Statistics 101 Analysis for Section AB
Homework Comparison across Topics 3 – 6

Overview

The 2 homework outcome files are Topic03.AB.csv, Topic06.AB.csv.

There are 50 students in Section AB submitting their answers. 50 of them did all the homeworks. Since different homeworks have different full scores, the percentages correct are used to compare among homeworks. The average correct percents for the 2 homeworks are 24, 25, respectively. Figure **??** compares the histograms of those homeworks. Table **??** and Figure **??** display the basic summaries of the scores.

Figure 1: Histograms of the percentages correct by students homeworks.

	Mean	Std.dev	Min	Median	Max
Topic03	23.80	18.74	0.00	17.14	88.57
Topic06	24.96	9.51	0.00	24.00	48.00

Table 1: Summary statistics for correct percentage. Topic06 has the highest mean correct percentage, while Topic03 has the lowest. Topic03 has the largest standard deviation, and Topic06 has the smallest.

Figure 2: Side-by-side boxplots of the percentages correct by students homeworks. Topic06 has the highest median, while Topic03 has the lowest median.

Students

Figure **??** and Table **??** give the percentage scores of each homework of all homeworks for every student in this section. Table **??** also provides the mean percentages by student. The students are sorted by their average percentage score of 2 homeworks. Table **??** lists the students who were in the lower 20% of the class.

Figure 3: Heatmap of the percentage scores of all homeworks for students in the section. The grey areas are the missing values.

	Topic03	Topic06	AvgCrtPct
w.introstat40	88.57	48.00	68.29
w.introstat49	80.00	32.00	56.00
w.introstat70	85.71	24.00	54.86
w.introstat42	61.43	36.00	48.71
w.introstat41	45.71	24.00	34.86
w.introstat43	42.86	24.00	33.43
w.introstat44	38.57	28.00	33.29
w.introStat50	17.14	48.00	32.57
w.introstat31	28.57	28.00	28.29
w.introStat52	20.00	36.00	28.00
w.introstat45	22.86	32.00	27.43
w.introStat59	22.86	32.00	27.43
w.introstat39	17.14	36.00	26.57
w.introstat60	31.43	20.00	25.71
w.introstat48	22.86	28.00	25.43
w.introstat61	22.86	28.00	25.43
w.introstat65	14.29	36.00	25.14
w.introstat34	17.14	32.00	24.57
w.introstat37	17.14	32.00	24.57
w.introStat55	17.14	32.00	24.57
w.introstat69	17.14	32.00	24.57
w.introStat56	31.43	16.00	23.71
w.introstat26	11.43	36.00	23.71
w.introstat66	22.86	24.00	23.43
w.introStat54	17.14	28.00	22.57
w.introStat58	17.14	28.00	22.57
w.introstat33	11.43	32.00	21.71
w.introstat46	27.14	16.00	21.57
w.introStat51	17.14	24.00	20.57
w.introStat53	17.14	24.00	20.57
w.introstat21	20.00	20.00	20.00
w.introstat28	20.00	20.00	20.00
w.introstat47	20.00	20.00	20.00
w.introstat35	11.43	28.00	19.71
w.introstat62	11.43	28.00	19.71
w.introstat23	22.86	16.00	19.43
w.introstat32	14.29	24.00	19.14
w.introStat57	17.14	20.00	18.57
w.introstat63	8.57	28.00	18.29
w.introstat36	20.00	16.00	18.00
w.introstat67	11.43	24.00	17.71
w.introstat30	22.86	12.00	17.43

w.introstat22	17.14	16.00	16.57
w.introstat29	14.29	16.00	15.14
w.introstat68	14.29	16.00	15.14
w.introstat38	5.71	20.00	12.86
w.introstat24	11.43	12.00	11.71
w.introstat27	5.71	12.00	8.86
w.introstat25	17.14	0.00	8.57
w.introstat64	0.00	4.00	2.00

Table 2: Percentage scores of all homeworks for the students. 0% of the students have the average correct percentage greater than 90%, and 98% of the students have their average correct percentage below 60%.

	Topic03	Topic06
w.introstat26	X	
w.introstat33	X	
w.introstat35	X	
w.introstat62	X	
w.introstat63	X	
w.introstat67	X	
w.introstat30		X
w.introstat38	X	
w.introstat24	X	X
w.introstat27	X	X
w.introstat25		X
w.introstat64	X	X

Table 3: Students whose scores were under 20% of the class.

Missing Data

Figure **??** shows the summary of missing homeworks from the students. Table **??** lists the students who missed at least one homework.

Times.Missing

Table 4: Students with missing homeworks.

Figure 4: Histogram of the missing homeworks.

Acknowledgement