Leadership Self-Assessment Project

Data Explanation

* General notes
  + 4 students did not give consent for research use and were removed.
  + The variable names for reversed items contain an R at the end in *most* cases (I forgot to do this in some, as explained in R code)
  + Should impossibly quick responses be removed?
    - The cumulative time spent on the survey [cumTime] for one respondent was 411 sec, which is just under 7 minutes. I don't think it would be possible to read and respond to all questions in 7 minutes.
    - Should 15 or 20 min be set as a minimum amount of time spent on the survey?
* Demographics:
  + gender: 1 = male; 2 = female
  + prof: the prof they were taking the course with; there were four teachers teaching the course:
    - Jarman, Cotting, Mason, & Barber
  + rotc: branch in ROTC
  + major
    - These are generated from their records, so they well be listed in a consistent manner
  + gradYr: Year they'll be graduating
* Scales and individual items:
  + formalExp – How many formal leadership positions
    - 0-4 (none at all – very many)
  + informalExp – How many informal leadership positions
    - 0-4 (none at all – very many)
  + VMIbenefits
    - 0-4 (not at all – very much)
    - FL17 data doesn't contain this variable
  + VMItrain\_1-4: VMI Training Benefits
    - Instead of VMIbenefits (previous), which was a single-item question about how their leadership has benefitted from VMI training, the FL17 survey asked 4 items about how VMI training has benefitted their leadership.
    - 0-4 (Not at all – Very much)
  + val\_1-21: Values
    - You can ignore this. I just left it in here to keep all the data together in case I want to look at it in the future.
  + uh\_1-20: Unconditional Happiness Scale
    - range: 0-8 (never – always)
    - single factor scale – all items averaged together.
    - No reverse-coded items.
    - This is a scale some colleagues and I have been validating for a while. Any scale reliability analysis that you can run on this would be great. See analysis section at end of hypothesis document.
    - New items that may form a physical discomfort subscale: uh\_4, 8, 12, 18, 22 [uh\_22 was missing in SP17 data]
    - The SP17 survey accidentally cut off the last 5 items. The FL17 survey contains all 25. So uh\_21-25 are only in FL17
  + ili\_1-15: Identity Leadership Inventory
    - range: 1-7 (strongly disagree – strongly agree)
    - No reverse-coded items
    - average for total identity leadership score
    - subscales:
      * prototypicality: ili\_1, ili\_5, ili\_9, ili\_13
      * champion: ili\_2, ili\_6, ili\_10, ili\_14
      * entrepreneur: ili\_3, ili\_7, ili\_11, ili\_15
      * embedder: ili\_4, ili\_8, ili\_12
  + bfi\_1-44: Big Five Inventory (Personality)
    - Range: 1-7 (strongly disagree – strongly agree)
    - There ARE reversed items, indicated by R – be sure to address this when using scores.
    - Subscales (average for scores):
      * Extraversion: bfi\_1, bfi\_6R, bfi\_11, bfi\_16, bfi\_21R, bfi\_26, bfi\_31R, bfi\_36
      * Agreeableness: bfi\_2R, bfi\_7, bfi\_12R, bfi\_17, bfi\_22, bfi\_27R, bfi\_32, bfi\_37R, bfi\_42
      * Conscientiousness: bfi\_3, bfi\_8R, bfi\_13, bfi\_18R, bfi\_23R, bfi\_28, bfi\_33, bfi\_38, bfi\_43R
      * Neuroticism: bfi\_4, bfi\_9R, bfi\_14, bfi\_19, bfi\_24R, bfi\_29, bfi\_34R, bfi\_39
      * Openness: bfi\_5, bfi\_10, bfi\_15, bfi\_20, bfi\_25, bfi\_30, bfi\_35R, bfi\_40, bfi\_41R, bfi\_44
  + ffmq\_1-15: Five Factor Mindfulness Questionnaire
    - Range: 0 – 4 (Almost never – Almost always)
    - Reversed items denoted by R
    - Subscales:
      * Observing: ffmq\_1, ffmq\_6, ffmq\_11
      * Describing: ffmq\_2, ffmq\_7R, ffmq\_12
      * Acting with awareness: ffmq\_3R, ffmq\_8R, ffmq\_13R
      * Nonjudging: ffmq\_4R, ffmq\_9R, ffmq\_14R
      * Nonreactivity: ffmq\_5, ffmq\_10, ffmq\_15
    - It looks like past research calculates the subscores and total scores by summing the items. To calculate the total score, they just sum across all items (see Baer et al., 2012, p. 758). If it makes more statistical sense to do it differently, I'll leave that up to you.
      * Previous study found that Observing subscale should not be included in total, so DO NOT include Observing subscale
  + uh-vmi\_1-9: Unconditional Happiness Scale – VMI Version
    - Scale range: 0 – 8 (never – always)
    - Single factor, average all items (no revers-scored items)
    - This is a new scale, so any analyses that would get at its reliability would be good.
  + auth\_1-14: Authentic leadership scale
    - Scale range: 1 – 7 (strongly disagree – strongly agree)
    - No reverse-scored items
    - I can't find any discussion of how they went about creating the total authentic leadership score (e.g., averaging the subscales first and then averaging all of those averages together…)
    - Subscales:
      * Self-Awareness: auth\_4, auth\_7, auth\_11
      * Relational Transparency: auth\_1, auth\_8, auth\_12
      * Internalized Moral Perspective: auth\_2, auth\_5, auth\_9, auth\_13
      * Balanced Processing: auth\_3, auth\_6, auth\_10, auth\_14
  + grt\_1-8: Grit
    - scale range: 1 – 5 (Not like me at all – Very much like me)
    - Single factor
    - reversed items: grt\_1, grt\_3, grt\_5, grt\_6
  + leadChal\_1-13: Leading through Challenge Scale
    - scale range: 1 – 7 (strongly disagree – strongly agree)
    - No reversed items
    - Subscales:
      * Embracing: leadChal\_2, leadChal\_5, leadChal\_8, leadChal\_11
      * Functioning: leadChal\_1, leadChal\_4, leadChal\_7, leadChal\_10, leadChal\_13
      * Perseverance: leadChal\_3, leadChal\_6, leadChal\_9, leadChal\_12
    - If factor analysis supports this factor structure, calculate total score accordingly.
  + chalFreq: Number of times you've led groups of people in challenging situations.
    - Responses:
      * 0 = Never
      * 1 = Once
      * 2 = Twice
      * 3 = Three times
      * 4 = 4 or more times
  + sc-hw\_1R-10R: State Self-Control Capacity Scale (short 10-item version, see "State Self-Regulation & Scoring.pdf doc")
    - High score = high self-control and low ego-depletion (low cognitive fatigue)
    - Scale range: 0 – 8 (Never – Always)
    - Reversed items: ALL items reversed EXCEPT sc-hw\_4 & sc-hw\_8
  + dis\_1-6: Discomfort Intolerance Scale
    - Scale range: 1 – 9 (Not at all like me – Extremely like me)
    - Note that this scale measures discomfort INtolerance, so higher scores mean you are MORE INTOLERANT (i.e., less tolerant).
    - ~~There are reversed items: 1, 2, & 4~~ (my online survey numbered the items differently, hence the incorrect numbering)
    - Reversed items: 1, 3, 6
    - Subscales:
      * Discomfort intolerance: dis\_1R, dis\_2R
      * Discomfort avoidance: Items dis\_3, dis\_5, dis\_6
      * (Item 4 doesn’t seem to be included in the subscales due to cross-loadings)
        + I'm not sure, then, how the total DIS score is supposed to be calculated. Let me know if you want me to contact the original study authors to see what they did.
      * I decided to just combine all items for total score calculations.
  + tfl\_1-18: Transformational leadership
    - This is one scale plus part from another – so not all items will be used in analysis
    - Response range: 1 – 7 (strongly disagree – strongly agree)
    - One reversed item (tfl\_13R)
    - Subscales:
      * Vision: tfl\_1, tfl\_7, tfl\_13R
      * Inspirational motivation: tfl\_2, tfl\_8, tfl\_14
      * Intellectual stimulation: tfl\_3, tfl\_9, tfl\_15
      * Supportive leadership (individualized consideration): tfl\_4, tfl\_10, tfl\_16
      * Personal recognition: tfl\_5, tfl\_11, tfl\_17
      * Idealized influence: tfl\_6, tfl\_12, tfl\_18
    - \*Idealized influence items are from a different scale and should NOT be used when calculating total TFL score
  + brs\_1-6: Brief resilience scale
    - Single factor
    - Reversed items: 2, 4, 6
    - Response range: 1 – 7 (strongly disagree – strongly agree)
    - Average all items for score
    - No longer used in this.
  + sc-now\_1R-8R: State Self-Control Capacity Scale (short 10-item version, see "State Self-Regulation & Scoring.pdf doc")
    - SP17: Same items as sc-hw, except 2 items (#2 and #3) of those items weren't included here – other difference is that this is asking how they currently feel while taking the survey, not in general while doing homework.
      * I kept the numbering the same as in the hw version, so the sc-now items do not contain an item 2 or 3.
    - FL17: I added back in items 2 & 3: sc-now\_2R, sc-now\_3R
    - High score = high self-control and low ego-depletion (low cognitive fatigue)
    - Scale range: 0 – 8 (Never – Always)
    - Reversed items: ALL items reversed EXCEPT sc-hw\_4 & sc-hw\_8
  + gpa
    - This was open-ended and an optional question, so there are missing data.
  + uh-now: Unconditional happiness right now
    - Response range: 1 – 9 (Not at all internally calm – Completely internally calm)
  + cumTime: Cumulative time spent on survey