

WATSONVILLE DIGITAL BRIDGE ACADEMY

REPORT 2: PERSISTENCE AND ACHIEVEMENT

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PART I

INTRODUCTION

The goals of DBA for each student are to “light a fire for learning” so students reclaim academic self-efficacy, accelerate competence in basic skills, complete a full-time credit load in the first semester, and persist in college.

In 2003, Cabrillo College embarked on a novel and ambitious approach for serving Latino youth who are at risk of unemployment and poverty because they are under prepared to compete in today’s knowledge-based economy. The program, titled the Watsonville Digital Bridge Academy (DBA), has been an innovative undertaking because it fundamentally restructures conventional community college pedagogy, curriculum and structure. The framework for the DBA has attracted national attention, and garnered funding from private foundations (David and Lucille Packard and James Irvine Foundations), the California Community College Chancellor’s Office, as well as National Science Foundation Advanced Technology Education (ATE) grants.

To meet reporting requirements for those grants, and to inform future activities, the Higher Education Evaluation and Research Group presented a first report dated April 2005, in which participant characteristics as well as academic and personal growth are described for Cohorts A and B. This second report focuses on five cohorts who entered between Fall 2003 and Fall 2005: Cohort A (Fall 2003); Cohort B (Spring 2004); Cohort C (Fall 2004); Cohort D (Spring 2005); and Cohort E (Fall 2005).

The purposes of this second report are to analyze for Cohorts A-E:

- a) pre-DBA characteristics of program participants;
- b) retention, credits earned and grade point average during the intensive first semester of DBA, the Foundation Course and the Bridge Semester;
- c) persistence, credit accumulation, and grade point change subsequent to the first semester of DBA;
- d) comparison of outcomes for DBA and other Cabrillo College students.

The goals of DBA for each student are to “light a fire for learning” so students reclaim academic self-efficacy, accelerate competence in basic skills, complete a full-time credit load in the first semester, and persist in college.

Significance of this Evaluation

The Digital Bridge Academy is not only innovative on a number of dimensions, its structure and design contradict a number of common practices by community colleges across the nation. DBA is a comprehensive approach to preparing high risk students for careers and community life — students whose multiple and severe risk factors predict they will demand life long services from society. DBA is fundamentally different from popular supplemental services models for educating at-risk students, in which counseling, study skills and/or tutoring is added to traditional academic coursework. This radical departure from convention, coupled with its significant student outcomes, has generated considerable interest among other community colleges, as well as private and public stakeholders who are concerned about growing disparities between well-educated workers in knowledge related industries and unskilled workers in marginal jobs.

The Novelty of the DBA

The DBA is innovative on a number of dimensions. The structure of the program begins as an extended learning community, with students attending college the first few weeks equivalent to a full-time work schedule. For the remainder of the semester, students continue as a cohort, taking nearly all their courses together. Students register for a full-time load of 15 to 17 credits, so that they adapt early to the enrollment pattern that best predicts successful completion of an associate degree.

Curriculum design is another innovative feature of DBA. Although the program is divided into independent coursework for the purpose of transcription, learning activities cross disciplines, teaching basic skills of reading, writing and oral communication simultaneously with team networking, group engagement styles, mind-body connection, study skills, and personal reflection on past and future learning experiences.

The pedagogy of DBA is active and experiential. One activity emphasizes social research as a mechanism for students to integrate technical and soft skills. In small groups, applying their knowledge of their team networking style, students conduct secondary and primary research (interviews) into a local social problem, such as juvenile delinquency or school reform. Students make presentations to decision-makers, offering alternative action steps to address the problem. In another activity, Lego Logo™, students program a robot. This blend of technical and communication abilities are characteristic of the requirements in knowledge-based employment.

Perhaps the greatest novelty about DBA is that it is founded on an explicit philosophy and framework for adult learning. This program is grounded on a belief that self-efficacy flows *from* academic and personal achievement, rather than the reverse. DBA learning experiences are designed to guide students to set high goals (continuous college enrollment, improvement of basic academic skills, degree applicable coursework, preparation for knowledge based employment); to understand the role their personal histories play in those goals; and to work very hard to achieve them. In doing so, DBA pursues its primary goal of “lighting a fire for learning” among students whose previous educational experiences have been negative.

Evolution of immersion first semester of DBA

From its inception, the DBA has been a multi-semester program designed to move students from severe academic and personal under-preparedness for college work, to readiness for post-secondary success in academe and in life. While program elements of the second and subsequent semesters have been fairly constant, the first two phases of the DBA — the Foundation Course and Bridge Semester — have evolved over the past five years. (see Table 1)

For the first cohort (Fall 2003), in the summer before they enrolled in the DBA, most of the students completed Preparation for Information Technology in two one-week segments, a month apart. Prep for Information Technology (CIS 160DC) was offered for one week in June, and Prep for Information Technology (CIS 160DF) was offered for one week in July. In addition, students completed the Foundation Course (Digital Bridge Preparation, CIS 160DI) that began two weeks before the start of the regular semester (August 11-Aug 22, 2003).

For the second cohort, a three-week Foundation Course was scheduled during the Intersession in January 2004. For the third, fourth and fifth cohorts, the Foundation Course was offered during the first two weeks of the semester, with the Bridge Semester courses added the third week of the semester.

For all cohorts, the Foundation Course has been tightly structured as a highly intensive full-day program, for two or three weeks. The Director, Diego Navarro, observes that being in school all day long decreases participants' connections with the street culture and friends, strengthens ties among DBA participants, and simulates a full-time work schedule. The Foundation Course blends self-efficacy and academic goals and earns students 3 credits towards an associate degree.

In addition to variation in the Foundation Course, the courses incorporated into the Bridge Semester have been altered slightly, so that content and number of credits have varied over time. A 10.5 credit core of the Bridge Semester — 3 CIS courses designed especially for this program and the Body/Mind Balance course — has remained constant.

Table 1.1: Structure of Foundation Course and Bridge Semester since inception

	Foundation Course	Bridge Semester
Fall 2003	Three weeks before start of Fall semester	19 credit semester
Spring 2004	Intersession – three weeks before start of semester	16 credit semester
Fall 2004	First 2 weeks of regular term	19.5 credit semester
Spring 2005	First 2 weeks of regular term	16.5 credit semester
Fall 2005	First 2 weeks of regular term	14.5 credit semester

Following the Foundation Course, students enroll again as a cohort in a 12-16 credit Bridge Program, resulting in semesters that entail from 14.5 to 19.5 credits. Students can earn this number of credits because these two components are organized as a learning community, with students engaged as a cohort and with academic content linked across courses. As we observed in Report 1, students in the DBA do not face canceled classes, unmet prerequisites, or closed sections of courses.

Organization of this report

Because this collection of program elements is unique among interventions for developmental education or at-risk students, other colleges and funding agencies are anxious to discover its effectiveness. To answer questions about what type of students are served by the DBA and the immediate and later impact of this program, this evaluation presents data about student performance at three time periods: prior to enrollment in DBA, during the intensive first semester (Foundation Course and Bridge Semester), and subsequent to the first semester. **Use as Side-Bar Quote: Applying conventional metrics of retention, persistence and grade point average, the data**

suggests that DBA students achieve considerable progress during and after the intensive first semester. These outcomes are discussed in Part II. Beyond these common measures of success, other advances were unexpected. Part III of this evaluation discusses surprising findings that are contradictory to conventional wisdom and practice. Transcript analysis of the first five cohorts reveals intriguing possibilities for new forms of developmental education. Part IV summarizes our finding to date, and makes recommendations for capitalizing on the possibilities of this unique approach.

Data discussions and tables for each cohort are available in the Appendix.

PART II

RETENTION, PERSISTENCE AND COURSE TAKING PATTERNS ACROSS COHORTS

Common measures to assess risk of academic failure require further analysis for this population. In several cases, students had histories of many prior credits or high grades for basic level coursework.

Previous College Experience

In 4/5 cohorts, there is a wide distribution of entering credits, but the mode — the most frequent category of prior credits — varies across cohorts. (See Table 2.1) For Cohorts A and B, most students had little college experience — 12 or fewer credits (52% and 57% respectively). For Cohorts C, D, and E, the majority of students had no prior college experience: 50% of Cohort C, 87% of Cohort D, and 52% of Cohort E entered the DBA with no college credits.

Using previous college experience as a measure of risk of academic success or failure was not useful for this population. For example, one student had completed 61 credits over the course of the previous decade, but these credits did not count towards an associate degree — 30 credits were ESL and another 15 were low-level developmental education. Another student had started college 17 years earlier, then taken off more than a decade, returned for one class, and then returned full time in Spring 2004 for DBA. In a number of cases, students had been enrolled for several semesters in non-credit basic skills courses, so the absence of college credits does not always indicate a lack of prior college experience. Non-credit courses typically allow a student to move at her/his own pace, avoid testing, and do not issue letter grades for performance; in other words, non-credit courses, even when they have similar content as credit-bearing courses, are considered to be quite non-threatening.

Using previous grade point average as a measure of risk was often not useful for this population. In Cohort A, 3 students had a high entering GPA — over 3.6. However, one student who had a GPA of 3.7 had earned only 20 credits since 1994 — nearly a decade of sporadic course taking. Two other students had a GPA of 4.0, but both had spotty course taking. One young woman had registered for 13 courses over a three year period, withdrawn from 4, completed 4 non-credit courses, and earned a 4.0 by completing a keyboarding and three low level developmental reading and writing courses. The other woman had earned an A in 6 credits of Intermediate College ESL. Even when students have completed credit-bearing coursework, their GPA may not predict their risk status. In Cohort B, a student who entered with a 3.67 had earned that grade point by taking developmental math classes and two Early Childhood Education courses — Circle Time and Creative Movement. A student who entered with a 4.0 GPA had earned A's in two Weight Training classes and had completed low-level courses in developmental reading.

Table 2.1: Credits earned prior to DBA

	Cohort A Fall 2003 <i>n=29</i>	Cohort B Spring 2004 <i>n=14</i>	Cohort C Fall 2004 <i>n=26</i>	Cohort D Spring 2005 <i>n=17</i>	Cohort E Fall 2005 <i>n=21</i>
0	14%	21%	50%	87%	52%
1-12	52%	57%	23%	13%	38%
13-24	17%	15%	19%	0%	5%
25-37	14%	17%	4%	0%	5%
38-50	0%	0%	4%	0%	0%
50+	36%	0%	0%	0%	0%

Between 2003 and 2005, retention for the first full semester of DBA was 100% for 3 Cohorts and 93% and 74% for the other two cohorts. The cohort with the lowest retention and persistence rates was recruited for a special unemployed youth program.

Retention

Retention for the immersion portion of the first semester — the Foundation Course — has been 100% across all cohorts.

Retention for the remainder of the first semester of DBA (Bridge Semester) is quite high, with 100% retention during three of the first five cohorts. The lowest retention rate was Cohort D, entering DBA in Spring 2005. This cohort was recruited under an Out of School Youth Vocational And Technical Education grant from the California Community College Chancellor’s Office targeting high-risk students in regions with high densities of unemployed groups. Cohort D was overwhelmingly new to college — 87% had no credits when they entered and another 9% had a grade point average at or below 1.0. It appears that homogeneous groups of youth right out of high school who have multiple risk factors are unlikely to succeed in DBA.

Size of cohort may also be important — larger cohorts have been more likely to retain students through the first DBA semester. The three largest cohorts — A, C and E — all have 100% retention. (see Table 2.2) This again suggests that a greater, rather than a lesser, mixture of students fosters program success.

Table 2.2: Retention during first DBA semester

Cohort A Fall 2003 <i>n=29</i>	Cohort B Spring 2004 <i>n=14</i>	Cohort C Fall 2004 <i>n=26</i>	Cohort D Spring 2005 <i>n=17</i>	Cohort E Fall 2005 <i>n=21</i>
100%	93%	100%	74%	100%

78% or more of students enroll at Cabrillo College after the first DBA semester.

Persistence

Patterns of persistence across A, B, and C cohorts over time are relatively stable — 78% or more of students enroll at Cabrillo College the semester after the intervention (I^{+1}). Cohort D is an anomaly, with less than 1/3 of students continuing to the following semester. (see Table 2.3)

Persistence information for Cohort E was not available at the time data was collected for this report.

Table 2.3: Persistence across Cohorts A-D

	Cohort A Fall 2003 <i>n=29</i>	Cohort B Spring 2004 <i>n=14</i>	Cohort C Fall 2004 <i>n=26</i>	Cohort D Spring 2005 <i>n=17</i>	Cohort E Fall 2005 <i>n=21</i>
I^{+1}	79%	93%	78%	30%	
I^{+2}	62%	62%	50%		
I^{+3}	55%	50%			
I^{+4}	48%				

Enrollment Status/ Credits per Semester

Broad enrollment trends were relatively constant in the semesters following the Foundation Course and Bridge Semester. In general, students were more likely to enroll part time (for less than 12 credits per semester) than enroll full time (12+ credits per semester). However, there was much variability in enrollment patterns. (see Table 2.4)

For most cohorts and for subsequent semesters, persistence and full-time enrollment declined each semester. However, for Cohort A, after a 4% full time enrollment at T^{+1} , full-time enrollment moved up to 39% and then back to 24% at I^{+2} and I^{+3} respectively. In addition, students moved back and forth between a low-part-time enrollment of 8 or fewer credits and a higher part-time enrollment of 9-11.5 credits per semester. For Cohort B, full time enrollment has shifted to part-time across the semesters, but for Cohort C, enrollment has shifted from low part-time (1-8 credits) to part-time of 9-11 credits.

In short, low part-time, part-time, and full-time enrollment patterns shift between semesters and among cohorts. Few students remain enrolled full time; the trend for full time enrollment declines each semester. Students fluctuate between the numbers of credits they take each semester in a part-time status.

Table 2.4: Enrollment status across Cohorts A-D

	Cohort A Fall 2003 <i>n=29</i>			Cohort B Spring 2004 <i>n=14</i>			Cohort C Fall 2004 <i>n=26</i>			Cohort D Spring 2005 <i>n=17</i>		
	FT 12+	PT 9-11	PT 1-8	FT 12+	PT 9-11	PT 1-8	FT 12+	PT 9-11	PT 1-8	FT 12+	PT 9-11	PT 1-8
I^{+1}	4%	22%	74%	39%	39%	3%	25%	20%	55%	14%	43%	43%
I^{+2}	39%	4%	56%	15%	22%	56%	20%	40%	40%			
I^{+3}	25%	19%	56%	0%	29%	71%						
I^{+4}	7%	7%	12%									

PART III

COMPARISON WITH OTHER CABRILLO STUDENTS

To place the impact of DBA in perspective, it is useful to compare DBA student outcomes with those of other Cabrillo students. Absolute retention and enrollment patterns have little meaning unless one understands what is typical for Cabrillo students in general. Overall, the evidence is that DBA students either outperform or significantly match their peers on academic success and enrollment patterns. However, these comparisons reveal the types of data gaps and inconsistencies that exist for evaluating programs such as DBA.

In California, the Community College Chancellor's Office maintains the statewide database — CCCCCO Data Mart — regarding enrollment and persistence. Data Mart distinguishes *retention* from *success*: *retention* is defined as a student who completes one or more courses with or without a passing grade, while *success* is defined as a student who passes one or more courses with an A, B, C or D.

However, Data Mart does not report the number of credits for which students were retained or for which students are successful; the data reports only the percentage of each status of students who completed at least one course.

Retention comparisons: DBA and other Cabrillo students

Data Mart calculates success rates separately for three populations of students: students in basic skills status, in credit status, and in transfer status. For the purposes of this analysis, both the basic skills and credit status groups are meaningful comparisons. Most DBA students enter the program at the pre-collegiate level, and met requirements for English 100, a non-transfer developmental level course. Many of the DBA students had attempted ESL and various levels of pre-collegiate reading and writing courses. As Table 3.1 shows, 60% of Cabrillo students registered for pre-collegiate/ developmental level courses completed the semester for which they enrolled, compared to 74-100% of DBA students.

A second comparison can be made with students in credit status, that is, Cabrillo students who were registered for one or more courses for which graduation credit is earned. Since most of the Foundation Course/ Bridge Semester is made up of credit courses, this is a reasonable comparison. The success rate for all Cabrillo students enrolled in credit courses is 67%, compared again to the DBA semester retention rate of 74-100%.

But another comparison is also useful: DBA students who earned 16 or more credits (Cohort E had a maximum of 15 credits possible) during their first semester in the program. Again, three cohorts of DBA students outperformed and another matched other Cabrillo students in both the Basic Skills as well as Credit status. In other words, the majority of DBA students completed 16 credits with greater success than did their non-DBA peers at Cabrillo who had successful completion rates of 60%-67% for an unknown number of credits.

The retention rate for first semester DBA students varied from 74-100%, compared to retention rates of 60% for all Cabrillo basic skills students and 67% for students in credit-level coursework.

The majority of DBA students completed 16 credits with greater success than did their non-DBA peers at Cabrillo who had successful completion rates of 60%-67% for an unknown number of credits.

Table 3.1: Course retention rates: DBA and other Cabrillo students

	DBA first semester retention rate	DBA earned 16+ credits during first semester	Cabrillo Basic Skills (unknown # of credits)	Cabrillo Credit Courses (unknown # of credits)
			60%	67%
Cohort A	100%	83%		
Cohort B	93%	71%		
Cohort C	100%	73%		
Cohort D	74%	39%*		
Cohort E	100%	67%**		

*= Special population

** Maximum of 15 credits possible

DBA students far exceed their Cabrillo peers in first-time, full-time enrollment status.

Full time enrollment comparisons: DBA and other Cabrillo students

Another metric for the DBA is the proportion of students who enroll full time. Data Mart does not report the number of credits for which a student is enrolled, rather data is available only for the number of credits completed. Using Data Mart, we make this comparison in two ways. First, we compare the number of credits that first time students completed at Cabrillo and the number of credits that DBA students earned during their first semester. First time students at any of California’s community colleges are a mix of traditional students who have recently earned a high school diploma and for whom academic skills are fresh, and older students who may lack a high school diploma and for whom academic content is far removed. This mix also holds true for DBA.

Full time enrollment comparisons of new students

First time students at Cabrillo are most likely to enroll part-time, with the majority (54%) completing 4-11.9 credits. In comparison, the majority of DBA students completed 15+ credits. DBA students far exceed their Cabrillo peers in first-time, full-time enrollment status. This disparity is noteworthy: during the Foundation Course/ Digital Bridge Semester, when the DBA program is highly integrated and students are required to enroll at full-time status, a majority of DBA students met that goal.

Table 3.2: NEW student enrollment comparison: DBA and other Cabrillo students

<i># credits completed</i>	1-3	4-11.9	12-14.9	15+
Cabrillo Fall 2005	5%	54%	32%	9%
Cohort A	17%	0%	0%	83%
Cohort B	7%	7%	14%	71%
Cohort C	0%	12%	15%	73%
Cohort D	4%	26%	4%	39%
Cohort E	0%	33%	67%	0%

Full time enrollment comparisons of continuing students

A second comparison can be made between continuing Cabrillo students and students who have completed the first semester of DBA. There are alternative benchmarks that can be applied: how do rates of full-time enrollment compare, and how do number of credits for which most students enroll compare? The first question is absolute — what proportion of students enroll full time following the first semester of DBA, regardless of what is the common enrollment pattern among Cabrillo students. The second question is relative — how do the enrollment patterns of continuing Cabrillo students compare to enrollment patterns of students after the first semester of DBA?

The large majority of DBA students enroll part-time, for between 4 and 11.9 credits per semester, subsequent to the first semester of the DBA. Between 4 and 39% of students enroll full time, for 12 or more credits per semester, in the school term immediately following the DBA semester. But enrollment patterns for DBA students are not constant: for example, in Cohort A, only 4% of students enrolled full-time in the term immediately after the DBA semester, but in the second semester out, 39% of Cohort A was enrolled full-time. Part-time enrollment patterns similarly fluctuate, with DBA students moving back and forth between low part-time status (1-8.5 credits per semester) to higher part-time status (9-11.5 credits). Based on data from the first 4 cohorts, DBA students prefer part-time enrollment.

In choosing to enroll part-time, DBA students are quite similar to other Cabrillo students. More than half (61%) of the general population of continuing students at Cabrillo College in Fall 2005 were part time, completing less than 12 credits. Most students (55%) completed 4-11.9 credits. This enrollment pattern fits the large majority of DBA students as well, although more DBA students — from 61% to 96% — enrolled for 4-11.9 credits after the first semester of DBA. (see Table 3.3)

Continuing Cabrillo students are more likely than DBA students to enroll full-time. In Fall 2005, about a quarter (27%) of Cabrillo students enrolled for 12-14.9 credits, whereas 4% of Cohort A, 39% of Cohort B, 25% of Cohort C, and 14% of Cohort D enrolled full-time. However, 12% of the general population at Cabrillo College enrolls for 15 or more credits on a continuing basis, whereas none of the DBA students do.

Overall, then, comparisons of enrollment status for DBA and general population, continuing students are mixed. DBA students are more likely than the general population to enroll part time (from 4-11.9 credits), less likely to enroll for just one course (6% general population versus 0% DBA), less likely to enroll for a high full time status of 15+ credits (12% general population versus 0% DBA), and slightly less likely than the general population to enroll for full time status of 12 or more credits (27% general population versus 4-39% DBA). Both Cabrillo and DBA students prefer part-time enrollment as they continue their college education.

Both Cabrillo and DBA students prefer part-time enrollment as they continue their college education.

DBA students are
• more likely than the general population to enroll part time,
• less likely to enroll for just one course,
• less likely to enroll for a high full time status of 15+ credits,
• slightly less likely than the general population to enroll for full time status of 12 or more credits.

Table 3.3: CONTINUING student enrollment comparison: DBA and other Cabrillo students

<i># credits completed</i>	1-3	4-11.9	12.0-14.9	15+
Cabrillo Fall 2005	6%	55%	27%	12%
Cohort A		96%	4%	
Cohort B		61%	39%	
Cohort C		75%	25%	
Cohort D		86%	14%	

This data analysis supports several conclusions about DBA and enrollment patterns of community college students in general.

- When DBA offers an integrated, full-time program with social support from a cohort of students, built on helping students gain belief in their personal capacity to undertake college work, students attempt and complete a full-time credit load.
- New and continuing Cabrillo students who do not participate in the DBA program are most likely to enroll part-time.
- After the first semester of DBA, when students leave the full-time, cohort program, they are likely to enroll part-time.

Use as Side Bar Quote: These findings support our recommendation, in Part 4, that DBA extend its intensive first semester model to subsequent semesters, and that the DBA model be expanded to embrace additional new and continuing students.

Part IV

Evidence from DBA that Contradicts Current Research and Policy

The previous section analyzed student outcomes *vis a vis* conventional metrics: retention, persistence, credit accumulation, and grade point averages. These are widely accepted benchmarks for program evaluation. As we saw in Part II, during the Foundation Course and Bridge Semester, students gain full time status, accumulate a significant number of credits, and improve or “right-size” their grade point average. Continuing DBA students have similar part time enrollment patterns as do the general population. **Use as Side Bar Quote: These findings alone commend the DBA program: under-prepared, at-risk students make marked progress towards academic, career and personal goals.**

The DBA evidence suggests a need to re-examine beliefs about sheltering at-risk under-prepared students.

Other evidence from the DBA has caused us to examine widely held beliefs about dealing with the under-prepared, at risk community college population. We share those contradictions between current policy and practice and evidence from the DBA in this section, to provide a foundation for the policy and practice recommendations we make in the final section of this evaluation.

Contradiction #1: Colleges should set limited goals for at-risk, under-prepared students.

The first contradiction concerns the structure and scheduling of academic programs for an under-prepared, at-risk population of community college students. There are at least two tenets of developmental education that the evidence from this report contradicts. The first is that under-prepared students are ill advised to take a full load. Second, under-prepared students are encouraged to take courses in which there is a high likelihood of success — courses that are not too “hard” for the student. These beliefs are founded on research related to academic self-efficacy: if students believe they have the ability to perform academic tasks and have expectations of academic success, they will try hard to achieve their goals.¹ To assure that under-prepared students achieve success early in their academic careers, counselors frequently urge students to “take it slow” and to get accustomed to college before taking on full-time status.

The DBA has taken an opposite stance. In the Foundation Course and Bridge Semester students take a very heavy academic load — an academic load that would often require special permission for even academically advanced students. Students in the Foundation Course routinely spend 6-8 hours a day in class for two or three weeks, and then enroll in another 14-16 credits of study.

The evidence to date is that under-prepared, at-risk students thrive in this full-time, thoughtfully designed intervention semester. Retention rates are high: 100% for 3/5 cohorts, 93% for another and 74% for another. The DBA evidence suggests a need to re-examine beliefs about sheltering at-risk under-prepared students.

Contradiction #2: Conventional metrics are suitable for predicting at-riskness.

National research and California Community Colleges use readily available and measurable characteristics to predict student success — previous credit acquisition

The evidence from this evaluation suggests that grade point average and number of credits accumulated might be necessary data points determining risk status, but are hardly sufficient to understand the meandering educational pathway of many unfocused students.

Integrated curriculum, rather than supplemental services, might offer a powerful alternative for under-prepared and at-risk students.

and grade point average are two common predictive metrics. However, it became apparent in this evaluation that a deeper examination is required. In this study, a number of students entered the DBA with a 4.0 GPA, and only after careful transcript analysis did it become clear that the courses in which those students had been enrolled were solely physical education, keyboarding, or low-level developmental education.

Similarly, the number of credits a student had earned was not a useful metric for predicting academic success. Several students in this study had amassed many credits; in one case, enough credits to earn an associate degree. But the course-taking patterns of these students were what research literature has termed “milling around”ⁱⁱ— students enroll in what appears to be a random selection of developmental education, cultural music or dance and/or a smattering of career-technical education. The DBA students, not unlike other post-secondary students, enroll for several courses and then drop ones that seem difficult or uninteresting.

The evidence from this evaluation suggests that grade point average and number of credits accumulated might be *necessary* data points for determining risk status but are hardly sufficient to understand the meandering educational pathway of many unfocused students.

Contradiction #3: Supplemental services are the sole effective support for at-risk students.

Supplemental instruction, tutoring, and study skills or guidance courses are commonly implemented to support at risk students in mastering academic content and learning study skills. About 10% of DBA students with previous college experience had been enrolled in one of these approaches, and almost without fail, the student had withdrawn or failed courses during that semester. This evaluation has produced no evidence about the efficacy of supplemental services for all community college students, but for this population, curriculum design appears to offer an alternative to supplemental services.

The DBA has implemented a very different curriculum design, using learning activities within courses to help students identify and apply their learning style, the team membership style, note taking, multiple drafts of compositions, and public speaking. Although it is impossible to parse out the relative influence of every DBA learning activity and student interaction, the evidence in this evaluation supports a stance that integrated curriculum, rather than supplemental services, might offer a powerful alternative for under-prepared and at-risk students.

Contradiction #4: Academic capabilities can be accurately diagnosed.

Although court cases have been successfully waged (MALDEF) and others threatened, community colleges in California overwhelmingly rely on standardized examinations to accurately place students at the appropriate course level in reading, composition and mathematics. Most under-prepared students move through a lock-step sequence of developmental courses that often use “skills and drills” pedagogy and content that is unrelated to a student’s personal or career interests. Evidence from the first three cohorts contradicts this policy, and opens possibilities for new forms of developmental education.

State regulations and policies need to support experiments with accelerated remediation.

The program design for the first three cohorts of Foundation Course and Bridge Semester incorporated an English 100 course — the composition course before transfer eligible English 1A. Many of the students in the first three cohorts did not “test into” English 100; they placed into reading and composition courses one or two levels below English 100. In a short-lived experiment, the Director and staff of the DBA placed all students into the same English 100 course, regardless of placement score, and integrated writing across several other disciplines in the Foundation Course/ Bridge Semester.

DBA Evidence Regarding Accelerated Remediation

The trends for DBA students passing an English class one or two levels above their placement level with a grade of A, B, or C is quite amazing, and contradicts conventional wisdom about diagnostic accuracy. Cohort A students who placed at English 290 (50%) or 255 (63%) were more likely to pass English 1A than were students who placed at English 100 (25%) — the English course precedent to English 1A.

For Cohort B, the trend reverses, with no student placing into English 290 passing English 1A, although 60% of students who placed into English 255 subsequently passed English 1A and 100% of the students who placed into English 100 went on to pass English 1A.

For Cohort C, the trend continues for passing English courses for which a student is conventionally considered incapable. One third of students who tested into English 290 as well as English 255 subsequently passed English 1a, while 75% of students were successful in following the traditional track of being placed into English 100 and the moving on to English 1A.

Understanding such unexpected performance in English courses for Cohorts A, B, and C probably has multiple possible explanations. Students in the DBA had been specially selected to participate in a new and exciting program; it’s likely the Hawthorne effect was present. In addition, students were actively engaged in academe for many hours a week — time on task nearly always improves performance. Further, the curriculum design of the DBA applies writing across learning activities, so that students practice composition in multiple contexts. Even with these explanations, however, the evidence suggests that students may be able to accelerate developmental studies when the curriculum and learning environment are structured to facilitate rapid skill acquisition. State regulations and policies need to support experiments with accelerated remediation, such as DBA.

Part V

Recommendations and Summary

Evaluating the first component of the DBA — the Foundation Course and the Digital Bridge Semester — is an example of breathing complexity into what appears at first glance to be a simple matter. There are a number of aspects of this population and the learning outcomes from the first components of the DBA that appear to contradict nationally recognized policy and practice. We offer the following recommendations based on the evidence from this evaluation.

Recommendation 1

DBA continue to document the multiple characteristics its students to allow for a more robust definition of at-riskedness.

From the data in this document, commonly accepted metrics for identifying at-risk students appear to be insufficient and in some case misleading. There are at least two benefits to the national debate about at-risk students that could come from this program. The first is to identify a particular set of characteristics that, in tandem, predict great challenges to students and educational institutions alike. DBA gathers far more data on its students than community colleges can gather: victim of abuse, juvenile or adult offender status, drug and alcohol usage. DBA has the potential to clarify a previously overlooked classification of “ultra” at-risk status.

In addition, DBA offers another reminder of the inadequacy of existing predictors of academic success. Previous accumulation of credits and grade point average are insufficient to guide counselors or students in making educational plans.

Recommendation 2

Expand locations for DBA.

The evidence in this report substantiates the value of an integrated curriculum that relies on programmatic elements rather than supplemental services to support students to academic success. However, it is possible that the effectiveness of this model is limited to this community college, or this physical facility, to this staff, or these students. Expanding to other community colleges would validate that this model can be effective in other institutional cultures, with other faculty and other funding mechanisms. As diffusion of this innovation occurs, the adaptations made at local sites will also be informative of the strength of an integrated persistence model of curriculum.

Recommendation 3

Expand the intensive first semester DBA model to a second semester.

It is so surprising that this population of students would complete so many credits with such high grade point averages, that it seems logical to expand the model to a second semester. Since the current structure of the DBA is founded on

knowledge-based work, rather than a narrow career-technical focus, students who complete a second semester would not be constrained in career or academic choices.

There are competing scenarios for results of an expansion to a second semester. It is possible that students and faculty alike are exhausted after such an intense learning semester, and that it would be unlikely to generate that motivation and enthusiasm for a second semester. On the other hand, students make such strides in terms of credits, academic capability and grade point average that a second highly structured semester might position them for even greater post-intervention success.

Recommendation 4
Cabrillo College and California community college regulations
allow experimental waivers for accelerated models of developmental education.

The findings of accelerated developmental education from the first three DBA cohorts are startling. Not only were students allowed to move more quickly into transfer level course work, but Cabrillo College reaped considerable financial savings by having fewer students enrolled in more developmental coursework.

Summary

The timing for the evidence of this model's effectiveness is opportune. Individual California community colleges, the Academic Senate for California Community Colleges, the California Community College Chancellor's Office, and a plethora of private foundations are feverishly examining options for developmental education. Although there is no consensus on models to adopt, there is considerable agreement that the state needs to build institutional capacity to prepare students for college-level academic pursuits.

And, should the state move towards more performance related funding mechanisms, models such as the DBA could also be constructive. If students are able to move through developmental education more quickly (a common measure under performance funding), and pursue career certificates and associate degrees in a shorter time (other common measures under performance funding), then integrated persistence models such as the DBA would offer both effectiveness and efficiency. And by serving very high-risk students, community colleges would improve their capacity to make good on promises for access and equity.