

The Spiritual Intelligence Self-Report Inventory (SISRI) Psychometric Scale Development and Preliminary Testing

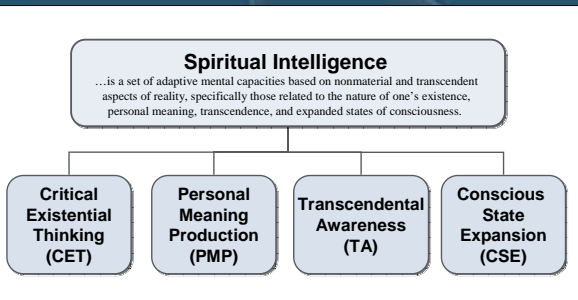


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Abstract

A definition and model of spiritual intelligence have recently been proposed which satisfy traditional criteria for intelligence (see below). The purpose of the current study was to develop a self-report measure of this spiritual ability set. An original pool of 84 items was developed and tested in a sample of 619 university undergraduates. Internal consistency was found to be high. An exploratory factor analysis revealed 4 factors closely resembling the 4 proposed capacities of spiritual intelligence, supporting the model. Problematic items were removed from the original pool, resulting in a more stable 42-item Spiritual Intelligence Self-Report Inventory (SISRI). Future studies will examine construct validity and additional indicators of reliability.



Purpose of this Study

The purpose of this study was two-fold: (1) to develop a self-report measure of spiritual intelligence and (2) to test the model's factor structure. Although some authors have claimed that spiritual intelligence cannot be quantified using self-report measures (e.g., Emmons, 2000a; Wolman, 2001; Zohar & Marshall, 2000), others (e.g., Halama & Striznec, 2004) claim that pre-existing measures of spirituality are already tapping aspects of spiritual intelligence. Recently, two other scales have been proposed (Amram & Dryer, 2007; Nasel, 2004), but it is argued that these are less direct/valid measures of spiritual intelligence.

Scale Development

- Accurate conceptualization and operationalization of target construct based on the above model of spiritual intelligence.
- Original pool of 84 items developed based on theoretical conception.
- 5-point likert scale, from "Not at all true of me" to "Completely true of me."
- Included 13 reverse-coded items.
- Original item pool reviewed by 30 students and professors for readability.

Sample Characteristics

- 619 university students enrolled in undergraduate psychology courses.
- 488 females, 131 males
- Age Range: 17 to 59 years
- Mean Age = 22.53 years (SD = 5.5)
- All participants responded to the preliminary 84-item pool.
- Cases with missing data were deleted.

Results & Analyses

- Response distributions relatively normal (item means close to median response of 2). Skewness and kurtosis low for each item (problem items later removed).
- Inter-Item Correlations all below .80, indicating low redundancy of items.
- Cronbach's Alpha (internal reliability): .97 for all 84 original items.
- Multivariate Skewness: -.02; Multivariate Kurtosis: .02

Exploratory Factor Analysis (EFA)

Table 1. Factor loadings for select items.

Item	F1	F2	F3	F4	F5	F6
Item 1	0.58	0.19	0.08	-0.05	0.21	0.19
Item 2	0.43	0.22	0.25	0.19	0.10	-0.02
Item 3	0.46	0.24	0.19	0.19	0.83	-0.01
Item 4	0.21	0.82	0.26	0.24	0.30	-0.23
Item 5	0.71	0.14	0.09	-0.02	0.24	-0.11
Item 6	0.12	0.17	0.28	0.44	0.22	0.07
Item 7	0.75	0.08	-0.06	0.02	0.13	-0.01
Item 11	0.16	0.19	0.16	0.17	0.60	0.08
Item 17	0.50	0.17	0.04	0.10	0.15	0.42
Item 19	0.12	0.74	0.03	0.11	0.22	0.13
Item 22	0.04	0.89	-0.02	0.11	0.25	0.09
Item 25	0.27	0.31	0.15	0.50	0.33	0.04
Item 26	0.62	0.10	0.06	0.04	0.05	-0.12
Item 28	0.19	0.64	-0.01	0.13	0.31	0.15
Item 29	0.15	0.24	0.08	0.17	0.87	0.03
Item 31	0.23	0.62	0.13	0.08	0.26	0.22
Item 33	0.02	0.30	0.14	0.67	0.10	-0.04
Item 34	0.14	0.66	0.02	0.14	0.14	-0.13
Item 35	0.08	0.17	0.42	-0.01	0.47	-0.22
Item 36	0.22	0.35	0.07	0.13	0.58	0.00
Item 37	0.72	0.15	-0.07	0.11	0.09	0.01
Item 38	0.53	0.30	0.06	0.39	0.23	-0.03
Item 39	0.59	0.24	0.07	0.10	0.22	0.07
Item 42	0.15	0.75	0.08	0.21	0.24	-0.08
Item 43	0.23	0.74	0.03	0.14	0.18	-0.06
Item 46	0.16	0.13	0.14	0.83	0.87	-0.02
Item 47	0.11	0.71	-0.04	0.16	0.09	-0.04
Item 48	0.31	0.31	0.09	0.63	0.19	-0.10
Item 54	0.23	0.25	0.10	0.21	0.83	0.08
Item 55	0.15	0.71	0.02	0.21	0.27	0.04
Item 56	0.16	0.24	0.07	0.67	0.06	-0.04
Item 59	0.74	0.10	-0.03	0.19	0.17	0.07
Item 63	0.23	0.34	0.10	0.22	0.82	0.03
Item 65	0.10	0.76	-0.07	0.17	0.16	0.13
Item 70	0.53	0.07	-0.11	0.12	0.16	0.13
Item 74	0.16	0.20	0.12	0.56	0.30	0.03
Item 78	0.45	0.24	0.11	0.21	0.21	0.01
Item 79	0.20	0.29	0.04	0.22	0.81	0.05
Item 80	0.18	0.21	0.08	0.14	0.85	0.04
Item 81	0.09	0.06	-0.03	0.50	0.28	0.19

Item / Factor Retention

- Factors 1, 2, 4, and 5 were retained, as these corresponded to the 4 proposed components of spiritual intelligence (CET, CSE, PMP, and TA, respectively).
- Factor 3 was removed, as all significant loadings were reverse-coded items. Due to apparent instability of these items, 12 of 13 reverse-coded items were removed.
- Factor 6 was removed, having only 3 significant yet theoretically unrelated items.
- In total, 42 items were retained for the final version of the SISRI.

Final Version of the SISRI



- Reduced pool of 42 items (CET x 12, PMP x 9, TA x 10, CSE x 11).
- Time commitment: 15-20 minutes.
- Provides a Total Spiritual Intelligence score, four subscale scores for CET, PMP, TA, and CSE, and a theoretical subscale of adaptive application.



Properties of the Reduced Item Pool

- Cronbach's Alpha: .95 for all items, .88 for CET, .87 for PMP, .89 for TA, and .96 for CSE.
- Average Inter-Item Correlation: .36 (between .35 and .60 for each subscale).
- EFA reveals 4-factor structure for reduced pool.

Discussion

- Proposed model of spiritual intelligence was well-supported by this study.
- Subscales from final item pool were moderately intercorrelated (.52 to .67), supporting intelligence theory (i.e., an intelligence should comprise moderately interrelated capacities).
- Contemplating meaning/purpose is distinct from deriving meaning/purpose.
- Awareness of interconnectedness may be an 'epi-capacity' evolving from high transcendental awareness and high personal meaning production.

What's Next?

- Confirmatory factor analysis in a second sample of 200-300 participants.
- Construct validity by relating SISRI to measures of spirituality, spiritual well-being, meaning, mystical experiences, life satisfaction, emotional intelligence, IQ, and intrinsic/extrinsic religiosity.
- Testing the utility of the SISRI in a community-dwelling sample of adults and in samples of individuals expected to be high in spiritual intelligence (e.g., Buddhist monks, TM groups, nuns).

References

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Table 2. Eigenvalues and variance.

Factor	Eigenvalue	Explained Variance	% of Total Variance
Factor 1	27.72	8.01	33.00
Factor 2	4.57	12.96	5.45
Factor 3	4.15	4.17	4.94
Factor 4	2.97	9.72	3.90
Factor 5	1.99	8.64	2.37
Factor 6	1.67	2.17	1.99

Figure 1. Scree plot of eigenvalues.

