Evaluating Research

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Due to the growing importance of data in all aspects of society, this project focused on how data was collected and analyzed in the University of Iowa STEM Outreach community, in addition to what aspects could be improved and how. Through interviews, meetings, research, and actual data collection in outreach settings, this project allowed me to meet with different STEM Outreach organizations and fantastic STEM communicators. A final set of ideas and recommendations are outlined below.

Reason for Interest in Data

- Inspired by power of data and people like Hans Rolsing
- Will be Business Analyst upon graduation
- Believe that data is vital in order for organizations to improve and grow
- Want to see how data can be used to support STEM Outreach

Activities Completed

- Interviews with 6 different STEM Outreach Organizations
  - Hawk Eyes on Science – Dale Stille
  - 4 C’s – Susan Gray
  - STEM Education – Jackle Kleppe
  - Pre-Engineering Program – Tracy Peterson
  - Project HOPE – Saba Ali and Sam Brown
  - STEM Luncheon – Mark McDermott
- Attended STEM Outreach Data meeting as well as developed agenda for said meeting
- Developed surveys and tracked data for all TRI STEM Outreach Events
Knowledge Gained

- STEM Outreach organizations use of data correlated with the amount of resources they have at their disposal
- Only the ones that have the resources utilize data to full potential
  - Due to time constraints with data analysis and collection, as well as general personnel
- Developments being made to start using data progressing (Data Plan)
- Data very helpful in evaluating event, but not end-all-be-all
- Point of data collection for outreach is to make sure that kids were engaged, informed, and connected, so questions should be based around these principles

Future Recommendations

- Develop set of standardized questions to ask both organizations and students after completion of outreach event
  - Utilize Qualtrics and University data structure
- Have central repository for data within the University system
  - Collect data from all organizations that can be analyzed both at Macro- and Micro-level
- Develop partners that can help in analysis of data to take burden of professors
  - Admissions - use data to have long-term view of how science outreach impacts students decisions on university
  - College of Education - what types of engagement work best in outreach setting