

# A Minimal Demo of connect3

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## 1 Introduction

Package 'connect3' converts LaTeX files (with extension .tex) generated by R Sweave using package 'knitr' o Rich Text Format (RTF) files. Features include:

- conversion of R syntax highlighting
- conversion of tables generated by Hmisc::describe, Hmisc::summary, and Hmisc::latex
- conversion of mathematical equations
- conversion of graphics
- conversion of itemize and enumerate
- conversion of references

## 2 Table

```
#Data Generation
set.seed(123)
StudyID<-seq(1:100)
gender<-rep(c("Male", "Female"), times=50)
age<-rnorm(100, mean=10.00, sd=1.50)
treatment<-rep(c('Yes', 'No'), times=50)
race<-rep(c("Hispanic", "White", "Black", "Other"), times=25)
qolScore <-rnorm(100, mean=70.0, sd=10.0)
data<-data.frame(StudyID=StudyID,
                  gender=gender,
                  age=as.numeric(age),
                  treatment=factor(treatment, c('Yes', 'No')),
                  race=factor(race, c("White", "Black", "Hispanic", "Other")),
                  qolScore=as.numeric(qolScore))
str(data)
```

```
## 'data.frame': 100 obs. of 6 variables:
## $ StudyID : int 1 2 3 4 5 6 7 8 9 10 ...
## $ gender : Factor w/ 2 levels "Female","Male": 2 1 2 1 2 1 2 1 2 1 ...
## $ age : num 9.16 9.65 12.34 10.11 10.19 ...
## $ treatment: Factor w/ 2 levels "Yes","No": 1 2 1 2 1 2 1 2 1 2 ...
## $ race : Factor w/ 4 levels "White","Black",...: 3 1 2 4 3 1 2 4 3 1 ...
## $ qolScore : num 62.9 72.6 67.5 66.5 60.5 ...

#Summary Table
library(Hmisc)
Demo<-summary(treatment~age+gender+race+qolScore,method='reverse', test=T)
Demo<-latex(Demo, size='small', file='Demo.tex', where='!h')
```

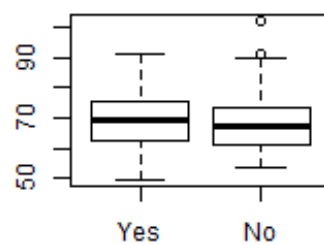
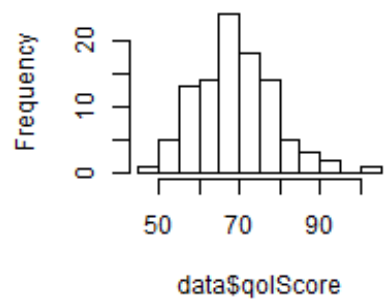
Table 1: Descriptive Statistics by treatment

	No			Yes			Test Statistic
	<i>N</i> = 50			<i>N</i> = 50			
age	9.257589	10.018343	10.944154	9.296508	10.189856	11.140469	$F_{1,98} = 0.05, P = 0.827^1$
gender : Male	0% ( 0)			100% (50)			$\chi^2_1 = 100, P < 0.001^2$
race : Black	0% ( 0)			50% (25)			$\chi^2_3 = 100, P < 0.001^2$
Hispanic	0% ( 0)			50% (25)			
Other	50% (25)			0% ( 0)			
White	50% (25)			0% ( 0)			
qolScore	61.87878	67.28704	73.08149	62.25988	69.23240	75.52094	$F_{1,98} = 0.14, P = 0.707^1$

$a$   $b$   $c$  represent the lower quartile  $a$ , the median  $b$ , and the upper quartile  $c$  for continuous variables. Numbers after percents are frequencies. Tests used: <sup>1</sup>Wilcoxon test; <sup>2</sup>Pearson test

### 3 Figure

```
hist(data$qolScore,main='')
boxplot(qolScore ~ treatment, data=data)
```



## References

- [1] Yihui Xie (2015) knitr: A General-Purpose Package for Dynamic Report Generation in R. R package version 1.11.
- [2] Frank E Harrell Jr, with contributions from Charles Dupont and many others. (2015). Hmisc: Harrell Miscellaneous. R package version 3.16-0. <http://CRAN.R-project.org/package=Hmisc>