

# Factor structure of FUNDES-Child-SE

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# Quantitative research requires (numeric) measurements.





**DEVELOPMENTAL MEDICINE & CHILD NEUROLOGY** 

**REVIEW** 

# Participation, both a means and an end: a conceptual analysis of processes and outcomes in childhood disability

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#### To participate at home

- 1. Social, play or leisure activities home with family
- 2. Social, play or leisure activities home with friends
- 3. Family chores, responsibilities and decisions at home
- 4. Taking care of yourself
- 5. Moving about in and around the home
- 6. Communicating with other children, youth and adults at home

#### To participate outside the home

- 7. Social, play, or leisure activities with friends outside the home
- 8. Organized activities outside the home
- 9. Moving around outside the home
- 10. Communicating with other children, youth and adults outside the home

#### To participate at school

- 11. Instructional activities together with classmates
- 12. Social, play or leisure activities with other students at school
- 13. Moving around at school
- 14. Using pedagogical materials and equipment that are also available for other students or that are adapted for you/your child
- 15. Communicating with other students and adults at the school

#### To participate at home and in society

- 16. Household activities
- 17. Shopping and managing money
- 18. Managing a daily schedule
- 19. Using transportation in order to move around in society
- 20. Work and responsibilities



Dimension	Rated as	Rating scale
Frequency of attendance	How often does the child/youth participate in comparison to other children of the same age without disability, regardless of the use of aids	<ul> <li>The same as or more than what is expected for the age</li> <li>A bit less than what is expected for the age</li> <li>Much less than what is expected for the age</li> <li>Never do it</li> <li>Not relevant/not applicable</li> </ul>
Engagement	How engaged/involved you think the child/youth is in activities without comparing with other children/youths	<ul> <li>Very engaged</li> <li>Rather engaged</li> <li>Little/somewhat engaged</li> <li>Not engaged at all</li> <li>Not relevant/not applicable</li> </ul>
Independence	How independent is the child/youth with or without assertive device or equipment	<ul> <li>Independent, does not need any guidance or assistance</li> <li>Need guidance or little assistance</li> <li>Medium assistance</li> <li>Total assistance</li> <li>Not relevant/not applicable</li> </ul>



#### **FUNDES-Child**

#### **Participation**

Daily living participation frequency

Mobility participation frequency

Learning participation frequency

Community participation frequency

#### Independence

Daily living participation independence

Social participation independence





Articl

Structural Validity of an ICF-Based Measure of Activity and Participation for Children in Taiwan's Disability Eligibility Determination System

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#### Methods



Not relevant / not applicable

- Never do it
- Not at all engaged

Not relevant / not applicable

• Imputation



# Engagement

- Using transportation in order to move around in society
- Work and responsibilities
- Organized activities outside the home



## Engagement

1. Social, play or leisure activities home with family 0.742. Social, play or leisure activities home with friends 0.71 3. Family chores, responsibilities and decisions at home 0.794. Taking care of yourself 0.42CFI: 0.997 5. Moving about in and around the home 0.51 6. Communicating with other children, youth and adults at home 0.48 Informal activities 7. Social, play, or leisure activities with friends outside the home 0.73 RMSEA: 0.005 9. Moving around outside the home 0.50 10. Communicating with other children, youth and adults outside the home 0.68 16. Household activities 0.42 Alpha: 0.89 - 0.91 11. Instructional activities together with classmates 0.84 12. Social, play or leisure activities with other students at school 0.58 13. Moving around at school 0.78 14. Using pedagogical materials and equipment that are also available for 0.94 Formal activities other students or that are adapted for you/your child 15. Communicating with other students and adults at the school 0.78 17. Shopping and managing money 0.47 18. Managing a daily schedule 0.49

Factor loadings



#### Frequency of attendance

Daily living participation frequency

3. Family chores, responsibilities and decisions at home

16. Household activities

18. Managing a daily schedule

Mobility participation frequency

Learning

participation frequency

4. Taking care of yourself

9. Moving around outside the home

15. Communicating with other students and adults at the school

1. Social, play or leisure activities home with family

6. Communicating with other children, youth and adults at home

11. Instructional activities together with classmates

12. Social, play or leisure activities with other students at school

Community participation

frequency

7. Social, play, or leisure activities with friends outside the home

2. Social, play or leisure activities home with friends

8. Organized activities outside the home

10. Communicating with other children, youth and adults outside the home

CFI: 0.999

RMSEA: 0.024

Alpha: 0.63 – 0.87



## Independence

Daily living participation independence

16. Household activities

3. Family chores, responsibilities and decisions at home

4. Taking care of yourself

9. Moving around outside the home

17. Shopping and managing money

18. Managing a daily schedule

19. Using transportation in order to move around in society

7. Social, play, or leisure activities with friends outside the home

1. Social, play or leisure activities home with family

2. Social, play or leisure activities home with friends

6. Communicating with other children, youth and adults at home

8. Organized activities outside the home

10. Communicating with other children, youth and adults outside the home

11. Instructional activities together with classmates

12. Social, play or leisure activities with other students at school

15. Communicating with other students and adults at the school

CFI: 0.999

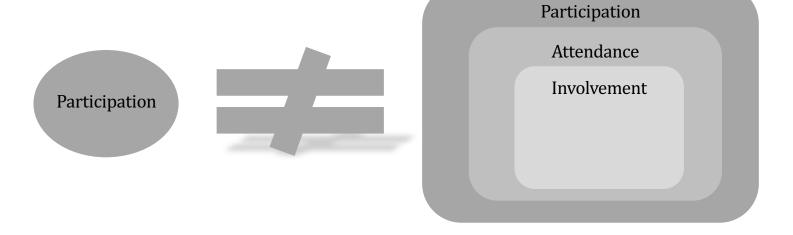
RMSEA: 0.040

Alpha: 0.90 – 0.94

Social participation independence



#### Conclusions





- Sample size
- Missing data, not relevant/not applicable



# Moving forwards

- Responsiveness?
- Interpretability?



# Key messages

- FUNDES-Child-SE is a participation and independence questionnaire with different factor structures within each of the three dimensions.
- The factor structure indicates that attendance and engagement are separate parts of participation.
- Interpretability and responsiveness are important aspects for further investigation.

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Physical Disability		Children		Caregivers	
Has serious delay in sitting, standing, or walking	36%	Mean age (sd)	10.7 (3.83)	Woman Man	68% 32%
Has difficulty walking or moving arms or is weak or rigid in arms or legs	20%	Boy Girl	64% 35%	9-year elementary school Upper secondary school	8% 26% 46%
Intellectual Disability		Other	1%	University Missing	20%
Comprehends when parent asks the child to do something	80%			Need an interpreter  Do not need an interpreter	17% 64% 19%
Seems to have difficulties to comprehend or is slow	68%			Missing	1970
				Survey in Swedish English Arabic	90% 5% 5%



# Reliability

#### **FUNDES-Child-SE**

Test-retest 0.73-0.95
1636 166636 0.73 0.73

Internal consistency subdomains 0.8-0.92

Internal consistency dimension(s) 0.94-0.96