



Lessons learned by comparing “using SAS” as an epidemiological researcher and “using SAS” as a statistical programmer

Saskia van de Schans

OCS Consulting, 's-Hertogenbosch, the Netherlands

Presented by:

Joris Derks

OCS Consulting, 's-Hertogenbosch, the Netherlands



Contents

- ▶ Introduction
- ▶ Company profiles
- ▶ Commonalities
- ▶ Differences
 - ▶ Subject of investigation
 - ▶ Organisation within company
 - ▶ Way of working
 - ▶ Validation
 - ▶ Datasets
 - ▶ Use of SAS
- ▶ Conclusion



Introduction

- ▶ Biomedical Sciences, epidemiology major
- ▶ Epidemiological researcher
 - ▶ Saskia
 - ▶ PhD at CCCS (2006 – 2010)
 - ▶ Post-doc researcher at CCCE (2010 – 2013)
 - ▶ Joris
 - ▶ Internship at CCCS (7 months in 2013)
- ▶ Statistical programmer
 - ▶ Saskia
 - ▶ OCS Consulting (September 2013 -)
 - ▶ Joris
 - ▶ OCS Consulting (January 2014 -)

Company profiles



- ▶ CCC:
 - ▶ Provide medical advice to medical doctors, hospital board, and nurses
 - ▶ Support creation of health care guidelines
 - ▶ Cancer Registry

- ▶ OCS Consulting:
 - ▶ Providing its clients with professional and quality Information Technology services
 - ▶ Provide clients with experienced and skilled professionals

- ▶ Clients:
 - ▶ Develop new products and prove their superiority





Commonalities

- ▶ SAS!
 - ▶ Data manipulation
 - ▶ Statistical analyses

- ▶ Soft skills:
 - ▶ Programming puzzles
 - ▶ Curiosity



Differences - Subject of investigation

- ▶ CCC:
 - ▶ Cancer care

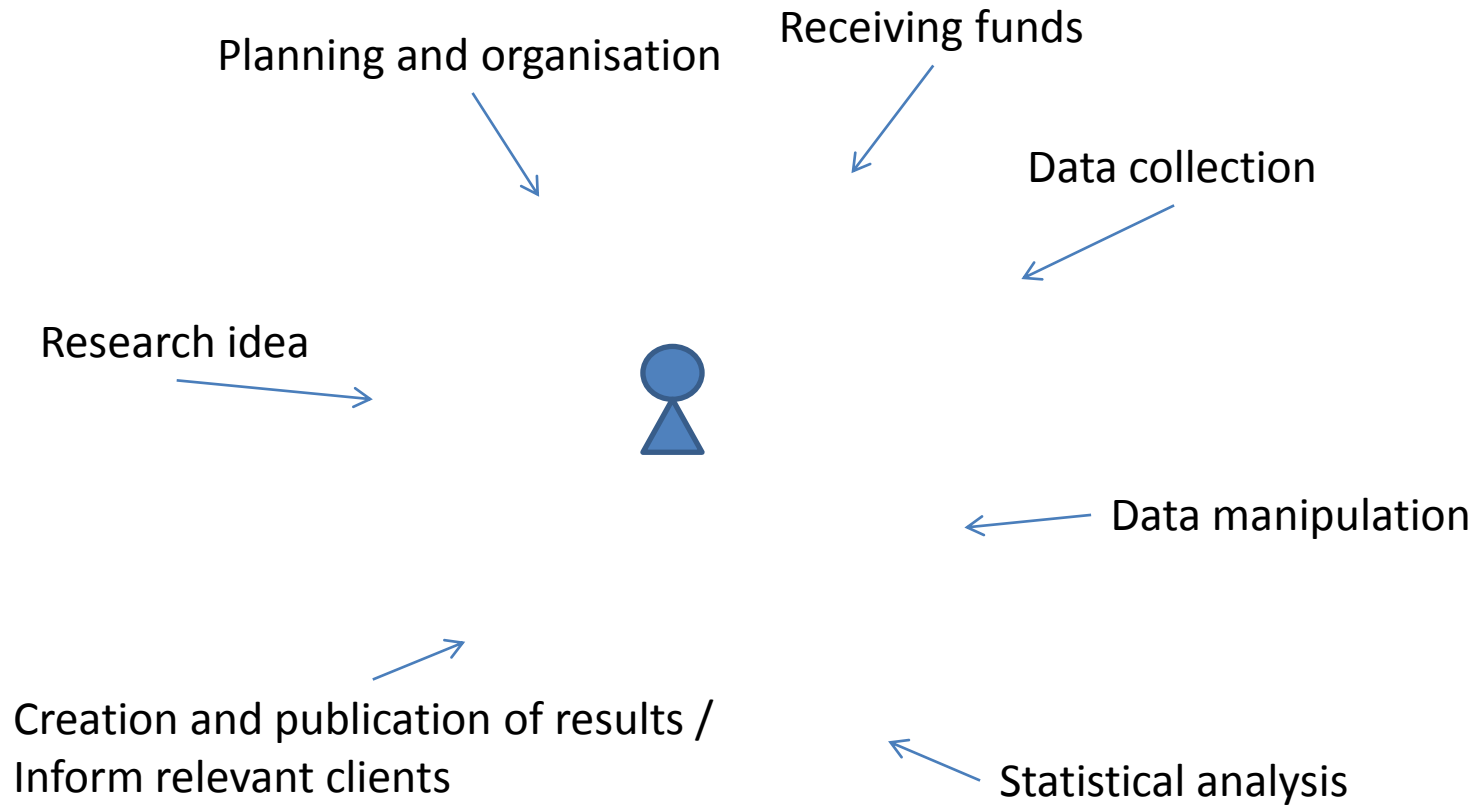
- ▶ OCS Consulting:
 - ▶ Depends on client or assignment, varies

- ▶ Client observations:
 - ▶ Assignments should fit the consultant
 - ▶ Involve employees / consultants with subject of investigation



Differences - Organisation within company

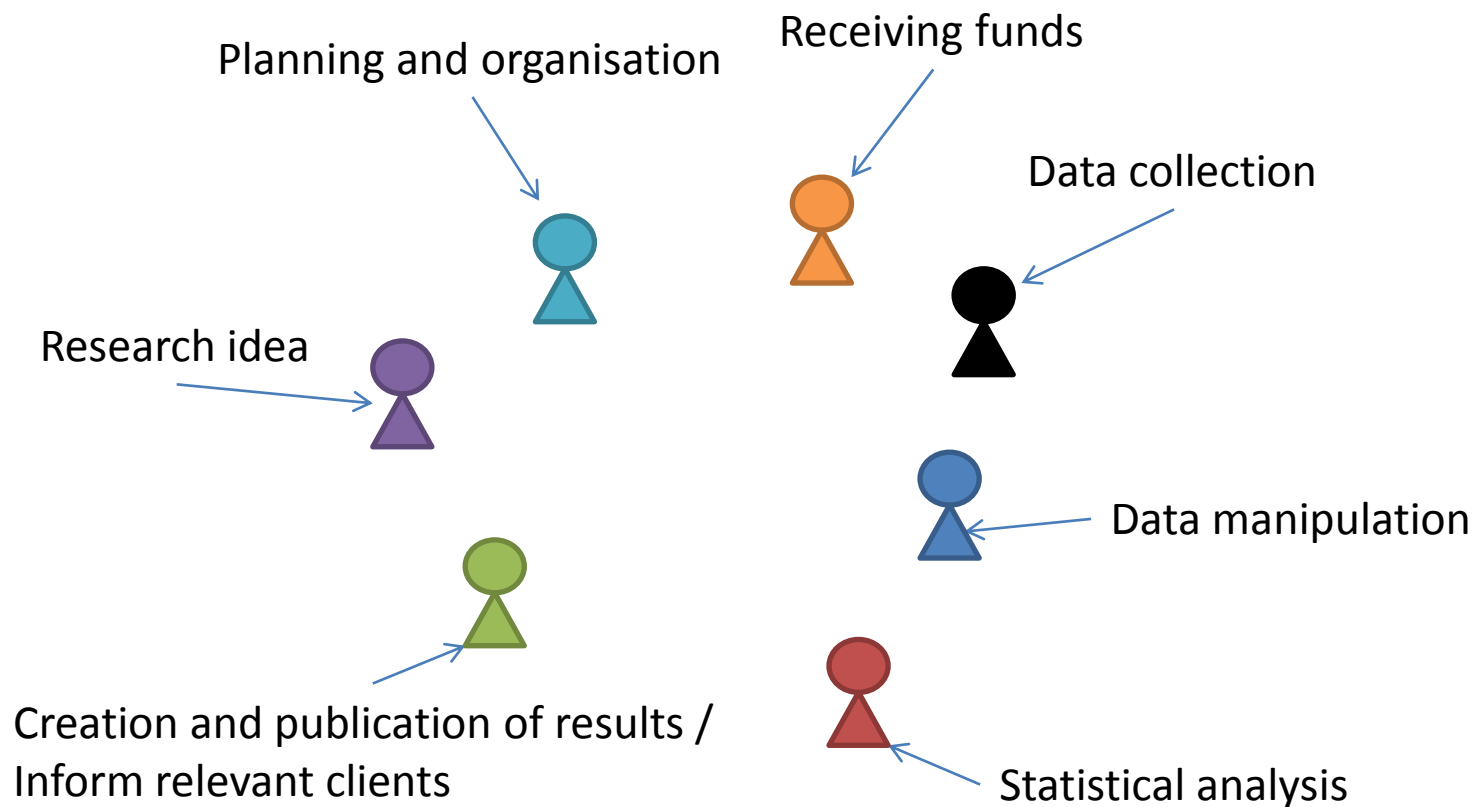
CCC





Differences - Organisation within company

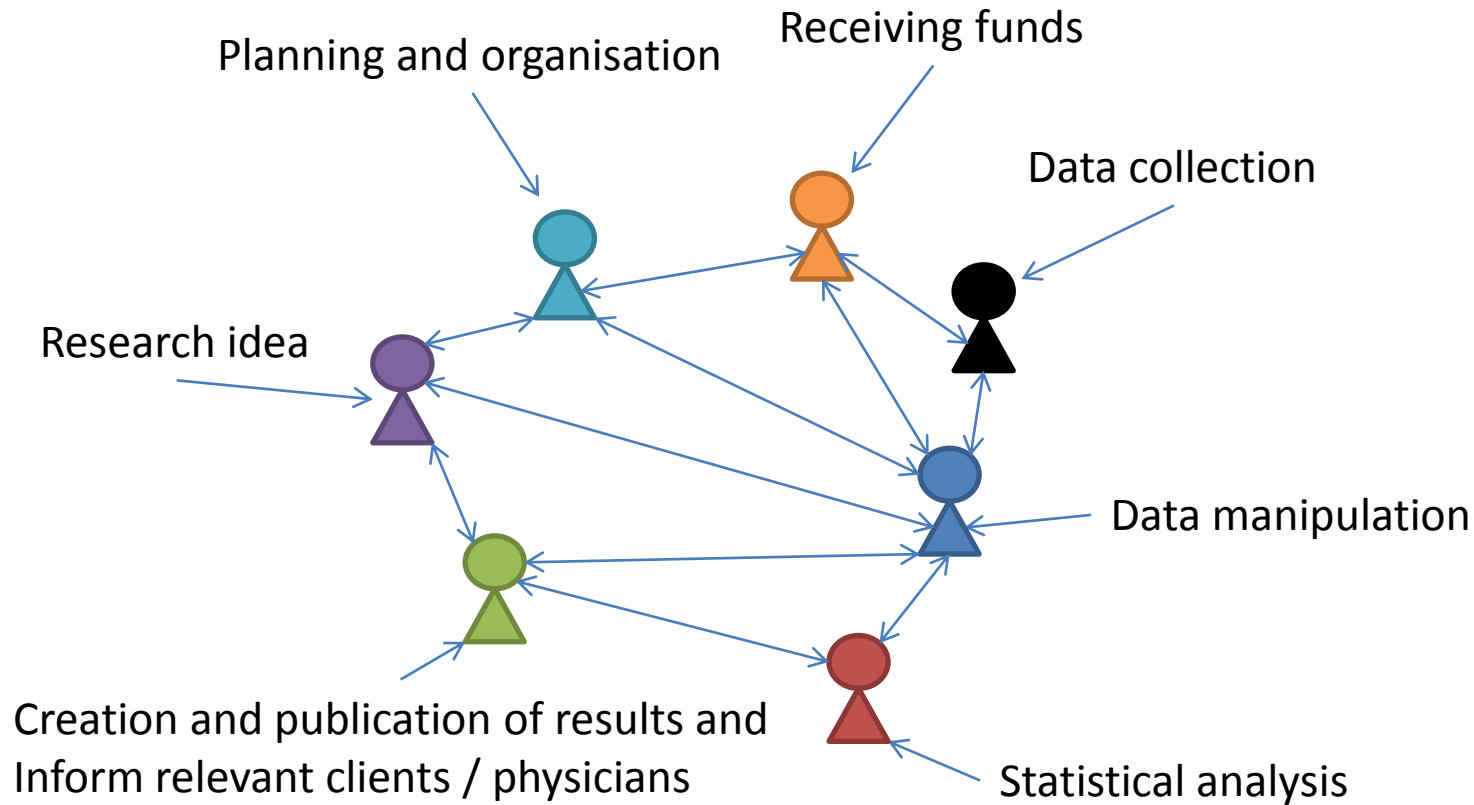
OCS Consulting / client





Differences - Organisation within company

OCS Consulting / client





Differences - Organisation within company

- ▶ CCC:
 - ▶ Resistance to stress and time management
 - ▶ Dedication to the project

- ▶ OCS Consulting:
 - ▶ Programming skills
 - ▶ Team support / expertise



Differences - Way of working

- ▶ CCC:
 - ▶ Freedom
 - ▶ Data digging
 - ▶ Creativity

- ▶ OCS Consulting:
 - ▶ Preparation
 - ▶ Standardisation



Differences – Validation

- ▶ CCC:
 - ▶ No code review
 - ▶ Methods

- ▶ OCS Consulting:
 - ▶ Code review
 - ▶ Test script
 - ▶ Quality Assurance



Differences - Datasets

- ▶ CCC:
 - ▶ One (wide) dataset
 - ▶ Own standard
 - ▶ No complex data handling required

- ▶ OCS Consulting:
 - ▶ Multiple
 - ▶ CDISC standard
 - ▶ Advanced data handling techniques



Differences - Use of SAS

- ▶ CCC:
 - ▶ Use basic SAS knowledge
 - ▶ Copy-paste of results
 - ▶ Little use of macros

- ▶ OCS Consulting:
 - ▶ Certification
 - ▶ Output is primary goal
 - ▶ Extensive use of macros



Lessons learned by comparing “using SAS” as an epidemiological researcher and “using SAS” as a statistical programmer

- ▶ Epidemiological researchers can learn:
 - ▶ SAS programming skills
 - ▶ Validation (standardization)
 - ▶ Preparation
- ▶ Statistical programmers can learn:
 - ▶ Overview project
 - ▶ Time management
 - ▶ Stress resistance

