The Inclusive Classroom Profile (ICP)
Preliminary Findings of Demonstration Study in North Carolina

Abstract

The Inclusive Classroom Profile (ICP) was developed in response to a lack of validated instruments designed specifically to measure the quality of inclusive practices, and it is based on research evidence on the effectiveness of specialized instructional strategies for meeting the individual needs of children in inclusive settings (Odom, 2004; National Professional Development Center on Inclusion, 2011; Buysse and Hollingsworth, 2009). The ICP has been used in a pilot study in the United Kingdom with promising results for the measure's reliability and validity (Soukakou, in press). The purpose of this study was to conduct the first USA demonstration study leading to validation. The measure was field tested in 51 inclusive settings in North Carolina. The following are the preliminary results from this demonstration study:

- The measure has acceptable inter-rater agreement, is internally consistent, and shows a good factor structure.
- Correlations with another measure of global classroom quality (ECERS-R) provided initial evidence for construct validity.
- Assessors reported the measure to be feasible and easy to use.

Background/rationale

Never has so much attention been paid to improving the quality of early childhood programs serving high- need children. Through the Race to the Top –Early Learning Challenge Program and other reform efforts, states are being challenged to develop systems for rating, monitoring and improving early learning and development programs. States need reliable, valid tools for measuring classroom quality that are sensitive to and inclusive of each and every child. A pilot study, conducted by FPG in collaboration with the NC Rated License Assessment Project; the Division of Child Development and Early Education; and the NC Department of Public Instruction, Exceptional Children investigated a new measure, the *Inclusive Classroom Profile (ICP; Soukakou 2012)*. The ICP is a structured observation rating scale designed to complement existing program quality measures with new quality indicators that assess *specific, classroom practices that support the developmental progress of children with disabilities in early childhood settings*. The ICP was developed in response to a lack of validated instruments designed specifically to measure the quality of inclusive practices, and it is based on research evidence on the effectiveness of specialized instructional strategies for meeting the individual needs of children in inclusive settings (Odom, 2004; National Professional Development Center on Inclusion, 2011; Buysse and Hollingsworth, 2009). The ICP has been used in a pilot study in the United Kingdom with promising results for the measure's reliability and validity (Soukakou, in press). This is the first US demonstration study leading to validation.

Research Objectives

The study involved field testing the ICP measure in 51 settings in NC with the following objectives:
(1) Examine the acceptability of the ICP measure for program evaluation within an accountability structure such as quality rating systems.
(2) Assess the effectiveness of training procedures for ensuring accurate administration.
(3) Assess the psychometric properties of the *ICP*, including the measure's inter-rater reliability, factor structure and construct validity.
(4) Explore the relationship between inclusive quality in NC settings and various child and classroom characteristics (e.g. relationship between quality and teachers' special education qualifications, number of children with special needs and severity of disability).

Sample
The ICP was fieldtested in 51 inclusive preschool classrooms. Criteria for participation in the study included: 1) The program was center-based
        2) The program served preschool age children (three-five years of age)
        3) The program served at least one child and no more than 50% with an IEP.

Classroom characteristics
Of the 51 settings, 39% were child care programs, 26 % were Developmental Day programs, 26% were Head Start programs and 9% were public preschools. In total, classrooms included 150 children with an identified disability (child with an IEP). The number of children with a disability per classroom ranged from one to eight children, with each classroom serving in average 2.94 children with an IEP. Teacher education level ranged from a high school diploma through a Master's degree, with 51% of the teachers reporting having received a Bachelor's degree.

Area and severity of disability
For each child with a disability (*N*=150) teachers were asked to identify children's area and severity of disability[1]. Children's special needs were identified in the following areas: behavior/social (67%); gross motor (27%); fine motor coordination (45%); sensory integration (27%), and intentional communication (90%). With regard to severity of disability, 59% of the classrooms had a least one child with a disability identified at the 'severe' level (1-4 point scale rating possible/mild/moderate/severe level), while 88% of classrooms had at least one child with a moderate or severe level of disability.

Data Collection
Four assessors from the North Carolina Rated License Assessment Project (NCRLAP) collected data over a four month period using the following measures: Inclusive Classroom Profile (ICP; Soukakou, 2007), and the Early Childhood Rating Scales (ECERS-R; Harms, Clifford and Cryer, 2005). The NCRLAP has the contract in NC to collect data, including ECERS-R for NC QRIS. For this study, the assessors were formally trained in using the ICP. Information on children and classrooms was gathered through teacher interview and was recorded on a classroom information form developed by the researchers of the study. Information on the acceptability and usability of the ICP was gathered through a social validity survey completed by the assessors. Assessors also participated in a full-day focus-group to provide feedback on the measure and its demonstration.

Key Findings

Objective 1: Examine the acceptability of the ICP measure for program evaluation.
Results from the social validity survey (1-5 point scale), indicated that assessors rated the importance of the constructs measured by the ICP very highly (m= 5) and that they would highly recommend the ICP measure to others (m=5). With regard to the usability of the ICP, the assessors found the measure easy to use (m= 4). Finally, assessors rated the 'Overview' part of the training (information on administration and scoring, including video demonstration) as useful (m= 3.75), and all four assessors reported that they felt well prepared after the reliability training observations (m=4). Findings from the focus-group feedback meeting confirmed the high level of acceptability of the ICP

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[1] Teachers could identify one or more areas of need for each child with an IEP.

measure by the assessors who used the ICP in the study, and revealed specific recommendations for improving the administration, scoring and training procedures.

Objective 2: Examine the effectiveness of training procedures for accurate and reliable administration.

Assessors received a three-hour training session on ICP administration and scoring followed by 4 reliability observations in inclusive classrooms to assess accuracy of administration and reliability proficiency against the ICP author standard. Each assessor (n=4) met a reliability-proficiency criterion of 85% agreement within one scale point, maintained for three consecutive reliability observations against the ICP author's rating. Mean inter-rater agreement across assessors was 98% with a range of 91-100%.

Objective 3: Assess the psychometric properties of the ICP, including the measure's inter-rater reliability, factor structure and construct validity.

Inter-rater reliability was assessed in 9 reliability observations (18% of the sample), distributed over the four month data collection period. The mean inter-rater agreement across reliability observations was 87% (within one point scale). Reliability at the item level assessed via an intra-class correlation coefficient (ICC) ranging from zero to one where one indicates perfect agreement. For most items agreement between raters was in an acceptable range (.51-.99) with a mean of .71. Only one item (Item 3) presented with low agreement (.11) indicating the need for further clarification.

Accuracy of ICP administration by assessors against author standards was assessed in 9 classroom observations. The mean agreement between assessor's scores and ICP author standards (consensus score) was 94% (within one) and 75% (exact agreement) indicating that assessors maintained accurate administration of the ICP throughout the study.

Internal consistency Cronbach's alpha analysis for the 12 items suggested that the scale's items were internally consistent ($\alpha = .85$).

Structural validity was assessed through exploratory factor analysis of the ICP items. A scree plot examination (see figure 1) of the variance explained by the number of factors, clearly showed a one-factor structure with good factor loadings (.34 - .84).

Construct validity was examined through correlation analysis between the ratings on the ICP in and ratings on the Early Childhood Environment Rating Scales (ECERS-R; Harms, Clifford and Cryer, 2005). A moderate high correlation was found between the total score of the ICP and the ECERS-R ($rho =.51$) suggesting that the two instruments are not measuring identical constructs. A similar pattern of weaker correlations between the ICP and certain ECERS subscales, such as the 'health and personal care routines' that involve practices not measured by the ICP ($rho =.27$) and higher correlations with ECERS subscales that measure constructs more closely related to the ICP ('interactions'; $rho = .43$) provide preliminary evidence for the construct validity of the ICP.

Objective 4: Examine the relationship between the quality of observed inclusive practices and child and classroom characteristics.

Multiple regression analyses are being conducted to explore the association between observed quality of inclusive practices (as measured by the ICP) and children and classroom characteristics (e.g., number of teacher completed course hours in special education, and type and severity of children's disabilities).

Significance of findings

This demonstration study provided further evidence for the reliability, validity, and usability of the ICP. Implementation of the ICP in NC classrooms contributed to building an evidence base for this instrument that can enable a more comprehensive assessment of the quality of specific classroom practices implemented in inclusive programs. Findings from the present study have implications for use of the ICP in research, quality rating systems and professional development.

- As a research instrument, the ICP could be used to assess quality across inclusive programs, as well as to evaluate the relationship between quality of inclusive practices and outcomes for children with disabilities and their families.
- As one component of a quality ratings system, the ICP could be used to evaluate the quality of inclusive practices.
- As a quality improvement tool, the information gathered on ICP could inform professional development models and enhance program quality improvement activities.

Next Steps:

1. Revise the ICP rating scale and administration guidelines.
2. Write an article on the study findings for a peer reviewed journal.
3. Develop a training system, including online, web-based materials for training assessors to reliably administer the ICP.
4. Develop materials that support the use of the ICP in a professional development context.
5. Identify and secure funding for items #3 and #4.

References

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Suggested citation

Visit http://npdci.fpg.unc.edu/ for more information.