$grade_analysis_2$

Kevin Gilds, MPA 2016-04-24

Contents

Set up R to read database	1
Reading Data-	2
Join Q1 and Q2 Data	2
Language Arts Grades-	3
Join Q1 and Q2 Language Arts Grades	3
Absences	3
Join Absence data from Q1 and Q2	3
Suspensions	4
Merge Suspensions Q1 and Q2 Data	4
Time Series Data	5
Lang Arts Grades	5
Set up R to read database	
## Loading required package: gsubfn	
## Loading required package: proto	
## Loading required package: RSQLite	
## Loading required package: DBI	
## ## Attaching package: 'dplyr'	
<pre>## The following objects are masked from 'package:stats': ##</pre>	
## filter, lag	
<pre>## The following objects are masked from 'package:base': ##</pre>	
## intersect. setdiff. setequal. union	

Reading Data-

Join Q1 and Q2 Data

Reading Success: % of Students that increased Grade or maintained a C

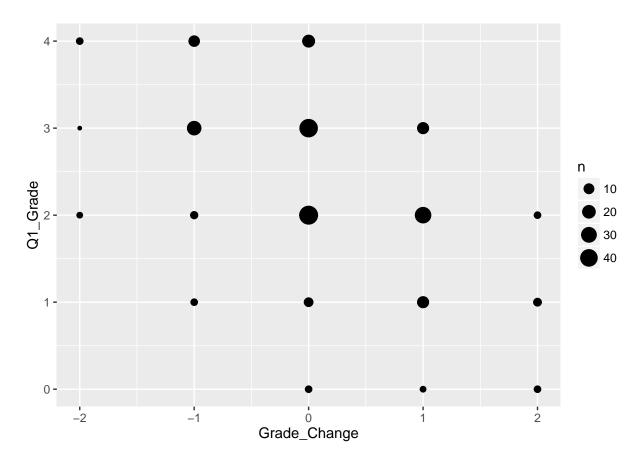
75.2

GPA Difference between Q1 and Q2 $\,$

0.126

Reading Grades Plots

Reading Grade Change from Q1 to Q2



Language Arts Grades-

Join Q1 and Q2 Language Arts Grades

Language Arts Grade Change

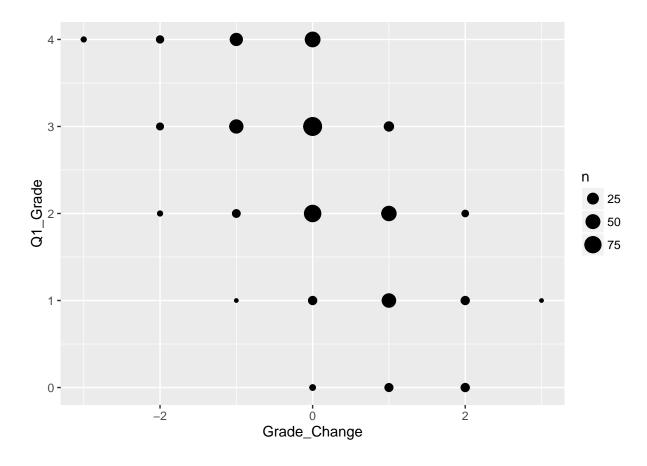
Language Arts Grade: % of Students that increased Grade or maintained a C

74.31

Lang Arts Grade Stats

0.1166

Language Arts Grade Change from Q1 to Q2



Absences

Join Absence data from Q1 and Q2

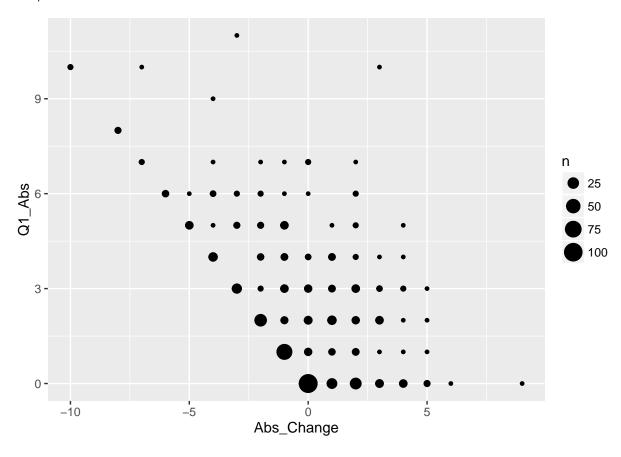
Absences Success: % of Students who decreased their absences or had no absences.

[1] 61.99

Absences Change

-10	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	9
2	4	3	5	10	19	24	47	99	137	51	57	25	15	7	1	1

-0.284



Suspensions

Merge Suspensions Q1 and Q2 Data.

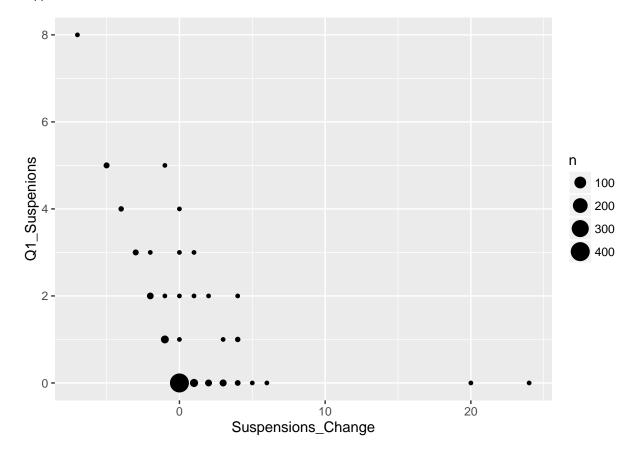
Suspensions Outcome Function

86.55

Suspensions Changes

-7	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	20	24
1	4	2	4	10	23	404	26	11	12	6	1	1	1	1

0.144



Time Series Data

Lang Arts Grades

Language Arts Grade: % of Students that increased Grade or maintained a C

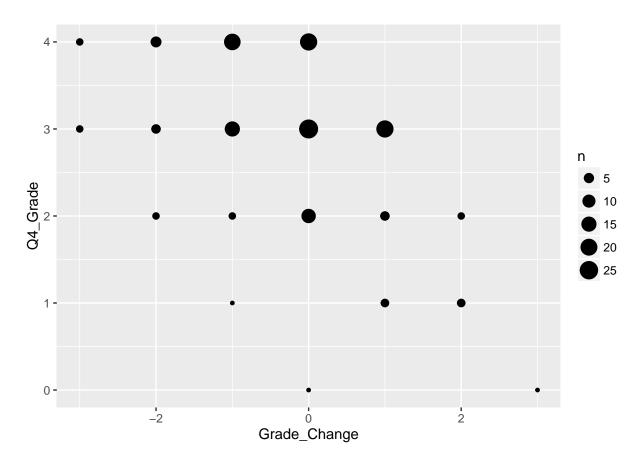
63.76

Average Change from Q4 2015 to Q2 2016

-0.2148

Language Arts Grade change from Q4 2015 to Q2 2016 Plots

Language Arts Grade Changes from Quarter 4 2015 to Quarter 2 2016.



Matched Reading Grades from Q4 2015 through Q2 2016:

Reading Grade: % of students who increased their grade or maintained a C 25.81 Reading Grades: Average GPA change from Q4 through Q2 2016.

[1] -1.225806

```
reading_change_plot_m <- ggplot(reading_q4q2,(aes(x = Grade_Change, y = Q4_Grade)))
reading_change_plot_m + geom_count()</pre>
```

