CULTIVATING CURIOSITY IN YOUR CLASSROOM

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Curiosity Comes from Within—We Just Have to Know How to Unleash It.

Humans are natural learners…

…yet classrooms are not always places where such curiosity is encouraged and supported.

Humans Are Natural Learners

Exploratory Reflex
Novelty Preference
Effortless Learning

- Language Development
- Music
- Hunter Gatherers
- Holes-In-The-Wall
- Unschooling and Free Schools
WHY Curiosity in the Classroom?
Curiosity Compels Learning!

1. Curiosity jump starts and sustains intrinsic motivation (deep learning with ease)

RESEARCH STUDY:
5th and 6th graders – endangered wolves and coal mining (Lowry & Johnson, 1981)

WHY Curiosity in the Classroom?
Curiosity Compels Learning!

1. Curiosity jump starts and sustains intrinsic motivation (deep learning with ease)
2. Curiosity releases dopamine (pleasure + improved noticing and remembering)

RESEARCH STUDY:
Dopamine allows taking in and remembering entire landscape of information (Gruber, Gelman & Ranganath, 2014)
WHY Curiosity in the Classroom?

Curiosity Compels Learning!
1. Curiosity jump starts and sustains intrinsic motivation (deep learning with ease)
2. Curiosity releases dopamine (pleasure + improved noticing and remembering)
3. Curious people exhibit enhanced cognitive skills

RESEARCH STUDY:
Extra-curious 3-year olds grew into 11-year olds with superior school performance (Raine, et al., 2002).

The Curiosity Classroom is Co-Created

• Teachers transform curiosity into inquiry

• Scaffolding

• Teachers best support curious children when they are curious (excited, involved, self-directed, trying new things)
Curiosity Takes Courage

- Risk of being present
- Giving up power/Allowing not knowing
- Improvisation / Invitation
- Must feel entitled to ask and seek
- “Venture into the unknown” - Dewey

How to Cultivate Curiosity

- Exploration & Experimentation
- Autonomous & Effortless Learning
- Intrinsic Motivation
- Imagination & Creativity
- Questioning
- Time
Promote Exploration & Experimentation

- Impact of teachers
  **RESEARCH STUDY:** Teachers’ own behavior determined whether children would explore (Engel & Labella, 2011).

  **Techniques:**
  - Discovery Learning
  - Choose Your Own Adventure Lessons

  *“We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time”* – TS Eliot

Allow Autonomous & Effortless Learning

- **RESEARCH STUDY:** Kids who spend more time unstructured show superior executive functioning (Barker et al., 2014)

  **Techniques:**
  - Authentic student voice
  - Self-Assessment
  - Working Together

  *“The aid we have from others is mechanical, compared with the discoveries of nature in us. What is thus learned is delightful in the doing, and the effect remains”* – Ralph Waldo Emerson
Embrace Intrinsic Motivation

- Outside judgments

RESEARCH STUDY:
Even praise harmed children’s desire to continue a project (Henderlong & Lepper, 2002).

Techniques:
Assess only effort/process
Mark only correct answers
Reflect in Third Person
Open Prompt Assignments

“What we want to see is the child in pursuit of knowledge, not knowledge in pursuit of the child”

– George Bernard Shaw

Bolster Imagination & Creativity

- Telling Stories

RESEARCH STUDY:
Brain networks for understanding others overlapped with those activated when reading/hearing/telling stories (Mar, 2011).

- Let Go

RESEARCH STUDY:
Doodling guided attention and enhanced remembering (Andrade, 2010).

“Children will create…whether order or disorder, chaos or harmony, beauty or ugliness, accord or violence, they will create”

– David Orr
Support Questioning

• Children’s Questions
RESEARCH STUDY:
Preschoolers asked an average of 76 questions per hour (Chouinard, et al., 2007).

• Divergent thinking
RESEARCH STUDY:
Kindergarteners beat Harvard MBA students in timed contest to build the tallest tower using spaghetti, marshmallows, string and tape (Berger, 2014).

“All knowledge is the result of asking questions; indeed…question asking is the most significant intellectual tool human beings have”
–Neil Postman

Make Time

• A Big Rush
RESEARCH STUDY:
Classroom timeframes impeded genuine and spontaneous inquiry (Rop, 2003).

Children learn best when relaxed, less regimented, less hurried
– Montessori Schools
– Slow Schools

“Do I dare set forth here the most important, the most useful rule of all education? It is not to save time, but to squander it”
–Jean Jacques Rousseau
In Sum:
Prioritize Processes of Learning

• Focus on skills, not content
• Accentuate the journey, not just the outcomes
• Prioritize experiences over artifacts
• Re-center on student learning

“Children must be taught how to think, not what to think”
–Margaret Mead

References


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