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| **Research Questions** | **Null hypothesis** | **Alternative hypothesis** | **Goal** | **Objectives** |
| **RQ1** What is the Impact of team size on the structural properties of software and its resultant maintainability? | **H0,1** Development team size does not impact the coupling, complexity, cohesion or modularity of the produced software. | **H1,1.1** Larger development teams produce software exhibiting higher coupling, higher complexity, lower cohesion and lower modularity.  **H1,1.2** This leads to lower maintainability. | **G1** Establish correlations between team **size** and the structural attributes of FLOSS software and deduce the impact that these correlations will have on the externally observable attributes of the software. | **O1,1:** Observe how structural metrics progress as software projects evolve.  **O1,2** Isolate and eliminate the confounding impact of functional complexity on the team size analysis.  **O1,3:** Formulate a definition of the software development team size andanalyse structural metrics the impact of this factor on the structural metrics.  **O1,4:** Deduce the likely result of the impact of team size on the maintainability of software. |
| **RQ2** What is the Impact of team stability on the structural properties of software and its resultant maintainability? | **H0,2** Development team stability does not impact the coupling, complexity, cohesion or modularity of the produced software. | **H1,2.1** Less stable development teams produce software exhibiting higher coupling, higher complexity, lower cohesion and lower modularity  **H1,2.2** This leads to lower maintainability. | **G2** Establish correlations between team **stability** and the structural attributes of FLOSS software and deduce the impact that these correlations will have on the externally observable attributes of the software. | **O2,1:** Identify and mitigate the pitfalls associated with mining software repositories for the purposes of team stability analysis  **O2,2:** Formulate a definition of the software development team stability andanalyse structural metrics the impact of this factor on the structural metrics.  **O2,3:** Deduce the likely result of the impact of team stability on the maintainability of software. |