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Establishing the cultural equivalence of the Participation and Environment Measure for Children and Youth (PEM-CY) for use in Korea

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Agenda

1. Background
2. Methods
3. Results
4. Discussion

Background

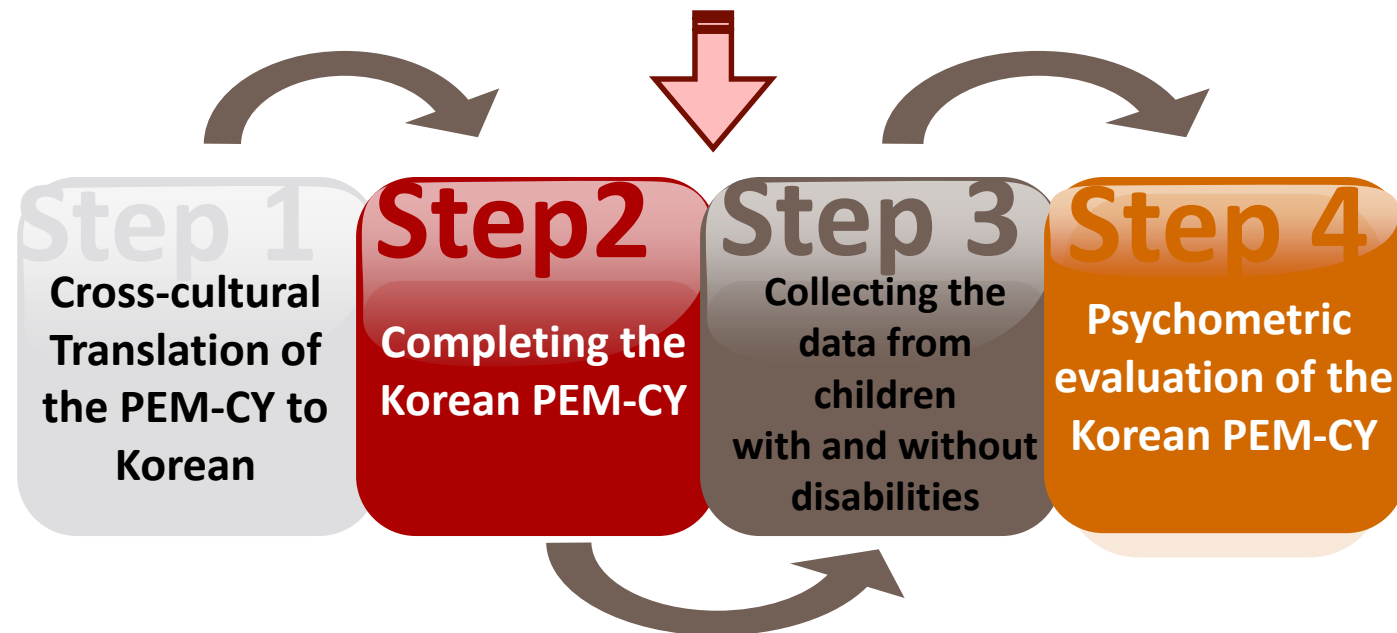


- ➔ **Participation is an ultimate goal of occupational therapy** (Hammingson & Jonssons, 2005; Law 2002) and many participation measures have been developed (McConachie et al., 2006; Raghavendra, 2013; Ziviani et al., 2010) .
- ➔ Obtaining the most comprehensive information about Korean children's participation and environmental impact on participation remains difficult.
- ➔ **PEM-CY** (Coster, Law, & Bedell, 2010) is an appropriate measure to be cross-culturally adapted in Korea.

Methods

Objectives:

- 1) To develop the Korean version of the PEM-CY (KPEM-CY),
- 2) To examine the reliability and validity of the KPEM-CY for its utility in the Korean cultural context



Participation:
See What We
Can Do!



- Participation and Environment Measure for Children and Youth (**PEM-CY**): a parent-report survey measure
- Developed in North America for children and youth aged **5 to 17 years**

3 settings: HOME, SCHOOL, COMMUNITY

SCHOOL Participation

Participation frequency

A) Typically, how often does your child participate in 1 or more activities of this type?
CHECK ONE RESPONSE

B) Think about 1 or 2 activities of this type that your child participates in most often. Typically, how involved is your child when doing these activities?
CHECK ONE RESPONSE

C) Would you like your child's participation to change in this type of activity?
IF YES, CHECK ALL THAT APPLY

	Daily	Few times a week	Once a week	Few times a month	Once a month	Few times in last four months	Once in last four months	Never (Add to Question C)	5 Very involved	4	3 Somewhat involved	2	1 Minimally involved	No change desired	Yes, do more often	Yes, do less often	Yes, be more involved	Yes, be less involved	Yes, be involved in a broader variety of activities
1) Classroom activities (e.g., group work, classroom discussions, tests, in-class assignments)																			
2) Field trips and school events (e.g., going to a museum, the school fair, school play, school excursion, charity)																			
3) School-sponsored teams, clubs and organizations (e.g., groups, clubs, teams, student council)																			
4) Getting together with peers outside of class (e.g., hanging out during lunch, at recess, or other breaks during the school day)																			
5) Special roles at school (e.g., lunch room supervisor, student mentor)																			

The extent of involvement

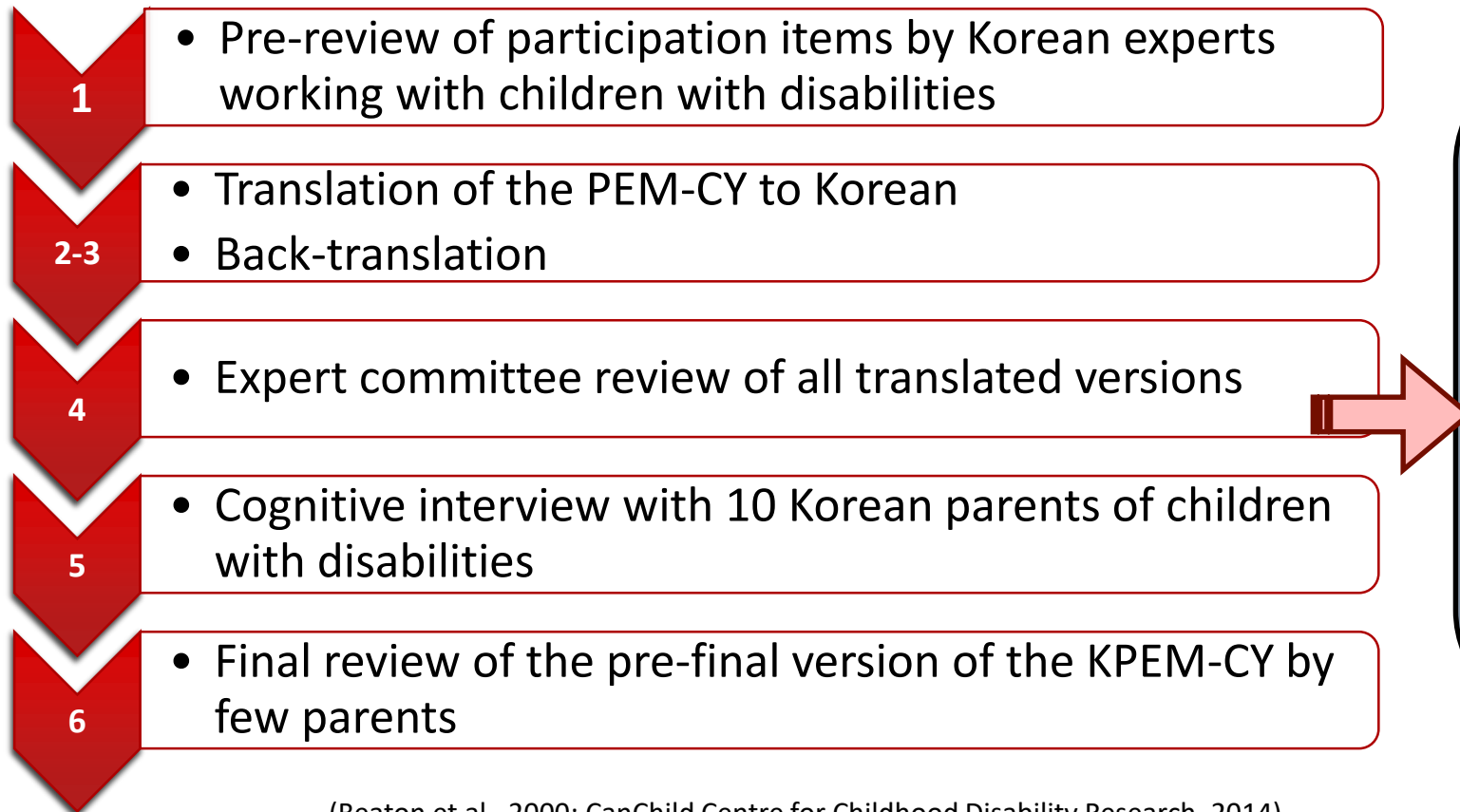
Desire to change

SCHOOL Environment

Do the following things help or make it harder for your child to participate in activities at school?	Not an issue	Usually helps	Sometimes helps; sometimes makes harder	Usually makes harder
CHECK ONE RESPONSE <input checked="" type="checkbox"/>				
1. The physical layout or amount of space in the classroom, on the playground, or on other parts of school premises (e.g., presence of sidewalks, availability of ramps or elevators in school building)				
2. The sensory qualities of the school environment (e.g., noise, crowds, lighting, etc.)				
3. Outside weather conditions (e.g., temperature, climate)				
4. The physical demands of typical school activities (e.g., strength, endurance, coordination)				
5. The cognitive demands of typical school activities (e.g., concentration, attention, problem-solving)				
6. The social demands of typical school activities (e.g., communication, interacting with others)				
7. Attitudes and actions of teachers, coaches, or staff towards your child				
8. Your child's relationships with peers				
9. The safety of the school (e.g., supervision, crime, violence)				

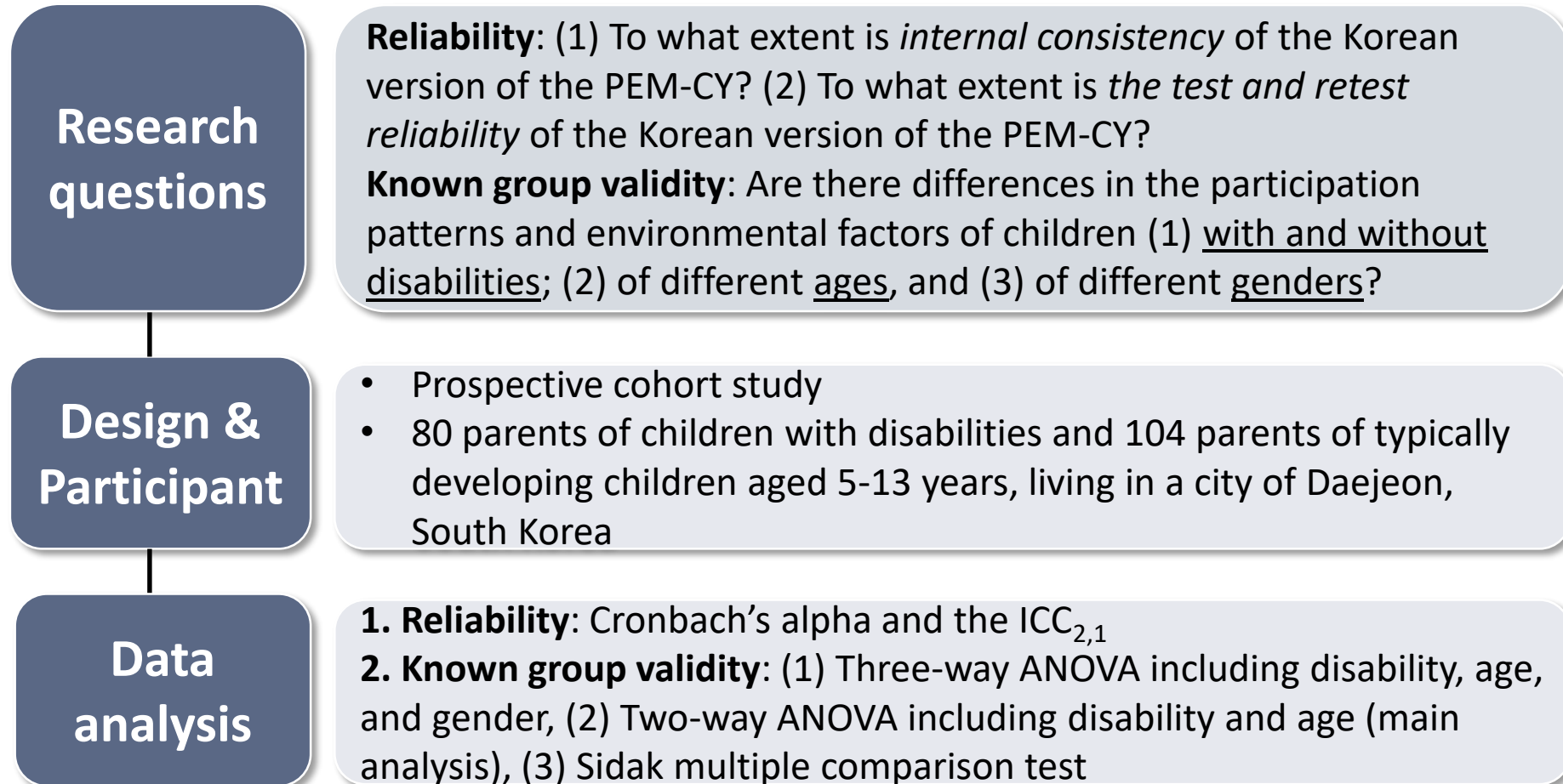
Results

Step 1-2: Development of KPEM-CY



76% of items in the participation section and 29% of items in environment section were revised to improve their fit with the Korean culture

Step 3-4: Evaluation of Psychometric properties of KPEM-CY



➤ Reliability

- Internal consistency: moderate to excellent (0.67-0.92) in all settings
- Test-retest reliability:

Moderate to excellent
(0.53-0.95)

Section	Summary score	Home	School	Community
PARTICIPATION	Frequency	0.95	0.82	0.87
	Involvement	0.78	0.85	0.83
	Desire to change	0.61	0.44	0.69
ENVIRONMENTAL FACTORS	Environmental Supports	0.53	0.40	0.35
	Environmental Barriers	0.63	0.60	0.65
	Helpfulness	0.74	0.77	0.73
	Resources	0.68	0.68	0.68
	Overall environmental supports	0.79	0.75	0.73

Excellent
(over 0.75)

➤ Known group validity

- Significant effect of **disability** and **age**, and **their interaction effect**
- Children with disabilities: lower participation frequency and more environmental barriers across 3 settings
- Parents of children with disabilities: a higher level of desire to change participation patterns of children with disabilities
- In community setting, as children became older,
 - a significant decrease in the extent of involvement, environmental helpfulness, and overall environmental supports
 - a significant increase in the environmental barriers

Note. Type 2,1 intra-class correlation coefficient

Discussion

- A reliable and valid Korean PEM-CY for Korean children with and without disabilities, aged 5 to 13 years
- Specific participation patterns and environmental impact on their participation according to personal and environmental factors
- Applying the Korean PEM-CY in clinical practice and research
 - Communication tool among OTs, other professionals, and the parents of children with disabilities
 - Utility in large-scale studies to examine similarities and differences in participation patterns and environmental factors across regions, cultures, and countries



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