Results of Assessment Quiz
COP 4555 Principles of Programming Languages
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On April 16, 2013 I gave a 10-question multiple-choice quiz of programming languages concepts in my COP 4555 class. There were 30 students present, out of 34 enrolled in the class.

The complete results are shown in the following table, which has a row for each student (labeled '1' through '30') and a column giving the results for each question (labeled '1' through '10'), using '1' for 'correct' and '0' for 'incorrect'.

	1	2	3	4	5	6	7	8	9	10	# correct
1	1	1	0	1	1	1	1	1	1	1	9
2	1	1	0	1	1	1	1	1	1	1	9
3	1	1	0	1	1	1	1	1	1	1	9
4	0	1	0	1	1	1	1	1	1	1	8
5	1	1	0	0	1	1	1	1	1	1	8
6	1	1	0	1	0	1	1	1	1	1	8
7	1	1	0	1	1	1	1	1	0	1	8
8	1	0	1	1	1	1	1	0	1	1	8
9	1	0	1	1	0	0	1	1	1	1	7
10	1	0	0	0	1	1	1	1	1	1	7
11	1	1	1	1	1	1	0	0	0	1	7
12	0	1	0	1	0	1	1	1	1	1	7
13	1	0	0	0	1	1	1	1	1	1	7
14	0	1	1	1	1	1	1	0	1	0	7
15	1	1	1	1	0	1	1	0	0	1	7
16	0	0	0	1	1	1	1	1	1	1	7
17	1	1	0	1	0	1	0	0	1	1	6
18	0	0	1	1	0	0	1	1	1	1	6
19	0	0	0	1	1	1	1	0	1	1	6
20	0	0	1	1	1	0	1	0	1	1	6
21	0	0	0	1	1	1	1	0	1	1	6
22	1	1	0	1	0	0	1	0	1	1	6
23	1	0	0	1	0	1	1	0	1	1	6
24	1	0	0	0	0	1	1	1	1	1	6
25	1	1	0	1	0	0	1	0	1	1	6
26	1	1	0	1	1	0	1	0	0	1	6
27	1	1	0	0	0	1	1	1	0	1	6
28	0	0	1	1	0	1	1	0	0	1	5
29	1	0	0	0	0	1	1	0	1	0	4
30	0	1	0	1	0	1	0	0	1	0	4
# correct	20	17	8	24	16	24	27	15	24	27	202

Interpretation of Results

Focusing first on the rows, we see that the average student score was 6.73 out of 10, and the median score was 7 out of 10. Moreover, 53% of the students answered at least 7 out of 10 quesions correctly, while 90% of the students answered at least 6 out of 10 questions correctly.

Turning next to the columns, it is notable that the number of correct answers varied widely from question to question, ranging from 27 (90%) for questions 7 and 10, down to 8 (27%) for question 3.

The following table shows the COP 4555 Student Learning Outcome (SLO) that is most closely related to each of the quiz questions, and also shows the percent of students that answered that question correctly.

Question	1	2	3	4	5	6	7	8	9	10
SLO	1.1	2.1	6.3	1.1	1.1	3.1	3.1	4.1	5.1	6.2
% correct	67	57	27	80	53	80	90	50	80	90

This table suggests that students have a particular weakness in SLO 6.3 ("Analyze running time complexity of a program component"). Indeed the same conclusion is indicated by the results of the homeworks during the semester.