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Math Outreach Programs present a unique opportunity to research, develop and test new ideas in the teaching and learning of mathematics. By systematically studying what we do in these programs, we can improve what we do while connecting educational theory and research to practice. This talk will describe several research projects that use Math Camps as a laboratory for educational research. In addition, a list of proposed areas for future work will be described. The areas that we will address include: how do programs identify and recruit participants; what special efforts are needed to reach out to and include disadvantaged students; what do programs do to address the needs of all participants; what is the goal of the program –is it limited to mathematics, or are other factors considered; how is the curriculum developed; what is the role of the teachers; are there counselors and what is their role; how do we measure our success in each of the areas above? Every program has its own unique collection of participants. What are the features of the unique “communities of practice” that are created, and how does each component support the other parts? Finally, how does one connect the program to ongoing research at a university? (Received September 15, 2019)