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**Native Student Success :  
Tracking Student Persistence in College Programs**

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## **NATIVE STUDENT SUCCESS: TRACKING STUDENT PERSISTENCE IN COLLEGE PROGRAMS**

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The purpose of this paper is to describe findings from an ongoing study of Native student satisfaction and success in selected programs at one community college. After providing brief background information about some aspects of the college, the paper will illustrate some findings from the study and conclude by discussing some of the challenges to tracking Native student persistence and success in college programs.

### **BACKGROUND INFORMATION**

Two of the most populous Native reserves in Alberta are located between Lethbridge and the Rocky Mountains. For a number of years on-reserve programs have been offered to several hundred students at Stand Off on the Blood Reserve and Brocket on the Peigan Reserve. In addition, Native students register in programs on the main campus in Lethbridge, primarily in academic upgrading courses. Native student enrolment in career programs at the main campus has generally been low. There are several sides to the issue of low Native student participation in career programs at our college. These sides are related to educational backgrounds, cultural elements, geographical distances from the campus, and more.

Of particular concern to some people at the college and in the Native community is that Native people are underrepresented in the law enforcement field and Native students are underrepresented in our Criminal Justice career program. The college's response has been to create an alternate educational route for Native students to obtain training and credentialing in the field of Criminal Justice.

We refer to this program as an innovation. A brief definition of innovation is "something new or different." A definition of innovation in education that I prefer is a change that represents doing something at a particular place for the first time. Innovation is doing something new through planned change. The alternate route in the Criminal Justice program involves taking elements from the two-year diploma program, combining them with individualized upgrading instruction and offering this over a two-year period for a certificate credential. If the certificate holder completes an additional year (third year), a diploma will be awarded. This route replaces the requirement of completing all upgrading requirements before gaining entry to the diploma program. It also affords students with an exit credential after two years. This alternative route has been available to Native students only and available in the Criminal Justice program only.

### **RELATED LITERATURE**

Two bodies of research literature are particularly related to this topic of Native student persistence and success. One area involves minority student experience in higher education--including studies of Native students, while the other area is student persistence/withdrawal research.

Although information about factors associated with needs of minority students is common in higher education literature (e.g., D. Wright, 1987), study of Native student performance in higher education is generally limited. There is some evidence (B. Wright, 1987, p.2) that participation rates of North American Indians in higher education are among the lowest for visible minorities in the United States. (In Canada, the situation is likely similar, although racial background is not reported with enrolment data). Several recent studies, however, have looked at promising approaches for studying Native participation in colleges and universities (e.g., Lin, 1990; Rindone, 1988; Benjamin & Chambers, 1989). These researchers have identified achievement motivation and perception of family background as important elements in understanding Native performance in higher education. Further, Rindone cites the continued need "to identify and explore those factors which contribute to the successful completion

of a college" program (1988, p.2). In addition to the study of student performance and persistence, some institutions have focused efforts toward developing specific programs to meet the needs of Native students or enhancing faculty cultural awareness. In Canada for example, the Nova Scotia Micmac and Dalhousie University have collaboratively developed a decentralized approach to social work education (Smith, 1987). In the United States another approach identified by Hornett (1989) involves improving retention of Native students through increasing faculty cultural awareness.

A student persistence model developed by Tinto (1975, 1987) and tested by many others (e.g., Pascarella & Chapman, 1983; Terenzini & Pascarella, 1977) centres on student social and academic integration at college. The model recognizes that the individual is influenced by a wide range of experience before and during college. Adjustment or adaptation to the college environment is central to student decisions to stay or leave college. Generally, it appears that students who are more academically integrated are more likely to persist than students who are less academically integrated. There is also some evidence that social integration, while not as strong a factor as academic integration, is also instrumental in decisions to persist or withdraw from college. In this vein, some researchers have found that minority students at predominantly white campuses often face overwhelming adjustment challenges (Allen, 1987; Beckham, 1988; Nora, 1987).

## FINDINGS ABOUT PERSISTENCE AND SUCCESS

While this certificate program is being implemented, some information about student satisfaction and success is being collected for use in making decisions about the program. The findings presented here include a profile of students, perceptions of their college experiences and measures of academic achievement.

**Native students in the certificate program.** This is the second year of the certificate program. The target intake in the first year was six students and in the second year twelve. In actuality seven students started in the first year and 18 in the second. Six of the original seven have completed the second year. This includes four men and two women. The age range for this group was 21 to 34 years. From our second intake, 17 students completed the year, including 14 women and three men. Again the age range was 21 to 34 years. These students are primarily from the southern Alberta area, but some of the students permanently reside out of the area.

**Perceptions of the college experience.** These perceptions were obtained by a questionnaire used fall and spring in the first year of the certificate program. It collected data from the diploma and certificate students in Criminal Justice and all students taking upgrading courses. In this paper, comparisons are shown between diploma ( $n = 56$ ) and certificate ( $n = 7$ ) Criminal Justice students and with Native upgrading students ( $n = 18$ ).

In the fall all groups held a similar perception of themselves as self-starters (Table 1). By spring, this perception was strengthened in the diploma and certificate groups, while it became slightly weaker in the upgrading group. All groups held the perception that they have the ability to do well in their courses; this perception was generally unchanged by year's end. While all groups agreed that they could handle the required workload, the diploma and certificate students gave a much stronger agreement in spring to this view, while the view of the upgrading group remained unchanged. The certificate students reported a greater resolve to accomplish goals that they set or were assigned than did the other two groups (the other two groups also reported a weakened commitment to complete goals or assigned tasks, by year's end).

Some differences were noted in how these groups perceived their instructors (Table 2). Generally, the diploma and certificate groups saw their instructors as more organized, better communicators, more available, and more interested in students than did the upgrading group. Overall, these views tended to change very little from beginning to end of the year. However, there was a substantial difference between the two Criminal Justice student groups and the upgrading group in viewing the influence of instructors on the student's career aspirations; the Criminal Justice students

held this view more strongly. Still, by year's end, the diploma students' view of instructor influence had increased, while the certificate group's view of instructor influence had decreased. In this vein, the diploma and certificate groups reported a greater likelihood that instructors' attitudes contribute to positive and helpful relationships, compared to the upgrading group.

Overall, all groups maintained the view that they made a good decision in coming to college and reported a strong commitment to completing their course of study. These views tended to change little from fall to spring. In part, these feelings may be related to feeling comfortable on campus. All groups reported that they were familiar with the campus and that they became more familiar by the year's end (Table 3). However, only the diploma students reported an increased feeling of being "at ease" on the campus by spring. The upgrading and certificate groups reported no change. The diploma and certificate groups reported a slight increase in satisfaction with student friendships by year's end, while the upgrading group reported a slight decrease in satisfaction.

**Growth in math and reading skills.** The emphasis in academic skill-building for certificate students focused on reading comprehension and math skills. All students to the Criminal Justice program participate in a skill assessment as part of the admissions process. Scores from these assessments were used to measure the effects of the developmental skill building. The certificate students were retested in the spring as were a group of diploma students who had tested low in the fall. The certificate students had received upgrading assistance, while the diploma students had received none. The results of the retest showed greater gains for the diploma students in reading than for the certificate students (Table 4) but greater gains in math for the certificate students (Table 5). This outcome was used to reassess the way that the upgrading component was delivered in the certificate program.

**Final marks in Criminal Justice courses.** Certificate students did not receive comparable final marks to those of diploma students who took the same career courses (Table 6). Generally, the average final marks of certificate students were one mark lower than the average for diploma students. The interpretation of why there is such a difference remains a discussion item among instructors in the program. Explanations range from student ability to teacher behaviour to curriculum. The discussion process toward finding the explanation will be as valuable as the explanation. The discussion challenges the program instructors to look at their assumptions about students, curriculum and teaching methods as well as the students' results.

## **NEXT STEPS**

The initial work to profile success and persistence among Native students enrolled in the Criminal Justice certificate program also involved comparisons between these students and students enrolled in upgrading courses. Several upgrading instructors indicated an interest in tracking success and persistence among upgrading students. Of particular interest was learning more about how the college experience affects students' goals and goal attainment.

A project is underway to identify and measure the ways that students define satisfaction and success with college. Semi-structured interviews were conducted with a number of on-campus and off-campus Native students and instructors. Transcripts of the interviews were analyzed for descriptions of satisfactions, dissatisfactions, and measures of success. It is anticipated that these descriptions will be used to develop a student questionnaire appropriate for students registered at the college. The purpose for using the questionnaire is to gain more complete understandings of students' motives and expectations about attending college. Findings from the questionnaires would be used in instructor workshops and in curriculum review.

## **ISSUES RELATED TO FURTHER TRACKING OF STUDENT SATISFACTION AND SUCCESS**

There are a number of issues surrounding the organization and delivery of innovations like the program I have been discussing. These are issues that occur on our campus and no doubt occur on

other campuses as well. It is not my intention to fully discuss these issues but to identify how they influence developing information about student success and satisfaction in programs such as this one.

One issue concerns students' privacy and confidentiality of the responses. Personal privacy is threatened when there are only a handful of students in one of the groups being studied. The investigators can easily outnumber the students. For example, in a group of seven certificate students a individual's identify can easily be revealed when discussing findings as they relate to demographic characteristics such as gender, age, and marital status. As investigators, we can not suppress findings, yet carelessly revealing findings may eliminate student anonymity. A second related issue is the dual concern about who can study Native students and who can speak for Native students. From our experience, it is fair to say that informed consent means more than an individual student's acceptance to participate in a study. The Native community wants to be informed and to give consent. We are learning how to become partners with the community in looking at issues like student persistence and success.

In addition to these ethical and social considerations, there are several design issues in tracking persistence and success. One design issue relates to identifying students as Native or non-Native in survey studies. Racial or ethnic background characteristics are not part of our student data base. Unlike the Americans, in Canada we do not systematically define racial groups and list these groups on institutional forms. As a result, there is not a clear, clean way to collect and analyze data in relation to ethnic background.

Another design issue concerns the definitions and constructs of persistence, satisfaction, and success. Certainly there is the traditional institutional perspective that defines persistence as program completion and defines success as passing marks, convocating and gaining employment. As community colleges, however, we realize that our definitions of student persistence and success are not clear and that they change with the times. We also know that students have their own goals and motives for attending college. Regardless of which students we are tracking, it is important that we can define what we want to measure. This means we have to define persistence, satisfaction, and success and we have to be confident that we are able to accurate measure.

These difficulties in tracking student success pose real problems for planners and innovators. Dealing with these problems can take on a life of its own and even draw attention away from the initial activity which was program innovation. By tracking the influence of college experience on students, valuable planning information can be developed. As colleges improve their tracking techniques and share this knowledge with other colleges, we can continue to do what community colleges do best-- respond to change by our commitment to innovate.

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**Table 1**  
**COMPARISON OF RESPONSES ABOUT OWN ABILITIES**

<u>Questionnaire item</u>	<u>Diploma</u>		<u>Certif.</u>		<u>Upgrading</u>		<u>p&lt;.05</u>
	<u>Fall</u>	<u>Spr</u>	<u>Fall</u>	<u>Spr</u>	<u>Fall</u>	<u>Spr</u>	
I consider myself a self-starter.	3.98	4.30	4.14	4.50	4.00	3.94	D-U, C-U Spr
I have the ability to do well in my courses.	4.60	4.66	4.57	4.50	4.44	4.50	
I can handle the workload required in all my courses.	3.91	4.29	4.17	4.50	3.72	3.78	
After I set a goal, no matter how difficult it is, I am willing to sacrifice whatever it takes to achieve that goal.	3.93	3.88	4.42	4.68	4.28	4.17	
If I am assigned a task, I will do the task without letting any friends pull me away.	3.85	3.75	4.00	4.17	4.22	3.78	

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Note: Five-point scale where 1 = Strongly Disagree, 3 = Neutral, 5 = Strongly Agree. Statistically Significance  $p < .05$  shows D = Diploma students, C = Certificate students, and U = upgrading students. For example, "D-C, Fall" indicates a statistically significant difference in variance between the Diploma and Certificate students' responses in Fall.

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**Table 2**  
**COMPARISON OF RESPONSES ABOUT INSTRUCTORS**

<u>Questionnaire item</u>	<u>Diploma</u> <u>Fall Spr</u>	<u>Certif.</u> <u>Fall Spr</u>	<u>Upgrading</u> <u>Fall Spr</u>	<u>p&lt;.05</u>
My instructors seem to be well organized.	4.71 4.52	4.71 4.33	4.17 4.28	D-U Fall C-U Fall
My instructors communicate course requirements clearly.	4.54 4.46	4.71 4.17	4.28 4.11	
My instructors seem to be genuinely interested in students.	4.44 4.46	4.28 4.00	4.12 4.06	D-U Spr
My instructors seem to be available to talk with students outside of class time.	4.48 4.39	4.14 4.17	4.22 4.06	
My interactions with my instructors have a positive influence on my career aspirations.	4.34 4.44	4.42 4.33	3.78 3.61	D-U, C-U Fall D-U, C-U Spr
My instructors' attitudes contribute to a positive and helpful relationship with me.	4.32 4.28	4.42 4.33	4.06 3.89	D-U, C-U Spr

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Note: Five-point scale where 1 = Strongly Disagree, 3 = Neutral, 5 = Strongly Agree. Statistical Significance  $p<.05$  shows D = Diploma students, C = Certificate students, and U = upgrading students. For example, "D-C, Fall" indicates a statistically significant difference in variance between the Diploma and Certificate students' responses in Fall.

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**Table 3**  
**COMPARISON OF RESPONSES ABOUT ADJUSTMENT TO CAMPUS**

<u>Questionnaire item</u>	<u>Diploma</u> <u>Fall Spr</u>	<u>Certif.</u> <u>Fall Spr</u>	<u>Upgrading</u> <u>Fall Spr</u>	<u>p&lt;.05</u>
The student friendships I have developed at the college are personally satisfying.	4.26 4.30	4.28 4.33	4.00 3.94	
I feel "at ease" about being a student on this campus.	4.12 4.30	4.29 4.33	3.94 3.94	D-U Spr
I can find my way around on this campus.	4.47 4.68	4.14 4.67	4.00 4.22	

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Note: Five-point scale where 1 = Strongly Disagree, 3 = Neutral, 5 = Strongly Agree. Statistical Significance  $p<.05$  shows D = Diploma students, C = Certificate students, and U = upgrading students. For example, "D-C, Fall" indicates a statistically significant difference in variance between the Diploma and Certificate students' responses in Fall.

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**Table 4**  
**READING (CPT) SKILL ASSESSMENT TEST SCORES AND PERCENTAGE CHANGE**  
**FROM FALL TO SPRING FOR SELECTED DIPLOMA**  
**AND ALL CERTIFICATE STUDENTS**

<u>Diploma Student Scores</u>			<u>Certif. Student Scores</u>		
Percentiles			Percentiles		
<u>Fall</u>	<u>Spring</u>	<u>of Change</u>	<u>Fall</u>	<u>Spring</u>	<u>of Change</u>
49	60	11	4	14	10
25	55	30	6	40	34
27	32	5	36	56	20
32	46	14	11	27	16
26	51	25	62	62	0
34	76	42	28	55	27
27	76	49	16	28	12

Average:

31	57	25	23	40	17
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**Table 5**  
**MATH SKILL ASSESSMENT TEST SCORES AND PERCENTAGE CHANGE**  
**FROM FALL TO SPRING FOR SELECTED DIPLOMA**  
**AND ALL CERTIFICATE STUDENTS**

<u>Diploma Student Scores</u>			<u>Certif. Student Scores</u>		
Percentiles			Percentiles		
<u>Fall</u>	<u>Spring</u>	<u>of Change</u>	<u>Fall</u>	<u>Spring</u>	<u>of Change</u>
17	14	-3	4	8	4
22	15	-7	13	13	0
21	19	-2	13		
19	15	-4	12	11	-1
17	16	-1	8	9	1
22	20	-2	11	14	3
15	17	2	9	9	0

Average:

19	17	-2	10	11	1
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**Table 6**  
**SUMMARY OF FINAL GRADES FOR CRIMINAL JUSTICE CERTIFICATE**  
**AND DIPLOMA STUDENTS IN COMMON COURSES**

<b>COURSE</b>	<b># DIP. STUDENT</b>	<b># CERT. STUDENT</b>	<b>DIP.MEAN GRADE</b>	<b>CERT.MEAN GRADE</b>	<b>GRADE DIFF.</b>	<b>DIPLOMA SD</b>	<b>CERT. SD</b>	<b>SIGNIF (P&lt; )</b>
LE160	66	7	2.86	1.64	1.22	.99	.80	.003
LE161	61	7	2.72	2.07	.65	1.20	.89	.171
LE166	63	7	2.56	1.29	1.27	.96	.39	.001
LE172	58	7	2.79	1.64	1.15	1.16	.69	.013
LE174	60	7	3.43	2.36	1.07	.88	.69	.003
LE175	53	7	3.08	1.57	1.51	.76	1.13	.000
LE177	71	7	3.06	1.93	1.13	.87	.61	.001
CJ160	71	20	2.97	1.55	1.42	.77	1.03	.000
CJ161	64	19	3.05	2.11	.94	.92	1.39	.001
CJ166	69	16	3.07	2.19	.88	.69	.98	.000
CJ172	63	19	3.40	2.26	1.14	.85	1.45	.000
CJ150	72	2	1.72	1.00	.72	1.08	1.40	.600
CJ165	65	5	2.28	.60	1.68	1.08	1.30	.047
CJ168	57	5	3.42	1.00	2.42	.80	.94	.003
CJ174	71	13	3.47	2.62	.85	.94	.89	.006
CJ175	62	16	3.31	2.65	.66	.65	.96	.020
CJ177	71	15	3.30	2.30	1.00	.75	1.08	.003
CJ258	53	7	3.36	1.71	1.65	.73	1.08	.006
CJ265	53	6	3.15	1.75	1.40	.91	1.29	.050
CJ270	64	15	3.21	1.93	1.28	.81	1.36	.003
CJ273	39	4	3.94	3.00	.94	.21	.82	.110
CJ277	22	2	2.68	1.75	.93	1.44	.35	.060
CJ279	20	4	3.53	1.13	2.40	.90	.25	.000
(COLUMN AVERAGE)			3.06	1.83	1.23	.88	.95	

Marks are converted from letter grades to the 4-point scale. "W" and "I" records have been excluded. Statistical significance was calculated with t tests using group means and the pooled variance statistic is shown in the table.

Comparison of student marks in second year courses is not shown for Fall 1991/92 because the number of certificate students completing such courses was too small to make meaningful comparisons. Figures are shown for second year courses in Winter 1991/92, however.