

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 and analyse 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 and analyse 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.