be considered thus improving the accuracy of then ranking .

More efficient searching algorithm

With more players, linear search will not be efficient, thus the implementation of a binary search using the player IDs would be ideal.

More data

More data used (statistics) benefits the overall analysis. This includes matches played, wins, previous performances, would benefit the ranking system.

Word Count [497]