ATTACHMENT #1

SANTA BARBARA CITY COLLEGE

April 7, 1980

TO: Cluster Leaders

FROM: Instruction Office

RE: Reduction of Attrition - Some Ideas

Some ideas on how we (the SBCC community) could increase our efforts to reduce attrition. Below are a few ideas arranged in four segments - Immediate, Intermediate, Long Range Alternatives and Some Current Practices at SBCC That Help To Reduce Attrition.

I. *IMMEDIATE*

Firsthand, we must learn to live with attrition. The question is, how much? If our average is 30%, we can reduce to 25% by targeting for a 20% reduction. Ideas related to the reduction of attrition immediately are:

A. *Awareness Stage*

1. *Have all campus-wide committees (less RARB) discuss the item and take a positive stand.*
2. *Have the Cluster Leaders meet with their Department Chairpersons to address this item and have it discussed in depth at all department meetings.*
3. *Publish ideas to reduce attrition; e.g., Instruction Office Pamphlet with "Tips".*
4. *Recommend to faculty, through Department Chairpersons, that every attempt should be made to follow-up contacts with their students when they begin missing class excessively.*
5. *Recommend that each faculty personally consult all students receiving marks of 'D' and 'F' on performance measures and exams. This would exhibit greater personal interest on the part of the faculty member relative to the students individual performance.*
6. *Recommend the use of "positive behavior" by faculty towards students, however perceived and defined ... importance of how a student feels when he/she leaves ... "we want to welcome them back when they are ready to return."*
7. *Correlate attrition with income and the potential negative effect for Fall, 1980 and future semesters.*

8. *Encourage faculty to take greater personal interest in their students for the remainder of the semester...staff should be educated to relate to "new" student population.*

Any immediate measure(s) employed against attrition must necessarily involve the faculty. We (the administration) should assist them in any possible way as they employ their individual and collective talent to combat attrition.

II. *<u>INTERMEDIATE</u> (Fall Semester)*

One of the first things would be to make an assessment of the effectiveness of measures applied during the Immediate phase. It could be that many of these approaches prove useful and non-threatening and, therefore, could be instituted again during the Fall 1980 semester.

A. *During the Fall semester, it is recommended that an in-service day be exclusively oriented to attrition. Furthermore, the agenda should include:*

1. *Overview of Attrition*
   - a. *Nationwide*
   - b. *Statewide (CCC)*
   - c. *SBCC*
2. *Reasons for Attrition*
   - a. *Community*
   - b. *Institutional*
   - c. *Departmental*
   - d. *Faculty demeanor*
3. *Measure to Reduce Attrition*
   - a. *Alternatives*
   - b. *Role of Institution*
   - c. *Role of Administration*
   - d. *Role of Faculty*
   - e. *Role of Students (Peer Counselors/Tutors, et.al.)*
4. *Institutional Plan to Reduce Attrition*

B. *Establish a Committee on Attrition represented by a majority of faculty. They have good ideas.*

1. *Analyze attrition campus-wide*
2. *Recommend approaches to reduce*
3. *Serve as a "clearinghouse" on attrition and be an agency that faculty can be referred to for assistance, if so desired*
4. *Make reports to the Dean Of Instruction on attrition and make recommendations, as appropriate*

C. *Continue the awareness stage and maximize it as often as possible.*

III. LONG RANGE (Spring Semester and Beyond)

A. Planning Phase

1. Incorporation of the best of above

2. Possibility of students being trained as liaison agents with other students to combat attrition

B. Recommendation of an additional Spring in-service day on attrition

IV. Some Current Practices at SBCC That Help To Reduce Attrition

1. English Composition Placement Tests

2. Math Placement Tests

3. Counseling - "Exit Interview Form"

4. Tutorial Center

5. Tutors/Peer Counselors

6. Learning Center (Individualized Instruction)

7. Experimental Projects in Math 1 and 7 (Individualization)

8. Financial Aid/Scholarships

9. Health Services

10. Study Skills Courses

11. Curricular Changes

12. Modular Instruction (Associate Degree Nursing)

13. Varied Classroom Deliveries

14. Improved Faculty/Student Relationships

15. More Realistic Setting of Beginning Class Sizes ... Recognizing Attrition Factors

16. NICHEMS (Potential Student Information File: Student Follow-Up Studies, Student Goals, Etc.)

In summary, the faculty must play the major role, with administration playing a strong supportive position. The subject has an appealing potential.

PH/mjb

ATTACHMENT #2

Increasing teac ing effectiveness

JOHN E. ROUECHE and KAREN WATKINS

Beleaguered teachers in community colleges often say, "Okay, I accept the need to meet students where they are, but how on earth am I supposed to do it with so many students at such different levels? What I need is less talk about theory and more practical suggestions on how to work with things as they are."

It is in response to this plea that we offer some practical suggestions which are well grounded in theory. Much of the recent literature on helping high-risk students has focused on the psychological climate of instruction. Creating a positive psychological climate can be accomplished by means of three strategies: building student involvement, fostering a success orientation, and employing proven techniques for teaching adults.

Building student involvement

One can build involvement with students in many ways, so we'll consider only a few of the most important.

Know your students' names. This dictum has its roots in ancient scripture: "I am that I am." We have a long tradition of associating the person – one's essence – with one's name. An ancient tradition required members of a particular African tribe to keep their real names a family secret, going instead by public names as they believed that enemies could destroy a person's soul through a chant if they were to know the real name. Such a taboo may seem unrealistic to us, but you can readily discover deeply felt associations with a name by asking your students, as one teacher did, to write themes about their names. They were asked to discover the historic and linguistic significance behind their names, the family history that led to the selection of their names, and the personal meaning they ascribe to their names. This is an excellent way for you to make associations with students' names which can help you remember them, as well as a way to see the "essence" the names imply. If we consider our own reaction when a person who is important to us forgets our name, we know that name recognition is a very important step in building involvement with a person. If you want to communicate a personal interest, it's much easier if you think "Mary" rather than "student."

Keep in touch with the meaning of the classroom experience. The term "meaning" comes from David Aspy and Flora Roebuck's *Kids Don't Learn From People They Don't Like,* and is one of two interpersonal skills most positively correlated with student retention. Meaning, or empathy, may be especially difficult for the professor. Many, if not most, community college students come from quite different backgrounds than their instructors. Most teachers were not high-risk students, did not perceive themselves as externally controlled, were not impoverished, and are not minorities. Even the community college itself is

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a more hospitable environment for faculty than for students who often do not feel they belong there. How then do faculty interpret the classroom experience from their students' points of view – hear themselves with their students' ears?

One possibility might be to videotape a class session or two and then listen to it with two or three of your students – preferably from varied cultures. Ask them to note anything which might create discomfort. Another possibility is to use peer tutors to "interpret" for you in the classroom. Ask them to help you monitor students' perceptions of the classroom experience. For one faculty member tutors were constantly re-explaining assignments and saying, "What she really meant was..." The result was that she learned how to reach more of her students.

A suggestion which takes more time is to learn all you can about your students: read research on the community college student, on cultural differences, on intercultural communication. One large urban community college takes faculty on a tour of the neighborhoods from which most of their students come. For many faculty this is an experience in getting to know a very different side of the city. With knowledgeable tour guides giving local history and demographics, faculty can come a little bit closer to their students' experience of growing up in these sections of the city. Of course the simplest suggestion is to ask your students. They may not want to articulate all they feel; but most will let you know if you're getting through.

Begin your course with affect, then go on to cognitive development. You may be able to cover more subject matter if you instill a feeling of acceptance and support in students before beginning actual course work. Many faculty feel that spending the first week or two getting acquainted, introducing content through sharing experiences, and getting students acquainted with each other to build a strong peer support system helps in retaining students and increases subsequent achievement. There are many ways to set a supportive, accepting tone. some faculty invite a counselor to come in and conduct the first day's activity, with the faculty member participating in the "socializing" activities with students. Having the counselor there enables faculty to participate; and students meet a counselor personally – establishing an important potential resource for students.

Share your subject matter in a personal way with your students. One faculty member we recently talked to suggested keeping a file of readings in the subject area which are then loaned to students based on *their* personal interests. This is an interesting way to show a personal concern for students while also making your subject more relevant.

Meet with administrators to discuss what you're doing to cause learning. By meeting with administrators, you give them a chance to get involved with you. Most will thoroughly enjoy an opportunity to direct attention to their first love – teaching. Further, it helps them get a concrete picture of your situation so they know what sort of support will help you do your job. Invite them to special events in your class. This too builds involvement with students and increases the students' sense of belonging to the institution. Vincent Tinto has found that students will remain in an institution if they believe that they are achieving their goals and are doing it in the best place for them. (Tinto, 1975) Showing students that administrators take a personal interest in them can contribute to their sense of commitment to the institution.

Fostering a success orientation

Many students who come to community colleges have learned to think of themselves as failures in academic settings. Our task is to teach them strategies that will help them negotiate academic courses more successfully at the same time that we help them develop a view of themselves as successful people. David Feldman found that 92 percent of the students in a sample study were identified as gifted on one or more criteria that are used in making selections for gifted programs. He concludes that all students are gifted in some way(s) and we need to help them see their "gifts." (Feldman, 1979)

Convey an honest regard for students as persons who can and will achieve. This is the most important precondition to creating a success orientation. The work of Robert Rosenthal and Lenore Jacobson on the self-fulfilling prophecy illustrates the power of a teacher's expectations to influence student success. (Rosenthal and Jacobson, 1968) Carl Rogers reports the studies of Dittes, who measured

galvanic skin responses of patients while working with their therapists. (Rogers, 1961) Dittes found that patients' galvanic skin responses increased even with the potential of a negative or nonaccepting response by the therapist. Faculty report evidence of this anxiety in students' fear of testing, writing, math, speech, etc. Many students retreat or withdraw at the first sign of rejection. Rogers concluded that you cannot pretend this – you have to feel positive regard to convey it. He decided that he had to feel good about himself first, then find out what he could about his clients' strengths. Knowing your students' potential and accurately communicating not only their strengths but a realistic estimate of what they must do to succeed will give students a clear message.

Assess the reading level of your texts. Because we know that students will not be able to learn from a text they can't read, it seems reasonable to take time to see if your students can read your chosen text. Probably the quickest and most valid way to determine whether or not students can read your text is the Cloze test. By eliminating every fifth (or seventh, or every technical) word from two or three one-hundred-word passages in your text, you can create a very quick reading test. Students are asked to fill in the missing words. Since you know the original wording, you can determine whether or not the student has chosen words which demonstrate that he or she comprehends the passage. The technique is not subject-matter-dependent and may be used at the higher reading levels found in more technical texts. Once you determine whether or not your students can read the text, you can determine what to do with those who cannot read it. At least you will know who they are and, just as important, your students will know it and they will be more receptive to working with you to remedy the problem.

Create a checklist of possible situational deterrents to learning. Many community college students work long hours, have inadequate transportation, babysitting problems, financial problems, etc. One college found that 41 percent of their adult dropouts cited personal reasons, 31 percent job problems, and 15 percent financial problems rather than academic reasons. (Miller, 1978) Some community college counseling departments have prepared easy-to-administer checklists of these common problems. By matching each item with college or community services which are available, you may help the student finish the semester.

Use proven techniques of andragogy

With the average age of students in many community colleges at 28 or 29, it is imperative that we make use of what we know of andragogy, or adult learning theory.

Use appropriate means to increase class participation. Adults have had rich and varied experiences which they enjoy sharing and which they can draw from as they make connections between their lives and the subject matter. Questioning techniques not only involves them but gives legitimacy to what they know. By asking more abstract, open-ended questions – questions that ask them to analyze and evaluate an idea from their own point of view, compare the concept to other ideas and experiences, and apply concepts to their experience – you can stimulate discussion.

Another good idea is the use of "wait time." (Rowe, 1974) Orators and dramatists have long practiced the artful use of silence to increase the intensity of the moment and the audience's anticipation. Teachers may want to use this technique, too. Researchers have found that teachers wait only a fraction of a second after a question for a response. Reticent students and students struggling to formulate an answer are unlikely to respond within this brief period of time. By waiting at least three seconds after each question, they found that more students will become involved in class discussions. Adults like to learn through dialogue and these techniques give them an opportunity to do that.

Vary your teaching activities. Probably the shortest route of response to the findings of studies on increasing student learning is to give students a number of ways to learn as well as a number of ways to demonstrate what they've learned. Students learn in different ways and adults appreciate variety in teaching modes. Providing different ways to learn can enhance your effectiveness in reaching a diverse adult population. Offering a large number of options all at once may be difficult, but you can introduce students to group work, self-instructional material, and student projects over a period of time. As you find materials, or as students create projects, you can develop your own "strategy bank."

Teach students the skills of self-directed learning. Most instruction has been teacher-directed, so students will not automatically become self-directed learners once in college. Yet many of the newer teaching approaches (individualized instruction, audio-tutorial instruction, personalized systematic instruction) depend on a certain amount of self-direction on the part of the learner. By spending time familiarizing students with some personal management skills – research skills, time management, study skills – you can help them be more successful learners. (Knowles, 1975) These skills are helpful in any course and can help your students to become lifelong learners.

Show students the relationship between what you do each day and the course objectives. Adults expect learning to be purposeful. Many are giving up a great deal to be in school and feel very strongly about "wasted time." Many faculty are frustrated by this attitude and argue that for many activities much of the relevance is in the experience itself or is not immediately apparent. Yet a simple statement of your purpose for an activity, with an explanation of its relationship to the overall goals of the course, can establish a context for the activity and result in more receptivity on the part of the students. By sharing your intentions you also communicate your respect for their needs, something which helps to create a positive psychological climate.

Possibly the net effect of reading all of these suggestions is overwhelming; yet no doubt you're already doing some of the things noted here. The important thing is to try new approaches, because teaching effectiveness can be increased.

References

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Ask Dr. Billy Bob

Dear Billy Bob:

I am surprised that you would publicize the letter to you from John Bits (Fall, 1979, *Frontiers,* p. 29). No serious author would use that many acronyms, especially not in a serious journal. Start right at the beginning of that issue of *Frontiers.* Using pages 7 and 9 of the very first articles as an example of scholarly writing, how many acronyms do you see?

Bits is obviously a deviant and should be scorned.

Cordially,

AMC
ERICCJC
GSE & UL
UCLA

BASED UPON 4TH WEEK ATTENDANCE REPORT

SANTA BARBARA CITY COLLEGE
Santa Barbara, California

STUDENT CHARACTERISTICS STATISTICS

Fall, 1980

	DAY AND CONCURRENT	NIGHT	TOTAL	
JUNIOR COLLEGE DISTRICT OF OFFICIAL RESIDENCE				
Allan Hancock	54	16	70	
Hartnell Community College	01	00	01	
Los Angeles Community College	04	00	04	
Palomar Community College	01	00	01	
San Diego Community College	01	00	01	
San Francisco Community College	01	00	01	
San Luis Obispo CountyCommunity	00	01	01	
Santa Barbara Community College	6,577	2,730	9,307	
Ventura County Community College	12	04	16	
Inyo County	00	01	01	
Los Angeles County	01	00	01	
Mono County	02	00	02	
OUT OF STATE AND	177	18	195	
FOREIGN STUDENTS	128	06	134	
	6,959	2,776	9,735	
FULL TIME				
15 or more units	1,108	00	1,108)	3,172
12 to 14 units	2,036	28	2,064)	
PART TIME				
6 to 11 units	2,111	692	2,803)	6,563
Less than 6 units	1,701	2,059	3,760)	
	6,956	2,779	9,735	
TIME OF ATTENDANCE				
Day only	4,680		4,680	
Evening only		2,779	2,779	
Concurrent attendance	2,276		2,276	
	6,956	2,779	9,735	

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STUDENT CHARACTERISTICS STATISTICS (CONTINUED)

	DAY AND CONCURRENT	NIGHT	TOTAL
SEMESTERS COMPLETED AT SBCC			
None	3,993	1,876	5,869
1st	809	351	1,160
2nd	1,114	224	1,338
3rd	327	85	412
4th	375	103	478
5th	104	42	146
6th	114	45	159
7th	40	11	51
8th	33	14	47
9th	21	06	27
10th	13	07	20
11th	05	07	12
12th	02	01	03
13th	01	03	04
14th	03	01	04
15th	01	00	01
18th	00	01	01
19 or more	01	02	03
	6,956	2,779	9,735
AGE GROUP			
17 or younger	184	16	200
18 to 20	2,808	269	3,077
21 to 25	1,909	848	2,757
26 to 30	860	699	1,559
31 to 49	871	752	1,623
50 or over	324	195	519
	6,956	2,779	9,735
WORK LOAD			
None	1,994	355	2,349
1 to 20 hours per week	2,496	303	2,799
21 to 39 hours per week	1,418	409	1,827
40 or more hours per week	1,048	1,712	2,760
	6,956	2,779	9,735

(Continued on page 3)

	DAY AND CONCURRENT	NIGHT	TOTAL
GOAL			
No Degree	1,485	1,107	2,592
A.A. or A.S. Degree	1,226	505	1,731
Degree and Transfer	2,523	467	2,990
No Degree and Transfer	937	250	1,187
High School Diploma	89	21	110
Certificate of Completion	486	207	693
Specific Skills - No Degree	210	222	432
	6,956	2,779	9,735
FUTURE TRANSFER			
Out of State or Foreign	403	152	555
U.C.S.B.	1,587	420	2,007
Other U.C. Branches	919	153	1,072
California State College	877	167	1,044
Private College or University	223	75	298
No Transfer	2,876	1,789	4,665
Junior College	71	23	94
	6,956	2,779	9,735
HIGH SCHOOL WORK			
Graduated	6,525	2,665	9,190
Not Graduated	379	105	484
Did Not Attend	52	09	61
	6,956	2,779	9,735
YEAR OF HIGH SCHOOL GRADUATION			
Prior to 1950	310	186	496
1950 to 1959	243	240	483
1960 to 1969	773	682	1,455
1970 to 1972	572	469	1,041
1973	266	167	433
1974	297	197	494
1975	348	190	538
1976	385	142	527
1977	502	123	625

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	DAY AND CONCURRENT	NIGHT	TOTAL
YEAR OF HIGH SCHOOL GRADUATION (Continued)			
1978	758	119	877
1979	2,071	150	2,221
Did Not Attend			61
Not Graduated			484
	6,525	2,665	9,735
COLLEGE UNITS COMPLETED			
0 to 29	4,055	1,139	5,194
30 to 60	1,253	385	1,638
60 or more without a degree	773	355	1,128
A.A. or A.S. Degree	227	184	411
B.A. Degree or higher	648	716	1,364
	6,956	2,779	9,735
SEX			
Male	3,377	1,311	4,688
Female	3,579	1,468	5,047
	6,956	2,779	9,735
INTEREST AREAS LEADING TO TRANSFER AND/OR ASSOCIATE IN ARTS OR SCIENCE DEGREES			
Anthropology	10	03	13
Art	246	68	314
Bilingual/Cross Cultural Assistant	24	02	26
Biological Science	178	20	198
Black Studies	01	01	02
Business Administration	439	193	632
Business Education	21	11	32
Business Secretarial	19	05	24
Chemistry	19	01	20
Chicano Studies	03	00	03
Computer Science	127	75	202
Earth Science (Geology)	59	04	63

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	DAY AND CONCURRENT	NIGHT	TOTAL
INTEREST AREAS LEADING TO TRANSFER AND/OR ASSOCIATE IN ARTS OR SCIENCE DEGREES (CONTINUED)			
Economics	67	20	87
Engineering	204	61	265
English	64	23	87
Environmental Studies	57	07	64
Foreign Language	39	11	50
General Studies	3,817	1,803	5,620
Geography	07	03	10
History	18	07	25
Law and Society	20	05	25
Mathematics	16	04	20
Music	103	07	110
Philosophy	11	02	13
Physical Education	55	06	61
Physical Science	13	03	16
Physics	11	00	11
Political Science	31	03	34
Psychology	114	25	139
Social Science (General)	09	04	13
Sociology	23	14	37
Speech-Theatre Arts	77	10	87
VOCATIONAL MAJORS			
Apprentice Automotive Mechanics	03	07	10
Automotive Services	40	15	55
Banking and Finance	16	26	42
Business Management	44	34	78
Clerk-Typist (2 year)	11	00	11
Computer Science	44	34	78
Correctional Science (2 Year)	08	01	09
Cosmetology	24	00	24
Dental Assisting	17	00	17
Electronic Technology	85	60	145
Escrow Management	01	04	05
Fire Science	15	02	17
General Office Practice (1 year)	06	00	06
Geoscience Technology	23	03	26
Graphic Communications	43	10	53
Hotel-Restaurant Management	70	01	71
Landscape Horticulture	34	10	44
Marine Diving Technology	86	01	87
Marketing Management (2 year)	30	12	42
Marketing Management (1 year)	06	07	13

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	DAY AND CONCURRENT	NIGHT	TOTAL
VOCATIONAL MAJORS (CONTINUED)			
MEDICAL ASSISTING	20	02	22
METAL MANUFACTURING (1 year)	13	02	15
NURSERY SCHOOL	77	29	106
NURSING (ADN)	149	14	163
NURSING (VOCATIONAL)	38	02	40
OFFICE TECHNICIAN (1 semester Certificate)	01	00	01
POLICE SCIENCE	27	15	42
RADIOLOGIC TECHNOLOGY	38	00	38
REAL ESTATE	16	77	93
RECREATION TECHNICIAN	15	00	15
SECRETARIAL (2 Year)	32	03	35
STENOGRAPHER, BASIC (1 semester Certificate)	01	00	01
SUPERVISION AND MANAGEMENT	11	17	28
	6,946	2,789	9,735
COLLEGE WORK			
First Time in Any College	1,807	370	2,177
Back at SBCC After Being Out	782	539	1,321
Back From Another College	173	140	313
1st Time From Another College	1,116	757	1,873
Continuing Student	3,078	973	4,051
	6,956	2,779	9,735
SPECIAL HIGH SCHOOL			
High School Grade 11	07	04	11
High School Grade 12	16	12	28
	23	16	39

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	DAY AND CONCURRENT	NIGHT	TOTAL
ETHNIC BACKGROUND			
American Indian			118
Asian American			237
Black			233
Filipino			23
Hispanic			874
Non-Resident Alien			134
All others			8,116
			9,735

LR/jh
11/14/80

SANTA BARBARA, CITY COLLEGE

Santa Barbara, California

STUDENT CHARACTERISTICS SUMMARY OF PAST FIVE YEARS

(Based on Fall Enrollment Figures)

	1976	1977	1978	1979	1980
1. Enrollment for Fall of Each Year					
Total	8,753	8,584	7,807	8,114	9,735
Day	4,523 (51.67%)	4,389 (51.13%)	4,344 (55.64%)	4,266 (52.57%)	4,680 (48.07%)
Evening	2,369 (27.07%)	2,247 (26.18%)	2,037 (26.09%)	2,159 (26.61%)	2,779 (28.55%)
Concurrent	1,861 (21.26%)	1,948 (22.69%)	1,426 (18.27%)	1,689 (20.82%)	2,276 (23.38%)
2. Out-of-State Students	153 (1.75%)	157 (1.83%)	161 (2.06%)	151 (1.98%)	195 (2.00%)
3. Foreign Students	69 (.78%)	92 (1.07%)	113 (1.45%)	109 (1.34%)	134 (1.38%)
4. Percentage Change by Time of Enrollment					
Total	8,753 (-3.60%)	8,584 (-1.93%)	7,807 (-9.05%)	8,114 (+3.93%)	9,735 (+19.98%)
Day	4,523 (+8.26%)	4,389 (-2.96%)	4,344 (-1.03%)	4,266 (-1.80%)	4,680 (+9.70%)
Evening	2,369 (-11.34%)	2,247 (-5.15%)	2,037 (-9.35%)	2,159 (+5.99%)	2,779 (+28.72%)
Concurrent	1,861 (-16.55%)	1,948 (+4.67%)	1,426 (-26.80%)	1,689(+18.44%)	2,276 (+34.75%)
5. Unit Load					
15 or More Units	1,589 (18.15%)	1,486 (17.31%)	1,101 (14.10%)	1,139 (14.04%)	1,108 (11.38%)
12-14 Units	2,361 (26.97%)	2,231 (25.99%)	2,053 (26.30%)	2,003 (24.69%)	2,064 (21.20%)
6-11 Units	2,503 (28.60%)	2,378 (27.70%)	2,254 (28.87%)	2,286 (28.17%)	2,803 (28.79%)
Less Than 6 Units	2,300 (26.28%)	2,489 (29.00%)	2,399 (30.73%)	2,686 (33.10%)	3,760 (38.62%)
12 or More Units	3,950 (45.12%)	3,717 (43.30%)	3,154 (40.40%)	3,142 (38.72%)	3,172 (32.58%)

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	1976	1977	1978	1979	1980
6. College Units Completed					
0-29 Units	4,799 (54.83%)	4,872 (56.75%)	4,220 (54.05%)	4,371 (53.87%)	5,194 (53.35%)
30-60 Units	1,946 (22.23%)	1,792 (20.88%)	1,644 (21.06%)	1,605 (19.78%)	1,638 (16.83%)
60+ With No Degree	970 (11.08%)	897 (10.45%)	792 (10.14%)	828 (10.20%)	1,128 (11.59%)
A.A. or A.S. Degree	283 (3.23%)	212 (2.47%)	248 (3.18%)	291 (3.59%)	411 (4.22%)
B.A. or Higher Degree	755 (8.63%)	811 (9.45%)	903 (11.57%)	1,019 (12.56%)	1,364 (14.01%)
7. Sex					
Female	4,405 (50.33%)	4,458 (51.93%)	4,040 (51.75%)	4,269 (52.61%)	5,047 (51.84%)
Male	4,348 (49.67%)	4,126 (48.07%)	3,767 (48.25%)	3,845 (47.39%)	4,688 (48.16%)
8. Age Group					
17 or Less	227 (2.59%)	260 (3.03%)	260 (3.33%)	278 (3.43%)	200 (2.05%)
18 - 20	3,214 (36.72%)	3,117 (36.31%)	2,768 (35.46%)	2,738 (33.74%)	3,077 (31.61%)
21 - 25	2,493 (28.48%)	2,458 (28.64%)	2,116 (27.10%)	2,259 (27.84%)	2,757 (28.32%)
26 - 30	1,328 (15.17%)	1,237 (14.41%)	1,213 (15.54%)	1,260 (15.53%)	1,559 (16.01%)
31 - 49	1,177 (13.45%)	1,188 (13.84%)	1,120 (14.35%)	1,224 (15.08%)	1,623 (16.67%)
50+	314 (3.59%)	324 (3.77%)	330 (4.23%)	355 (4.38%)	519 (5.33%)
17 - 20	3,441 (39.31%)	3,377 (39.34%)	3,028 (38.79%)	3,016 (37.17%)	3,277 (33.66%)
21 - 30	3,821 (43.65%)	3,695 (43.05%)	3,329 (42.64%)	3,519 (43.37%)	4,316 (44.34%)
31+	1,491 (17.04%)	1,512 (17.61%)	1,450 (18.57%)	1,579 (19.46%)	2,142 (22.00%)
9. Work Load - All Students					
None	2,773 (31.68%)	2,546 (29.66%)	2,243 (28.73%)	2,185 (26.93%)	2,349 (24.13%)
1 - 20 Hours	2,667 (30.47%)	2,628 (30.62%)	2,369 (30.34%)	2,426 (29.90%)	2,799 (28.75%)
21 - 39 Hours	1,310 (14.97%)	1,403 (16.34%)	1,396 (17.88%)	1,491 (18.37%)	1,827 (18.77%)
40+	2,003 (22.88%)	2,007 (23.38%)	1,799 (23.04%)	2,012 (24.80%)	2,760 (28.35%)

(Continued on Page 3)

	1976	1977	1978	1979	1980
10. Work Load - Day and Concurrent Students					
None	2,384 (37.34%)	2,213 (34.92%)	1,948 (33.76%)	1,867 (31.35%)	1,994 (28.67%)
1 - 20 Hours	2,412 (37.78%)	2,368 (37.37%)	2,149 (37.24%)	2,223 (37.33%)	2,496 (35.88%)
21 - 39 Hours	1,017 (15.94%)	1,115 (17.59%)	1,100 (19.06%)	1,173 (19.70%)	1,418 (20.38%)
40+	571 (8.94%)	641 (10.12%)	573 (9.93%)	692 (11.62%)	1,048 (15.07%)
11. High School Work					
Graduated	8,160 (93.23%)	8,019 (93.42%)	7,389 (94.65%)	7,688 (94.75%)	9,190 (94.40%)
Not Graduated	528 (6.03%)	520 (6.06%)	383 (4.91%)	378 (4.66%)	484 (4.97%)
Did Not Attend	65 (.74%)	45 (.52%)	35 (.45%)	48 (.59%)	61 (.63%)
12. College Work - Day and Concurrent Students					
First Time at Any College	1,589 (24.89%)	1,622 (25.60%)	1,474 (25.55%)	1,553 (26.08%)	1,807 (25.98%)
Back at SBCC After Being Out	510 (7.99%)	509 (8.03%)	491 (8.51%)	560 (9.40%)	782 (11.24%)
Back From Another College	95 (1.49%)	132 (2.08%)	114 (1.98%)	137 (2.30%)	173 (2.49%)
First Time - Another Coll.	966 (15.13%)	971 (15.32%)	822 (14.25%)	876 (14.71%)	1,116 (16.04%)
Continuing SBCC	3,224 (50.50%)	3,103 (48.97%)	2,869 (49.72%)	2,829 (47.51%)	3,078 (44.25%)
13. College Work - Evening					
First Time at Any College	277 (11.69%)	298 (13.26%)	272 (13.35%)	278 (12.87%)	370 (13.31%)
Back at SBCC After Being Out	412 (17.39%)	365 (16.24%)	326 (16.00%)	408 (18.90%)	539 (19.40%)
Back From Another College	88 (3.71%)	101 (4.49%)	84 (4.12%)	95 (4.40%)	140 (5.04%)
First Time - Another College	574 (24.23%)	563 (25.06%)	477 (23.42%)	470 (21.77%)	757 (27.24%)
Continuing SBCC	1,018 (42.97%)	920 (40.94%)	878 (43.10%)	908 (42.06%)	973 (35.01%)
14. Special High School Students	44 (.50%)	42 (.49%)	41 (.53%)	36 (.44%)	39 (.40%)

ATTACHMENT #4

COGNITIVE MAPPING:

A RETENTION STRATEGY THAT WORKS

John S. Keyser*

Cognitive style mapping is based on the utilization of information from an assessment device ("the map") which helps teachers and learners determine what strategies, time frames and teaching environments will be effective for each student. It assumes that each person has a unique way of gathering information, filtering information and making decisions. Cognitive style addresses behavior and preference; it is value free --- there is no such thing as "good" or "bad" cognitive style. Cognitive style does not deal with the level of achievement of the learner or with the academic ability of the student. The concept of CSM complements an institution's emphasis on individualized instruction by (1) enabling professionals to intelligently and successfully structure the most effective learning environment for students, as individuals, and (2) helping students understand and accept responsibility for their own learning style.

The concept of cognitive mapping has significant appeal to educators because it attempts to answer two critical questions: Which methods of instruction work for specific students and which strategies for learning work best for each student? Thus, cognitive mapping attempts to translate educational and psychological research on cognition into practice.

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When Dr. R. Stephen Nicholson arrived as the new president of Mt. Hood Community College (MHCC) in 1976, he brought with him a philosophy of teaching and learning which went beyond education for all, toward education for each. He also had a strategy for translating this philosophy into practice. He dispatched a team of managers from the areas of instruction and student relations to investigate cognitive mapping activity at three community colleges known for their pioneering efforts: Oakland Community College, Fox Valley Technical Institute and Mountain View Community College. He gave the visitation team the charge of developing recommendations that would stimulate MHCC faculty interest in cognitive mapping. With this presidential support and encouragement, MHCC moved quickly from listening to external consultants to developing a cadre of internal consultants which devised a system appropriate to its environment.

The support system which emerged was devised by a task force of managers, counselors and instructors.

The first important decision made by this task force was to use the Modified Hill Model to assess learning styles. This model was originally developed by the late Dr. Joseph Hill at Oakland Community College near Detroit, Michigan, and modified by Dr. Harriet Erhart and Associates of Mountain View Community College in Dallas, Texas. Dr. Erhart's important contribution was a shortening of the assessment questionnaire from two and one-half hours to about thirty-five minutes. Both the Erhart and the Hill version yield a "map" of 28 elements. These elements assess these nine dimensions:

1. How do we use our senses? How we find meaning through our senses of hearing, seeing, smelling, tasting, feeling.

2. How do we communicate with others? Dimensions in this area include communication through body language, judging the appropriate physical and social distance, role playing to influence others, influencing the goals of others (salesmanship).

3. How sensitive are we to people and things? Dimensions include empathy, enjoyment of the beauty of an object, personal knowledge of oneself.

4. Do we perform motor skills according to a recommended form?

5. Are we committed to a set of values, a group of principles, obligations and/or duties?

6. How sensitive are we to time expectations?

7. To what degree are we influenced by associates, family or authority figures and self in making decisions?

8. To what degree do we use classifications or rules as the basis for accepting or rejecting an advanced hypothesis?

9. Do we reason by making comparisons or seeing differences or by discerning relationships and similarities?

The second task force decision was to apply for funds to involve faculty in a resource development project. A state grant of $20,000 was obtained and a team of interested faculty members were hired during the summer to revise available materials so they fit the MHCC situation. Alternative resources emerged to explain "the maps" to faculty and students and to make suggestions about classroom application. A slide-tape, a self-paced assessment with interpretation guide, simplified scoring sheets, and notebooks containing pertinent research articles on learning style were all developed. In addition, supportive management decisions were made. Funds were re-allocated to computerize the input and retrieval of maps as well as to produce class summary tables aimed at simplifying faculty use and interpretation. Another key decision re-allocated personnel to staff the "cog shop" with a counselor-coordinator who had extensive background in assessment and interpretation. This individual provided assistance to instructors with classroom interpretation and on-going in-service. Further, he updated materials and advised student walk-ins on cognitive style mapping as well as career guidance.

About 50 percent of the full-time faculty of 150 showed active interest in cognitive mapping. They had all members of their classes mapped and/or used interpretation materials in their classes, talked about their cognitive maps to students, or participated in the Instructional Style Guide. The Instructional Style Guide was developed through the faculty academic affairs committee and distributed to students via the orientation class. It lists information about the manner in which instructors teach their courses. A sample entry looks like this:

COURSE/ INSTRUCTOR	TYPE COURSE	INSTRUCTIONAL METHODS	EVALUATION METHODS	GRADING SYSTEM
FISHERIES TECH				
FI 31 J. Foster	lecture, experiential learning lab	discussion, audio-visual, one-to-one, lecture, textbook, written packages (lab), outside reading	lab experiences projects, objective and essay tests	curve, point system

A third key decision of the task force made cognitive mapping a mechanism for student orientation. It was agreed that responsibility should be placed on students to develop an awareness of their learning style and employ this awareness as a survival skill. Instructional and counselor planners concluded that the sensitivity to teaching and learning styles generated by interest in cognitive mapping would be used as the basis for a student survival course. As a part of the regular advising and placement testing process, new students were encouraged to register for this new one credit hour, human psychology course (Psych. 111). During the fall of 1978, and 1979, the majority of entering full-time students were registered in this course. In addition to intensive sessions on map interpretation, course content included touring campus facilities to develop an awareness of support services, completing a two-year educational plan for each student, and seeing a film on time management.

Data collected by MHCC's research office reveal that the retention of students who completed this course was much higher than the retention rate of students who . did not complete this course:

	FALL TERM 1978	WINTER TERM 1979	RETENTION RATE WINTER/FALL	SPRING TERM 1979	RETENTION RATE SPRING/FALL
Control Group	429	239	56%	184	43%
Treatment Group	734	596	81%	489	67%
Treatment Group-- Successful Completers of Psych. 111	487	433	89%	365	75%
Treatment Group-- Unsuccessful Completers of Psych. 111	247	163	66%	124	50%

The 67 percent retention rate of the treatment group from fall term to spring term is substantially higher than the 43 percent retention rate of the non-treatment or control group. There is undoubtedly some contamination due to the non-random selection of the treatment group. It is important to note that the selection of this group was handled as a part of the student advising system by 12 counselors. The counselors agreed to be directive in advising students who were undecided about their majors to take the orientation course. Goal and career oriented students and those with high achievement profiles were less likely to receive suggestions from counselors to enter the course.

It is worth noting that the persistors in the non-treatment group actually had a higher GPA in the spring (2.94) than the persistors in the treatment group (2.64). This may suggest that the goal oriented, high achievers did steer away from the course. Although the qualifications on this data must not be forgotten, there appears to be substance to the conclusion that the treatment contributed to a higher retention rate.

Perhaps more significant than the data, though, is the feedback obtained from students and instructors who particpated in the program. Pre- and post-survey questions were administered to students. Highlights from the fall 1979 analysis follow. These are similar to the results obtained in fall 1978.

* 90 percent of the students have developed a one-year educational plan and 81 percent a two-year plan.

* 94 percent of the students responded that they can describe how they prefer to learn; 94 percent are aware of factors that affect how they learn; and 84 percent can identify who has the greatest influence on their learning.

* 85 percent of the respondents can describe the process they use in making decisions.

* 76 percent of the students know the name of their faculty advisor and 87 percent have selected a major.

* 84 percent of the respondents "strongly agree" or "agree" that the "map" gave them useful information about how they get and use information, 12 percent are undecided, and 3 percent disagree.

* 85 percent of the respondents indicated that they can describe their "map" to another student with the help of the student guide, 13 percent are undecided, and 2 percent disagree.

* 81 percent of the respondents would recommend being mapped to other students, 15 percent are undecided, and 3 percent disagree.

Cognitive mapping has taken its place at the center of the student orientation program at Mt. Hood Community College. Analysis of preliminary retention data and feedback from faculty, management and student participants support the conclusion that it is a useful instructional tool. As one faculty member commented, "At the very least, cognitive mapping has stimulated interest in different teaching and learning styles." Such sensitivity will be critical to instructional development that goes beyond the standard lecture -- textbook approach. Cognitive mapping assumes that humanization, personalization and individualization are important characteristics of an optimal teaching-learning environment. These factors must be present if a staying environment for students is to be developed and maintained.

The research on retention underscores the importance of these factors, yet too often we are stymied by the conclusion that further research is needed. Further research is being conducted on Mt. Hood's utilization of cognitive mapping as a retention strategy. For the present, though, we are pleased to report on this action program that appears to be working.

Good background material:

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Bloom, Benjamin S., HUMAN CHARACTERISTICS AND SCHOOL LEARNING. McGraw-Hill, 1976.