

Quantitatively Measuring the Softer Outcomes of Giving Kids a World of Good

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presentation in order to benefit fully.**

The background features a soft, light-colored illustration of a mountain range in the distance and a willow tree with long, drooping branches on the right side. The overall tone is calm and contemplative.

*What are your
expectations?*

Why are you here?

Goals of the session

- ❖ Broad understanding of how scales are made
- ❖ Experience using a scale
- ❖ Broad overview of what actually makes a good measure
- ❖ Consideration of ethics
- ❖ Take away example scales and further information

I applaud you for being here

Outline

1. Scale construction and use
2. What makes a good measure?
3. Ethics

Realities / Caveats

- ❖ Part of a trilogy of sessions
 - How to seriously evaluate your outcomes
 - Measuring the softer outcomes
 - Process and implementation evaluation
- ❖ Can't tell you everything you need to know
- ❖ Evaluation is not quick, simple, or easy

What are we saying?

How a child answers a few questions (or others about the child) in an hour or less will predict the child's current and future psychological state and life and behavioral outcomes

How are scales constructed?

1. Scientists take the theoretical construct they are trying to capture with the scale and make up statements that reflect the concept
2. Several judges who are experts in the theory go over the statements and suggest some of their own
3. Scale is made and it is tested with several hundreds or thousands of people
4. Statistical Factor Analysis -- make clumps out of the statements. Eliminate items that don't contribute to scale factors
5. Assess test-retest reliability and, if applicable, interrater reliability
6. Obtain evidence of discriminate validity
7. Obtain evidence of predictive validity
8. Shorten scale as much as possible while retaining integrity

Example with social skills

❖ Step 1

Fill out two sections of the SSRS

Question numbers: 2, 3, 5, 7, 9, 10, 11, 13, 15, 16, 18, 19, 20, 22, 25, 27, 28, 30, 31, & 39

❖ Step 2

Compute sub-scale scores (add them up)

❖ Step 3

Examine interrater reliability and normative data

What's in the handout

Example scales provided

- ❖ Social skills rating system – Gresham & Elliot
assertiveness, responsibility, cooperation, self-control, & internalizing & externalizing behavior problems
- ❖ Friendship quality questionnaire – Parker & Asher
- ❖ Self-esteem – Piers-Harris
- ❖ Self-esteem – Add Health (AH)
- ❖ Future sense of self – (AH)
- ❖ Positive peer influence – Search Institute
- ❖ Social desirability (AH)
- ❖ General self-efficacy - Shure

Also in the handout

- ❖ Excerpt from standards
- ❖ Slide miniatures

In brief, what is validity and reliability?

❖ Valid

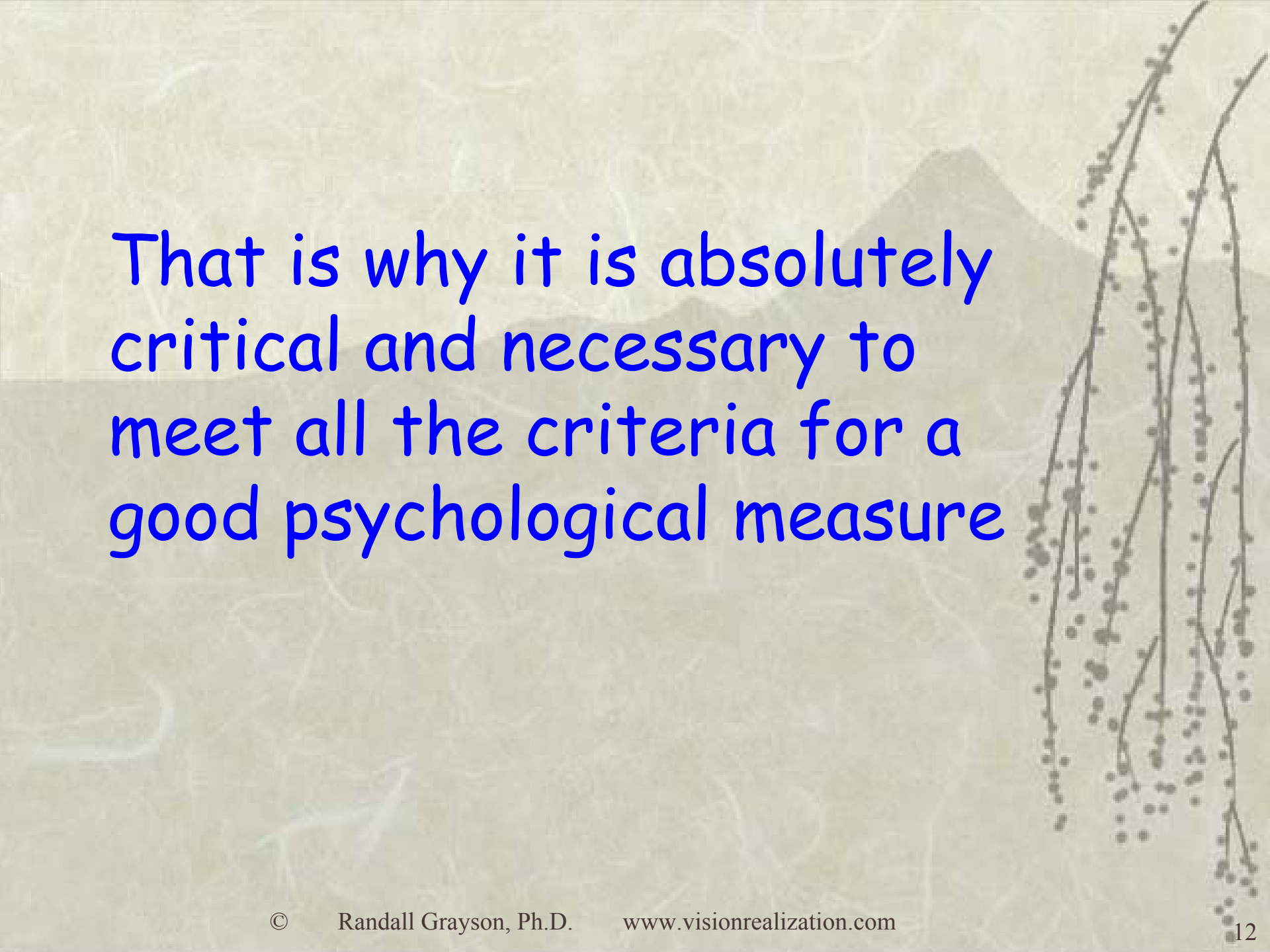
- What you are *attempting* to measure is what is *actually* being measured
- The assessment can discriminate between groups and predict future outcomes and behaviors

❖ Reliable

- When the outcome is assessed again in a short period of time, stable outcomes should remain largely the same (self-esteem), and unstable outcomes should vary (mood).
- Independent raters should come up with the same conclusion

Why is it so critical to have a scale that meets the exhaustive criteria?

- ❖ A consistent finding indicates that the number of summers of camp attendance and session length do not make a difference. While possible, it is puzzling to understand why five days is as good as eight weeks, or why one summer is as good as four or more across a host of outcomes
- ❖ Search Institute's massive survey of the 40 developmental assets leaves us with the quandary of concluding that either the vast majority of the assets contribute nothing toward avoiding negative behaviors, or that the survey is invalid
- ❖ Won't know the truth and need to really know what is actually going on to truly help your campers. Indeed, more harm than good may even be done.

The background features a light beige, textured surface. On the right side, there is a faint, stylized illustration of a mountain range in the distance and a willow tree with long, drooping branches in the foreground. The text is overlaid on the left side of the image.

That is why it is absolutely
critical and necessary to
meet all the criteria for a
good psychological measure

What exactly makes a good measure?

Questions quoted directly from “Methodological and psychometric considerations in child reports”

A. How was the test developed?

1. Did the test developers use widely accepted procedures, i.e., is it consistent with APA Standards?
2. Was the test sample(s) representative of the population you plan to use the test with?
3. Was the test developed on large enough samples?
4. Are the data for evaluating the test current?
5. Has the test been evaluated (and results published) by researchers other than the test developers?
6. Do test procedures reflect an appreciation for the unique characteristics of children (i.e., is the test age-appropriate)?

Measure criteria (2 of 2)

B. Is the test reliable?

1. Are indices of internal consistency high enough (coefficients above .80)?
2. Are scores stable overtime? Is the time span used to assess stability relevant to your purposes?
3. When interscorer or interobserver consistency is reported, are the reporters appropriate?
4. When more than one form of reliability is appropriate, are all relevant data reported?

Measure criteria (3 of 3)

C. Is the test valid?

1. In your opinion, do the test items measure what they are said to measure? **Content or Face validity**
2. Is the nature of the validity data consistent with your uses? If your research or clinical question is predictive, is the **predictive** validity of the measure reported?
3. When the test is designed to **discriminate** among groups, do test scores actually differ among group samples?
4. Are normative data reported? Are they relevant to the population you will use the test with?
5. Do test scores correlate with theoretically meaningful variables and are uncorrelated with theoretically irrelevant variables?
6. Has validity evidence been replicated, especially by someone other than the test developer?
7. Is evidence of **construct** validity reported? If so, is it persuasive?

Measure criteria (4 of 4)

D. How practical is the measure?

1. Can the child understand the test items?
2. Is the testing time within the attention span of the child?
3. Is the information to be provided within the child's abilities or experience to report? → Reading, cognitive, etc.
4. Will the child cooperate with test procedures? → Motivation & honesty
5. Is the measure sensitive to change? → Sensitive, sensitive to camp, and state versus trait
6. How reactive is the instrument?
7. Can responses be easily biased?
8. Does the quality of the data match the amount of effort to collect it?

Flanery (1990)

Measures

Issues

- ❖ Ability
 - Age
 - Ability to understand and complete
- ❖ Motivation
 - Boredom
 - Don't care
- ❖ Honesty
 - Social desirable responding
 - Attempts at deception

What to do

- Pick appropriate measures
- Adjust ages studied
- Check for consistency
- Sincerely ask for their help
- \$2 bill attached to survey
- Participation is a choice
- Positive and negative impression scale
- \$2

Three useful sources

American Educational Research Association (1999). Standards for educational and psychological testing. Washington, DC: American Educational Research Association

Flanery, R. C. (1990). Methodological and psychometric considerations in child reports. La Greca, A. M. Through the eyes of the child: Obtaining self-reports from children and adolescents. (pp. 57-82). Boston, MA: Allyn & Bacon, Inc.

Maruish, M. E. (1999). The use of psychological testing for treatment planning and outcome assessment. Hillsdale, NJ: Erlbaum.

Ethics and consent forms

❖ Participants

- Have the right to withdraw from the study without any duress or consequences
- Must be informed about the research project on the whole
- Need to understand their responsibilities
- Must be informed about if how their responses will be kept confidential
- Are given a realistic appraisal of the risks of participation
- Have impartial avenues to express their concerns

❖ Parents are not informed about their children's scale scores on psychometric measures and vice versa

❖ A review board assesses risk, gains, and worthiness

What is still often unknown

All of these apply for each outcome involved

- ❖ What are the processes involved?
- ❖ What is the magnitude of the effect?
- ❖ How many benefit?
- ❖ At camp, who does and does not benefit and why?

Age Ethnicity Gender Number of summers
Socioeconomic level Parenting style Family functioning
Parental education Number of siblings Level & type of participation (outputs)
Child's desire to go to camp Counselor group performance
Level on outcome Parental camp experience Very good school
Active in religious community Strong, positive peer group
Child is good match with type of camp Variability not captured by "Ethnicity"
Idiosyncratic experiences at camp Other individual or social traits

Unknown - Part II

All of these apply for each outcome involved

- ❖ Help any child or largely population served?

Needs assessment

- ❖ How long does the effect last?

- Two, four, twelve, or twenty weeks after camp?
- How would you tell an adult camper apart from a non-camper similar in every other way?

- ❖ Could the benefit be achieved cheaper and/or better elsewhere?

- Session length
- Type of programming
- Another intervention

Demographic variables

- ❖ Number of summers
- ❖ Length of attendance at camp
- ❖ Parental camp experience
- ❖ Desire to attend camp on 5 point Likert scale before camp and on last day
- ❖ Gender
- ❖ Ethnicity
- ❖ Height
- ❖ Weight
- ❖ Age
- ❖ Number of parents
- ❖ Socioeconomic status
- ❖ Levels on outcome variables – e.g., high, medium, or low on, for example, self-esteem?

Behavioral variables

- ❖ Antisocial behavior
- ❖ Violence
- ❖ Television and the media use
- ❖ Grades
- ❖ Detentions and formal reprimands
- ❖ Church attendance and related activities
- ❖ New interests or activities (frequency)
- ❖ Helpfulness (around house, community, etc.) frequency
- ❖ Tobacco
- ❖ Alcohol

List of outcomes

Cognitive

Emotional

Behavioral

- ❖ Appreciation of diversity
- ❖ Communal orientation
- ❖ Conflict resolution skills
- ❖ Creativity
- ❖ Hope & goals (future sense of self) / sense of purpose
- ❖ Environmental attitudes, awareness, and behaviors
- ❖ Leadership
- ❖ Locus of control
- ❖ Moral reasoning / character / ethics / values – e.g., six pillars framework: trust, citizenship, fairness, respect, responsibility, & caring
- ❖ Extroversion
- ❖ Problem solving / planning
- ❖ Emotional intelligence
(Assertiveness, responsibility, cooperation, self-control, emotional self-awareness, empathy, interpersonal relationships, social responsibility, problem-solving, reality testing, flexibility, stress tolerance, happiness, and optimism)
- ❖ Appropriate risk taking
- ❖ Receive positive attention / love / caring
- ❖ Fun
- ❖ General self-efficacy, independence, self-confidence
- ❖ Self-esteem / self-concept
- ❖ Self-discipline / delay gratification / restraint / impulse control / aka self-control
- ❖ Achievement motivation / success orientation
- ❖ Grades / cognitive development
- ❖ Behavior problems (externalizing and internalizing)
- ❖ Free-time activities at home
- ❖ Skill achievement or enhancement
- ❖ Friendship status (popular, neglected, rejected, controversial, average)
- ❖ Intergenerational relationships
- ❖ Health self-efficacy and behaviors
- ❖ Physical fitness

Spirituality

(Orients and gives meaning to our lives; Guidelines for living; Answer the question Why? for things like random nature of events, uncertainty of the future, and death)

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Questions & Discussion