SPECS for Include Me

Program Evaluation Research Report [2014-2015]

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EXECUTIVE SUMMARY

SPECS for IMFS: Lessons Learned "Take-Home Points" [2010-2014]

IMFS Mentoring Model

- **Weekly & intensive (X range= 7-9 hours/wk) classroom-based mentoring on inclusive instructional practices is most effective.**
- **Multiple modes of face-face & virtual mentoring is essential for effectiveness and results in higher teacher use of inclusion strategies.**
- **Higher teacher use of inclusion strategies results in higher student progress in academic and social-behavioral learning.**
- **The trusting relationship between a teacher and a mentor is the foundation for effectiveness.**
- **Targeting specific inclusion strategies in the SaS promotes effectiveness.**

Teacher Benefits

- **Diverse teachers in rural and urban school districts (across K-12 grades) show similar patterns of skill acquisition in inclusion strategies through mentoring.**
- **Significant skill gains are apparent in all instructional domains with particular impacts on: instructional supports, relationships, communication, and membership/participation, classroom climate, emotional support.**
- **Effectiveness was marked by prominent gains in the use of diverse inclusion supports: physical, social-behavioral, and instructional adaptations.**
- **IMFS mentoring fostered teacher's increased expectations for their children's progress which was associated with significant child progress, e.g., reading, math, and engagement skills.**

Child Benefits

- **Child progress on the FOCAL was most notable in: Knowledge, Self-Regulation and the Academic domains.**
- **In most instances, child progress was socially noticeable & generalizable across both classroom and home/community settings.**
- **Child progress on the Academic Competence Scale (ACS) was most notable in: Reading, Reading Expectations & Intellectual Functioning compared to national norms.**
- **Increased teacher expectations fostered children's increased engagement in overall learning activities through the following specific engagement skills: group activities; social learning; completion of learning tasks & selective and sustained attention.**

Parent Benefits/Needs

- **Parent's reported the efficacy of consultant support to the teacher in the form of knowledge about how to include their child in the classroom.**
- **Parents also appreciated the objective, third party perspective of the consultant about their child in the classroom setting.**
- **Parents reported the positive impact consultants had in supporting them in the inclusion process.**
- **Parents most often report concerns about whether their child's needs will be met and if the child will be accepted/understood by teachers and peers.**

DETAILED ANALYSIS OF IMFS OUTCOMES

IMFS CONSULTANT'S MENTORING ACTIVITIES: 2014-2015

SPECS Mentoring Monitors were regularly completed by IMFS consultants on a daily/weekly/monthly basis to document the scope, intensity, and content of IMFS consultation and inclusion mentoring with public school teachers and staff.

The monitoring data tracks 5 major outcomes categories with each including a set of related indicators as follow:

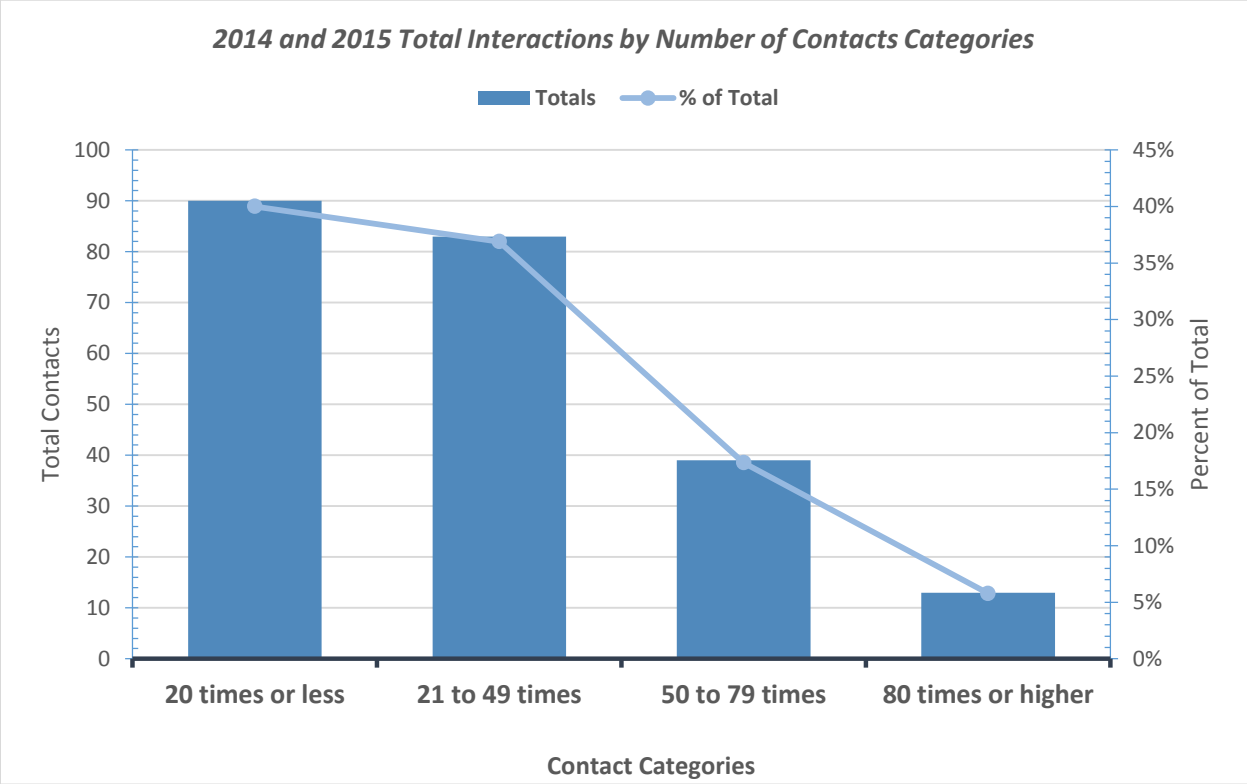
1. **Actual Contacts or numbers of times consultants interacted with one or more of the following:**
    a. Regular Education Teachers
    b. Special Education Teachers
    c. Related Services (this includes administrators, services providers etc.)
    d. Parent/Guardian/Family
2. **Types and Amount of Contacts or total time consultant spend in each of the following:**
    a. Face to Face time
    b. Phone time
    c. Text time
    d. Email time
    e. Written notes time
3. **Strategies Employed or total number of times consultants engaged in one or more of the following:**
    a. Observations
    b. Demonstration/Modeling
    c. Inclusion Goal Planning
    d. Formal Workshops/Training
    e. Verbal Feedback
    f. Written Feedback
    g. Collecting Resources
4. **Meetings Conducted or number of meeting consultants completed in/with:**
    a. Team Meetings
    b. Parent Meetings
    c. Professional Development
5. **Support Activities Completed or number of time consultants focused on providing any of the following supports/interventions:**
    a. Modifying Curriculums/Goals/Tests
    b. Instructions on Functional Routines
    c. Presentation's Methods and Instructional Adaptations
    d. Sensory Adjustments and Environmental Aids (Light, sounds, etc.)
    e. Social Skills Instructions
    f. Behavioral Plans/Expectations

g. Peer Supports/Co-op Learning Strategies
h. Health/Medical

Consultation/Mentoring Activities--Overall Results

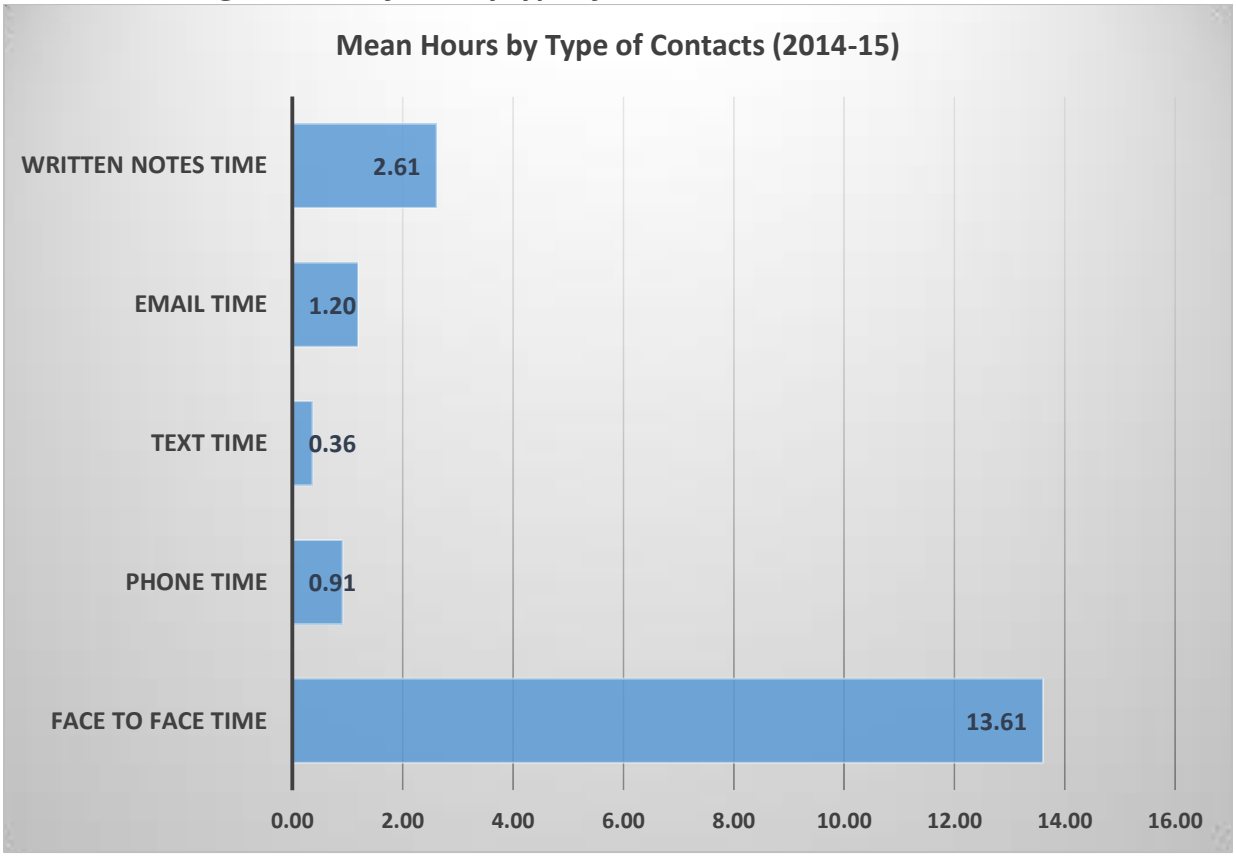
The data indicate that at least 207 consultation mentoring visits occurred during the Fall of 2014, and, during the Spring of 2015, 179 consultation mentoring visits were completed). In total, there were at least 386 on-site visits during the 2014 and 2015 school year. During these visits, consultant had about 32.7 interactions with either teachers, families, paraprofessional and/or other related services representatives. Exhibit 1 shows the frequencies and percent distributions of the total number of contacts for 2014 and 2015 school year by number of contact categories.

Exhibit 1: Frequency and percent distribution of total contacts by contact-categories for 2014-2015 School Year.



Overall, in about 52 instances (23% of the total) these interactions ranged from 50 to 159 contacts. For the combined year each consultant spent on an average 19 total hours on site with an average duration of about 68.3 minutes. Exhibit 2 below shows the average number of hours by type of contacts for 2014 and 2015 school year combined.

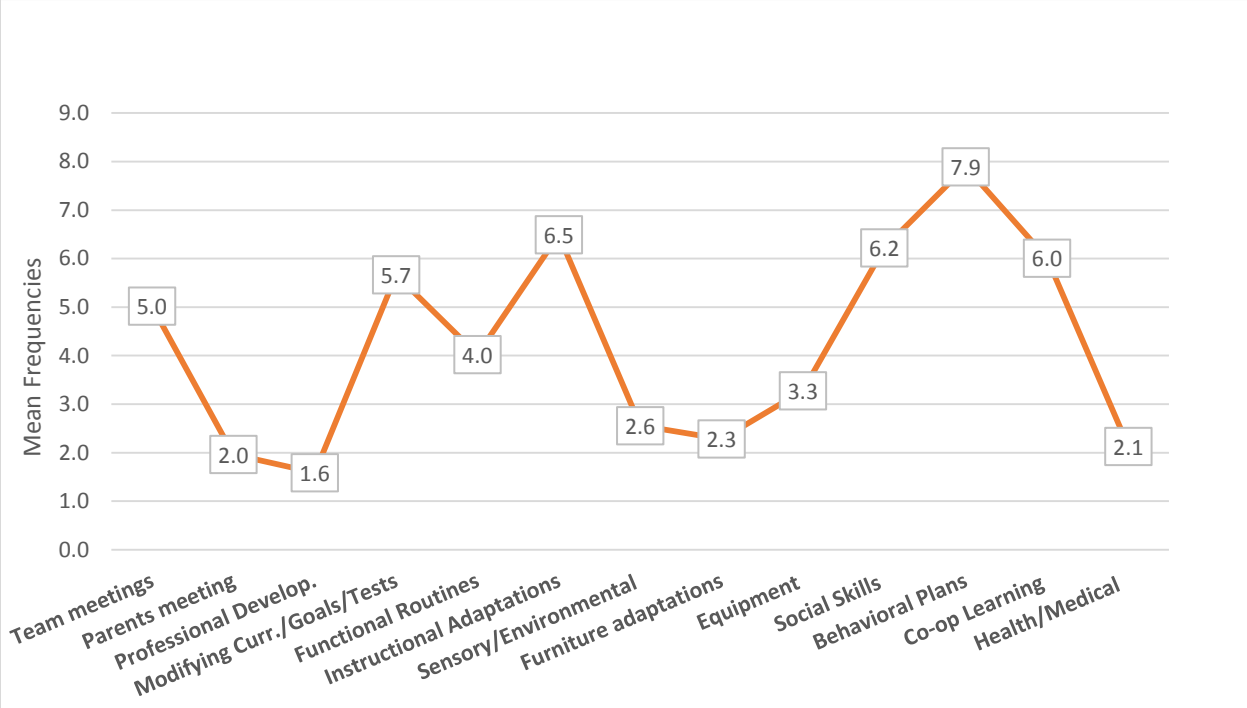
Exhibit 2: Average amount of time by type of contact.



The consultants exchanged texting and phone calls with their contacts but most often, the interaction was face to face, followed by written notes and emails. The majority of the contacts were spent in providing support activities and instructions ranging from modifying curriculums/goals/tests, functional routine and social skills instructions, sensory and environmental adaptions, health and medical consultations among others. These consultants attended or conducted on average over 7 meetings and provided an average of 1.6 professional development sessions with various school, family, paraprofessionals and/or related services representatives.

Next, we review the type of consultation activities provided by the consultants during their school visits. Exhibit 3 below shows the frequency of various activities employed by the consultants dedicated to various inclusion support and instructional activities. In terms of instructional activities, it would seem that fewer children tended to have health/medical consultation needs, furniture or physical space adaptations, and/or sensory environmental aid accommodations.

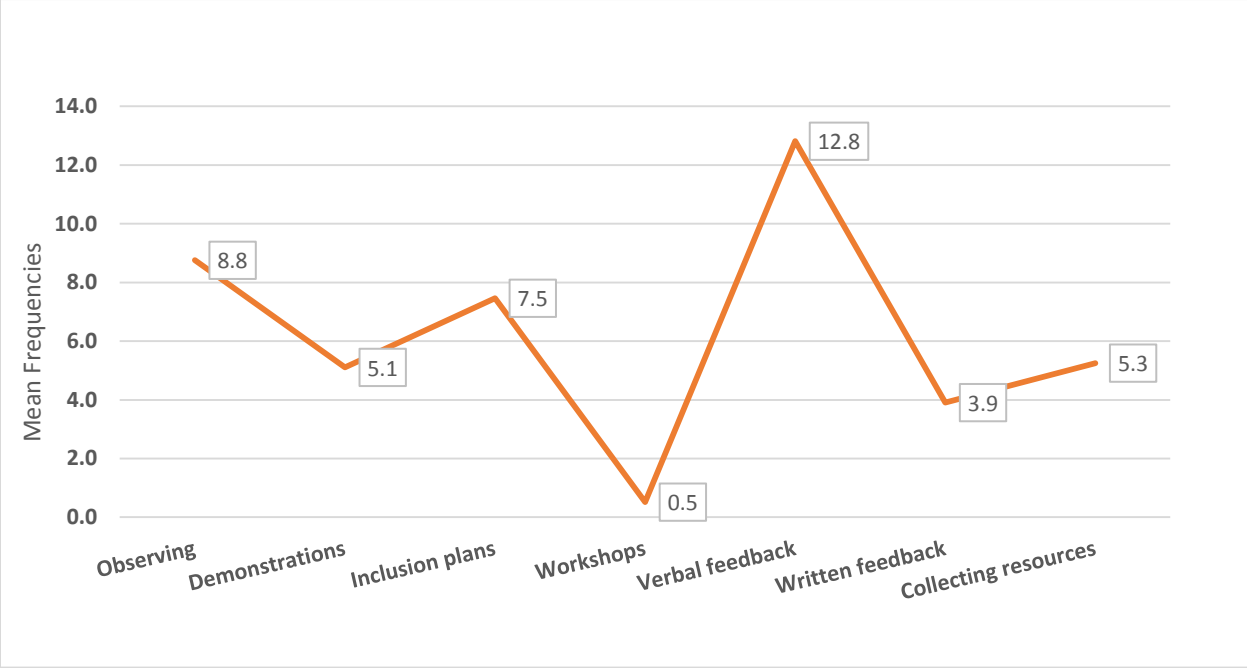
Exhibit 3: Mean frequencies types of consultations activities.



On the other hand, it is possible to observe that the highest mean frequencies are associated with behavioral plans and expectations; social skills; presentation methods + instructional adaptions; peer supports/co-op learning strategies; and modifying curriculum/goals/tests. On average, the consultants engaged in about 5 team meetings and close to 2 professional development meetings while on site.

The types of strategies the consultants used during their on-site support activities are graphed also. As indicated above, strategies included observing, demonstrating and modeling, formal workshops/trainings, inclusion goal planning, collecting resources, verbal and written feedbacks. Exhibit 4 below shows the mean frequencies of the use of these strategies.

Exhibit 4: Mean frequencies of selected strategies.



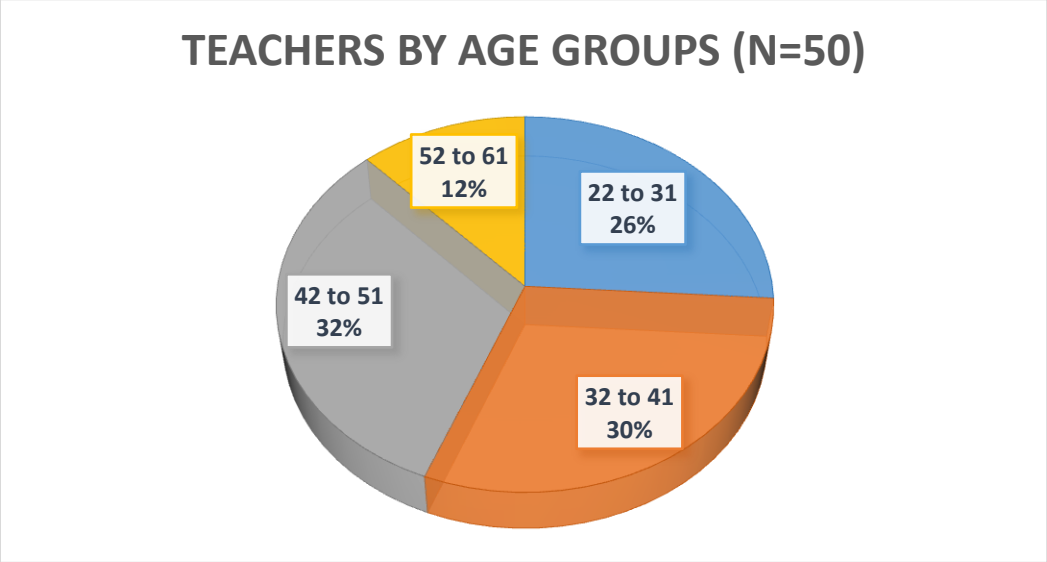
These results indicate that IMFS consultants are highly accommodating and adapt their supports and consultations according to the individual needs and strengths of teachers as the situation demands.

TEACHER'S INCLUSION PRACTICES: 2014-2015

Demographics

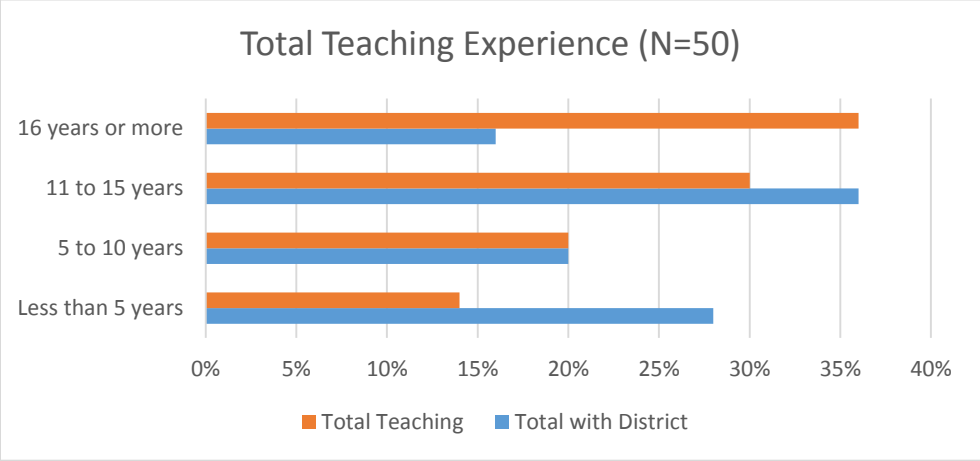
The mean age for teachers was 35, ranging from 23 to 48 years. The pie-chart in Exhibit 5 shows the percent of teachers by their reported age groupings.

Exhibit 5: Age of teachers participating in IMFS consultation.



The average number of years teaching was 13. Exhibit 6 shows the teacher's experience in teaching by number of years with the school district and overall.

Exhibit 6: Total years teaching experiences for IMFS-mentored teachers.



Over 50% of the teachers have been with their specific school district for at least 11 years, and over 60% (n=33) had at least 11 years of teaching experience.

Of the 50 teachers, 36% (N=18) report having a Special Education specialization; 56% (N=28) report having an Elementary Education specialization. Of the total, 14% (N=7) report having both Special Ed and Elementary Ed experience/education. Just under 75% of the teachers

(N=37) report having a Master's Degree. About 12% of the teachers had additional reading and literacy experience and/or training; about 8% identified additional experience in curriculum development and instruction, and about 6% described their additional experience as in integrating technology, integrated learning, and special education.

Classroom Effective Practices Inventory (CEPI): Improvements in Teacher Practices

Sample and Measurement Description

During the 2014-2015 school year, a total of 159 teachers were mentored and observed by IMFS consultants in public school classrooms. Observations of the classroom climate for teaching and adult-child interactions were rated on the *Classroom Effective Practice Inventory (CEPI)*. In total, the CEPI observations were associated with 127 students' IDs and of these about 94% participated in both pre- and post-mentoring CEPI observation time-points.

Classroom Effective Practice Inventory (CEPI) Measure

The CEPI consists of a total of 6 domain-areas which are scored on a Likert type scale ranging from 0 (not yet met); 1 (partially met); 2 (usually met); and 3 (fully met). These domains are briefly summarized below:

- ***Expectations:*** includes a total of 7 items describing whether a set of behaviors about the adult in the classroom (e.g., teacher uses description of students focus on abilities and needs; student goals reflect content standards; use appropriate language and vocabulary; etc.).
- ***Membership and Participation:*** includes a total of 7 items and describes the characteristic of the classroom environment in terms of accessibility, accommodations, inclusive delivery of services, if students are or are not pulled out of the classroom, students' participation in school routines, and ways students have opportunity to participated in classroom instructions)
- ***Instruction & Supports:*** includes 8 items describing how and what types of supports are offered to the students in relation to learning styles; material used; recognition and reinforcements; feedback provided; behavioral supports; and if data-based decision making is used.
- ***Social Relationships:*** includes a total of 7 items describing who and how support is provided; interaction with peers; building social support networks; strength-based approach; and socializations.
- ***Communication:*** includes a total of 5 items that rate the mode of communication used by teachers; how they facilitated interactions; and/or if bullying occurs etc.
- ***Self-Determination & Future Planning:*** includes a total of 6 items describing if the teachers facilitate students self-expression; participation in their IEP plans; graduation planning; etc.

The majority of pretest (T1) CEPI observations were completed between September 2014 and December 2014. The CEPI posttest (T2) observations were completed between April 2015 and

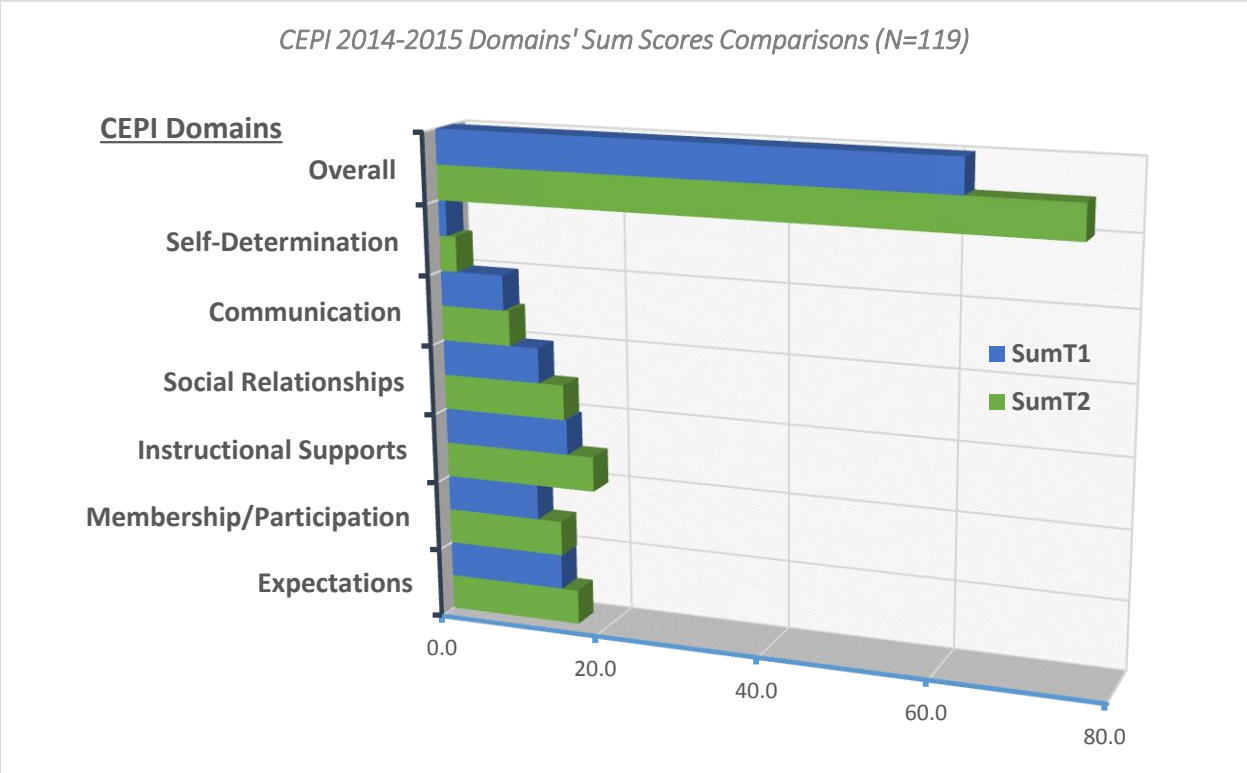
June 2015. On average the time between the pre-and post-test observations were about 6 months.

In this outcome report, the Fall-2014 and Spring-2015 CEPI results are compared and contrasted; any functional differences and statistically significant differences between the two time points are explored and discussed. The report first reviews the outcomes across the CEPI domains and consequently explores changes and differences within each of the CEPI domains.

CEPI 2014 Pre and 2015 Post Overall Outcomes Comparisons

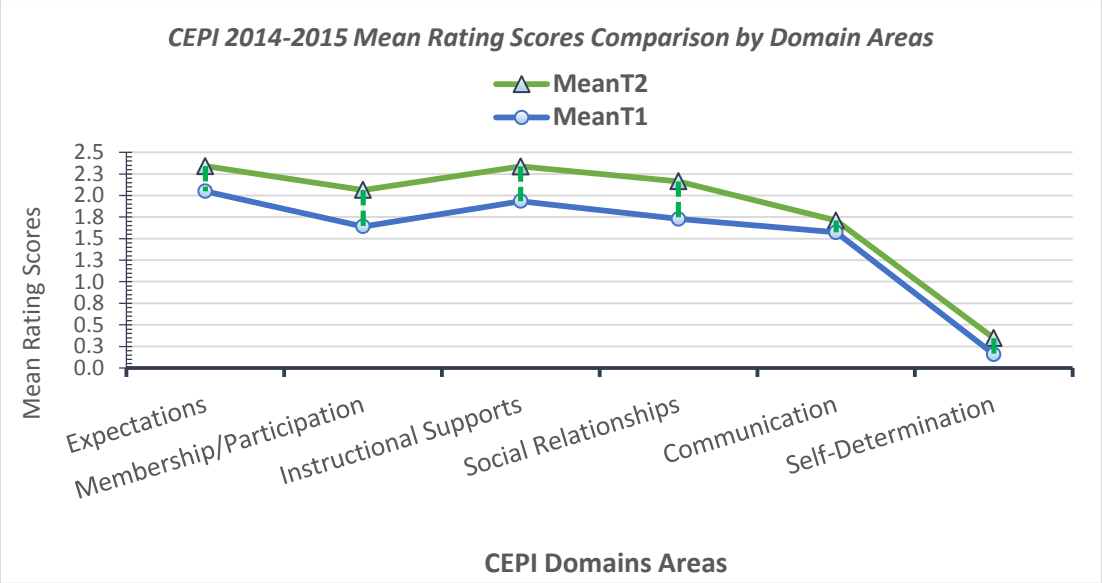
The first graph (Exhibit 7) summarizes the pre and post mean sum scores for overall and for each of the CEPI domains.

Exhibit 7: Pre and post mean sum scores overall and for each of the CEPI Domains (N=119).



The highest total sum score obtainable on the CEPI measure is 120 points. The total mean sum score at entry (pretest) was 62.1 and the total mean sum score at exit (posttest) was 75.1. On average, the mean sum point difference between 2014 and 2015 was 13.2 mean sum score points. The mean rating scores for each of the CEPI Domains are plotted in Exhibit 8 below.

Exhibit 8: CEPI 2014-15 mean rating scores comparisons by CEPI Domains.



On average, the posttest results show a 35% mean-point increase across the CEPI Domains. The paired t-test statistics indicates that all of the changes were statistically significant at *p=<0.001*. The largest increase is observed in the Self-Determination/Future Plans domain area (e.g., participation in their IEP plans; graduation planning, etc.).

Main Take Home Points

- **After about 6-7 months of IMFS mentoring, the teachers in the classroom tended to use these inclusive techniques more often and more consistently.**
- **Decreasing the pull-out of students from general education classes for academic instruction and increasing their engagement in everyday school routines and classroom participation greatly increases the membership and participation outcomes of students with disabilities.**
- **The most important predictors of significant changes in teacher's practices occurred when: (1) behavioral supports focus on improving quality of life and on teaching new skills (not on punishment); (2) instruction is individualized, in terms of pacing and awareness of student difficulties; (3) the teacher recognizes and reinforces individual effort and; and (4) data-based decision-making is used to identify and plan for meeting the academic and behavioral challenges of students**
- **Classrooms with teachers who supported students with disabilities through opportunities to socialize with their non-disabled peers during nonacademic times tended to have better overall outcomes; these classrooms provided physical, emotional and instructional supports by classroom teachers and classmates rather than special educators. Clearly, the socialization and relationship benefits were higher in classrooms that put less focus and attention on differences (disabilities vs. nondisabled) and instead focused on strengths and emphasized cooperative learning**

within the regular education classrooms. In these classrooms, students with and without disabilities socialized and interacted the most.

- **An emphasis on enhancing overall communication modes made a large difference in facilitating high classroom quality climate and interactions.**
- **Classrooms in which students did not actively and effectively communicate their own needs and in which alternative communication aides were inconsistently used or absent tended to have lower mean rating scores at posttest.**

CLASSROOM ASSESSMENT SCORING SYSTEM:

Validity Study of Teaching Practices

Classroom Assessment Scoring System (CLASS) Outcomes

Introduction

This section summarizes the **Classroom Assessment Scoring System (CLASS**) outcomes for the 2014-15 school year; the independent observations were completed by SPECS team members (i.e., staff and graduate students) on a random sample of classrooms across seven School Districts in Pennsylvania participating in the Include Me from the Start (IMFS) initiative.

A total of 11 classrooms within the seven Pennsylvania School Districts were observed between March 2015 and June 2015. The eleven participating classrooms ranged from kindergarten to 3rd Grade.

CLASS Dimension and Scoring

The CLASS is a tool designed to assess emotional, organizational, and instructional elements of quality in educational environments from Pre-K to High School. The CLASS is organized in three domains (see Exhibit 9 below) and assess a total of 10 dimensions of teacher-child interactions in the classroom. Exhibit 9 below provides an overview of the CLASS tool and includes the National mean scores from the National Overview of Grantee CLASS Scores in 2014 (http://eclkc.ohs.acf.hhs.gov/hslc/data/class-reports/class-data-2014.html , last accessed August 2015).

Exhibit 9: CLASS™ Dimension Overview and 2014, National Level Statistics.

DOMAIN	Dimensions	Description	National Means & Sd**	
Emotional Support	*Positive Climate*	Assesses the degree to which teachers establish and promote a positive climate in their classroom through their everyday interactions.	6.07	0.36
	Negative Climate		1.05	0.09
	Teacher Sensitivity		5.91	0.42
	Regard for Student Perspective		5.46	0.57
		Emotional Support	6.10	0.30
Classroom Organization	*Behavior Management*	Assesses classroom routines and procedures related to the	6.04	0.41
	Productivity		6.10	0.41

	Instructional Learning Format	organization and Management of children's behavior, time, and attention in the classroom.	5.36	0.53
		Classroom Organization	5.83	0.38
Instructional Support	*Concept Development*	Assesses the ways in which teachers implement the curriculum to effectively promote cognitive and language development.	2.51	0.62
	Quality of Feedback		2.91	0.62
	Language Modeling		3.28	0.63
		Instructional Support	2.90	0.58

*** (Source: A National Overview of Grantee CLASS™ Scores in 2014; http://eclkc.ohs.acf.hhs.gov/).*

CLASS Scoring

The CLASS tool was administered and scored by a total of five independent observers trained and certified to use the specific scoring and observation protocol. The observers used a 7-point Likert-type scale ranging from 1 (low) to 7 (high). A score higher than 5 means that the given dimension of effective child-teacher interaction is being consistently observed throughout the classroom observation period. Scores between 3 and 5 mean that the given dimension is being implemented with some degree of inconsistency (the higher the range the less the fewer the inconsistencies). Scores lower than 3 signify that the dimension is rarely observed or completely absent. However, needs to be note that in the CLASS dimension "Negative Climate" which include occurrences of negative affect, punitive control and disrespecting behaviors, a lower score signify that these behaviors are effectively and consistently well managed.

Organization of this 2014-15 CLASS Report

This 2014-15 IMFS CLASS report includes a comparison of the mean scores of the Pennsylvania School Districts with that of the 2014 National CLASS scores. These comparisons are completed for both the overall dimensions and domains and for the participating classrooms/districts. The reports will first provide an overview and comparisons within and across the participating School Districts and consequently will explore additional comparisons by using the National 2014 CLASS scores.

2014-15 IMFS CLASS Observation Outcomes

This section reviews and compares the CLASS mean scores overall and for each of the CLASS Domains and Dimensions across the participating sample of IMFS classrooms.

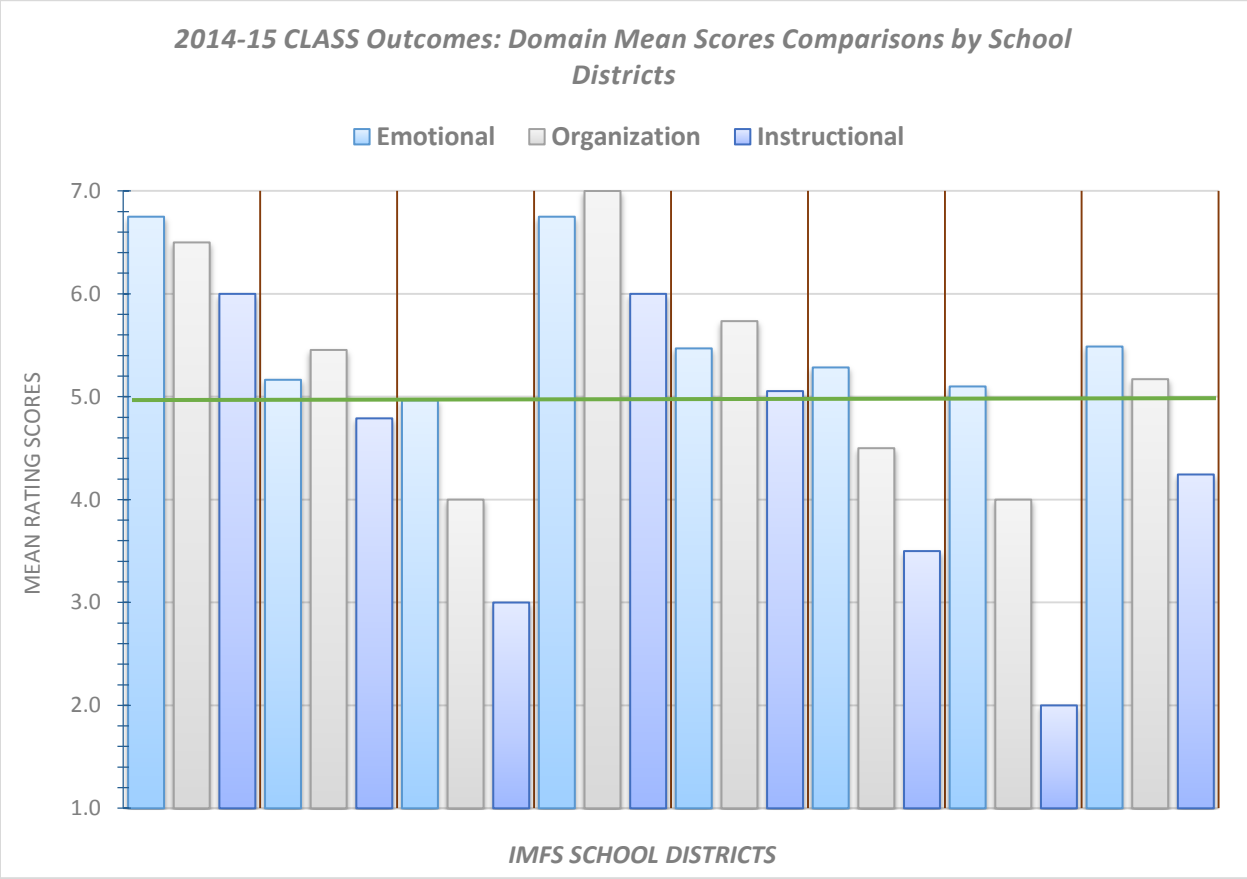
- *How do the IMFS School District Compare on the CLASS Outcomes?*

The first analysis reviews the mean score distributions of the seven Pennsylvania School Districts across the three CLASS.

The overall CLASS scores tend to follow the same pattern as the National score in that the mean scores tend to be progressing in an ascending order. That is, the Emotional Support Domain (mean=6.75; Std. Dev. =0.72; range=4.9-6.75) is the highest overall mean; followed by the Classroom Organization domain (mean=5.2; Std. Dev. =1.09; range=4-7); and Instructional Support (mean=4.25; Std. Dev. =1.36; range=2-6).

Exhibit 10 shows the mean scores for each of the three CLASS domains across the seven participating School Districts.

Exhibit 10: CLASS Domains Mean Scores Comparisons by IMFS School Districts (N=7).



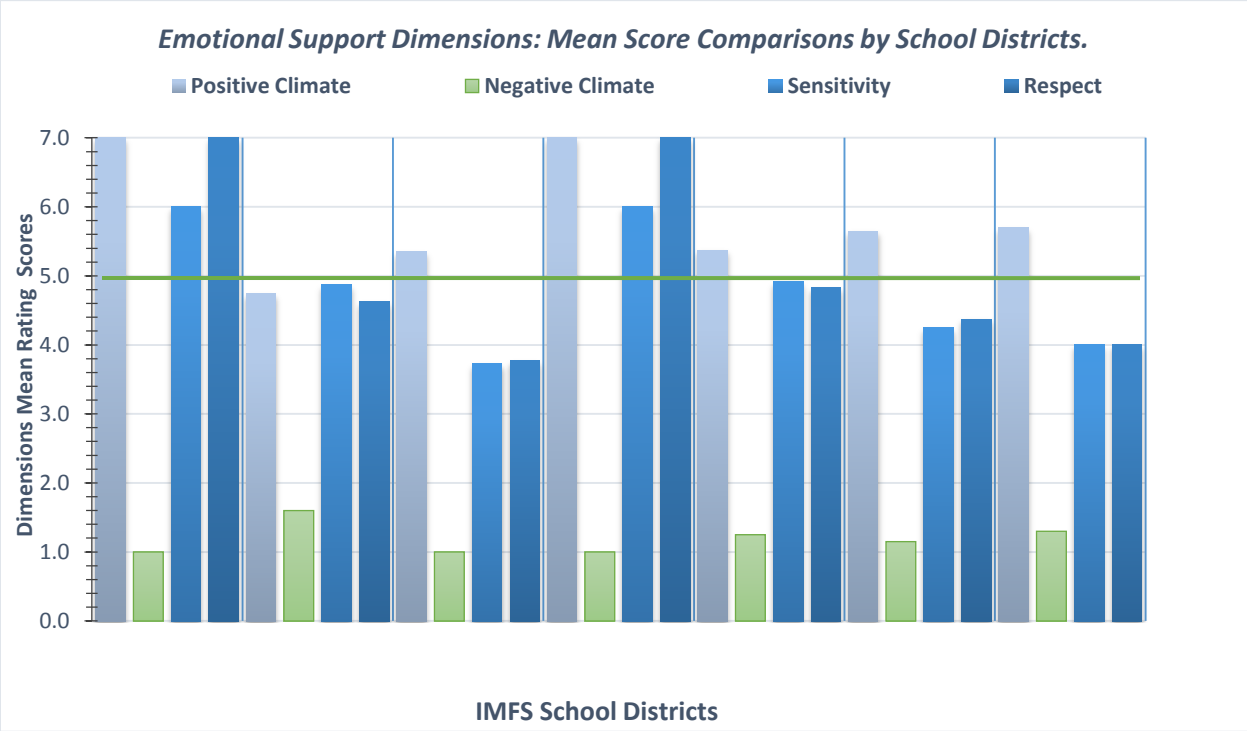
Next, the outcomes of the dimensions within each of the Class Domains will provide some further insight in the similarity and differences across the School Districts and highlight the areas of strengths and opportunity for improvement.

Comparison of School Districts by CLASS Domains' Dimensions

Emotional Support: Dimensions Comparisons

As indicated, the Emotional Support Domain includes: (a) Positive Climate (e.g., relationships, positive communication, respect, etc.); (b) Negative Climate (e.g., negative affect, punitive control, disrespect); (c) Teacher Sensitivity (e.g., awareness, responsiveness, student comfort etc.) and: (d) Regards for Students Perspective (e.g., flexibility, student focused, leadership, etc.). Exhibit 11 below summarizes and compares the mean scores for each of these dimensions across the seven school.

Exhibit 11: Emotional Support Dimensions Mean Scores Comparisons by School Districts.

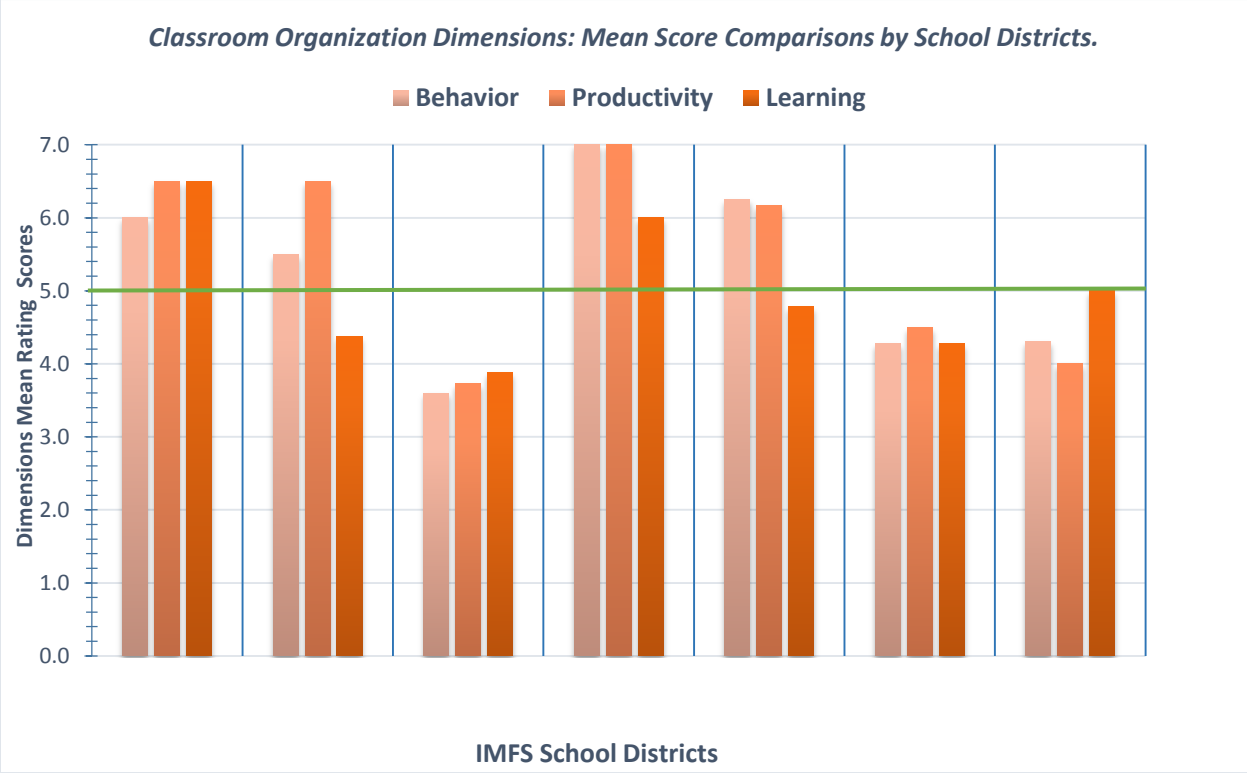


All of the IMFS School Districts show a strong performance on "Negative Climate" dimension (overall mean=1.2; Std. Dev. =0.26; range=1.03-1.39). That is, all of the Schools show effective teacher-child interactions consistent with positive expectations and positive teacher-student interactions.

Classroom Organization: Dimension Comparisons

The Classroom Organization Domain includes three scoring dimensions: (a) Behavior Management (e.g., clear expectations, proactive, effective redirection of misbehavior); (b) Productivity (e.g., maximizing learning time, routines, transitions, preparation) and: (c) Instructional Learning Format (e.g., learning organization, strategies, facilitation, and engagement). The outcomes on the Classroom Organization's dimensions are summarized and compared across the School Districts in Exhibit 12 below, and the mean score of each dimensions across the schools.

Exhibit 12: Classroom Organization: Dimensions Mean Scores by School Districts.

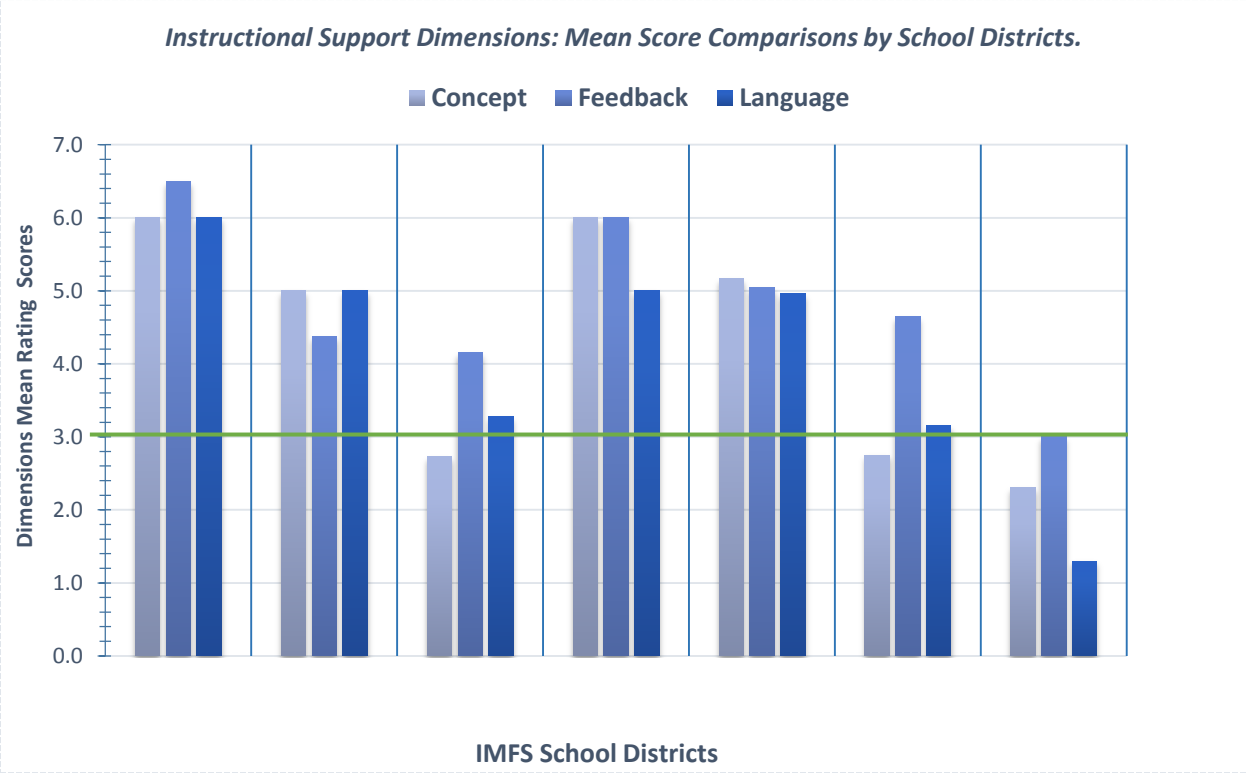


When compared to the sample mean, four School Districts evidence above average format in behavior management, productivity and learning format dimensions.

Instructional Support: Dimension Comparisons

The three dimensions observed as part of the Instructional Support domain include: (a) Concept Development (e.g., depth of understanding, reasoning, integration, analysis); (b) Quality Feedback (e.g., scaffolding, prompting thought processes, encouragement and affirmation) and; (c) Language Modeling (e.g., conversing, self and parallel talk, open-ended questions, advance language). The analysis is similarly to the previous section, and Exhibit 13 below summarizes and compares the mean scores on the Instructional Support's dimensions across the IMFS sample of classrooms.

Exhibit 13: Instructional Support Dimension Mean Scores Comparisons by School Districts.



Most of the participating schools were well above the national average in this domain.

Sections Summary

Overall, most of the participating schools evidence solid performance with at least two school districts consistently evidence above average quality instructional practices in all of the dimensions.

PA State (IMFS) and National (non-IMFS) CLASS Comparisons

Exhibit 14 below compares the means and standard deviations across the three CLASS Domains for the PA IMFS School sample with that of the 2014 National scores.

Exhibit 14: CLASS Domain Level Comparisons of the Mean and Standard Deviations between IMFS and National Data.

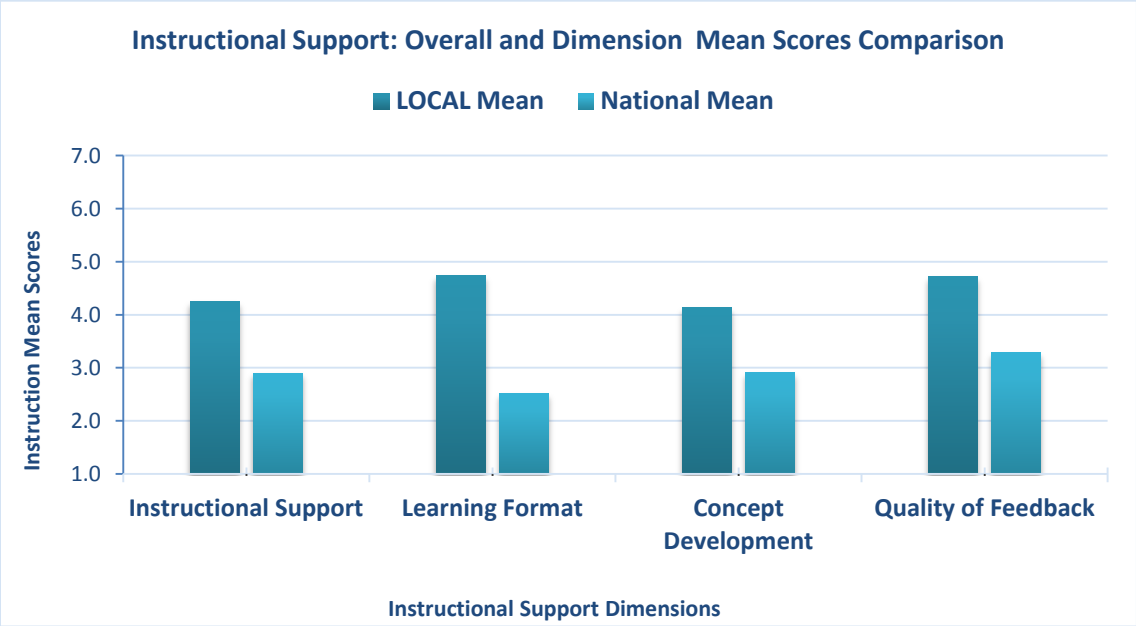
CLASS DOMAINs	LOCAL Mean	National Mean	Mean Point Diff.	PA Std. Dev.	National Std. Dev.	Std. Dev. Diff.
Emotional Support	5.49	6.10	-0.61	0.72	0.30	0.42
Classroom Organization	5.17	5.83	-0.66	1.09	0.38	0.71
Instructional Support	***4.24***	***2.90***	1.34	1.36	0.58	0.78
Overall Average	***4.97***	***4.94***	0.02	1.06	0.42	0.64

The sample size difference between the National and Local data does not allow a precise and reliable comparison between the local and national CLASS data. Nevertheless, it is possible to observe that the remarkable and reliable/valid observational difference in the mean scores in the Instructional Support CLASS domain**.**

- **Indeed, when compared to the 2014 National mean, the Instructional Support mean from the participating IMFS sample is 46% (or ± 1.34 scale points) higher than the national.**

The dimension level means of the Instructional Support domain are further compared in Exhibit 15 below.

Exhibit 15: Local and National Mean Scores Comparisons across CLASS Instructional Dimensions.



Conclusion

- **The outcome evaluation of the CLASS on the selected sample of IMFS Schools suggests that the overall emotional, organizational, and instructional elements of quality in the IMFS classrooms is consistently above the minimally acceptable quality and that in some instances the IMFS sample of schools surpasses the 2014 National average scores. This is extremely encouraging and an indication of the high quality of instructional and learning occurring in IMFS schools/classrooms.**

Measures Information

The Functional Outcomes Classification of Assets for Learner (FOCAL) is an instrument based on the US Department of Education, Office of Special Education (OSEP) framework for mandated documentation and reporting of status and progress data of young children at entry and exit from early intervention programs. The FOCAL Progress assessment is completed collaboratively by parents, teachers, and mentors in natural classroom settings at the end of the year; the FOCAL progress represents an additional measure of performance and growth in learning; it relies upon the informed observation and judgment of both parents and teachers. The FOCAL instrument measures expected functional competencies for children/students as a result of improved teaching practices from Pre-K to High School due to individualized IMFS mentoring. The instrument assesses and profiles 6 functional assets of the students:

1. ***Social-Emotional:*** i.e., the degree to which students shows functional progress in acquiring positive social-emotional and engagement skills;
2. ***Knowledge:*** i.e., extent to which students show functional progress relating to using knowledge and skills;
3. ***Effective Actions:*** i.e., the functional progress in taking appropriate action to meet own needs;
4. ***Self-Regulation***: i.e., demonstrating skills in self-regulatory behaviors as relating to classroom learning;
5. ***Academics:*** i.e., the extent to which students demonstrate functional capacity in acquiring and using academic skills;
6. ***Technology:*** i.e., demonstrating skills in acquiring and applying computer-assisted technology for classroom learning.

The FOCAL instruments (e.g., the FOCAL Scale and the FOCAL Progress) are both based on a 7-point Likert-type scale. However, the two scales do differ in the interpretation of the scoring. That is, while the FOCAL Progress asks about whether the child has or has not made observable progress (according the qualitative judgment of both teacher and parent) the FOCAL scale asks and assesses the extent to which the student demonstrates and performs specifics skills and behaviors. The 7 point Likert-type scale gradients and values for both scales are provided in Exhibit 16 below.

Exhibit 16: FOCAL Scale and FOCAL Progress scoring and interpretation

Numeric Value	FOCAL Scale (Age-appropriate skills + functioning)	FOCAL Progress (Acquiring and showing improved performance)	
1	**Not Yet**	**No Observable Progress**	1
2	*(sometimes but not consistent)*	*(very little progress)*	2
3	**Emerging**	**Made Observable Progress**	3
4	*(between 3 and 5)*	*(closer to same-age peers)*	4
5	**Somewhat**	**Reached Levels of Same-Age Peers**	5

6	*(generally age-appropriate)*	*(mostly at or slightly above same-age peers)*	6
7	**Completely**	**Maintained Level of Same-Age Peers**	7

As the above table shows, the higher the score, the more the evidence that the student's skills and functioning are at age-appropriate levels and/or he/she is observed to be acquiring and reaching same-age peers levels in the selected FOCAL's domains/assets. In total there are 21 items that are rated on the FOCAL. The highest score obtainable on the FOCAL is 147 points. On average, a total FOCAL score ranging from 90 to 105 would suggests that the student is attaining or reaching same age-level peers and thereby evidencing good level skills and near optimal functional performance. A sum score of 106 to 118 would suggest that the student has reached same-age peers level; and a score of 119 or higher would suggest that the child attained and maintained same-age peers level. A total FOCAL sum score that is 52 or lower would suggests that the student does not yet show the skills and/or making much if any progress at all; and score that are between 52 and 62 would on the other hand suggest that the there is some or little evidence of demonstrating the appropriate skills and functioning and that both progress and performance remains below same-age peer levels. In this report we use the 90 (lowest range) and 105 (high average range) as the benchmarks to assess progress and gains and against which to compare the pre post and progress FOCAL scores.

In addition to the FOCAL, another measure used to assess children's performance and progress is the **Academic Competence Scale (ACS**; of the Social Skills Improvement System (SSIS)). The adapted ACS Scale includes 7 selected items and assesse the level of academic competence for students from Kindergarten through Grade 12 and profiles the students' performance in terms of their percentile rank in academic performance as compared to his/her peers in the same classroom (Frank M Gresham, Stephen N. Elliott, 2008). This scale is rated from a score of 1 = lowest 10% performance; 2 = next lowest 20%; 3= middle or 40% rank; 4= next highest 20%; and 5 = highest 10%. The highest score attainable on the adapted SSIS scale is of 35 points.

Administration Information

The entry level FOCAL observations (T1 FOCAL) and ratings were completed between September 2014 and January 2015. The second set of FOCAL observations and ratings (T2 FOCAL) were completed between April and June 2015. In total, 206 FOCAL observations were completed for 2014-15 school year. On average there was about 6-month time-laps between the pre FOCAL (T1) and the exit FOCAL observations (T2 and/or progress FOCAL). It is important to mention that the FOCAL progress is not rated on the same scale as the pre (T1) and post (T2) FOCAL scale. For instance, a rating of 3 on the FOCAL scale (i.e., skills are emerging), is different from a rating of 3 on the FOCAL progress. In the latter case, the rating means that the student made observable progress in moving closer to same age peers. Hence, this needs to be kept in mind when the reviewing the results presented in this 2014-15 IMFS evaluation report.

Pre and Post FOCAL Outcomes Comparisons

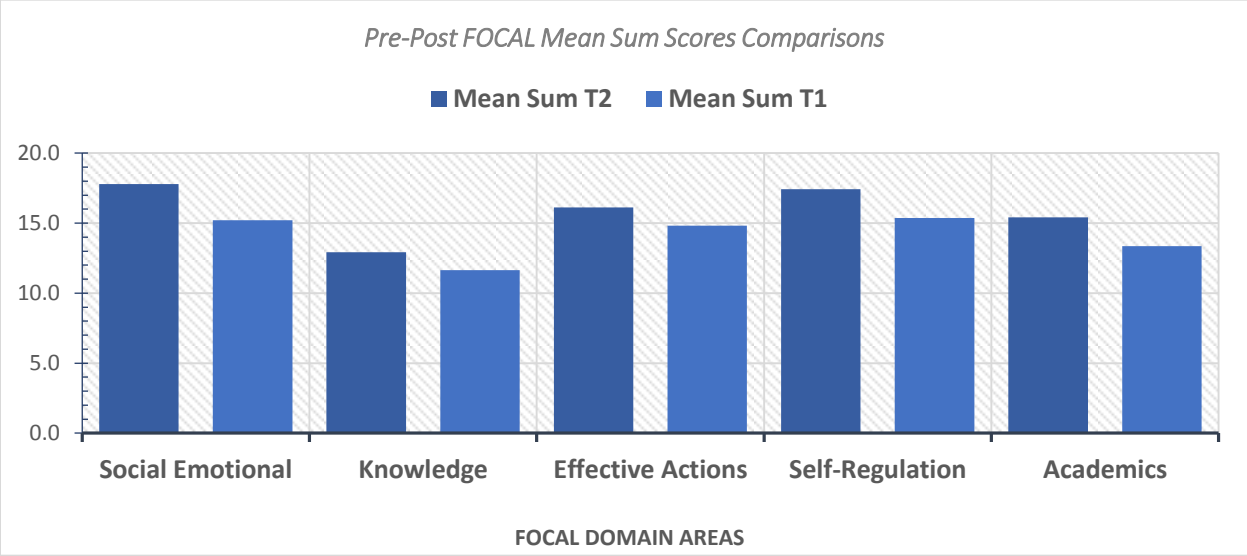
This first section, focuses upon the overarching categories (domain areas) included in the FOCAL measure. That is, it reviews the pre and post expected functional competency outcomes for children/students from improved teaching practices due to individualized mentoring

(Kindergarten to High School). The results from the domain area "ACQUIRING AND APPLYING TECHNOLOGY SKILLS" are presented separately since not all of the students in the participating IMFS sample were rated consistently across time point in this domain area.

Did students show significant progress after IMFS mentoring?

Overall, the results from the FOCAL indicate that there was a statistically significant change in the mean sum FOCAL scores at posttest. On average, there was about a 12% increase in the mean sum scores at posttest. Specifically, the mean sum score at entry (T1) was 74.5 and the mean sum score at exit (T2) was 83.5. Exhibit 17 shows the pre and post FOCAL mean sum scores comparisons and points sum score differences for each of the domain areas.

Exhibit 17: Pre and Post Focal Mean Sum Scores Comparisons by FOCAL Domain Areas (N=51).



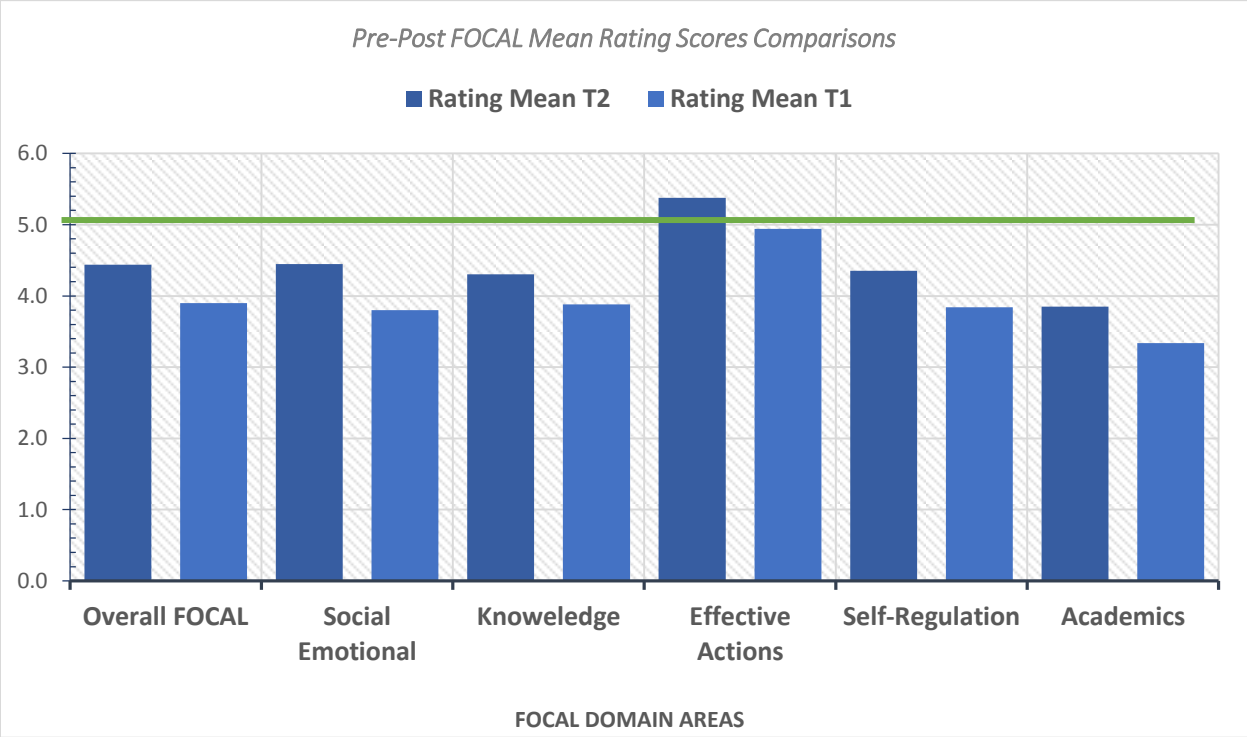
(NOTE: ALL MEAN SUM DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

As the Exhibit 17 shows, the larger increase is observed in the **"SOCIAL-EMOTIONAL AND SOCIAL ENGAGEMENT SKILL"** domain area (from T1 mean sum of 15.2 to a T2 mean sum of 17.8). That is, the data suggests that the children/students are increasingly and consistently demonstrating age-appropriate functioning across a variety of settings and situations.

The domain **"EFFECTIVE ACTIONS"** domain measures the extent that the child/student shows age-appropriate functioning, across a variety of settings and situations in taking appropriate action to meet his/her own needs. In this domain, the students were within the average level both at entry and at exit, although they gained on average 1.3 mean sum points by posttest.

Another way to illustrate the comparisons between the pre and post FOCAL results, and to gain more insight on the level of functioning of the students in the sample is to use the mean rating scores (see Exhibit 18). That is, the rating scale from 1, where the skill is not yet present to 7, where the skill is consistently demonstrated. As indicated, a mean score of 5 and higher is an indication that the student is generally to consistently evidencing age-appropriate functioning, across a variety of settings and situations.

Exhibit 18: Pre and Post Mean Rating Scores and Mean Point Differences by FOCAL Domain Areas.



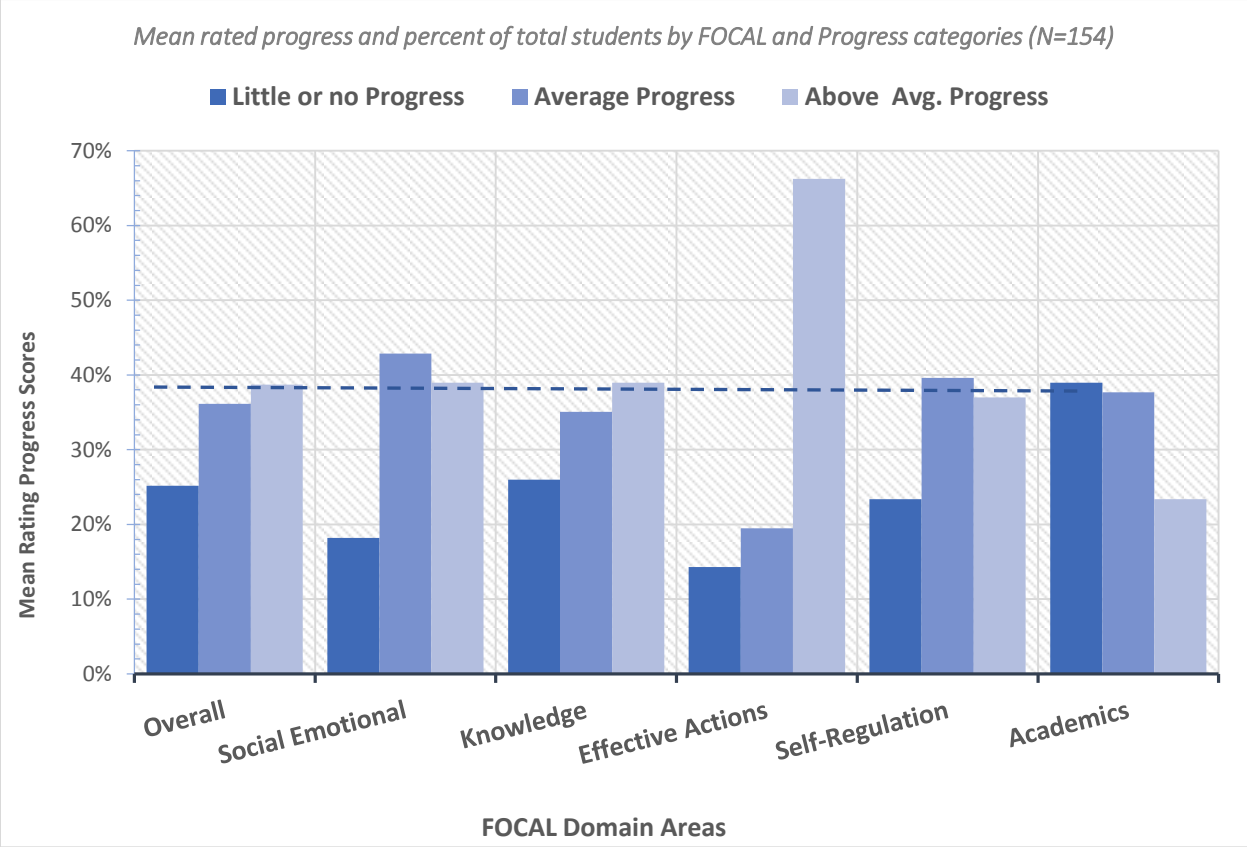
While the students made statistically significant individual gains overall and in all of the FOCAL areas, their mean score performance indicates that at least in one area (Effective Actions), the students are at the same age as their peers, and in the remaining areas there are nearing but not yet at the performance level of same-age, typically-developing peers.

The FOCAL Progress: Teachers' Assessment of the Students' Progress

The FOCAL Progress asks the teachers to provide their own informed qualitative judgment on a scale from 1 to 7 (where 3 and above marks progress) as to whether their children have or have not made observable progress. A total of 154 FOCAL Progress observations were completed between April and June 2015 and on average about 6 months after the 2014 pretest FOCAL assessment.

Overall, the FOCAL Progress outcomes indicates that on average at least 75% (N=116) of the students were rated to have made average and/or above average progress by the end of the school year on the assessed skills and functioning. The total mean rating progress was 3.7. The results further show that the FOCAL domain area "acquiring and using academic skills" is where less students (61%; N=94) were assessed to have made average and/or above average progress. Exhibit 19 below displays the mean progress rating and the percent of the total students by progress categories and FOCAL domain areas.

Exhibit 19: Percent of the Total Students by Progress Categories and FOCAL Domain Areas.



The bars indicate the percent of total students in each of the Progress categories. The horizontal dotted line is at the mean score of 3 which marks the "made observable progress" minimum average rating. The largest observable progress was reported in "Effective Actions" where the mean progress was 4.7 which is about 1.7 points above the minimum average progress rating. In this skill/functioning areas over 85% of the students in the sample are reported to have made at least average progress and of these 66% to have made above average progress.

The domains of academics and self-regulation, while still indicating positive improvements, were the areas with higher frequency of children/students being rated as having made little or no progress (i.e., mean rating less than <3).

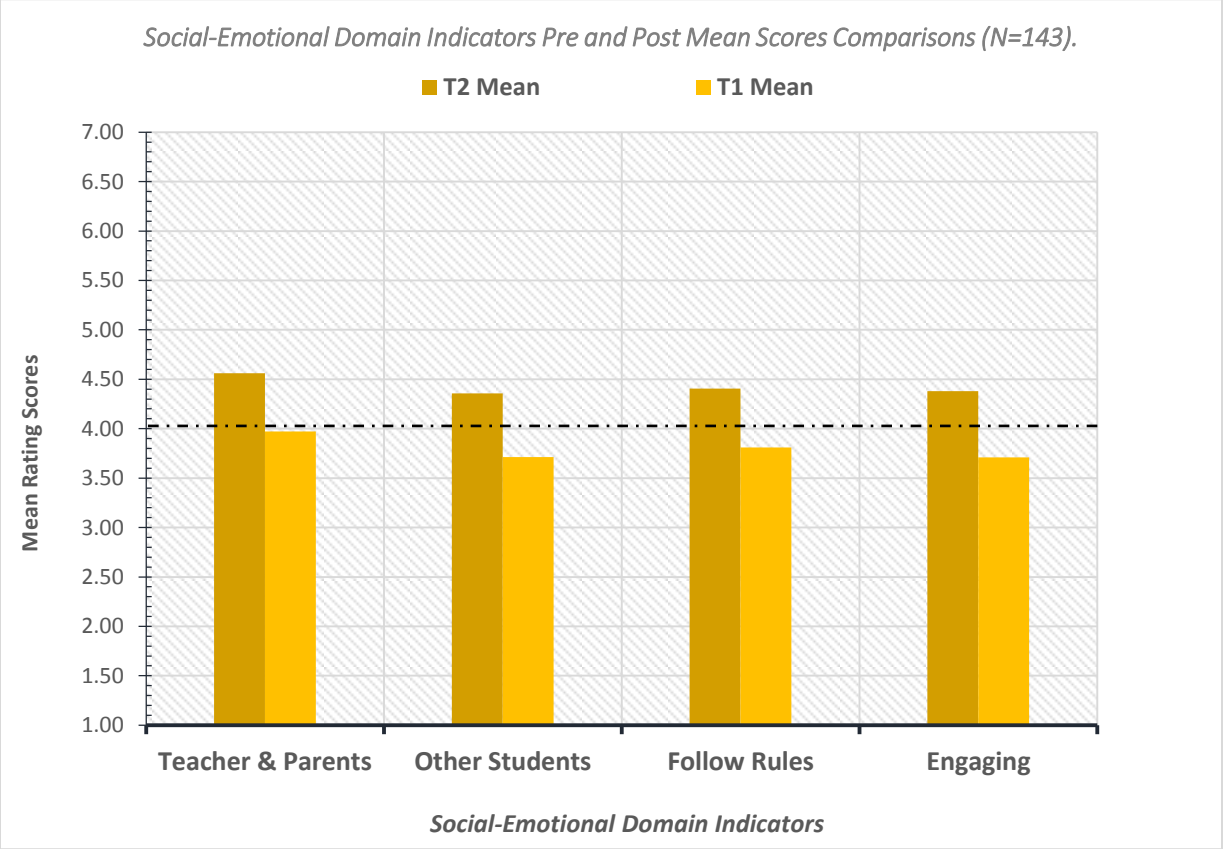
To what extent do students show age-appropriate functioning, across a variety of settings and situations in POSITIVE SOCIAL-EMOTIONAL AND SOCIAL ENGAGEMENT SKILLS?

The FOCAL SOCIAL-EMOTIONAL domain includes 4 total items/indicators including:

1. Relating with teachers and parents (***Teacher & Parents***)
2. Relating with other children/students (***Other Students***)
3. Following rules related to groups or interacting with others (***Follow Rules***)
4. Engaging in group activities (***Engaging***)

The posttest (T2) mean rating score for the social-emotional domain increased by 15% mean points (from a T1 mean of 3.80 to a T2 mean of 4.4). Exhibit 20 below shows the pre and post mean rating scores comparisons.

Exhibit 20: Pre and Post Mean Scores Comparisons by Social-Emotional Domain Indicators.



(ALL MEAN SCORES DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

The graphed comparisons above evidences the statistically meaningful gains that the students made in the social-emotional domain by the end of the school year. As the above graph shows, these pre and post differences suggest that the student made above average gains in relating to other students/children in the classrooms and in their level of engagement in group activities. Moreover, the data also shows that the students maintained or further improved their performance in relating to teachers and parents and in following rules related to groups or interacting with others.

- **The results of the teacher FOCAL ratings of progress highlights that in just over a period of about 6-7 months the IMFS students in this sample made substantial and statistically significant improvement in relating to adults and peers; showing higher levels of engagement in classroom activities; and demonstrating greater adherence to classrooms rules.**

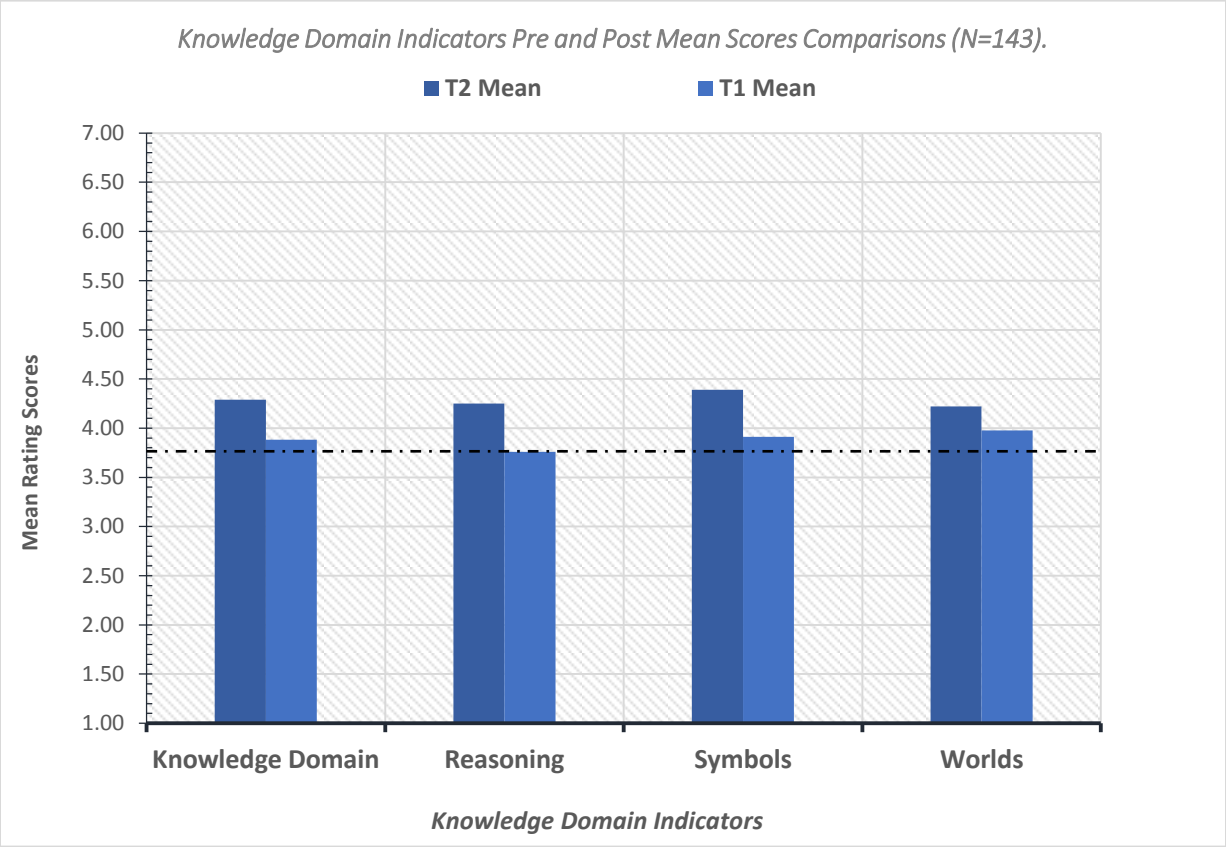
To what extent does this child/student show age-appropriate functioning, across a variety of settings and situations in ACQUIRING AND USING KNOWLEDGE AND SKILLS?

In this section the results of the Knowledge Domain (or *ACQUIRING AND USING KNOWLEDGE AND SKILLS*) and related indicators are analyzed. In total this domain includes a total of three indictors, namely:

a. Thinking, reasoning, remembering, and problem solving (***Reasoning***);
b. Understand symbols (***Symbols***) and;
c. Understand the physical and social worlds (***Worlds***)

The paired samples statistics results (plotted in Exhibit 21) indicate that overall on the Knowledge domain the students gained an average of 0.41 mean points, from a mean rating score of 3.88 at entry to a mean rating score of 4.29. The analyses further indicate that by the second time-point (T2) about 21% of the children had improved or increased their pretest performance across all the indicators in this domain.

Exhibit 21: Knowledge Domain: Pre/Post Mean Scores Comparisons and Mean Points Differences.



(ALL MEAN SCORES DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

As the graphed data above shows, the largest improvement was observed in reasoning and in the understanding of symbols. By the end of the school year, the students increasingly

evidenced age-appropriate functioning, across a variety of setting and situations in acquiring and using knowledge and skills.

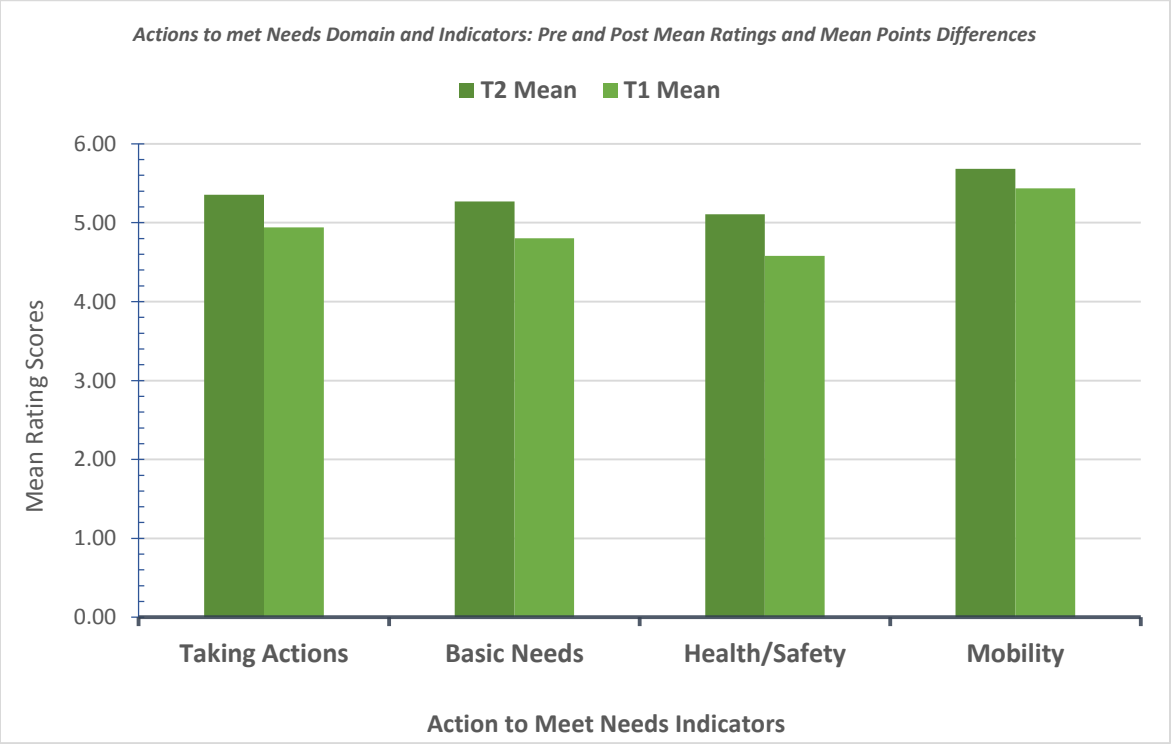
To what extent does this child/student show age-appropriate functioning, across a variety of settings and situations in TAKING APPROPRIATE ACTION TO MEET OWN NEEDS?

This FOCAL domain includes a total of three indicators:

a. Taking care of basic needs (***Basic Needs***);
b. Contributing to own health and safety (***Health/Safety***) and;
c. Getting from place to place (***Mobility***)

The paired samples t-test statistics shows statistically significant improvement in this domain area, but also indicates that compared to previous areas, "Taking Appropriate Action to Meet Needs" is an area of strength for this IMFS sample of students. Exhibit 22 shows the pre and post mean rating scores and the pre/post mean point differences across the three indicators and overall for the domain.

Exhibit 22: Action to Meet Needs: Pre-post mean scores & mean point differences by domain's indicators and overall.



(ALL MEAN SCORES DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

According to both pre and post FOCAL mean rating scores, the students in the sample appear to start with and further strengthen their functioning and skills in taking actions to meet their basic, safety, and mobility needs.

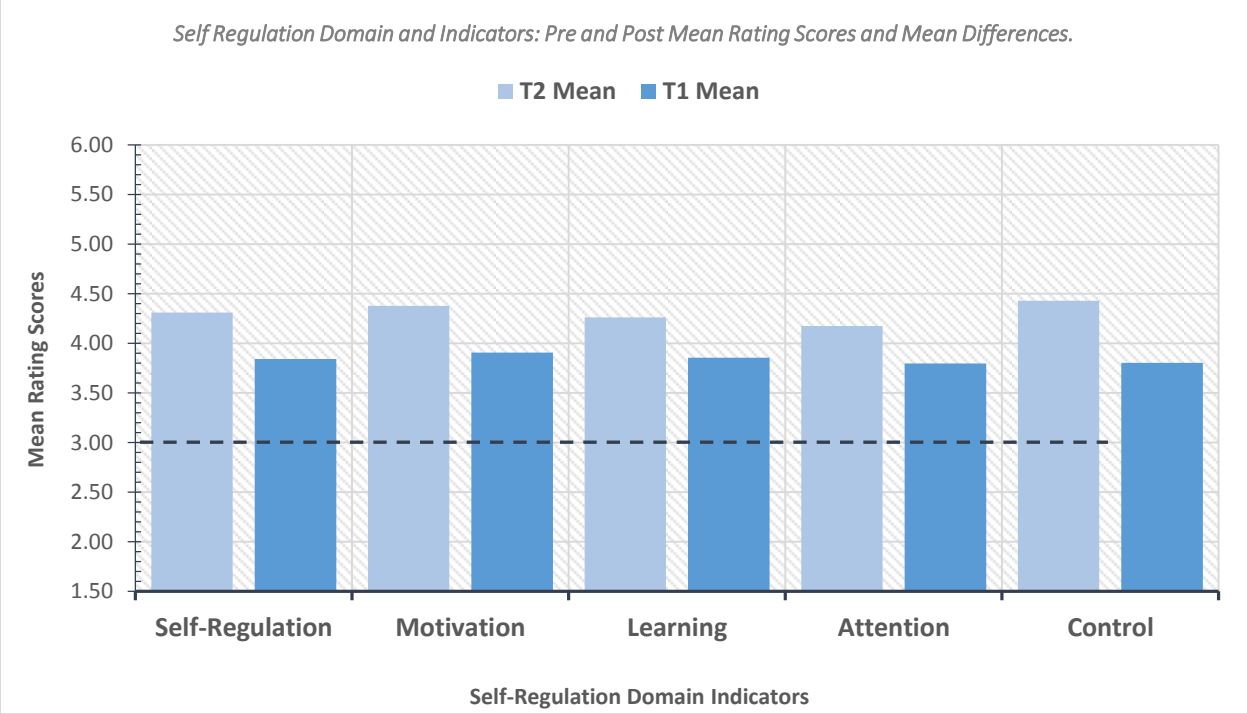
To what extent does this child/student show age-appropriate functioning, across a variety of settings and situations in demonstrating skills in SELF-REGULATORY BEHAVIOR FOR CLASSROOM LEARNING?

The Self-Regulation domain is rated on a total of four indicators including:

a. Showing interest, understanding, and motivation to engage in classroom group social learning activities (***Motivation***);
b. Engagement with completion of learning tasks (***Learning***);
c. Demonstrating both selective and sustained attention to learning tasks (***Attention***) and;
d. Showing the capability to control own behavior in responding to classroom rules and routines (***Control***)

The paired sample statistics indicates that the children made statistically significant gains in their self-regulatory skills and functioning by the end of the school year. Overall their self-regulation functioning shows close to 0.50 mean point increase compared to their entry level mean rating. Specifically, the students went from an entry mean rating of 3.84 to a post mean rating of 4.3. Exhibit 23 shows the results of the paired sample statistics for self-regulation and for each of the indicators.

Exhibit 23: Self-Regulation Domain: Pre and Post Mean Rating by Self-Regulation Indicators.



(ALL MEAN SCORES DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

The analysis shows that the children's skills at entry were within the "emerging skills" range and that at exit these were at the same-aged peers' level. Also, according to the teachers' ratings, students made considerable progress in demonstrating the capability to control their own

behavior in responding to classroom rules and routines. In this area, the mean entry score was 3.8 and the posttest mean scores was 4.4 which indicates that the students narrowed their differences and moved much closer to their same-aged peers in the classroom. This is an important outcome as self-regulation is a very important variable especially in relation to the capacity of the students to engage in learning activities in the classroom.

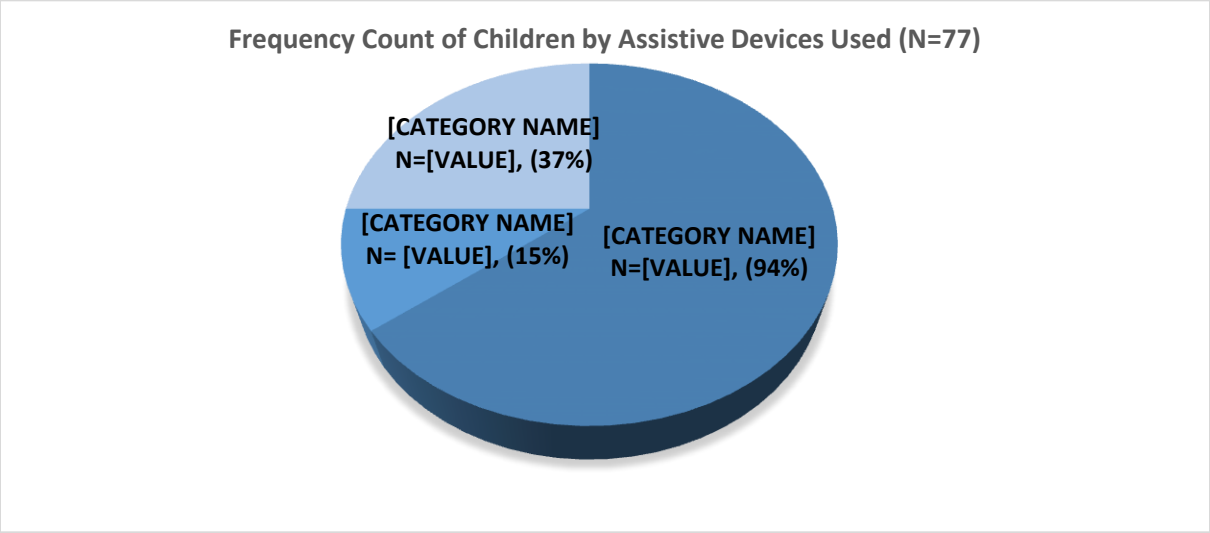
To what extent does this child/student show age-appropriate functioning, across a variety of settings and situations in ACQUIRING AND APPLYING COMPUTER-ASSISTED TECHNOLOGY SKILLS?

This next domain, Acquiring and Applying Computer-Assisted Technology (Technology) is comprised of three indicators:

a. Using assistive devices to support learning (***Learning Support***);
b. Using assistive devices to get around (***Mobility Support***) and;
c. Using assistive devices to communicate (***Communication***)

According to the data relating to technology about 71% of children used at least one assistive device. Of these children about 45% had pre and post FOCAL data on the technology domain. The frequency count and percent distribution of the children who needed assistive devices is provided in Exhibit 24.

Exhibit 24: Frequency and percent count of children by assistive devices used.

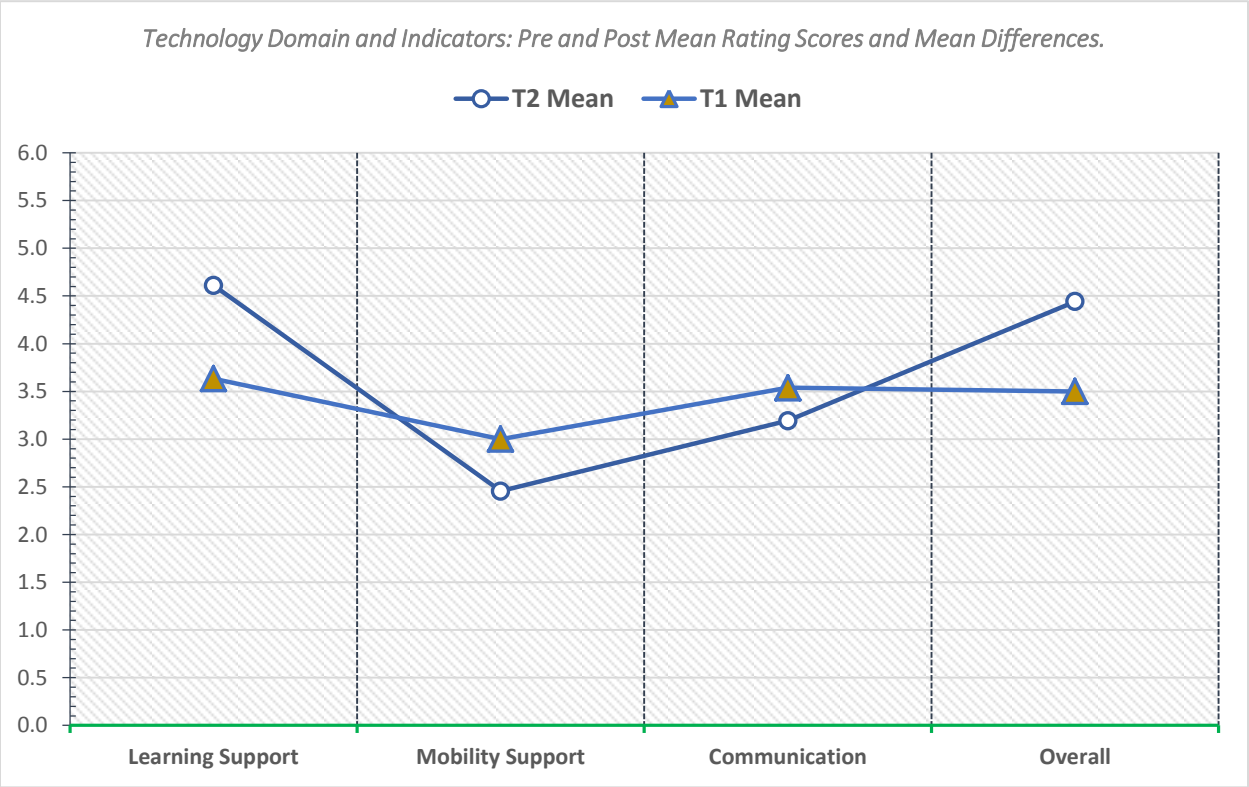


Data suggests that the majority (94%) of the children are using assistive devices to support learning (***Learning Support***); about 15% use assistive devices to support mobility and another 37% are using assistive devices to communicate (***Communication***).

Comparisons using the paired samples t-test statistics indicate that the pretest and posttest mean rating scores across the three technology indicators were not statistically significant. These mean rating scores on the technology domain indicators for the children reportedly using one or more assistive devices are plotted in Exhibit 25 below. As the graphed pre and post means show, the student's functioning and skills on this domain remained approximately the same at both time points. The slight improvements observed in learning support was

contrasted by a slight drop in the mean scores in the use of mobility and communication devices.

Exhibit 25: Technology Domain and Indicators: Pre and Post Mean Rating Scores



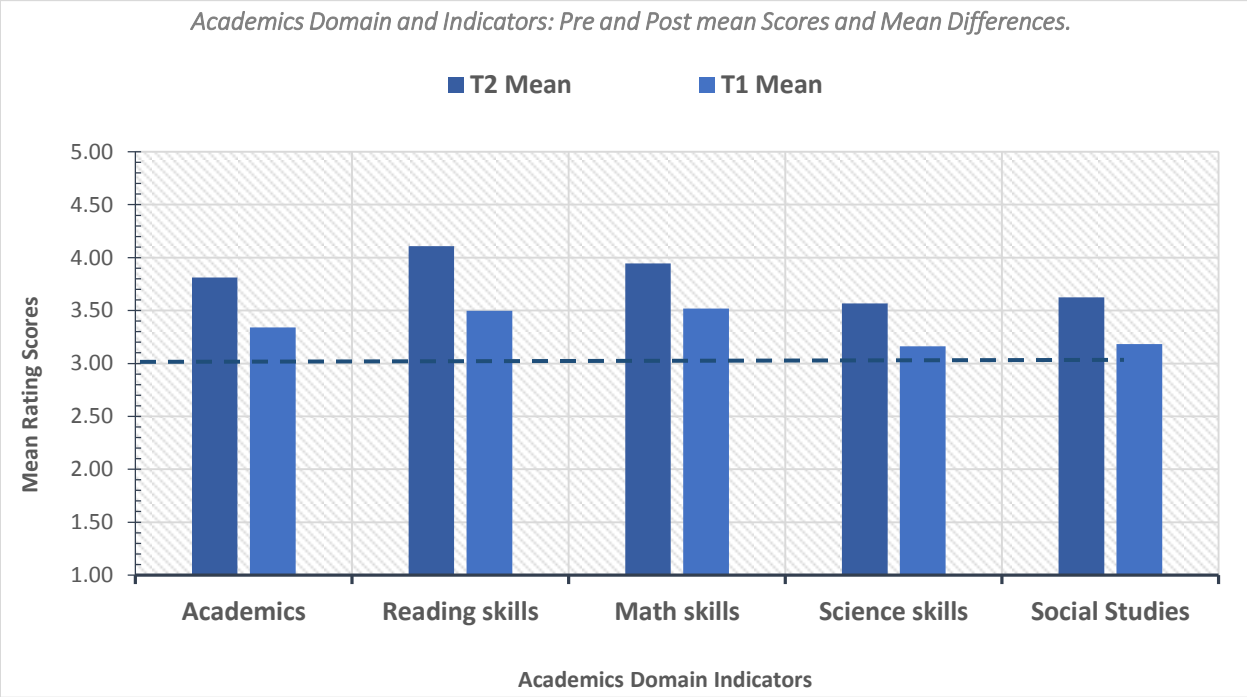
To what extent does this child/student show age-appropriate functioning, across a variety of settings and situations in ACQUIRING AND USING ACADEMIC SKILLS FOR CLASSROOM LEARNING?

Acquiring and using academic skills for classroom learning is based on the rating of four indicators and these are:

a. Learning and applying skills in reading activities (***Reading Skills***);
b. Learning and applying skills in math activities (***Math Skills***);
c. Learning and applying skills in science activities (***Science Skills***) and;
d. Learning and applying skills for social studies and activities (***Social Studies***)

Exhibit 26 below plots the results of the paired samples t-test statistics and compares the pre (T1) and post (T2) mean rating scores for the Academics domain overall and across the four academic skill areas.

Exhibit 26: Academics Domain and Indicators: Pre and Post Mean Scores and Mean Differences.



(ALL MEAN SCORES DIFFERENCES ARE STATISTICALLY SIGNIFICANT AT P=<0.001)

Teacher observational assessments and ratings indicate that students in their classrooms made observable and statistically significant gains by the end of the school year. While on average the students' performance has improved these improvement are assessed by the teachers to be within the emerging skills level. It is further evident from the data that the students have made positive gains especially in reading skills which shows an average increase of 0.61 mean points (i.e., from a T1 mean of 3.5 to a T2 mean of 4.1). In the other academic areas, students have maintained or slightly improved their entry-level performance.

FOCAL Summary

- **Children have made positive and statistically significant improvement in all of the FOCAL domains.**
- **The results suggest that the IMFS consultations and mentoring are associated with student progress.**

Academic Competence Scale (ACS): Student Progress Outcomes

The ACS scale includes the 7 items of the academic competence domain. The ACS uses a Likert-type scale to rate the performance of the students as follow:

- ***Lowest 10%*** or a rating of 1
- ***Next Lowest 20%*** or a rating of 2
- ***Middle 40%*** or a rating of 3

- ***Next Highest 20%*** or a rating of 4
- ***Highest 10%*** or a rating of 5

The 7 ACS items or indicators of academic competence according are:

1. Item 77: The overall academic performance (***Academic Overall***)
2. Item 78: In reading, how does this student compare with other students? (***In Reading***)
3. Item 79: In mathematics, how does this student compare with other students? (***In Math***)
4. Item 80: In terms of grade-level expectations, this student's skills in reading (***Reading Expectations***)
5. Item 81: In terms of grade-level expectations, this student's skills in mathematics (***Math Expectations***)
6. Item 82: This student's overall motivation to succeed academically (***Motivation***)
7. Item 83: Compared with other students in my classroom, this student's intellectual functioning (***Intellectual***)

The ACS scale is only completed by the teachers in each of the participating IMFS classrooms at the beginning (T1 time period) and at the end (T2 time period) of the school year. The ACS scale was administered to 143 students at entry (T1) and to 155 students at exit (T2).

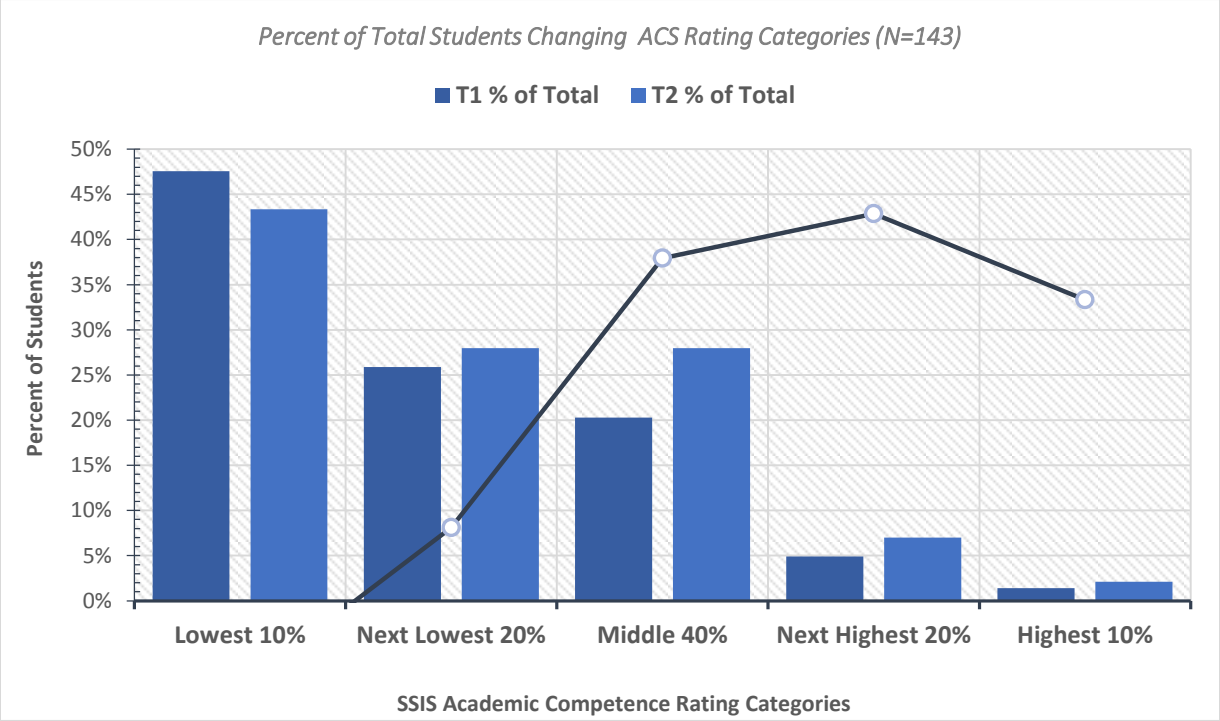
Pre and post ACS scale score comparisons are completed using the paired sample t-test statistics. This test will compare and assess the significance of the changes in the students' academic competence between their entry and exit time points. In addition, the pre and post comparisons include analyses of the frequency count and percent of students across each of the rating ranges introduced above.

Overall ACS Pre and Post Outcomes

The first analysis of the ACS compares the pre and post overall academic competence mean rating scores of the students and assesses the statistical significance of the pre and post mean differences using a paired samples t-test statistics.

The overall academic competence mean score of the students at entry was 2.0 compared to the mean score at exit of 2.25. Exhibit 27 shows the frequency percentage of children that moved from a lower rating category to a higher rating category at the exit time period (i.e., Lowest 10%, Lowest 20%, Middle 40%, etc.).

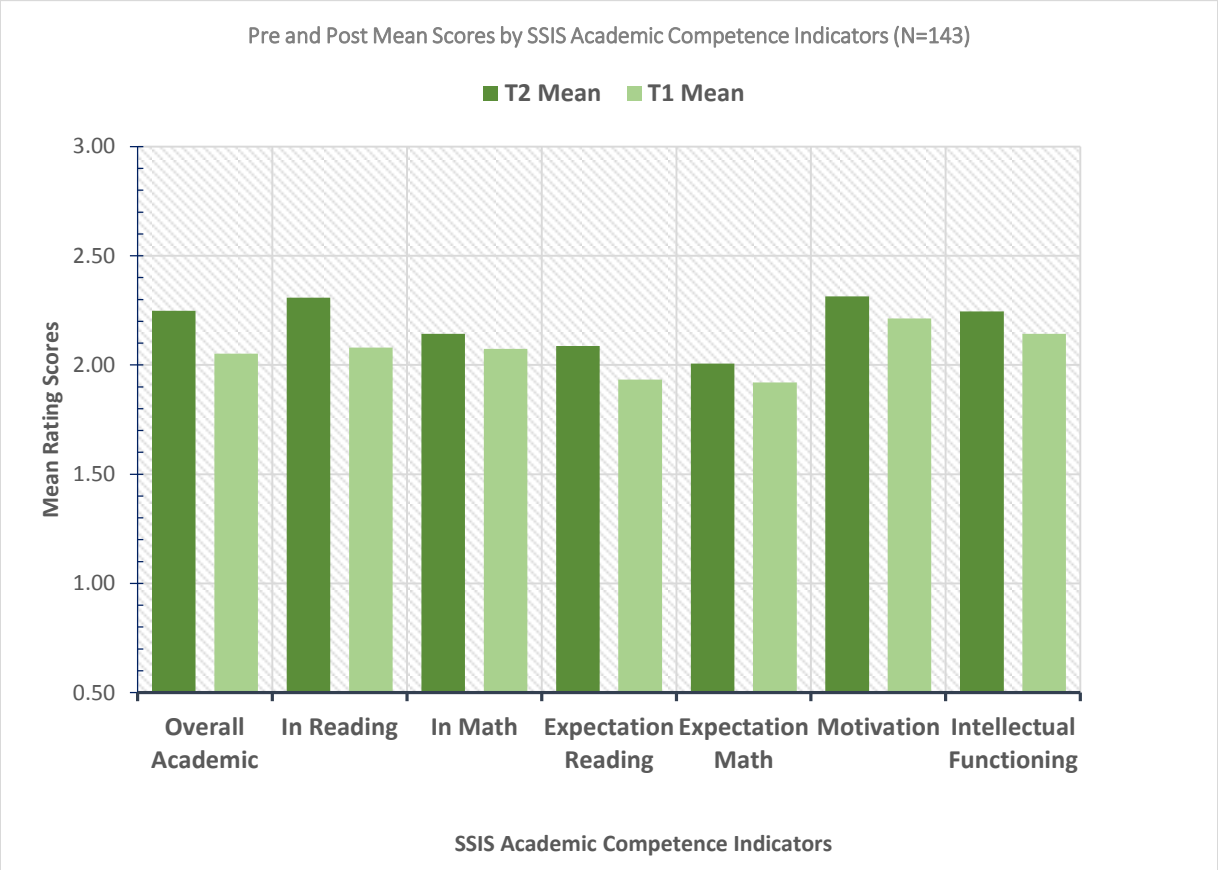
Exhibit 27: Frequency percentage of children by ACS Rating Categories.



The above graph (Exhibit 27) captures how the number of children in the lowest 10% rating categories dropped by a rate of -10% while the number of students that moved to a higher rating categories increased between 8% and 43%. That is, when compared to entry-level performance, by the end of the school year, more children have scores leaning toward the middle 40% competence category.

Next, the analysis compares the pre and post mean scores and assesses the significance of the pre and post mean differences across the seven academic competence indicators. The results of the paired sample statistics suggest positive and statistically significant correlations between the pre and post ACS mean scores for reading and overall academic performance. The pre and post mean scores and mean difference comparisons for the sample of IMFS students is plotted in Exhibit 27.

Exhibit 27: Pre and Post Mean Scores and Mean Differences by SSIS Academic Competence Indicators.



Students either maintained and/or slightly improved their entry-level academic competencies. The general academic and specific reading competencies increased by more than 10% mean points and that these changes were statistically significant.

Student Progress Results: FOCAL and ACS--Conclusions and Discussion

- Slight improvement in student's learning and academic progress is evident from a functional viewpoint.
- Progress in reading is the most notable.

Parent and Teacher Surveys

Teacher Perception Surveys

Twenty-three teachers completed both pretest and posttest surveys in the 2014-2015 school year. Average scores stayed approximately the same from pretest to posttest. Lower scores represent more positive responses and attitudes toward inclusion. The two exhibits, the table and figure below show the mean score and the two highest rated mean scores on specific items: a) most strongly in agreement with the statement, and: b) most strongly disagreeing with the statement.

Exhibit 28. Mean Scores on the Teacher Perceptions Survey from Pretest to Posttest (n=23).

	Pretest	**Posttest**
Mean	32.54	32.46
Std. Deviation	*5.83*	*6.30*

Exhibit 29. Most Frequent Rated Items on the Teacher Perceptions Survey Posttest.

	Most Often Rated Positive (Strongly Agree)	
10	I feel I have a positive attitude toward having children with disabilities in the classroom.	1.17
03	All students are enriched by participation in a classroom by peers with disabilities.	1.48
	Most Often Rated Negative (Strongly Disagree)	
05	A regular education classroom provides more meaningful and functional opportunities for a child to learn than does a special education classroom.	2.63
16	I know how to help parents find resources to meet their child's need.	2.35

Parent Perceptions Surveys

Fifteen parents completed the Parent Perception Surveys at two time points. Mean scores on the parent surveys were lower than mean ratings on the teacher surveys, showing that parents had more positive attitudes than teachers. The ratings decreased on the parent survey as shown in the following table.

Exhibit 30. Mean Ratings on the Parent Perception Survey from Pretest to Posttest (n=15).

	Pretest	**Posttest**
Mean	30.50	26.90
Std. Deviation	*7.79*	*6.25*

The next table shows the two highest rated mean scores on specific items: a) most strongly in agreement with the statement, and: b) most strongly disagreeing with the statement.

Exhibit 31. Most Frequent Rated Items on the Parent Perceptions Survey Posttest.

	Most Often Rated Positive (Strongly Agree)	
02	If my child were to spend much of his/her day in a regular classroom, he/she would be more likely to build friendships with peers without disabilities in that room.	1.20
11	The teacher has a positive attitude toward having my child in the classroom.	1.20
	Most Often Rated Negative (Strongly Disagree)	
05	A regular education classroom provides more meaningful and functional opportunities for my child than does a special education classroom.	1.93

Take Home Points

- Teachers felt that they have positive attitudes toward inclusion, and parents agreed with this perception.
- Teachers had less favorable attitudes toward inclusion than parents.
- Both teachers and parents disagreed with the statement that the regular education classroom provides more meaningful opportunities for their children.

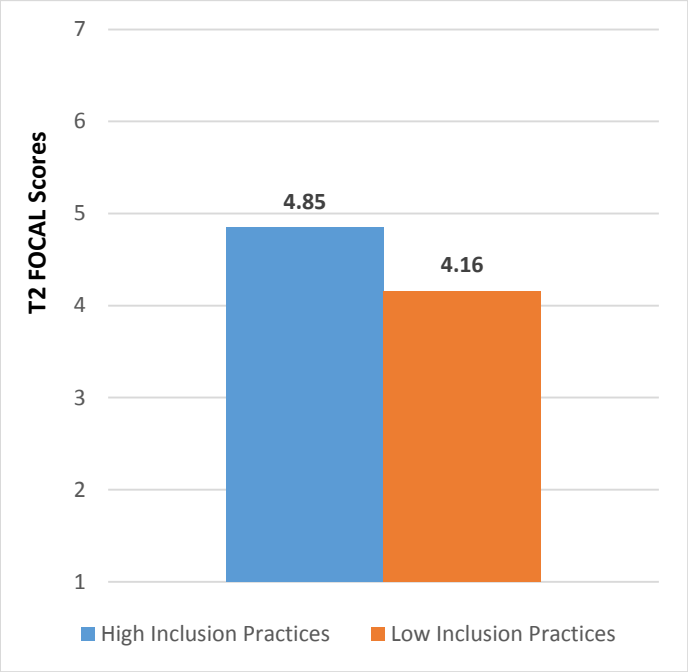
Analysis of Interrelationships Among Mentoring, Teacher Inclusion Practices, and Student Progress

Final statistical analyses were conducted to explore the relationship between specific consultation/mentoring activities, teacher inclusion practices, and students' functional academic and learning outcomes. The criteria for these analyses included completed Time 2 FOCAL and CEPI assessments, and completed consultation monitor. The final sample for the analyses included 124 students.

Results from the first analysis suggest that the IMFS/Arc consultant's mentoring practices are significantly related to implementation of these specific teacher inclusion practices: Expectations; Membership strategies; Participation-social strategies; Instructional Supports; and Self Determination and Futures Planning. In turn, results suggest that these teacher inclusion practices are significantly related to students' FOCAL scores at Time 2. That is, teachers who displayed high scores on the CEPI at Time 2 were more likely to have students who displayed high scores on the FOCAL at Time 2.

The following graph in Exhibit 65 displays student progress by teachers' inclusion practices. The students of teachers who were overall rated as *usually* demonstrating effective inclusion practices had higher FOCAL scores at Time 2, compared to the students of teachers who were rated as *partially* demonstrating effective inclusion practices.

Exhibit 32: Graphic representation of impact of teacher's use of inclusion practices on student progress in learning



While results of the exploratory analysis demonstrate that consultant's mentoring practices (as measured by the Consultation Monitor) are significantly related to inclusion practices, **the most significant predictor was multi-model strategies--the amount of diverse strategies used in consultation and mentoring**. **In this sample, the most frequently utilized strategy was verbal feedback, while the second most frequent strategy was observation.**