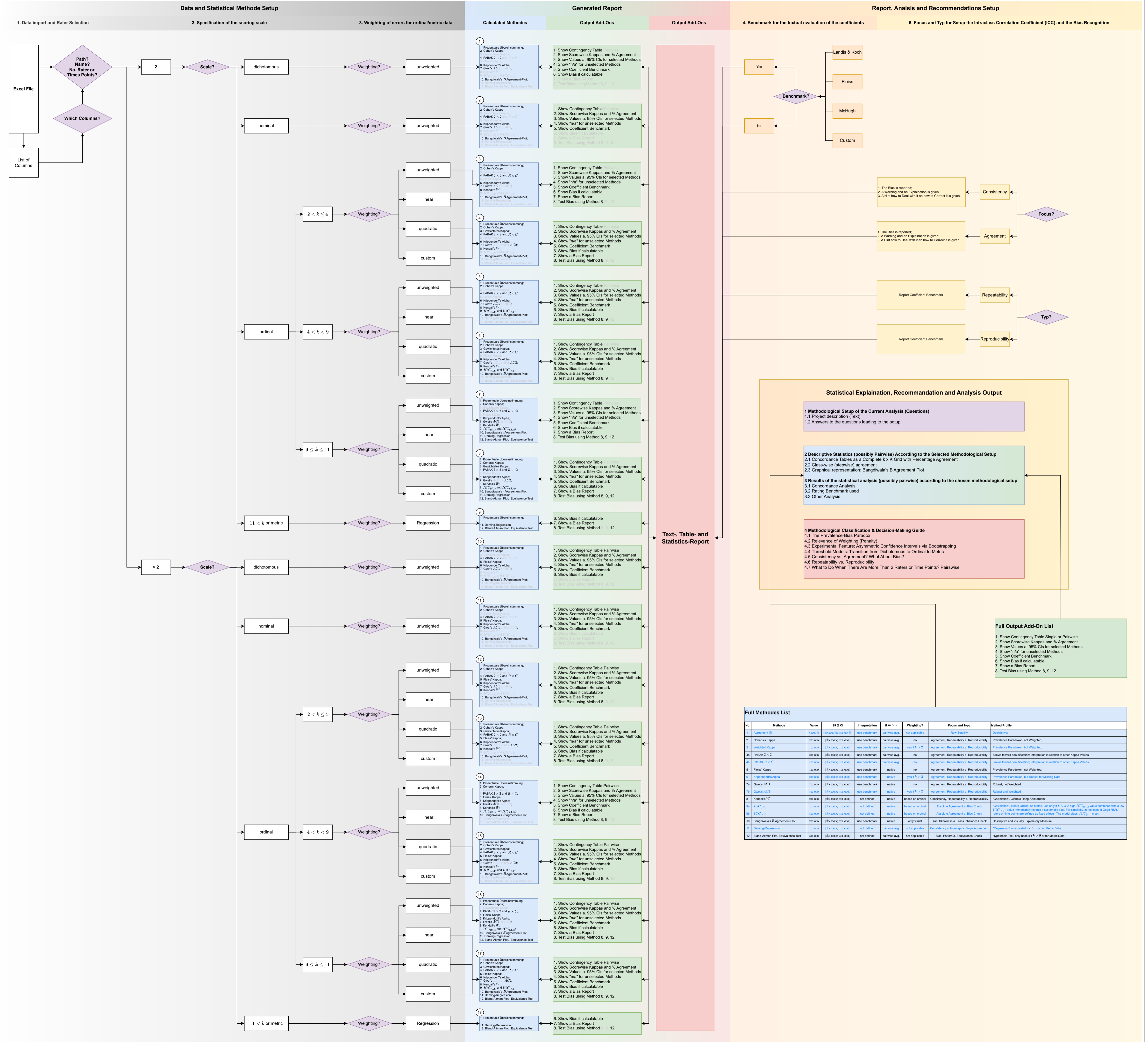


# Statistical Framework using R: Concordance Analysis for Ratings and Related Methodes



No.	Methodes	Value	95% CI	Interpretation	# n > 2	Weighting?	Focus and Type	Method Profile
1	Agreement (%)	0.808	[0.698, 0.840]	see benchmark	pairwise avg.	not applicable	None Stability	Diagnostic
2	Cohen's Kappa	0.808	[0.698, 0.840]	see benchmark	pairwise avg.	no	Agreement, Reliability & Reproducibility	Prevalence Paradox, not Weighted
3	Weighted Kappa	0.808	[0.698, 0.840]	see benchmark	pairwise avg.	yes F > 2	Agreement, Reliability & Reproducibility	Prevalence Paradox, not Weighted
4a	PKAM 2 - 2	0.808	[0.698, 0.840]	see benchmark	pairwise avg.	no	Agreement, Reliability & Reproducibility	Bias toward biasification, Interpretation in relation to other Kappa Values
4b	PKAM 2 - C	0.808	[0.698, 0.840]	see benchmark	pairwise avg.	no	Agreement, Reliability & Reproducibility	Bias toward biasification, Interpretation in relation to other Kappa Values
5	Fleiss Kappa	0.808	[0.698, 0.840]	see benchmark	native	no	Agreement, Reliability & Reproducibility	Prevalence Paradox, not Weighted
6	Krippendorff Alpha	0.808	[0.698, 0.840]	see benchmark	native	yes F > 2	Agreement, Reliability & Reproducibility	Prevalence Paradox, not Weighted
7a	Gwet's AC1	0.808	[0.698, 0.840]	see benchmark	native	no	Agreement, Reliability & Reproducibility	Robust, not Weighted
7b	Gwet's AC2	0.808	[0.698, 0.840]	see benchmark	native	yes F > 2	Agreement, Reliability & Reproducibility	Robust and Weighted
8	Kendall's W	0.808	[0.698, 0.840]	not defined	native	based on ordinal	Consistency, Reliability & Reproducibility	'Correlation', Glatze Rang-Korrelation
9	ICC(ICC)	0.808	[0.698, 0.840]	not defined	native	based on ordinal	Absolute Agreement & Bias Check	'Correlation', Tests Ordinal as Metric, use only if k = 4. A high ICC(ICC) value immediately reveals a prevalence bias. For weighting, in the case of large bias, more or less points are defined as best effects. The model class ICC(ICC) is not.
10	ICC(ICC)	0.808	[0.698, 0.840]	not defined	native	based on ordinal	Absolute Agreement & Bias Check	
11	Bangdiwala's B Agreement Plot	0.808	[0.698, 0.840]	see benchmark	native	only visual	Bias, Biasness & Class Balance Check	Diagnostic and Visual Explanatory Measure
12	Band-Adm Plot, Equivalence Test	0.808	[0.698, 0.840]	not defined	pairwise avg.	not applicable	Bias, Pattern & Equivalence Check	Hypothesis Test, only useful if k = 9 or for Metric Data

- Full Output Add-On List**
- Show Contingency Table Single or Pairwise
  - Show Scorewise Kappas and % Agreement
  - Show Values a. 95% CIs for selected Methods
  - Show "na" for unselected Methods
  - Show Coefficient Benchmark
  - Show Bias if calculatable
  - Show a Bias Report
  - Test Bias using Method 8, 9, 12

**Statistical Explanation, Recommendation and Analysis Output**

**1 Methodological Setup of the Current Analysis (Questions)**  
 1.1 Project description (Text)  
 1.2 Answers to the questions leading to the setup

**2 Descriptive Statistics (possibly Pairwise) According to the Selected Methodological Setup**  
 2.1 Concordance Tables as a Complete k x K Grid with Percentage Agreement  
 2.2 Class-wise (stepwise) agreement  
 2.3 Graphical representation: Bangdiwala's B Agreement Plot

**3 Results of the statistical analysis (possibly pairwise) according to the chosen methodological setup**  
 3.1 Concordance Analysis  
 3.2 Rating Benchmark used  
 3.3 Other Analysis

**4 Methodological Classification & Decision-Making Guide**  
 4.1 The Prevalence-Bias Paradox  
 4.2 Relevance of Weighting (Parality)  
 4.3 Experimental Feature: Asymmetric Confidence Intervals via Bootstrapping  
 4.4 Threshold Models: Transition from Dichotomous to Ordinal to Metric  
 4.5 Consistency vs. Agreement? What About Bias?  
 4.6 Repeatability vs. Reproducibility  
 4.7 What to Do When There Are More Than 2 Raters or Time Points? Pairwise!