

We can use the assignment symbol `<-` to assign the output of this `inner_join` function to a new variable I'm calling `dataRT_all`. We can ask for the structure of this new data frame using the `str()` function:

```
> dataRT_all <- inner_join(data, dataRT, by = (c("ID")))
> str(dataRT_all)
'data.frame':   48 obs. of  6 variables:
 $ ID          : int  95 400 457 1138 1587 1805 1864 2006 2183 2318 ...
 $ WM          : int  47 45 42 41 54 52 57 44 55 51 ...
 $ IQ          : int  94 118 100 77 67 109 111 110 125 91 ...
 $ Comp        : int  19 18 22 18 21 19 19 19 23 21 ...
 $ Simple_Sentence : int  2154 1824 1857 1902 1844 2224 1880 2091 1926 1960 ...
 $ Complex_Sentence: int  2441 2456 2324 2341 2320 2256 2391 2456 2218 2440 ...
```

So we have created a new data frame of 48 participants consisting of their reading times and their individual difference measures from two separate (and different sized) data frames...with one line of code...

```
> head(dataRT_all)
   ID WM  IQ Comp Simple_Sentence Complex_Sentence
1  95 47  94  19         2154           2441
2 400 45 118  18         1824           2456
3 457 42 100  22         1857           2324
4 1138 41  77  18         1902           2341
5 1587 54  67  21         1844           2320
6 1805 52 109  19         2224           2256
```

Now imagine we find the distributions of reading times for our two conditions are positively skewed (and we discover the residuals are non-normal). We could log transform these two columns and have two new columns in our data frame - let's call them `log_simple` and `log_complex`. We can use the `mutate` function in the `dplyr` package to create two new columns.

```
> data_transformed <- mutate(dataRT_all, log_simple = log(Simple_Sentence),  
log_complex = log(Complex_Sentence))
```

```
> data_transformed
```

	ID	WM	IQ	Comp	Simple_Sentence	Complex_Sentence	log_Simple	log_Complex
1	95	47	94	19	2154	2441	7.675082	7.758333
2	400	45	118	18	1824	2456	7.508787	7.825245
3	457	42	100	22	1857	2324	7.526718	7.912423
4	1138	41	77	18	1902	2341	7.550661	7.772753
5	1587	54	67	21	1844	2320	7.519692	7.685703
6	1805	52	109	19	2224	2256	7.707063	7.733684
7	1864	57	111	19	1880	2391	7.539027	7.800163
8	2006	44	110	19	2091	2456	7.645398	7.761745
9	2183	55	125	23	1926	2218	7.563201	7.771067
10	2318	51	91	21	1960	2440	7.580700	7.771489