

De Anza College Office of Institutional Research and Planning

To: Ram Subramaniam, Chemistry Instructor

From: Mallory Newell, De Anza Researcher

Date: 4/22/2014

Subject: Progression to Chemistry1A

The Chemistry department asked to explore the following questions:

1. Among the students who continue onto CHEM1A from CHEM50:
 - a. What is the grade distribution in CHEM1A of the students receiving a C in CHEM50?
 - b. What is the grade distribution in CHEM1A of the students receiving a B (C , B-, or B) in CHEM 50?
 - c. What is the grade distribution in CHEM 1A of the students receiving a grade of B or higher in CHEM 50?
2. How does the score on the Chemistry Placement Test correlate with grade obtained in CHEM 1A?

Methodology

To answer these questions, students who enrolled in CHEM1A and/or CHEM50 were tracked between 2009-10 and 2012-13. Students who took the Chemistry placement exam between 6/3/09 and 3/29/13 were tracked as well. The last attempt of CHEM50 and the first attempt of CHEM1A were included. Only students who enrolled in CHEM50 prior to CHEM1A were included. Over the time period, 2,187 students took CHEM1A.

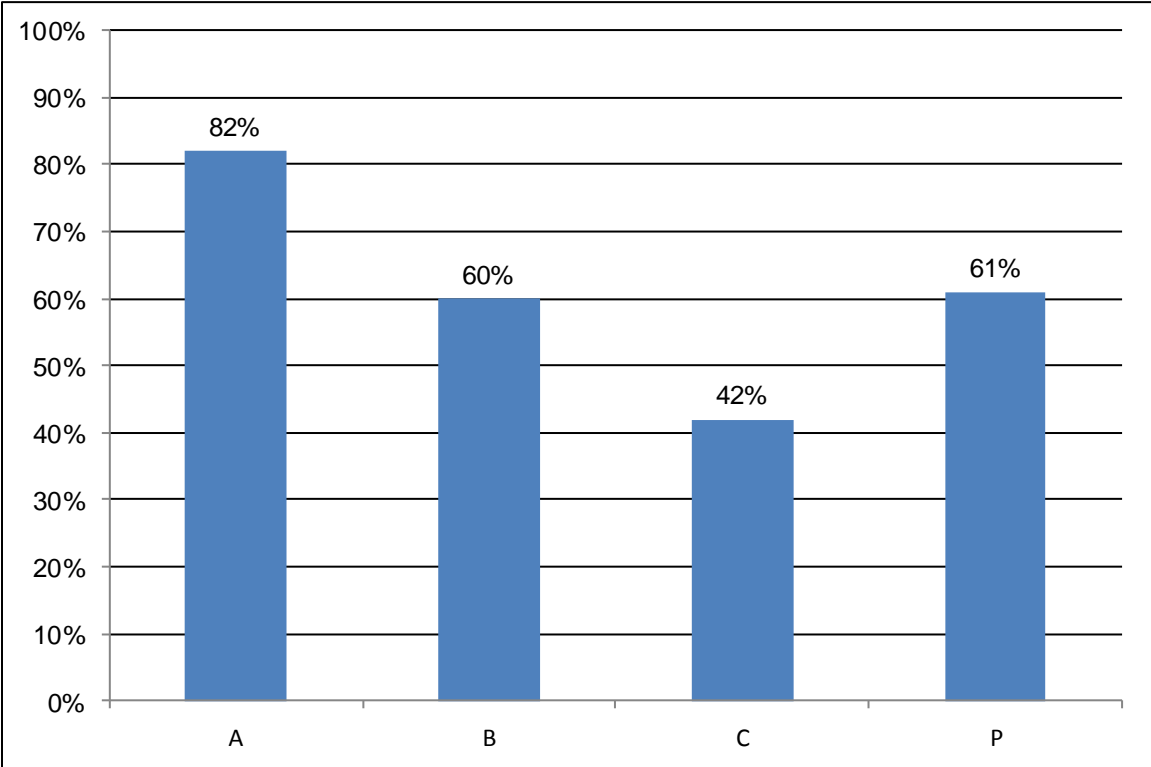
Table 1. Grade in CHEM50 and Success in CHEM1A

CHEM 50	Success		Non Success		Withdraw		Total	Total
	Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
A	226	82%	11	4%	37	14%	274	100%
B	148	60%	32	13%	65	27%	245	100%
C	82	42%	42	22%	69	36%	193	100%
P	103	61%	20	12%	46	27%	169	100%
Total	559	63%	105	12%	217	25%	881	100%

Note: 92 students did not take CHEM50 during the time frame but enrolled in CHEM1A, these students had a success rate of 42%.

- Students who received an A in CHEM50 exhibited a success rate of 82% compared to 60% success for students with a B and 42% for students with a C.
- Students who received a passing grade in CHEM50 exhibited success rates of 61%.

Graph 1. Distribution of Grades in CHEM50 and Success in CHEM1A



Graph 1 displays the distribution of success in CHEM1A based on their grade in CHEM50.

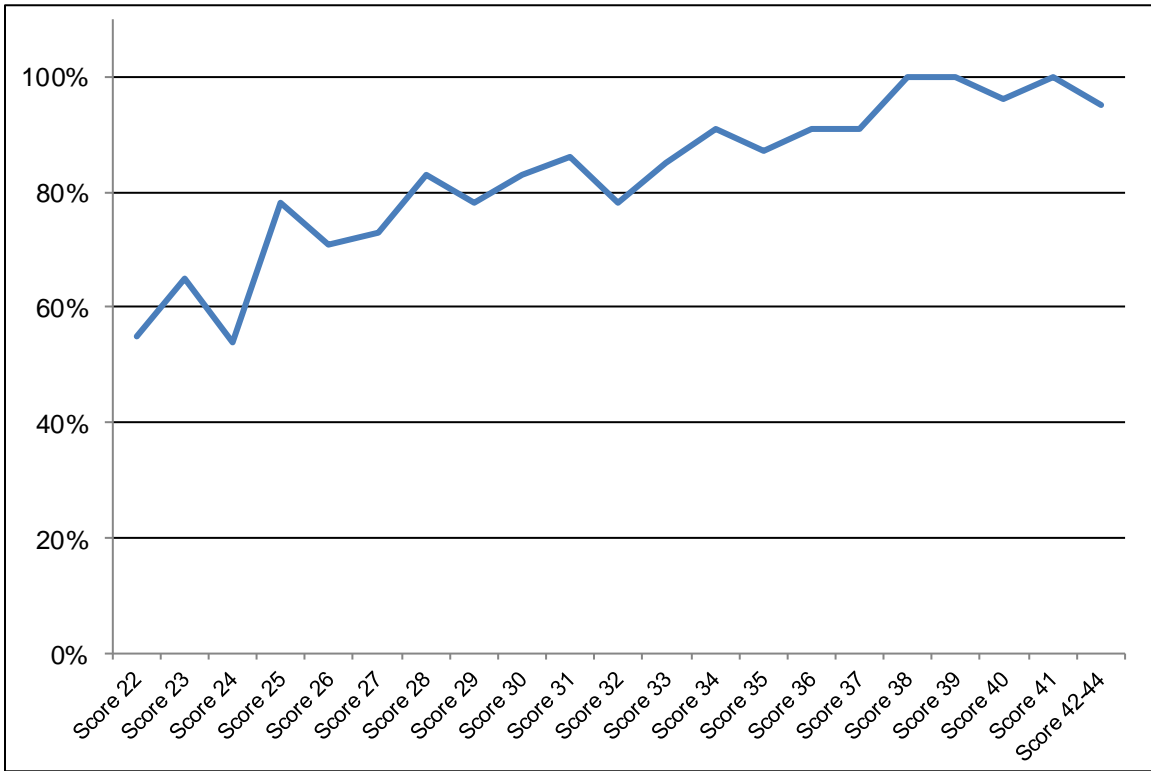
Table 2. Placement Score and Success in CHEM1A

Placement Score	Success		Non Success		Withdraw		Total	Total
	Grades	Percent	Grades	Percent	Grades	Percent	Grades	Percent
22	24	55%	5	11%	15	34%	44	100%
23	31	65%	6	13%	11	23%	48	100%
24	29	54%	4	7%	21	39%	54	100%
25	53	78%	4	6%	11	16%	68	100%
26	32	71%	4	9%	9	20%	45	100%
27	46	73%	3	5%	14	22%	63	100%
28	44	83%	3	6%	6	11%	53	100%
29	38	78%	3	6%	8	16%	49	100%
30	49	83%	4	7%	6	10%	59	100%
31	51	86%	2	3%	6	10%	59	100%
32	42	78%	9	17%	3	6%	54	100%
33	56	85%	1	2%	9	14%	66	100%
34	51	91%	2	4%	3	5%	56	100%
35	47	87%	3	6%	4	7%	54	100%
36	40	91%	1	2%	3	7%	44	100%
37	29	91%	1	3%	2	6%	32	100%
38	30	100%					30	100%
39	34	100%					34	100%
40	22	96%	1	4%			23	100%
41	13	100%					13	100%
42-44	20	95%			1	5%	21	100%
Total	781	81%	56	6%	132	14%	969	100%

Note: 1,222 students who took CHEM1A did not take the placement exam, these students had a success rate of 65%.

- Students who received score between 22 and 24 exhibited a success rate between 55-65%.
- Students who received score between 25 and 27 exhibited a success rate between 71-73%.
- Students who received score between 28 and 33 exhibited a success rate between 78-85%.
- Students who received score between 34 and 37 exhibited a success rate between 87-91%.
- Students who received score between 38 and 44 exhibited a success rate between 95-100%.

Graph 2. Distribution of Placement Scores and Success in CHEM1A



Graph 2 displays the distribution of placement scores and their grade in CHEM1A.