



Science Process Skills Inventory (SPSI)

Preliminary psychometric testing completed in August 2007.

1. Principle component analysis using a promax rotation indicated consistency with a single factor solution for the scale.
2. Cronbach's Alpha calculated pre-program/post-program with middle schools students (n = 59) revealed coefficients of .84 and .94 respectively. Split-half reliability (Spearman-Brown) was .93

	Never	Sometimes	Usually	Always
1. I can use scientific knowledge to form a question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I can ask a question that can be answered by collecting data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I can design a scientific procedure to answer a question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I can communicate a scientific procedure to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I can record data accurately	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I can use data to create a graph for presentation to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I can create a display to communicate my data and observations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I can analyze the results of a scientific investigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I can use science terms to share my results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I can use models to explain my results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I can use the results of my investigation to answer the question that I asked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>