What I need to do:

- Required modifications of original 'fast HHG for independence' code – **bundle proposed code into LaTex algorithm before implementation**
    - Adjust input to expected K-sample data format (if necessary)
    - **Change procedure of data processing into K-sample version**
        - x = category, y = observation
        - Processed data for univariate testing will be $(x_i, |y_i – z|)$
    - **Change univariate test used to appropriate type**
        - KS or AD univariate K-sample tests – scipy offers implementations
        - **minP –** Heller's proposed univariate K-sample test from "Consistent distribution-free K-sample and independence tests for univariate random variables" (2016)
            - Process: aggregates scores from all possible partitions of the data – score is a likelihood ratio test statistic based on observed vs expected count within a given partition
            - Based on paper results, most powerful univariate K-sample test, very effective in clustered data as compared to other tests
            - Implementation exists in [R](R), can be used for reference and comparison
            - Possible issue to watch out for: how p-value is generated
- **Confirm replication** with the two-sample experiments done in paper
    - Limitations: no code implementation from paper, so comparison to obtained values and figures by eye at best
- K-sample power test

What I want to do:

- Expand 'center point' strategy from single point into pooled points
    - All sample point is treated as 'center points' and used to gather a collection of univariate test results (both statistics and p-values)
    - Proposed approach: sort p-values and apply a global hypothesis test to determine final rejection
        - Bonferroni test or Hommel test
        - Computationally efficient