DEEPPi FD mean

2024-06-23

```
# select fd_mean column only

fd_mean_data = select(data, bids_name, fd_mean)

# create new column ses_number
myvar = c()

for (item in fd_mean_data$bids_name) {
  ses_num = substring(item, 17, 22)

  if (ses_num == "ses-01") {
      myvar = append(myvar, "01")
  }
  else if (ses_num == "ses-02") {
      myvar = append(myvar, "02")
  }
  else if (ses_num == "ses-03") {
    myvar = append(myvar, "03")
  }
  else if (ses_num == "ses-04") {
      myvar = append(myvar, "04")
  }
  else if (ses_num == "ses-05") {
      myvar = append(myvar, "05")
  }
  else {
    myvar = append(myvar, "06")
  }
}

fd_mean_data$ses_number = myvar
```

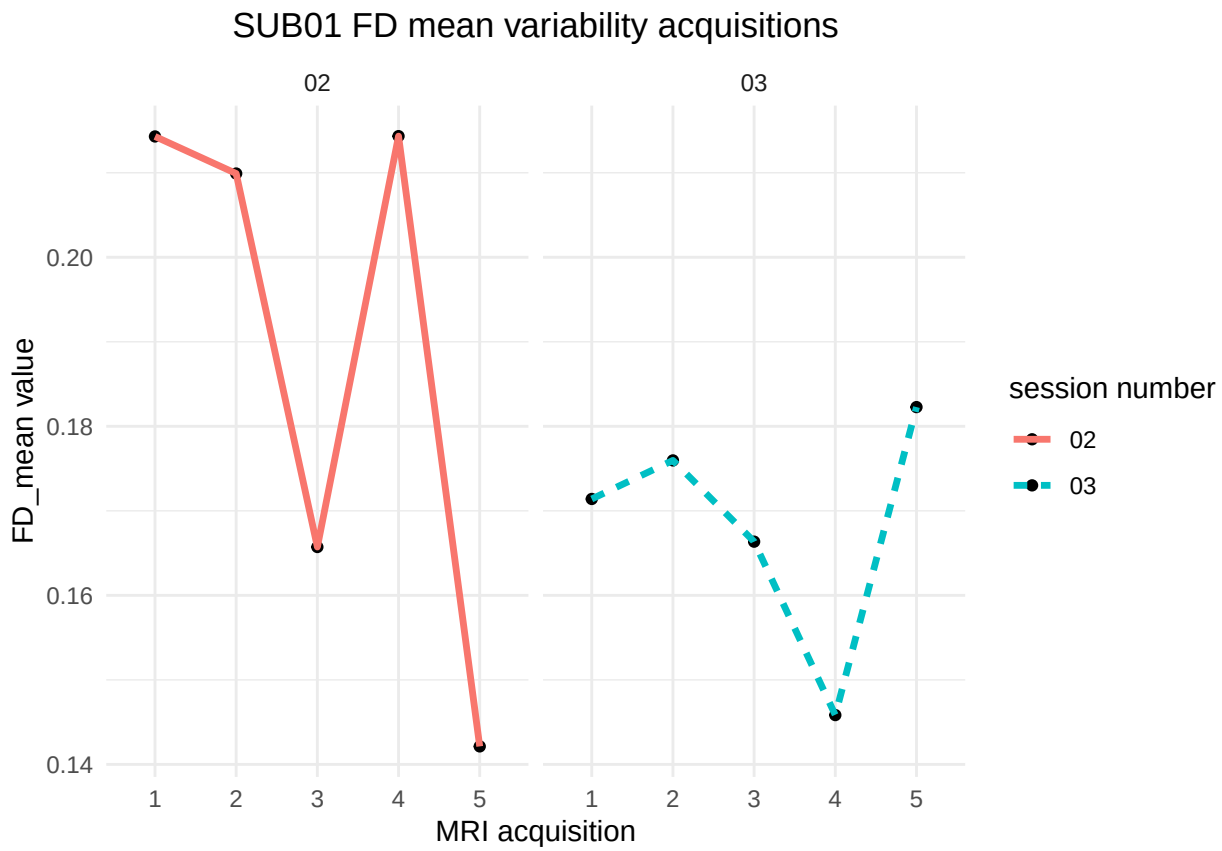
set up

```
# create new column id which contains run_number in the df

temp = c()

for (item in fd_mean_data$bids_name) {
  ses_num = substring(item, 34, 39)

  if (ses_num == "run-01") {
```

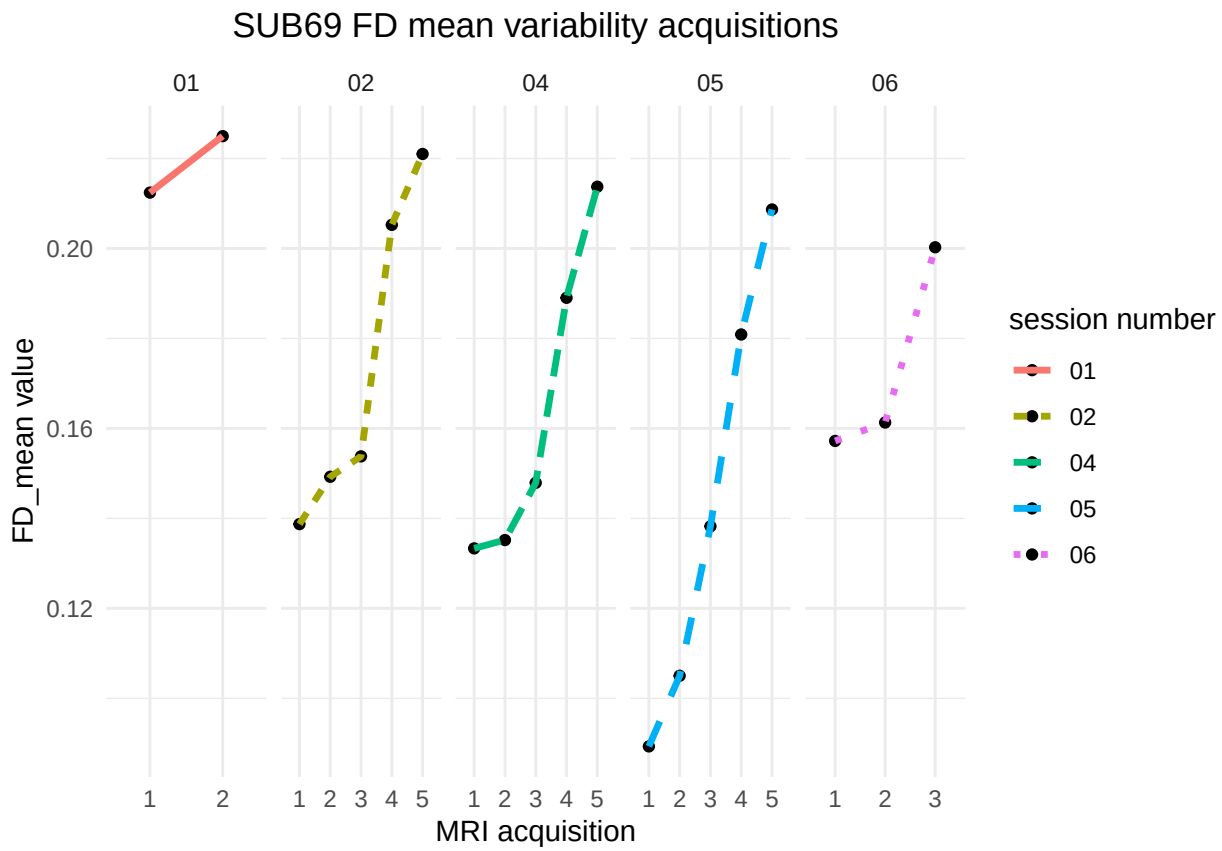
```
      temp = append(temp, "1")
  }
  else if (ses_num == "run-02") {
      temp = append(temp, "2")
  }
  else if (ses_num == "run-03") {
    temp = append(temp, "3")
  }
  else if (ses_num == "run-04") {
      temp = append(temp, "4")
  }
  else if (ses_num == "run-05") {
      temp = append(temp, "5")
  }
  else {
    temp = append(temp, "0")
  }
}

fd_mean_data$run_id = temp

# rename run 0 in sub101/ses03 to run 06 (df entry 109)

fd_mean_data$run_id[109] = "6"
```

SUB-CMH0000001 FD_MEAN PLOT

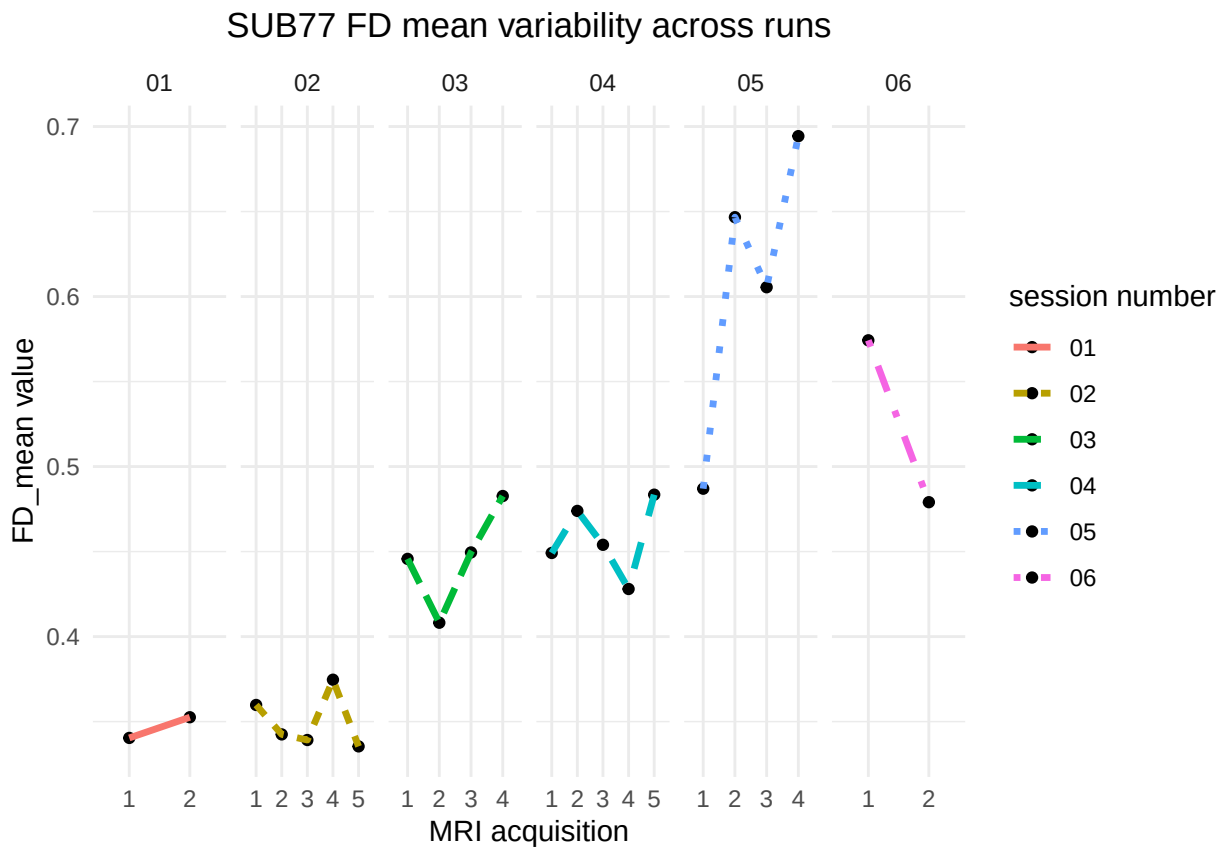
```
# The following reads off only from sub 02 data.

slice(fd_mean_data, 1:10) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB01 FD mean variability acquisitions",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x")
```



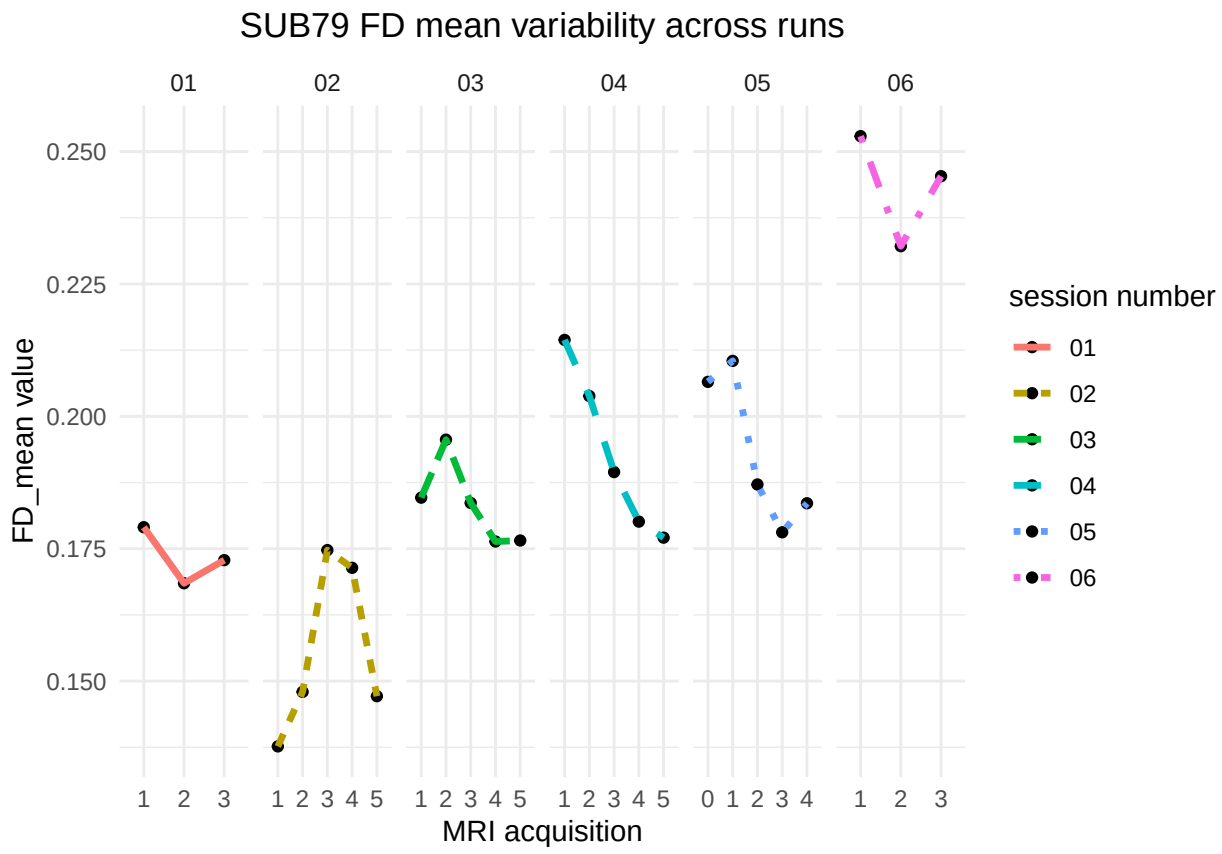

```
# The following reads off only from sub 02 data.

slice(fd_mean_data, 11:30) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB69 FD mean variability acquisitions",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x")
```



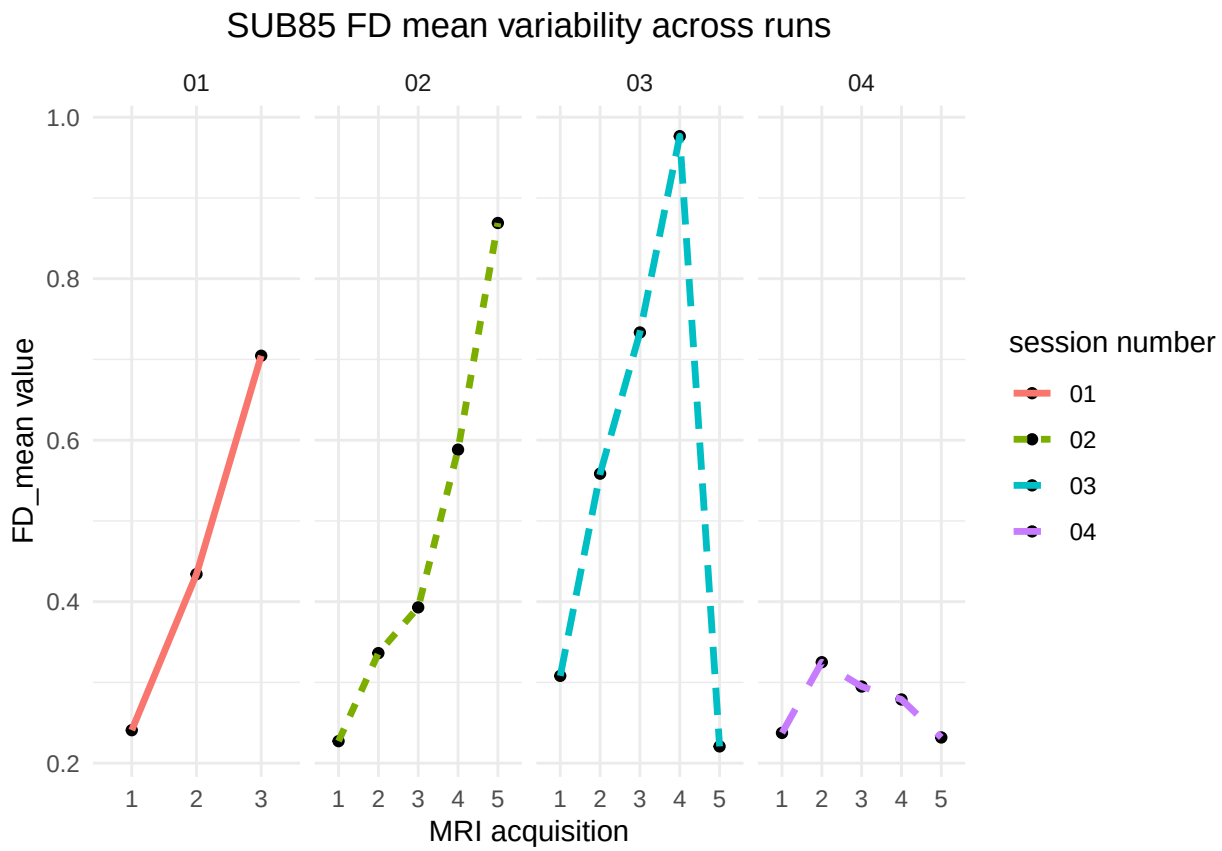

```
# The following reads off only from sub  data.

slice(fd_mean_data, 31:52) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB77 FD mean variability across runs",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x")
```



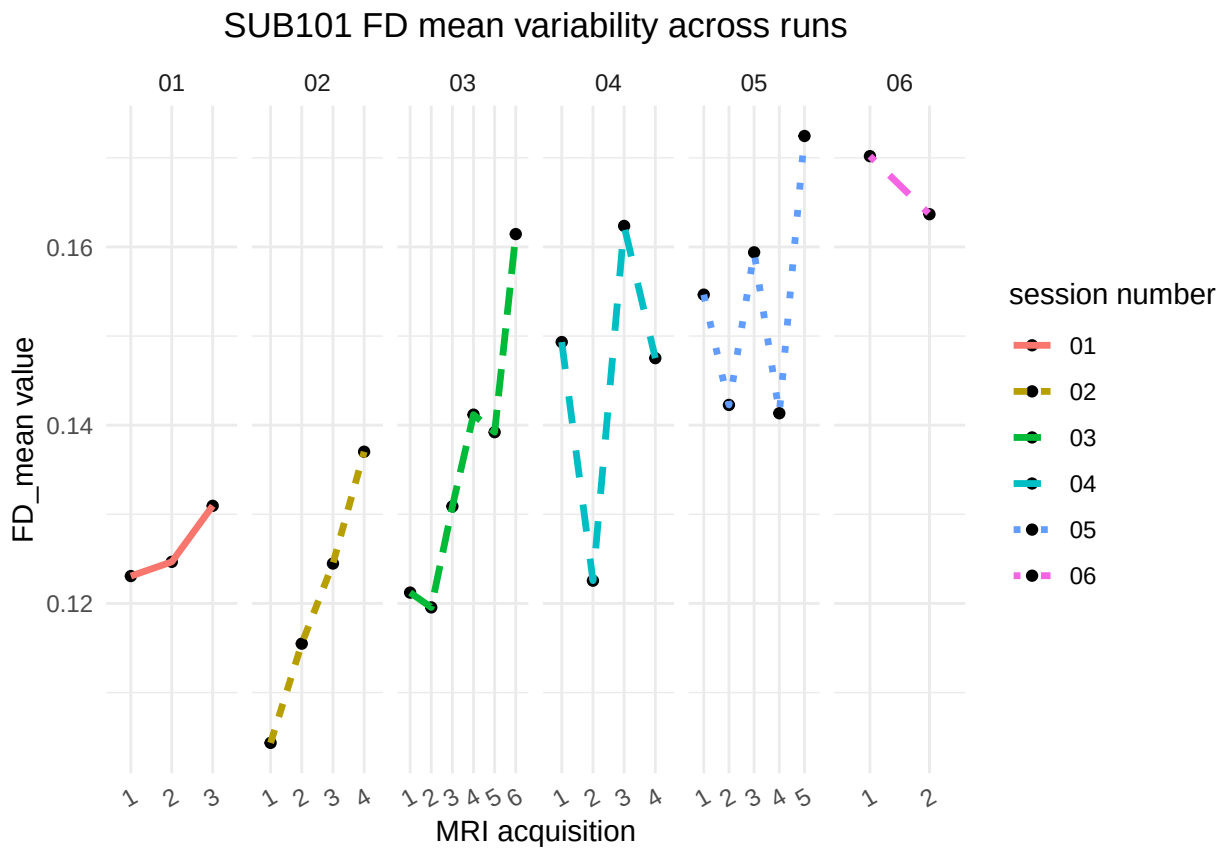

```r
# The following reads off only from sub 79 data.

slice(fd_mean_data, 53:78) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB79 FD mean variability across runs",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x")
```




```
# The following reads off only from sub 85 data.

slice(fd_mean_data, 79:96) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB85 FD mean variability across runs",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x")
```




```
# The following reads off only from sub 101 data.

slice(fd_mean_data, 97:120) %>%
  group_by(ses_number) %>%
    ggplot() +
    geom_point(aes(x = run_id, y = fd_mean, fill = as.factor(ses_number))) +
    geom_line(aes(x = run_id, y = fd_mean, color = as.factor(ses_number),
                  group = ses_number, linetype = as.factor(ses_number)),
              position = position_dodge(width = 0), lwd = 1.2) +
    theme_minimal() +
    theme(plot.title = element_text(hjust = 0.5)) +
    labs(
    x = "MRI acquisition",
    y = "FD_mean value",
    title = "SUB101 FD mean variability across runs",
    color = "session number",
    fill = "session number",
    linetype = "session number") +

    facet_wrap(facets = "ses_number", nrow = 1, scales = "free_x") +
    theme(axis.text.x = element_text(angle = 30, hjust = 1))
```


SUB101 FD mean variability across runs
01
02
03
04
05
06
FD_mean value
0.16
0.14
0.12
MRI acquisition
session number
01
02
03
04
05
06