

Topics for discussion 6 (Chapter 10)

1. When do we use a t test? What are the Case I study and the Case II study?
2. What do we need to know before we do the one-sample t test?
3. How do you calculate the value of the t ? p. 108 (Case I) and p. 111 (Case II)
4. What is the value of the t mean to you? How do you check the critical value?
5. What is important before we do the independent sample t value? (see the SPSS sample)
6. If you have four means of four different groups, can you do the t test one after another (as multiple comparisons)? Why? p. 114 (assumption underlying the t test)
7. What is the paired comparison or matched pairs t test? What is important for this test before we do the process of getting the t value? (see the SPSS sample)
8. What is important when we interpret the result of a t test? pp. 118-120

P.S. Degree of freedom ($n-1$)

It refers to the number of quantities that can vary if others are given.

If $A + B = C$, and C is 200, then only **one** of A or B can vary, the other should be fixed. So we say the degree of freedom (df) is “2-1,” which is 1.

If $A + B + C = D$, and D is 200, then only **two** of A , B , or C can vary, the other should be fixed. So we say the degree of freedom (df) is “3-1,” which is 2.

If $A + B + \dots + N = Z$, and Z is 2000, then only **N-1** of N items can vary, the other should be fixed. So we say the degree of freedom (df) is “N-1.”