# Assessing Video Game Mechanics

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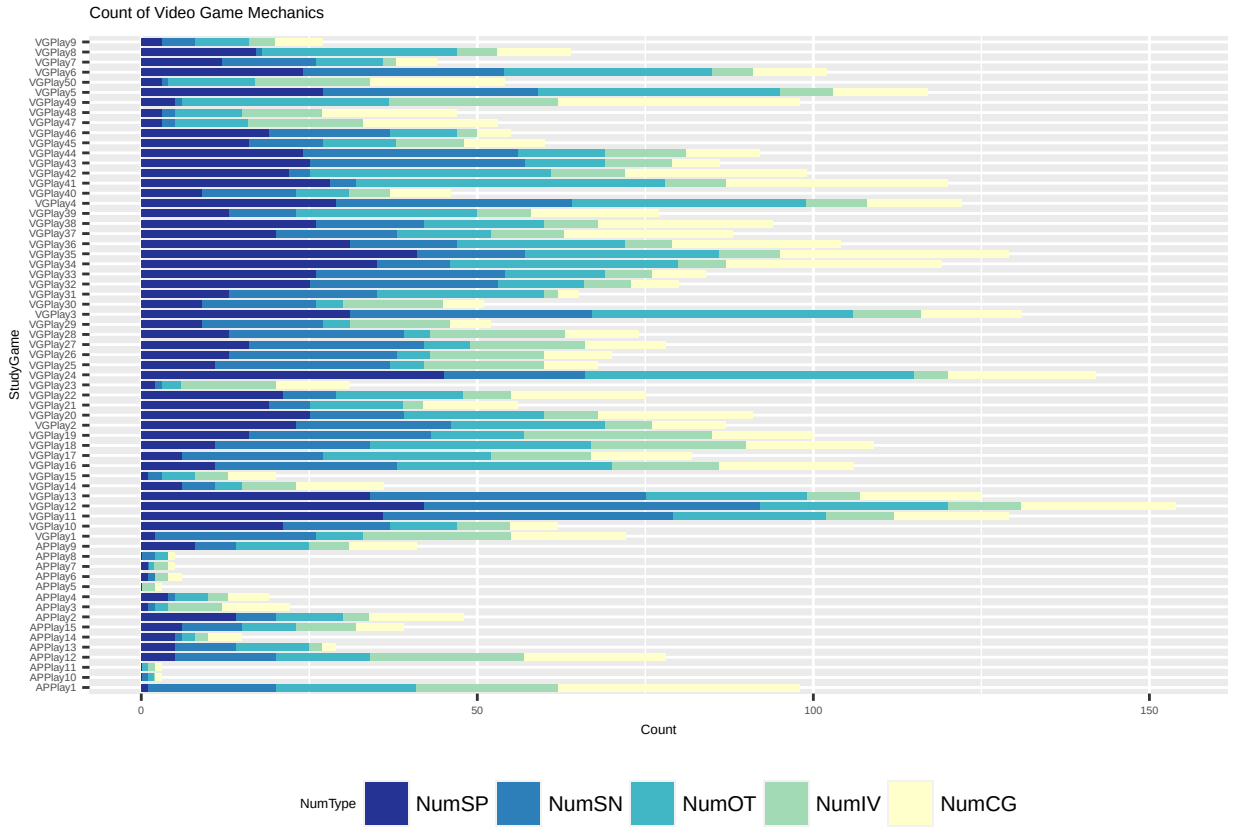
## Visualizations

```
# read in the data
game_df <- read_excel("TopSelling_MSSP_July28_GameData.xlsx")
participant_df <- read_excel("TopSelling_MSSP_July28_ParticipantData.xlsx")
```

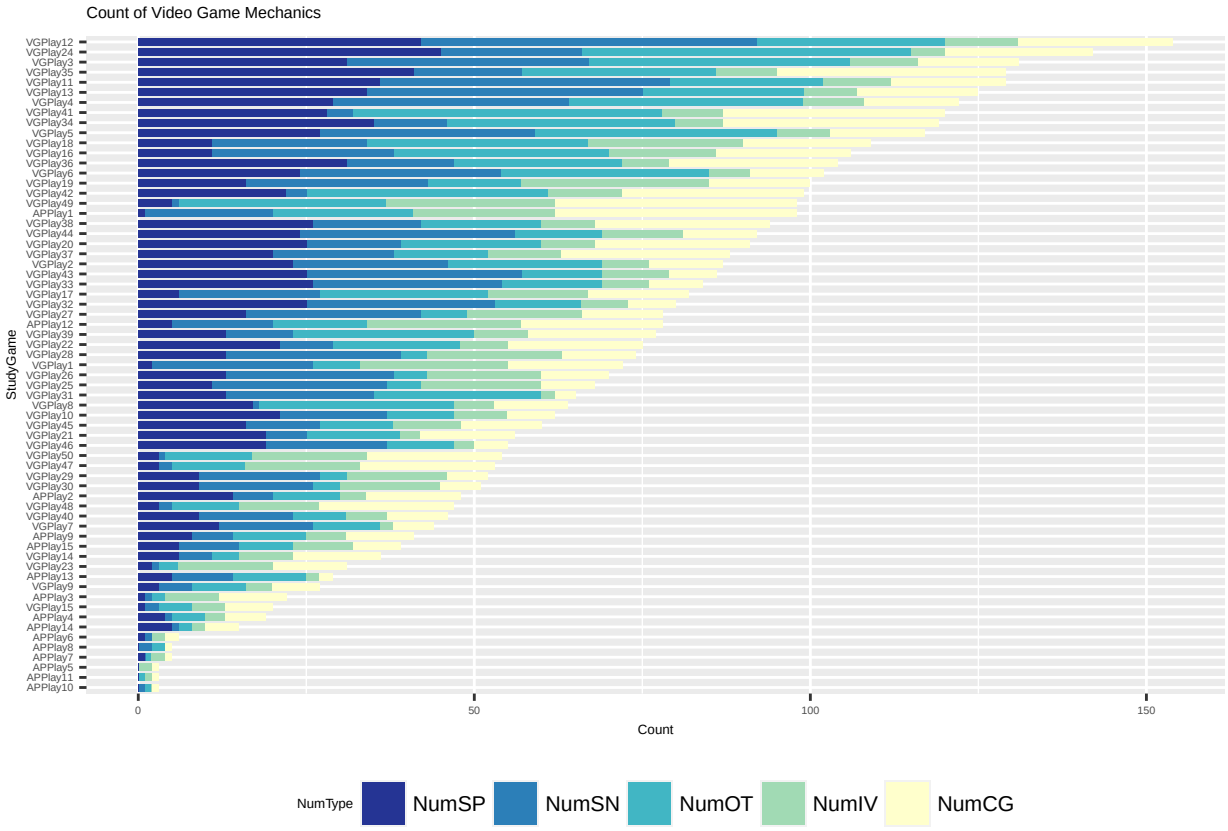
```
# create a subset of the game_df with just Num variables
game_df_num_subset <- game_df %>%
  select(StudyGame, GameName, NumFam, NumOT, NumIV, NumSN, NumSP, NumCG)

# pivot data to prep for visualizations
game_df_num_subset_longer <- game_df_num_subset %>%
  pivot_longer(cols = c(NumOT, NumIV, NumSN, NumSP, NumCG),
               names_to = "NumType",
               values_to = "Count"
  )
```

```
# stacked bar chart for the 5 game mechanics
ggplot(data = game_df_num_subset_longer,
       aes(x = StudyGame, y = Count, fill = NumType)) +
  geom_bar(position="stack", stat="identity", width = 0.75) +
  coord_flip() +
  scale_fill_brewer(palette = "YlGnBu", guide=guide_legend(reverse=T)) +
  theme(text = element_text(size=5),
        legend.position = "bottom", legend.box = "horizontal",
        legend.text = element_text(size = 8)) +
  xlab("StudyGame") +
  labs(title = "Count of Video Game Mechanics")
```




```
# order by length of bars
ggplot(data = game_df_num_subset_longer,
       aes(x = reorder(StudyGame, Count, sum), y = Count, fill = NumType)) +
  geom_bar(position="stack", stat="identity", width = 0.75) +
  coord_flip() +
  scale_fill_brewer(palette = "YlGnBu", guide=guide_legend(reverse=T)) +
  theme(text = element_text(size=5),
        legend.position = "bottom", legend.box = "horizontal",
        legend.text = element_text(size = 8)) +
  xlab("StudyGame") +
  labs(title = "Count of Video Game Mechanics")
```


Count of Video Game Mechanics
StudyGame
VGPlay12
VGPlay24
VGPlay3
VGPlay35
VGPlay11
VGPlay13
VGPlay4
VGPlay41
VGPlay34
VGPlay5
VGPlay18
VGPlay16
VGPlay36
VGPlay6
VGPlay19
VGPlay42
VGPlay49
APPlay1
VGPlay38
VGPlay44
VGPlay20
VGPlay37
VGPlay2
VGPlay43
VGPlay33
VGPlay17
VGPlay32
VGPlay27
APPlay12
VGPlay39
VGPlay22
VGPlay28
VGPlay1
VGPlay26
VGPlay25
VGPlay31
VGPlay8
VGPlay10
VGPlay45
VGPlay21
VGPlay46
VGPlay50
VGPlay47
VGPlay29
VGPlay30
APPlay2
VGPlay48
VGPlay40
VGPlay7
APPlay9
APPlay15
VGPlay14
VGPlay23
APPlay13
VGPlay9
APPlay3
VGPlay15
APPlay4
APPlay14
APPlay6
APPlay8
APPlay7
APPlay5
APPlay11
APPlay10
0
50
100
150
Count
NumType
NumSP
NumSN
NumOT
NumIV
NumCG