1. Motivation
   1. Dr. Alo comments
2. Research Questions
   1. How to start a data science program in a K-12 school?
   2. Why should you start a data science program in your K-12 school?
3. Methodology
   1. Why FAMU DRS?
      1. FAMU DRS is research school run by FAMU.
      2. Has experience working with Universities implementing interventions.
      3. Has willing administration
   2. Why data science areas of coverage?
      1. Each participating faculty independently choose an area to focus on.
      2. Only a small area of possible area covered.
      3. Chosen areas based on current pain points in education and ease for adaption to DS education goals.
   3. Why 6 th grade?
      1. 6th grade is the start of middle school.
      2. Aim to build a spiral curriculum.
         1. Work repeated but built upon each year through high school.
         2. Foundational knowledge gaps will drive development of elementary school curriculum adjustments.
   4. How to approach high school administration?
      1. Choose committee members who have ties to schools.
      2. Have in person detail discussion with administration.
      3. Provide resources to make project successful.
         1. Financial, documentation, Data Science foundational knowledge.
   5. Ideas that can help faculty decide on which areas for inspiring curriculum ideas. curriculum area selection.
   6. foundations in data science.
      1. Faculty had to be educated on the foundations of Data Science.
      2. Faculty need to be exposed to DS tools.
4. Findings
   1. Rethinking mathematics, statistics and other curriculum from the data science angle/lens
      1. Small changes can go a long way. Was not necessary to reteach and recreate the wheel. Foundational learning is still foundational.
      2. There is a need to start teaching certain statistics topics earlier. Although, there are several aspects of Statistics taught through Mathematics.
   2. Difficultly of creating materials.
      1. Most material was created through a non-DS lens. Faculty built upon their background knowledge.
   3. Difficulty in narrowing areas to cover.
      1. The areas of coverage where limited to general learning pain points and gatekeeper area.
         1. Fractions for example.
   4. implementation of curriculum.
5. Discussion
   1. data science high school students in the job market.
   2. helping students adjust to a changing world.
   3. why have a data science high school.
   4. helping faculty adjust to data science world.
   5. shorten school to work tech pipeline
   6. increase minority participation in STEM
   7. NSF Big ideas
   8. meet job shortages
   9. policy implications and changes