COURSE VALIDATION STUDY
01-03-2008

Target Course: FTV 105
Prerequisite: Eligibility for ENGL 101

The following is statistical data on the validation of the following course prerequisite:
Eligibility for ENGL 101 as a prerequisite for FTV 105.

SUCCESS_IND * Eligibility for ENGL 101 Crosstabulation
Count

		Eligibility for ENGL 101		Total
		NO	YES	
SUCCESS_IND	NO	18	8	26
	YES	23	8	31
Total		41	16	57

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.172(b)	1	.678		
Continuity Correction(a)	.014	1	.905		
Likelihood Ratio	.172	1	.678		
Fisher's Exact Test				.771	.451
N of Valid Cases	57				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.30.

Chi-Square Measurement:
The *Chi-Square* measurement tests the hypothesis (*null hypothesis*) that there is *"no difference"* between the two groups. In order to reject this hypothesis and conclude that there is a statistically significant difference between the two groups Chi-Square must be greater than **3.84**. To ensure the validity of the Chi-Square test there is a minimum frequency threshold for a 2x2 table that should be obeyed. If any of the observed frequencies in the cross-tabulation table are **5 or below** than the validity of the Chi-Square measurement is questionable.

CHI-SQUARE = .172   FAIL TO REJECT NULL HYPOTHESIS

Fisher's Exact Measurement:
The *Fisher's Exact* measurement can be used as an alternative to the Chi-Square measurement where a large sample is difficult to obtain. In order to reject the null hypothesis and conclude that there is a statistically significant difference between the two groups Fisher's Exact must have a P-value **less than** the standard **.05**.

FISHER'S EXACT = .771   FAIL TO REJECT NULL HYPOTHESIS

Ratio:
The ratio to be measured is the ratio of ***right response:wrong response***.
A *right response* would be nonsuccess in the prerequisite course combined with nonsuccess in the target course or success in the prerequisite course combined with success in the target course. A *wrong response* would be nonsuccess in the prerequisite course combined with success in the target course or success in the prerequisite course combined with nonsuccess in the target course. For the *study ratio* to meet the *ratio criteria* it must be greater than or equal to **2:1**.

RATIO: 18+8:23+8 = **26:31**   FAILED CRITERIA

Percent Increase:
Percent increase is measured by subtracting the percent success before adjusting for the prerequisite from the percent success after adjusting for the prerequisite. For the *study percent increase* to meet the *percent increase criteria* there must be a difference greater than or equal to **10%** in the positive direction.

PERCENT INCREASE: FAILED CRITERIA
31/57 = 54.39% Before Prerequisite
8/16 = 50.00% After Prerequisite

Summary
A total sample of 100, with at least 20 students in the non-successful group for the target course is recommended. In this case the total sample is insufficient (57) and the number in the non-successful group is above the recommended level (26). Both the chi-square test and the Fishers Exact test fail to reject the null hypothesis that eligibility for ENGL 101 is independent of success in FTV 105, showing that there is no statistical evidence that eligibility for ENGL 101 is necessary for success in FTV 105. Eligibility for ENGL 101 also fails the Ratio and Percent Increase criteria. At this time there is no statistical evidence that eligibility for ENGL 101 is suitable as a prerequisite for FTV 105. A new analysis with additional data is recommended at a later date in order to increase the sample size.