



Using a Robot Olympiad to Engage Programmers in Collaborative Problem Solving

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Context: We make games



Students are challenged to make games in *teams*



Problem: Peer-Reviews Indicated a Lack of Team Cohesion



Goal: Inspire Students to Collaborate More Effectively



Question: How?



Proposal: A Robot-Olympiad



Scott & Ghinea, 2013



Zarb & Siegel, 2016



H1: increase in peer interaction, as observed in workshops



H2: better team cohesion, from peer-reviews

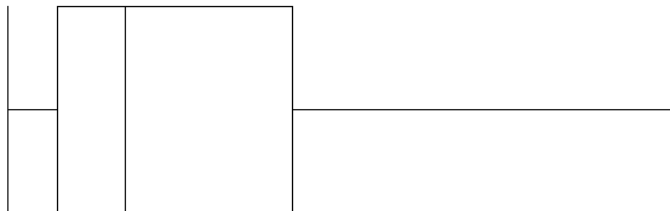


The Plan: Lego EV3 Space Challenge

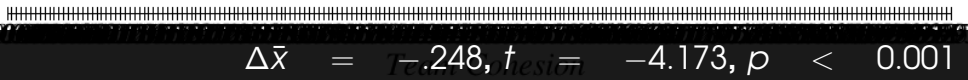
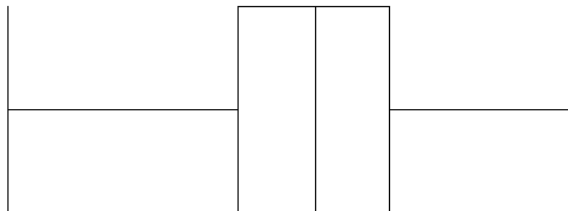
"Students engaged in pair and mob programming far more frequently, compared to last year"



Intervention



Control



$$\Delta \bar{X} = -0.248, t = -4.173, p < 0.001$$



Limitations



Questionable Measurement Validity



Limited Quasi-Experiment, Post-Test Only



Conclusion: A Great Ice-Breaker