201521103 박현수

df(total) : N-1 = 80 – 1 = 79

df (within) : n-1 X cell 개수 = 19 \* 4 = 76

df (between) : cell 개수 – 1 = 4 – 1 = 3

df (A) : 1

df (B) : 1

df (A+B) : df(between) – df(A) – df(B) = 3 – 1- 1 = 1

SS (total) : 31836 – (1440^2)/80 = 31836 – 25920 = 5916

SS (within) : 1540 + 1270 + 1320 + 1266 = 5396

SS (between) : SS(total) – SS(within) = 5916 – 5396 = 520

SS (A) : ((740^2)/40) + ((700^2)/40) - ((1440^2)/80) = 20

SS (B) : ((780^2)/40) + ((660^2)/40) - ((1440^2)/80) = 180

SS (AxB) : SS(between)-SS(A)-SS(B)= 520 - 20 – 180 = 320

MS (A) : 20(SS(A)) / 1(df(A)) = 20

MS (B) : 180(SS(B)) / 1(df(B)) = 180

MS (AxB) : 320(SS(AxB)) / 1(df(AxB)) = 320

MS (within) : 5396(SS(within)) / 76(df(within)) = 71

F (A) : MS(A) / MS(within) = 20/71 = 0.2817

F (B) : MS(B) / MS(within) = 180/71 = 2.5352

F (AxB) : MS(A\*B) / MS(within) = 320 / 71 = 4.5070

| **Table 1. Mean number of crackers eaten in each treatment condition**  |
| --- |
|  |  | Fullness  |
|  |  | Empty stomach  | Full stomach  |
| Weight  | Normal  | M= 22SD= 9 | M= 15SD= 8.18 |
| Obese  | M= 17SD= 8.34 | M= 18SD= 8.16 |

M 은 mean; SD 는 standard deviation을 의미합니다.

| **Result**  |
| --- |
| Source  | SS  | df  | MS  | F  |
| Between treatment  | 520 | 3 |  |  |
| - Factor A (weight)  | 20 | 1 | 20 | 20/71 |
| - Factor B (fullness)  | 180 | 1 | 180 | 180/71 |
| - A x B interaction  | 320 | 1 | 320 | 320/71 |
| Within treatment  | 5396 | 76 | 71 |  |
| Total  | 5916 | 79 |  |  |
| weigth x fullness factorial design  |

 - 체중과 크래커 섭취량 / 포만감과 크래커 섭취량 : 상관관계 없음

체중 x 포만감과 몸무게 : 연관이 있음