Turntable at the high school

Juan Botella
Monona Grove High School
Outline

A bit of education theory

An example in a high school classroom

Conclusions
Contemporary high school

• Constructivist model: – Piaget and Vygotsky

• Student centered classroom: – need for hands-on minds-on activities
  – Specially true for 95 min classes
National Research Council
Anchor intuition
How people learn?

Anchor intuition

Interactive lecture demonstrations
Does not test for content:

- Design and perform experiments to test ideas
- Analyze collected data
- Interpret and construct graphs and tables
- Compare different experiments
- Elaborate explanations based on the analysis
Turntable satisfies a need
Earth’s rotation
John’s Suggestion

Observations  Laboratory

Theory
John’s Suggestion

Observations
Laboratory

Theory

Conceptually; no math
Challenges:

Balance:

• free student inquiry based on self-direction

• guided instruction
Conclusion

• Use of turntable fits with education theory
• The turntable has great potential for high school instruction
• Teachers as coaches need clear curricula and instructions