

GROWTH CHART ACTIVITY

Directions: Use the first two pages of the “A Growth Chart for Student ‘Dan Normal.’” There are many instructive properties of this growth chart that help build an understanding about value-added. However, like most analogies/metaphors, it isn’t a perfect model that freely transfers to value-added. We’ll focus on the aspects that do generalize.

Key concepts: attainment, growth, growth rates, growth profiles, individual growth differences, group growth differences

- 1) Point out how the Growth Chart shows both
 - a) Attainment – the height realized at a certain age for a given prior stature
 - b) Growth – the amount of height change between two points of attainment
- 2) Ask participants to find the two following attainment levels for a given prior stature
 - a) What is the normal height of a child at the 50%-ile at his/her 10th birthday? **(54.5 inches)**
 - b) What is the normal height of a child at the 50%-ile at his/her 15th birthday? **(67 inches)**
 - c) What is the typical growth in height for a 50%-ile child between his/her 10th and 15th birthdays? **(12.5 inches)**
- 3) Ask participants to find the two following attainment levels for a given prior stature?
 - a) What is the normal height of a child at the 25%-ile at his/her 10th birthday? **(53 inches)**
 - b) What is the normal height of a child at the 25%-ile at his/her 15th birthday? **(65 inches)**
 - c) What is the typical growth in height for a 25%-ile child between his/her 10th and 15th birthdays? **(12 inches)**
- 4) What would be the analogous attainment levels for students in school?
(achievement scores on standardized tests)
- 5) What would be the analogous stature growth rates for students in school?
(learning rates between two learning attainments)
- 6) What would be analogous to “previous stature” groups for students in school?
(prior achievement groups)
- 7) What could we infer about a class or school if one of its students showed a learning growth rate significantly different than what would be expected from a learning growth profile generalizeable to this school?
Nothing. At the individual student level, student and/or school factors could be culpable for his/her departure from the expected growth rates
- 8) What could we infer about a class or school if its average student showed growth rates significantly different than what would be expected from a learning growth profile generalizeable to this school?
In this case, evidence would mount that something atypical is influencing the educational experiences of these students.
- 9) What kind of data did the CDC need to be able to realize the information portrayed on this growth chart?
Longitudinal growth data from across a large mass of people (many, many growth profiles).
(May want to illustrate what an individual growth profile would look like)