**Stats to look at in the report.**

Descriptive Stats (Median/Mode & IQR/Range): These provide a basic overview of

the central tendency and spread of your data, serving as a foundation for further

analyses. They can help readers understand the general characteristics of your

dataset.

• Correlation Matrix: This sets the stage for PCA by showing how variables are related

to each other. It's especially useful for identifying multicollinearity or variables that

are highly correlated, which is one of the issues PCA aims to address.

• Eigenvalues: These quantify the amount of variance captured by each principal

component. Eigenvalues greater than 1 are often considered significant, although this

rule can vary depending on the field and the specific analysis.

• Proportion of Variance Explained: This gives readers an idea of how well the principal

components represent the original data. It's often expressed as a percentage, and it

helps in deciding how many principal components to retain for further analysis.

**Statistics to include at in report**

• Scree Plot: This is a visual tool that complements eigenvalues and the proportion of

variance explained. It helps in the 'elbow method,' where you look for the point

where the plot starts to level off, indicating that additional components do not

explain much more of the variance.

• Component Matrix with Loadings: This is crucial for interpreting the principal

components. Loadings indicate how much each original variable contributes to each

principal component. High loadings (either positive or negative) are often highlighted

for easier interpretation