

## Assessment/Diagnosis I

### **The Relationship Between Academic and Social Readiness for Kindergarten of Young Children from Impoverished US-born and Immigrant Families**

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Addressing the school-readiness of young children in poverty is a national priority, as research suggests that kindergarten test scores account for almost 60% of the variance in children's school performance (National Center for Education Statistics, 2001). Using data from a local sample of 113 ethnically diverse families (60% US-born, 40% immigrant) who qualified for Early Head Start at the enrollment to the national randomized study, researchers at the Catholic University of America investigate children's readiness for kindergarten. To identify the percent of children ready for kindergarten, they empirically define readiness through the statistical analysis of children's cognitive and socio-behavioral outcomes by using the standard deviation from the mean method (Rock & Stenner, 2005). Through bivariate correlations, they investigate the relationship between examiners' assessments and parental reports. Through independent-t-tests, odds-risk-ratios, logistic-regression, and MRA, they examine children's academic-readiness with examiner- and parentally-assessed social-readiness, and birth-status. Trained bilingual research staff collected data. Examiner-assessments included 5 standard academic (PPVT-III, Boehm-3, Woodcock Johnson subtests 22 and 25, Story Prints and Concepts) and 3 social-readiness measures (Leiter-R subscales). Parental-assessments included 4 social-readiness measures (CBCL, DECA, NHES-1993 survey). Findings indicate that by examiner-assessments, half of children are academically-ready in receptive vocabulary, basic concepts, and problem-solving; two-thirds, in receptive and expressive recognition and understanding of letters and letter-sounds; and three-quarters are ready in book-related knowledge and comprehension. Four-fifths are socially-ready in their sustained attention, cognitive-social competence, and in social-emotional regulation. By parental-assessments, four-fifths are socially-ready in behavior-profile and mastery of pre-kindergarten competencies; three-quarters are resilient. By examiner-assessments, 20% children were academically-ready on all 5 academic measures. Immigrant children scored lower than US-born children ( $p < .05$ ) on all academic measures. 67% of children were socially-ready on all 3 measures. By parental-assessments, 46% children were socially-ready on all 4 measures. Examiners' or parents' ratings of children's social competencies did not vary by birth status. Examiner- and parental-assessments yielded positive, moderate, and statistically significant correlations ( $p < .05$ ). MRA found that 41% children's academic-readiness can be significantly predicted ( $p < .05$ ) from examiners' social-readiness, birth-status, and parental-assessments of social-readiness. However, logistic regression identified that children's risk of their academic-readiness can be significantly ( $p < .05$ ) determined from examiners' ratings of social-readiness and children's birth-status, but not from parental-assessment of social-readiness. Parental-assessment of social-readiness had only a 3% contribution to the variance in children's academic-readiness. Parental- and examiner-measures of social-readiness were varied and may tap different social competencies. Relative risk analyses found that for US-born children, examiner-based academic-readiness was significantly ( $p < .05$ ) associated with

examiners-based social-readiness where no such relationship existed for immigrant children. For immigrant parents who considered their child socially-ready, examiners noted only 23% of children were academically-ready while the rest were not, whereas for those children not socially-ready according to parents, all were not academically-ready. Although a good number of children from this low-income sample are ready, significant portions are at risk and in need of support. Researchers consider practice and policy implications and raise questions regarding the adequacy of measuring kindergarten readiness for children in immigrant families.

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## **Field Administration of an Emotional and Behavioral Assessment of Head Start Children: Preliminary Findings from the Preschool Self-Regulation Assessment**

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This poster addresses pragmatic concerns associated with collecting observational data on a large sample of Head Start children. We discuss key processes in the deployment of a reliable assessment staff, including recruitment, training, and certification protocols, as well as ongoing evaluation and remediation of assessor reliability.

Burgeoning interest in the self-regulation and socioemotional factors associated with young children's school readiness suggests a need for a scalable direct assessment suitable for field research (Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003; Fantuzzo, Coolahan, Mendez, McDermott, & Sutton-Smith, 1998; Raver, 2004). The National Head Start Association has also discussed the potential expansion of the National Reporting System (NRS) battery to include such a measure (Zill, 2005). Our new measure, the Preschool Self-Regulation Assessment (PSRA), addresses this need, evaluating preschoolers' expressed affect, executive functioning, compliance, and effortful control (Brumfield & Roberts, 1998; Diamond & Taylor, 1996; Murray & Kochanska, 2002; Roid & Miller, 1997; Wakschlag et al, submitted manuscript). It includes two components: a direct assessment and a structured assessor report. The direct assessment of preschoolers' self-regulation comprises ten tasks presented by certified assessors immediately following administration of the NRS; the structured assessor report, completed by the assessor, rates the child's behavior during both the NRS and the PSRA.

Utilizing such a direct assessment measure for field research requires the development of recruitment, certification, training, and reliability procedures for a large staff of field assessors while minimizing costs. Structured direct assessments have generally been administered in laboratory settings and have required extensive training to achieve reliable administration and coding. In such settings, procedural validity is easily monitored. By contrast, during the PSRA data collection effort, approximately twenty assessments were completed each day by different assessors at different Head Start locations, complicating oversight of reliable administration and coding. This research explores the issues associated with training and achieving reliability for this field assessment process, both in terms of consistent assessor performance and satisfactory inter-rater reliability. We provide evaluations of ongoing assessor performance against certification criteria, as well as inter-rater reliability data for one assessment cycle of full-scale implementation. Finally, we present a qualitative discussion of obstacles to achieving reliability for large-scale field assessments and offer potential solutions to overcoming these obstacles.

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## **Outcomes Associated with Preventive Occupational Therapy Consultation in Head Start Classrooms: A Pilot Study**

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**PRESENTERS:** Deborah Marr, Laurel Jones-Purdy

The effectiveness of consultation when applied to pediatric populations has been demonstrated in recent studies (Case-Smith, et al., 1998; Davis & Gavin, 1994; Kemmis & Dunn, 1996). As Head Start is designed to be a preventive program, one Head Start agency implemented a preventive consultation model through collaboration with a local university's occupational therapy department during the 05-06 school year. This collaboration involved placing occupational therapy students in classrooms throughout the fall and spring semesters under the direct supervision of an occupational therapy faculty person. Two students were in classrooms once per week for 10 weeks of each semester and addressed a specific developmental domain. They role modeled activities to enhance the domain, screened children for skills in that domain, and answered questions related to the domain. The four domains covered were gross motor development, fine motor development, sensory processing, and social skills.

With the initiation of this new collaboration, a quantitative pilot study was conducted to address the following research questions: 1) What are the developmental outcomes of classroom consultation by occupational therapy students?, 2) Do children's developmental outcomes vary by domain? Are some domains more impacted than others?, and 3) Do children's developmental outcomes vary by demographic variables such as age, gender, and number of years in Head Start?

This was a pre-test, post-test retrospective design. Scores on the Apple Country Head Start Developmental Outcomes Checklist during the fall and spring of the 04-05 and 05-06 school years were compared. For this checklist, teachers rate the child's performance on a 4 point scale in four domains: social/emotional, physical, cognitive, and language. Throughout data collection, teachers were kept blind to the purpose of the study. Of the 9 classrooms, there was only one teacher change between the two cohorts.

Data on 102 children in the 04-05 year and on 133 children in the 05-06 year was collected. Significant differences ( $p < .000$ ) were found in total and domain scores from fall to spring in both the 04-05 and 05-06 years indicating that both cohorts made great gains over the course of the year. Change scores for total scores and domain scores (subtracting fall scores from spring scores) were calculated and a t-test indicated that the 05-06 cohort did not make significantly more gains than the 04-05 cohort. Change scores between the two cohorts were compared on gender, age, and number of years in the Head Start program. Results were not significant between the cohorts for any of these subgroups. The qualitative data collected indicated that teachers felt listened to, felt an increased awareness of all the components of the targeted domains, and appreciated the help in identifying children who needed more instructional support.

These results suggest that Head Start programming is helping children make great developmental gains that are not directly enhanced by the addition of OT consultation. While

some individual children may have benefited, the effect was not demonstrated in aggregate data. The OT consultation was perceived positively by teachers which may ultimately serve to improve teacher motivation and retention.

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## **Validating an Observational Assessment for Infants and Toddlers**

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This project is intended to investigate the reliability and validity of the Ounce Scale—a functional assessment of young children’s development from birth through 42 months of age (Meisels, Dombro, Marsden, Weston, Jewkes, 2003). The Ounce Scale is a performance assessment used in Early Head Start programs to monitor infant, toddler, and young preschoolers’ development and to guide individualized instruction. It is comprised of three elements: Observation Records, Family Albums, and Developmental Profiles and Standards. The Observation Records provide a structured format for organizing direct observations of children’s performance by teachers and caregivers. The Family Albums engage parents in documenting observations of their children’s development and provide parents with a range of activities to promote their children’s development. The Developmental Profiles and Standards allow staff to evaluate their observations of the children and determine whether the child is “Developing as Expected” or “Needs Development” in six areas of development, based on explicit performance standards.

The project will utilize a multi-method strategy that combines both quantitative and qualitative techniques. The overall design of the project is that of a cross-sectional, concurrent validation. Ratings on the Developmental Profiles will be compared to scores on the Bayley Scales of Infant Development-II (Bayley, 1993), the Preschool Language Scale-4 (Zimmerman, Steiner & Pond, 2002), and the Ages and Stages Questionnaire: Social-Emotional (Squires, Bricker & Twombly, 2002), for 30 children at each of eight age levels: 4 months, 8 months, 12 months, 18 months, 24 months, 30 months, 36 months, and 42 months (N=240). The sensitivity and specificity of the scale will be assessed. Internal reliability and external validity of the scale will be determined using Rasch analyses and other Item Response Theory models. The utility of the scale for planning instruction and facilitating understanding of individual children will be evaluated by means of interviews with 25 teachers and five program coordinators.

Our Early Head Start program partners are the Ounce of Prevention Fund Educare Center, the National Teachers Academy of the Chicago Public Schools, the Carole Robertson Center for Learning, Erie Neighborhood House, and the Childcare Network of Evanston and Infant Welfare Society of Evanston. Additional funding for the project has been provided by the publisher of the Ounce Scale, Pearson Early Learning.

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