

2.2.2: Analysis of performance data for improvement

Qualitative and quantitative data

Quantitative data is anything that can be counted or measured; it refers to numerical data. Qualitative data is descriptive, referring to things that can be observed, such as emotions.

Qualitative data can be gathered by way of interviews or observations that ask 'how?' or 'why?' questions.

Quantitative data refers to any information that can be quantified. If it can be counted or measured, and given a numerical value, it's quantitative data. Quantitative data can tell you 'how many?', 'how much?' or 'how often?'.

Subjectivity and objectivity

Subjective data is based on thoughts or opinions, whilst objective data is based on facts. Subjectivity provides qualitative data, whilst objectivity provides quantitative data.

Subjective data can be gathered by asking athletes what they think or feel about certain situations.

Objective data can be gathered by notational analysis or video observations, both of which will produce factual data that cannot be argued with.

Normative range tables

Normative range tables exist for all recognised tests of health and fitness. These tables cover different ages and genders and provide data gathered from a large number of tests carried out by the providers of the test. These can be used as a comparison tool for athletes completing the test.

It is important to consider if the normative range tables are based on data collected from a subject population and age group similar to the athlete or team taking the test. This is because any differences between the two make comparisons invalid.

Reliability and validity

Reliability refers to the fact that fitness tests, questionnaires or other methods of data gathering must be carried out in the correct way, using the relevant protocols. This will allow the coach and athlete to compare the data collected to normative range tables.

Validity refers to the fact that the correct fitness test, questionnaire or other method of gathering data must be used to gather data for the required area. For example, the 30-metre sprint test can be used to measure speed, but not agility.

Video analysis

Video analysis will be carried out by looking at film collected by using recording equipment and computer technology. This will increase the accuracy of the data collected and make it more quantitative or objective.

Analysts or the coach will be able to watch the video as often as they need to before the athlete's next training session. This will allow them to have accurate and reliable data to work with. The coach can also focus on different techniques while watching the video, adding to the depth of the analysis.

Notational analysis

Notational analysis involves observers watching a sporting performance and recording key pieces of information. This information could be gathered either in person or by video. These pieces of information could focus on the following areas:

- i. The techniques being carried out.
- ii. The collection of statistics covering specific parts of the performance such as how many times a netball player catches and passes the ball.
- iii. The identification of, and examples of the execution of, the strategy or game plan and associated tactics

