



# Challenges of Using Existing Measures of Early Development in Tribal Contexts

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# Overview

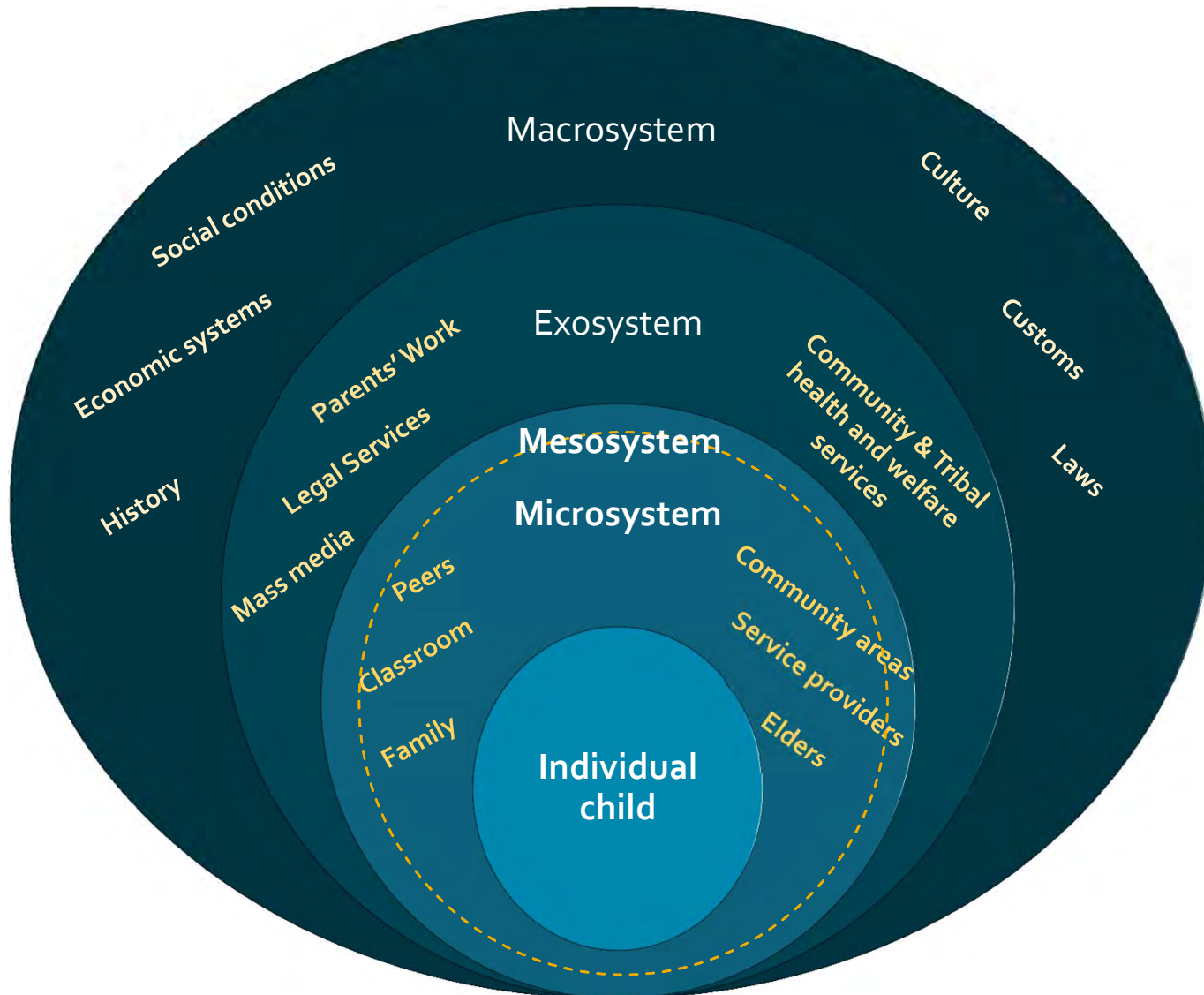
- Conceptual framework for understanding measurement challenges and solutions
- Case example: Wiba Anung
- Case example: The Survey of Well-Being of Young Children (SWYC)

# CONCEPTUAL FRAMEWORK

# WHAT IS CHILD DEVELOPMENT?

- **Child development** refers to the *biological, physical, cognitive, and social-emotional* that occur in human beings between birth and the end of adolescence, as the individual progresses from dependence to increasing independence
- Development is shaped by the **interaction of what the individual brings and the environments** in which s/he is developing

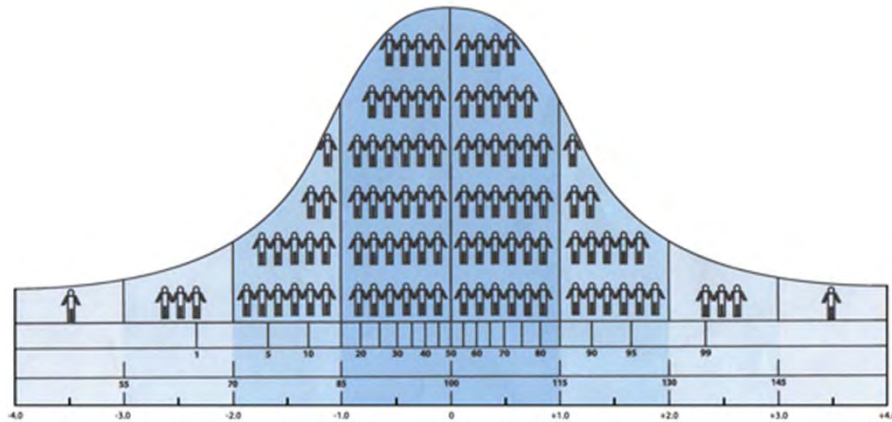
# BRONFENBRENNER'S ECOLOGICAL MODEL: ADAPTATION OF CONTEXT EXAMPLES



# WHY DO WE MEASURE DEVELOPMENT?

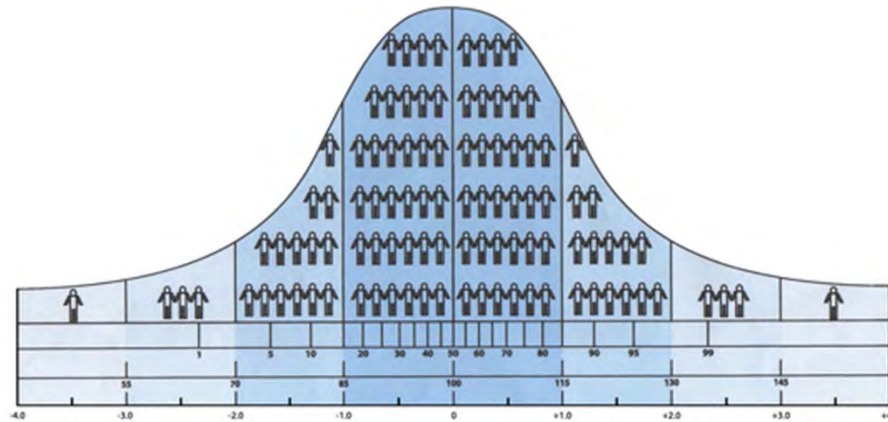
- To understand what **normative development** looks like
- To understand the factors that **shape development**
- To know when development does not proceed as expected, or **falls off track**
- To know **what to do** to keep development on track...what to do when it falls off track
- To determine whether or not what we are doing is **making a difference**

# WHAT IS NORMAL?



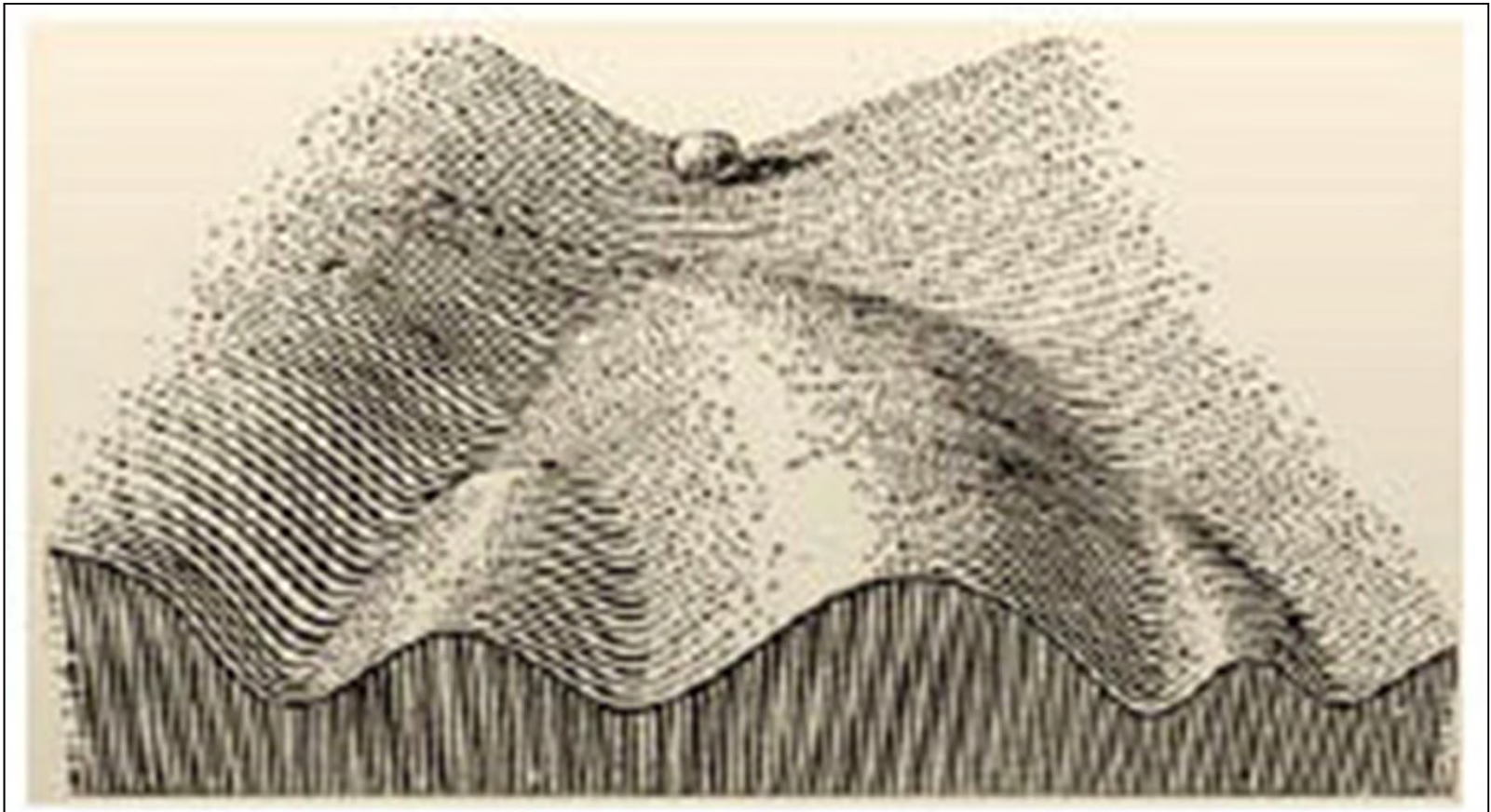
Collected through ratings or performance

Comparisons by gender and age



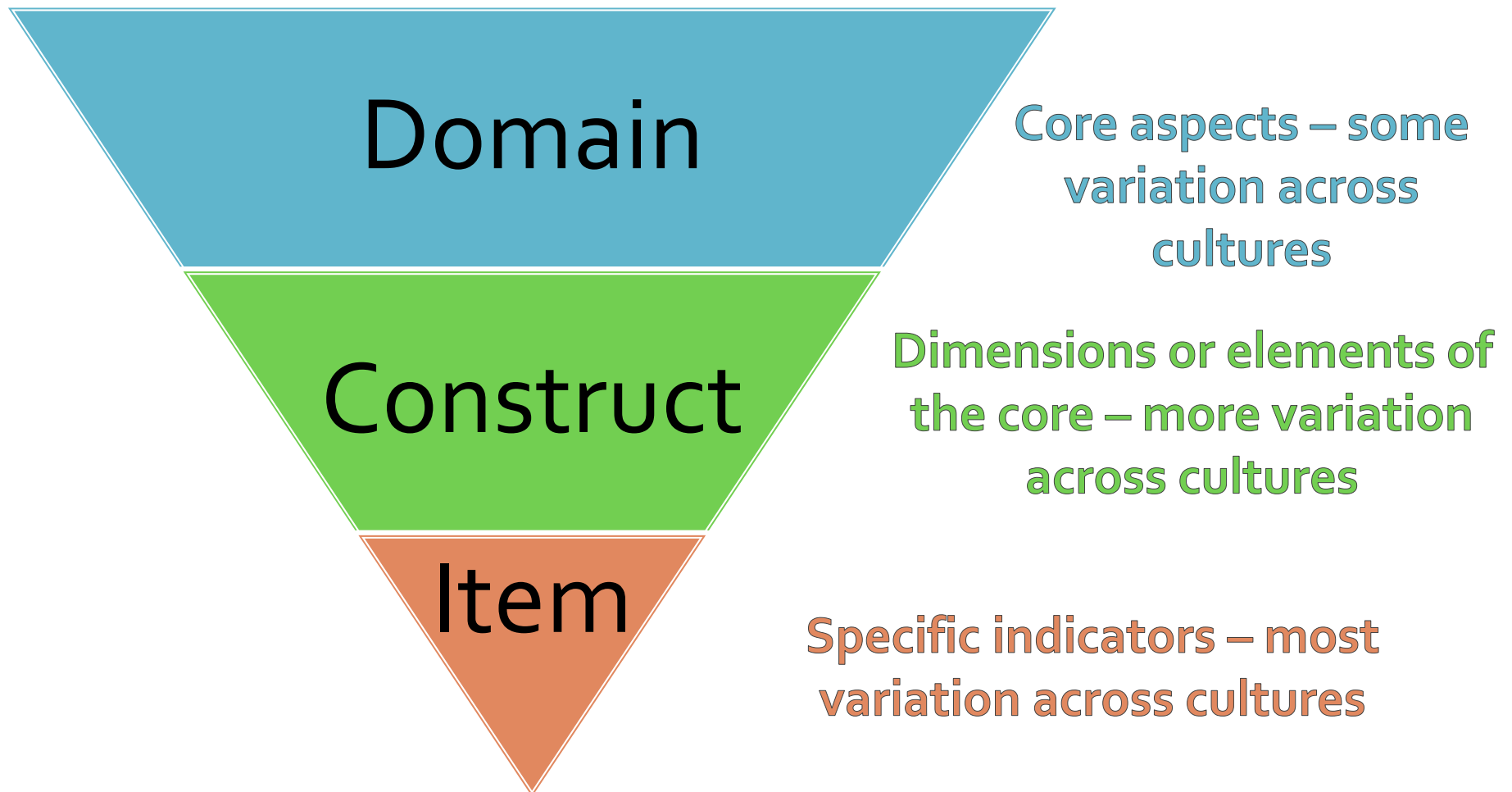
A given measure does not account for the multiple contexts in which children develop, and does not account for other aspects of development

# MULTIPLE PATHWAYS IN DEVELOPMENT

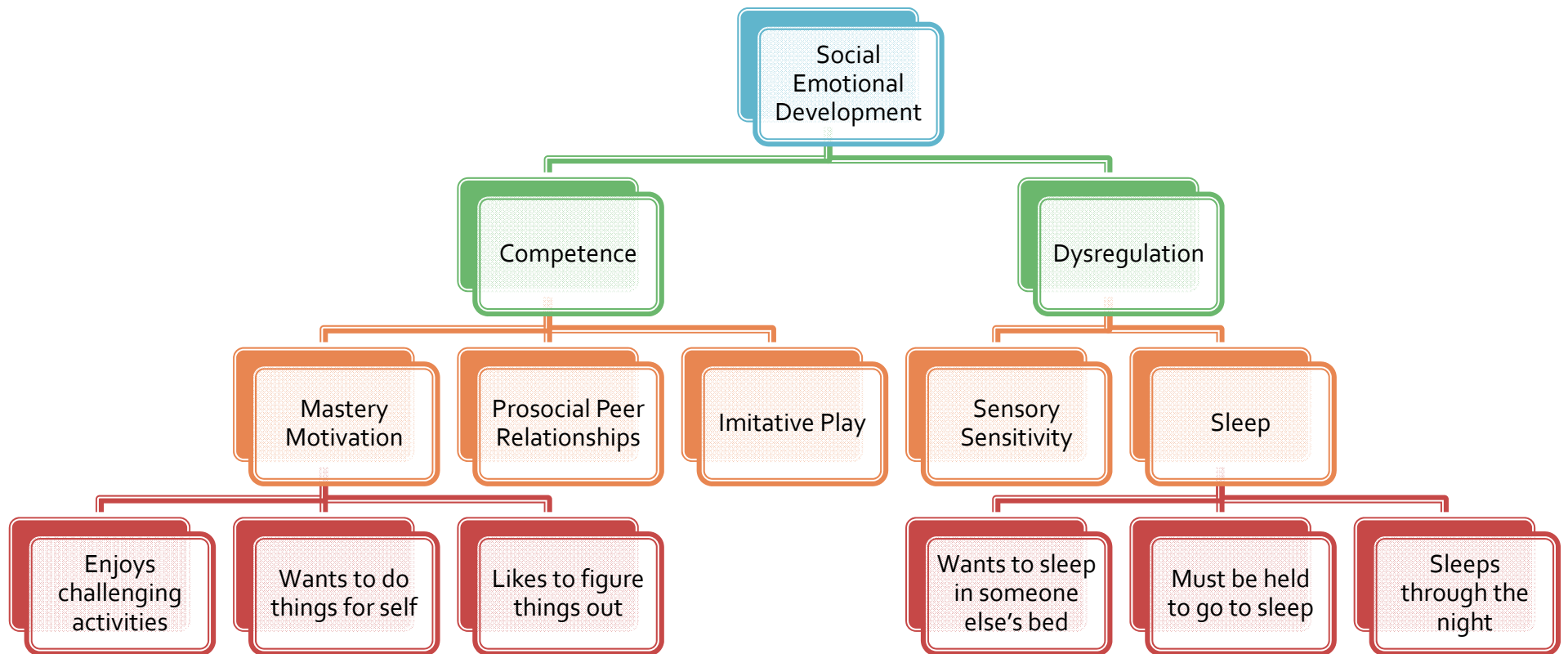




**MEASURES ARE BASED ON THE ASSUMPTION THAT  
DEVELOPMENT MANIFESTS SIMILARLY IN ALL CHILDREN**



# EXAMPLE: THE INFANT TODDLER SOCIAL EMOTIONAL ASSESSMENT



# WHY DO EXISTING MEASURES FALL SHORT IN TRIBAL CONTEXTS?

- An important construct for the local context is **missing entirely**, or is underemphasized
- A construct is there but the **item used to operationalize the construct has a different meaning** or no meaning in the local context
- Construct is there but at odds with local context
- Important aspects of the **local context that shape development are not considered**
- Important aspects of the local context **that shape the process of gathering measurement data** are not accounted for
- Virtually **no norms** for American Indian or Alaska Native children

# WHEN IS ADAPTATION NEEDED?

- When a measure doesn't include important questions, ask questions in a way that doesn't make sense, etc., the measure may not be **reliable or valid** for your population
  - Validity – measuring what you intend to measure
  - Reliability – measuring it consistently
  - A measure can be reliable but not valid, but an unreliable measure cannot be valid
- It is important to remember that even though there are problems with some measures, many measures work quite well across populations and contexts

# WHAT TO DO? ADAPT CONTENT

**Content:** How the constructs is operationalized

- What the questions need to be reworded?
- What questions need to be added?
- What questions need to be taken out?

# WHAT TO DO? ADAPTATION OF PROCESS

**Process** – How or where the measure is administered, or who administers it, may need to be adapted, e.g.:

- Trained lay assessors from within the tribal community v. outsiders
- Assessment protocol that involves animated conversation to engage child may need to be tempered to reflect cultural protocols for more reserved interaction
- Consideration of cultural protocols for what is appropriate to discuss with whom, based on gender, age, etc.

# WHAT TO DO? ADAPTATION OF INTERPRETATION

**Interpretation** – Scores on measures may need to be interpreted within the cultural context

- Understanding the process and content of measures within the cultural context is critical, even more so for measures that are used as is (un-adapted)

# DIFFICULT-TO-ADAPT MEASURES

- Standardized and norm-referenced measures may be difficult to adapt
  - **Standardized** measures depend on strict protocols for administering the measure – the kinds of questions that are asked, the way the questions are asked, and how the overall measure is scored, and may also depend on those who administer the measure to be deemed “reliable”
  - **Norm-referenced** tests are standardized but also “norm-referenced” with respect to how the scores are interpreted
- These kinds of measures – particularly those that are also proprietary – may not be amenable to adaptation



# WHAT TO DO WITH UN-ADAPTABLE MEASURES?

- Temper the **interpretation** of standardized or norm-referenced tests within the context of tribal communities.
- Consider **supplementing** standardized or norm-referenced test with other measures to provide a fuller/more accurate picture of outcomes in your community.
- Mixed methods – including **qualitative data** – may be particularly helpful here
  - Interviewers notes
  - Observations
  - Debriefing interviews
  - Focus groups

# WHAT TO DO? DESIGN A NEW MEASURE

- What are the key constructs?
- How are those constructs expressed in specific behaviors?
- What are the norms for this context?
- Potentially time-consuming and expensive process

# BEST WE CAN HOPE FOR IS A “GOOD ENOUGH” MEASURE

- Challenge the notion of “best” practice that can be universally applied
- Culture is a moving target
  - Within groups
  - Between groups
  - Over time
- So what to do?

# ASSESSMENT/UNDERSTANDING > MEASUREMENT

- Researchers must work with Tribal communities and Tribal research partners in meaningful ways from planning to implementation to dissemination
  - Community-Based Participatory Research
  - Tribal Participatory Research
- Consider the use of qualitative data to give meaning to numbers

# Wiba Anung: A Community-Specific Case Example

# Wiba Anung Partners

Michigan State University

The Inter-Tribal Council of Michigan, Inc.

Bay Mills Community College

Bay Mills Indian Community

Grand Traverse Bay Band of Ottawa and Chippewa Indians

Huron Potawatomi Nottawaseppi Band of Potawatomi

Hannahville Potawatomi Indian Community

Keweenaw Bay Indian Community

Lac Vieux Desert Band of Chippewa

Little Traverse Bay Band of Ottawa Indians

Pokagan Band of Potawatomi Indians

Sault Ste. Marie Tribe of Chippewa Indians

# Wiba Anung: Timeline

Year 1: Conducted large and small group meetings to identify the focus of the research partnership

Year 2: Conducted focus groups to determine community perspectives, Worked in large and small groups to develop the research plan

Year 3-6: Conducted the research together

# Wiba Anung: Co-Creation

Stage in Engaged R/E	Degree of Engagement	
	Community	Research/Evaluation
Identify issue of importance		
Decide on research question(s)		
Select research design		
Develop instrument/process		
Collect data		
Analyze data		
Interpret data		
Disseminate of findings		
Create academic products		
Create public products		

Adapted from Stanton, 2008



# Wiba Anung: Developing the Research Plan

- Small group met weekly: planning large group meetings, discussing various plans to present to the large group, talking about concerns of fit
- Large group met four times that year: reviewing plan options, reviewing measurement options

# Wiba Anung: Benefits of Co-Creation for the Project

- Through the process of co-creation, we were also promoting co-learning
  - Trust was developed and strengthened
  - The process was improved
- Our ability to collect and interpret quality data was heightened

# Wiba Anung: Interpreting with Caution

- Academic school readiness competencies
- Differences in parent and teacher perception of child behavior

# Wiba Anung: Using the Data

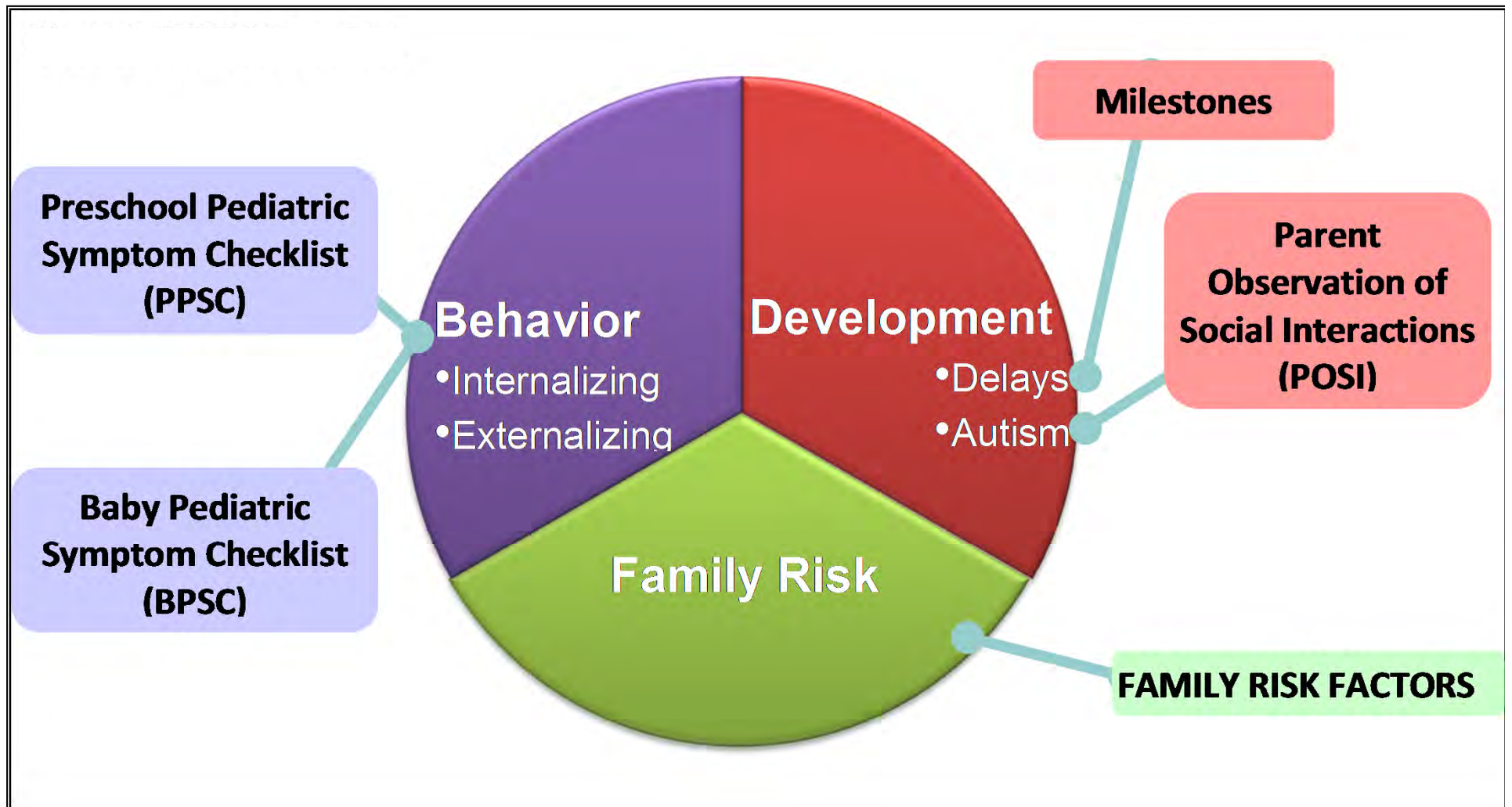
- Professional development as a result of academic school readiness data
- Continuation of data collection after the conclusion of the research project

# The SWYC: A Cross-Community Case Example

# What is the SWYC?

- **Brief, parent-report screener** for developmental, social-emotional, and family risks in young children between birth and 5 years of age
- **Surveillance tool** designed to be administered at each of the 12 pediatric well child visits
- **Sensitivity > specificity**
- **Validated** in 2013 among a diverse sample in the Northeastern US
- Available **online for free**
- Developed by Tufts University researchers  
Ellen Perrin, M.D & Chris Sheldrick Ph.D

# DOMAINS ASSESSED WITH SWYC



# An Assessment of the SWYC in Tribal Contexts

- Supported by ACF
- Planned by a TRC Community of Learning
- Carried out in 7 tribal communities
- Focus groups and key informant interviews
  - Pediatricians, other physicians, physician assistants, nurses
  - Mental health providers
  - Head Start administration, teachers, staff
  - Child Care administration, providers, staff
  - Tribal Home Visiting administration, home visitors, staff
  - Child welfare and family services staff
  - Parents



# QUESTIONS FOR FOCUS GROUPS AND KEY INFORMANTS

- Is the SWYC an **acceptable** tool for screening tribal children? Is it culturally appropriate?
- Is a screening instrument like the SWYC **needed** in tribal communities?
- Is it **feasible** to administer the SWYC in tribal communities? In what settings within communities?
- Are **resources available** for children who are identified as having potential delays or problems?

# WHAT'S PROMISING ABOUT THE SWYC FOR USE IN TRIBAL CONTEXTS?

- ❑ People appreciated being asked
- ❑ The SWYC is brief
- ❑ The family risk questions are important
- ❑ There is a need to identify children early
- ❑ Repeated administration may make some parents more comfortable reporting concerns
- ❑ Completing the SWYC can be educational

# WHAT ARE SOME CONCERNS ABOUT THE SWYC IN TRIBAL CONTEXTS?

1. Lack of trust limits how truthful people will be – especially for fear of losing children
  1. Who administers the SWYC, in what setting, and in what format?
2. Family risk questions are too sensitive
3. Duplicates existing assessments
4. Referral resources inadequate if delays are detected
5. Focus on “symptoms” – not many positive items
6. Cultural concerns
7. Is it possible to have “an” American Indian/Alaska Native version?

# EXAMPLES OF CULTURAL CONCERNS

- Important constructs for the local context are **missing entirely**
  - Self-sufficiency
  - Self-control
  - Learning through observation
- Construct is operationalized in a way that has a **different (or no) meaning** in the local context
  - Gross motor – use of stairs
  - Fine motor – draws with crayons
  - Social-emotional – acts aggressive
  - Autism screener – listens to story being read
- Construct is there but **at odds with local context**
  - Autism screener – makes eye contact
- Important **aspects of the local context** that shape development are not fully considered
  - Family risk – multigenerational homes in many tribal communities
  - Family risk – isolation in very rural communities

# NEXT STEPS FOR THE SWYC IN TRIBAL CONTEXTS

- Adaptation of process, content, norms, and interpretation all on the table
- Process/interpretation: More training in appropriate use of the SWYC in tribal contexts
- Content/Norms: Design and conduct a validation study
  - What items would we change?
  - What items would we add?
  - What are the statistical properties of the SWYC when used with tribal children?

**QUESTIONS? COMMENTS? TAKE  
AWAYS?**