



Getting Help

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Asking questions

- **In a standard class**
 - There are 30-100 people
 - You raise your hand and ask a question
 - The instructor responds
- **In a MOOC**
 - There are almost 100,000 people
 - You post a question to the message board
 - Others vote on your questions
 - Your instructor responds (as often as possible)
 - Your peers respond (as often as possible)

Often the fastest answer is the one you find yourself

- It's important to try to answer your own questions first
- If the answer to your question is in the help file or the top hit on Google, the answer to your question will be, "Read the documentation" or "Google it"
- If you figure out the answer and see the same questions on the forum, post the solution you found

Where to look for different types of questions

- R programming (see also: <http://bit.ly/Ufaadn>)
 - Search the archive of the class forums
 - Read the manual/help files
 - Search on the web
 - Ask a skilled friend
 - Post to the class forums
 - Post to the [R mailing list](#) or [Stackoverflow](#)
- Data Analysis/Statistics
 - Search the archive of the class forums
 - Search on the web
 - Ask a skilled friend
 - Post to the class forums
 - Post to [CrossValidated](#)

Some important R functions

Access help file

```
?rnorm
```

Search help files

```
help.search("rnorm")
```

Get arguments

```
args("rnorm")
```

```
## function (n, mean = 0, sd = 1)  
## NULL
```

Some important R functions

See code

```
rnorm
```

```
## function (n, mean = 0, sd = 1)
## .External(C_rnorm, n, mean, sd)
## <bytecode: 0x7fe2d456d078>
## <environment: namespace:stats>
```

R reference card

<http://cran.r-project.org/doc/contrib/Short-refcard.pdf>

How to ask an R question

- What steps will reproduce the problem?
- What is the expected output?
- What do you see instead?
- What version of the product (e.g. R, packages, etc.) are you using?
- What operating system?

How to ask a data analysis question

- What is the question you are trying to answer?
- What steps/tools did you use to answer it?
- What did you expect to see?
- What do you see instead?
- What other solutions have you thought about?

Be specific in the title of your questions

- Bad:
 - HELP! Can't fit linear model!
 - HELP! Don't understand PCA!
- Better
 - R 2.15.0 lm() function produces seg fault with large data frame, Mac OS X 10.6.3
 - Applied principal component analysis to a matrix - what are U, D, and V^T ?
- Even better
 - R 2.15.0 lm() function on Mac OS X 10.6.3 -- seg fault on large data frame
 - Using principal components to discover common variation in rows of a matrix, should I use U, D or V^T ?

Etiquette for forums/help sites: DOs

- Describe the goal
- Be explicit
- Provide the minimum information
- Be courteous (never hurts)
- Follow up and post solutions
- Use the forums rather than email

Etiquette for forums/help sites: DON'Ts

- Immediately assume you found a bug
- Grovel as a substitute for doing your work
- Post homework questions on mailing lists (people don't like doing your homework)
- Email multiple mailing lists at once/the wrong mailing list
- Ask others to fix your code without explaining the problem
- Ask about general data analysis questions on R forums.

A note on Googling data analysis questions

- The best place to start for general questions is our forum
- [Stackoverflow](#), [R mailing list](#) for software questions, [CrossValidated](#) for more general questions
- Otherwise Google "[data type] data analysis" or "[data type] R package"
- Try to identify what data analysis is called for your data type
 - [Biostatistics](#) for medical data
 - [Data Science](#) for data from web analytics
 - [Machine learning](#) for data in computer science/computer vision
 - [Natural language processing](#) for data from texts
 - [Signal processing](#) for data from electrical signals
 - [Business analytics](#) for data on customers
 - [Econometrics](#) for economic data
 - [Statistical process control](#) for data about industrial processes
 - etc.

Further resources

- Some R resources you might find useful
 - Roger's Computing for Data Analysis [Videos](#) on Youtube
 - A set of [two-minute R tutorials](#)
- Some Data Analysis Resources you might find useful
 - [The Elements of Statistical Learning](#)
 - [Advanced Data Analysis from an Elementary Point of View](#)

Credits

- Roger's [Getting Help Video](#)
- Inspired by Eric Raymond's "How to ask questions the smart way"