**Problem**
Many parents do not engage in learning experiences with their children.

**Research Question:**
How will parent-child collaborative inquiry be impacted during Family Science Night as a result of facilitator intervention with the Juicy Question Strategy?

**Setting**

**Family Science Night**
- Re-create a museum style experience that engages both parents and children
- 2 hour program
- Run by eight museum educators
- Held in school’s gym or cafeteria

**Targeted Baltimore City Schools**
- ≥ 95% of students receive Title I services*
- ≥ 60% of students receive Free and Reduced Meals*
- < 70% of students meet MSA proficient or advanced science standards
- < 800 students enrolled
- > 80% of students identify as non-white

**Neighborhood historical context**
- Impoverished
- High rate of crime
- High rate of police violence
- Redlining
- Blockbusting

---

**Intervention Design**

**The Juicy Question Strategy**
- **A Juicy Question** is... a question that we do not know the answer to, but we can answer using the exhibit
- **Participants in the strategy**...
  - take turns exploring the exhibit and ask questions about what is going on
  - choose one question to investigate
  - conduct an experiment that tries to answer the question
  - reflect, restate the discovery, share new questions

**How instructors facilitate a Juicy Question:**
- Ask; “What is something you wonder?”
- Suggest an initial question
- Model a discovery, model co-investigation
- Challenge to create a specific number of questions
- Ask; “What would happen if?”
- Assign roles

---

**Results**

**Parent-child interactions shift from passive to active types**

**Dependence of interaction on exhibit type**

**Dependence of interaction on child gender**

---

**Conclusions**

**Was the Juicy Question Strategy successful?**
- Parental engagement increased
- Parents approached the table 15% more often
- Parents offered more instruction and explanation, spent more time asking children questions
- Instructors felt successful using the new strategy

**Reflections from colleagues**
- Does the Juicy Question Strategy also help to increase the instructor’s “stamina” and engagement with the activity?
- If all staff are trained in the Juicy Question Strategy how will it affect the timing and flow of future Family Science Night events?

---

**Next Steps**
- Next September all Family Science Night instructors will be trained in the Juicy Question Strategy prior to the beginning of the program for the school year
- Family Science Night exhibits will be designed with the Juicy Question strategy and whole family involvement in mind
- New Question: Will cognitively demanding speech increase with the implementation of the Juicy Question Strategy? (Tennenbaum and Leaper 2003)

---

**References**


**Acknowledgements**
- Advisor: Dr. Paullette Shockey, Hood College
- Supervisor: Pete Yencer, Maryland Science Center
- Amanda Berneimier and Annetarie Rush, Family Science Night staff
- Thanks to Dr. Dan Richman for assistance with data analysis