The 2011 SELMA Pilot

March 2013

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
DEPARTMENT OF PUBLIC WELFARE
333 Market Street
Harrisburg, PA 17126-0333
www.education.state.pa.us | www.dpw.state.pa.us

Commonwealth of Pennsylvania

Tom Corbett, Governor

Department of Education
Ronald J. Tomalis, Secretary

Department of Public Welfare
Bev Mackereth, Acting Secretary

Office of Child Development and Early Learning
Barbara G. Minzenberg, Ph.D, Deputy Secretary

Bureau of Early Learning Services
Tracey Campanini, Director

Division of Standards and Professional Development
Deborah C. Wise. M.Ed., Chief

The Pennsylvania Department of Education (PDE) does not discriminate in its educational programs, activities, or employment practices, based on race, color, national origin, sex, sexual orientation, disability, age, religion, ancestry, union membership, or any other legally protected category. Announcement of this policy is in accordance with State Law including the Pennsylvania Human Relations Act and with Federal law, including Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act of 1967, and the Americans with Disabilities Act of 1990.

The following persons have been designated to handle inquiries regarding the Pennsylvania Department of Education's nondiscrimination policies:

For Inquiries Concerning Nondiscrimination in Employment:
Pennsylvania Department of Education
Equal Employment Opportunity Representative
Bureau of Human Resources
333 Market Street, 11th Floor
Harrisburg, PA 17126-0333
Voice Telephone: (717) 787-4417
Fax: (717) 783-9348
Text Telephone TTY: (717) 783-8445

For Inquiries Concerning Nondiscrimination in All Other Pennsylvania Department of Education Programs and Activities:
Pennsylvania Department of Education
School Services Unit Director
333 Market Street, 5th Floor
Harrisburg, PA 17126-0333
Voice Telephone: (717) 783-3750
Fax: (717) 783-6802
Text Telephone TTY: (717) 783-8445

If you have any questions about this publication or for additional copies, contact:

Pennsylvania Department of Education
Office of Child Development and Early Learning
333 Market Street, 6th Floor
Harrisburg, PA 17126-0333

Voice: (717) 346-9320
Fax: (717) 787-1529
TTY: (717) 783-8445
www.education.state.pa.us, www.dpw.state.pa.us

All Media Requests/Inquiries: Contact the Office of Press & Communications at (717) 783-9802

Table of Contents

Introduction

As Pennsylvania builds a high-quality and accountable system of early childhood programs, parents, teachers and state administrators have expressed a need for information on the status of children's skills and abilities as they enter kindergarten. This report provides information about the development and pilot of the SELMA tool, Pennsylvania's kindergarten entry student inventory.

SELMA is intended to be used by kindergarten teachers to record a students' demonstration of skills, track academic gains over time, and serve as an indicator of individual student needs in multiple key learning areas. This tool will serve to report to parents, guide teacher instruction, and inform policy by providing a picture of student outcomes in the classroom and across the commonwealth. SELMA is intended to measure a range of cognitive and non-cognitive domains and bring accountability to school districts, buildings, grade levels and classrooms.

Pennsylvania Learning Standards for Early Childhood

Pennsylvania's work to gather information about the status of children at kindergarten entry began with the development of a continuum of early learning standards. These standards outline the state's expectations for children at significant age intervals, and form the basis for an outcomes reporting tool that may be used to answer the question of how children are doing when they enter kindergarten. These standards start with infant-toddler, and maintain alignment through pre-kindergarten, kindergarten, and grades 1 and 2, ultimately linking to Pennsylvania's grade 3 academic standards.

Rather than reporting student progress on all of the Pennsylvania learning standards, 18 standards from four key learning areas were identified as salient indicators of student progress that were most important for determining kindergarten readiness. The Common Core Standards, which were adopted by Pennsylvania's State Board of Education on July 1, 2010, were also incorporated (an alignment document for SELMA and the Common Core Standards can be found at www.pdesas.org/ocdel). The Pennsylvania Learning Standards for Early Childhood can be found at www.pdesas.org/ocdel.

Collaboration and Development

In March of 2011, Pennsylvania's Office of Child Development and Early Learning (OCDEL) convened stakeholder workgroups to develop recommendations for an instrument that could be used in a pilot study to determine the status of children as they enter kindergarten. Invited participants included kindergarten teachers, preschool and Head Start personnel, administrators, and content specialists in math and literacy, all from within the Commonwealth. Workgroup participants reviewed both the Learning Standards and the Common Core Standards to develop definitions of skill levels for select learning standards in the following key learning areas: Social

and Emotional, Language and Literacy, Mathematical Thinking, and Approaches to Learning (SELMA). The workgroup articulated examples and a set of indicators for each skill level, from which OCDEL developed a kindergarten entry teacher observation tool and a series of supporting documents for recording, tracking, and summarizing individual and class outcomes.

Pre-Pilot and Focus Groups

In April 2011, 27 teachers who had participated in the development of the draft instrument agreed to use the tool in their classrooms and provide feedback on the challenges and benefits of the tool. Teachers were administered a survey to provide structured feedback. Results of the pre-pilot indicated that:

1. Administration – Teachers reported an average administration time of 20 minutes per student. Although some expressed that it would be more challenging for half day. A majority of teachers (52 percent) agreed that they could use current assessment tools and other information to complete the inventory. Only 15 percent of teachers reported that they had to pull children aside and create additional assessment tools for some items.

2. Appropriateness – A majority of teachers (52 percent) thought that the tool reflected a child's true level of proficiency and that the levels of proficiency accurately reflected each standard. A majority of teachers (60 percent) also reported that they were able to determine a child's level of proficiency using the descriptions. A few teachers expressed concern using English language standards for English language learners.

3. Utility – Teachers reported that SELMA would be useful for sharing information with families (55 percent); understanding students' skill levels and development (52 percent); and instructional planning (44 percent). Few teachers requested additional training on: how to accurately complete the SELMA (37 percent); uses for SELMA (26 percent); authentic assessment (19 percent); and designing environments to gather data (15 percent).

While some teachers commented that the inventory was too long, several commented that the SELMA is a much needed tool which supports the standards and was not overly burdensome. Survey comments indicated the importance of comprehensive training for teachers.

Following the pre-pilot, OCDEL invited administrators and teachers to one of three focus groups that were held throughout the commonwealth over a 2-day period. Participants, who were not familiar with the tool, were asked in advance to review the SELMA, the guide, and the optional forms. The feedback included extensive commendations, concerns, and additional questions. After the work sessions, pre-pilot and focus groups, OCDEL and the Pennsylvania Department of Education (PDE) made several significant modifications to the SELMA structure, content, and training materials.

SELMA Structure

SELMA is composed of 18 indicators organized in four domains. Each indicator corresponds to one or more of the Pennsylvania Learning Standards for Pre-Kindergarten (indicators for language and mathematics are also mapped to Common Core Standards for kindergarten). Each SELMA indicator is further defined by a set of observable skills and behaviors which allow teachers to use structured observations over time as a means of discerning the developmental stage of each student (see Appendix A for indicators and definitions).

Outcomes are reported for each indicator in one of four response categories which reflect the skill levels of the child. These four outcome categories are defined as:

1. Exceeds – All of the skills, knowledge, and behaviors defined for the indicator are observed on a consistent basis.

2. Evident – Most of the skills, knowledge, and behaviors defined for the indicator are observed but may require occasional support and assistance.

3. Emerging – Some of the skills, knowledge, and behaviors defined for the indicator are observed but may require occasional support and assistance.

4. Not Yet Evident – Few or none of the observable skills, knowledge, and behaviors defined for the indicator are observed and require significant or frequent support and assistance.

These terms were further defined by a numeric scoring rubric to address concerns over the subjectivity of the tool (see Appendix B).

Accommodations and Appropriateness for the Population

SELMA captures information regarding a child's IEP/504 status. Accommodations for children with special needs are permissible and expected as teachers complete SELMA. This includes children with culturally and linguistically diverse needs. Additionally, SELMA also captures information about the English language proficiency level determined through administration of the World Class Instructional Design and Assessment (WIDA) Measure of Developing English Language (a nationally-recognized assessment tool built on the principles of language development, which assesses student progress in English language acquisition). Capturing this reliable information about disability and/or language proficiency will inform data use and reporting for teachers and administrators.

As SELMA was intended to be an observational "snapshot" of children entering kindergarten, it should not be administered in pull-out sessions, used as an assessment of children, or for placement of children.

2011 SELMA Pilot

A pilot of SELMA was conducted to field test the training materials and perform initial validation of the refined tool. Ten school districts were selected by simple random sample from within the commonwealth, three districts declined to participate in the pilot. Districts chose whether they wished to include kindergarten teachers from all schools in the district or select schools. Full-day teachers were asked to complete the SELMA for all of their students; half-day teachers completed the SELMA for all students in one session (either a.m. or p.m.). The final sample for the pilot included 1,034 children and 52 teachers in seven districts. Fifty-one percent of the students were male; 86 percent were in full-day kindergarten classes; 7 percent had written IEPs; and 8 percent were English language learners.

All pilot teachers participated in a kick-off webinar which introduced them to the SELMA, related documents, and expectations for the pilot. The webinar was followed by a face-to-face training of 6.5 hours offered at five locations which gave participants an opportunity to learn the tool prior to training.

Pilot Training

Based on the recommendations from the workgroup, pre-pilot and focus groups, OCDEL staff developed training modules for kindergarten teachers and principals on administration and use of the kindergarten inventory. The training was held at five regional sites in August 2011 for all of the 52 pilot teachers and interested administrators. The pilot training covered administration of the tool, identification and uses of sources of evidence (i.e. portfolio samples of student work, videos, photographs, standardized- and curriculum-based assessment), practice administering and rating children using model scenarios, and exercises to establish reliability.

All teachers and administrators who participated in the training completed inventories for three test scenarios using an extensive mock-portfolio of student work and structured teacher observations. Teachers completed the training inventories independently and submitted their completed SELMA outcomes to OCDEL. Teacher data was compared to a "gold standard" developed by a panel of developers, and reliabilities were calculated for teachers and items as the percent agreement. Overall reliability was high in three of the four domains; there was 60.8 percent agreement for social emotional indicators, 81.1 percent in language and literacy; 76.6 percent in mathematical thinking, and 82.1 percent in approaches to learning. Results were used to enhance future trainings, as well as identify teachers who could benefit from additional support. On-going discussion and feedback with pilot participants was managed through an

online Professional Learning Community hosted by the PDE's Standards Aligned Systems (SAS) portal.

Data Analysis

After training was completed and teachers established reliability, teachers completed the tool for all students in their classes and reported de-identified outcomes to OCDEL for instrument validation. Teachers of pilot districts administered the SELMA Inventory and submitted a paper copy of the *Recording Sheet* for each student by Nov. 15, 2011, to OCDEL. No identifying information such as student names or student ID numbers was included.

Each of the four scales was shown to have high internal consistency (smallest α=0.82). Item analysis showed no item/total correlation of less than 0.58, supporting the uni-dimensionality of each scale. Table 1 presents the reliability of each scale as well as the correlations among scales.

Table 1: SELMA Scale Reliability and Correlations

	Reliability	Correlations			
		SE	LL	MT	AL
Social Emotional	0.85	1.00			
Language and Literacy	0.92	0.70	1.00		
Mathematical Thinking	0.82	0.54	0.80	1.00	
Approaches to Learning	0.86	0.75	0.82	0.69	1.00

Notes: Reliability represented using Cronbach's alpha.

Further analysis of scale scores using multivariate regression explored the percent of variation in student outcomes that is related to child gender and special needs status. Less than 10 percent of total variance (R^2 = 0.08) was explained collectively by student gender, ELL status and IEP status.

Finally, student outcomes were analyzed through psychometric analysis to examine item and scale properties. Item Response Theory methods were used to model the response of an examinee of given ability to each scale item. SELMA outcomes are reported as ordinal observed data, therefore, two polytomous Rasch models were identified as appropriate and each was fit to the data using weighted a posteriori expectancy method; the graded response model was determined to have better fit using $\chi 2$ test of difference between deviance statistics. The graded response model uses a two-stage, two parameter model to determine the location of a trip point on the latent trait continuum. The first stage of the graded response model produces curves that are the probability of a person's item response, falling in or above a given category threshold, conditional on latent trait level. The parameters represent the trait level necessary to respond above all thresholds with 0.50 probability. After the estimation of these parameters, the second step computes the actual category response probabilities. The curves produced by this stage

represent the probability that a person answers in a particular category, conditional on the latent trait level. Table 2 presents a summary of statistics of parameter estimates from the graded response model, including item mean, standard deviation, item-total Pearson correlation, polyserial correlation, and finally the parameter estimates for item discrimination and difficulty, represented by slope and location respectively. Each scale demonstrated reasonably good coverage of items across a range of ability levels, all with moderate or high discrimination. No items demonstrated reversal (i.e. response categories that are out of order in step difficulty). Moreover, no item provided redundant information.

Items were then examined for internal bias using multiple group comparison of item properties. Differential Item Functioning examines the statistical significance between models for multiple groups tested separately. Items with Differential Item Functioning may be considered for removal or revision if they do not contribute to the average information of the overall scale and if removal does not create large gaps in the theta continuum. If a Differential Item Functioning item is covering a gap and has high information, then it should be retained. Table 3 presents the results of the Differential Item Functioning analysis which was conducted separately for each scale, based on four grouping variables. Although statistical significance was noted for several items, none could be removed without reducing total scale information. The tool is not equated, therefore, Differential Item Functioning items are not considered to be detrimental to validity of the instrument. Findings of the analysis might be used to improve training and supplemental materials discussed below.

The graded response model was then used to generate scale score which are presented in Figures 1 through 4 found in Appendix C. Figures 5 through 8, also in Appendix C, present the distribution of total information for each scale which exceeds standard error up to almost two standard deviations in each tail. This finding indicates that SELMA provides reliable data for the vast majority of ability levels however, SELMA cannot be reliably used to differentiate between students at the extreme ends of the scale, of which there are few.

Table 2: SELMA Summary Statistics from Graded Response Model

	Mean	Std	Pearson	Poly-	Slope	Location
Social Emotional						
Self-Concept	3.00	1.03	0.87	0.96	1.53	-0.58
Self-Regulation	2.99	1.03	0.88	0.97	2.07	-0.54
Pro-Social Relationships with Adults	3.30	0.89	0.75	0.87	0.79	-1.14
Pro-Social Relationships with Peers	2.90	1.07	0.79	0.87	0.75	-0.05
Language and Literacy						
Learning to Read Independently	2.63	1.17	0.88	0.97	1.92	-0.14
Reading, Analyzing and Interpreting Text	2.71	1.13	0.87	0.95	1.51	-0.23
Reading, Analyzing and Interpreting Lit.	2.49	1.19	0.86	0.94	1.53	0.00
Types and Quality of Writing	2.90	1.14	0.83	0.92	1.06	-0.46
Speaking and Listening	3.11	1.11	0.81	0.92	1.11	-0.71
Conventions of English Language	3.12	1.00	0.82	0.93	1.20	-0.71
Mathematical Thinking						
Numbers, Number Sys & Relationships	2.43	1.21	0.82	0.91	1.01	0.08
Computation and Estimation	2.61	1.09	0.82	0.88	0.78	-0.12
Measurement and Estimation	2.20	1.15	0.83	0.91	1.08	0.33
Geometry	2.87	1.13	0.77	0.85	0.70	-0.47
Approaches to Learning						
Constructing Knowledge	3.13	1.02	0.79	0.90	0.84	-0.81
Org. and Understanding Knowledge	2.53	1.17	0.85	0.92	1.12	-0.06
Applying Knowledge	2.97	1.07	0.86	0.96	1.36	-0.53
Learning Through Experience	2.80	1.13	0.87	0.96	1.50	-0.35

Note: Parameter estimates using Graded Response Item Response Theory Model

Table 3: Differential Item Functioning for SELMA Indicators

	Female		ELL		IEP		Half-day	
	Contrast	s.e.	Contrast	s.e.	Contrast	s.e.	Contrast	s.e.
Social Emotional								
Self-Concept	-0.02	0.08	0.01	0.14	0.21	0.17	***-0.47***	***0.14***
Self-Regulation	-0.12	0.08	-0.10	0.16	0.08	0.15	***-0.23***	***0.11***
Pro-Social Relationships with Adults	***0.31***	***0.11***	0.34	0.21	-0.13	0.21	0.33	0.18
Pro-Social Relationships with Peers	-0.17	0.11	-0.24	0.19	0.04	0.19	***0.37***	***0.17***
Language and Literacy								
Learning to Read Independently	0.05	0.08	-0.01	0.16	-0.04	0.16	0.06	0.15
Reading, Analyzing and Interpreting Text	0.07	0.08	-0.05	0.17	-0.10	0.18	-0.02	0.14
Reading, Analyzing and Interpreting Lit.	0.08	0.08	-0.07	0.19	-0.13	0.16	0.26	0.15
Types and Quality of Writing	-0.06	0.09	***-0.57***	***0.17***	0.07	0.18	-0.18	0.16
Speaking and Listening	-0.11	0.09	0.22	0.16	0.21	0.20	-0.11	0.14
Conventions of English Language	-0.03	0.09	***0.48***	***0.17***	-0.01	0.17	-0.02	0.19
Mathematical Thinking								
Numbers, Number Sys & Relationships	-0.04	0.09	***-0.53***	***0.20***	0.12	0.22	0.09	0.15
Computation and Estimation	-0.01	0.08	-0.01	0.18	0.03	0.19	0.04	0.15
Measurement and Estimation	0.05	0.08	-0.06	0.22	-0.08	0.23	-0.14	0.14
Geometry	-0.01	0.10	***0.60***	***0.24***	-0.07	0.22	0.02	0.15
Approaches to Learning								
Constructing Knowledge	0.03	0.10	***0.34***	***0.17***	-0.09	0.17	***-0.34***	***0.15***
Org. and Understanding Knowledge	-0.08	0.08	-0.27	0.14	***0.46***	***0.17***	***-0.32***	***0.13***
Applying Knowledge	0.07	0.08	0.12	0.13	***-0.33***	***0.14***	***0.39***	***0.16***
Learning Through Experience	-0.02	0.08	-0.20	0.13	-0.04	0.14	***0.28***	***0.12***

Note: Statistically significant parameter estimates as bolded and italicized

Discussion

Analysis of pilot data suggests that SELMA is an internally reliable tool for collecting a snapshot of a child's skills and abilities at kindergarten entry, in four discrete domains of Pennsylvania's Learning Standards. Further evidence is needed to understand the instrument's utility and validity for making instructional decisions locally, and for evaluating the efficacy of early childhood programs statewide. Feasibility of large scale use must also be studied.

Analysis of the student data also suggest areas of needed improvement for training and support specifically, revisions and enhancements are needed for English language learners in the two cognitive domains (language and math), and for children in half-day kindergarten classes in the two non-cognitive domains (social-emotional and approaches). In response OCDEL will further clarify training materials and also develop alternative forms of evidence which teachers may use, as needed, for these two groups to more reliably identify student skills, knowledge and abilities.

Following the 2011 pilot, after teachers had submitted entry data for their students, OCDEL conducted a feedback survey and follow up conference calls with the pilot participants to determine the usability of the SELMA tool. Forty-four of 52 pilot participants submitted feedback surveys and 37 participants participated in conference calls. Summarized feedback provides several recommendations for tool revisions included:

1. Reduce the number of indicators to those most predicative of later school success and those most easily captured at kindergarten entry.
2. Move reporting date to earlier in the school year (end of September/beginning of October) to provide a balance between conducting an authentic measure and providing a true snapshot of skills at kindergarten entry.
3. Add an "unable to observe" field to capture skills which teachers do not have a chance to observe within the first few weeks of school or for children who would not be expected to exhibit a skill due to disability, for example.

OCDEL will use these recommendations to make refinements to the Kindergarten Inventory and has plans to pilot a revised tool in the fall of 2012 with a larger sample of participants.

Appendix A: SELMA Indicators and Definitions

Social and Emotional Development
1. Self-Concept (Identity) (25.1)
Uses socially acceptable ways to express emotion.
Participates in new experiences with confidence and independence.
Chooses materials and activities independently.
Demonstrates awareness of self and one's own preferences.
1. **Self-Regulation (25.2*)***
Asks for and accepts offers of help when needed or appropriate.
Adjusts to changes in routines and activities w/ minimal guidance & direction.
Demonstrates increased independence with self-care activities.
Understands and follows simple classroom rules.
3. Pro – Social Relationships with Adults (25.3)
Seeks help from familiar adults when needed.
Engages in reciprocal conversation with familiar adults.
Separates from familiar adults in a familiar setting with no distress.
Appropriately demonstrates affection and preference for familiar adults.
4. Pro – Social Relationships with Peers (25.4)
Plays cooperatively with a few peers for sustained period of time.
Cooperates in both large and small group activities facilitated by an adult.
Responds with empathy to others.
Solves simple conflicts with peers independently.

Language and Literacy Development
1. Learning to Read Independently (1.1)
Associates some letters with their names and sounds.
Differentiates letters from numbers.
Identifies familiar words in environmental print.
Describes pictures in books using detail and new vocabulary.
Retells a simple story in sequence with picture support.
Makes connections between story events & personal experiences.
Recites rhymes, songs and familiar text.
2. Reading, Analyzing and Interpreting Text (1.2)
Identifies parts of a book (title, author) and parts of a story (characters, main events).
Practices appropriate book handling skills.
States at least one important fact from informational text.
Answers questions about a text (recalling details).
3. Reading, Analyzing and Interpreting Literature (1.3)
Answers who, what, how, when and where questions about a particular story.
When given a pair of words, recognizes them as a rhyme.
Uses illustration clues and story sequence to infer and predict what happens next in a story.
Differentiates between real or make believe.
4. Types and Quality of Writing (1.4; 1.5)
W/ prompting & support, generates ideas prior to drawing or writing and follows through with the plan.
Represents experiences, thoughts, ideas, or story/text details through illustration.
Writes symbols or letters to communicate an idea.
Uses a variety of writing tools with correct grip (tripod grip).
5. Speaking & Listening (1.6)
Follows two step directions.
Speaks in a simple sentence of at least 4 or more words.
Speaks clearly enough to be understood by most listeners.
Makes a statement, asks a question, and answers a question that shows attention to the conversation.
6. Conventions of English Language (1.7)
Prints letters in name.
Uses verbal and nonverbal forms of communication.
Demonstrates age appropriate command of the conventions of Standard English grammar and usage.
Uses new vocabulary in the context of daily routines and classroom conversation.

Mathematics
1. Numbers, Number Systems and Number Relationships (2.1)
Represents equivalent forms of the same number through the use of pictures and concrete objects up to 10.
Uses concrete objects, drawings, diagrams or models to combine, separate and name groups of objects.
"Counts on" from sets of 1 – 10.
Names numerals up to 10.
Demonstrates the relationship between numbers and quantities, including rote counting up to 20, one-to-one correspondence up to 10 objects, and comparing values of whole numbers up to 10.
2. Computation and Estimation (2.2)
Uses some mathematical language such as more, less, same, different, equal, not equal.
Uses counters to make sets up to six.
Combines and separates objects into groups.
Estimates how many objects are in a set/group up to six objects and checks estimate by counting the number of objects.
3. Measurement and Estimation (2.3)
Identifies characteristics that are measurable (length, weight, time) and tools for measuring those characteristics (ruler, scale, clock).
W/ adult prompting & support, uses measurement vocabulary (inches, feet, longer, shorter, o'clock, pounds, etc.).
Compares and orders objects on the basis of length, capacity, height and weight.
Describes a sequence of events using simple mathematical language (first, before, after).
4. Geometry (2.9)
Identifies and names common, two dimensional shapes.
Replicates shapes.
Matches and sorts dimensional shapes, according to attributes.
Uses positional words (in, on, under, over, next to, between, beside, above, below, front and back).

Approaches to Learning
1. Constructing Knowledge (15.1)
Shows interest in a growing range of topics, ideas and tasks.
Participates in both familiar and new experiences.
Shows interest and interacts with others about their work or actions.
Asks questions for clarification & to seek meaningful information.
2. Organizing and Understanding Knowlege (15.2)
Works towards completing task despite interruptions or classroom disruptions.
Independently breaks simple tasks into steps & completes them one at a time.
Classifies objects.
Tries different ways to complete a task.
3. Applying Knowledge (15.3)
Demonstrates new skills and knowledge.
Uses materials and objects to represent other objects.
Produces and explains the purpose for a new creation.
Uses music, art and stories to express ideas and feelings.
4. Learning Through Experience (15.4)
Understands how behavior may impact others' response to action.
Understands who or where to go to for help when needed.
Attempts problem solving activities to achieve a positive outcome.
Relates home or outside learned knowledge to school experiences.

Appendix B: Scoring Rubric

		Exceeds	Evident	Emerging	Not Yet Evident
	Standard	Entry	Entry	Entry	Entry
1.	Self- Concept	4	3	2	<2
2.	Self-Regulation	4	3	2	<2
3.	Pro-social/ Adults	4	3	2	<2
4.	Pro-social/ Peers	4	3	2	<2
5.	Reading Independently	7	5	4	<4
6.	Reading/ Text	4	3	2	<2
7.	Reading/ Literature	4	3	2	<2
8.	Writing	4	3	2	<2
9.	Speaking/ Listening	4	3	2	<2
10.	Conventions	4	3	2	<2
11.	Number Concepts	5	4	3	<3
12.	Computation	4	3	2	<2
13.	Measurement	4	3	2	<2
14.	Geometry	4	3	2	<2
15.	Constructing Knowledge	4	3	2	<2
16.	Organizing Knowledge	4	3	2	<2
17.	Applying Knowledge	4	3	2	<2
18.	Learning Through Exp.	4	3	2	<2

Appendix C

Figure 1: Histogram of Social Emotional

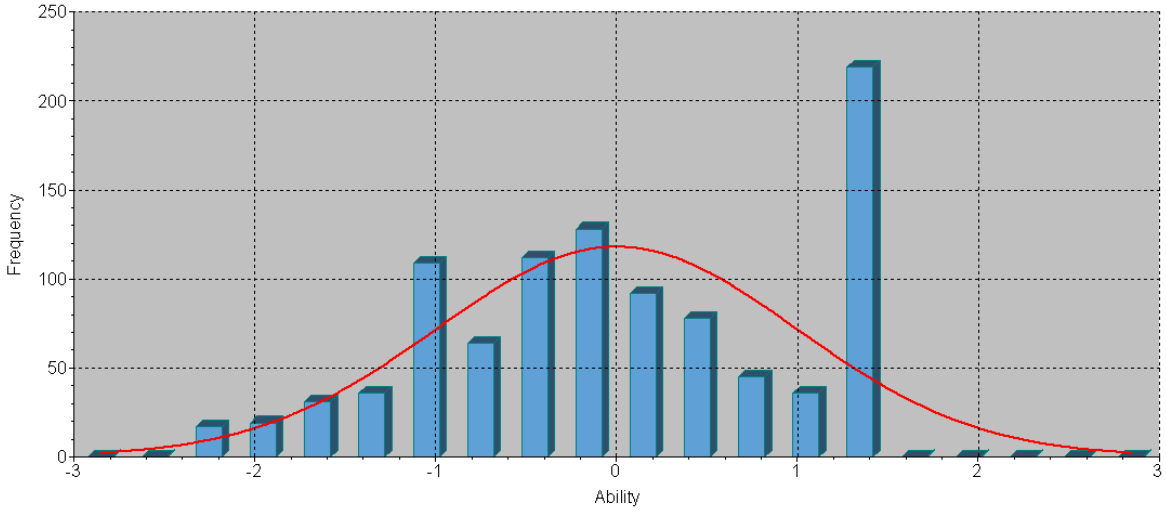

Figure 2: Histogram of Language and Literacy

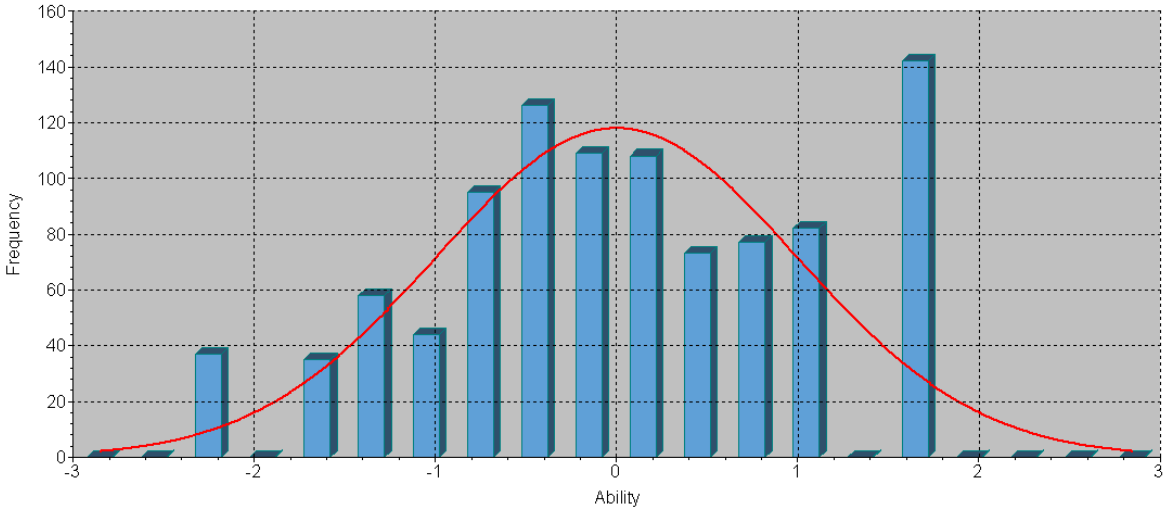

Figure 3: Histogram of Mathematic Thinking

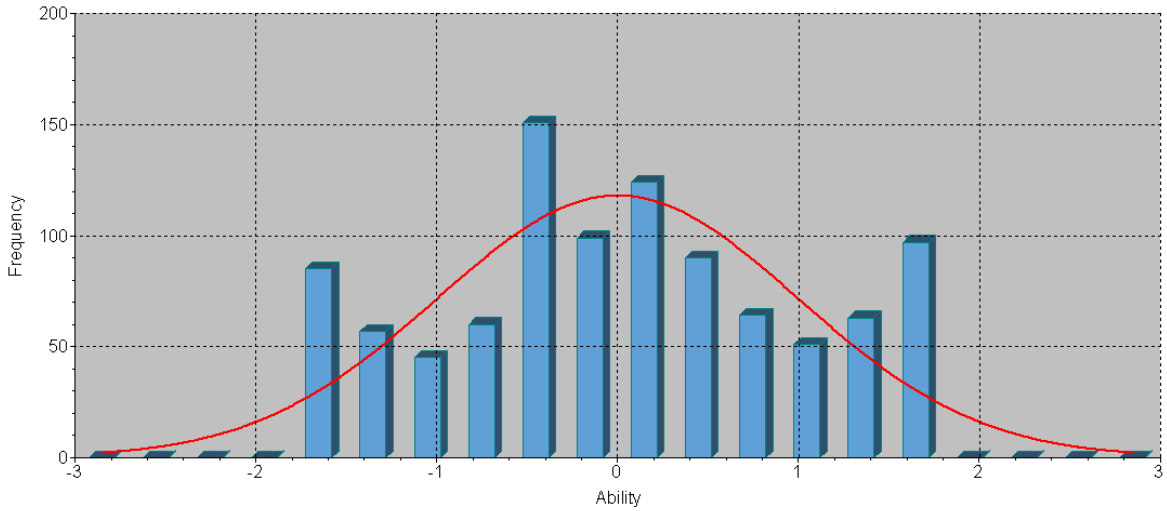

Figure 4: Histogram of Approaches to Learning

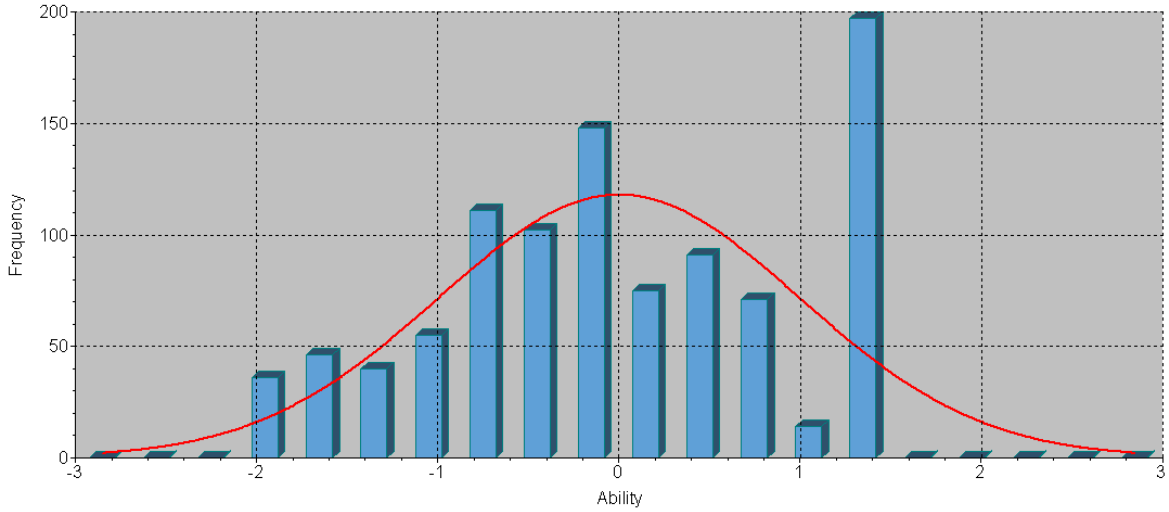

Figure 5: Total Information Social Emotional

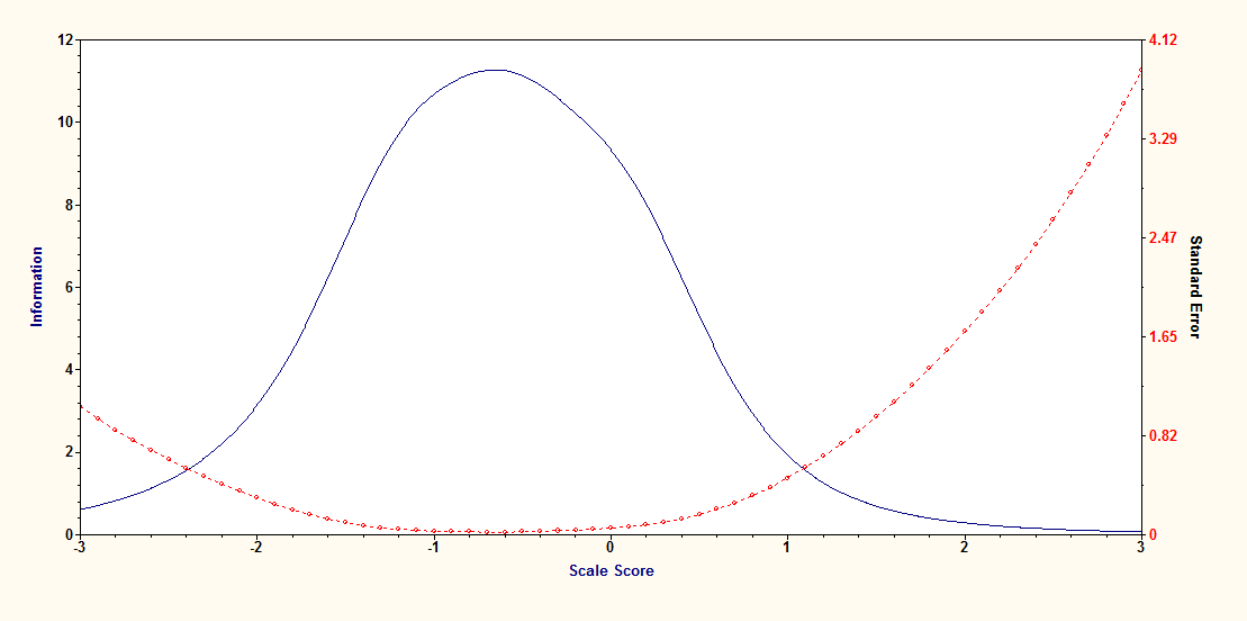

Figure 6: Total Information Language and Literacy

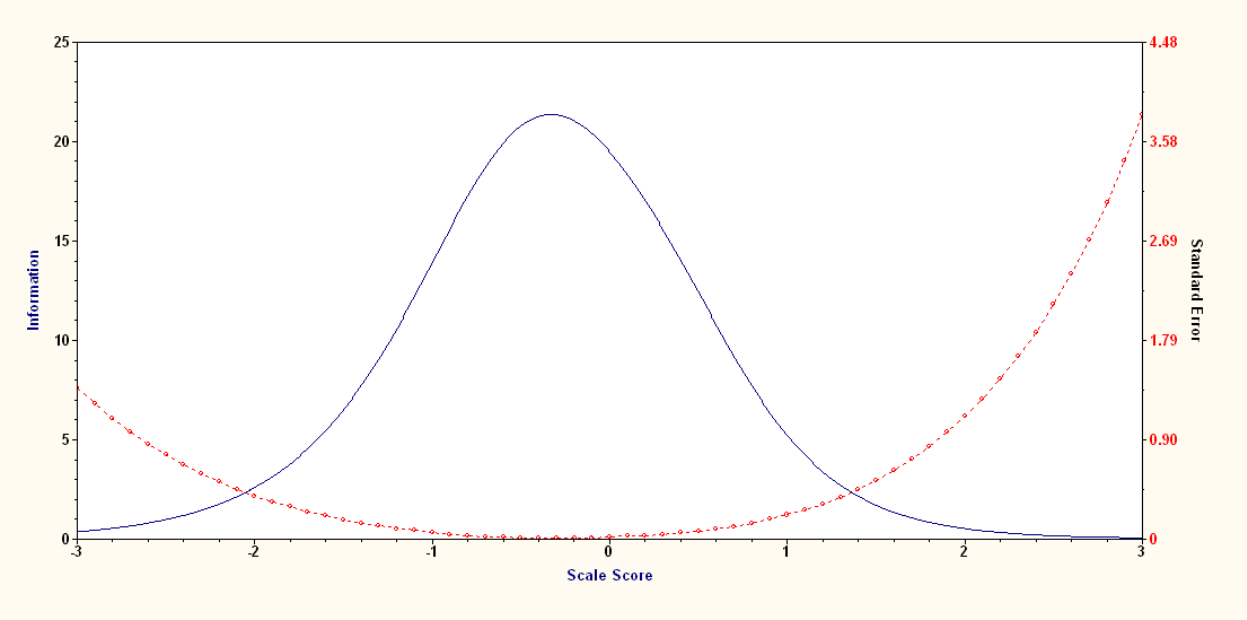

Figure 7: Total Information Mathematical Thinking

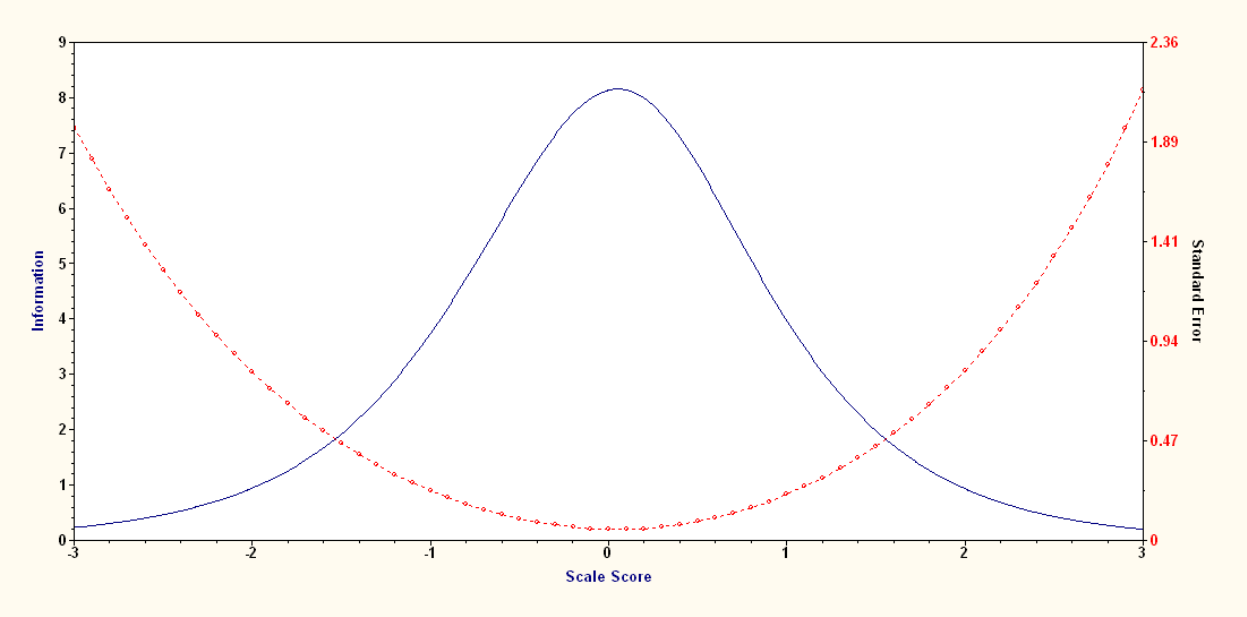

Figure 8: Total Information Approaches to Learning