Pananaw at Dalas rstats

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### Pamagat

Kaugnayan ng Pananaw at Dalas ng Paggamit ng Wikang Iloko sa Kahusayan sa Pagtuturo ng MTB-MLE

### Paglalahad ng Layunin

Ang pananaliksik na ito ay ay naglalayong matugunan at mapagtuunan ng pansin ang mga sumusunod na layunin:

1. Matukoy ang pananaw ng mga piling guro sa gamit ng Wikang Iloko sa pagtuturo ng MTB-MLE.
2. Matukoy ang antas sa paggamit ng Wikang Iloko ng mga piling guro sa pagtuturo ng MTB-MLE.
3. Matukoy ang pananaw at antas ng paggamit ng Wikang Iloko ng piling guro sa pagtuturo ng MTB-MLE.
4. Matukoy ang kaugnayan ng ng pananaw sa kahusayan sa pagtuturo ng MTB-MLE.
5. Matukoy ang kaugnay ng antas ng paggamit ng Wikang Iloko sa kahusayan sa pagtuturo ng MTB-MLE.

### Notes

1. Negative statements, pananaw
   * 8, 9, 10, 11, 12, 13,
2. Negative statements, dalas
   * 10

### Load Libraries

library(tidyverse)

── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──  
✔ dplyr 1.1.2 ✔ readr 2.1.4  
✔ forcats 1.0.0 ✔ stringr 1.5.0  
✔ ggplot2 3.4.2 ✔ tibble 3.2.1  
✔ lubridate 1.9.2 ✔ tidyr 1.3.0  
✔ purrr 1.0.1   
── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
✖ dplyr::filter() masks stats::filter()  
✖ dplyr::lag() masks stats::lag()  
ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

library(readxl)  
library(gt)  
library(rstatix)

Attaching package: 'rstatix'  
  
The following object is masked from 'package:stats':  
  
 filter

library(smplot2)

Updated tutorial for smplot: smin95.github.io/dataviz/

### Import Data

pandal <- read\_excel("data/pandal.xlsx")  
pandal <- tibble(pandal)

### Re code Negative Statements

pandal\_rev <- pandal |>  
 mutate\_at(vars(p8:p13, d10), list(~case\_when(  
 . == 4 ~ 1,  
 . == 3 ~ 2,  
 . == 2 ~ 3,  
 . == 1 ~ 4  
 )))

### Row Wise Mean and SD for P and D

pandal\_rev <- pandal\_rev |>  
 rowwise() |>  
 mutate(p\_mean = mean((c\_across(p1:p15))),  
 d\_mean = mean((c\_across(d1:d15)))) |>  
 ungroup()

### Descriptive Statistics of Profile

pandal\_rev |>  
 get\_summary\_stats(  
 edad, btp1, btp2, p\_mean, d\_mean,  
 show = c("mean", "sd", "min", "max"),  
 ) |>  
 mutate\_if(is.numeric, round, 2) |>  
 gt()

| variable | n | mean | sd | min | max |
| --- | --- | --- | --- | --- | --- |
| edad | 13 | 45.77 | 8.96 | 26.00 | 60.00 |
| btp1 | 13 | 16.92 | 9.40 | 4.00 | 34.00 |
| btp2 | 12 | 5.58 | 2.23 | 1.00 | 7.00 |
| p\_mean | 13 | 2.25 | 0.42 | 1.80 | 3.20 |
| d\_mean | 13 | 2.19 | 0.35 | 1.47 | 2.67 |

pandal\_rev |>  
 count(etnisidad) |>  
 mutate(  
 percent = round((n / sum(n))\*100, digits = 2)  
 ) |>  
 gt()

| etnisidad | n | percent |
| --- | --- | --- |
| balangao | 1 | 7.69 |
| gaddang | 1 | 7.69 |
| ilokano | 4 | 30.77 |
| kalanguya | 1 | 7.69 |
| pilipino | 1 | 7.69 |
| wala | 5 | 38.46 |

pandal\_rev |>  
 count(kasarian) |>  
 mutate(  
 percent = round((n / sum(n))\*100, digits = 2)  
 ) |>  
 gt()

| kasarian | n | percent |
| --- | --- | --- |
| female | 13 | 100 |

### Data for Pananaw

pan <- pandal\_rev |>  
 select(p1:p15) |>  
 get\_summary\_stats(  
 show = c("mean", "sd")  
 ) |>  
 mutate\_if(is.numeric, round, 2) |>  
 mutate(QD = case\_when(  
 mean >= 3.26 & mean <= 4 ~ "Lubos na Sumasang-Ayon",  
 mean >= 2.51 & mean <= 3.25 ~ "Sumasang-Ayon",  
 mean >= 1.76 & mean <= 2.5 ~ "Bahagyang Sumasang-Ayon",  
 mean >= 1 & mean <= 1.75 ~ "Hindi Sumasang-Ayon"  
 ))  
gt(pan)

| variable | n | mean | sd | QD |
| --- | --- | --- | --- | --- |
| p1 | 13 | 2.62 | 0.96 | Sumasang-Ayon |
| p2 | 13 | 2.92 | 0.49 | Sumasang-Ayon |
| p3 | 13 | 2.23 | 0.93 | Bahagyang Sumasang-Ayon |
| p4 | 13 | 2.85 | 0.56 | Sumasang-Ayon |
| p5 | 13 | 2.31 | 0.86 | Bahagyang Sumasang-Ayon |
| p6 | 13 | 2.08 | 0.95 | Bahagyang Sumasang-Ayon |
| p7 | 13 | 2.00 | 1.16 | Bahagyang Sumasang-Ayon |
| p8 | 13 | 2.15 | 0.56 | Bahagyang Sumasang-Ayon |
| p9 | 13 | 2.08 | 0.95 | Bahagyang Sumasang-Ayon |
| p10 | 13 | 2.31 | 0.75 | Bahagyang Sumasang-Ayon |
| p11 | 13 | 2.00 | 0.71 | Bahagyang Sumasang-Ayon |
| p12 | 13 | 2.31 | 0.86 | Bahagyang Sumasang-Ayon |
| p13 | 13 | 2.23 | 0.60 | Bahagyang Sumasang-Ayon |
| p14 | 13 | 1.77 | 0.72 | Bahagyang Sumasang-Ayon |
| p15 | 13 | 1.85 | 0.90 | Bahagyang Sumasang-Ayon |

pan |>  
 get\_summary\_stats(mean, show = c("mean")) |>  
 mutate(average\_pan\_sd = sqrt(sum((pan$sd)^2)/n)) |>  
 mutate\_if(is.numeric, round, 2) |>  
 mutate(QD = case\_when(  
 mean >= 3.26 & mean <= 4 ~ "Lubos na Sumasang-Ayon",  
 mean >= 2.51 & mean <= 3.25 ~ "Sumasang-Ayon",  
 mean >= 1.76 & mean <= 2.5 ~ "Bahagyang Sumasang-Ayon",  
 mean >= 1 & mean <= 1.75 ~ "Hindi Sumasang-Ayon"  
 )) |>  
 gt()

| variable | n | mean | average\_pan\_sd | QD |
| --- | --- | --- | --- | --- |
| mean | 15 | 2.25 | 0.82 | Bahagyang Sumasang-Ayon |

pandal\_rev |>  
 get\_summary\_stats(p\_mean,  
 show = c("mean", "sd", "min", "max"),  
 ) |>  
 mutate\_if(is.numeric, round, 2) |>  
 gt()

| variable | n | mean | sd | min | max |
| --- | --- | --- | --- | --- | --- |
| p\_mean | 13 | 2.25 | 0.42 | 1.8 | 3.2 |

### Data for Dalas

dal <- pandal\_rev |>  
 select(d1:d15) |>  
 get\_summary\_stats(  
 show = c("mean", "sd")  
 ) |>  
 mutate\_if(is.numeric, round, 2) |>  
 mutate(QD = case\_when(  
 mean >= 3.26 & mean <= 4 ~ "Madalas na Ginagamit",  
 mean >= 2.51 & mean <= 3.25 ~ "Ginagamit",  
 mean >= 1.76 & mean <= 2.5 ~ "Di-Madalas na Ginagamit",  
 mean >= 1 & mean <= 1.75 ~ "Di-Kailanman Ginagamit"  
 ))  
gt(dal)

| variable | n | mean | sd | QD |
| --- | --- | --- | --- | --- |
| d1 | 13 | 2.46 | 1.05 | Di-Madalas na Ginagamit |
| d2 | 13 | 1.85 | 0.38 | Di-Madalas na Ginagamit |
| d3 | 13 | 2.08 | 0.76 | Di-Madalas na Ginagamit |
| d4 | 13 | 2.46 | 0.52 | Di-Madalas na Ginagamit |
| d5 | 13 | 2.23 | 0.44 | Di-Madalas na Ginagamit |
| d6 | 13 | 2.00 | 0.41 | Di-Madalas na Ginagamit |
| d7 | 13 | 2.62 | 0.96 | Ginagamit |
| d8 | 13 | 2.15 | 0.69 | Di-Madalas na Ginagamit |
| d9 | 13 | 2.23 | 0.44 | Di-Madalas na Ginagamit |
| d10 | 13 | 2.69 | 0.75 | Ginagamit |
| d11 | 13 | 2.31 | 0.95 | Di-Madalas na Ginagamit |
| d12 | 13 | 2.00 | 0.58 | Di-Madalas na Ginagamit |
| d13 | 13 | 2.38 | 0.87 | Di-Madalas na Ginagamit |
| d14 | 13 | 1.54 | 0.66 | Di-Kailanman Ginagamit |
| d15 | 13 | 1.92 | 0.76 | Di-Madalas na Ginagamit |

dal |>  
 get\_summary\_stats(mean, show = c("mean")) |>  
 mutate(average\_dal\_sd = sqrt(sum((dal$sd)^2)/n)) |>  
 mutate\_if(is.numeric, round, 2) |>  
 mutate(QD = case\_when(  
 mean >= 3.26 & mean <= 4 ~ "Madalas na Ginagamit",  
 mean >= 2.51 & mean <= 3.25 ~ "Ginagamit",  
 mean >= 1.76 & mean <= 2.5 ~ "Di-Madalas na Ginagamit",  
 mean >= 1 & mean <= 1.75 ~ "Di-Kailanman Ginagamit"  
 )) |>  
 gt()

| variable | n | mean | average\_dal\_sd | QD |
| --- | --- | --- | --- | --- |
| mean | 15 | 2.19 | 0.71 | Di-Madalas na Ginagamit |

pandal\_rev |>  
 get\_summary\_stats(d\_mean,  
 show = c("mean", "sd", "min", "max"),  
 ) |>  
 mutate\_if(is.numeric, round, 2) |>  
 gt()

| variable | n | mean | sd | min | max |
| --- | --- | --- | --- | --- | --- |
| d\_mean | 13 | 2.19 | 0.35 | 1.47 | 2.67 |

### Objective 3

ob3 <- cor.test(pandal\_rev$p\_mean, pandal\_rev$d\_mean,  
 method = "spearman", exact=FALSE)  
   
tidy(ob3) |>  
 mutate\_if(is.numeric, round, 2) |>  
 gt()

| estimate | statistic | p.value | method | alternative |
| --- | --- | --- | --- | --- |
| 0.01 | 360.48 | 0.97 | Spearman's rank correlation rho | two.sided |

pandal\_rev |>  
ggplot() +  
 aes(x = p\_mean, y = d\_mean) +  
 geom\_point(colour = "#0c4c8a", position = "jitter") +  
 sm\_statCorr(corr\_method = 'spearman') +  
 theme\_minimal()

`geom\_smooth()` using formula = 'y ~ x'

