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# Misconceptions About Young Children Proven Wrong Through Research

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# Misconceptions About Young Children Proven Wrong Through Research

Chloe Bush  
Early Childhood Education  
2019

# Overview

- Positive or negative experience.
- Some people may hold misconceptions about children learning content-area subjects like social studies and science. Since literacy and mathematics are often the main focus in elementary classrooms, teaching content-area subjects are pushed aside. Research by classroom teachers and others shows that these misconceptions can be proven wrong.
- Young children can learn content at a higher level than expected with the support of a motivated teacher who creates a meaningful learning experience for children.
- Misconceptions → Research → My application.

# Misconceptions

- Misconception #1: Children are too young to explore physics
- Misconception #2: Children are too young to explore geography
- Misconception #3: Children don't have opinions about “grown-up” issues

## Misconception #1: Children are too young to explore physics

- This can be a common misconception from adults since physics (the study of energy and matter) is a complex area of science, that most students learn this in middle school or high school.
- Empirical evidence shows young children can learn physics through a teacher creating an authentic lesson that is relatable to students, and activates their prior knowledge.
- Students in the article, “You Can Tell A Dancer By Her Feet” (Lindgren & Cushwall, 2008) learned about force and motion through different kinds of shoes and forces from the body.

## “You Can Tell A Dancer By Her Feet” (Jean Lindgren & Marcia Cushwall, 2008)



- A classroom of middle schoolers explored force and motion with a focus on pressure.
- The motivated teacher activated students prior knowledge by asking, “What is pressure?” “When do we experience pressure?”
- Students’ with the support from their teacher discussed their body in regards to the force their body has as they stand.
- This led the students to look at a ballet dancer standing on their toes compared to someone standing up flat-footed with a snow boots on.
- **Outcome:** Students were able to understand pressure and transfer this knowledge by creating charts comparing others weight in regards to pressure.

# Field Experience

- I applied the research and ideas from the article, “You Can Tell A Dancer By Her Feet” (Jean Lindgren & Marcia Cushwall, 2008) in my first grade classroom.
- We focused on pressure with our backpacks because this is prior knowledge to students’ as they use backpacks daily.
- Explored pressure with our bodies as students stood on their toes, flat-footed, and standing on one foot.
- **Outcome:** Students’ were able to learn physics by exploring these ideas as they created their own marble run.



## Misconception #2: Children are too young to explore geography

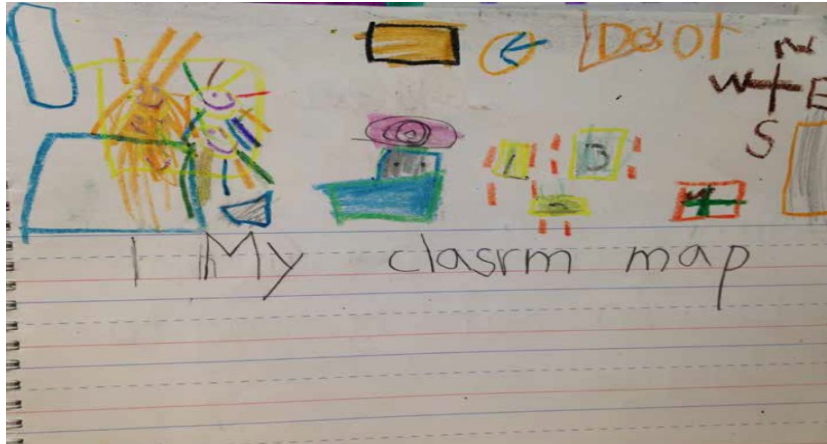
- Empirical evidence shows young children can learn geography through creating an authentic lesson that is relatable to students, and activates their prior knowledge.
- This can be a common misconception from adults since geography is a complex area of social studies since students do have misconceptions about space and distance.
- Students in the text, *“Hey, I’ve Been There! Using the Familiar to Teach World Geography in Kindergarten”* (Kenyon, Coffey, & Kroeger, 2016) learned about location in relation to their community, classroom, and the world using students’ backgrounds and prior knowledge.



# *“Hey, I’ve Been There! Using the Familiar to Teach World Geography in Kindergarten”*

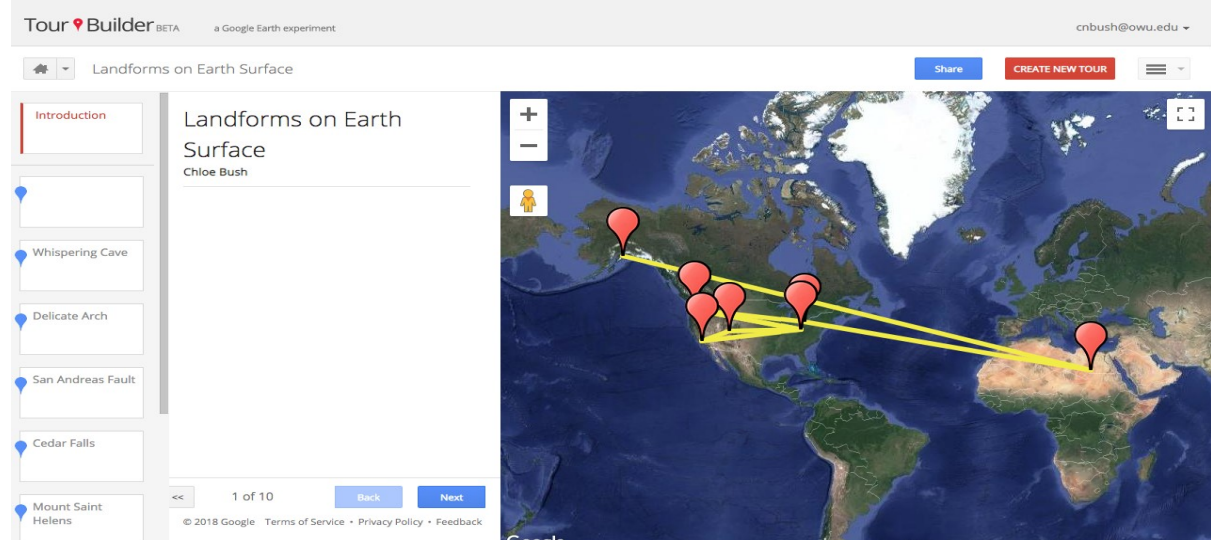
(Kenyon, Coffey, & Kroeger, 2016)

- A kindergarten classroom in Ohio explored geography with a focus on maps with a student teacher.
- Connections to students’ cultures, traditions, and families.
- Students created community maps and a classroom map with the support of the student teacher.
- Student teacher incorporated students’ backgrounds learning about culture through a slide show and looking at Google Earth.
- **Outcome:** Students’ gained a sense of location in relation to important factors on a local, classroom, and world map.



# Field Experience

- Students were able to explore the tour builder as they learned about location with landforms.
- I asked questions like, “Why do you think this is placed here?” to “Why do you think this city is placed here?”
- **Outcome:** Students’ gained a sense of location and place in the world with landforms. Applied their knowledge by answering prompting questions and exploring other maps.



## Misconception #3: Children don't have opinions about “grown-up” issues

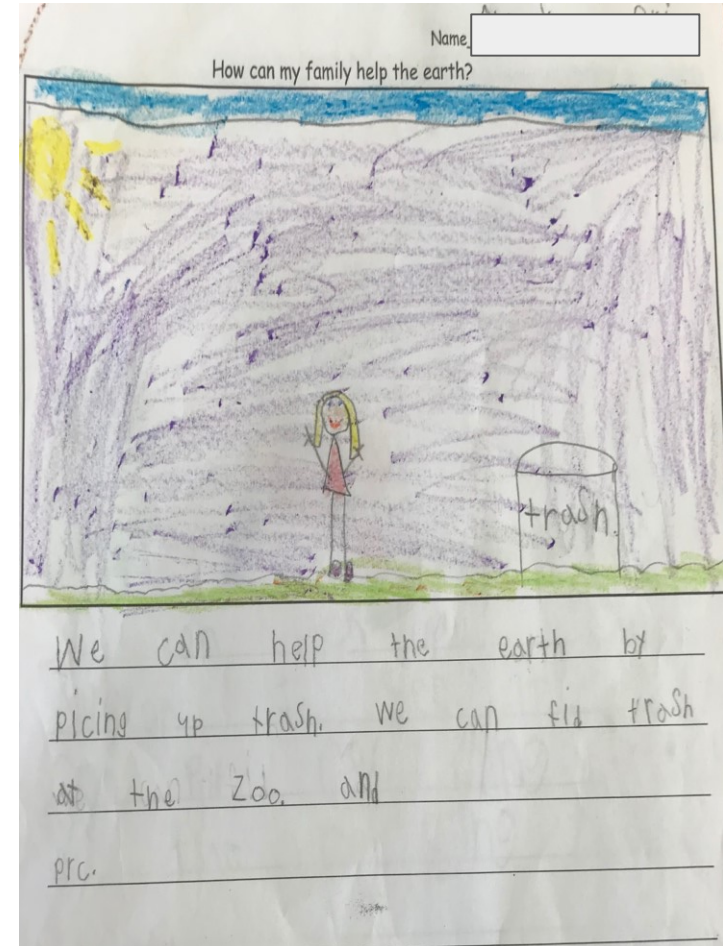
- This can be a common misconception that children don't have opinions on “grown-up” issues because they are too young to understand issues in the world.
- Empirical evidence shows young children can explore sensitive topics through creating an authentic lesson that is relatable to students, and activates their prior knowledge.
- Students in the text, “*Embracing Controversy in the Classroom*” (Cannard, 2008) learned the appropriate ways to discuss controversial topics in the classroom and showed respect for others opinions.

## “Embracing Controversy in the Classroom” (Cannard, 2008)

- Students learned about the topic and gained a background of the controversial topic, stem cells and how they are used in middle school.
- After students were familiar with the topic, they learned about the appropriate ways to act during discussion and that others can share different opinions.
- Students shared their stance and opinion during a group discussion with reasons to back up their opinions.
- Outcome: Students were able to contribute in a classroom discussion and share their opinion with evidence. Students learned how to take other’s opinions into account and learn from another person’s opinion on an “adult topic.”

# Field Experience

- Our class talked about issues with the environment and whether we should help or not.
- Students were educated about the environment and effects of our actions.
- Students took a stance and wrote about their opinion to this grown-up problem and shared in a class discussion.
- **Outcome:** Students were able to share their stance on helping the environment with evidence and understand others stance.



# Why does it matter?

1. Research is crucial to identify best practices to support the students' growth and development, particularly when teaching complex topics.
2. To help students grow in the classroom, the teacher needs to be engaged. If the teacher is committed they will apply research to create an authentic learning experience for students.
3. The children's ability to learn social studies and science is important. Teachers and families need to support and foster their child's growth in these subjects to learn skills and knowledge that will help them throughout their life.

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Thank you!

## References

- Lindgren, J., & Cushwall, M. (2008). You can tell a dancer by her feet. *Readings in Science Methods, K-8* NSTA Press, 377-381.
- Kenyon, Coffey, & Kroeger (2016) Hey, I've been there! Using the familiar to teach world geography in kindergarten. *Social Studies and the Young Learner* 29 (2), 4-7
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