

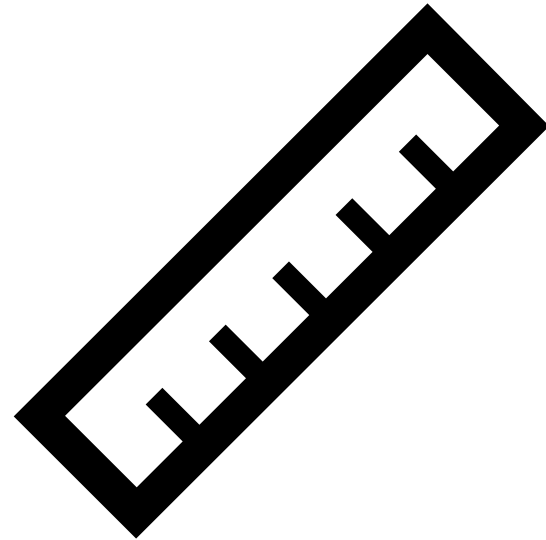
Critical multiplism

# Multiple operationalism

- *Operational definition*: defining something by how one measures it
- Student engagement - a multidimensional construct comprised of cognitive, behavioral, and emotional components that describes the energy, purpose, and durability that students invest in their academic work and their participation in school

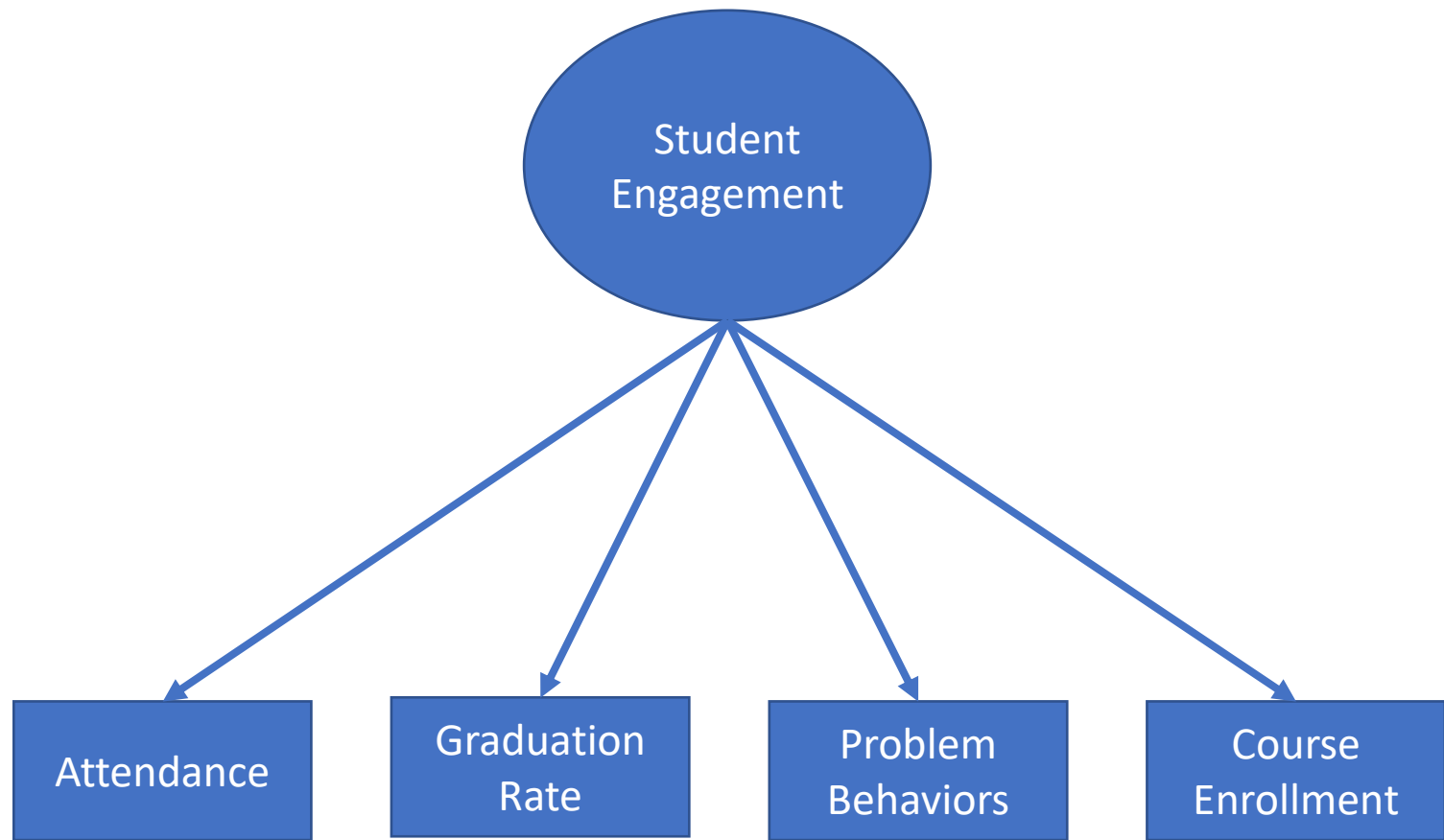
# Ex: Student Engagement

- How do we measure?
  - Student self-report
  - Teacher Ratings
  - Interviews/Focus groups
  - Behavioral observations
  - Administrative data
    - Attendance
    - Graduation Rates
    - Problem Behaviors
    - Course Enrollment



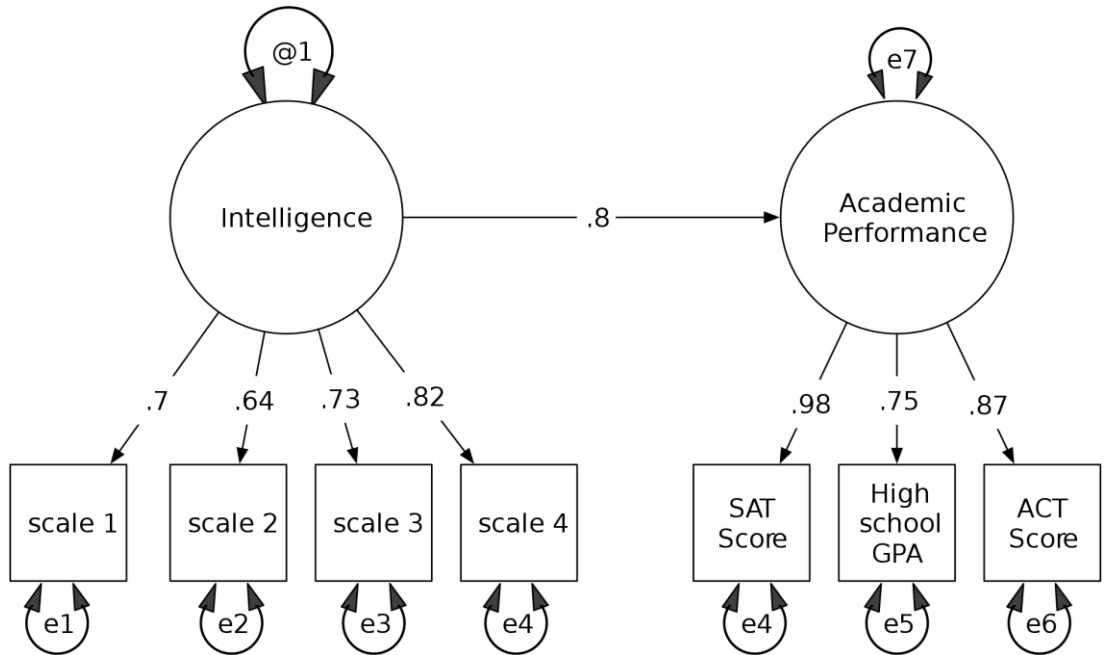


Student  
Engagement



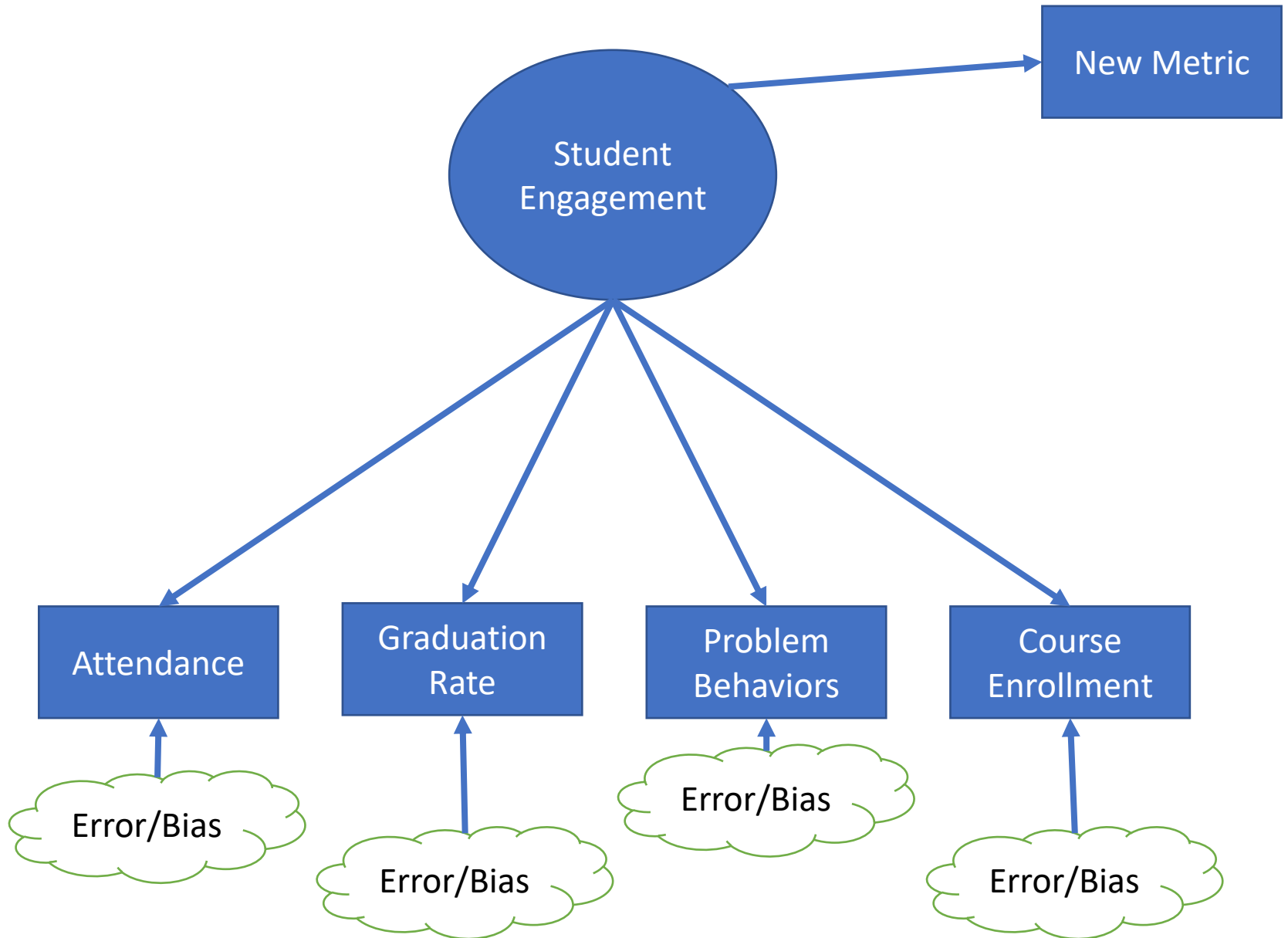
# Peeking at that construct

- Similar parallel models
- New combined metric
  - Ex: Index
- Fancy statistics
  - Latent Variable
  - SEM



Domain (Items, No.)	Statement
Extroversion (8)	Is talkative
	Is reserved
	Is full of energy
	Generates a lot of enthusiasm
	Tends to be quiet
	Has an assertive personality
	Is sometimes shy
	Is outgoing, sociable
Agreeableness (9)	Tends to find fault with others
	Is helpful and unselfish
	Starts quarrels with others
	Has a forgiving nature
	Is generally trusting
	Can be cold and aloof
	Is considerate and kind to almost everyone
	Is sometimes rude to others
Conscientiousness (9)	Likes to cooperate with others
	Does a thorough job
	Can be somewhat careless
	Is a reliable worker
	Tends to be disorganized
	Tends to be lazy
	Perseveres until the task is finished
	Does things efficiently
Neuroticism (8)	Makes plans and follows through
	Is easily distracted
	Is depressed, blue
	Is relaxed, handles stress well
	Can be tense
	Worries a lot
	Is emotionally stable, not easily upset
	Can be moody
Openness (10)	Remains calm in tense situations
	Gets nervous easily
	Is original, comes up with new ideas
	Is curious about many different things
	Is ingenious, a deep thinker
	Has an active imagination
	Is inventive
	Values artistic, aesthetic experiences
	Prefers work that is routine
	Likes to reflect, play with ideas
	Has few artistic interests
	Is sophisticated in art and literature

What about  
other types of  
data?





“The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor.”

~ Donald T. Campbell