Psy 524

Lab #8 Discriminant Function

1. Open “DISCRIM.sav”.
   1. Follow all of the screening steps in the book.
   2. Run a MANOVA predicting **control**, **attmar**, **attrole** and **atthouse** by **workstat**. Is there a significant difference between the groups (don’t paste the output)?
   3. To run analysis, go to **Analyze** 🡪 **Classify** 🡪 **Discriminant**…
      1. Move **workstat** into grouping variable and hit define range 🡪 min = 1 max = 3 🡪 continue. Move **control**, **attmar**, **attrole** and **atthouse** into independents. Click on statistics and select Means, Univariate ANOVAs and Box’s M 🡪 continue.
      2. Click on **classify** and select all groups equal, case wise results, limit to first 20 cases, summary table, within-groups (under use covariance matrix) and separate groups (under plots) 🡪 continue.
      3. Click on **save** and select all three choices (predicted group membership, discriminant scores and probabilities of group membership) 🡪 continue 🡪 OK.
      4. Copy, paste, annotate and interpret the results and explain the new variables in the data matrix. **Are the groups significantly separable by the predictors? Did the classification work well?**

**Highlight here and paste the output.**

1. Open “star\_trek.sav”.
   1. Predict group membership using the 5 continuous variables.
      1. Click on statistics and select Means, Univariate ANOVAs, Box’s M, within groups covariance matrix 🡪 continue.
      2. Click on classify and select all groups equal, summary table, within-groups (under use covariance matrix) and combined groups (under plots) 🡪 continue.
      3. Click on save and select all three choices (predicted group membership, discriminant scores and probabilities of group membership) 🡪 continue 🡪 OK.
      4. Copy, paste, annotate and interpret the results. **Write an APA style results section on this analysis.**

**Highlight here and paste the output.**

* 1. If a new person came along, and her scores were 16 on aggression, 25 on logic, 65 on verbal skills, 71 on intelligence, and 20 on physical strength – to which group would you predict she longs? (Hint: you need to use the pooled within covariance matrix and some syntax to solve this)
  2. Rerun “a” above switching the method from “enter independents together” to “use stepwise function”. Click on method and select Wilk’s Lambda, Use probability of F and summary of steps 🡪 continue 🡪 OK. How did the analysis change? Was the classification any better or worse?