The Supports Intensity Scale – Children's Version: A reliable and valid tool to measure the support needs of children

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Assumptions about Support Needs

- People with ID are different from the general population because they require more and different types of support to fully participate in the activities of daily life (i.e., meet age-appropriate environmental demands)

Changing Understandings of Disability: Social Ecological Models

Disability

Environment

Personal
Competence
Incompetence
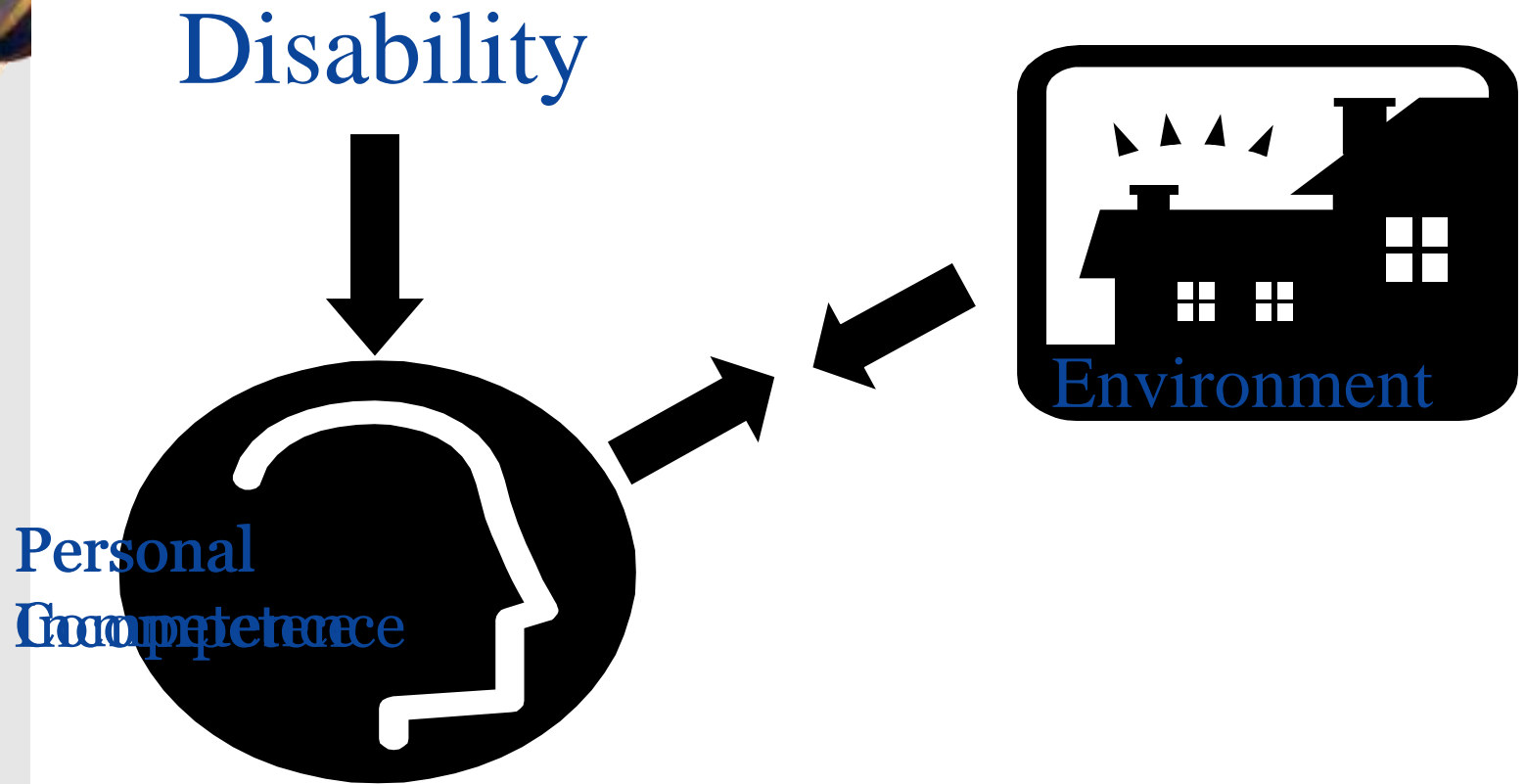
Assumptions about Support Needs

- Understanding people by their support needs is more functional (i.e., useful) for purposes of planning than understanding their deficits, etiology, etc.

- The Supports Intensity Scale was developed to assess support needs fairly (reliably and validly; employing a uniform procedure).

Milestones

- 2004 – Supports Intensity Scale was published
  - First standardized measure of support needs for adolescents and adults (ages: 16 to 64) with intellectual and developmental disabilities
  - Widely adopted nationally and internationally to influence state and providence resource allocation and supports planning

- 2015 – Supports Intensity Scale – Adult Version (SIS-A) published
  - Refreshed version of the SIS, maintains original properties of the scale, with updated forms and an expanded User's Manual

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Milestones

- 2016 – Supports Intensity Scale – Children's Version (SIS-C) published

  - First standardized measure of support needs for children (ages 5 to 16)

  - Addresses the need for measures specific to the supports needed by children in typical, age-appropriate environments

    - Supports needs do not emerge in adulthood

    - Children face unique environmental demands

Supports Intensity Scale – Children's Version

- SIS-C developed using same general measurement framework, rating system, and several common support need domains as the SIS-A

- An interviewer administers the SIS—C through a structured interview with two or more respondents who know the child well

- The SIS-C has two sections

  - Part I: Exceptional Medical and Behavioral Needs

  - Part II: Support Needs Scale (Standardized Portion of the Scale)

Instructions for Section 1A: Exceptional Medical Support Needs: Circle the appropriate number to indicate how much support is needed in regard to each of the items below. If the child does not have the medical condition, then the item should be rated "0." If the child has a condition, rate according to the following rating key:

0 = No Support Needed;

1 = Some Support Needed (i.e., providing monitoring and/or occasional assistance);

2 = Extensive Support Needed (i.e., providing regular assistance to manage the medical condition or behavior).

Complete all items. Subtotal the circled 1s and 2s. Total the subtotals.

Respiratory care			
Inhalation or oxygen therapy	0	1	2
Postural drainage	0	1	2
Chest physical therapy	0	1	2
Suctioning	0	1	2
Feeding assistance			
Oral stimulation or jaw positioning	0	1	2
Tube feeding (e.g., nasogastric)	0	1	2
Parenteral feeding (e.g., IV)	0	1	2
Skin care			
Turning or positioning	0	1	2
Dressing of open wound(s)	0	1	2

Support Need Scale Domains

- ***Home Life*** (9 items) - Activities related to living in a household (e.g., eating, using toilet).

- ***Community & Neighborhood*** (8 items) - Activities completed as a function of being a member of a community or neighborhood (e.g., participating in leisure activities that require physical activity; complying with basic community standards, rules, and/or laws).

- ***School Participation*** (9 items) - Activities associated with participating in school community (e.g., being included in general education classrooms; following classroom rules).

- ***School Learning*** (9 items) - Activities associated with acquiring knowledge and/or skills while attending school (e.g., learning academic skills; learning how to use problem solving).

- ***Health & Safety*** (8 items) - Activities that assure safety and health across environments (e.g., communicating health issues and medical problems; responding in emergency situations).

- ***Social*** (9 items) - Activities that pertain to social integration (e.g., maintaining conversation, coping with changes in routines and/or transitions across social situations).

- ***Advocacy*** (9 items) - Activities related to acting as a causal agent in one's life (e.g., expressing preferences, communicating wants and needs).

Table 3.6. SIS—C *Section 2C: School Participation Activities Items and Descriptions*

Section 2C: School Participation Activities	Item Description
1. Being included in general education classrooms	Supports to participate in a general education classroom setting during structured as well as unstructured times
2. Participating in activities in common school areas (e.g., playground, hallways, cafeteria)	Includes support to visit and use common school areas such as hallways (to get to and from classes and/or other business), playgrounds (for informal/unstructured play as well as organized activities that might be part of a class or extra-curricular activity), and cafeterias
3. Participating in co-curricular activities	Supports to participate in co-curricular activities, such as school clubs and teams
4. Getting to school (includes transportation)	Supports to get to and from school
5. Moving around within the school and transitioning between activities	Supports to move throughout the school during structured as well as unstructured parts of the school day and to transition between activities and classes
6. Participating in large-scale test taking activities required by state education systems.	Supports to participate in state level assessments, including high-stakes tests; includes implementing reasonable accommodations and modifications
7. Following classroom and school rules	Supports to participate in the school community without violating classroom or school rules
8. Keeping track of personal belongings at school	Supports to manage personal belongings at school such as getting and retrieving things from school lockers, keeping and spending lunch money, keeping possession of text books, etc.
9. Keeping track of schedule at school	Supports to be at the right place at the right time and engage in classroom routines (e.g., settling down and paying attention when teacher begins lesson)

Section 2D: School Learning Activities	Type					Frequency					Daily Support Time					Item Raw Score Sum
1. Accessing grade level curriculum content	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
2. Learning academic skills	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
3. Learning and using metacognitive strategies	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
4. Completing academic tasks (e.g., time, quality, neatness, organizational skills)	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
5. Learning how to use and using educational materials, technologies, and tools	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
6. Learning how to use and using problem solving and self-regulation strategies in the classroom	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
7. Participating in classroom level evaluations, such as tests	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
8. Accessing the health and physical education curricula	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
9. Completing homework assignments	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
SUM OF ITEM RAW SCORES																
MEAN RATING FOR SCHOOL LEARNING ACTIVITIES = (SUM OF ITEM RAW SCORES) ÷ 27																

Response Scale

Type of Support	Frequency of Support	Daily Support Time
0 = none 1 = monitoring 2 = verbal/gestural prompting 3 = partial physical assistance 4 = full physical assistance	0 = **Negligible;** the child's support needs are rarely if ever different from those of same-aged peers in regard to frequency. 1 = **Infrequently;** the child will occasionally need someone to provide extraordinary support that same-aged peers will not need. 2 = **Frequently;** in order for the child to participate in the activity, extra support will need to be provided for about half of the occurrences of the activity. 3 = **Very Frequently;** in most occurrences of the activity, the child will need extra support that same-aged peers will not need. 4 = **Always;** on every occasion that the child participates in the activity, the child will need extra support that same-aged peers will not need.	0 = none 1 = less than 30 minutes 2 = 30 minutes to less than 2 hours 3 = 2 hours to less than 4 hours 4 = 4 hours or more

United States SIS-C Standardization Sample

- Assumed that support needs could be confounded with age
  - Younger children (irrespective of disability) would have greater support needs than older children
  - Stratified sampling plan
    - Age cohorts:
      - 5-6
      - 7-8
      - 9-10
      - 11-12
      - 13-14
      - 15-16
    - Also stratified by range of intellectual functioning/adaptive behavior
      - Mild, IQ > 55
      - Moderate, IQ 40-55
      - Severe/profound, IQ < 40

United States SIS-C Standardization Sample

Table 5.1. *Sample Size for Age Cohorts and Intellectual Functioning*

Age Cohort	Mild	Moderate	Severe/ Profound	Total
5–6	151	168	194	513
7–8	197	176	189	562
9–10	227	280	280	787
11–12	226	320	298	844
13–14	241	295	286	822
15–16	166	172	149	487
Total	1,208	1,411	1,396	4,015

Note. Mild ID group is IQ > 55 or adaptive behavior in mild range for the assessment; moderate ID group is IQ 40–55 or adaptive behavior at moderate range for assessment; severe/profound ID Group is IQ < 40 or adaptive behavior at severe/profound.

Establishing Reliability and Validity

01. Normative Sample

- Normative Sample
- Respondents
- Interviewers

03. Validity

- Content Validity
- Criterion Validity
- Construct Validity
- Factorial Validity

02. Reliability

- Internal Consistency Reliability
- Standard Deviations /Standard Errors of Measurement

04. Standardization

- Standard Scores and Percentiles
- Frequency Distributions of Standard Scores

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1. Normative Sample

Demographic Characteristics of the U.S. Normative Sample (N = 4,015)

	n	% of Sample
Gender		
Female	1,202	29.9
Male	2,710	67.5
Missing	103	2.6
Age		
5-6	513	12.8
7-8	562	14.0
9-10	762	19.0
11-12	804	20.0
13-14	818	20.4
15-16	487	12.1
Missing	69	1.7
Ethnicity		
White	2,244	55.9
Black	820	20.4
Asian/Pacific Islander	159	4.0
Native American	26	0.6
Hispanic	384	9.6
Multiple ethnic backgrounds	237	5.9
Other	73	1.8
Missing	72	1.8

	n	% of Sample
Primary language		
English	2,299	57.3
Spanish	88	2.2
English and Spanish	52	1.3
Nonverbal & sign language	12	0.3
Others (Nepalese, Farsi, etc.)	26	0.6
Missing	1,538	38.3
Intelligence level		
< 25 or profound	459	11.4
25-39 or severe	862	21.5
40-55 or moderate	1,321	32.9
55-70 or mild	1,157	28.8
Missing	216	5.4
Adaptive behavior level		
Profound	563	14.0
Severe	1,052	26.2
Moderate	1,335	33.3
Mild	948	23.6
Missing	117	2.9

1. Normative Sample

Demographic Characteristics of Respondents (*N* = 12,050) & Interviewers (*N* = 694)

	n	%
Relationship to participant		
Family	3,315	27.5
Teachers	1,556	12.9
Direct service providers/care givers	609	5.1
Paraprofessionals	606	5.0
Case managers	375	3.1
Other (friends/mentor/advocate)	309	2.6
Program coordinators/service coordinators	301	2.5
Residential service managers	138	1.1
Therapists	118	1.0
Qualified developmental professionals	115	1.0
Foster Parents/Guardians	104	0.9
Self	99	0.8
Behavioral specialists	55	0.5
Not specified/unclear	4,350	36.1
Number of years respondent has known the participant*		
Less than 1 year	583	7.3
1-2 years	2,075	25.8
3-5 years	990	12.3
6-10 years	1,365	17.0
More than 10 years	1,785	22.2
Missing	1,232	15.3

	n	%
Gender		
Female	564	81.3
Male	93	13.4
Missing	37	5.3
Ethnicity		
White	500	72.0
Black	95	13.7
Asian/Pacific Islander	21	3.0
Native American	2	0.3
Hispanic	29	4.2
Multiple ethnic backgrounds	10	1.4
Other	1	0.1
Missing	36	5.2

Mean = 6 years
SD = 4.99 years

2. Reliability - Internal Consistency

❑ **Tests with high reliability yield comparable scores across periods of time and across different examiners.**

❑ **Cronbach's alpha (Cronbach, 1951) & Coefficent Omega (McDonald, 2013)**

Age Cohorts	Constructs	Cronbach Alpha	Omega	Age Cohorts	Constructs	Cronbach Alpha	Omega
5-6	HLA	0.941	0.991	7-8	HLA	0.909	0.980
	CNA	0.952	0.995		CNA	0.951	0.995
	SPA	0.917	0.987		SPA	0.925	0.990
	SLA	0.943	0.994		SLA	0.937	0.994
	HSA	0.953	0.995		HSA	0.938	0.992
	SA	0.958	0.996		SA	0.954	0.995
	AA	0.960	0.996		AA	0.934	0.990
9-10	HLA	0.914	0.981	11-12	HLA	0.921	0.984
	CNA	0.942	0.994		CNA	0.923	0.988
	SPA	0.921	0.989		SPA	0.917	0.988
	SLA	0.941	0.996		SLA	0.928	0.993
	HSA	0.934	0.992		HSA	0.938	0.992
	SA	0.957	0.996		SA	0.955	0.995
	AA	0.924	0.990		AA	0.940	0.994
13-14	HLA	0.923	0.983	15-16	HLA	0.936	0.985
	CNA	0.925	0.990		CNA	0.946	0.994
	SPA	0.922	0.989		SPA	0.936	0.990
	SLA	0.938	0.994		SLA	0.959	0.997
	HSA	0.939	0.992		HSA	0.960	0.995
	SA	0.956	0.995		SA	0.964	0.996
	AA	0.951	0.996		AA	0.963	0.997

Excellent Internal Consistency

3. Validity - Content Validity

> **"The extent to which a test accurately measures the sample of behaviors under consideration" (Taylor, 2002, p. 66)**

Qualitative Evidence – Q-Sort	Quantitative Evidence – Item Analysis

- ❑ **Item Selection → Q-Sort → Pilot Test → Field Test → Standardization**
- ❑ **Item Analysis**

Construct & Indicator	Unstandardized	
	Loading (*SE*)	Intercept (*SE*)
Home Living Activities		
Indicator 1	0.74 (0.01)	1.00 (0.02)
Indicator 2	1.12 (0.01)	-0.40 (0.03)
Indicator 3	0.91 (0.01)	0.60 (0.02)
Indicator 4	1.02 (0.01)	0.06 (0.02)
Indicator 5	1.23 (0.01)	-0.56 (0.03)
Indicator 6	1.00 (0.02)	-0.53 (0.05)
Indicator 7	1.01 (0.01)	0.06 (0.04)
Indicator 8	1.00 (0.02)	-0.02 (0.04)
Indicator 9	0.99 (0.02)	-0.20 (0.04)

3. Validity - Criterion Validity

"In SEM models, […] all of the potential relationships among the constructs are potential criterion validity relationships" (Little, 2013, p. 67)

❏ **Asked two SIS-C raters to rate each person's support needs by completing a Likert-type scale on support needs prior to completing the SIS-C (from *1* [low support needs] to *5* [high support needs])**

Table

Inter-correlations of SIS Subscales with Rater Estimates of Abilities

All Groups	HLA	CNA	SPA	SLA	HSA	SA	AA
Res. HLA	.79**						
Res. CNA		.71**					
Res. SPA			.73**				
Res. SLA				.68**			
Res. HSA					.72**		
Res. SA						.67**	
Res. AA							.62**

Note. p < .01.

All coefficients are sig. and exceed .35, the minimum level needed to demonstrate criterion-related validity

3. Validity - Construct Validity

❑ **Relationship of SIS-C to Intelligence**
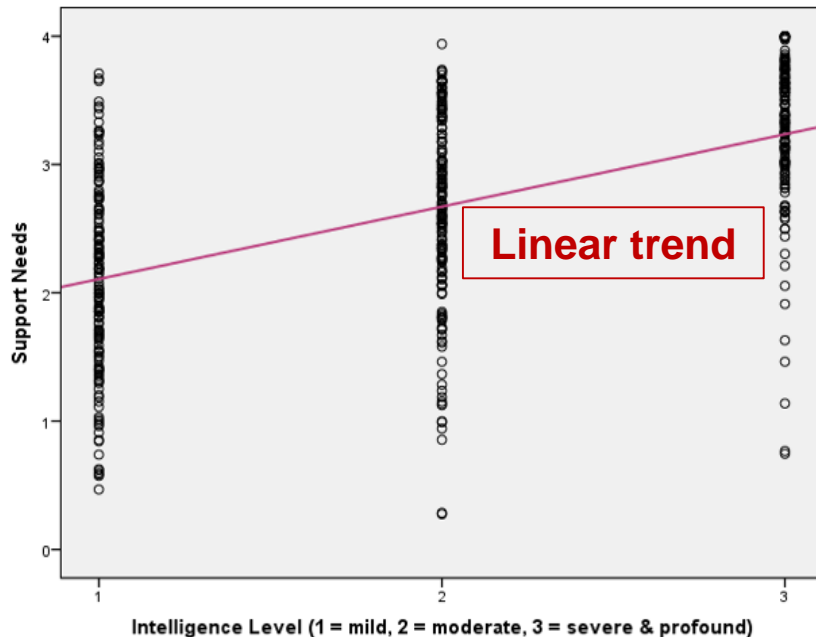
Groups	Overall SN	HLA	CNA	SPA	SLA	HSA	SA	AA
Total	.49***	.55***	.47***	.45***	.38***	.46***	.40***	.45***
5-6	.50***	.52***	.48***	.45***	.42***	.44***	.43***	.40***
7-8	.45***	.53***	.42***	.42***	.35***	.39***	.35***	.42***
9-10	.48***	.55***	.45***	.43***	.36***	.42***	.39***	.44***
11-12	.49***	.56***	.44***	.44***	.38***	.47***	.39***	.43***
13-14	.51***	.59***	.50***	.45***	.38***	.48***	.43***	.48***
15-16	.55***	.61***	.56***	.49***	.40***	.54***	.45***	.49***

Note. $p < .001$, SN = support needs

All coefficients are significant and the magnitude of the coefficients provides additional support for the construct validity of the SIS-C scores.

3. Validity - Construct Validity

❑ **Relationship of SIS-C to Adaptive Behavior**

Linear trend

Adaptive Behavior (1 = mild, 2 = moderate, 3 = severe & profound)
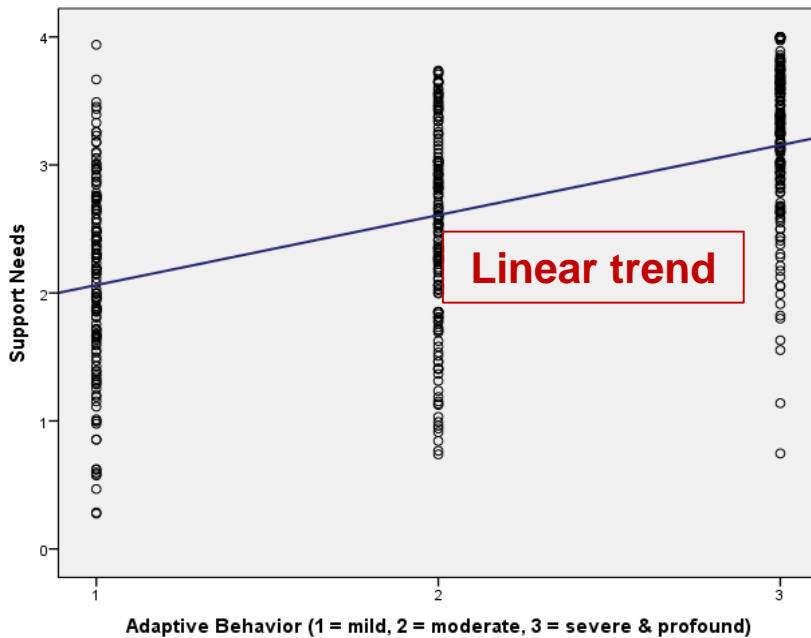
Groups	Overall SN	HLA	CNA	SPA	SLA	HSA	SA	AA
Total	.51***	.57***	.49***	.47***	.40***	.47***	.44***	.46***
5-6	.51***	.54***	.49***	.46***	.42***	.45***	.47***	.40***
7-8	.44***	.50***	.41***	.40***	.33***	.37***	.38***	.41***
9-10	.50***	.54***	.46***	.46***	.38***	.44***	.41***	.46***
11-12	.54***	.62***	.50***	.50***	.41***	.50***	.45***	.49***
13-14	.55***	.61***	.52***	.50***	.42***	.51***	.47***	.51***
15-16	.53***	.60***	.53***	.47***	.41***	.52***	.45***	.47***

Note. $p < .001$, SN = support needs

All coefficients are significant and the magnitude of the coefficients provides additional support for the construct validity of the SIS-C scores.

3. Validity - Factorial Validity

"Determining the generalizability of psychological constructs across groups" (Brown, 2006, p. 267)

☐ **Configural Invariance → Weak Factorial Invariance → Strong Factorial Invariance**

$\Delta \text{CFI} < .01$

Model	χ^2	df	p	RMSEA	RMSEA 90% CI	CFI	TLI	Constraint Tenable
Null Model	104842.7	1275	0.00	---	---	---	---	---
Configural Invariance	4547.768	1008	0.00	0.072	0.070 - 0.075	0.968	0.960	---
Weak Invariance	4738.573	1078	0.00	0.071	0.069 - 0.073	0.967	0.962	Yes
Strong Invariance	5042.492	1148	0.00	0.071	0.069 - 0.073	0.965	0.962	Yes

Factorial validity is established, suggesting that measurement properties of the SIS-C are the same across age subgroups of students with intellectual disability.

3. Validity - Factorial Validity

☐ **Latent Mean Comparisons Across Age Groups**

Model	χ^2	df	P	$\Delta\chi^2$	Δ df	p	Constraint Tenable
Strong Invariance	5042.492	1148	.00	---	---	---	---
Latent Mean Invariance	5323.882	1183	.00	281.39	35	<.01	No
Home Living Activities	5170.998	1153	.00	128.506	5	<.01	No
Community & Neigh. Activities	5108.716	1153	.00	66.224	5	<.01	No
School Participation Activities	5099.957	1153	.00	57.465	5	<.01	No
School Learning Activities	5058.286	1153	.00	15.794	5	<.01	No
Health and Safety Activities	5118.592	1153	.00	76.1	5	<.01	No
Social Activities	5150.405	1153	.00	107.913	5	<.01	No
Advocacy Activities	5080.075	1153	.00	37.583	5	<.01	No

There are differences in means across the age groups (5-6, 7-8, 9-10, 11-12, 13-14, 15-16)

Age- Related Differences

- Intensity of Support Needs decreased in older age cohorts

  - This means that separate norms are needed for each age cohort

- Generally

  - 5-6, 7-8, and 9-10 year old cohorts tended to have more similar mean levels of support needs

    - 5-6 year olds, did however have higher Home Life domain support needs

  - 11-12 and 13-14 year olds tended to cluster together

  - 15-16 year olds tended to be a distinct group

Section 2: Support Needs Index Scale Section A: Home Life Activities	Type					Frequency					Daily Support Time					Item Raw Score Sum
1. Completing household chores	0	1	2	(3)	4	0	1	2	3	(4)	0	(1)	2	3	4	8
2. Eating	0	(1)	2	3	4	0	(1)	2	3	4	0	(1)	2	3	4	3
3. Washing and keeping self clean	0	(1)	2	3	4	0	1	2	(3)	4	0	(1)	2	3	4	5
4. Dressing	0	1	(2)	3	4	0	1	(2)	3	4	0	(1)	2	3	4	5
5. Using the toilet	(0)	1	2	3	4	(0)	1	2	3	4	(0)	1	2	3	4	0
6. Sleeping and/or napping	0	1	2	(3)	4	0	1	2	(3)	4	0	1	(2)	3	4	8
7. Keeping track of personal belongings at home	0	1	(2)	3	4	0	1	2	3	(4)	0	(1)	2	3	4	7
8. Keeping self occupied during unstructured time (free time) at home	(0)	1	2	3	4	(0)	1	2	3	4	(0)	1	2	3	4	0
9. Operating electronic devices	0	1	(2)	3	4	0	1	(2)	3	4	0	1	(2)	3	4	6
SUM OF ITEM RAW SCORES																42
MEAN RATING FOR HOME LIFE ACTIVITIES = (SUM OF ITEM RAW SCORES) ÷ 27																1.56

3. Validity - Factorial Validity

☐ **Latent Means and Standard Deviations**

	HLA		CNA		SPA		SLA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
5-6	2.64	.83	2.90	.72	3.01	.75	3.27	.68
7-8	2.45	.83	2.90	.72	3.01	.75	3.27	.68
9-10	2.45	.83	2.90	.72	3.01	.75	3.27	.61
11-12	2.28	.83	2.78	.72	3.01	.75	3.27	.61
13-14	2.28	.95	2.78	.72	3.01	.75	3.27	.61
15-16	2.03	.95	2.60	.80	2.74	.89	3.14	.75

	HSA		SA		AA		Total[*]	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
5-6	3.06	.76	3.04	.86	2.97	.77	3.03	.72
7-8	3.06	.76	3.04	.86	2.97	.77	2.98	.68
9-10	3.06	.76	3.04	.86	2.97	.77	2.95	.64
11-12	2.92	.76	2.83	.86	2.97	.77	2.88	.68
13-14	2.92	.76	2.83	.86	2.97	.77	2.83	.71
15-16	2.70	.91	2.59	.99	2.76	.87	2.65	.81

Note. * Means and SDs in the right below columns are used to compute the composite standard scores.

These latent means and standard deviations were used for the norming process of the SIS-C.
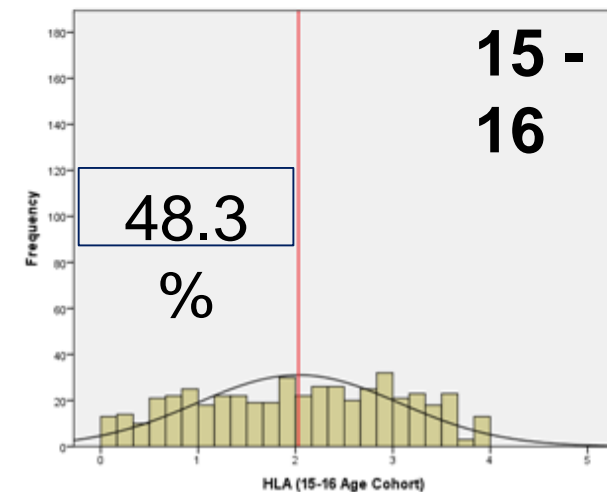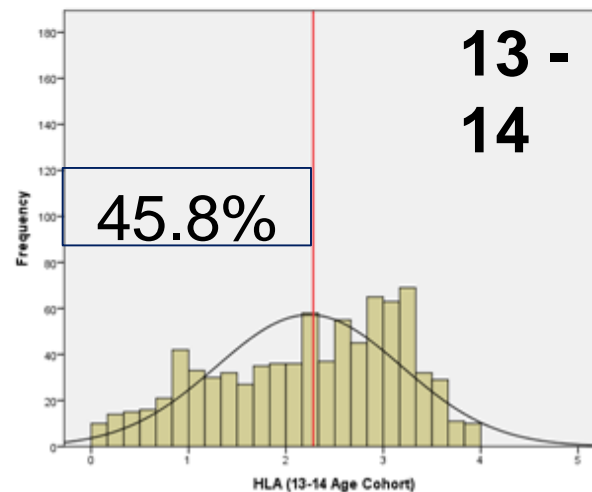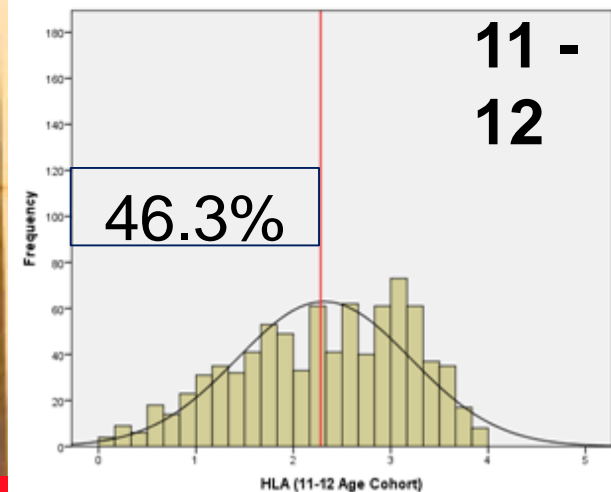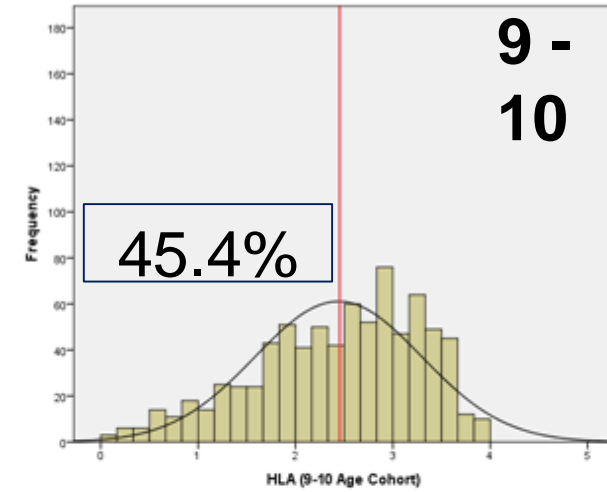
4. Standardization

5-6 AGE COHORT												
	Home Living			**Community and Neighborhood**			**School Participation**				
Standard Score	Raw Score	Raw-Score Range	PR	Raw Score	Raw-Score Range	PR	Raw Score	Raw-Score Range	PR	Standard Score
16										16
15		3.89*	95.5*		3.98*	91.6*				15
14	3.75	3.61 - 3.88	93.6	3.86	3.74 - 3.97	87.7		3.89*	86.1*	14
13	3.48	3.34 - 3.60	82.7	3.62	3.50 - 3.73	77.6	3.77	3.64 - 3.88	79.0	13
12	3.20	3.06 - 3.33	68.8	3.38	3.26 - 3.49	67.1	3.51	3.39 - 3.63	63.9	12
11	2.92	2.78 - 3.05	54.6	3.14	3.02 - 3.25	49.1	3.26	3.14 - 3.38	51.2	11
10	2.64	2.51 - 2.77	43.7	2.90	2.78 - 3.01	36.1	3.01	2.89 - 3.13	37.5	10
9	2.37	2.23 - 2.50	30.6	2.66	2.54 - 2.77	25.5	2.76	2.64 - 2.88	25.1	9
8	2.09	1.95 - 2.22	25.0	2.42	2.30 - 2.53	19.3	2.51	2.39 - 2.63	18.2	8
7	1.81	1.67 - 1.94	19.5	2.18	2.06 - 2.29	16.0	2.26	2.14 - 2.38	12.9	7
6	1.53	1.40 - 1.66	14.6	1.94	1.82 - 2.05	10.3	2.01	1.89 - 2.13	9.4	6
5	1.26	1.12 - 1.39	9.6	1.70	1.58 - 1.81	8.8	1.76	1.64 - 1.88	7.1	5
4	0.98	0.84 - 1.11	4.5	1.46	1.34 - 1.57	6.4	1.51	1.39 - 1.63	6.1	4
3	0.70	0.56 - 0.83	3.7	1.22	1.10 - 1.33	3.9	1.26	1.14 - 1.38	4.3	3
2	0.43	0.29 - 0.55	0.8	0.98	0.86 - 1.09	2.3	1.01	0.89 - 1.13	2.4	2
1	0.15	0.01 - 0.28	0.2	0.74	0.62 - 0.85	1.2	0.76	0.64 - 0.88	1.6	1
0		< 0.01*	0.0*	0.50	< 0.62	0.6	0.51	< 0.64	1.0	0

The mean value of HLA in the 5-6 age band is 2.64 (range: 2.51-2.77; the corresponding percentile is 44%, meaning 56% of the standardization sample of 5-6 year olds had higher Home Living scores than the group mean (i.e., highersupport needs).

4. Standardization

❑ **Home Living Activities Frequency Distribution within Age Bands**

5 - 6 — 43.7%

7 - 8 — 42.9%

9 - 10 — 45.4%

11 - 12 — 46.3%

13 - 14 — 45.8%

15 - 16 — 48.3%
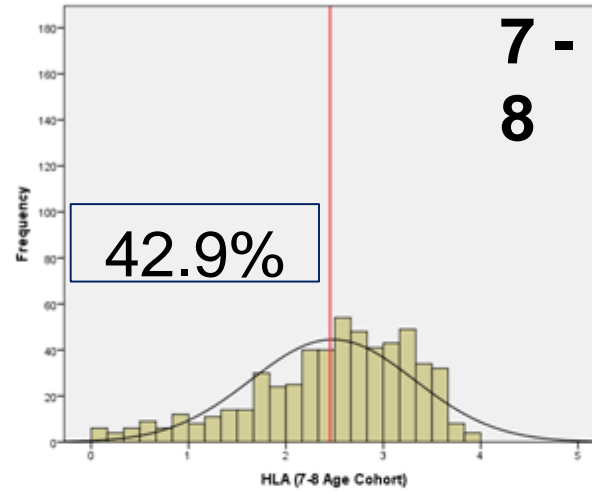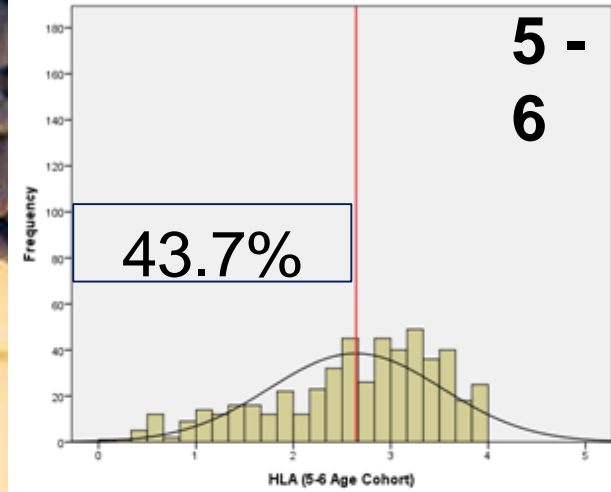
4. Standardization

❑ Composite Standard Scores and Percentiles

An average of SIS subtest scores of 2.65 in the 15-16 age cohort would convert to a SIS Support Needs Index of 100.

The mean of composite support need score in the 15-16 age cohort is 2.65; the corresponding percentile is 46%, meaning 54% of the standardization sample had higher support needs than the group mean.

Total stand. score	Z score	13-14 Cohort		15-16 Cohort	
		Raw Score	PR	Raw Score	PR
119		3.73	95.1	3.68	91.6
118		3.69	92.6	3.63	87.9
117		3.64	90.0	3.58	85.6
116		3.59	86.3	3.52	83.2
115	1	3.54	82.7	3.47	81.3
114		3.49	80.7	3.41	79.1
113		3.45	78.0	3.36	76.2
112		3.40	76.0	3.30	73.9
111		3.35	73.6	3.25	71.3
110		3.30	70.1	3.20	69.4
109		3.26	66.1	3.14	66.9
108		3.21	62.0	3.09	64.5
107		3.16	58.2	3.03	63.7
106		3.11	55.2	2.98	59.8
105		3.07	53.3	2.92	56.7
104		3.02	51.0	2.87	54.2
103		2.97	48.3	2.82	51.8
102		2.92	47.2	2.76	50.1
101		2.88	44.0	2.71	48.5
100	0	2.83	42.1	2.65	46.2
99		2.78	40.2	2.60	43.5
98		2.73	37.7	2.54	41.3

Home Life	Commu-nity & Neigh-borhood	School Partici-pation	School Learning	Health & Safety	Social	Advocacy	SIS—C Support Needs Index
16	16	16	16	16	16	16	124 or more
15	15	15	15	15	15	15	120–123
14	14	14	14	14	14	14	116–119
13	13	13	13	13	13	13	112–115
12	12	12	12	12	12	12	108–111
11	11	11	11	11	11	11	104–107
10	10	10	10	10	10	10	100–103
9	9	9	9	9	9	9	96–99
8	8	8	8	8	8	8	92–95
7	7	7	7	7	7	7	88–91
6	6	6	6	6	6	6	84–87
5	5	5	5	5	5	5	80–83
4	4	4	4	4	4	4	76–79
3	3	3	3	3	3	3	72–75
2	2	2	2	2	2	2	68–71
0–1	0–1	0–1	0–1	0–1	0–1	0–1	67 or less

Figure 2.4. Scoring section 2: SIS—C support needs profile

Thank You!