

Background

- In research and educational policies, "Inclusion" refers to active, productive involvement of students with exceptionalities. Related terms include *normalization, mainstreaming* and *integration* (Bennet, 2009).
- Social inclusion can be defined as when a child is welcome, valued, accepted, recognized and encouraged to participate by adults and peers, in a particular social setting.
- Democratic values have promoted deinstitutionalization and inclusion of children with developmental disabilities (DD) increasingly in the past 40 years. This trend has been observed in both school and community settings where individuals with DD are accommodated to support (or promote) participation and interaction with typically developing (TD) peers.
- But children with disabilities are at risk of having few friends, few social activities, loneliness and lower social status (Solish, Perry, & Minnes, 2010).

Purpose and Research Questions

- It is unclear how successfully children with developmental disabilities are actually included in terms of having positive interactions and meaningful friendships.
- These case studies examine the social inclusion experiences of six children in detail, considering the following questions:
 - How is each child perceived to be socially included by parents, school staff, community leaders, and, when possible, the child?
 - What is the frequency and quality of the social interaction that actually occurs during recess, unstructured classroom time and community activities?
 - What factors facilitate, and what factors are barriers to successful inclusion in different settings?

Method

- Great Outcomes for Kids Impacted by Severe Developmental Disabilities (GO4KIDDS) is an ongoing research project examining the health, wellbeing and social inclusion of children with severe DD.

Participants

- Six case studies from larger GO4KIDDS social inclusion project
- Age range 8 - 13yrs
- 3 girls, 3 boys
- 3 of the 6 children had Autism
- 2 of 6 from single parent families
- None of 6 families were recent immigrants

Measures

- Live interval time-sampling coding for frequency and quality of social interactions; average of 10 minutes/setting (IOA available for two thirds of recordings, minimum of 84%)
- Post observation comments based on observer report
- Interviews designed for this study: Parents, School Staff, Community Leader, Children (when possible)
- Vineland Adaptive Behavior Scales, 2nd Edition* Socialization Domain (Sparrow, Cicchetti, & Balla, 2005)
- Abbreviated GO4KIDDS Survey-parent satisfaction with their child's education, community involvement and opportunities for participation
- Stanford-Binet Intelligence Scale, Fifth Edition-Routing* (Roid, 2003) or four scales of the *Mullen Scales of Early Learning* (Mullen, 1995)
- Receptive and Expressive One-Word Picture Vocabulary Tests-4th Editions* (Martin & Brownell, 2010)

Results

Table 1: Most Frequent Play Based on Observer Report

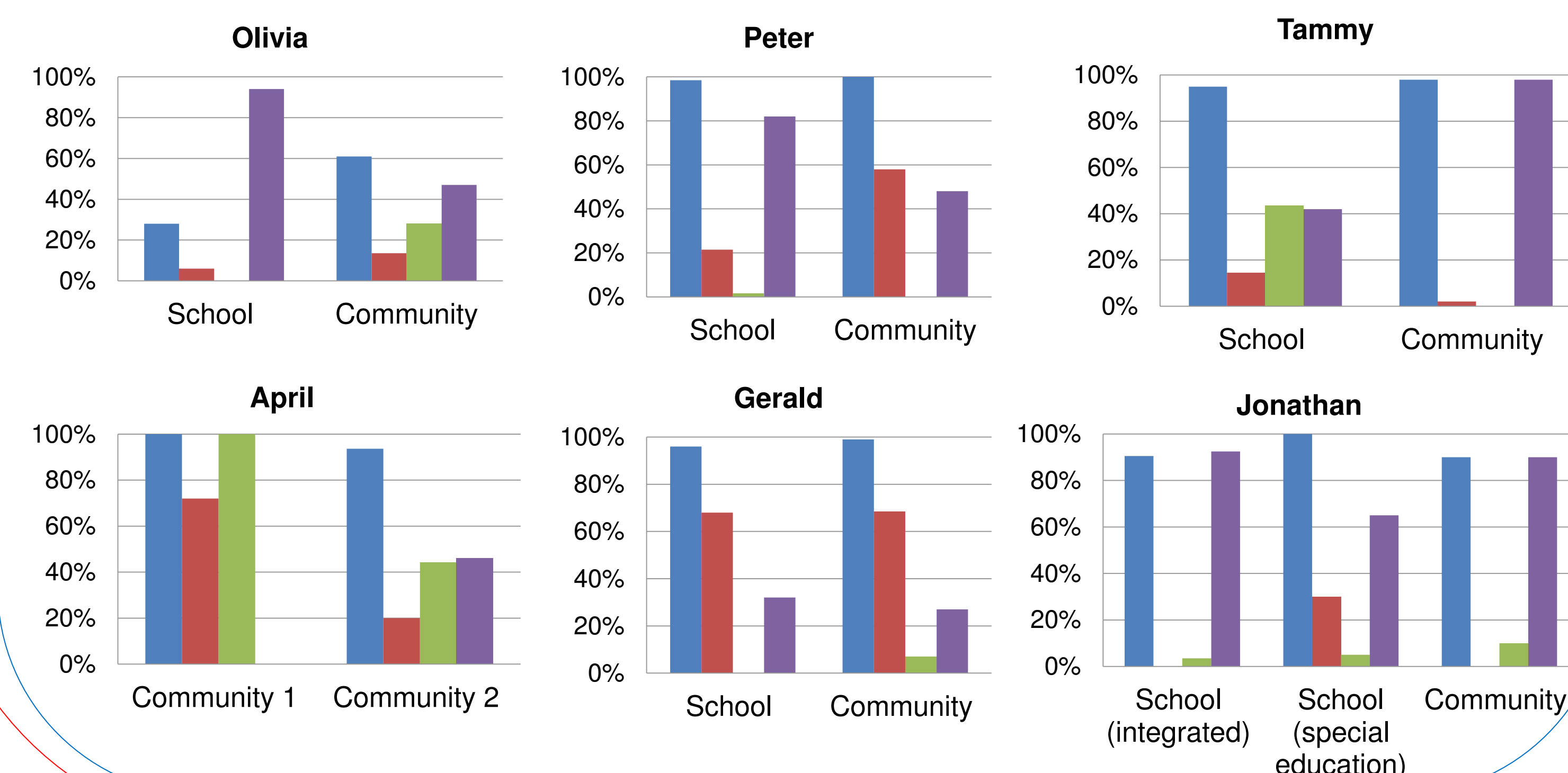
Type of Play	Gerald	Tammy	Jonathan	Peter	April	Olivia
Only Adults	✓	✓	✓	✓		✓
Alone/No Peers	✓					✓
Proximity		✓	✓	✓		✓
Onlooker			✓	✓		
Parallel						✓
Parallel Aware					✓	
Joint Engagement		✓	✓			✓
Games with Rules		✓			✓	

Table 2: Factors that Affect Inclusion Based on Interview Data

Facilitating Factors	Barriers
• Visual aids and assistive communication	• Child behaviour (e.g. Aggression)
• Parent advocacy and communication	• Limited understanding in peers
• Peer education	• Limited staff support
• Well-trained staff	• Large ratio of children to staff
• Opportunities to interact with younger TD peers	• Poor transition planning
• Increased activity structure	• Lack of opportunities to interact with TD peers

Graphs of Observed Interactions Based on Proportion of Recorded Intervals

- Interactions were most often neutral in nature rather than positive or negative
- Interactions were more likely with adults than peers
- Some community programs were designed to be inclusive of children with DD and typically developing children, others are designed specifically for children with DDs
- Despite proximal opportunities, some children experienced very limited interactions



Summary of Developmental Testing: Ranges

- IQ Scores, Mullen Ratio IQ/SB5 ABIQ <20-61
- Vineland Socialization Percentiles: <1-5
- ROWPVT (5 children) Percentiles: <1-10
- EOWPVT (3 children) percentiles: <1-37

Summary of three Child Interviews

- Tammy, Jonathan and April enjoyed their school and their community activities.
- Tammy has friends at school but does not play with them outside of school.
- Jonathan named specific friends from both his settings.
- April listed one best friend from school.
- Tammy and Jonathan reported that all staff and peers from both settings were nice to them.
- April reported that staff members from both settings were nice, but not all peers were nice.

Table 3: Child Participation Based on Parent Report

Activity	# Cases
Unstructured play outside of school	0 of 6
Social Outings	5 of 6
Special Occasions (e.g. birthday parties)	2 of 6
Organized Sports	1 of 6
Lessons (e.g. dance, swimming)	4 of 6
Community Activities (e.g. Cubs/Brownies)	3 of 6
Programs for children with DD	5 of 6

Potential Implications for Practice

- Although details are not presented, interviews with educators, parents and community leaders revealed that each child has unique needs and experiences, with different facilitating factors and barriers to their inclusion. Expectations and goals for inclusion vary between perspectives.
- Overall implications based on interview results suggest it may be beneficial to increase:
 - peer education surrounding children with DDs and how they can improve their inclusion
 - transition planning to prepare staff for new children with DD joining a class or program
 - training of educators and community leaders
 - opportunities and supports for families to access community programs
 - communication between parents, schools and community programs



Limitations and Future Research

- There are only six cases presented and it is unknown how representative they are of the population of children with DD.
- Observation times were limited. Observers did not always observe the integration opportunities with typically developing peers that were reported to take place via interviews.
- Time lapse between study components was not consistent across cases.
- Future research may consider peer perspectives as well as changes in inclusion over time (e.g. pre/post school year or community program).

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