**Verification:** process of checking the completeness, correctness and compliance of a dataset to ensure the data is what it claims to be. It can be done by **personnel who are less familiar with the data**

**Validation:** evaluates verified date to determine if data quality goals have been achieved and the reason for deviation. **Requires in depth knowledge about data.**

**Quality controls** based **on internal standards**. It procedures monitor and evaluate the resulting products

**Quality assurance** is based **on external standards**. Maintains quality throughout all stages of data development.