



February 18, 2013

Appendix OOO-8-29
February 25, 2013

TO: Board of Education

FROM: Jane Belmore, Interim Superintendent

RE: CogAT Update

I. Introduction

A. Title or Topic: CogAT Update

B. Presenters: Sue Schaar, TAG Coordinator
Tim Peterson, Assistant Director of Curriculum and Assessment
Bo McCready, Data Researcher

C. Background Information: This information is provided in response to a request for more information made at the January 28th Regular Board of Education meeting regarding the implication of CogAT for the 2012-13 school year. Communication with DPI TAG consultant has occurred on numerous occasions. A Review Committee, with additional members, met twice since January 28 and a survey of options was developed and distributed to the Assessment Review Committee and elementary and middle school principals. Results from this survey, in addition to previous Review Committee information, were used to develop the recommendation.

The BOE requested a report on CogAT which is attached to this memo.

II. Summary of Current Information

A. Synthesis of Topic:

The initial TAG Plan, created by a variety of stakeholders including teachers, administrators, parents, and community members was approved by the Board of Education on August 27, 2009, and revised and approved on December 13, 2010. The Department of Public Instruction determined that the MMSD TAG Department was out of compliance at the end of May 2011. The new TAG Plan was written to address issues of noncompliance; the plan was approved by the BOE on August 8, 2011. An extension of one year was granted to MMSD to become compliant. The CogAT assessment is included in the revised TAG plan as one component of the multiple measures used to identify students in the General Intellectual domain.

The TAG audit revealed that MMSD is in compliance for identification of students in the General Intellectual domain. We need identification tools for leadership, creativity, visual and performing arts to be compliant in these domains.

B. Recommendations:

- i. Based on survey results (attached) and previous recommendations from the Review Committee, it is recommended to continue using the CogAT assessment in grades 2 and 5 as one component of the multiple measures used to identify students in the General Intellectual domain. Before distributing the survey, we consulted with DPI staff to determine if suggested options in the survey would meet compliance. (MAP and WKCE, used alone, do not meet compliance.) The documents attached speak to the usefulness of CogAT to the TAG Department in search for students, including typically under-represented students.
 1. Based on the CogAT results from last year's 2nd graders and current 3rd graders (MAP/CogAT), we recommend using the 75th and 77th percentile instead of the 95th percentile indicated in the chart provided (page 4) to capture more students for talent development.
 2. Furthermore, based on the 5th grade results of MAP/WKCE/CogAT, we recommend using the 75th and 77th percentile to capture more students for talent development.
 3. For the short term, TAG staff will review classroom student data with teachers and appropriate others.
- ii. The Assessment Review Committee reconvened twice to consider alternate options for short term use in identifying students in the General Intellectual domain.
- iii. The longer term TAG Assessment Review Committee (comprised of classroom teachers, principals, and central office staff including psychologists) will establish tools and protocol for the long range identification system for General Intellectual, Leadership, Creativity and Visual and Performing Arts. The administrator responsible for this is Sue Schaar.

III. Implications

A. Budget: No change

B. Implications for the Organization: MMSD will have an identification process to search for students, including typically under-represented students. MMSD will be in compliance with DPI regarding identification of students in the General Intellectual domain.

IV. Supporting Documentation

- A.** History of CogAT in MMSD
- B.** CogAT: Assessment Review Committee Process
- C.** CogAT Stanine Distributions 2011-12
- D.** Flow Chart to Capture More Students for Talent Development
- E.** Table of Score Chart Condensed Version
- F.** Survey Results

Report to MMSD Board of Education Regarding CogAT February 18, 2013

History of the Search for a General Intellectual Screening Process in MMSD

Since 2007, there have been several Assessment Review Committees established to review assessments in the General Intellectual domain: Naglieri, RAVEN, and CogAT. Following is a history of the process.

2007-2008 (Welda Simousek, MMSD TAG Administrator)

- Review Committee researched assessments to use in aiding identification
- Dr. Donna Ford met with the committee two times
- Committee made decision to pilot the Naglieri (non-verbal test)
- Information was presented to Management Team to pilot the Naglieri
- Pilot of Naglieri was conducted at two schools:
 - ❖ Thoreau—by computer
 - ❖ Emerson—by paper and pencil

2008-2009 (Gretchen Wolf, MMSD TAG Administrator)

- Decision was made not to use the Naglieri and to research other identification tools

2009-2010 (Barbie Klawikowski, Interim MMSD TAG Administrator)

- Review Committee consulted with Dr. Scott Peters, a professor at UW-Whitewater who was recommended from DPI
- Review Committee examined new research comparing Naglieri to CogAT and RAVEN
- Decision was made to pilot CogAT (verbal, quantitative and non-verbal subtests) since it provided more comprehensive data related to instruction

2010-2011 (Paul Bishop, Interim MMSD TAG Administrator)

- CogAT Form 6 was administered at all elementary schools
 - ❖ Grades 2 and 5
 - ❖ Paper and pencil
- Review Committee had contention regarding use of CogAT at this time and asked that results be shared only with principals who were asked to
 - ❖ Provide information to parents if they requested
 - ❖ Keep information confidential for students not identified for TAG services
- Review Committee recommended no PD be provided to teachers since the Ability Measurement was only to be used for identification of students
- A DPI complaint was filed against MMSD from parents and MMSD was found to be out of compliance in identifying and providing adequate TAG programming

2011-2012 (Sue Schaar, MMSD TAG Administrator)

- Fall:
 - ❖ TAG staff met with principals to review data for students at stanines 7, 8, and 9
 - ❖ TAG staff investigated triangulating data between CogAT WKCE/MAP
- Spring:
 - ❖ TAG staff used triangulated data from 2010-2011 CogAT to make suggestions for clustering/flexible grouping at schools (for grades 3 and 6) so students would have appropriate level of instruction and conversation with like-minded peers to support BOE approved TAG Plan
 - ❖ Administration of CogAT Form 7
 - Grades 2 and 5
 - Paper and pencil
 - ❖ Contention was still present regarding use of CogAT
 - ❖ Results were shared with principals who were asked to keep the information confidential for students not identified for TAG services
 - Provide information to parents if they requested
 - Keep the information confidential (principal eyes only)
- Review Committee recommended no PD provided to teachers since the Ability Measurement was only to be used for identification of students
- The Board of Education asked the district to re-convene a committee to examine the results of CogAT

2012-2013 (Sue Schaar)

- Fall:
 - ❖ TAG staff met with principals to review data for students at stanines 7, 8, and 9
 - ❖ TAG staff investigated triangulating data between CogAT WKCE/MAP
 - ❖ TAG staff worked in schools to provide programming and support for teachers
- Winter:
 - ❖ DPI report indicates that MMSD is in partial compliance
 - ❖ DPI staff came to Review Committee's meeting stating that MMSD needs:
 - A universal identification screener
 - TAG plans need to include the use of multiple data points
 - Any assessments used should be responsive to the needs of students from a variety of categories, including poverty and ethnicity
 - Identification for General Intellectual is part of the WI law
- DPI staff stated that any assessment tool utilized for the purposes above should be piloted a minimum of 3-5 years with the notion that it should be tweaked to find populations of students who are not being identified in numbers that correlate with the population.

CogAT: Assessment Review Committee Process 2012-13

Introduction

Cognitive Abilities Test (CogAT) measures general reasoning level and the aptitude of students to solve problems. The three areas assessed are verbal, quantitative, and nonverbal reasoning abilities. The CogAT measures developed abilities, not innate abilities, and it is influenced by in-school and out-of-school activities.

CogAT is administered as part of the comprehensive process for identifying, placing, and providing appropriate next level of challenge for all students, whether they are currently struggling, are demonstrating advanced learning, or are not presently achieving at a high level even though they have the skills that would allow them to succeed in school.

Review Committee

This review was conducted by a working group of the Assessment Review Committee. As such, the working group was composed of three school psychologists, three Talented and Gifted (TAG) resource teachers, the Deputy Superintendent, the Executive Director of Curriculum & Assessment, the TAG Coordinator, the Director of Student Services, the Chief Diversity Officer, representatives of Research & Evaluation, and the Assistant Director of Curriculum & Assessment.

This group met over the course of two months. The information contained in this report was presented to the Assessment Review Committee and the Management Team.

The Review Committee first looked at the reasons behind why the district is using the CogAT. These included, but are not limited to:

- Helping identify students from underrepresented populations for potential TAG interventions.
- Providing triangulation (though not ideal) data from academic aptitude tests (MAP and WKCE).
- Obtaining data from an abilities and reasoning test.

While data from these tests help identify students for potential TAG programming, it was also recognized that identification should include leadership, creativity, and Arts (visual and performance).

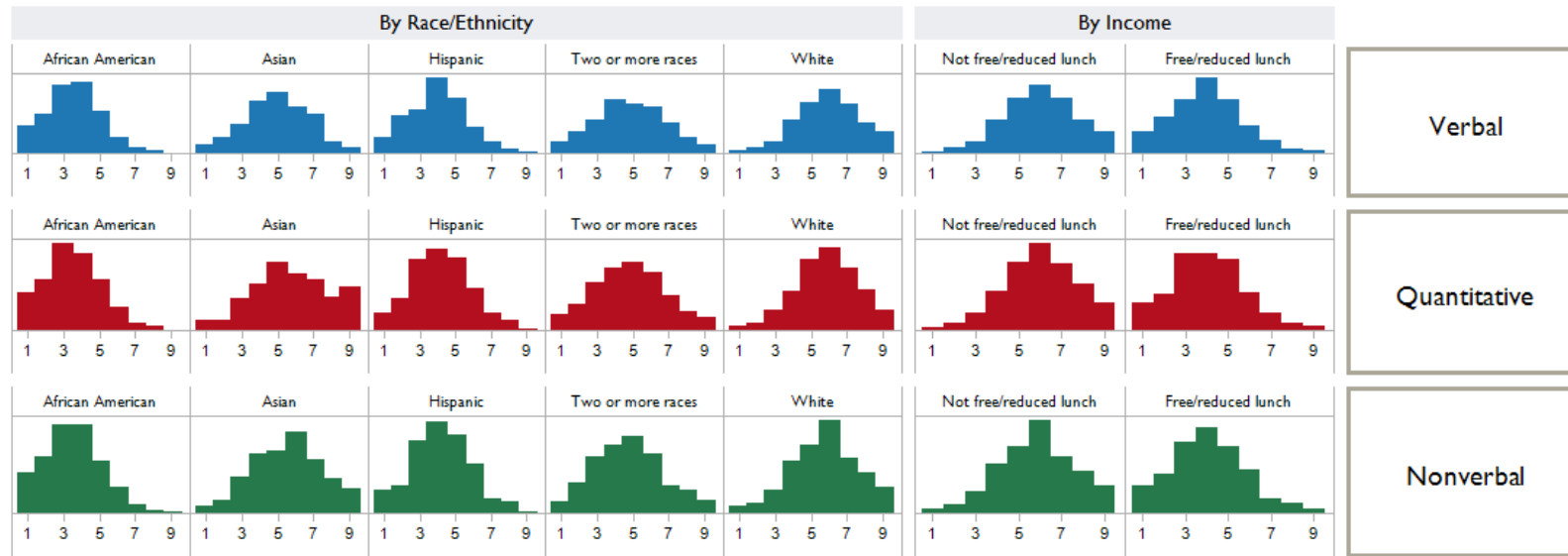
The Review Committee looked at several assessments, and the following question was asked:

Are there other assessments currently in use in the district that could be used in place of the CogAT?

The Review Committee determined what data were needed to help answer the questions presented. Not all questions asked in the group could be answered with supporting data; some data were not available or were not collected due to work load issues.

It should be noted that the CogAT is one of several pieces of data that is collected and used by the TAG department in offering placement suggestions and programming to students. There is no single test that is solely used to make these determinations.

CogAT Stanine Distributions 2011-12 2nd and 5th Grade



The graphs above show the distribution of CogAT stanines by race and income from 2011-12. They can be read just like a table, but with graphs instead of numbers. By reading across from left to right, you can see how different groups scored on each test. By reading from top to bottom, you can see how the same group scored on the three different tests. We present a distribution of stanines rather than an average score because distributions provide greater detail about the performance of all students, not just average students.

Each bar represents the percentage of students scoring at each stanine. Graphs with higher bars to the right represent better scores overall while graphs with higher bars to the left represent worse scores overall.

Overall, white and high-income students score much better on the CogAT than their peers. However, within each racial or socioeconomic group, students score about the same on each of the three tests. Students' results on the three sections of the CogAT are very highly correlated.

The Demographics of 2nd and 5th Grade CogAT High Performers 2011-12

	Verbal 7-8-9	Verbal 9	Quantitative 7-8-9	Quantitative 9	Nonverbal 7-8-9	Nonverbal 9
Asian	76	7	130	44	109	24
African American	21	0	22	1	21	3
Hispanic	43	2	61	4	54	4
Native American	4	1	3	1	3	0
Two or more races	54	8	51	10	46	9
Pacific Islander	2	1	2	0	1	0
White	672	146	627	105	578	124
Low-income	123	14	150	22	148	22
Not low-income	743	151	740	141	657	142
Total	872	165	896	165	812	164

	Verbal 7-8-9	Verbal 9	Quantitative 7-8-9	Quantitative 9	Nonverbal 7-8-9	Nonverbal 9
Asian	9%	4%	15%	27%	13%	15%
African American	2%	0%	2%	1%	3%	2%
Hispanic	5%	1%	7%	2%	7%	2%
Native American	0%	1%	0%	1%	0%	0%
Two or more races	6%	5%	6%	6%	6%	5%
Pacific Islander	0%	1%	0%	0%	0%	0%
White	77%	88%	70%	64%	71%	76%
Low-income	14%	8%	17%	13%	18%	13%
Not low-income	85%	92%	83%	85%	81%	87%
Total	100%	100%	100%	100%	100%	100%

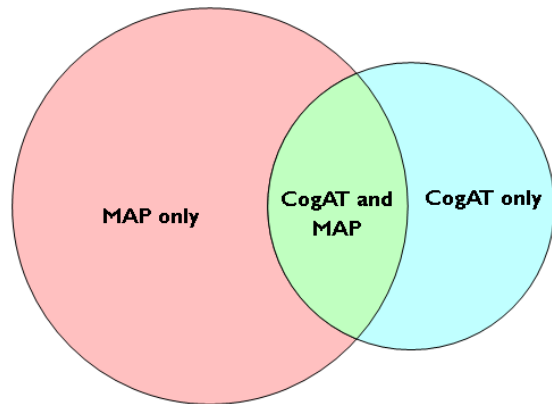
The Characteristics of Students Identified by the CogAT ONLY, 2011-12 (5th Grade Only)

		Scored Above 77 th %ile CogAT Verbal, Below 75 th %ile WKCE or MAP	Scored Above 77 th %ile CogAT Quantitative, Below 75 th %ile WKCE or MAP	Scored above 96 th %ile CogAT Verbal, Below 95 th %ile WKCE or MAP	Scored above 96 th %ile CogAT Quantitative, Below 95 th %ile WKCE or MAP
Asian	Number	2	5	1	5
	Percent	6%	8%	5%	24%
African American	Number	2	4	0	0
	Percent	6%	7%	0%	0%
Hispanic	Number	1	14	0	1
	Percent	3%	23%	0%	5%
Native American	Number	2	0	0	0
	Percent	6%	0%	0%	0%
Multiracial	Number	2	5	2	0
	Percent	6%	8%	9%	0%
White	Number	25	32	19	15
	Percent	74%	53%	86%	71%
Already TAG-identified	Number	11	13	15	9
	Percent	32%	22%	68%	43%
Low-income	Number	12	23	0	3
	Percent	35%	38%	0%	14%
English Language Learner	Number	1	7	0	2
	Percent	3%	12%	0%	10%
Special Education	Number	2	3	0	3
	Percent	6%	5%	0%	14%
Total		34	60	22	21

Students who score well on the CogAT but not the WKCE or MAP are largely white and not from low-income families. For example, of 34 5th grade students who scored in stanines 7-8-9 on the CogAT Reading but not above the 75th percentile on MAP or WKCE reading, 25 were white and 12 were low-income.

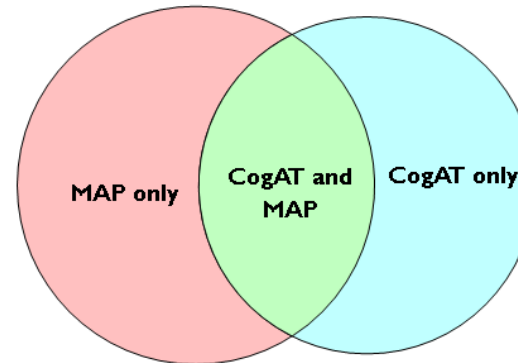
Second Grade CogAT and Third Grade MAP Scores, 95th Percentile MAP, Stanine 9 CogAT 2011-12

Verbal CogAT and Reading



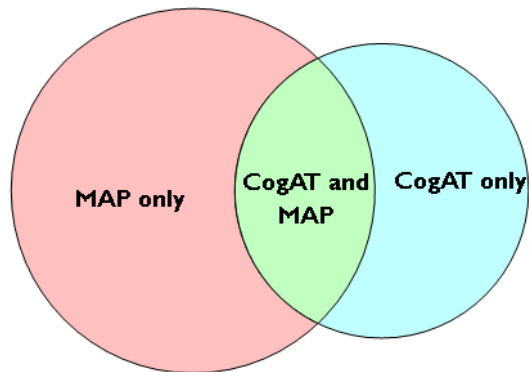
MAP	135
CogAT	71
Both	29
CogAT ONLY	39
MAP ONLY	106

Quantitative CogAT and Math



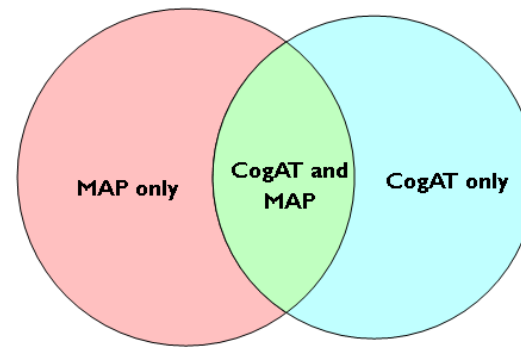
MAP	96
CogAT	85
Both	36
CogAT ONLY	39
MAP ONLY	60

Nonverbal CogAT and Reading



MAP	135
CogAT	88
Both	34
CogAT ONLY	48
MAP ONLY	101

Nonverbal CogAT and Math

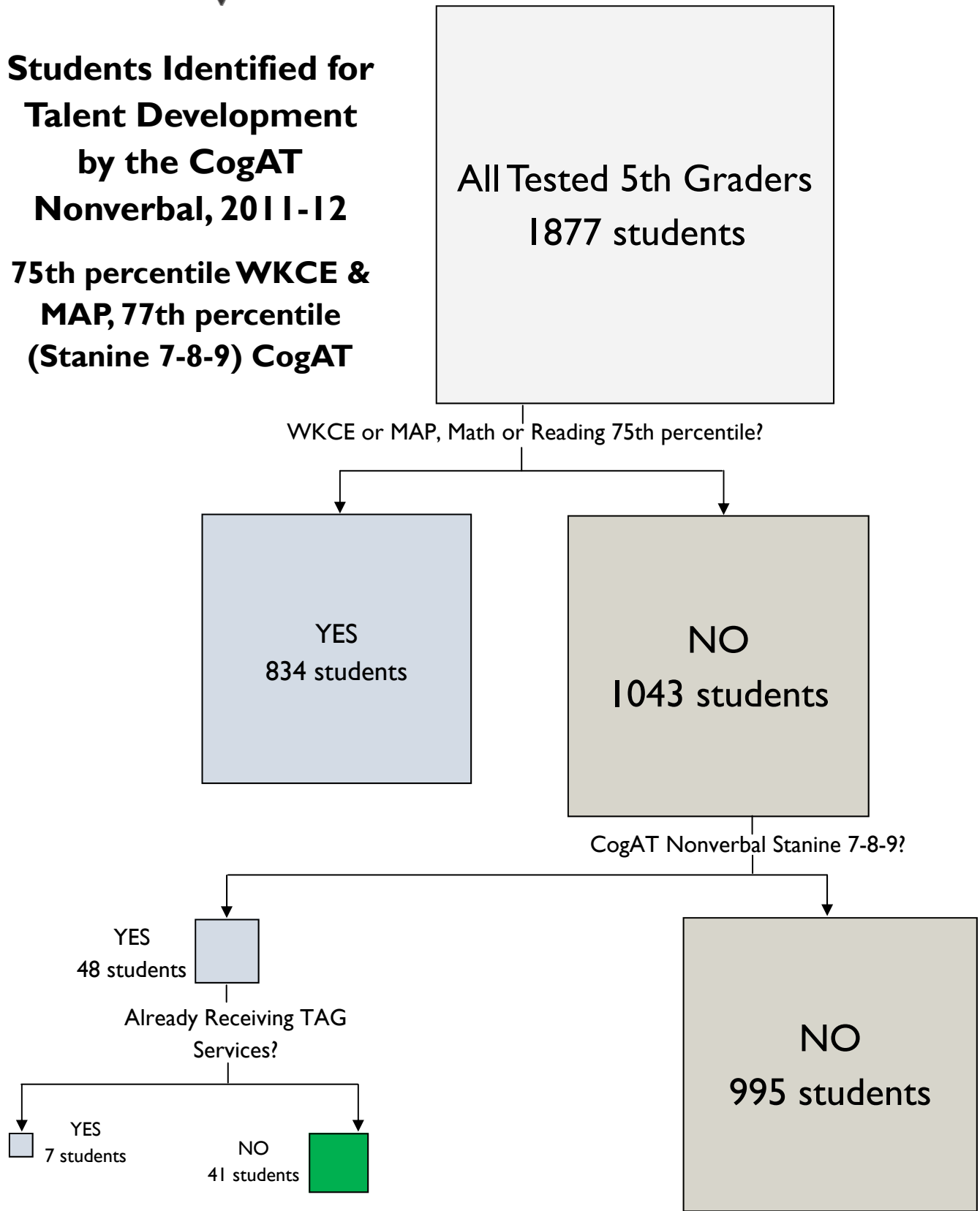


MAP	96
CogAT	88
Both	29
CogAT ONLY	51
MAP ONLY	67

These graphs and tables show the overlap between second grade CogAT scores from 2011-12 and the same students' third grade MAP scores from the fall of 2012-13. Overall, 2,064 second grade students took the CogAT. The CogAT verbal identified 71 students not identified by the MAP. The CogAT quantitative identified 85 students not identified by the MAP. The CogAT nonverbal identified 88 students not identified by MAP reading and 88 students not identified by MAP math.



Students Identified for Talent Development by the CogAT Nonverbal, 2011-12
75th percentile WKCE & MAP, 77th percentile (Stanine 7-8-9) CogAT



41 students out of 1877 were newly identified for TAG talent development by the CogAT nonverbal.

Table of Score Chart Condensed Version

Scaled Score	Standard Score	Percent -iles	Broader Descriptions	Qualitative Descriptions	Stanine	Std Deviat -ions	
19	145	99%	Strength or Above Average	Exceptional Strength or Very well Developed or Superior or Excellent	9	+3	
18	140	99%				+2	
17	135	99%		Strength or Well developed or Above average or Good	8	7	+1
16	130	98%					
15	125	95%					
14	120	91%					
13	115	84%	Average	High average	6	0	
12	110	75%					
11	105	63%					
10	100	50%					
9	95	37%					
8	90	25%	Low Average	4	3	-1	
7	85	16%					
6	80	9 %					
5	73	5 %	Weakness or Below Average	Weakness or Poorly developed or Below average or Poor	2	-2	
4	70	2 %					
3	65	1 %					
2	60	1 %					
1	55	1 %	Exceptional weakness or Very poorly developed or Far below average or Very poor	1	-3	-4	

Results from an anonymous survey given on Feb 13, 2013, to all Assessment Review Committee members, members of the CogAT Review Committee, and all K-8 Principals.
(sent to: n = 62, responded: n = 36, response rate = 58.1%)

CogAT Recommendations Survey Results

1. Use, as a screener, only one section of the CogAT (the non-verbal). If a student scores within the top 3 stanines, give the other two portions of the test (verbal and quantitative). This would be for both 2nd and 5th grades. [DPI comments: Chrys Mursky: I question use of a non-verbal test to identify for verbal and quantitative interventions as outlined in the TAG Plan since identification for interventions needs to match interventions. What would the purpose be? Is there enough correlation to imply giving the other two would have a high correlation to verbal and quantitative CogAT tests? Is limiting to the top 3 stanines going to capture the students as this recommendation suggests?]

Answer Options	Response Percent	Response Count
I can live with this.	54.3%	19
I cannot live with this.	45.7%	16
<i>answered question</i>		35
<i>skipped question</i>		1

2. Give the entire CogAT to all 5th grade students only. Give the USTAR observational protocol to all 2nd grade students. Professional development for 2nd grade teachers would be required in order to implement with fidelity. [DPI Comments: Chrys Mursky: It would provide a standardized measure to 5th graders. USTARS to all second graders might catch some students that might be missed otherwise. There would need to be significant amounts of PD for teachers and commitment from them if this were to be completed by the end of the year.]

Answer Options	Response Percent	Response Count
I can live with this.	41.7%	15
I cannot live with this.	58.3%	21
<i>answered question</i>		36
<i>skipped question</i>		0

3. Use a “Draw a Person” tool, parent nomination form, teacher nomination form, or peer nomination forms. Follow up with students receiving 2 or more nominations/high scores. [DPI Comments:Chrys Mursky: This option does not meet the requirements of the WI law (Administrative Rule) which requires a student profile that includes normed data, product and performance portfolio, nominations/referrals, rating scales, and demonstrated performance. There must be multiple measures and triangulation of data. Standardized data need to be part of the triangulation. If MMSD has data from the screener for the past 10 years and students are not being identified, it would seem that either the data are not being used correctly or it is not predictive as a universal screener.]

Answer Options	Response Percent	Response Count
I can live with this.	22.2%	8
I cannot live with this.	77.8%	28
<i>answered question</i>		36
<i>skipped question</i>		0

4. Use K-Screener data (2 sections: Classification and Drawing of a Person) and administer CogAT to top 30% for both 2nd and 5th grade, as well as new to the district students. [DPI Comments: Chrys Mursky: This still provides normed data. Concern about whether the top 30% would capture all the students that it should, including for talent development. Concern about whether or not the Kinder screener is as predictive for all students as the District expects.]

Answer Options	Response Percent	Response Count
I can live with this.	50.0%	18
I cannot live with this.	50.0%	18
<i>answered question</i>		36
<i>skipped question</i>		0

5. Use the K-Screener data (2 sections: Classification and Drawing of a Person) to select the top 40% for intensive interventions, give the CogAT in grades 2 & 5. [DPI Comments: Chrys Mursky: This is the most comprehensive approach and developmentally appropriate The caveat again is whether or not the Kinder screener is predictive in the way that the district expects.] [Sue Schaar: This is a long-term recommendation and could not be implemented this year since there is not time for intense interventions before testing.]

Answer Options	Response Percent	Response Count
I can live with this.	36.1%	13
I cannot live with this.	63.9%	23
<i>answered question</i>		36
<i>skipped question</i>		0

6. For the short term, make no changes. Give the CogAT in 2nd and 5th grades for 2012-13.

Answer Options	Response Percent	Response Count
I can live with this.	55.6%	20
I cannot live with this.	44.4%	16
	<i>answered question</i>	36
	<i>skipped question</i>	0