

Using Technology to Engage the Gifted Learner

In the General Education Classroom

MTSS Teacher Symposium 2018



Ensuring a bright future for every child

MISSISSIPPI
DEPARTMENT OF
EDUCATION

Jen Cornett

Gifted Education Specialist
jcornett@mdek12.org

Melissa Banks

Instructional Technology Specialist
mebanks@mdek12.org

Mississippi Department of Education

VISION

To create a world-class educational system that gives students the knowledge and skills to be successful in college and the workforce, and to flourish as parents and citizens

MISSION

To provide leadership through the development of policy and accountability systems so that all students are prepared to compete in the global community



Ensuring a bright future for every child

State Board of Education Goals FIVE-YEAR STRATEGIC PLAN FOR 2016-2020

1. All Students Proficient and Showing Growth in All Assessed Areas
2. Every Student Graduates from High School and is Ready for College and Career
3. Every Child Has Access to a High-Quality Early Childhood Program
4. Every School Has Effective Teachers and Leaders
5. Every Community Effectively Uses a World-Class Data System to Improve Student Outcomes
6. Every School and District is Rated "C" or Higher



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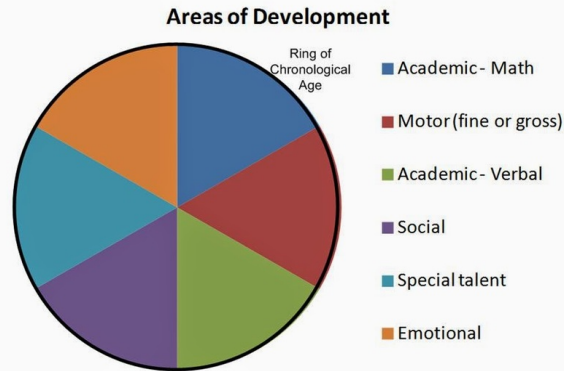
If a child's brain has developed differently than the norm, would you assume they required educational supports?



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Asynchronous Development

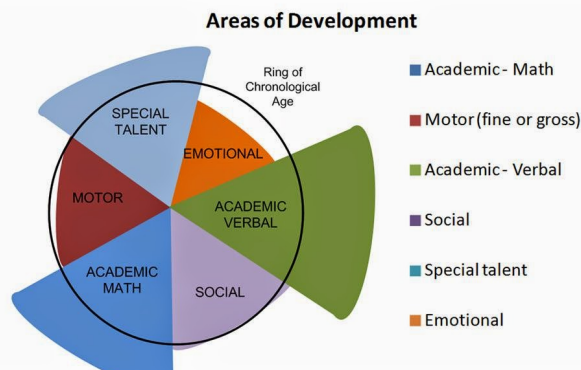
Typical Child Development



Imagine the rings of a tree's trunk. The outer-most ring tells us the chronological age of the tree. Using similar imagery, this circle, with its pie shaped sections, is a simplified depiction of typical child development. Typical children develop at a typical rate, achieving developmental milestones and grade level learning within a typical age range.

Asynchronous Development

Asynchronous Development



Asynchronous = uneven development. Gifted children in their development are out of step with their same-age peers. Also, each gifted child is different in their asynchronous development. For example, imagine a lever on the end of each pie shape which would pull or push the area of development according to the individual child. ASYNCHRONOUS development is the HALLMARK of giftedness.

The Gifted Brain

- Remarkably intense
- Diffuse metabolizers (fuel for the brain) efficiently
- Brain activity is planned and complex
- Requires coordination for diverse visual, spatial, verbal, and sensory areas of the brain

Brains on Fire



Brains on Fire

- Enhanced activation
- Enhanced awareness
- Strong initial impressions
- Intense and vivid recollections
- Increased memory capacity and efficiency



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Brains on Fire

Gifted thinkers make connections in ways other people do not:

- Associations
- Analytical
- Organizational



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Brains on Fire

- Vivid sensing
- Prodigious memory
- Greater fund of knowledge
- Frequent and varied associations
- Greater analytic ability
- Sensory, emotional, and memory overload
- Hypersensitivity
- Disorganization
- Distractibility
- Delayed processing (analysis paralysis)
- Mental fatigue



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Characteristics of Gifted Learners



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Characteristics of Gifted Learners

- Attentive
- Works Hard
- Memorizes
- Receptive
- Pleased with Self
- Absorbs
- Completes Tasks
- Understands

The Expert



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The Expert



Academic Thinker
High Achiever



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Characteristics of Gifted Learners

- Asks Unforeseen Questions
- Guesses Well
- Selects Focus
- Intense
- Self Critical
- Manipulates
- Chooses Tasks
- Knows

The Executive



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The Executive



Critical Thinker
Gifted Learner



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Characteristics of Gifted Learners

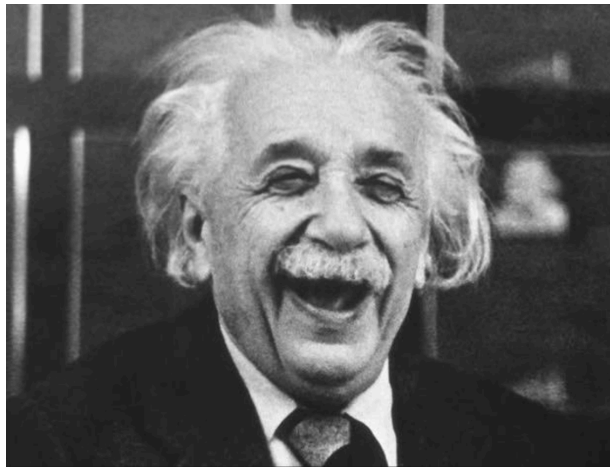
- Daydreams
- Works Alone
- Unconventional
- Improves
- Overflows with Ideas
- Never Finished
- Improvises
- Inventor

The Inventor



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The Inventor



Creative Thinker
Gifted Learner



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Characteristics of Gifted Learners

Cognitive

- Early reader
- Curious
- Self critical
- Skeptic
- Persistent

Creative

- Ability for fantasy
- Intuitive
- Open attitude and social behavior
- Radical
- Social unicorn

Characteristics of Gifted Learners

Affective

- Emotional depth & intensity
- High expectations of self and others
- Heightened self-awareness
- Easily wounded
- Idealistic
- Strong sense of justice
- Advanced levels of moral judgement

Behavioral

- Spontaneous
- Boundless enthusiasm
- Needs little sleep or downtime
- Insatiable curiosity
- Impulsive
- Easily frustrated
- Volatile temper (related to failure)
- Nonstop talking & chattering

Characteristics of Gifted Learners



Acquires
and retains
information
quickly

Impatient
with others;
dislikes
basic routine



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seago (1974)

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Characteristics of Gifted Learners



Inquisitive;
searches
for
significance

Asks
embarrassing
questions;
excessive in
interests



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seago (1974)

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Characteristics of Gifted Learners



Emphasizes
truth, equity,
and fairness

Worries about
humanitarian
concerns



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seago (1974)

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Characteristics of Gifted Learners



Seeks to
organize
people
and things

Constructs
complicated
rules; often
seen as
bossy



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seago (1974)

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Characteristics of Gifted Learners



Large
vocabulary;
advanced
broad
information

Manipulates
with words;
bored with
school and
age peers



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



High
expectations
of self and
others

Intolerant,
perfectionistic;
may become
depressed



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Creative,
inventive;
likes new
ways of
doing things

May be seen
as disruptive
and out of
step



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Intense
concentration;
long attention
span and
persistence in
areas of
interest

Neglects duties
or people during
periods of focus;
resists
interruption;
stubborn



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Sensitivity,
empathy;
desire to be
accepted
by others

Sensitivity to
criticism or
peer
rejection



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



High
energy,
alertness,
eagerness

Frustration
with
inactivity;
may be seen
as overactive



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Independent;
prefers
individualized
work; reliant
on self

May reject
parent or peer
input;
nonconformity



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Diverse
interests and
abilities;
versatility

May appear
disorganized
or scattered;
frustrated over
lack of time



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners



Seeks cause
and effects
relationships

Discomfort
with the
unclear or
“illogical” such
as traditions or
emotions



Source: ERIC Digest #E527; Adapted from Clark (1992) and Seagoe (1974)

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Characteristics of Gifted Learners

Imposter Syndrome

- Children discount success and abilities; luck
- They fear being found out
- The greater the success, the greater the stress
- Fear not meeting expectations



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Characteristics of Gifted Learners

Dabrowski's Over-excitabilities

- Psychomotor: lots of movement, trouble settling down and sleeping, nervous tics
- Sensitivity: touch (labels), smells, sounds, lights; can't tune things out
- Emotional: Happiness is elation, sadness is depression, angry is fury



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How Gifted Thinkers Learn



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How Gifted Thinkers Learn

Review

- Hyperactivation
- Hyperawareness
- Hypersensitivity



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How Gifted Thinkers Learn

Distractibility

Is it a tool of the gifted mind?

Is it a problem that hinders learning?



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How Gifted Thinkers Learn

Acquire knowledge
through incidental
learning:

- ✓ Overheard
- ✓ Glimpsed
- ✓ Observed



How Gifted Thinkers Learn

For gifted thinkers, learning is not the acquisition of information, it is utilizing information to become an expert and a problem solver.

Gifted Thinkers in the Classroom



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Gifted Thinkers in the Classroom

- Do not respond to repetitive work
- Choice and control
- Supported risk
- Gifted students will not risk low grades for challenging work



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Gifted Thinkers in the Classroom

- Easy success = underestimation of one's own abilities
- Pressure to be effortless = lower standards
- Effective praise must be specific and personal



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Gifted Thinkers in the Classroom

Avoid

You are so smart!

You are so wonderful!

You are the smartest student I know!

Apply

I noticed how carefully you thought through the problem. You obviously worked very hard to get the outcome you wanted.



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Gifted Thinkers in the Classroom

- Avoid worksheets
- Meaningful homework (less is more)
- Pre-Test, Pre-Test, Pre-Test
- Establish relevancy to real-life situations
- Encourage investigation and research
- Original and creative thinking



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Gifted Thinkers in the Classroom

- Complex thinking
- Interdisciplinary connections
- Accelerated pace of learning (less review)
- Advanced, sophisticated content
- Abstract concepts
- Critical evaluation



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Gifted Thinkers in the Classroom

- Analyze the degree of challenge and variety in your current lesson plans
- Innovate: Modify, adapt, or design new approaches to instruction in response to students' needs, interests, and learning preferences



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Gifted Thinkers in the Classroom

- Accelerate pacing
- Eliminate repetition or busy work
- Flexible timelines (to go beyond/deeper)
- Open-ended tasks
- Consider student interests



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Strategies for Gifted Learners

1. Most Difficult First
2. Tic-Tac-Toe
3. Learning Contract
4. Independent Study Contract



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Strategies for Gifted Learners

5. Thematic Unit Plan
6. Bloom's Taxonomy of Thinking
7. Student Made Learning Centers
8. Flexible Grouping



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Using Technology

to Engage Gifted Students



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Find the SPARK

Discover what your students get excited about.

- Student interest inventory
- Talk with gifted teacher



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Local school districts have discretion over which technology partners and products are utilized in their districts. For legal advice regarding technology services, please contact your local school board attorney.



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IGNITE the Learning

Create an independent study contract.

- Students independently study a topic and are held accountable for their learning
- Students can then work on content selected by the teacher
- Honored by both parties



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IGNITE the Learning

Allow students to learn at their own pace.

- Choose specific content according to their interests
- Avoid open-ended Google or YouTube searches
- Be aware the content level may not match the maturity level (age appropriateness)



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IGNITE the Learning



<https://www.khanacademy.org/>



PBS
LearningMedia™

<https://mpb.pbslearningmedia.org/>



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IGNITE the Learning



<http://www.nbclearn.com/portal/site/learn/resources>

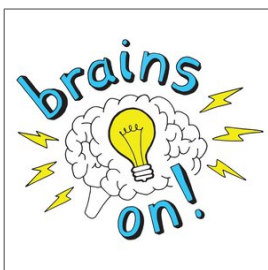


<https://ed.ted.com/>



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IGNITE the Learning



[Brains On](#)



[But Why](#)



[The Past and the Curious](#)



[Wow in the World](#)



Resource: <https://www.common sense media.org/blog/20-podcasts-for-kids>

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IGNITE the Learning



<https://braingenie.ck12.org/>

- Learn, practice, and take quizzes on 5,000 math and science skills
- Win badges and earn a spot on the leaderboard



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IGNITE the Learning



<https://www.frontrowed.com/>

- Lessons and student activities covering Math, ELA, Social Studies, and Science
- Teacher assigns lessons, students complete at their own pace
- Teacher dashboard shows students' progress



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IGNITE the Learning



newsela

<https://newsela.com/>

- Nonfiction texts at different reading levels
- Primary sources, biographies, speeches, careers, and myths & legends



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IGNITE the Learning



WORLD CREATIVE WRITING MONTH

<https://www.nightzookeeper.com/>

- Writing prompts and lessons for students
- Student writing competitions
- Share with parents



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IGNITE the Learning



<https://www.tynker.com/>

- Teaches students basic coding skills
- Students play games to master coding
- Teacher dashboard to track progress



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IGNITE the Learning



<https://www.codeforlife.education/>

- Teaches students basic coding skills
- Students play games to master coding
- Teacher dashboard to track progress



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Let them SHINE

Hold students accountable for their learning.

- Work does not have to be graded
- Work does not have to be presented to the class
- Teacher should provide timely feedback



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Let them SHINE

How can students demonstrate their learning?

- Website monitors student activity
- PowerPoint or other presentation
- Video
- Infographic or poster
- Multimedia timelines
- Short story or journal entry
- Flash cards
- Reflection



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Let them SHINE



<https://spark.adobe.com/>
Post, Page or Video

- Create posts, webpages, or videos
- Creative Commons images and sounds
- Download or share link

Let them SHINE



Piktochart
make information beautiful

<https://piktochart.com/>

- Design infographics, posters, and presentations
- Easily create charts and graphs
- Download or share link

Let them SHINE

Sutori

<https://www.sutori.com/>

- Create a multimedia timeline
- Include images, text, and links
- Students can collaborate



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Let them SHINE



<https://storybird.com/>

- Book Creator
- Use provided high-quality images
- Share link with parents



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Let them SHINE

Quizlet

<https://quizlet.com/>

- Students can create study aids
- Study sets can include text, images, and voice recordings



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Let them SHINE



<https://flipgrid.com/>

- 60-90 second video responses to posed questions
- Can include links
- <https://flipgrid.com/nit8ljf>



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Let them SHINE



<https://web.seesaw.me/>

- Digital portfolio
- Students can contribute text, images, drawings, or voice recordings
- Parent communication

Let them SHINE



ClassDojo

<https://www.classdojo.com/homepage6/>

- Digital portfolio
- Students can contribute text, images, drawings, or voice recordings
- Parent communication



Jen Cornett

Gifted Education Specialist
jcornett@mdek12.org
601•359 •2586

Melissa Banks

Instructional Technology Specialist
mebanks@mdek12.org
601•359 •2586