



Relation Between Successful Course Completion and Academic Success

Successful course completion is one of the current Institutional Effectiveness Measures (IEMs) at Kapi'olani Community College (KapCC.) One of the institutional goals at KapCC is for the aggregate student course success rate to reach or exceed 75% of all courses taken at the college. This is conceptualized to be a precursor for eventual student graduation and/or transfer. The actual relation between course success and graduation and transfer had not been determined. The current research brief describes a study of a cohort of KapCC students and the relation between course success and graduation and/or transfer.

Methodology

A cohort of 1,311 new, first-time students registered and home-based at KapCC in the fall 2008 term was identified as of the census freeze date (27 September 2008.) Special early admit students (concurrently enrolled high school students) were excluded. Successful course completion rates for each member of the cohort were calculated for both fall 2008 and the 2008–2009 academic year (fall, spring, summer.) Successful grades were As, Bs, Cs, CRs, and CR+s. Courses with grades of CE (credit by exam), NCE (no credit awarded by exam), L (audit), and RD (recorded delayed) were excluded from the analysis. Correlations between success rates and graduation and/or transfer were calculated, and differences between the proportion of successful versus unsuccessful students who graduated and/or transferred were examined. Graduation included only associate degrees and transfers were only counted for changes in home base from KapCC to a UH 4-year institution. Graduation and transfer were examined within both three (150%) and four (200%) academic years of fall 2008.

Results

The point-biserial correlations between fall course success rates and graduation and/or transfer within three academic years ($r_{pb} = 0.327$, $p < 0.0001$) and four academic years ($r_{pb} = 0.367$, $p < 0.0001$) were significant. There is a moderately strong positive relation between fall course success rates and graduation and/or transfer. The higher the fall course success rate, the more likely the student will graduate and/or transfer.

The point-biserial correlations also were examined for academic year course success rates and graduation and/or transfer within both three academic years ($r_{pb} = 0.385$, $p < 0.0001$) and four academic years ($r_{pb} = 0.422$, $p < 0.0001$.) Both correlations were significant. There is a moderately strong positive relation between academic year course success rates and graduation and/or transfer. The higher the academic year course success rate, the more likely the student will graduate and/or transfer.

The relation between the proportion of students achieving a 67% fall course success rate or higher and graduation and/or transfer also was examined. Within three academic years, 30.25% of the students who had at least 67% fall course success graduated and/or transferred versus 4.20% of the students with lower fall course success rates. This was significant ($\chi^2 = 142.38$, $p < 0.0001$.) This relation also held true for graduation and/or transfer within four academic years. Students with at least 67% fall course success graduated and/or transferred 40.60% of the time, and less successful students only graduated and/or transferred 8.93% of the time ($\chi^2 = 164.40$, $p < 0.0001$.)

The relation between the proportion of students achieving a 75% fall course success rate or higher and graduation and/or transfer also was examined. Within three academic years, 31.43% of the

students who had at least 75% fall course success graduated and/or transferred versus 4.99% of the students with lower fall course success rates. This was significant ($\chi^2 = 148.76$, $p < 0.0001$.) This relation also held true for graduation and/or transfer within four academic years. Students with at least 75% fall course success graduated and/or transferred 41.81% of the time, and less successful students only graduated and/or transferred 10.14% of the time ($\chi^2 = 166.62$, $p < 0.0001$.)

The same Chi-Square analyses were conducted for academic year course success. Within three academic years, 32.46% of the students who had at least 67% academic year course success graduated and/or transferred versus 3.72% of the students with lower academic year course success rates. This was significant ($\chi^2 = 175.65$, $p < 0.0001$.) This significant relation also was true for graduation and/or transfer within four academic years. Students with at least 67% academic year course success graduated and/or transferred 43.23% of the time, and less successful students only graduated and/or transferred 8.41% of the time ($\chi^2 = 201.31$, $p < 0.0001$.)

The relation between the proportion of students achieving a 75% academic year course success rate or higher and graduation and/or transfer also was examined. Within three academic years, 34.25% of the students who had at least 75% academic year course success graduated and/or transferred versus 5.08% of the students with lower academic year course success rates. This was significant ($\chi^2 = 180.95$, $p < 0.0001$.) This significant relation also was true for graduation and/or transfer within four academic years. Students with at least 75% academic year course success graduated and/or transferred 45.13% of the time, and less successful students only graduated and/or transferred 10.30% of the time ($\chi^2 = 201.33$, $p < 0.0001$.)

The following table summarizes the results. All results were statistically significant.

Relation Between Successful Course Completion and Graduation and/or Transfer			
		Graduation and/or Transfer within 3 Academic Years	Graduation and/or Transfer within 4 Academic Years
Correlation between Course Success and Graduation and/or Transfer	Fall Course Success	$r_{pb} = 0.327$ $p < 0.0001$	$r_{pb} = 0.367$ $p < 0.0001$
	Academic Year Course Success	$r_{pb} = 0.385$ $p < 0.0001$	$r_{pb} = 0.422$ $p < 0.0001$
Percentage of Students Who Graduated and/or Transferred	Fall Course Success $\geq 67\%$ / $< 67\%$	30.25% / 4.20% $\chi^2 = 142.38$, $p < 0.0001$	40.60% / 8.93% $\chi^2 = 164.40$, $p < 0.0001$
	Academic Year Course Success $\geq 67\%$ / $< 67\%$	32.46% / 3.72% $\chi^2 = 175.65$, $p < 0.0001$	43.23% / 8.41% $\chi^2 = 201.31$, $p < 0.0001$
	Fall Course Success $\geq 75\%$ / $< 75\%$	31.43% / 4.99% $\chi^2 = 148.76$, $p < 0.0001$	41.81% / 10.14% $\chi^2 = 166.62$, $p < 0.0001$
	Academic Year Course Success $\geq 75\%$ / $< 75\%$	34.25% / 5.08% $\chi^2 = 180.95$, $p < 0.0001$	45.13% / 10.30% $\chi^2 = 201.33$, $p < 0.0001$

Conclusions

There was a robust relation between successful course completion rates and graduation and/or transfer. There were moderate positive correlations between course success rates and graduation and/or transfer for both fall and academic year course success rates and with graduation and transfer measured over either three or four academic years. Students with higher course success rates tended to graduate with associate degrees and/or transfer to UH 4-yr institutions more than students with lower course success rates.

There also were significant relations between the proportion of students with high versus low course success rates and graduation and/or transfer. Students with either fall or academic year course success in at least 67% or 75% of their courses graduated and/or transferred more frequently than students with lower course success rates.

The consistency with which course success is related to eventual academic success reinforces the idea that course success is a useful IEM. Course success rates are an effective measure and predictor of academic success for entering students. Successful course completion is an essential first step along the pathway to graduation and transfer.

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