MAKING MEASUREMENT MEANINGFUL!

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Which of these psychological inventories would most likely provide you with statistically-usable information?

a. Form A   **c. Form C**

b. Form B   **d. All are okay.**

Sample question . . . Do you do your best to learn in school?

Form A: **Strongly**   **Strongly**
              Agree   Agree   Neutral   Disagree   Disagree
              I_____I_____ I_____I_____I_____I

Form B: **Strongly**   **Strongly**
              Agree   Agree   Disagree   Disagree
              I_____I_____ I_____I_____I

Form C: **Strongly Agree I__I__I__I__I__I Strongly Disagree**

N "Nominal"   Ice cream flavors
O "Ordinal"   Ranks
I   "Interval"   Equal-interval
R "Ratio"   Same with true "0"!

_____

Therefore, only Form C provides data that are "INTERVAL" in nature, which means that such data can be added, subtracted, multiplied and/or divided.

_____

Form A provides "Nominal" data. Why?

Form B provides "Ordinal" data. Why?

What about "Ratio" data? What can you do with them?

If you are using PARAMETRIC statistics (e.g., t-tests, AOV's), you must use "interval" or "ratio" types of measurement. Why?

If, however, you are using "nominal" or "ordinal" types of measurement you should use NONPARAMETRIC statistics (e.g., chi square, point biserial correlation coefficient) instead.

To do otherwise, you would be violating the basic assumptions upon which parametric statistics are based.

The problem is that with NOMINAL and ORDINAL data you can't use parametric statistics since they <u>shouldn't</u> be added,

subtracted, multiplied or divided. To do so, you must have "interval" or "ratio" data, for which such procedures are commonly used.

BOTTOM LINE: If you use statistical procedures that require adding, subtracting, multiplying, &/or dividing, PARAMETRIC statistical procedures are required. Otherwise, NONPARAMETRIC statistic procedures would be more appropriate instead.

Notably, IF parametric methods are employed, on data that are either nominal or ordinal in nature, the conclusions may <u>not</u> be well-founded. Why might this be so?

Consider this:

Subject #1 selects 4 neutral responses worth 3 points each. What's his/her score? _____

In contrast, Subject #2 selects two responses worth 2 points each and two other responses worth 4 points each. What is his/her score? _____

Do these scores really say the same thing, as their totals suggest, or are they compromised because we're comparing different things, but simply treating them the same because we are applying the same numbers to them, in a very illogical way!

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How can we do it better?

Always use measurements that would come up with much more accurate and logical conclusions. See the following:

See **the Personal Attribute Inventory**
See **Ratings of Students' Classroom-**
     Related Behavior
See **Leadership Rating Scale**
See **Teacher Connectedness Survey**

How do they do it better?

The Personal Attribute Inventory

Read through this list and select exactly 30 words that seem to be typical of <u>you</u> <u>as you are right now.</u> Indicate your selection by placing an X in the space next to each word.

☐ Active	☐ Healthy	☐ Resourceful
☐ Affectionate	☐ Helpful	☐ Rude
☐ Alert	☐ Hostile	☐ Self-centered
☐ Appreciative	☐ Humorous	☐ Self-confident
☐ Awkward	☐ Imaginative	☐ Self-controlled
☐ Bitter	☐ Impatient	☐ Self-pitying
☐ Calm	☐ Industrious	☐ Selfish
☐ Careless	☐ Initiator	☐ Shallow
☐ Cheerful	☐ Intolerant	☐ Shiftless
☐ Clear-thinking	☐ Inventive	☐ Show-off
☐ Complaining	☐ Irresponsible	☐ Sincere
☐ Conceited	☐ Irritable	☐ Slipshod
☐ Confident	☐ Jolly	☐ Snobbish
☐ Confused	☐ Kind	☐ Spineless
☐ Conscientious	☐ Mannerly	☐ Stable
☐ Cooperative	☐ Masculine	☐ Steady
☐ Cowardly	☐ Nagging	☐ Stingy
☐ Cruel	☐ Natural	☐ Strong
☐ Deceitful	☐ Obnoxious	☐ Sulky
☐ Dependable	☐ Organized	☐ Sympathetic
☐ Despondent	☐ Original	☐ Tactful
☐ Determined	☐ Patient	☐ Tactless
☐ Energetic	☐ Pleasant	☐ Thankless
☐ Fair-minded	☐ Poised	☐ Tolerant
☐ Fickle	☐ Prejudiced	☐ Touchy
☐ Foolish	☐ Progressive	☐ Trusting
☐ Foresighted	☐ Quarrelsome	☐ Undependable
☐ Forgetful	☐ Queer	☐ Understanding
☐ Gloomy	☐ Quitting	☐ Unfriendly
☐ Good-natured	☐ Rational	☐ Unintelligent
☐ Greedy	☐ Rattlebrained	☐ Unkind
☐ Handsome	☐ Relaxed	☐ Warm
☐ Hasty	☐ Resentful	☐ Weak
		☐ Whiny

The Personal Attribute Inventory

Read through this list and select exactly 30 words that would be typical of **you as you would like to be ("the ideal you")**. Indicate your selection by placing an X in the appropriate space next to each word.

☐ Active	☐ Humorous	☐ Selfish
☐ Affectionate	☐ Imaginative	☐ Shallow
☐ Alert	☐ Impatient	☐ Shiftless
☐ Appreciative	☐ Industrious	☐ Show-off
☐ Awkward	☐ Initiator	☐ Sincere
☐ Bitter	☐ Intolerant	☐ Slipshod
☐ Calm	☐ Inventive	☐ Snobbish
☐ Careless	☐ Irresponsible	☐ Spineless
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☐ Good-natured	☐ Resentful	
☐ Greedy	☐ Resourceful	
☐ Handsome	☐ Rude	
☐ Hasty	☐ Self-centered	
☐ Healthy	☐ Self-confident	
☐ Helpful	☐ Self-controlled	
☐ Hostile	☐ Self-pitying	

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RATING of STUDENTS' CLASSROOM-RELATED BEHAVIORS
Thomas S. Parish & Joycelyn G. Parish

1. How often do you treat your teachers with respect?

   Never I___I___I___I___I___I___I Always

2. How often do you do your best to learn?

   Never I___I___I___I___I___I___I Always

3. How often do you work cooperatively with others?

   Never I___I___I___I___I___I___I Always

4. How often do you treat other students with respect?

   Never I___I___I___I___I___I___I Always

5. How often are you happy at school?

   Never I___I___I___I___I___I___I Always

Your gender: ___
Your grade:___
Your age: ___

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The Leadership Rating Scale

Kindly rate yourself on the following scale. Note: a rank of 1 = <u>Not at all</u> or <u>Never</u>, while a rank of 5 = <u>Always</u>. Thank you for your participation in this study. It's greatly appreciated.

Likable   I_1_I_2_I_3_I_4_I_5_I

Enthusiastic   I_1_I_2_I_3_I_4_I_5_I

Able-Minded   I_1_I_2_I_3_I_4_I_5_I

Diligent   I_1_I_2_I_3_I_4_I_5_I

Eager   I_1_I_2_I_3_I_4_I_5_I

Reliable   I_1_I_2_I_3_I_4_I_5_I

Sincere   I_1_I_2_I_3_I_4_I_5_I

Humane   I_1_I_2_I_3_I_4_I_5_I

Innovative   I_1_I_2_I_3_I_4_I_5_I

Patient   I_1_I_2_I_3_I_4_I_5_I

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TEACHER CONNECTEDNESS SURVEY

Thomas S. Parish & Joycelyn G. Parish

1. Did you show _____ that you care for her/him?   Never I___I___I___I___I___I Always

2. Did you appreciate the good work done by _____?   Never I___I___I___I___I___I Always

3. Did you give _____choices rather than ultimatums? Never I___I___I___I___I___I Always

4. Did you help _____ to like herself/himself?   Never I___I___I___I___I___I Always

5. Did you strive to help _____ succeed?   Never I___I___I___I___I___I Always

6. Did you present material that was compatible with
    _____'s learning style?   Never I___I___I___I___I___I Always

7.   Did you strive to be fair and helpful to _____?   Never I___I___I___I___I___I Always

8. Did you make a special effort to involve _____'s
    family members in her/his education?   Never I___I___I___I___I___I Always

9. Did you seek to provide _____ with a safe, nurturing
    and supportive environment for her/him?   Never I___I___I___I___I___I Always

10. Did you encourage _____'s involvement in
    school-related activities and organizations?   Never I___I___I___I___I___I Always

11. Did you demonstrate to _____ a positive attitude
    about being a teacher?   Never I___I___I___I___I___I Always

12. Do you experience the "joy of teaching" even when
    placed in challenging situations?   Never I___I___I___I___I___I Always

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Psychological Assessment Scales Developed by Thomas S. Parish and Associates

Personal Attribute Inventory (1976) 50 + adjectives/50 - adjectives. Check 30

Revised Personal Attribute Inv. (1993) 40 + adjectives/40 - adjectives. Check 20

Pres. Attr. Inv. for Child. (1978). 24 +adjectives/24- adjectives. Check 15

Nonsexist Pers. Attrib. For Child. (1982). 16 + adjectives/16 – adjectives. Check 10

Love/Hate Checklist (1988). 45 Loving adverbs/45 Hateful adverbs. Check 25

Love/Hate Chklt for Children (1993). 40 + adjectives/40 - adj. Check 20

Revised Love/Hate Checklist (1993) 20 Loving adverbs/20 Hateful adverbs. Check 10

Personal History Inventory for Children (1985) 14 Q's   Check nonfunctional systems

Personal History Inventory (1991) 14 Q's   Check nonfunctional systems.

Potential Dropout Checklist (1993). 20 items that list at-risk behaviors. All that apply.

Symptoms/Signs of Stress Scale (1986). Assesses signs and symptoms of stress.

Personal History Health Survey (1988). Sixty-one items, check all that apply + freq.

The Time Management Checklist (2006). Ten Q's, sum all "No's."

"Helpful Hints for Teachers" Scale (2006). Twelve Q's, sum the "No's."

The "Right Stuff Scale." (2006). Twenty-eight Q's, sum "wrong stuff" responses.

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