

# Biosciences: 3.- Health

## 3.5 Consulting

# Consulting

*Brian L. Joiner, Encyclopaedia Statistical Sciences: Statistical Consulting.*

1. Have a genuine desire to solve real problems and help others to solve problems.
2. Be able to help investigators formulate their problem in quantitative terms.
3. Be able to listen carefully and to ask probing questions.
4. Have a broad knowledge and true understanding of statistical and scientific methods.
5. Be able to adapt existing statistical procedures to novel environments.
6. Be able to locate or develop good statistical procedures in a timely fashion.
7. Be able to keep abreast of developments in statistics.
8. Be willing to meet deadlines, even if it requires extra effort.
9. Be able to understand something about the matter under study and speak a bit its language.
10. Be a good teacher -much success in consulting depends on being able to help others understand statistical tools, and their strengths and weaknesses.
11. Be willing to settle for a reasonably correct approximate solution, then go on the next problem.

12. Be able to identify important problems (and thus avoid spending too much time on projects of little significance).
13. Have the confidence to use as simple a procedure as will get the job done, be it design or analysis.
14. Be able to convince others of the validity of a solid solution and see to it that proper action is taken.
15. Be able to use computers effectively and direct others in their use.
16. Be a good problem solver.
17. Be willing to meet scientific colleagues regularly on their home ground, and take the responsibility to meet and communicate with all members of the working team.
18. Be diplomatic and know when to bend, when to stand firm, and how to help smooth over conflicts among other team members.
19. Be willing to get some experience in the actual collection of the data.
20. Be willing to take the time to check and double-check procedures and results.
21. Be able to communicate effectively in writing as well as orally (this often includes helping colleagues write their reports as well).
22. Be able to make a good estimate of how much effort will be required to solve the problem without actually having to solve the problem itself.