

Office of the Dean of Students

The college of William and mary

interoffice memorandum

to: educational policy committee

from: susie mirick, associate dean of students

trish volp, dean of students

subject: report of the fall 1998 academic intervention study

date: 03/31/99

Last April the faculty asked for a report on how the proposed academic intervention support services are functioning, specifically as related to implementation of the proposed continuance standards for Fall 1999. In preparing this report, we addressed four specific questions:

Question 1: *Do we have the support services in place to serve all the students who would be placed on probation under the new standards?* Yes.

Question 2: *Does the intervention program help students improve their semester and cumulative g.p.a.s?* Yes.

Question 3: *Do higher continuance standards and, therefore, earlier intervention make a difference in academic success?* Yes.

Question 4: *What did we learn about minorities?* Ethnic minorities make up a larger percent of the study group than they are in the general population. However, they show the same growth in academic success as majority students when we intervene. This supports applying higher standards and intervening earlier. (Numbers are too small for statistical significance.)

Supporting material for each of the above questions is attached. In addition, we have provided anecdotal information supporting the mid-semester reporting program that was enacted as part of the EPC Continuance Standards proposal.

We will be happy to answer additional questions.

Caveats and other limitations to the study--Revised

- One cannot say that there is a cause-effect relationship between the intervention program participation and improved grades; however, there is a positive correlation between the two activities. Student motivation to achieve can account for much of the change. However, we also can hypothesize that the program gave the student the tools to achieve.
- There are some glitches in the accessing of data. For example, one student has grades for different semesters under different social security numbers—we were unable to effect a merger of this data for his progress report.
- We can only access current cumulative q.p.a.s; the previous cumulative (pre-Fall 98) is static and was pulled in when live in early fall semester (~Oct. 1). Therefore, subsequent grade changes, including completed incompletes, are not included. This could result in bad data.
- Students in the study were not informed that they would be "dropped" academically if they didn't meet standards. This is a possible motivator we could not ethically implement and therefore we can only speculate that information early about consequences would motivate improved academic success.
- We did not examine progress in meeting the credit requirement portion of the New Standards. One might assume, however, that an increase in q.p.a. might affect the number of credits passed.
- Similarly, history confounds our application of New Standards to the progress records of students who have very slowly been progressing under the current standards, but would never have the record they do if they were admitted under different standards. One student from the New Standards group (subgroup C) is an interesting and unique case:
 - She earned 146 credits at the College in five and a half years and did not transfer in any coursework.
 - She needed permission from the Committee on Degrees to extend her studies to eleven and 3/15 semesters to meet the 2.0 q.p.a. requirement.
 - She never had a cumulative q.p.a. at or above 2.0 until, after 11 3/15 semesters, she earned a 2.04 and a degree.
 - She received two warning letters, was placed on probation once and met probation requirements.
 - She never withdrew from a class, never took a semester off, and enrolled in classes every summer.

- Although she has worked with the Dean of Students' office in the past, she did not participate in the intervention program this last semester and carried an approved underload of four credits.

Question 1: *Do we have the support services in place to serve all the students who would be placed on probation under the new standards?* YES

The Intervention Program was conducted during the fall 1998 as if the College had adopted the proposed new continuance standards. Primary responsibility for coordination of the program was given to Susie Mirick, Associate Dean of Students. A student worker was assigned to assist with database design and implementation. Susie conducted all group workshops (9) and met individually with as many of the Intervention students as possible. Assistant Deans Kelly Crace and Lisa Bickley also met with students for individual sessions. Two support staff and an additional student worker assisted with letters, mass voice mail reminders, and limited data entry. The fall 1998 Intervention Program totaled 183 students and we managed the program effectively. The spring 1999 Intervention Program totals 292 students. An increase was expected as each spring the college has more students on probation and below minimal standards. This increase in numbers will significantly impact our staff, limiting our ability to begin additional new initiatives but we believe we can continue to meet the service needs of the Intervention students.

Related question:

A related question raised in discussions last semester is the impact of mid-semester grades on academic performance. We did not study this component of the program and therefore can not speak to effect on academic performance of students. Anecdotal knowledge tells us several things:

- Many faculty members did not post mid-semester grade reports
- Students checking reports believed they were doing satisfactory when in many cases no report was posted
- Students who are academically at risk report a much higher-grade performance through out the semester than is officially shown by their final grades. They truly do not have a realistic view of their academic status through out the semester
- Some students who participated in the Intervention program and were given mid-semester grades used this information in individual meetings by requesting tutors, making withdrawal decisions, and adjusting study hours and skills

Randy Coleman gave us the list of all students who received at least one minimal or unsatisfactory grade report. This totaled approximately 420 individual students and he stated he believed this was just the "tip of the iceberg." Whether it is the tip or the whole

iceberg, the Dean of Students Office did not have the staff to intervene individually with these students. Knowing this we did a mass voice message inviting all these students to attend a workshop prior to the last day to withdraw from courses. Only one student responded by attending this workshop.

Question 2: *Does the intervention program help students improve their semester and cumulative q.p.a.s?* YES

To examine this question, we created an ACCESS Database program. This program included the following information for each student:

- The student's classification within the program
 1. "Probation Only" (PRB) = all students who had been placed on probation under the college's existing standards but who would not have been placed on probation for the EPC/New Standards (i.e., a student with a 2.6 cum may be on probation for a previous semester q.p.a. of 1.65)
 2. "EPC/ New Standards" = students who were not placed on probation for Fall 1998 for their current continuance standards but would not have met the new continuance standards the previous semester enrolled, resulting in a "Theoretical Probation" for Fall 1998
 3. "Both"(PRB+EPC) = all students who were officially on probation and also would have failed to meet the proposed new standards.
- The student's cumulative q.p.a. entering the fall 1998 intervention semester and cumulative q.p.a. ending the semester.
- The student's previous semester q.p.a. entering the fall 1998 intervention semester and q.p.a. ending the end of the semester
- The student's attendance or non-attendance at each of the required components of the Intervention program coordinated within the Office of the Dean of Students (i.e., Questionnaire, Workshop, one Individual meeting).

We examined the above information to determine increase or decrease in both cumulative q.p.a. and semester-to-semester q.p.a. by group (i.e., Probation Only, EPC/New Standards only, Both.) We also combined the "Both" (PRB + EPC) group with "Probation Only" and combined "Both" (PRB+EPC) with "EPC/ New Standards" to assure an accurate picture of change in all possible categories. We found the following:

- All groups demonstrated an increase in q.p.a. both cumulatively and semester- to-semester.

- The "Probation only" and the "Probation + Both " group showed the greatest gain in semester-to-semester q.p.a. (+.86/+.79).
- T-test analysis of improvement for the "Total AI Program" (total=183), the "Probation only" (total=95), and the "New Standards only" (total=88) groups showed .05 statistical significance.
- T-test analysis examining improvement based upon participation (questionnaire, workshop, meeting) for the "Total AI Program," "Probation Only," and "New Standards Only" also showed .05 statistical significance.
- A test-test analysis could not be administered on the total group of students who were non-participants in the program because the sample is too small. However the mean cumulative q.p.a. for the "Total AI Program" non-participants fell from 2.0354 to 2.0035 and the mean semester-to-semester q.p.a. for the "Total AI Program" for non-participants fell from 2.1746 to 1.9814.

T-Test

#7

No Participation
Total Group
T-test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-F98 Cum QPA	2.0354	9	.4011	.1337
	Current Cum QPA	2.0035	9	.4017	.1339
Pair 2	Pre-F98 Prev Sem QPA	2.1746	9	.8624	.2208
	F98 Sem QPA	1.9814	9	1.0770	.3580

≈ 0.3721

≈ 0.1982

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre-F98 Cum QPA & Current Cum QPA	9	.968	.000
Pair 2	Pre-F98 Prev Sem QPA & F98 Sem QPA	9	.702	.011

Paired Samples Test

		Paired Differences					t
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		
					Lower	Upper	
Pair 1	Pre-F98 Cum QPA - Current Cum QPA	3.193E-02	.1018	3.394E-02	-4.63E-02	.1102	.941
Pair 2	Pre-F98 Prev Sem QPA - F98 Sem QPA	.1531	.6847	.2282	-.3331	.7194	.846

Paired Samples Test

		df	Sig. (2-tailed)
Pair 1	Pre-F98 Cum QPA - Current Cum QPA	8	.374
Pair 2	Pre-F98 Prev Sem QPA - F98 Sem QPA	8	.422

Students who did not participate?

Dropouts (Pre-F98)

Not significant

μ is too small

NS

NS

Question 3: Do higher continuance standards and, therefore, earlier intervention make a difference in academic success? Yes

To examine this question, we divided the New Standards study group into two subgroups: A/B and C. To review, the EPC New Standards study group includes students who were not placed on probation for Fall 1998 for their current continuance standards but who would not have met the new continuance standards the previous semester enrolled, resulting in a "Theoretical" Probation or "Theoretically" Continued Probation for Fall 1998. For purposes of analysis here, this study group has been divided into two subgroups. **Group A/B** includes those students whose transcripts showed they would not have been on academic probation under the new standards the prior semester (A), or they would have been eligible for continued probation (B). **Group C** includes those students who have historically struggled academically and who, if they had entered under the new standards, would have been in an academic intervention long before this "theoretical" probation semester. Every student in this group has missed the New Standards requirements at least two of their semesters enrolled. At least ten of these students have not met the New Standards from seven to ten of the semesters they have been enrolled at the College.

The **probation study group** includes all students who were on probation by their current standards in Fall 1998.

Question 3 Table 1 illustrates the percentage of students who met the standards of their group or continued on probation versus those who likely would have been dropped for failing to meet the requirement of a semester 2.0 q.p.a. and 12 credits earned and/or for failing to have met their continuance requirement after two semesters on probation.

Question 3 Table 2 shows the A/B and C group cumulative and semester q.p.a. before and after the intervention.

Although the aggregate A/B/C group had statistically significant improvement in semester and cumulative grades at the end of the intervention semester (Question 2), the data in these tables show that for many of the historically academically challenged (Group C), the improvement was too little, too late. A combination of higher standards and earlier intervention would predict a higher success rate for the C group participants.

Question 3

Table 1

Percent of Students Who Would Be Dropped Per Their Group Standards By Study Group

	EPC Group A/B n=44	epc group c n=44	probation group n=95
Would have been academically dropped based upon Fall '98 performance	9 (20.4%)	33 (75%)	28 (29.5%)
Would have met probation and continuation standards of their group and/or been continued on probation	35 (79.6%)	11 (25%)	67 (70.5%)

Question 3

Table 2

Pre And Post Cumulative And Semester Q.P.A. By EPC Subgroup

	Pre-Fall 98 Cumulative q.p.a.	Fall 98 Cumulative q.p.a.	Pre-Fall 98 Previous Semester q.p.a.	Fall 98 Semester q.p.a.
EPC GROUP A/B N=44	1.90	1.99	2.17	2.42
EPC GROUP C N=44	1.66	1.76	2.17	2.20

Question 4: *What did we learn about minorities?*

Ethnic minorities form a larger percent (37.5%) of the New Standards study group than in the general population (17%). In group C (see Question 3 for definitions), 45 percent of the students are identified as ethnic minorities. Nearly 32 percent of group A/B is minority.

In Question 4 Table 1, the percent of minorities dropped versus continued is identical to the total dropped and continued students for each subgroup. In Tables 2 and 3, the pre and post cumulative and semester q.p.a. is averaged by subgroup and minority status. Although a larger portion of the subgroups, minority students showed the same growth in

academic success as majority students when we intervened. This supports applying higher standards and intervening earlier with all students.

Question 4

Table 1

Percent of Minority Students Who Would be Dropped per the New Standards

By Study Group (*Italics refer to total group*)

	EPC Group A/B n=14 Minority n=44 total	epc group c n=19 minority N= 44 total	
Would have been academically dropped based upon Fall '98 performance	3 (21%) <i>9 (20.4%)</i>	14 (74%) <i>33 (75%)</i>	
Would have met probation and continuation standards of their group and/or been continued on probation	11 (79%) <i>35 (79.6%)</i>	5 (26%) <i>11 (25%)</i>	

Question 4

Table 2

Group A/B Pre And Post Cumulative And Semester Q.P.A. By Ethnicity

	Pre-Fall 98 Cumulative q.p.a.	Current Cumulative q.p.a.	Pre-Fall 98 Semester q.p.a.	Fall 98 Semester q.p.a.
Minority Students N=14	1.89	1.98	2.21	2.41
Caucasian Students N= 30	1.91	1.99	2.15	2.43

Question 4

Table 3

Group C Pre And Post Cumulative And Semester Q.P.A. By Ethnicity

	Pre-Fall 98 Cumulative q.p.a.	Current Cumulative q.p.a.	Pre-Fall 98 Semester q.p.a.	Fall 98 Semester q.p.a.
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Minority Students N=20	1.69	1.75	2.06	2.11
Caucasian Students N= 24	1.64	1.77	2.26	2.29