

12.9: Other ANOVA Designs

We have only just scratched the surface on ANOVA in this chapter. There are many other variations available for the one-way ANOVA presented here. There are also other types of ANOVAs that you are likely to encounter. The first is called a factorial ANOVA. Factorial ANOVAs use multiple grouping variables, not just one, to look for group mean differences. Just as there is no limit to the number of groups in a one-way ANOVA, there is no limit to the number of grouping variables in a Factorial ANOVA, but it becomes very difficult to find and interpret significant results with many factors, so usually they are limited to two or three grouping variables with only a small number of groups in each. Another ANOVA is called a Repeated Measures ANOVA. This is an extension of a repeated measures or matched pairs t -test, but in this case we are measuring each person three or more times to look for a change. We can even combine both of these advanced ANOVAs into mixed designs to test very specific and valuable questions. These topics are far beyond the scope of this text, but you should know about their existence. Our treatment of ANOVA here is a small first step into a much larger world!

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