

Inverting BASC-4 Teacher Rating Scales, Parent Rating Scales, and Self-Report of Personality *T* Scores

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The Behavior Assessment System for Children (4th ed.; BASC-4) is a multimethod, multidimensional system used to evaluate the behavior and self-perceptions of children and adolescents. According to a recent survey, 90% of school psychologists use the BASC rating scales when evaluating children and adolescents in an educational setting (Benson et al., 2019). Both the Teacher Rating Scales (TRS) and the Parent Rating Scales (PRS) ranked first and third, respectively, in usage per month by survey participants using targeted assessment instruments.

One reason for the popularity of the BASC-4 rating scales is the breadth of information they can provide for a variety of behavioral and emotional disorders and areas of concern, including such developmental disorders as attention-deficit/hyperactivity disorder, autism spectrum disorder, developmental delay, as well as conduct disorder, anxiety, depression, and a variety of other areas. The BASC-4 TRS and PRS offer clinical and adaptive scales. Clinical scales measure maladaptive behavior with high scores representing negative or undesirable characteristics. Examples of such scales on the BASC-4 include Aggression, Hyperactivity, Attention Problems, and Depression. Adaptive scales measure constructs that are often associated with developmental delays with high scores indicating behavioral strengths that represent positive or desirable characteristics. Examples of these BASC-4 scales include Adaptability, Functional Communication, and Social Skills.

BASC-4 TRS and PRS scales provide raw scores and *T* scores with the latter being based on a sample that is closely matched to the 2023 U.S. population demographics, including race/ethnicity, parent education level, and geographic location. *T* scores are standard scores with a mean of 50 and a standard deviation of 10. Thus, a score of 80 indicates a person's score is 3 *SDs* above the norm-group mean, and a *T* score of 30 is 2 *SDs* below the mean. Additional information on scale scores and interpretation can be found in the *BASC-4 Manual* (Reynolds & Kamphaus, 2026). Standard scores are considered interval scales meaning the scaling properties used are based on a scale with equal units. For example, the difference between adjacent units on a scale from 70 to 71 is the same as the difference between 39 and 40. This allows interval-level data to be manipulated using standard mathematical operations (Reynolds et al., 2021).

The inclusion of both clinical scales (where high scores indicate more problematic functioning levels) and adaptive scales (where low scores indicate more problematic functioning levels) is an interpretive strength of the BASC-4, providing scores scaled in the direction that makes them easier to understand and interpret by both clinicians and parents. Traditionally in psychology, high scores on personality and behavioral constructs represent the presence of behavioral deficiencies and clear deficits in development. However, there are times when the scaling direction necessitates change because of the situation in which the scales are being used. For example, in the calculation of the Emotional Symptoms Index (ESI) on the Self-Report of Personality, the adaptive scales Self-Esteem and Self-Reliance must be converted (or *reversed*) before they can be summed with the four other clinical scale scores that form the ESI score (see the *BASC-4 Manual* for detailed information on the calculation of the ESI).

Other situations might also require the conversion of BASC-4 TRS, PRS, or SRP *T* scores. For example, some situations might call for the use of functional delays/deficits that are expressed in terms of performance *below* a population mean rather than approaches that rely on the score elevations above a population mean to indicate performance deficiencies. In such cases, Table 1 can be used to convert BASC-4 *T* scores for interpretation of the scale in the opposite direction. The maximum normative range of BASC-4 clinical and clinical composite scale *T* scores is 20–120; the maximum range of BASC-4 adaptive and adaptive composite scale *T* scores is 10–100. However, most individual scales have a smaller range than that (e.g., 30–110 for clinical scales and 10–80 for adaptive scales; see *the Behavior Assessment System for Children* (4th ed.)

Normative Supplement (NCS Pearson, 2026) for a complete listing of the general norms). The values in Table 1 represent the most common conversion scores for all BASC-4 TRS, PRS, and SRP clinical and adaptive scales. To find the inverted *T*-score value of a BASC-4 scale, find the value that corresponds to the obtained *T* score.

Table 1. Inversion Values of BASC-4 TRS, PRS, and SRP Scale *T* Scores

Obtained <i>T</i> score	Inverted <i>T</i> score	Obtained <i>T</i> score	Inverted <i>T</i> score	Obtained <i>T</i> score	Inverted <i>T</i> score
90 or above	10	59	41	29	71
89	11	58	42	28	72
88	12	57	43	27	73
87	13	56	44	26	74
86	14	55	45	25	75
85	15	54	46	24	76
84	16	53	47	23	77
83	17	52	48	22	78
82	18	51	49	21	79
81	19	50	50	20	80
80	20	49	51	19	81
79	21	48	52	18	82
78	22	47	53	17	83
77	23	46	54	16	84
76	24	45	55	15	85
75	25	44	56	14	86
74	26	43	57	13	87
73	27	42	58	12	88
72	28	41	59	11	89
71	29	40	60	10	90
70	30	39	61		
69	31	38	62		
68	32	37	63		
67	33	36	64		
66	34	35	65		
65	35	34	66		
64	36	33	67		
63	37	32	68		
62	38	31	69		
61	39	30	70		
60	40				

After using Table 1 to invert *T* scores, different guidelines must be followed for interpretation. Low inverted scores (e.g., 1 *SD*, 2 *SDs*, or more below the mean) on BASC-4 clinical and clinical composite scales represent delays in the development of normal behavioral patterns and behavior skills that are problematic for a child. (See Table 2 for interpretation descriptions for inverted BASC-4 clinical and clinical composite scales.) Low inverted scores on BASC-4 adaptive and adaptive composite scales represent behavioral strengths for a child. (See Table 3 for interpretation descriptions for inverted BASC-4 adaptive and adaptive composite scales.) For a listing of BASC-4 clinical and adaptive scales, see Table 4.

Table 2. Interpretation of BASC-4 Inverted *T* Scores: Clinical and Clinical Composite Scales

BASC-4 clinical scales	Inverted <i>T</i> -score range
Clinically Significant	30 and below
At-Risk	31–40
Average (no problem indicated)	41–59
Low (no problem indicated)	60–69
Very Low (no problem indicated)	70 and above

Table 3. Interpretation of BASC-4 Inverted *T* Scores: Adaptive and Adaptive Composite Scales

BASC-4 adaptive scales	Inverted <i>T</i> -score range
Very High (no problem indicated)	30 and below
High (no problem indicated)	31–40
Average (no problem indicated)	41–59
At-Risk	60–69
Clinically Significant	70 and above

Only use Tables 2 and 3 with BASC-4 *T* scores that have been inverted. *T* scores that have not been inverted should follow the interpretation criteria presented in Table 2.2 of the *BASC-4 Manual*.

Table 4. List of BASC-4 Clinical and Adaptive Scales

BASC-4 clinical scales	BASC-4 adaptive scales
<u>Composite scales</u> Behavioral Symptoms Index Emotional Symptoms Index Externalizing Problems Inattention/Hyperactivity Internalizing Problems School Problems	<u>Composite scales</u> Adaptive Skills Personal Adjustment
<u>Primary scales</u> Aggression Alcohol Use Anxiety Attention Problems Attitude to School Attitude to Teachers Atypicality Conduct Problems Depression Hyperactivity Learning Problems School Maladjustment Sensation Seeking Sense of Inadequacy Social Stress Somatization Withdrawal	<u>Primary scales</u> Activities of Daily Living Adaptability Functional Communication Interpersonal Relations Leadership Relations With Parents Self-Esteem Self-Reliance Social Skills Study Skills
<u>Content scales</u> Anger Control Bullying Developmental Social Disorders Emotional Dysregulation Executive Functioning Mania Negative Emotionality Test Anxiety	<u>Content scales</u> Resiliency Ego Strength Empathy/Caring
<u>Clinical indexes</u> ADHD Probability Index ASD Probability Index Clinical Probability Index ED Probability Index Functional Impairment Index	
<u>EDQ scales</u> EDQ 1 EDQ 2 EDQ 3 EDQ 4 EDQ 5	

References

- Benson, N. F., Floyd, R. G., Kranzler, J. H., Eckert, T. L., Fefer, S. A., & Morgan, G. B. (2019). Test use and assessment practices of school psychologists in the United States: Findings from the 2017 National Survey. *Journal of School Psychology, 72*, 29–48. <https://doi.org/10.1016/j.jsp.2018.12.004>
- NCS Pearson. (2026). *Behavior Assessment System for Children* (4th ed.) *normative supplement*.
- Reynolds, C. R., Altmann, R. A., & Allen, D. N. (2021). Neuropsychological testing. In *Mastering modern psychological testing: Theory and methods* (2nd ed.; pp. 499–541). Springer. <https://doi.org/10.1007/978-3-030-59455-8>
- Reynolds, C. R., & Kamphaus, R. W. (2026). *Behavior Assessment System for Children* (4th ed.). NCS Pearson.