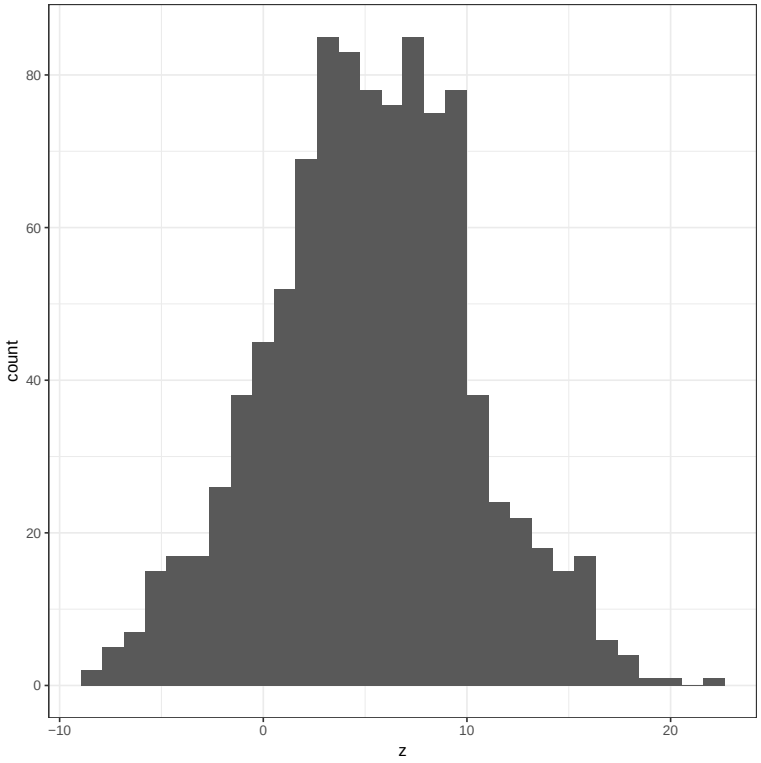
Name
Note that here we can add any comments, etc to talk about what we're coding.

```
# <<label , options=TRUE, options=FALSE>>=
set.seed(12345)
x <- 5   # Five x's
y <- 5   # Five y's
# @
```

We can do some cool things with our code:

```
# Here echo =TRUE to show code, to hide from .pdf: echo=FALSE

# Code Setup/ and Formatting:
library(knitr)
# This code is for figures, which may be similarly customized output visualizations:
## See https://github.com/yihui/knitr/blob/master/inst/examples/knitr-themes.Rnw
## and https://github.com/yihui/knitr/blob/master/inst/misc/Sweavel.sty
#  to fix arrow <_ issue vs <-
options(formatR.arrow=TRUE, width=78)

##! Changing out theme to "kellys"
##! For Printing, consider changing this to "moe" or "edit-xcode"
##! Check out Themes at: http://animation.r-forge.r-project.org/knitr/
theme = knit_theme$get("kellys")
knit_theme$set(theme)
```

```
# Now we have fancy code highlights:
# Added in a plot here to see ease of replicable code:
#  out.width='size parameter',

# Note this will remember our x and y values from before
z <- rnorm(1000, x, y)
library(ggplot2)
      ## Warning:  package 'ggplot2' was built under R version 3.3.3

qplot(z) +
    theme_bw()

  ## `stat_bin()` using `bins = 30`.  Pick better value with `binwidth`.
```



Essentially this is just a beautiful cross between LaTeXand R; a few things to note here:

1. Spell checker is a little more difficult in this format. Also the LaTeXcode will not auto-complete, making things difficult sometimes.

2. However, your code has to run 100% correctly from just what you enter, meaning any that reads this will have 100% reproducability!

3. You don't ever have to show your R code, you can have it running underneath (echo=FALSE). This means that you can actually write papers here like you would in LaTeXbut have your data and replication update automatically. This includes figure names, tables, and image customizations.

4. All of LaTeXcommands work here as well, so creating tables, images, and references work as well!