children's institute

STRENGTHENING SOCIAL AND EMOTIONAL HEALTH

Chemung County School Readiness Project
Prekindergarten Assessment
Community Report
2008-2009 ECERS-R Results

MOLLY SAWEIKIS, B.S.
GENEMARIE VAN WAGNER, B.S.
LAURI BRUGGER, M.S.
DIRK HIGHTOWER, PH.D.

JULY 2009

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

Chemung County School Readiness Project
Prekindergarten Assessment
Community Report
2008-09 ECERS-R Results

MOLLY SAWEIKIS, B.S.
GENEMARIE VAN WAGNER, B.S.
LAURI BRUGGER, M.S.
DIRK HIGHTOWER, PH.D.

JULY 2009

children's institute
www.childrensinstitute.net

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

Table of Contents

ACKNOWLEDGEMENTS ii

I. Chemung County School Readiness Project - Prekindergarten Assessment 1

II. ECERS-R – A Measure of Classroom Environment Quality 2

III. Quality of Chemung County Pre-School Classrooms 4

IV. Classroom/Program Observation Process 5

V. Scores by Subscale 7

VI. Scores by Agency 8

VII. Reliability of the ECERS-R 16

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

ACKNOWLEDGEMENTS

We wish to thank the many partners who contributed their efforts to make this report possible. Such partners include programs, foundations and other agencies, each consisting of many individuals who, year after year, give their time, hard work, ideas, and support to the Chemung County School Readiness Project prekindergarten program assessment.

Contributing partners include the Chemung County School Readiness Project-Readiness Council and Lead Agencies, Chemung County Child Care Council, Elmira City School District, Elmira Heights School District, Economic Opportunity Program of Chemung County/Child Development Head Start, and Horseheads Central School District.

We especially wish to thank Donald Keddell for his continued leadership in bringing so many partners and individuals together towards a common vision of quality care and early education for children and families in Chemung County. We acknowledge the steps taken towards building local capacity of Master Observers and establishing a local coordinator for all ECERS-R processes.

Special thanks are extended to the Master Observers who completed the ECERS-R on all early education and care programs, many for a third year in a row, for the Chemung County School Readiness Project. We acknowledge their continued commitment to satisfy the evaluation component of the Project.

Many thanks are extended to the teachers and administrators of area schools and early education and care centers who offered their classrooms as host sites for the training of master observers.

Of special note is the introduction of the Chemung County ECERS-R Coordinator, Harriet Sweet, who has assisted in every step of the ECERS-R process in the School Readiness Project.

We are excited about the future of the Chemung County School Readiness Project and its impact on young children's experiences. We look forward to continuing our partnership to promote informed decision making to enrich and improve early education and care programs and school performance.

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

I. Chemung County School Readiness Project-Prekindergarten Assessment

The Chemung County School Readiness Project – Prekindergarten Assessment completed its third year of assessing program quality in the Chemung County early education and care community. With the goal of focusing on a common set of quality standards, the Early Childhood Environment Rating Scale – Revised (ECERS-R) was used to observe 49 preschool classrooms throughout the county. Training for teachers in the use of the ECERS-R was provided to support a sustainable system of program quality improvement using feedback from program observations.

What early childhood partners participate in the Chemung County School Readiness Project?

- Chemung County School Readiness Project-Readiness Council and Lead Agencies
- Chemung County Child Care Council
- Elmira City School District
- Elmira Heights School District
- Economic Opportunity Program of Chemung County/Child Development Head Start
- Horseheads Central School District

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

II. ECERS-R – A measure of Classroom Environment Quality

Classroom quality is key to the provision of early education services. Independent, well-trained observers rated the quality of classroom environments using the Early Childhood Environment Rating Scale – Revised (ECERS-R). The ECERS-R was developed at the University of North Carolina in the 1970s, and revised in 1998 (Harms, Clifford & Cryer, 1998). It is the most widely used objective observational tool of early education classroom quality and environment. The ECERS-R measures seven areas of classroom quality:

- Space and Furnishings
- Personal Care Routines
- Language and Reasoning
- Activities
- Interaction
- Program Structure
- Parents and Staff

Each area contains from 5 to 10 items that represent various elements of that area. The item scale ranges from 1 to 7. A score of 1 is considered "inadequate," a score of 3 as meeting "minimal" standards, a 5 is equivalent to meeting "good" quality standards, and a 7 indicates "excellent" quality.

After an observer is trained and meets inter-rater reliability of .85 for ECERS-R overall scores with a master trainer, he or she is normally assigned to five to eight classrooms. During a typical observation, an observer spends three to five hours observing the classroom, focusing on 43 distinct items that make up the ECERS-R. After the classroom observation, the observer typically spends an additional 30 to 60 minutes interviewing the teacher to answer any questions about classroom activities or features that could not be discerned during the observation phase.

How are master observers trained?

In the first year of training, observers must participate in a fifteen-hour training program. In every subsequent year, an additional four to five hours of training are required. Refinement of observation skills, inter-rater reliability, and logistics of the observation process, observation guidelines and protocol are carefully reviewed with master observers every year.

Master Observers are trained to attain and maintain a minimum level of inter-rater reliability (a/a+d>.80). Master Observers are recruited and selected on the basis of their years of experience in early childhood education (>10 years), skills in program observation, and their personal interest.

This year, four new candidates from Chemung County were trained in the ECERS-R, establishing a local cadre that now totals nine Master Observers. Training was held in Chemung

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

County for the first time. In November, a trainer from Children's Institute facilitated a day long in-house training and four days of field training in local schools and early education and care centers. Field training consisted of observing classroom programs followed by in-depth debriefing sessions with the master trainer.

Where is the ECERS-R being used?

The ECERS-R is used in many studies investigating the quality and outcomes of prekindergarten education, both in the United States and internationally. The ECERS-R was adopted to measure the quality of prekindergarten classrooms funded by universal prekindergarten in the State of Georgia. It was also used in the cost, quality, and outcome studies that assessed quality in 120 classrooms in 3 states, in a study involving 150 classrooms in Florida, and in a study that evaluated the quality of 32 Head Start classrooms. Studies in Germany, France, Portugal, and Sweden have used the ECERS-R. In short, the ECERS-R is one of the premiere measures used to evaluate quality of prekindergarten environments both in the U.S. and around the world.

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

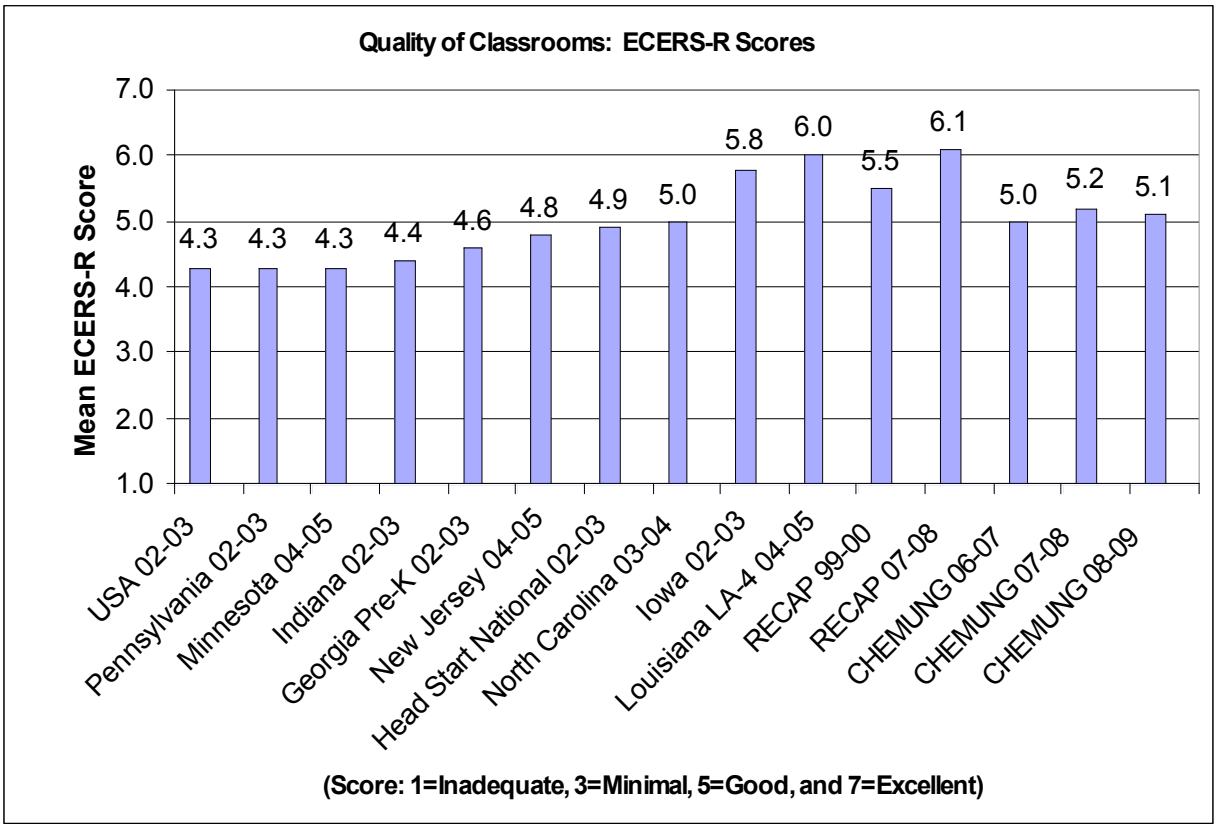
III. Quality of Chemung County Preschool Classrooms

How does the Chemung County formal Early Childhood Education (ECE) system compare with ECE systems across the US?

Using the ECERS-R allows comparison of the quality of the prekindergarten programs in Chemung County with pre-k programs in other states and nations. Before any comparison is made, however, it is important to be certain that classrooms and student populations are similar.

In Figure 1 below we can see that this year 49 participating Chemung County classrooms had a mean ECERS-R score of 5.1. The median score was 5.1. For comparison purposes, the first year that a mean ECERS-R score was published for Rochester's RECAP program was in 1999-2000, when the mean was 5.5. Last year the RECAP mean ECERS-R was 6.1. The latest available national average score was 4.3.

Figure 1. Overall Quality of Participating Chemung County Classrooms



©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

IV. Classroom/Program Observation Process

This year the observation process took place over five months. First there was the *Introductory ECERS-R Training* in January in which 26 providers, teachers and directors participated. The three-hour training session included a brief introduction by a Readiness Project representative, who framed the purpose and vision of the Chemung County School Readiness Project and the benefits of using a standardized measure to assess classroom program quality. Participants learned observation and scoring techniques, components of the ECERS-R and the logistics of the classroom/program observation process. Classroom observations by master observers took place in February, March, April and May.

The program observation process:

- An observer contacts the classroom teacher/provider to schedule the observation date
- Program observation occurs (3 to 6 hours)
- Observer conducts a 30-45 minute interview with the teacher/provider immediately after the observation to obtain information not evident during observation
- Observer completes the score sheet and submits it to Children's Institute for processing
- Project coordinator reviews the score sheet for accuracy
- Score sheet is checked again for accuracy by a data clerk, the information is entered into the database and a summary report is produced
- Copy of original score sheet and summary report is mailed directly to teacher/provider
- Teacher/provider reviews information
- If teacher/provider disagrees with any item(s) in the report and wants to address this, he or she requests a Collaborative Review (outlined below)

Collaborative Review Process

After an observation is complete, the independent observer returns the completed score sheet to Children's Institute for processing. A copy of the score sheet and summary report is returned directly to the teacher along with a cover letter that serves as a guide in their review of the report. In this letter is an invitation to contact the project coordinator if he or she feels a score does not accurately represent the program.

- If a teacher questions any item(s) and wishes to formally address this, he or she contacts the project coordinator to obtain a Collaborative Review Request Form within which he or she outlines the details of the item(s) in question with additional supporting information.
- Upon receipt of the Collaborative Review Request, the project coordinator reviews the information provided by the teacher, consults with the independent Master Observer who completed the observation, and conducts a detailed re-examination of each quality indicator score questioned. After consideration of these references, a determination is made whether any items should be scored differently.

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

- In a detailed letter to the teacher, the project coordinator formally addresses each questioned item and whether the item(s) score has been changed. A revised copy of the score sheet is returned with any applicable adjusted scores as well as a new summary report.
- The revised scores are entered into the database.
- If the teacher informs us that he or she remains dissatisfied with the results of the process thus far, we will make arrangements for a second independent observer to conduct a second complete observation and submit a formal report.

Summary of Results	2007-08	2008-09
Number of reviews	1 out of 44	0 out of 49
Percent	2%	0%
Total number of items reviewed	4	0
Total number of items changed	1	0
Average change in overall score	0.1	0

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

V. Scores by Subscale

Figure 2. Mean Scores by Subscale and Total

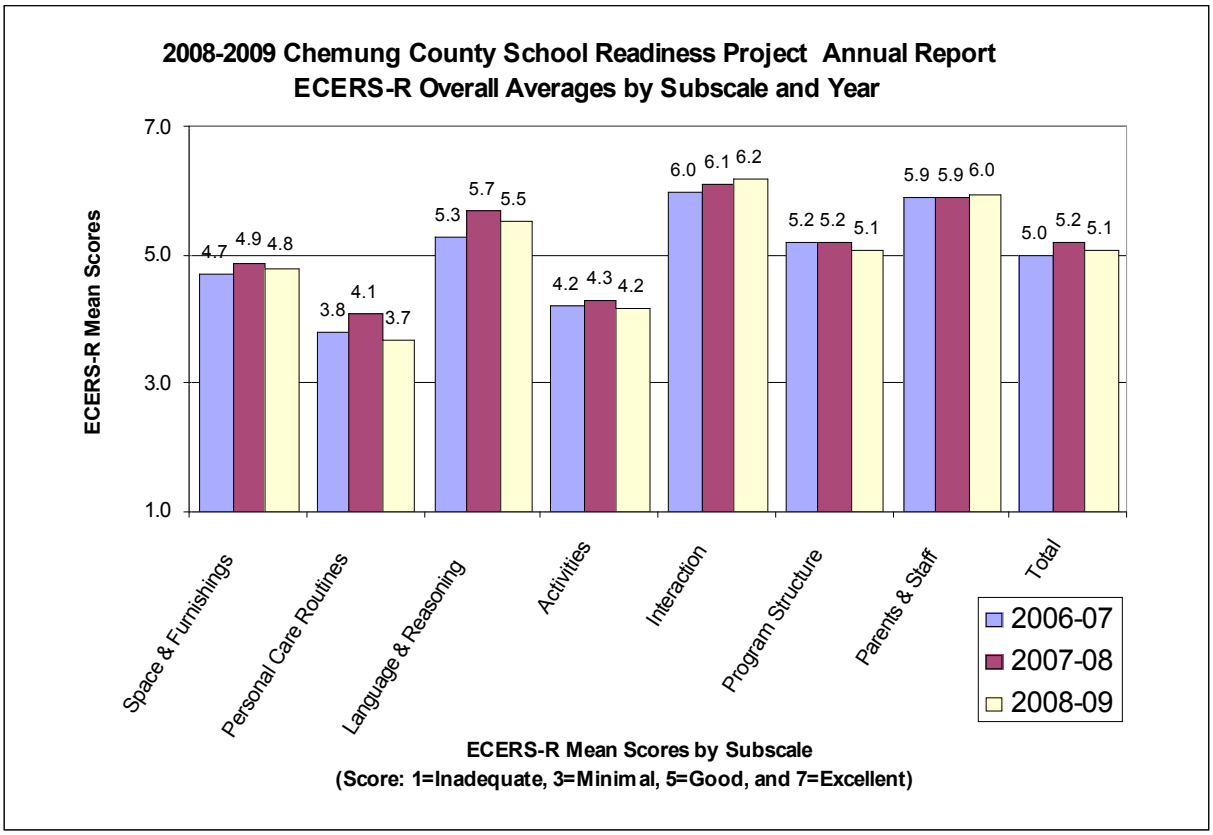


Table 1

Chemung County
2008-09 Overall ECERS-R Scores by Subscale and Total*

Subscale	N	Mean	Std. Dev.	Minimum	Maximum
Space & Furnishings	49	4.81	0.75	2.25	6.50
Personal Care Routines	49	3.69	1.32	1.17	6.17
Language & Reasoning	49	5.54	1.39	1.75	7.00
Activities	49	4.17	0.97	1.60	6.67
Interaction	49	6.20	1.04	3.40	7.00
Program Structure	49	5.09	1.33	1.33	7.00
Parent & Staff Development	49	5.97	0.54	4.83	7.00
Total – All Subscales	49	5.07	0.84	2.65	6.60

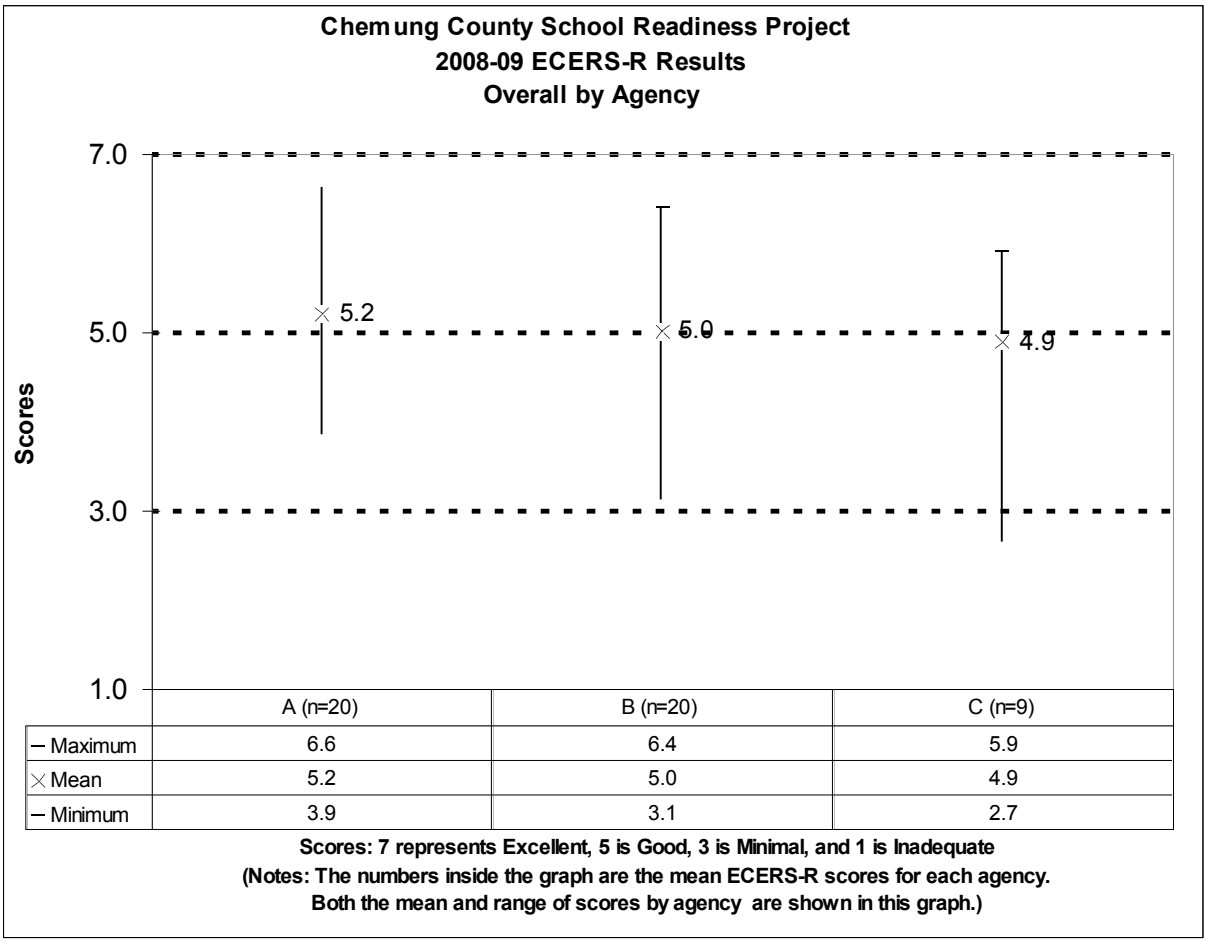
Note: * Scores have a potential range of 1 to 7, 7 being the highest.

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

VI. Scores by Agency

Figures 3 through 10 below show the results by Agency for each of the ECERS-R subscales and totals.

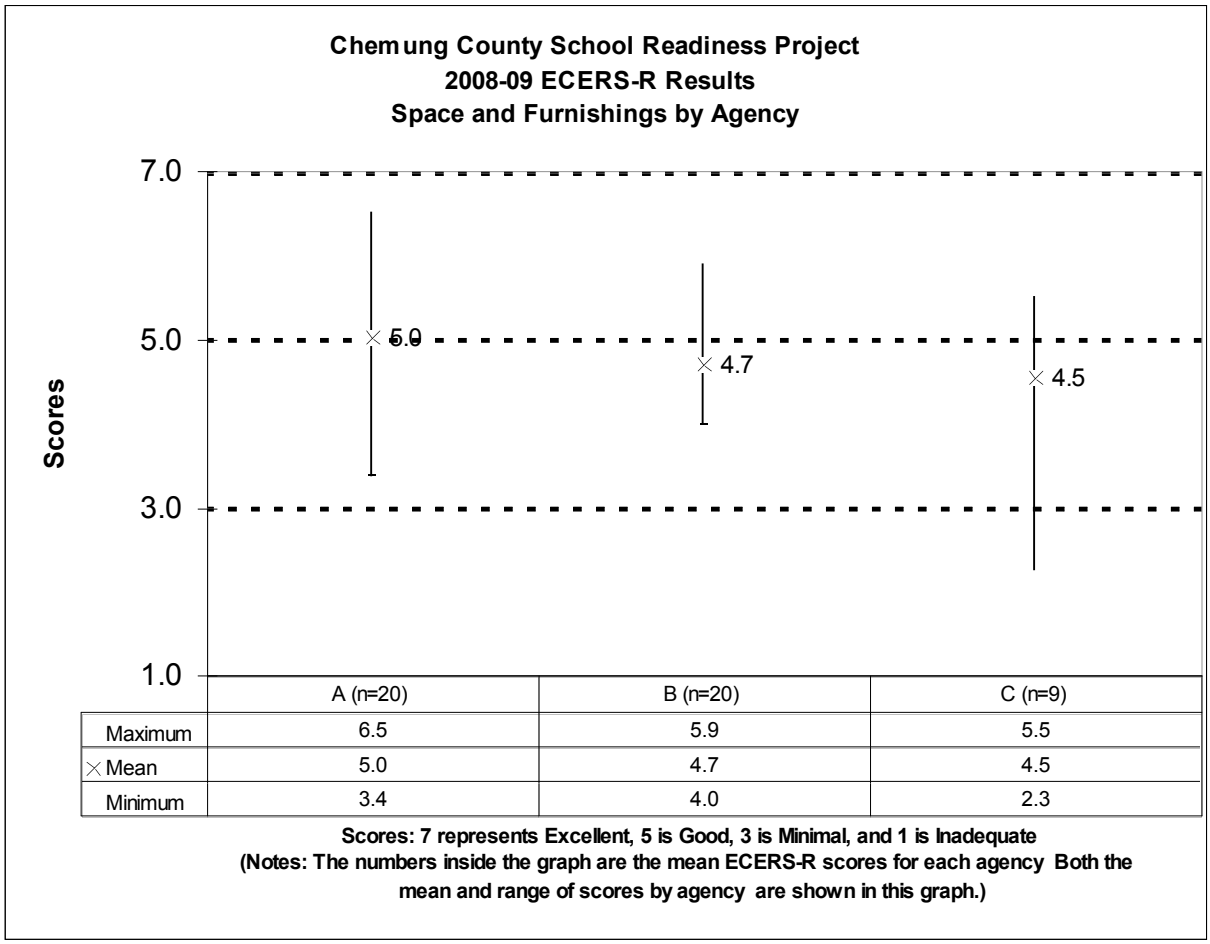
Figure 3. All Subscales Combined



Overall - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	0	0	0	0.0%
2-2.9	0	0	1	1	2.3%
3-3.9	3	2	1	6	13.6%
4-4.9	6	5	1	12	27.3%
5-5.9	8	12	6	26	59.1%
6-6.9	3	1	0	4	9.1%
7.0	0	0	0	0	0.0%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

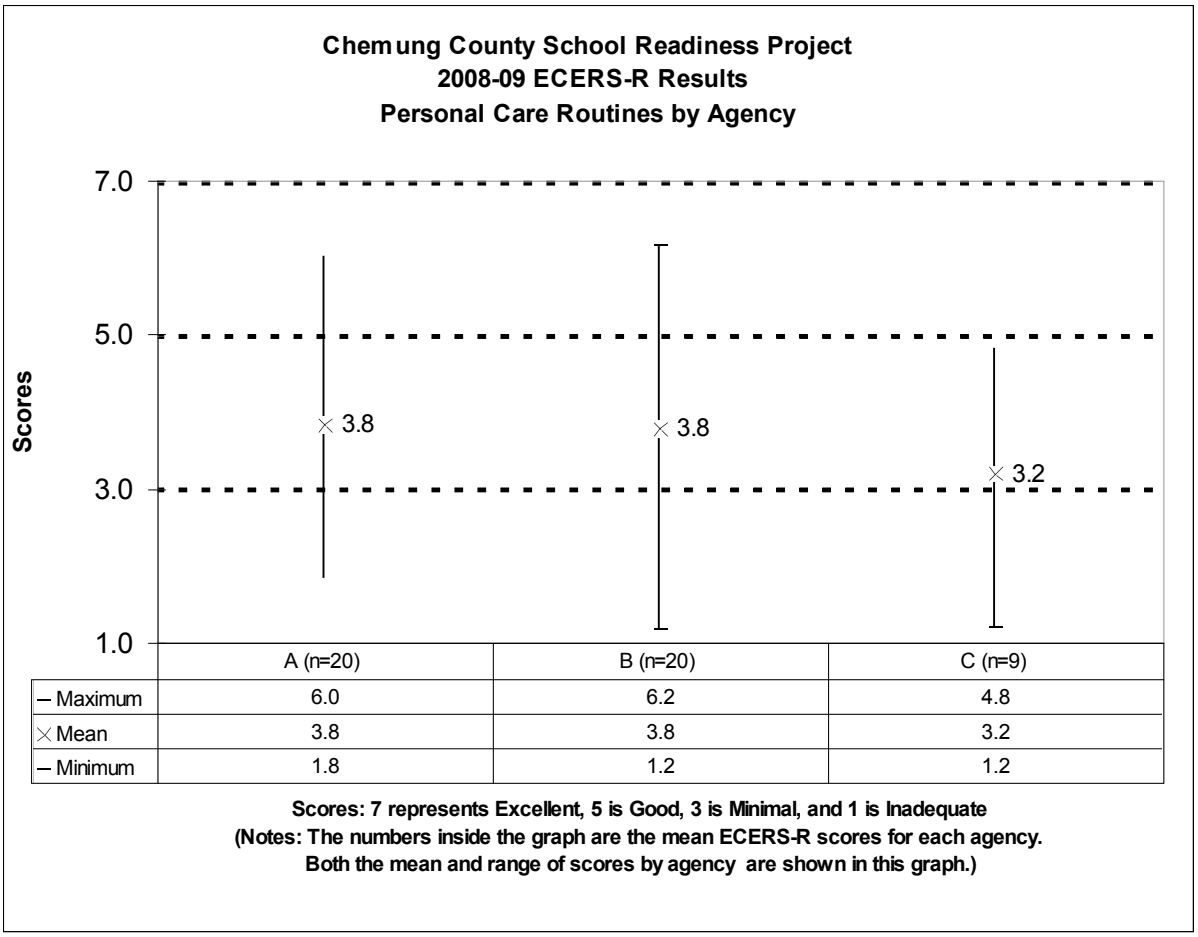
Figure 4. Space & Furnishings Subscale



Space and Furnishings - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	0	0	0	0.0%
2-2.9	0	0	1	1	2.0%
3-3.9	1	0	0	1	2.0%
4-4.9	10	15	5	30	61.2%
5-5.9	5	5	3	13	26.5%
6-6.9	4	0	0	4	8.2%
7.0	0	0	0	0	0.0%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

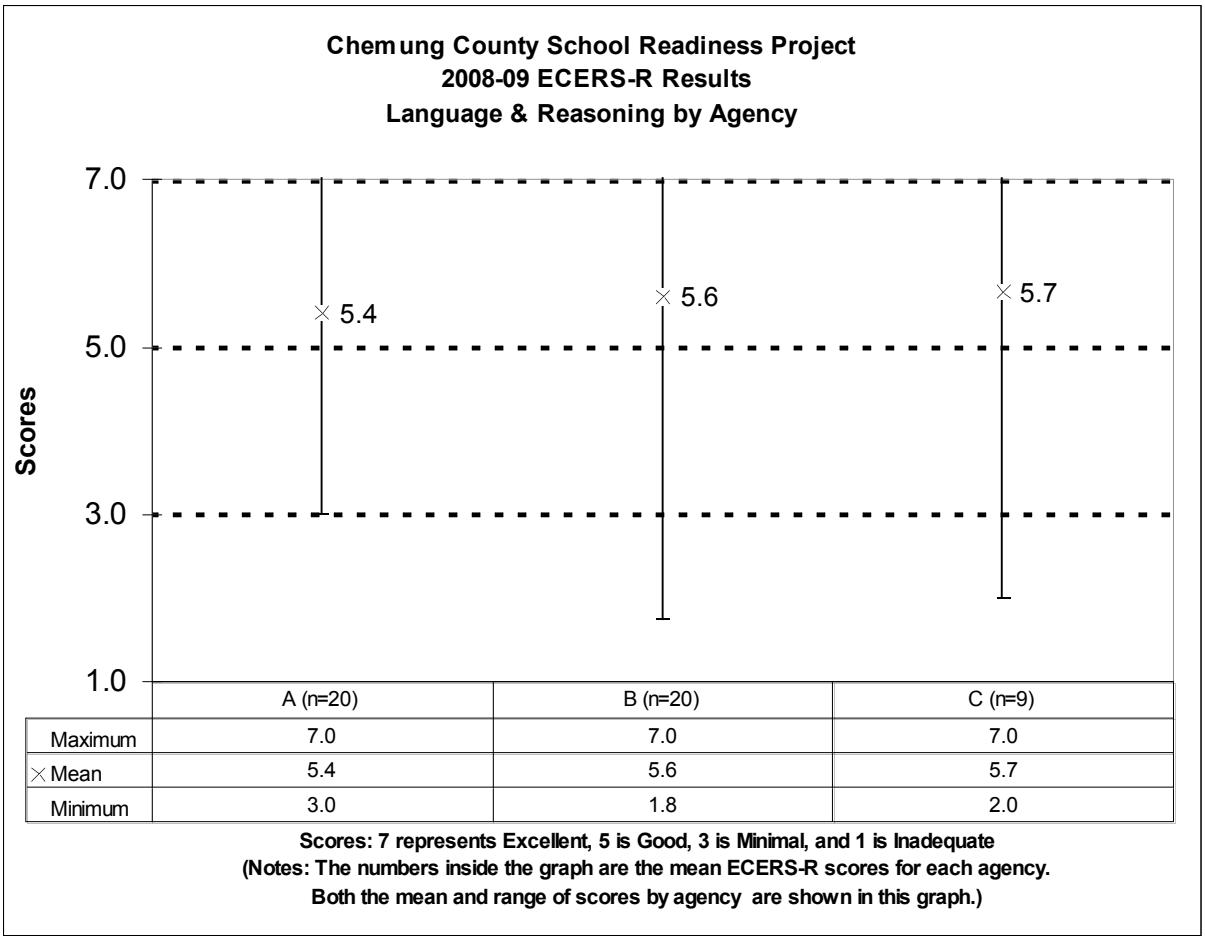
Figure 5. Personal Care Routines Subscale



Personal Care Routines - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	1	1	1	3	6.1%
2-2.9	6	5	2	13	26.5%
3-3.9	4	4	3	11	22.4%
4-4.9	3	6	3	12	24.5%
5-5.9	4	3	0	7	14.3%
6-6.9	2	1	0	3	6.1%
7.0	0	0	0	0	0.0%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

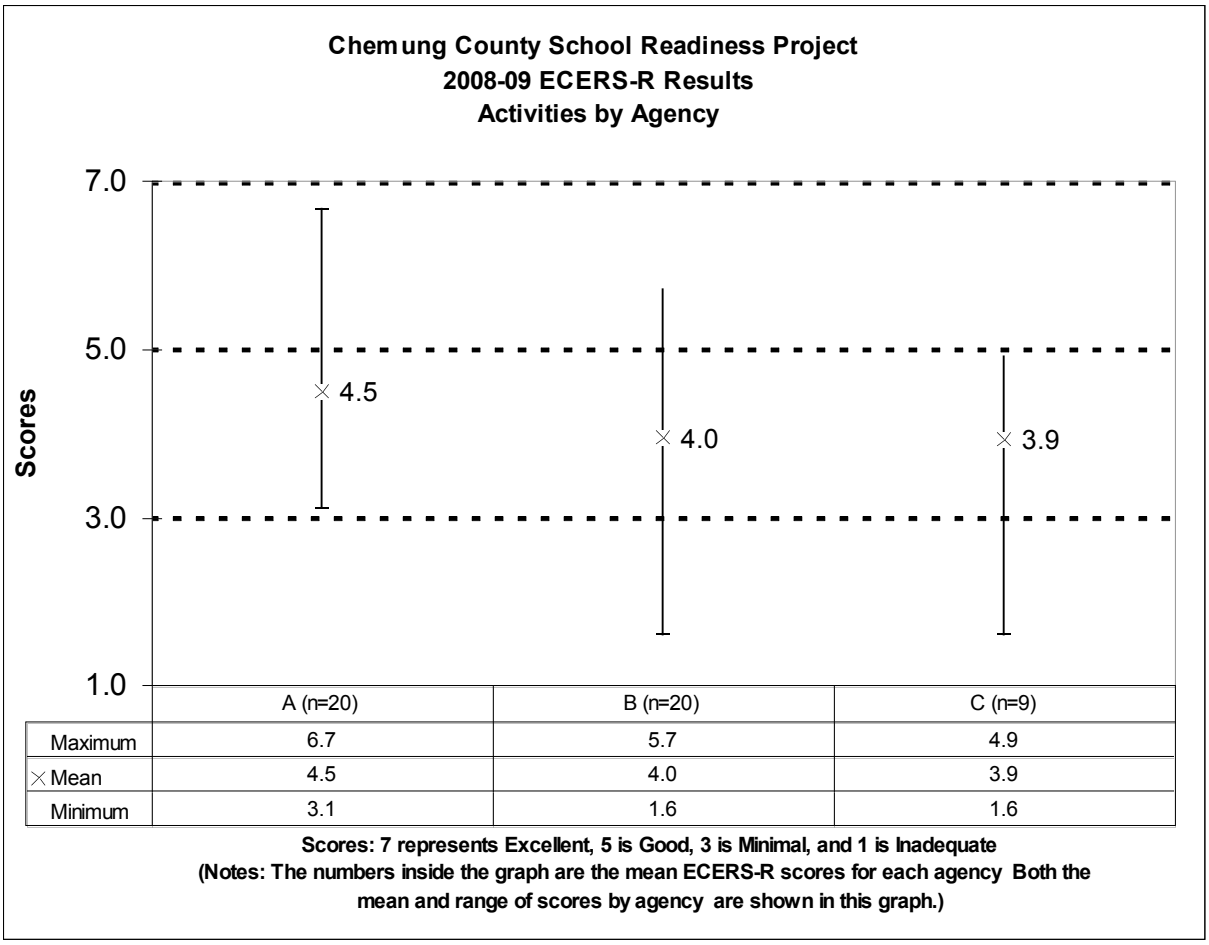
Figure 6. Language & Reasoning Subscale



Language & Reasoning - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	1	0	1	2.0%
2-2.9	0	1	1	2	4.1%
3-3.9	3	0	0	3	6.1%
4-4.9	5	1	1	7	14.3%
5-5.9	2	6	0	8	16.3%
6-6.9	7	9	6	22	44.9%
7.0	3	2	1	6	12.2%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

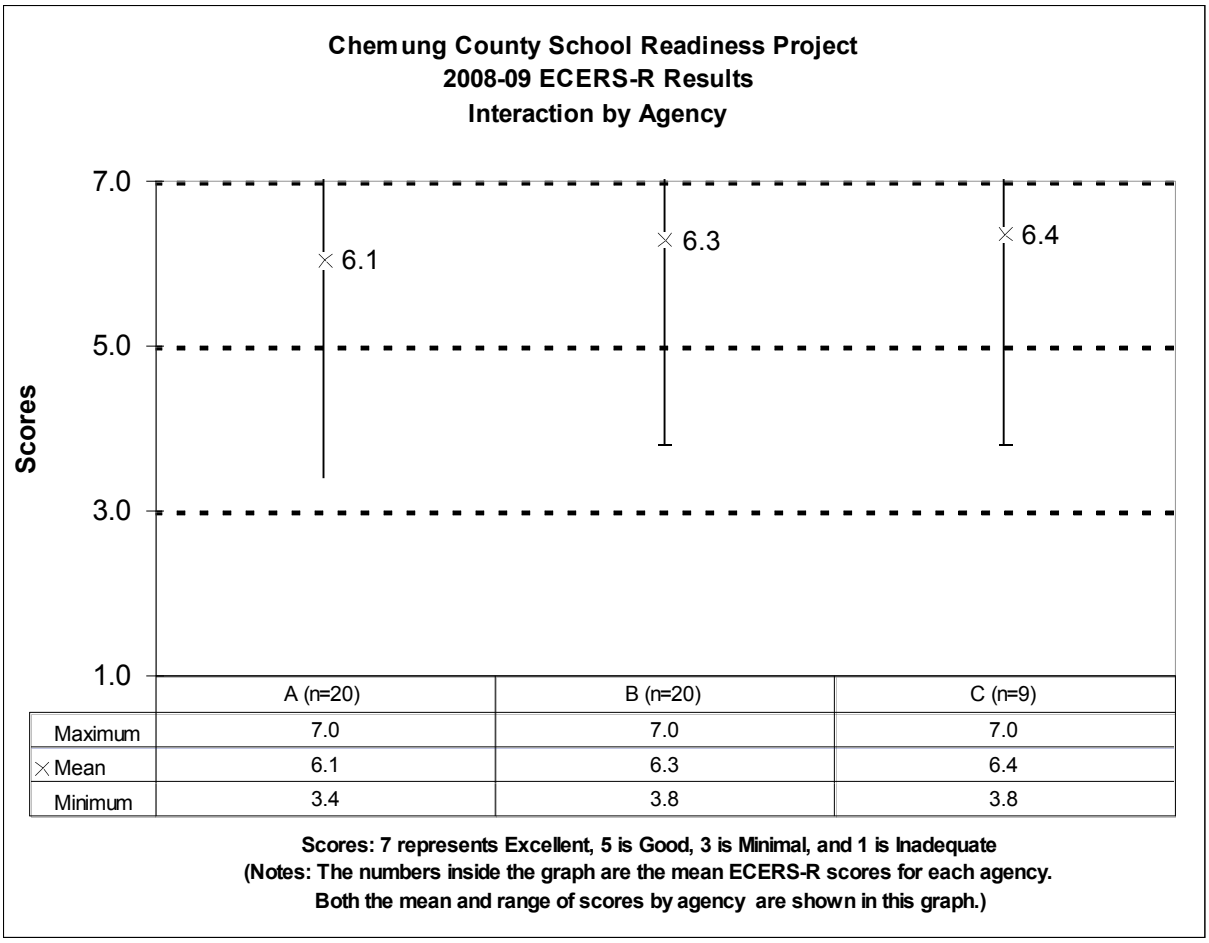
Figure 7. Activities Subscale



Activities - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	2	1	3	6.1%
2-2.9	0	0	0	0	0.0%
3-3.9	5	5	2	12	24.5%
4-4.9	9	11	6	26	53.1%
5-5.9	5	2	0	7	14.3%
6-6.9	1	0	0	1	2.0%
7.0	0	0	0	0	0.0%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

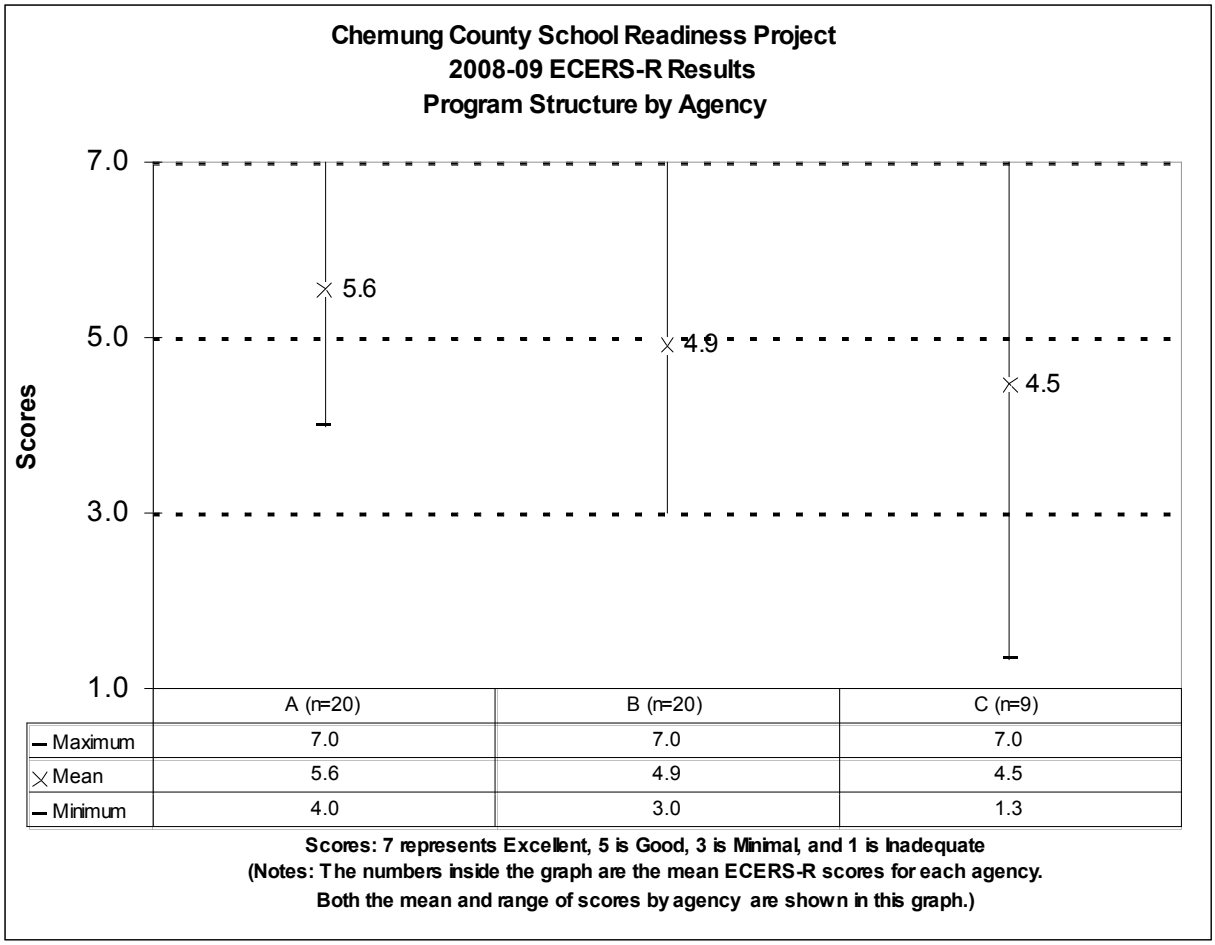
Figure 8. Interaction Subscale



Interaction - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	0	0	0	0.0%
2-2.9	0	0	0	0	0.0%
3-3.9	2	1	1	4	8.2%
4-4.9	1	2	0	3	6.1%
5-5.9	3	0	1	4	8.2%
6-6.9	9	14	3	26	53.1%
7.0	5	3	4	12	24.5%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

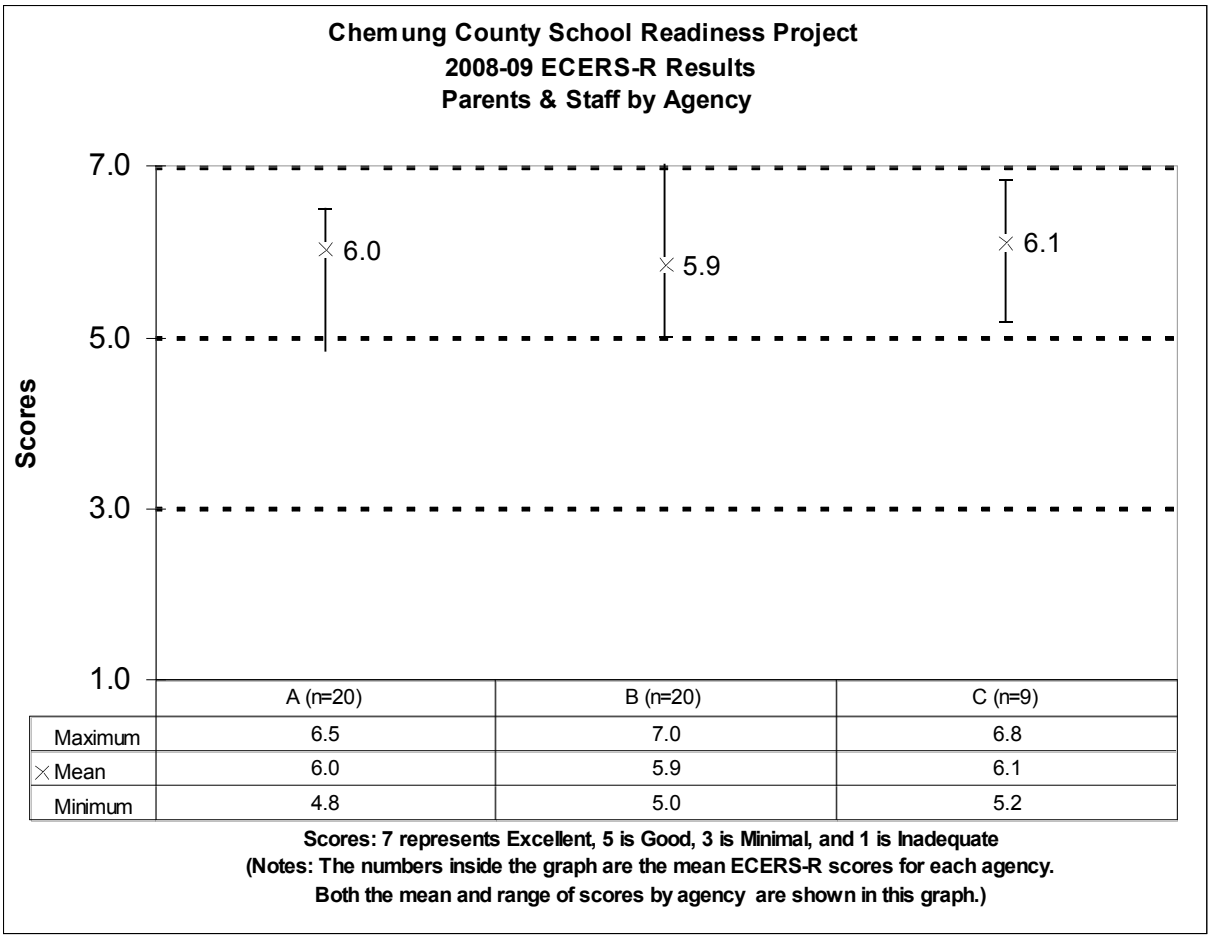
Figure 9. Program Structure Subscale



Program Structure - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	0	2	2	4.1%
2-2.9	0	0	0	0	0.0%
3-3.9	0	4	1	5	10.2%
4-4.9	6	7	2	15	30.6%
5-5.9	6	5	2	13	26.5%
6-6.9	4	2	0	6	12.2%
7.0	4	2	2	8	16.3%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

Figure 10. Parents & Staff Subscale



Parents & Staff - Number of Classrooms Within Score Range by Agency					
Score Range	**A**	**B**	**C**	**Total**	**Percent**
1-1.9	0	0	0	0	0.0%
2-2.9	0	0	0	0	0.0%
3-3.9	0	0	0	0	0.0%
4-4.9	1	0	0	1	2.0%
5-5.9	4	12	3	19	38.8%
6-6.9	15	7	6	28	57.1%
7.0	0	1	0	1	2.0%
Total	20	20	9	49	100.0%

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

VII. Reliability of the ECERS-R

What does Cronbach's alpha mean?

Cronbach's alpha is a test of a measure's internal consistency. It is sometimes called a "scale reliability coefficient." For any assessment process it is important to know whether the same set of questions measures a similar construct. Measures are declared to be reliable only when they provide reliable responses.

Cronbach's alpha assesses the internal reliability of a measure's answers. By measuring and reporting Cronbach alpha values, we have what is considered a numerical coefficient of reliability. The internal reliability (alpha) of the ECERS-R for the 49 Chemung County observations this year was 0.92.

What is the Inter-Rater reliability of ECERS-R?

As part of the ongoing effort to assure the accuracy of the measures used, many classrooms are observed by two observers so that we can calculate the level of agreement or inter-rater reliability among the cadre of observers.

Table 2 below shows the key results for the Chemung County inter-rater reliability. The inter-rater reliability was r=**1.00** when comparing total scores (n=9 dual observations). When comparing reliability results on an item by item basis, using (a/a+d; a=agreement and d=disagreement) the median inter-rater reliability was **0.90** for exact matches and **0.93** for differences of one point. *Keeping in mind that observers are trained to a 0.85 level of reliability for ECERS-R overall scores with a master trainer, these results do indicate a high level of reliability.*

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED

Table 2			
2008-09 Chemung County School Readiness Project			
Inter-Rater Reliability (r) of ECERS-R in Chemung County			
	Chemung County Observers 2006-07	**Chemung County Observers 2007-08**	**Chemung County Observers 2008-09**
Sample N	4	6	9
Median Inter-Rater Reliability for Exact Matches	0.84	0.84	0.90
Median Inter-Rater Reliability for Differences of One Point Matches	0.93	0.93	0.93
Space & Furnishings (r)	0.00	0.68	0.97*
Personal Care Routines (r)	0.21	0.82	0.91*
Language & Reasoning (r)	0.97*	0.92	0.97*
Activities (r)	0.42	1.00*	0.98*
Interaction (r)	0.97*	0.97*	0.98*
Program Structure (r)	0.97*	0.99*	0.99*
Parent and Staff Development (r)	1.00*	0.97*	0.91*
Total ECERS-R Score (r)	0.94	0.97*	1.00*

Note: * Signifies that these r values were significant at $p<.05$.
(r) Signifies Pearson Correlation Coefficient values shown.

©2009 CHILDREN'S INSTITUTE INC., 274 N. GOODMAN STREET, SUITE D103, ROCHESTER, NY 14607 | ALL RIGHTS RESERVED