Summary Graphs of NUTR630 Post-Semester Feedback

Dave Bridges, Liv Anderson and Rina Hisamatsu

2017-09-03

Contents


```
library(readr)
onboarding.filename <- 'https://docs.google.com/spreadsheets/d/e/2PACX-1vQI-b1A4Zd-gx3FuY3lkKbWEOzKUfmAI
onboarding.data <- read_csv(onboarding.filename)

end.filename <- 'https://docs.google.com/spreadsheets/d/e/2PACX-1vTxPKhKOwkZ18U1XOZ44M8wGqtM5ow18tVPF4y
end.data <- read_csv(end.filename)

merged.data <- full_join(onboarding.data,end.data, by='Email Address', suffix=c("before","after"))
```

These data can be found in /Users/davebrid/Documents/GitHub/TeachingLectures/Michigan/NUTR630/Evaluation/GradeCra
Summary/Student Feedback/Post-Semester. This script was most recently updated on Wed Jan 31 17:25:32
2018.

Analysis

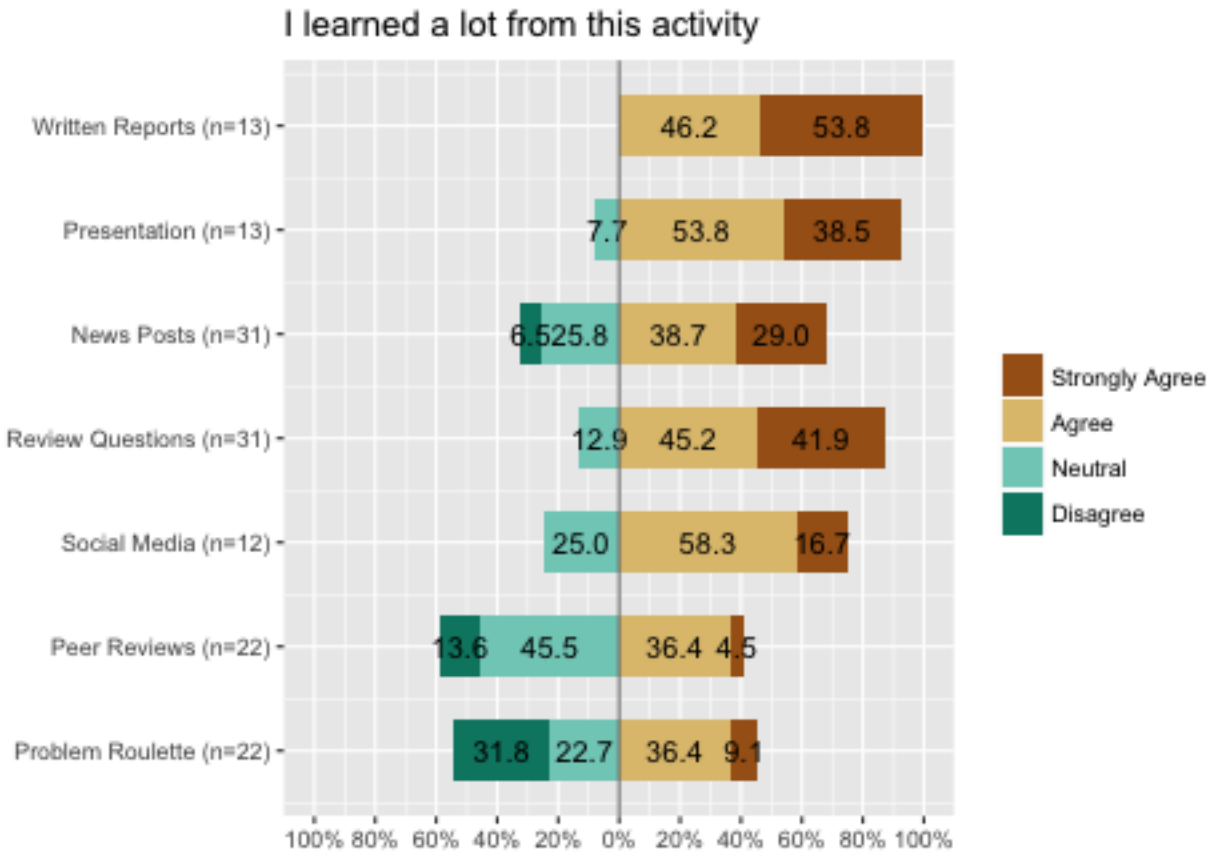
Interests

Learning Activities

Thoughts about whether they learned a lot from the activity

```
library(dplyr)

mylevels <- c('Strongly Agree','Agree','Neutral','Disagree','Strongly Disagree')


activity.data <-
  end.data %>%
  dplyr::select(contains("learned")) %>%
  rename(`Written Reports` = `Select one in reference to written reports [I learned a lot from this acti
         `Presentation` = `Select one in reference to your presentation [I learned a lot from this activ
         `Peer Reviews` = `Select one answer in reference to the peer reviews [I learned a lot from this
         `Social Media` = `Select one in reference to the social media assignments [I learned a lot fro
         `News Posts` = `Select one in reference to the news posts [I learned a lot from this activity]`
```

```
        `Review Questions` = `Select one in reference to the review questions [I learned a lot from thi
        `Problem Roulette` = `Select one answer in reference to problem roulette [I learned a lot from
  mutate(`Written Reports` = factor(`Written Reports`,levels=mylevels),
        `Presentation`= factor(`Presentation`, levels=mylevels),
        `Peer Reviews`= factor(`Peer Reviews`, levels=mylevels),
        `Social Media`= factor(`Social Media`, levels=mylevels),
        `News Posts`= factor(`News Posts`, levels=mylevels),
        `Review Questions`= factor(`Review Questions`, levels=mylevels),
        `Problem Roulette`= factor(`Problem Roulette`, levels=mylevels))

library(sjPlot)
sjp.likert(activity.data, title="I learned a lot from this activity")
```



Thoughts about whether these assesed knowledge

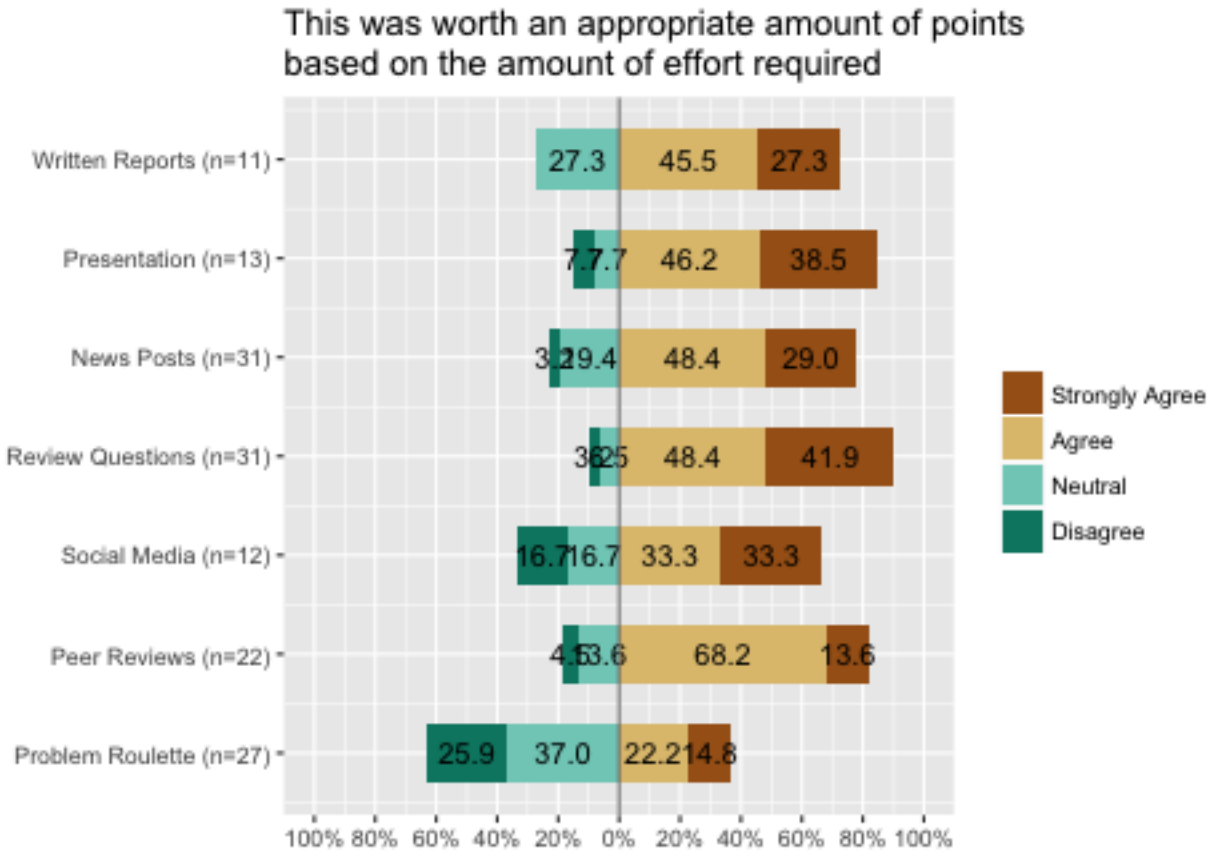
```
assessed.data <-
  end.data %>%
  dplyr::select(contains("assessed")) %>%
  rename(`Written Reports` = `Select one in reference to written reports [This effectively assessed my
        `Presentation` = `Select one in reference to your presentation [This effectively assessed my k
        `Peer Reviews` = `Select one answer in reference to the peer reviews [This effectively assessed
        `Social Media` = `Select one in reference to the social media assignments [This effectively as
        `News Posts` = `Select one in reference to the news posts [This effectively assessed my knowle
        `Review Questions` = `Select one in reference to the review questions [This effectively assess
```

```
        `Problem Roulette` = `Select one answer in reference to problem roulette [This effectively asse
  mutate(`Written Reports` = factor(`Written Reports`,levels=mylevels),
         `Presentation`= factor(`Presentation`, levels=mylevels),
         `Peer Reviews`= factor(`Peer Reviews`, levels=mylevels),
         `Social Media`= factor(`Social Media`, levels=mylevels),
         `News Posts`= factor(`News Posts`, levels=mylevels),
         `Review Questions`= factor(`Review Questions`, levels=mylevels),
         `Problem Roulette`= factor(`Problem Roulette`, levels=mylevels))

sjp.likert(assessed.data, title="This effectively assessed my knowledge")
```

Thoughts as to whether it was worth an ppropriate amount of points

```
points.data <-
  end.data %>%
  dplyr::select(contains("appropriate amount")) %>%
  rename(`Written Reports` = `Select one in reference to written reports [This was worth an appropriate
         `Presentation` = `Select one in reference to your presentation [This was worth an appropriate a
         `Peer Reviews` = `Select one answer in reference to the peer reviews [This was worth an appropr
         `Social Media` = `Select one in reference to the social media assignments [This was worth an ap
         `News Posts` = `Select one in reference to the news posts [This was worth an appropriate amount
         `Review Questions` = `Select one in reference to the review questions [This was worth an approp
         `Problem Roulette` = `Select one answer in reference to problem roulette [This was worth an app
  mutate(`Written Reports` = factor(`Written Reports`,levels=mylevels),
```

```
        `Presentation`= factor(`Presentation`, levels=mylevels),
        `Peer Reviews`= factor(`Peer Reviews`, levels=mylevels),
        `Social Media`= factor(`Social Media`, levels=mylevels),
        `News Posts`= factor(`News Posts`, levels=mylevels),
        `Review Questions`= factor(`Review Questions`, levels=mylevels),
        `Problem Roulette`= factor(`Problem Roulette`, levels=mylevels))

sjp.likert(points.data, title="This was worth an appropriate amount of points based on the amount of ef
```



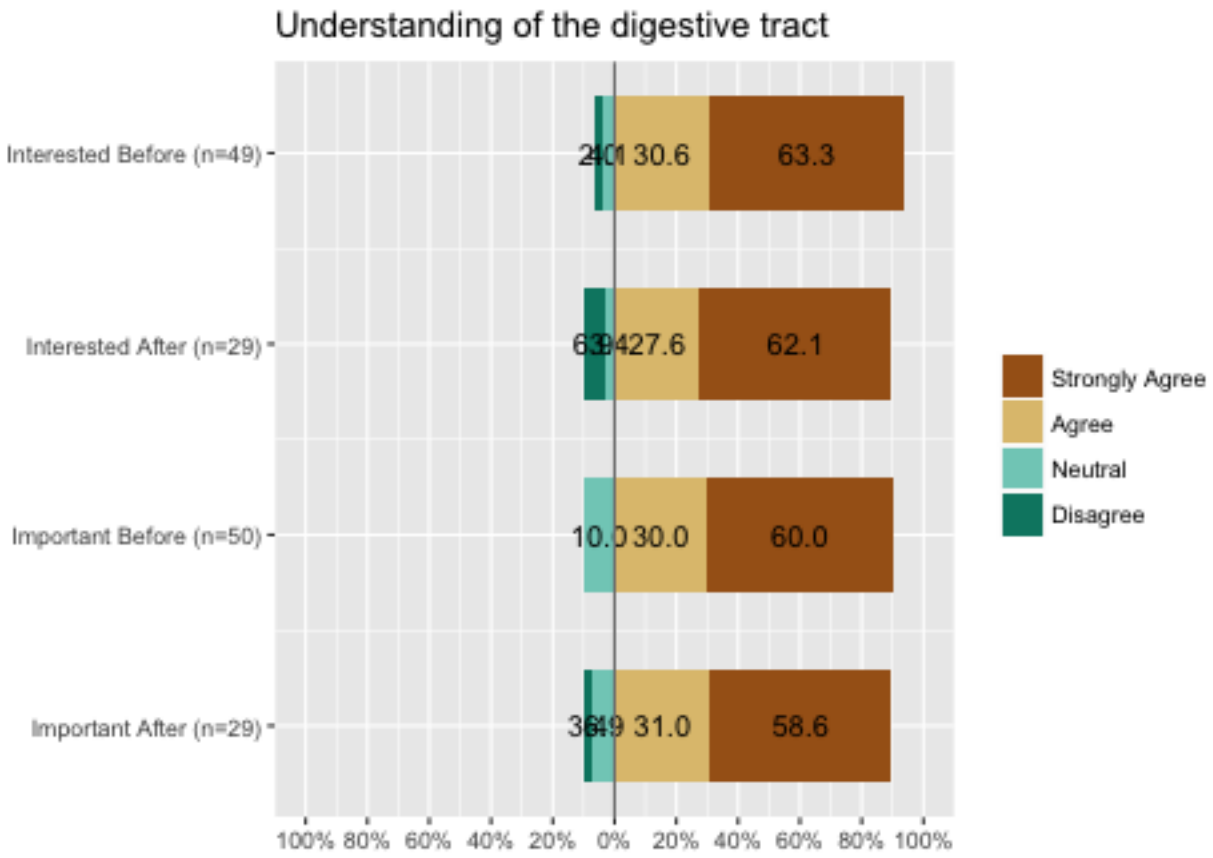
Changes over the semester

Interests and Aptitudes

```
merged.data[merged.data==1]<-'Strongly Agree'
merged.data[merged.data==2]<-'Agree'
merged.data[merged.data==3]<-'Neutral'
merged.data[merged.data==4]<-'Disagree'
merged.data[merged.data==5]<-'Strongly Disagree'


macronutritent.aptitude.data <-
  merged.data %>%
  dplyr::select(contains("macronutrient")) %>%
```

```
  rename(`Interested Before` = `Macronutrient biochemistry is of interest to me.before`,
         `Interested After` = `Macronutrient biochemistry is of interest to me.after`,
         `Important Before` = `Macronutrient biochemistry is important for my career interests.before`,
         `Important After` = `Macronutrient biochemistry is important for my career interests.after`) %>
  mutate(`Interested Before`= factor(`Interested Before`, levels=mylevels),
         `Interested After`= factor(`Interested After`, levels=mylevels),
         `Important Before`= factor(`Important Before`, levels=mylevels),
         `Important After`= factor(`Important After`, levels=mylevels))
col.order <- c(1,3,2,4)

sjp.likert(macronutritent.aptitude.data[,col.order], title="Macronutrient biochemistry")
```


```
digestive.aptitude.data <-
  merged.data %>%
  dplyr::select(contains("digestive")) %>%
  rename(`Interested Before` = `Comprehensive understanding of the digestive tract is of interest to me
         `Interested After` = `Comprehensive understanding of the digestive tract is of interest to me.a
         `Important Before` = `Comprehensive understanding of the digestive tract is important for my ca
         `Important After` = `Comprehensive understanding of the digestive tract is important for my ca
  mutate(`Interested Before`= factor(`Interested Before`, levels=mylevels),
         `Interested After`= factor(`Interested After`, levels=mylevels),
         `Important Before`= factor(`Important Before`, levels=mylevels),
         `Important After`= factor(`Important After`, levels=mylevels))
col.order <- c(1,3,2,4)

sjp.likert(digestive.aptitude.data[,col.order], title="Understanding of the digestive tract")
```



Session Information

```
sessionInfo()
```

```
## R version 3.4.2 (2017-09-28)
## Platform: x86_64-apple-darwin15.6.0 (64-bit)
## Running under: macOS High Sierra 10.13.3
##
## Matrix products: default
## BLAS: /Library/Frameworks/R.framework/Versions/3.4/Resources/lib/libRblas.0.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/3.4/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] sjPlot_2.4.0 bindrcpp_0.2 readr_1.1.1  dplyr_0.7.4  tidyr_0.7.2
## [6] knitr_1.17
##
## loaded via a namespace (and not attached):
##  [1] nlme_3.1-131       RColorBrewer_1.1-2 rprojroot_1.2
```

```
##  [4] tools_3.4.2        TMB_1.7.12         backports_1.1.1
##  [7] R6_2.2.2           sjlabelled_1.0.6   DT_0.3
## [10] lazyeval_0.2.1     colorspace_1.3-2   nnet_7.3-12
## [13] tidyselect_0.2.3   mnormt_1.5-5       emmeans_1.1
## [16] curl_3.0           compiler_3.4.2     cli_1.0.0
## [19] sandwich_2.4-0     effects_4.0-0      scales_0.5.0
## [22] lmtest_0.9-35      mvtnorm_1.0-7      psych_1.7.8
## [25] blme_1.0-4         stringr_1.2.0      digest_0.6.12
## [28] foreign_0.8-69     minqa_1.2.4        rmarkdown_1.8
## [31] stringdist_0.9.4.6 pkgconfig_2.0.1    htmltools_0.3.6
## [34] lme4_1.1-14        pwr_1.2-1          htmlwidgets_1.0
## [37] rlang_0.1.4        rstudioapi_0.7     shiny_1.0.5
## [40] bindr_0.1          zoo_1.8-1          magrittr_1.5
## [43] modeltools_0.2-21  bayesplot_1.4.0    Matrix_1.2-12
## [46] Rcpp_0.12.14       munsell_0.4.3      abind_1.4-5
## [49] prediction_0.2.0   stringi_1.1.6      multcomp_1.4-8
## [52] yaml_2.1.15        merTools_0.3.0     snakecase_0.8.1
## [55] carData_3.0-0      MASS_7.3-47        plyr_1.8.4
## [58] grid_3.4.2         parallel_3.4.2     sjmisc_2.6.3
## [61] forcats_0.2.0      crayon_1.3.4       lattice_0.20-35
## [64] ggeffects_0.3.1    haven_1.1.0        splines_3.4.2
## [67] sjstats_0.14.0     hms_0.4.0          estimability_1.2
## [70] reshape2_1.4.2     codetools_0.2-15   stats4_3.4.2
## [73] glue_1.2.0         evaluate_0.10.1    modelr_0.1.1
## [76] httpuv_1.3.5       nloptr_1.0.4       gtable_0.2.0
## [79] purrr_0.2.4        assertthat_0.2.0   ggplot2_2.2.1
## [82] mime_0.5           coin_1.2-2         xtable_1.8-2
## [85] broom_0.4.3        survey_3.32-1      coda_0.19-1
## [88] survival_2.41-3    tibble_1.3.4       arm_1.9-3
## [91] glmmTMB_0.2.0      TH.data_1.0-8
```