Stat101 Homework Short Report for Topic 06 C

Mean	Std.dev	Min	Q1	Median	Q3	Max
20.38	5.43	0.00	18.00	22.50	24.75	25.00
(82%)	(22%)	(0%)	(72%)	(90%)	(99%)	(100%)

Table 1: Summary statistics of the scores

Each of the 50 students were given 25 questions from a bank of 89 questions. Figure 1 and Table 1 give the overall summary of student performance. Table 2 lists the 18 students who scored below 80 percent on the assignment. Table 3 and Figure 2 provide summary statistics of the scores per question set and learning outcome.
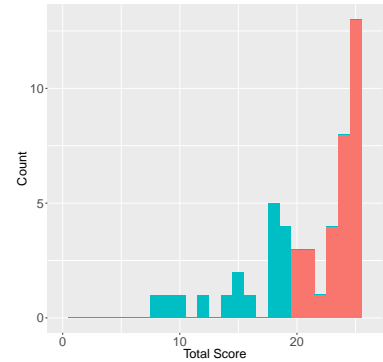
Figure 1: Histogram of scores. Blue data represent scores less than 80 percent.

	% Correct		% Correct		% Correct		% Correct
allenm	76.00	gheenm	72.00	luot	60.00	wehnerp	36.00
anglesn	76.00	sandford	72.00	retap	60.00	reddins	32.00
bogler	76.00	trudig	72.00	rosep	56.00	orriss	0.00
disalvot	76.00	vevers	72.00	marshall	48.00		
baran	72.00	bettst	64.00	marcelln	40.00		

Table 2: The 18 students whose percentages are less than 80 %.

Topic 06 Learning Outcomes:

A. Use standardizing to determine how many standard deviations an observation is away from the mean value.
B. Use z-scores to compare observations for different quantitative variables.
C. Explain how standardizing affects the shape, center, and variability of the distribution of a quantitative variable.
D. Determine which quantitative variables could be modeled using the normal distribution by interpreting graphical representations of the variable.
E. Apply the 68-95-99.
F. Find percentile or area values for any given observation from a normal distribution.
G. Find the value of an observation when given a percentile or area value from the normal distribution.
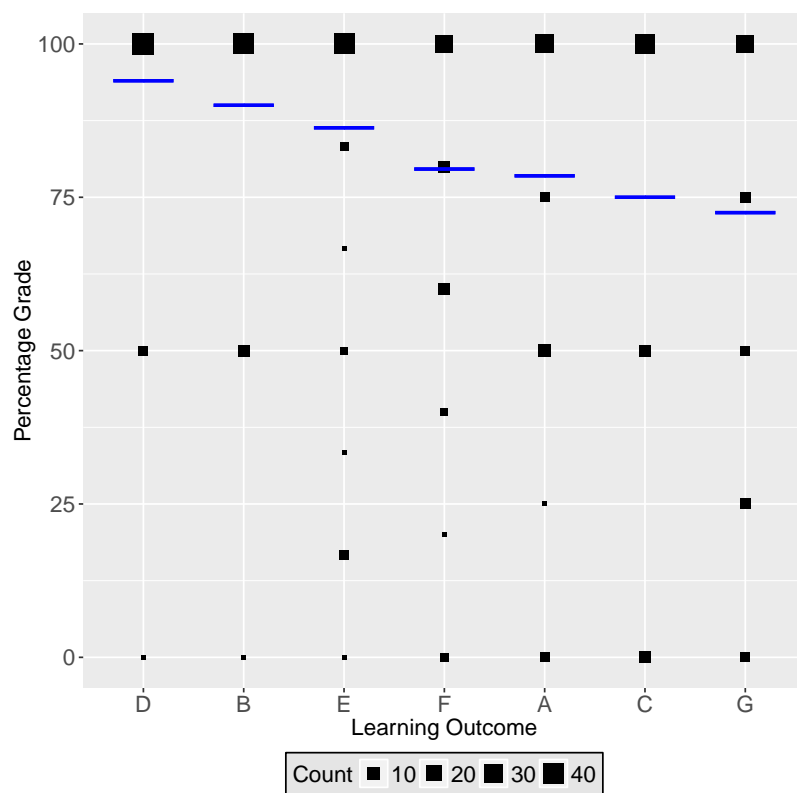
Figure 2: Fluctuation diagram of percentage correct by learning outcome. Mean scores are drawn as blue bars.

LO	Qset	#	Mean	Std.dev	Min	Median	Max
D	I	2	94	23.99	0.00	100.00	100.00
D	J	4	94	23.99	0.00	100.00	100.00
B	E	1	90	30.30	0.00	100.00	100.00
B	F	1	90	30.30	0.00	100.00	100.00
F	N	5	88	32.83	0.00	100.00	100.00
E	L	9	86.67	29.35	0.00	100.00	100.00
A	A	4	86	35.05	0.00	100.00	100.00
E	K	9	86	31.65	0.00	100.00	100.00
F	Q	5	86	35.05	0.00	100.00	100.00
A	B	4	84	37.03	0.00	100.00	100.00
F	M	5	84	37.03	0.00	100.00	100.00
C	H	1	78	41.85	0.00	100.00	100.00
G	R	5	78	41.85	0.00	100.00	100.00
G	S	5	74	44.31	0.00	100.00	100.00
A	C	4	72	45.36	0.00	100.00	100.00
A	D	4	72	45.36	0.00	100.00	100.00
C	G	1	72	45.36	0.00	100.00	100.00
F	O	5	72	45.36	0.00	100.00	100.00
G	T	5	72	45.36	0.00	100.00	100.00
F	P	5	68	47.12	0.00	100.00	100.00
G	U	5	66	47.85	0.00	100.00	100.00

Table 3: Summary statistics of the question sets. Rows are sorted by mean scores, which are marked red if less than 80 percent.