



**Impact Of Follow Up Counseling On
Academic Performance And Persistence**

Office of Research
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May 2002

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Summary

Follow up counseling is most strongly related to an increase in retention and persistence and a decrease in the number of units attempted without a decrease in the number of units completed. Further, outreach efforts appeared to occur at a level sufficient to attract interested students. Future analysis will explore the number of visits to other counselors, planned work hours, educational goals and other potentially influencing factors.

Introduction

Beginning Fall 2000, Gavilan students on academic dismissal are required to visit a dedicated follow up counselor prior to enrolling to assist them in designing an achievable academic plan. It is hoped that this intensive mandatory service has resulted in improved academic performance and movement towards educational goals. The main goals of follow up counseling include:

- 1) students raising their GPA above 2.0,
- 2) increasing the number of completed units,
- 3) reducing withdrawals,
- 4) encouraging re-enrollment in subsequent terms.

Past research has found that similar interventions with at risk populations have resulted in increased GPA, increased persistence, and increased voluntary use of counseling (Polansky, Horan, and Hanish 1993; Schwitzer et al. 1993; Wilson, Mason, & Ewing 1997). Specifically, Polansky, Horan, and Hanish (1993) invited at risk students to participate in study skills and/or career counseling treatments. Participation in the program was limited and outcomes were compared between at risk students who received study skills or career counseling or both or neither. Results suggested that study skills counseling alone resulted in increased persistence and higher GPA's even though those students did not self-report improved study habits.

Wilson, Mason, & Ewing (1997) found a “positive, negatively accelerating dose-response relationship between number of counseling sessions and student retention.” This finding indicates that the first few counseling visits are related to the greatest retention enhancements with subsequent visits becoming subject to diminishing returns. However, students self-selected their level of participation in counseling, which limits the strength of causal explanations.

Schwitzer et al. (1993) studied the effects of mandatory counseling for at risk students. They found counseling related to increased persistence to graduation and increased voluntary use of counseling services. On the other hand, GPA's changes were negatively related to voluntary use of counseling.

These findings are consistent with theories that suggest involvement and academic integration are crucial variables influencing student behavior such as retention, even if the involvement and integration is not entirely voluntary on the students' part (Astin 1984; Tinto 1987; Bean 1982). This report is not a test of these theories but instead is an evaluation of a program inspired by these theories. Tests include whether mandatory follow up counseling is related to increases in GPA, increases in the number of units earned, decreased class withdrawals, and increased persistence.

Methods

The follow up counselor saw 68 students in Fall 2000 and 85 students in Spring 2001 with 25 of those students being seen both semesters. There were a total of 105 visits resulting from outreach efforts consisting of at least 153 letters, 115 cards to those not responding to the letter and 53 calls to those not responding to the card. In Fall 2000, 79% of students responded with at least one visit and in Spring 2001, 66% of students responded with at least one visit. The number of visits to the follow up counselor ranged from none to five with one visit being most common.

Evaluations consisted of relating outreach effort to number of visits, correlating change in GPA during the term follow up counseling was received to the number of visits, median number of units

completed and withdrawals before and after follow up counseling, and persistence rates before and after follow up counseling. None of these variables showed a normal distribution and data transformations proved unsatisfactory so the Kruskal-Wallis and Mann-Whitney U non-parametric tests were used when comparing central tendencies. Data on outreach efforts and students visits were collected by the follow up counselor. Academic data were extracted from the campus data warehouse using Brio Explorer 6.0 and analyzed using SPSS 10.1.4.

Results

In Table 1 we see that the card sent after the initial letter was associated with a large number of students visiting but that the highest level of effort showed diminishing returns with the average number of visits significantly different between levels of effort ($\chi^2(2) = 79.9, p < 0.0005$).

By comparing the number of visits to the follow up counselor with change in GPA during the term, we do not find a significant relation ($F(1,123) = 1.011, p = 0.317$; Figure 1). There also was not a significant difference in the average number of units earned in a non-summer term by students before and after receiving follow up services (Table 2; $Z = -0.497, p = 0.619$). There was a significant decline in the number of drops per non-summer term after students received follow up services (Table 3; $Z = -2.679, p = 0.007$). Finally, when comparing Fall to Spring persistence rates between students contacted by and visiting the follow up counselor, students contacted but not visiting, and academic dismissal students one year prior to mandatory counseling, we find that students contacted by and visiting the counselor were significantly more likely to persist than other students (Table 4). The number of units attempted significantly declined from a median of 9.0 units attempted before follow up counseling to a median of 7.0 units attempted after follow up counseling (Table 5; $Z = -3.110, p = 0.002$).

Discussion

Each additional level of outreach effort did seem to bring in additional students but at a quickly diminishing rate for the greatest effort level. This suggests that the students who did not visit may not be persuadable by current outreach efforts due to circumstances beyond the counselors influence and so additional efforts were not likely not have been beneficial. Follow up counseling was related most strongly to increases in persistence behavior, decreases in course drops, and decreases in units attempted. This change in behavior is beneficial to the student as both staying in school and reducing drops enables them to move off probation. The lack of increase in units earned may be due to the significant reduction in units attempted, which could be a reflection of students setting more realistic expectations for what they can achieve. The lack of increase in GPA may reflect the difficulty of raising grades in the short term. Perhaps there will be gains in GPA in future semesters. Other research suggests that there may have also been an increase in seeking voluntary counseling (Schwitzer et al. 1993) but data on other counselors visited by follow up students is not currently available.

Limitations and Future Research

Foremost is the self-selected nature of the sample and lack of a control group other than a student's own past performance or comparing outcomes to students before mandatory counseling. Also, we do not yet know how many times these students saw other counselors and what influence that may have had. We also do not yet know if before follow up counseling, GPA's tended to increase or decrease over time in the absence of this service. To answer these questions more definitively, this evaluation will be expanded to use the number of visits to follow up counselors as well as other counselors as predictors of change in GPA, units completed, drops, and persistence.

References

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Table 1. Level of follow up counselor outreach effort related to student visits for the 2000-2001 year.

Outreach effort	Visits					Median
	0	1	2	3	4	
Letter Only		15	7	7		2
Letter and Card	3	37	15	6	1	1
Letter, Card, and Call	45	5	3			0
Unknown		6	1			

note: median number of visits significantly differs using a Kruskal-Wallis test ($\chi^2(2) = 79.9, p < 0.0005$).

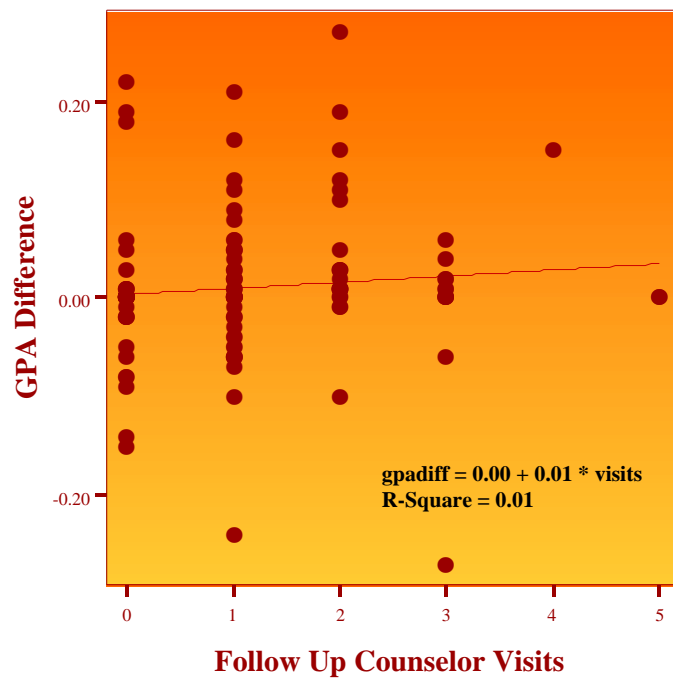


Figure 1. Change in GPA during semester (gpadiff) by number of visits to follow up counselor.

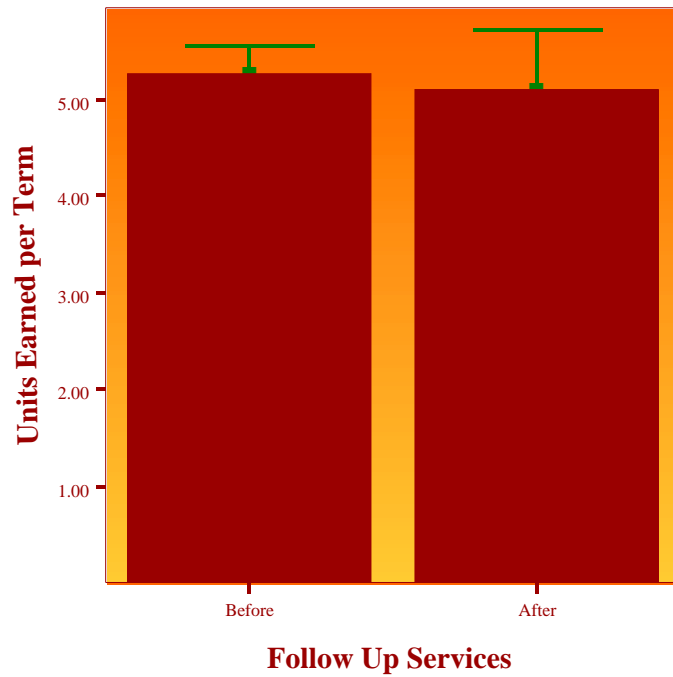


Figure 2. Mean number of units earned per non-summer term before and after follow up counseling with error bars representing 95% confidence intervals.

Table 2. Average number of units earned in a term excluding summers before and after follow up counseling.

	Mean	sd	Median
Before Follow Up Counseling	5.3	3.9	5
After Follow Up Counseling	5.1	3.8	4

note: difference not significant using a Mann-Whitney U test ($Z = -0.497$, $p = 0.619$)

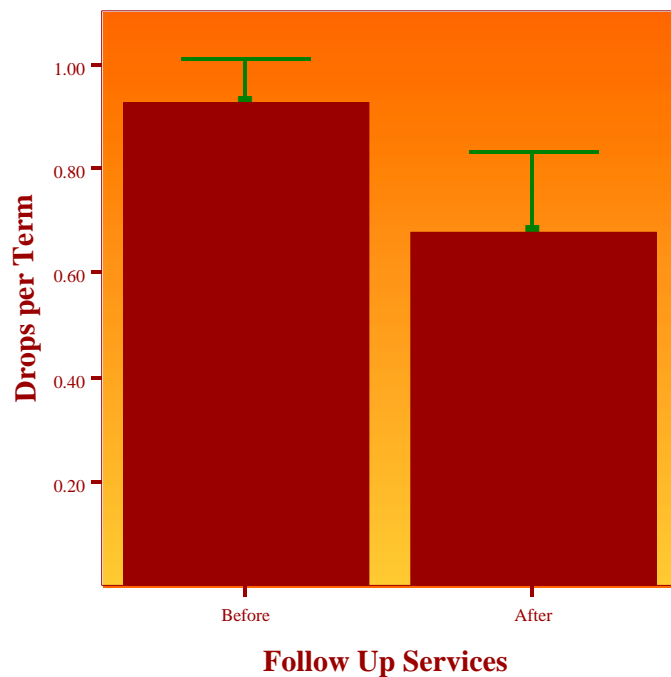


Figure 3. Mean number of drops per non-summer term before and after follow up counseling with error bars representing 95% confidence intervals.

Table 3. Average number of classes dropped in a non-summer term before and after follow up counseling.

	Mean	sd	Median
Before Follow Up Counseling	0.93	1.19	1
After Follow Up Counseling	0.68	1.03	0

note: difference significant using a Mann-Whitney U test ($Z = -2.679$, $p = 0.007$)

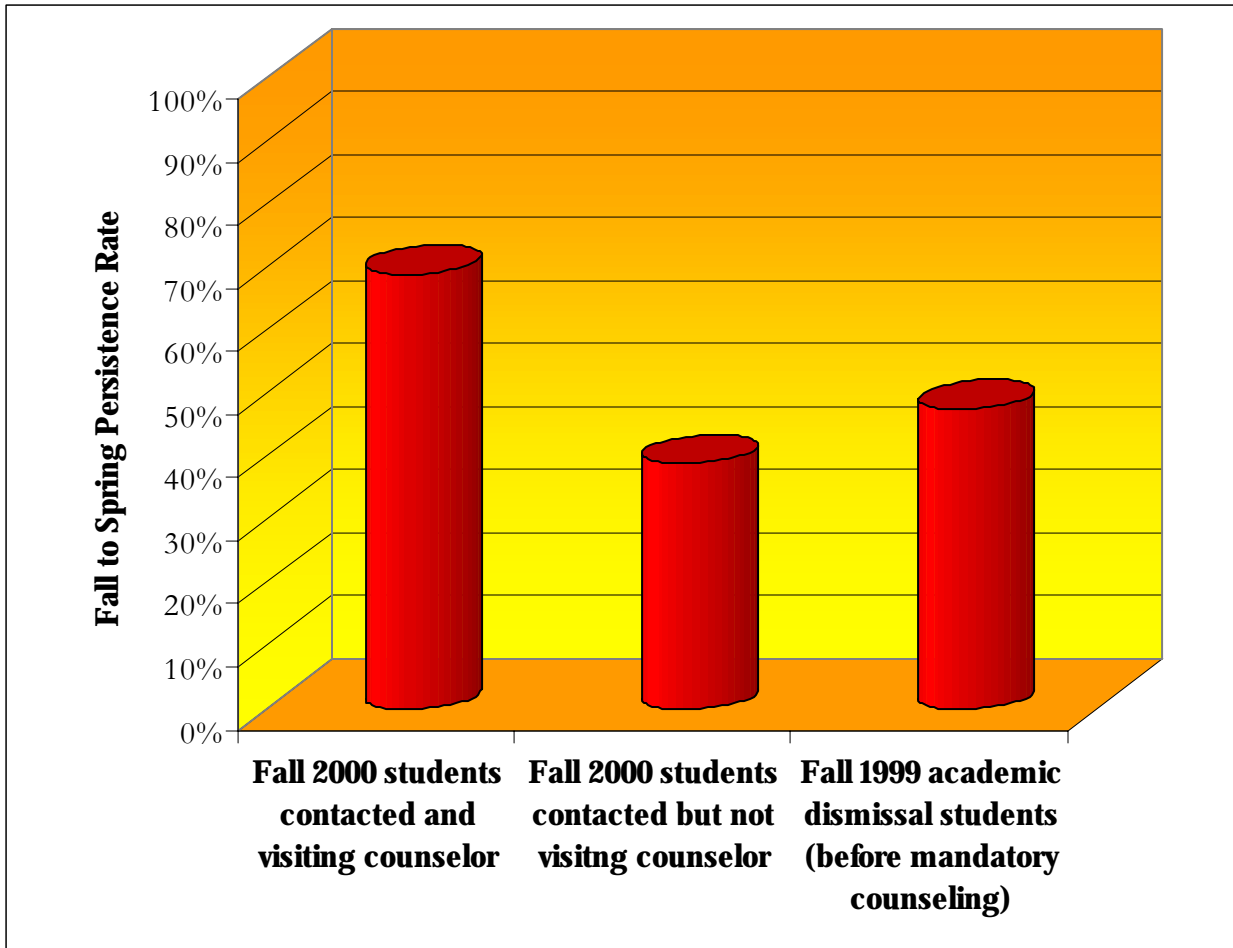


Figure 4. Persistence of students on Academic Dismissal by counseling intervention.

Table 4. Persistence in relation to interactions with follow up counselor.

	Persistence	
	Rate	N
Fall 2000 students contacted and visiting counselor	69%	45
Fall 2000 students contacted but not visiting counselor	39%	18
Fall 1999 academic dismissal students (before mandatory counseling)	48%	124

$X^2(2) = 7.35, p = 0.025$

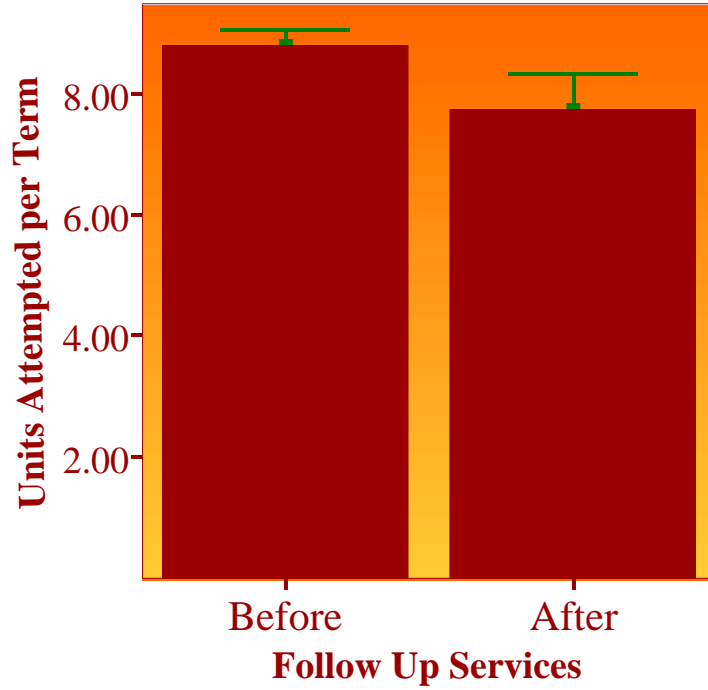


Figure 5. Mean number of units attempted per non-summer term before and after follow up counseling with error bars representing 95% confidence intervals.

Table 5. Average number of units attempted per non-summer term before and after follow up counseling.

	Mean	sd	Median
Before Follow Up Counseling	8.8	4.2	9
After Follow Up Counseling	7.7	4.0	7

note: difference significant using a Mann-Whitney U test ($Z= 3.110, p = 0.002$)