



Adult Education Students who Attended SBCCD in Summer and Fall 2015

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Purpose of Brief

The purpose of this brief is to summarize the results of the SBCCD Adult Education Program.

Sample

- 26 AE students enrolled in an SBCCD course in summer or fall 2015
- Most of the AE students were from San Bernardino Adult School (n = 15) or Redlands Adult School (n = 7)
- 42% of the AE students were 20-24 years old
- 50% were Hispanic
- 58% were female
- 96% were low-income

Findings

- AE students are slightly more likely to place into transfer level English (27%) than students in the comparison group (25%)
- AE students were more likely to place two levels below English (42%) than the comparison group (35%)
- AE students were more likely to place into transfer level math (7%) than the comparison group (5%)
- AE students were less likely to place into one (14%) or two (18%) levels below transfer level math than students in the comparison group (31% and 21%)
- AE students are substantially more likely to successfully complete a course (70%) than students enrolled in the same section (66%)

Overview

The purpose of this brief is to identify and track the number of adult education (AE) students who attended one of the two colleges in the San Bernardino Community College District (SBCCD) in Summer and Fall 2015 to help meet the reporting requirements for the AB104 AE Block Grant as well as to begin to explore the effectiveness of the SBCCD AE Program.

Possible Implications

AE students were more likely to place into transfer level English and math than the comparison group, but more likely to place into the lower level English and math courses. These results suggest that emphasis needs to be placed on improving basic skills in writing and math. On the other hand, AE students were much more likely to have higher reading placements than students in the comparison group. Suggesting that AE students reading skills are high and struggle more with writing and mathematics.

Methodology

AE students were identified by selecting students who completed their last year of AE in 2015 at one of the following schools: Rialto Alternative (Adult) Education, Redlands Adult School, San Bernardino Adult School (aka: Inland Career Education Center), and Yucaipa AE. The schools were identified by the AB86 Project Administer as schools that are participating in the AB104 AE Block Grant with the SBCCD. In addition, any high school with the word "Adult" in the name was also used to identify AE students. Students who graduated from these schools in 2015 with a high school diploma, GED, or equivalent were identified as SBCCD AE students if they earned a GOR (i.e. a grade of A, B, C, D, F, I, P, NP, or W) in Summer 2015 or Fall 2015 at either Crafton Hills College (CHC) or San Bernardino Valley College (SBVC).

There were two different comparison groups identified for AE students. The first comparison group is illustrated in Table 3 and compares the placement results of AE students to students who graduated from high school in 2015. The second comparison group is illustrated in 5 and compares AE students to students who earned a GOR in the same section.

Completion rate is defined as earning a grade of A, B, C, D, F, I, P, or NP divided by the number of GOR and multiplied by 100. Similarly, success rate is defined as earning a grade of A, B, C, or P divided by the number of GOR and multiplied by 100.

Statistical significance was determined by calculating the p-value. The p-value represents the probability that the difference in the course completion or success rates between AE students and students enrolled in the same section is due to chance. A lower p-value indicates that the difference is less likely to occur randomly in the population. Specifically, the AE student course success rate is statistically significantly higher than the students enrolled in the same section when the p-value is less than .05. It is important to keep in mind that when interpreting statistical significance statistically significant differences can occur even when the difference between two groups is very small (Serlin & Lapsley, 1985). Accordingly, it is also important to not only look at statistical significance, but to also examine how large the difference is between the comparison groups, and to consider the size of the difference in order for it to be meaningful. Therefore, the results presented here also include effect size.

The effect size statistic was used to indicate the size of the difference in the course completion or success rates between AE students and students enrolled in the same section. One method of interpreting effect size was developed by Jacob Cohen. Jacob Cohen defined “small,” “medium,” and “large” effect sizes. He explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. An effect size is considered to be meaningful if it is .20 or higher. It is important to mention that the number of students in each group does not influence effect size; whereas, when statistical significance is calculated the number of students in each group does influence the significance level (i.e. “p” value being lower than .05). Accordingly, using Cohen as a guide, a substantial effect would be .20 or higher.

Limitations

The comparison group illustrated in Table 3 for the placement results does not control for skill level, age, or whether or not students in the comparison group were first-time college students. In addition, while the comparison group illustrated in Table 5 for course completion and success does control for faculty, section, and course, it does not control for student skill level and demographics.

Sample

Of the 56 AE students who completed an application, 26 (46%) earned a GOR in the SBCCD in Summer 2015 or Fall 2015. Table 1 illustrates the AE school that each student attended prior to transitioning to the SBCCD. AE students transitioned to SBCCD from six AE schools. Most of the students (58%) transitioned from San Bernardino Adult School followed by Redlands Adult School (27%).

Table 1: Number and Percent of Summer and Fall 2015 AE SBCCD Students by AE School.

School	#	%
Burbank Adult School	1	3.8
Fontana Adult School	1	3.8
Redlands Adult School	7	26.9
San Bernardino Adult School	15	57.7
Valley Adult School	1	3.8
Yucaipa Adult School	1	3.8
Total	26	100.0

Forty-two percent of the AE students who earned a GOR at CHC or SBVC were 20-24 years old, 50% were Hispanic, 58% were female, and 96% were low-income students (see Table 2). Moreover, the AE students were more likely to attend SBVC, 77% attended SBVC and 23% attended CHC.

Table 2: Number and Percent of Summer and Fall 2015 AE SBCCD Students by Age, Gender, Ethnicity, and Income.

Age	#	%	Gender	#	%
19 year old or younger	4	15.4	Female	15	57.7
20-24 Years Old	11	42.3	Male	11	42.3
25-29 Years Old	3	11.5	Total	26	100.0
30-34 Years Old	4	15.4			
35-39 Years Old	2	7.7	Location		
40-49 Years Old	1	3.8	Crafton Hills College	6	23.1
50 or Older	1	3.8	San Bernardino Valley College	20	76.9
Total	26	100.0	Total	26	100.0
Ethnicity	#	%	Low Income	#	%
African American	1	3.8	No	1	3.8
Asian	3	11.5	Yes	25	96.2
Caucasian	7	26.9	Total	26	100.0
Hispanic	13	50.0			
Multiple Races	2	7.7			
Total	26	100.0			

Findings

Table 3 illustrates the number and percent of AE students and the comparison group by their English, reading, and math placement levels. The comparison group consists of students who completed high school in 2015 with a high school diploma or equivalent and who also completed the assessment test. The results for English indicated that AE students are slightly more likely to place into transfer level English (27%) than students in the comparison group (25%). However, AE students were more likely to place two levels below English (42%) than the comparison group (35%).

In reading, AE students were more likely to place into transfer level reading (27%) than students in the comparison group (17%). In addition, AE students were also more likely to place one level below transfer in reading (65%) than students in the comparison group (55%). Finally, when examining the math placements, AE students were more likely to place into transfer level math (7%) than the comparison group (5%). However, AE students were less likely to place into one (14%) or two (18%) levels below transfer level math than students in the comparison group (31% and 21%).

Table 4 illustrates the number and percent of AE student enrollments by discipline. The results indicate that AE students are much more likely to enroll in math (19%) and English (12%). Enrollments after English vary from disciplines like Anthropology (4%), Biology (3%), Political Science (3%), and many more.

Table 5 compares the completion and course success rates of AE students to students who earned a GOR in the same section. The results indicate that AE students are substantially more likely to successfully complete a course (70%) than students in the comparison group (66%). AE students were slightly less likely to complete the course (87%) than students in the comparison group (89%). However, this difference was not statistically significant or substantial.

Table 3: Number and Percent of AE Students by Placement in English, Reading, and Math.

Placements	Comparison Group*		Adult Education Students	
	#	Column %	#	Column %
English Placement				
Two Levels Below Transfer (ENGL914 or 976)	728	35.0	11	42.3
One Level Below Transfer (ENGL-010 or 015)	829	39.9	8	30.8
Transfer Level (ENGL-101)	522	25.1	7	26.9
Total	2079	100.0	26	100.0
Reading Placement				
Four Levels Below Transfer (READ-920)	129	5.6	1	3.8
Three Levels Below Transfer (READ-950)	407	17.7	1	3.8
Two Levels Below Transfer (READ-951)	108	4.7	0	0.0
One Level Below Transfer (READ-015 or 980)	1260	54.8	17	65.4
Transfer Level (READ-100 or READ-MET)	394	17.1	7	26.9
Total	2,298	100.0	26	100.0
Math Placement				
Four Levels Below Transfer (MATH-942/943)	844	29.5	7	25.0
3.5 Levels Below Transfer (MATH-962)	139	4.9	4	14.3
Three Levels Below Transfer (MATH-952/953)	278	9.7	6	21.4
Two Levels Below Transfer (MATH-090)	590	20.6	5	17.9
One Level Below Transfer (MATH-095)	880	30.7	4	14.3
Transfer Level (MATH-102/103/108/115/160/250)	132	4.6	2	7.1
Total	2,863	100.0	28	100.0

*Comparison Group – Students who completed high school in 2015 and completed the specified assessment.

Table 4: Number and Percent of AE Student Enrollments by Discipline.

Discipline	#	%
Administration of Justice	2	1.9
American Sign Language	1	1.0
Anthropology	4	3.9
Art	3	2.9
Astronomy	1	1.0
Biology	3	2.9
Chemistry	3	2.9
Child Development	4	3.9
Communication Studies	3	2.9
Computer Information Systems	2	1.9
Computer Information Technology	2	1.9
Corrections	1	1.0
English	12	11.7
Geography	2	1.9
Health Education	1	1.0
Heating, Vent, AC, and Refrigerator	5	4.9
History	3	2.9
Japanese	1	1.0
Kinesiology (Fitness, CHC)	1	1.0
Library Technology	2	1.9
Machinist Technology	2	1.9
Mathematics	20	19.4
Music (SBVC)	2	1.9
Philosophy	2	1.9
Political Science	3	2.9
Psychology	2	1.9
Radio, Television, and Film	1	1.0
Reading and Study Skills	4	3.9
Sociology	3	2.9
Spanish	1	1.0
Student Development	4	3.9
Technical Calculations	1	1.0
Theatre Arts	2	1.9
Total	103	100.0

Table 5: Completion and Success Rates for AE Students and SBCCD Students enrolled in the Same Section in Summer 2015 and Fall 2015.

Outcome	Students Enrolled in Same Section			Adult Education Students			Statistical Significance*	Substantial Difference**
	#	N	%	#	N	%		
Completion Rate	2,735	3,078	88.9	90	103	87.4	No	No
Success Rate	2,029	3,078	65.9	72	103	69.9	No	Yes

*In order to be statistically significant the p-value needed to be less than .05 indicating that the difference between the two groups is due to chance less than 5 out of 100 times.

**In order to be substantially different the effect size statistic, Cohen's d, needed to be greater than .20.

References

Serlin, R.C., & Lapsley, D.K. (1985). Rationality in psychological research: The good enough principle. *American Psychologist*, 40, 73-83.