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Statistics Courses - and How to Survive (Writing) Them

by

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25th September 2001



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Agenda

- Introduction
- Problems and solutions
- Conclusions
- Questions.



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Objectives

- **Illustrate the problems in preparing a statistics course**
- **Provide solutions to the problems illustrated.**



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Introduction

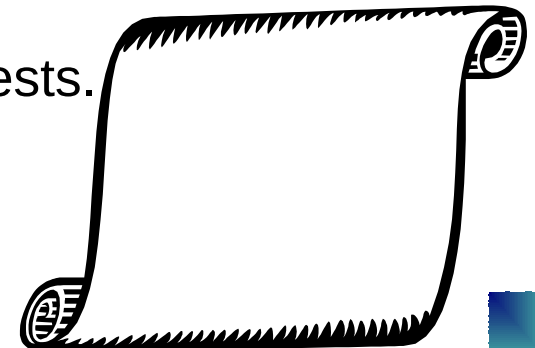
- OCS Consulting identified a need in the market place for Business and SAS software users to understand statistical techniques.
- Therefore, OCS decided to develop and market a training course to teach fundamental statistical methods.
- This paper will cover the problems in writing such an introductory level course into statistics and how they were overcome.



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Defining Success

- **Problem: What constitutes a successful course?**
- **Solution: Clear course objectives.**
 - **Success factors:**
 - Delegates improve knowledge of statistics
 - Delegates satisfied with course
 - Delegates will be able to interpret statistical results.
 - **Not Success Factors**
 - Delegates will be able to perform statistical tests.



Scope of Subject



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- **Problem:** Statistics is a huge area that cannot be covered adequately by any single course.
- **Solution:** Only cover the essential components of statistics.

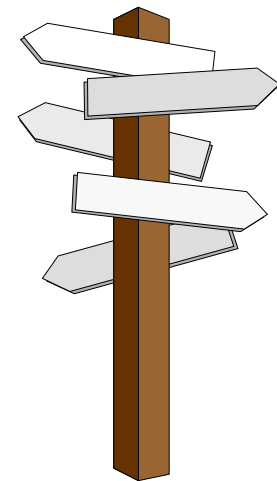


Interconnectivity



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- **Problem: Statistics is self-referential, each subject heavily relies on knowledge of other subjects.**
- **Solution: Teach the basics of each subject as a separate block and then tie them together afterwards.**

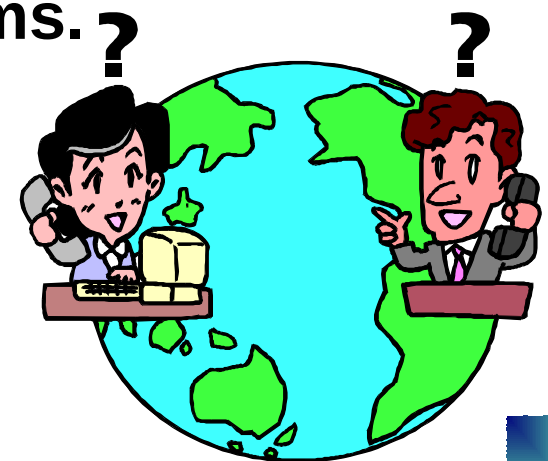


Statistical Language



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- **Problem:** Statistics has its own, unique language which shares many words with English, but with different meanings.
- **Solution:** Devote the early portion of the course to explaining the common statistical terms. ?

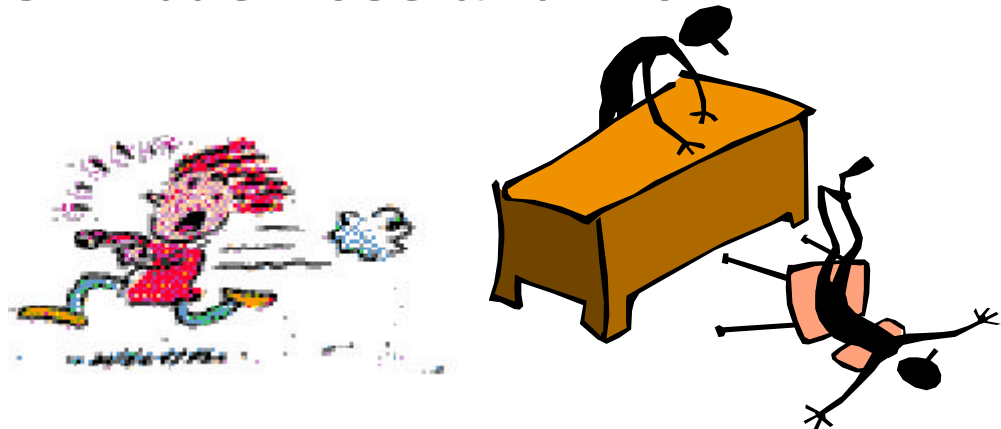




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Reaction to 'Statistics'

- **Problem:** People have a generally negative reaction to the word statistics.
- **Solution:** Emphasise the introductory nature of the course in the advertising. Try and explain the importance of statistics in business and life.

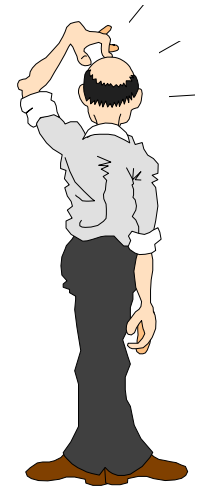


Perceived Complexity of Subject



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- **Problem:** People think statistics is difficult and requires a lot of mathematical ability.
- **Solution:** As much as possible, mathematics has been removed from the course, making it more intelligible to the target audience.



Actual Complexity of Subject



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- **Problem:** Statistics has some mathematics that **IS** essential.
- **Solution:** Where difficult mathematics can't be avoided, use fully worked examples to step people through the maths.

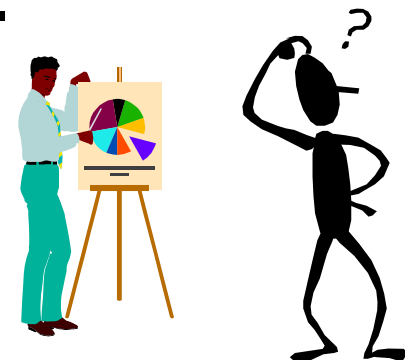


Accuracy vs. Comprehension



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- **Problem:** Too much attention to technical detail will make the course incomprehensible. Or, too little will misinform the audience.
- **Solution:** Instead of one reviewer, two were used:
 - one to review the technical accuracy;
 - the other to ensure it is comprehensible.





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Teaching the Course

- **Problem: Teaching the course**
- **Solution: Three P's.**
 - Preparation
 - Practice
 - Prayer.



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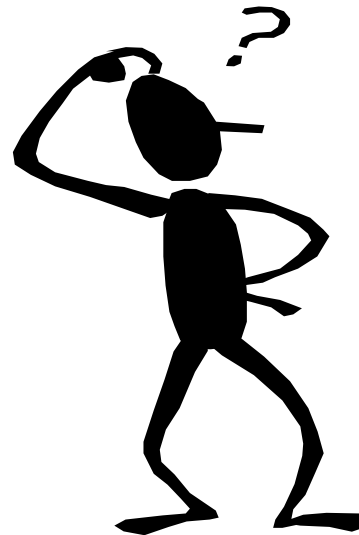
Conclusion

- **Statistics courses have the same problems as any other course**
- **Statistics courses also have to deal with:**
 - **Unique language used by statistics**
 - **General negative reaction to statistics as a topic.**

Questions



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For further details regarding the presentation:

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- Visit the OCS web-site: **www.ocs-consulting.com**