Pathways Between the Paradigms: Perceptions of Maine's Gifted and Talented Teachers During Initial MTSS Implementation

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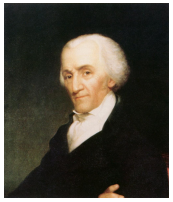
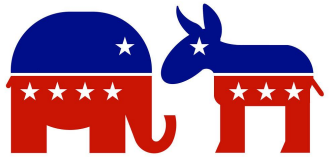


Researcher Positionality



- European Colonial Descent
- Generational wealth
- Educated privilege
- Defender of democratic ideals
- Liberal Christian (UU/ UCC)
- Interpreter
- Action research, elastic ideas
- Consider Power & Oppression

Problem Statement

Maine DOE implementation of the **MTSS-GT framework** is assumed to increase equity and access to gifted education for high ability/high achieving students.

Problems with initial implementation **include**:

- Implementation left to **local control**
- **Shortage of GT specialists in ME 2003-2024** (USDOE, 2024)
- Forces **conceptual paradigms conflict** in gifted education: traditional **"gifted child" (5%)** *and* fluid MTSS model with **"talent development" (10-15%)** *and* **"needs based differentiation" (100%)**
- **Tier Two: Difficult** for classroom teachers to sustain **differentiated instruction/content for GT** students
- **Universal Tier:**No **universal screener** requirement- hallmark of MTSS

Purpose

The purpose of the research study was to explore the perceptions of Maine's gifted and talented teachers around the MDOE's suggested implementation of the MTSS instructional framework at varying levels of intensity for students with gifts and talents, their perceptions of a change in their practice related to MTSS-GT, and factors related to their understanding and confidence levels.

Research Questions

- How do GT specialists in Maine perceive any change in their practice to support the MTSS-GT framework during Maine's initial implementation?
- What is the relationship of Maine's gifted and talented specialists' varied training and school context to their perceived adoption, understanding of, and confidence levels with the MTSS-GT model at various grade spans and tiered levels?

Rationale and Significance

- Gap in the research about the possible changing role of gifted and talented instructional coaches, consultants, or specialists and providing for the instruction of high ability learners in the MTSS setting at any given Tier

- Inform school policies around staffing needs/ role of the school or district GT specialist in MTSS system

- Contribute to best practices that support teachers' use of DI over time through ongoing coaching opportunities and interaction with school or district based gifted and talented specialists,

- Contribute to gifted educational policy field and research by "designing to the edges" (Rose, 2013) using observation and inference in smaller contexts to build middle ground theory that can be combined into a broader theory (Ambrose et al., 2010)

Conceptual Framework

Literature Review

Three paradigms of gifted education (Dai & Chen, 2013)

- the “gifted child” paradigm
- the “talent development” paradigm
- the needs-based “differentiation” paradigm.

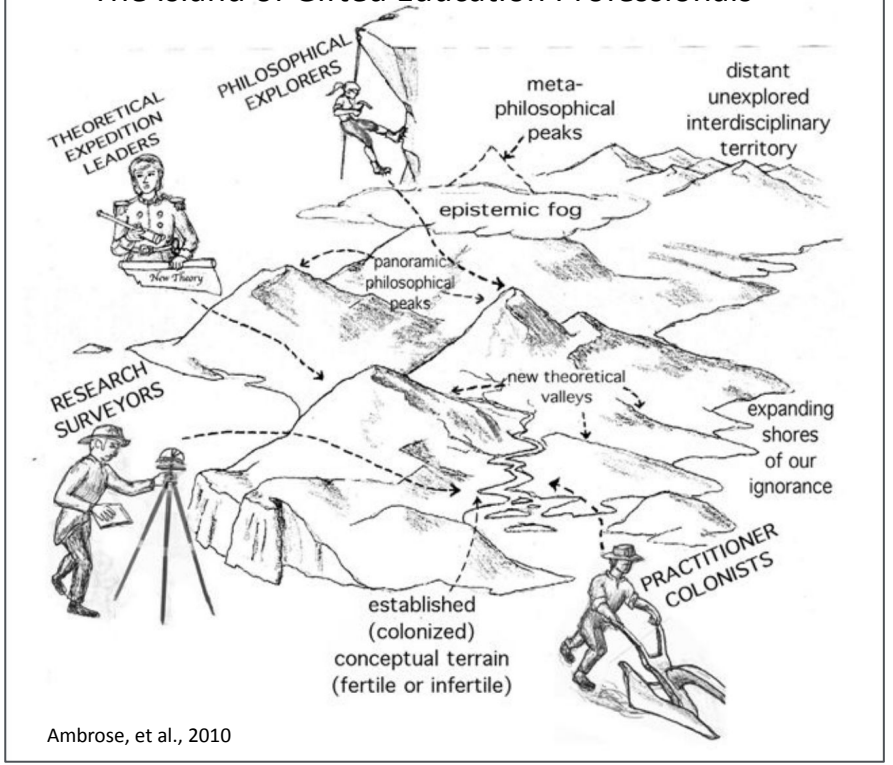
Multi-Tiered System of Supports

- Tier 1 (Universal Tier)
- Tier 2 (Small Group)
- Tier 3 (Intensive Supports)

Literature Review

- Fifty years of advocacy, controversy, lack of equity, and "missingness" in gifted education (Marland, 1971; Gentry et al. 2015)
- ESEA (1965) evolved to ESSA (2015)
- Fractured conceptual theory (Ambrose et al., 2010)
- Maine's current shift in gifted education policy

The Island of Gifted Education Professionals

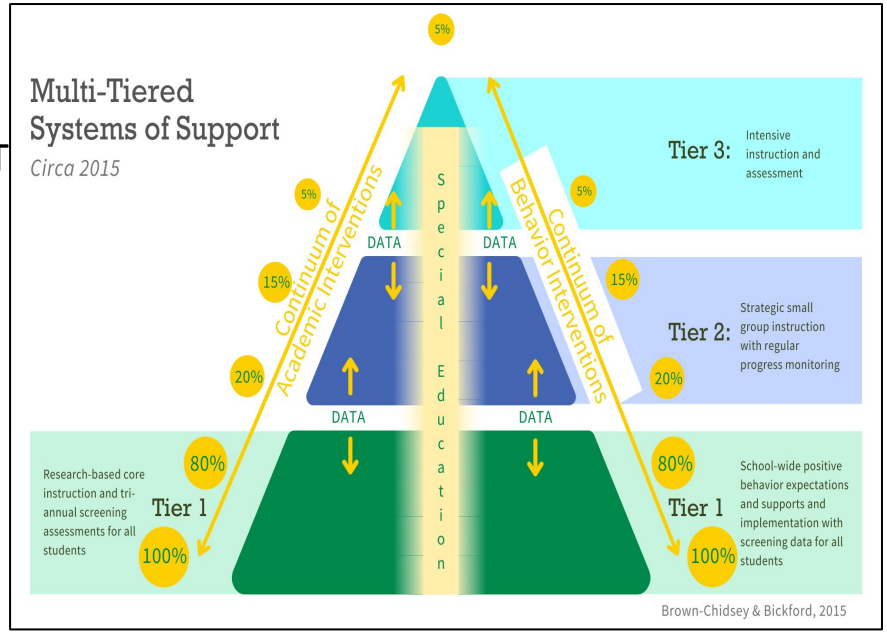


Ambrose, et al., 2010

Literature Review

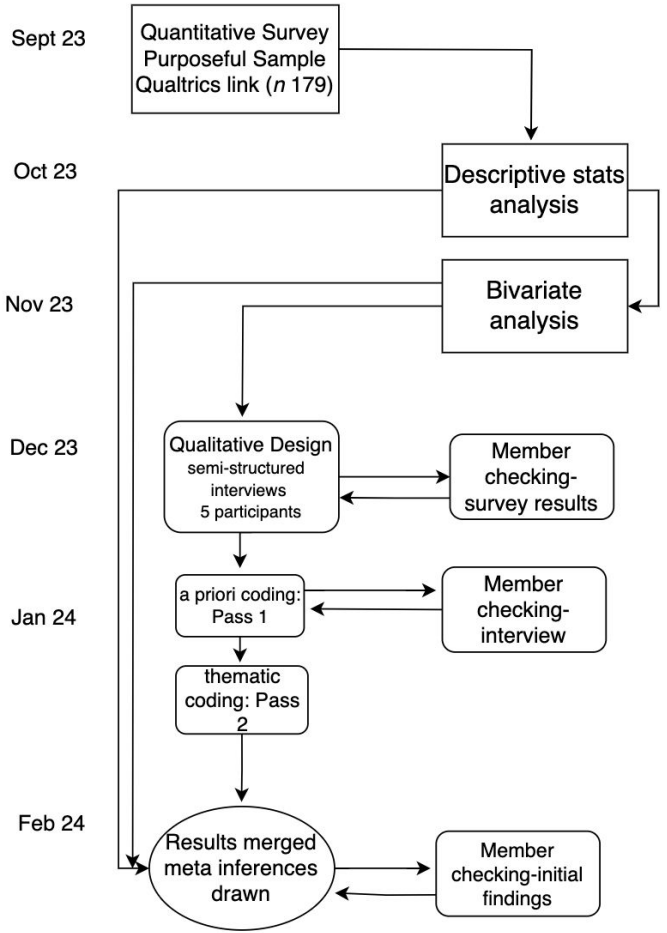
Multi-Tiered Systems of Student Supports (MTSS) framework trend to serve all students (Rinn, et al., 2022)

- 25 states adopted MTSS-GT, all 50 use MTSS (Zhang et al. 2023) despite well researched GT barriers
- Universal Screening for Talent
- Twice Exceptional (2E) students and MTSS considerations
- Classroom teacher difficulty sustaining Tier One differentiated instruction for *all* students



Research Design

Mixed Methods Explanatory Sequential Study



Risk Protection & Confidentiality

- Participation was no greater risk than encountered in daily life.
- Confidential survey
- De-identification of data
- Physical security of data/research files kept on an encrypted university account
- Access to identifying information allowed only for the supervising professor.

Data Collection

Quantitative

- "MTSS-X Maine GT Specialist Perceptions **Survey**"
- Three Sections (Education/Training, School Context/MTSS implementation, MTSS PD/Practice)
- **Variety of question types** (matrix, Likert scale, multiple choice & short answer)
- Researcher made using **Qualtrics** software & validity check

Qualitative

- Semi-structured **interviews** as follow-up to the survey, focused on individual context
- Record & transcribe using **Zoom**, check back w/participants for accuracy

Limitations and Delimitations

- PK-12 GT Specialists in public schools in Maine limit generalizability
- Did not include private or post secondary settings
- Did not include teachers' observed practice
- Relied on teacher self perceptions
- Voluntary participation may create possibility of response bias
- As a colleague in the field & secretary of my professional state organization, I may have influenced participant answers (more trusted *or* limited)

Sample

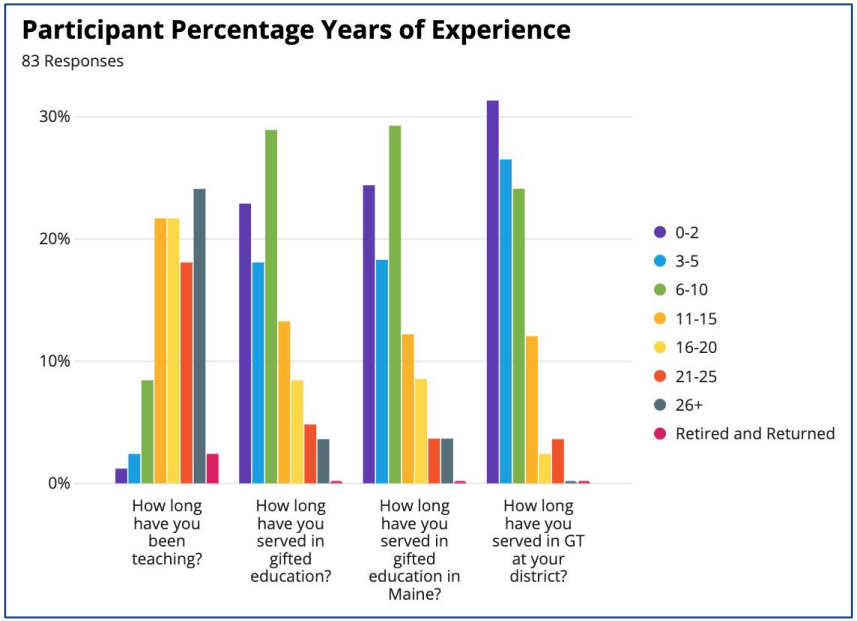
Quantitative

- Using a **purposive sampling model**, sent Qualtrics survey link to **189 GT** specialists in **Maine NEO database staff search** (11 bounced)
- **Voluntary**
- **85** respondents (***n* 179**)
- **Confidence level = 95%,** sample proportion .47
- **Confidence interval (MOE)= 7%** (w/in acceptable bounds 4-8%)

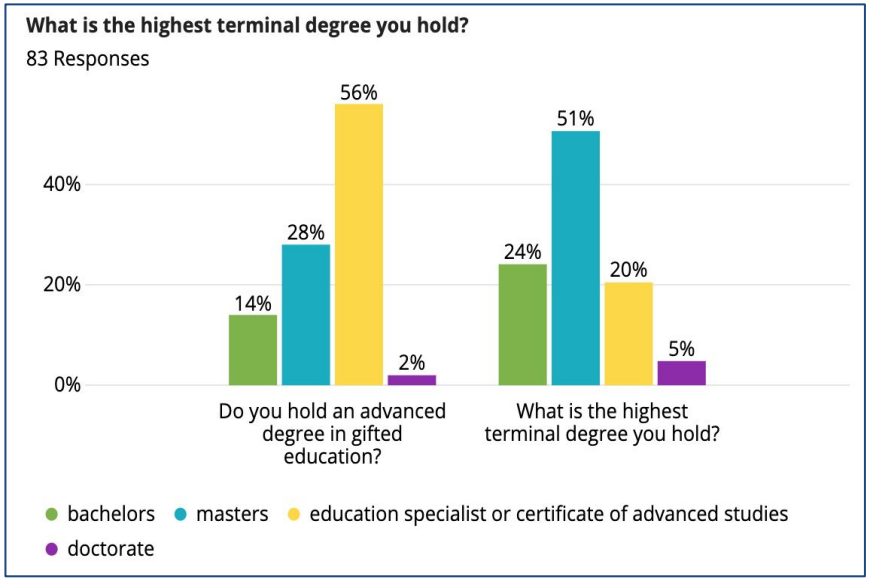
Qualitative

- **Volunteers** solicited through the survey= **18**
- **Five** participants were **purposively chosen** based on factors ID'd in bivariate analysis (elementary grade spans, advanced credentials, and perceived high level of understanding of MTSS-GT model and confidence implementing at various tiers).

Quantitative Sample Demographics

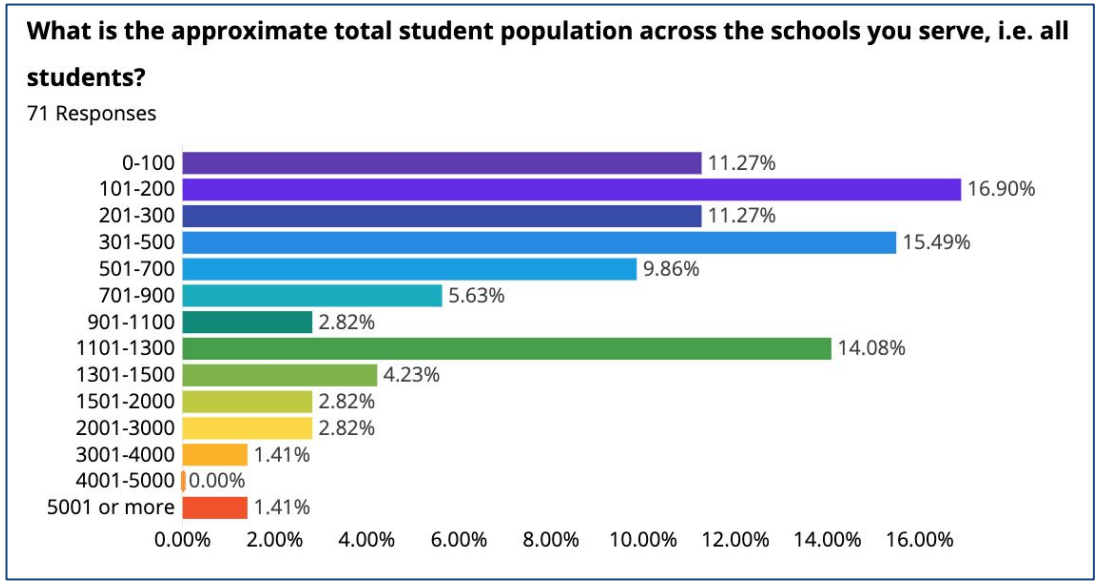


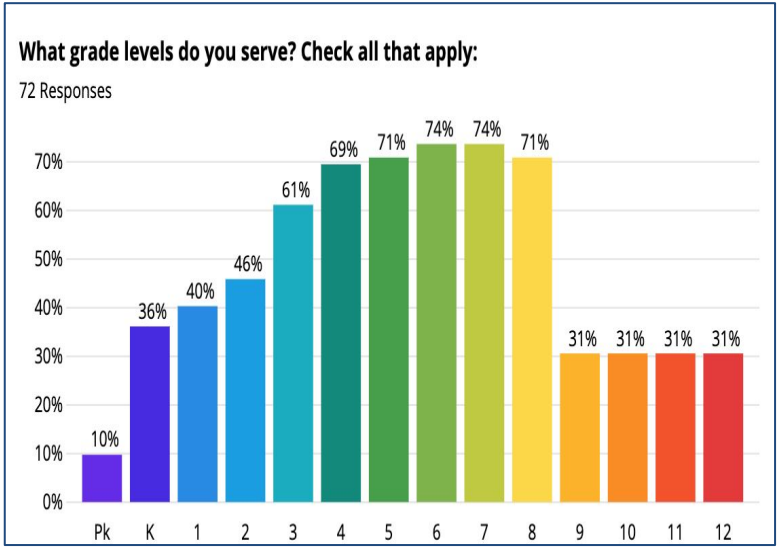
- Experienced classroom educators
- Inexperienced GT specialists



- 56% hold GT Specialist or CAG
- 51% hold Masters
- 28% hold Masters in GT

Quantitative Sample Demographics

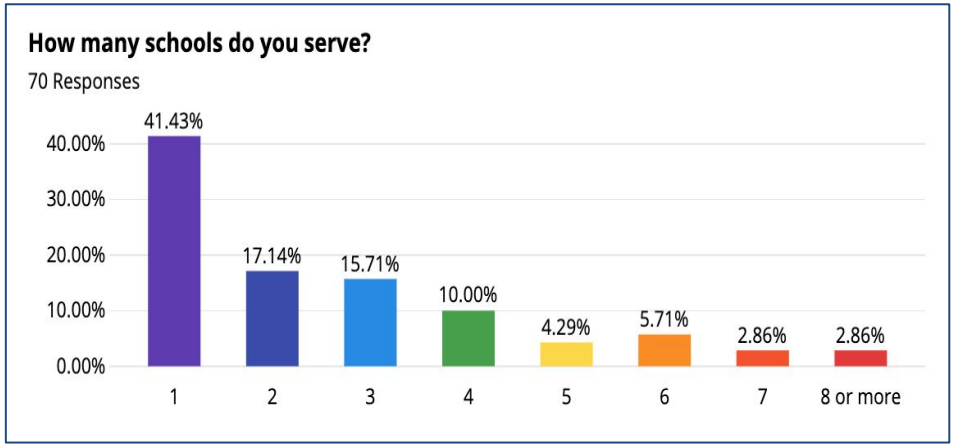


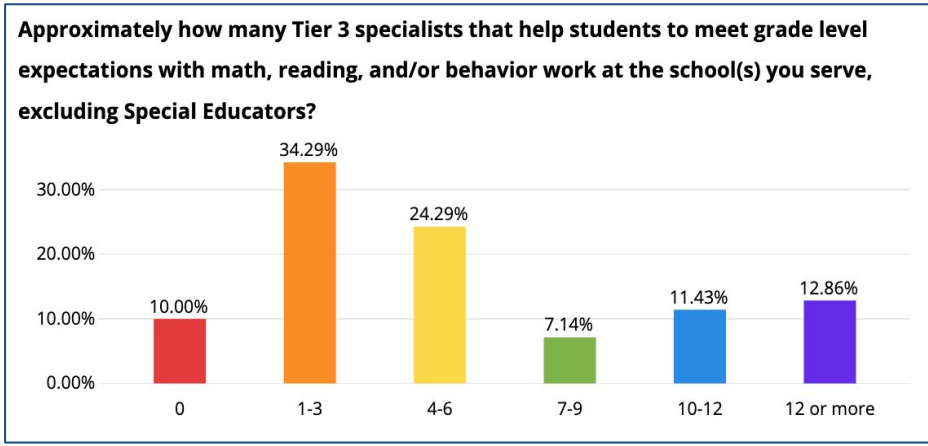


- 28% serve under 200
- 26% serve 200-50

- Serve at 3-8 grade spans

Quantitative Sample Demographics





Weak correlation between MTSS adoption and **how many schools the GT specialist served**, (r = .263, significant at .028 level, n=70)

Qualitative Sample Demographics

"Leah Neveah": 26+ years, 1 of 3 staff, grades 3-8, 3 (of 5) schools

"I was *very* miserable being retired. I had always planned to do (this) anyway when I retired, to start an online school for gifted kids."

"Francis Lightyear": 21-25 years, 1 staff, grades K-12, 3 (of 3) schools

"My students would come home with me on the weekends if they could!"

"Sarah Stanley": 15+ years, 1 staff, grades K-12, 5 (of 5) schools

Sarah sometimes feels "stretched kinda thin"

"Bonnie Lajoie": 26+ years, 1 staff, grades 3-4 (both GT and Tier 3), 1 (of 3) schools

She is "very happy" in her role working with this wide range of students.

"Willow Roth": 26+ years, 1 staff, grades 3-8, 1 school

"Whatever the needs are, I try to match the kids with what's going on, and the opportunities that are available to us."

Conceptual Framework

Results and Discussion

"Quality Use of Research Evidence" (QURE) (Rickenson et al., 2022)

- appropriate research evidence
- thoughtful engagement and implementation (skillsets, mindsets and relationships)
- three organizational enabling components (leadership, culture and infrastructure)

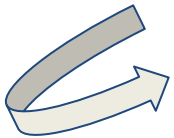
Data Analysis

Quantitative

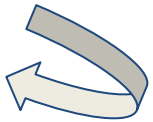
- **Descriptive statistics** (graphs, variability, frequency, used Qualtrics
- **Inferential statistics** (bivariate analysis) SPSS software
- Results analyzed used the **QURE framework** (use of quality research, organizational components & individual indicators) and **three GT paradigms**

Qualitative

- *A priori* coding used the **QURE framework** "individual" level (skill sets, mindsets and relationships) & **three GT paradigms**
- **Emergent themes** identified



Merge **Meta Inferences**

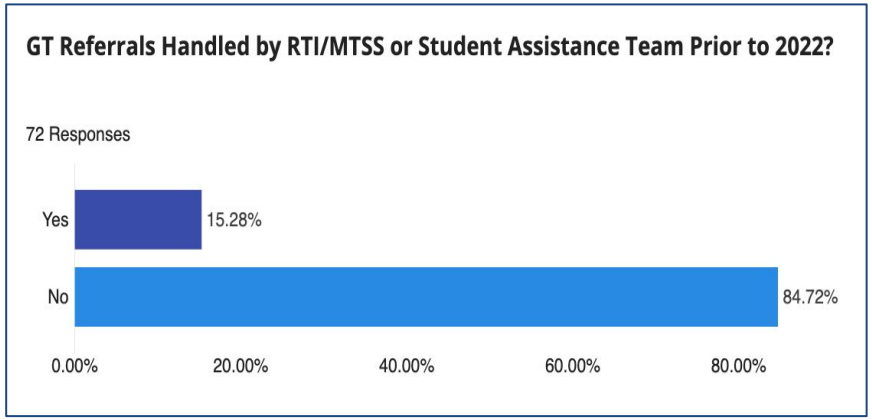


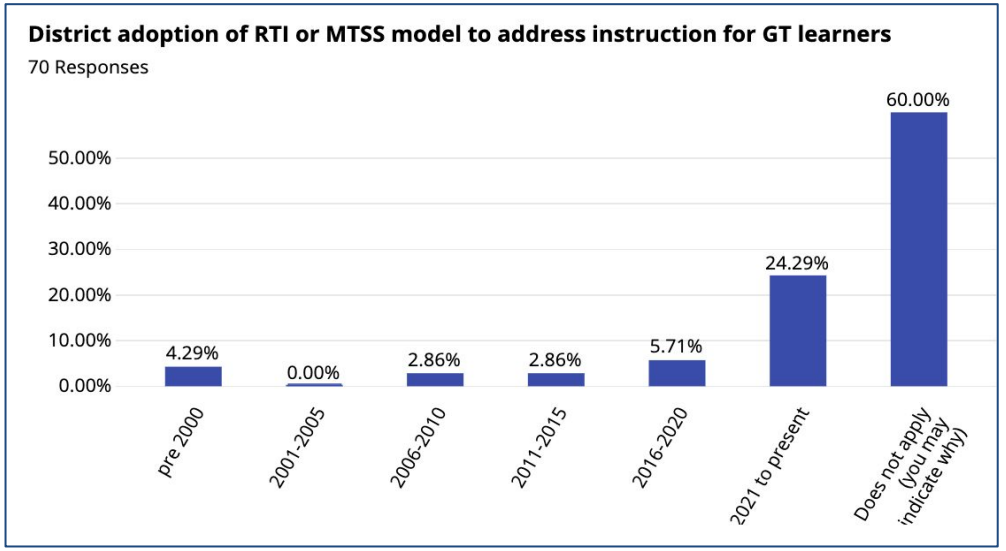
Key Findings

Perceived change in individual and district practice:

- 60% report no organizational adoption of MTSS-GT
- 75% report no change in identification procedures
    - \+ Small % w/change report *universal screeners* and *classroom teacher PD*
- 56% report no change of individual instructional practices
    - \+ 15% used MTSS before MDOE recommendation
    - \+ Relationship between advanced degrees and MTSS understanding

Factors Related to Perceived Change in Practice of GT Specialists

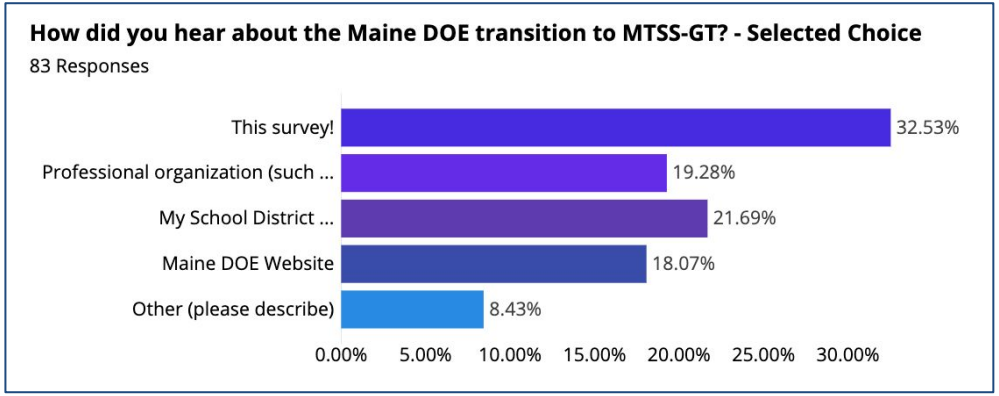


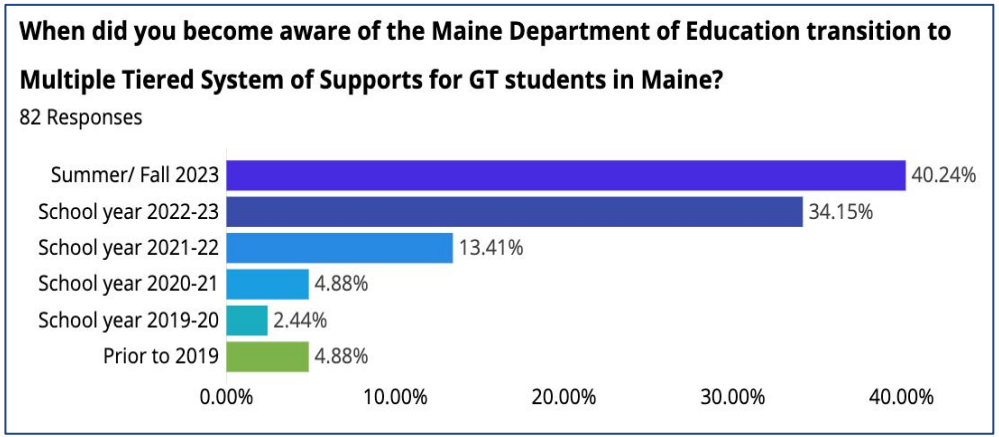


- 60% perceive MTSS-GT “Does not apply”
- 15% perceived use of MTSS-GT prior to 2022
- 41 survey comments indicated MTSS GT not in organizational use

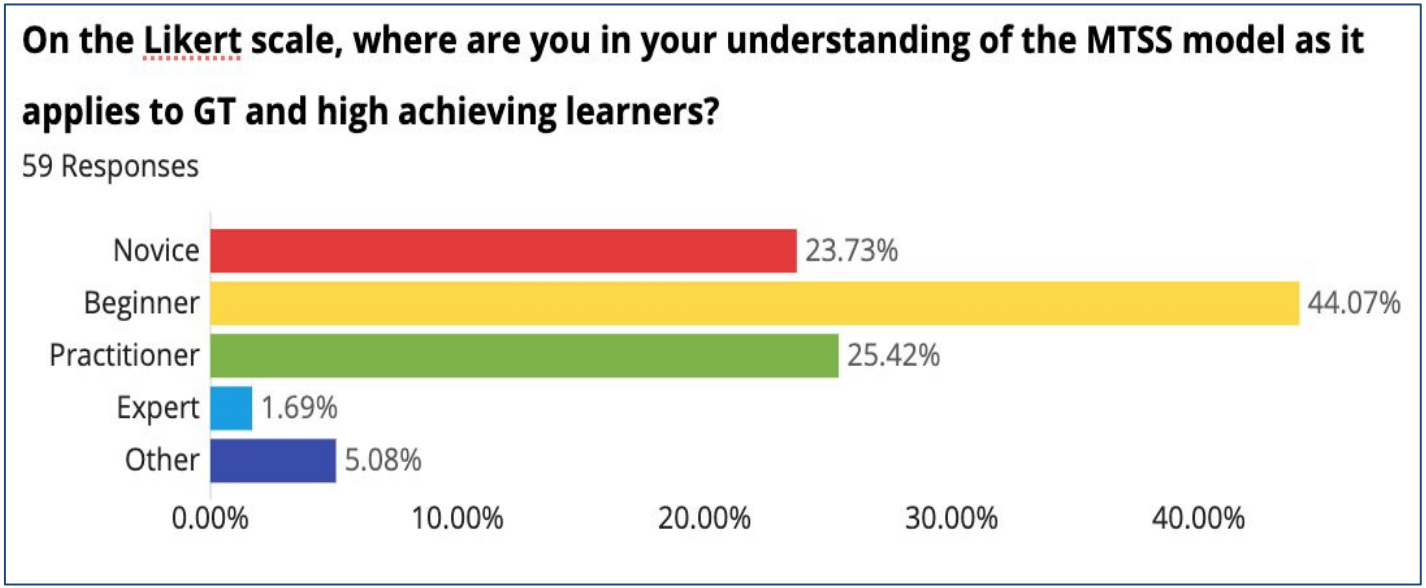
Factors Related to Perceived Change in Practice of GT Specialists

- *r* = .016, .148, -.041 to -.233 at non-significant levels



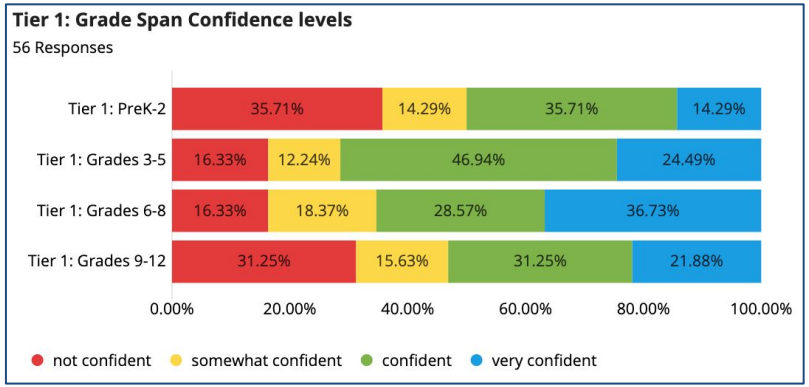


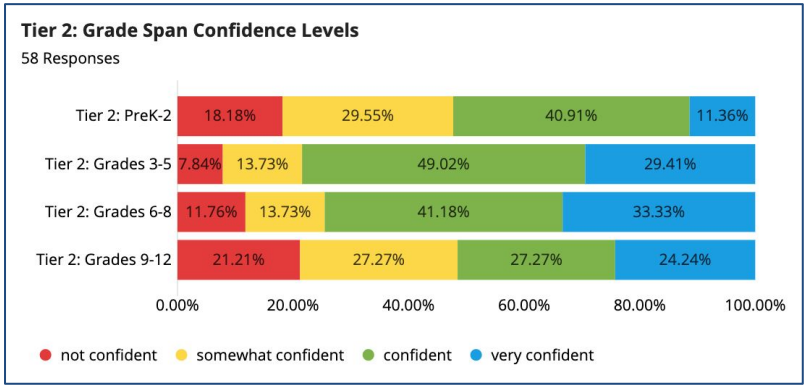
Factors Related to Perceived Confidence Levels & Understanding of GT Specialists

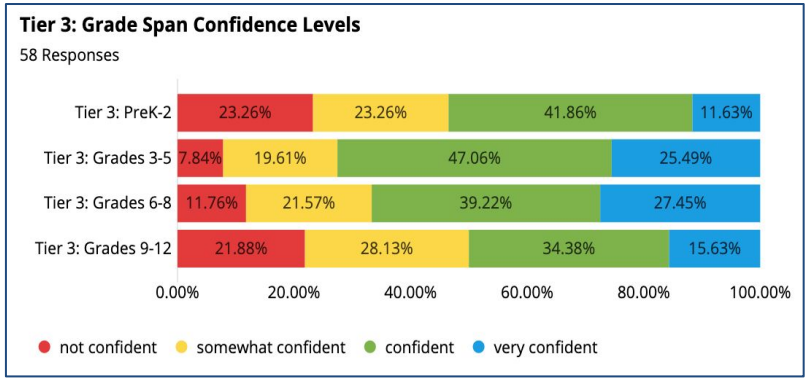


- Weak correlation between MTSS understanding and change in practice (r = .362, significant at .020 level, n=41)

Factors Related to Perceived Confidence Levels & Understanding of GT Specialists

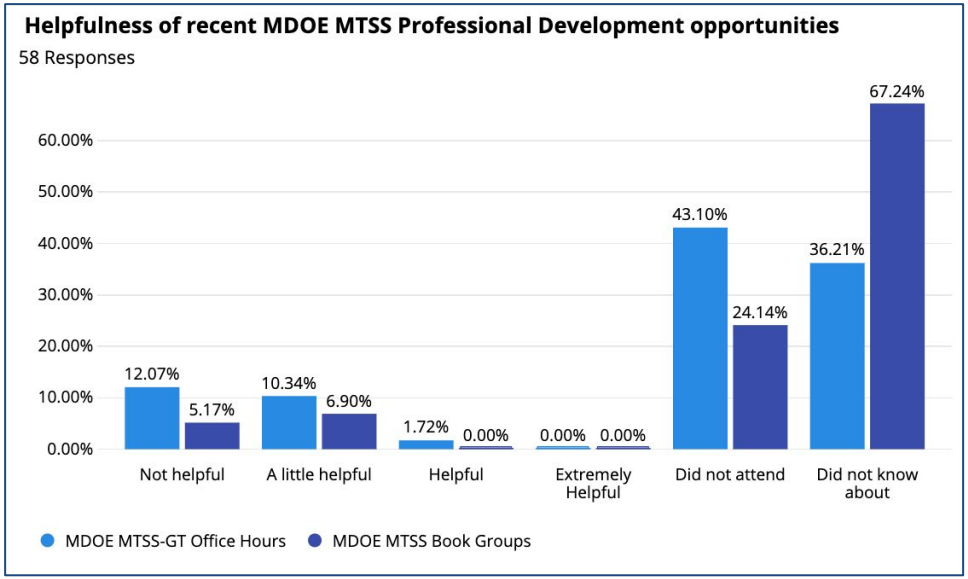


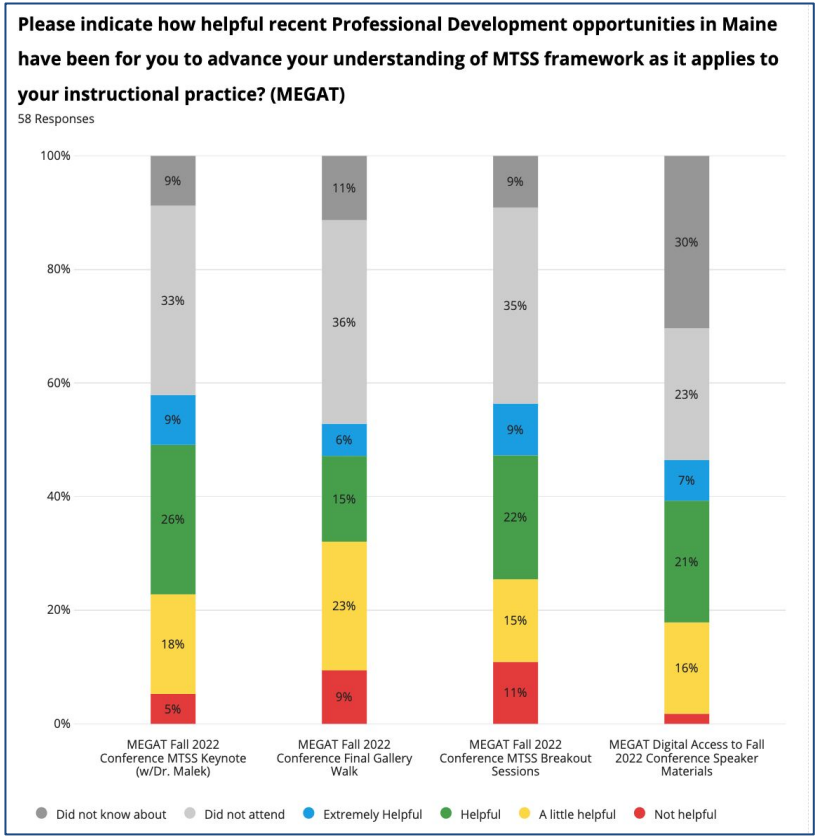




- Weak correlation between MTSS-GT understanding and grades 3 (r = .277, significant at .034 level, n=59) and grade 4 (r = .256, significant at .050 level, n=59).

Factors Related to Understanding and PD





- Moderate correlation between MTSS levels of understanding and holding an advanced degree concentrating in gifted education (r = .431, significant at .007 level, n=38)
- Weak to moderately significant correlations between MTSS-GT understanding and most PD offerings (r = .370 to .465, significant at .006 to <.001 level)

Barriers for MTSS-GT

Predictable:

- Lack of system level guidance
- Lack of organizational supports (staffing levels, student schedules, planning time)
- Perceived individual lack of knowledge of the model despite being experienced educators

Enabling Factors for MTSS-GT

System & Organizational

- System Level PD (MDOE & MEGAT)
- 85% of districts already use a schoolwide student-centered system of student supports
- Administrator support for researched-based practices (Cluster grouping, acceleration)

Enabling Factors for MTSS-GT

Individual enabling components:

- advanced training in gifted education
- ability to “blend the paradigms”

“For some kids, it's differentiation in the classroom. For some kids, it's consulting with the classroom teacher and giving them materials to use. For some kids, it's pull out classes. And that's very important for them, not just for academic reasons, but social ones. For some kids, it's acceleration. We have a kid who's in the seventh grade and taking geometry at the high school. It really depends on what the individual kid needs.” (Leah)

“When I choose to accelerate one of my students to a higher-level math class, it's because they are far and away a full grade level or 2 ahead of their peers. That's a student whose needs are not going to be met at the Tier one level by just differentiating into another little math group in their math class. They need an entirely different kind of program. Whereas I do have other students who I really don't pull out or see at all whose needs are met perfectly fine within the classroom by a teacher who differentiates well at the Tier One level, so it runs the gamut. (Sarah)

Enabling Factors for MTSS-GT

Individual enabling components:

- organizational relationships

"I do some curriculum development. I'm very interested in diverse reading materials. So I've brought a lot of new text options into various classroom levels. I helped our fifth grade team develop a civics program that's based on local Maine State Government and then bringing our state rep into the classroom. I do things to bring in guest speakers or to set up field trips. I sometimes teach lessons. I get grants and things." (Willow)

"There are about seven third grade teachers and six fourth grade teachers, so I build into my schedule once a week where I pop up during their planning time. I just say, 'What do you need? What do you need? What do you need?' And by a few weeks I've hit them all...I give every single student a folder, and it has just math, thinking and reading, thinking and word things and science things that they bring back and forth with them. And then I'm constantly loading it. When they're finished in their classrooms they have stuff that they can do. I have a pretty extensive Google classroom. So they always have access to stretching things. They always have access to differentiation in their classrooms without me." (Bonnie)

Enabling Factors for MTSS-GT:

Individual enabling components:

- Curious mindsets

"(Neurodiversity)That's a new thing that we didn't hear about 23 years ago. That's something I jumped on and just kind of learned about it, because we always had those kids, we didn't call them neuro, neurodiverse. But we always scooped them up or did what we needed to do. The whole research and science about their brains and their differences and their needs is fascinating, and I like to think most GT practitioners would have jumped on that. We always had those kids. So that's very exciting to me, it's been really fun to just learn and **I always like to keep figuring stuff out.**" (Bonnie)

"I'm **doing some follow-up study** on the people who were in the class who are now in their forties?! Yeah! I'm feeling really old!" (Leah)

"I feel like I'm really looking for somebody to do some work with MTSS because I've heard about it. But **when you really look into it and try and find something to apply- hard to find, so the details aren't available yet.** I don't know if you're finding more information, but I feel like it's a little bit of a black hole right now and needs to be made more visible, more intentional." (Willow)

"That's the thing about being a gifted and talented teacher is **you have the same curiosity that your students do and it's hard to stifle it** sometimes... I'm starting my '52 books list'. I do that whole thing where you try to read a book a week. But I never make it. Last year I made it to thirty something. This year I made it to like 42 or 43." (Sarah)

Conclusion

Central finding: 60% of survey participants reported their districts had not adopted an MTSS-GT or similar student-centered approach to gifted education, nor had their individual practice changed.

Factors related to the adoption and understanding of MTSS-GT:

- Grade levels served (Gr 3 & 4)
- Number of buildings GT specialists serve
- Advanced degrees specializing in gifted education (as with Bonnie, Francis and Leah) or curriculum development (as with Sarah and Willow).

Enabling factors for the MTSS-GT framework:

- System level PD
- organizational leadership, culture and infrastructure support
- individual understanding and confidence levels, mindsets and skill sets

Important individual enabling components:

- Advanced training in gifted education
- Curious mindset
- Skillset of blending theoretical paradigms
- Relationships built with classroom teachers that supported gifted student learning throughout the school day.

Policy Implications

System Level:

- Improved communication between stakeholders
- Pipeline of new specialists, opportunities for advanced training
- Universal screener funding, align Ch 104 identification rules;
- Define use of local norming, develop EPS funding % per pupil
- Develop pupil:staff guidelines (1 GT staff per 500 Pk-5 total pop, 1 GT staff per 1000 Gr 6-12, minimum .5 position)

Policy Implications

Organizational Level:

- Administrators use research based practices (cluster grouping, acceleration, universal screening) at the Universal Tier
- Observe for Differentiated Instruction practice at Tier Two
- Planful staffing solutions
- Support opportunities for co-planning and PD

Individual Practice Implications

- Continue providing targeted Tier 3 intensive individualized supports
- Seek opportunities for advanced training at system level
- Offer PD on best gifted education practices at organizational level
- Talent Scout at the universal tier through whole class and schoolwide enrichment opportunities
- Support differentiated materials and collaborate with classroom teachers to meet behavioral, SEL, and academic needs of high achieving and high ability students

Future Study

- Measure continuing small trend of organizational level adoption of MTSS-GT; confirm and identify new themes
- Measure effectiveness of MTSS-GT models in varied contexts through case studies
- Case studies with organizations with no specialist for GT PreK-2 & 9-12 to explore varied factors that relate offering gifted instruction at all levels.
- Bivarate analyses with organizational adoption of MTSS-GT and number of new system level policy initiatives as perceived by organizational leaders

Questions?