

**CREATING THOUGHTFUL WRITERS:
A STUDY OF THE CAMPUS CALGARY/OPEN MINDS
PROGRAM**

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Overview

The Campus Calgary/Chevron Open Minds Program gives teachers the opportunity to move their classrooms to one of eight community sites such as the Calgary Zoo, the Glenbow Museum or the Inglewood Bird Sanctuary. The classroom teacher uses the weeklong experience at the site as a catalyst for a long-term curriculum-based study of many months that is planned and implemented by the teacher. Coordinators at each of the sites are master teachers who act as facilitators for the classroom teachers, supporting them in custom designing their program so that it meets the specific needs and interests of students. This interdisciplinary study encompasses important curriculum objectives and essential skills. At the site the students are actively involved in hands-on experiences and they are able to spend long periods of time observing and reflecting. Experts at the sites work with students throughout the week. In 2000/2001, 5000 students in Calgary will participate in this unique and innovative program. This award-winning concept originated in Calgary with the support of the Calgary Board of Education and the Devonian Foundation and has now expanded to Edmonton, Vancouver and East Lansing MI.

There are many powerful outcomes for students participating in the program, such as deepened understanding and improved critical thinking. This research project focused on one vital outcome: the ability to communicate ideas through writing. Those involved in the program since its inception, including teachers, site coordinators and parents have seen tremendous gains in writing skills. It is common to hear a teacher say, "I just can't get over how Ryan (or Amy or Asif) is writing this week. At school I can't get him to write anything! Look at his journal! Three pages today!" In the field of education we know that children learn best through interactive, interesting hands-on experiences. We also know that even the best teacher in the world can only do so much within the four walls of the classroom. As for writing, children don't write from thin air. Especially in today's cocooned world of passive television and shopping malls,

children need interesting experiences to think about and to write about. How can the huge gains in writing ability that we have witnessed over the years be demonstrated? This study did just that. The writing skills of 266 students from 12 Grade Three classrooms were tested in the fall. Half took part in Campus Calgary/Open Minds. The other half were working within regular Calgary school programs. They were tested again in the spring. The results were impressive and provide powerful evidence of the effectiveness of the program. Writing test scores were the same for both groups at the start of the study. It was expected that both groups would show improvement given the four-month time period between tests. Control group scores increased by an average of 6% on the second writing task. **Students taking part in Campus Calgary/Open Minds programs however improved by an average of 24% - 4 times that of students who did not have the benefit of the program.** This result confirms what we have always felt and has profound implications for teaching and learning.

Collecting the Data

The Campus Calgary/Open Minds Program provides a supportive environment in which children can write often about their first-hand learning experiences. Coordinators and participants of the program believe that this approach provides strong scaffolding upon which children can become more expressive and descriptive writers. This study was designed to investigate the impact that the Campus Calgary/Open Minds Program has on the quality of reflective writing of Calgary students. Grade Three is the first year that the Provincial Government uses standardized tests to assess student writing in Alberta. Because the results of this study may be useful for comparative purposes in the future, the focus of the research was aimed at Grade Three students' achievement in writing.

The researcher asked teachers from a total of fifteen Grade Three classrooms in Calgary to participate in the study. Twelve teachers indicated their interest in taking part. Schools included a wide range of socio-economic areas in the City of Calgary and represented both the Calgary Public and Calgary Separate School Boards. Students ranged in age from seven to nine years throughout the course of the study and included both males and females. All students were given a pretest and posttest writing prompt by the researcher and were given the same period of time in which to complete their writing sample. A total of 294 Grade Three students were given the initial writing prompt by the researcher in October 1999. Between the months of November and January, 147 of the students participated in Campus Calgary/Chevron Open Minds programs at the Calgary Zoo, the Glenbow Museum and the Petro Canada Bird School at the Inglewood Bird Sanctuary. The remaining 147 students continued to work within regular classroom settings. In February 2000, a second writing sample was collected, however a total of 28 students were absent, leaving 134 students in the experimental group and 132 students in the control group.

Competency in reflective writing was measured through the use of an evaluative writing scale (rubric) developed by Alberta Learning for assessing Provincial Writing Tests at the Grade Three level. Writing quality was evaluated in terms of Vocabulary and Content. Writing samples were scored on a scale of one to five, with five representing a level of excellence for a Grade Three student. A second marker with experience in marking Provincial Achievement Tests was utilized to evaluate writing samples from all students in order to ensure objectivity. To check the level of agreement between markers, a sampling of seventy-one scores assigned by the researcher was compared to scores given by the second marker. Results were tested statistically and reflect a high level of agreement between marker scores (see Appendix A, Table 1). The results of this test also affirm the validity of the assessment rubric used to evaluate writing samples.

Writing samples from students attending Campus Calgary/Open Minds programs were then compared with the six classrooms of students not attending Campus Calgary/Open Minds this year. Data were analyzed statistically (one-way analysis of variance test - ANOVA) to determine the strength of the relationship between participation in Campus Calgary/Open Minds programs and quality of reflective writing (see Appendix A, Table 2).

Results of the Study

The results of this study clearly illustrate the positive impact that the Campus Calgary/Open Minds Program has on student writing. Appendix A, Table 3 represents the mean scores and percentage increases for both the experimental group and the control group on pretests and posttests. Pretest results show that both groups of students were working at a similar level in the month of October. A significant difference appears however between the groups on the posttest. Students in the control group demonstrated an improvement of 6% between the months of October and February, moving from a mean score of 2.5 to 2.8. Students in the experimental group however, demonstrated a 24% improvement in scores moving from a mean score of 2.5 to 3.7 in the same period of time. This improvement is four times greater than the control group. These significant results affirm the notion that the rich experiences gained through participation in Campus Calgary/Open Minds Programs along with extended opportunities to observe and write descriptively trigger more complex and extensive writing in Grade Three students.

Conclusions and Implications

Students in the experimental group achieved considerably higher scores on the same writing tasks than students in the control group. Clearly the children who participated in Campus Calgary/Open Minds Programs throughout this study have shown a marked improvement in using explicit and descriptive vocabulary

and in developing effective relationships between events, actions and context within stories. As indicated by Table 2, Appendix A and the graphs in Figures 1 and 2, Appendix B, one can see that there was no significant difference between the two groups on the pretest. In fact, the students in the control group demonstrated a slightly stronger standing than the experimental group on the initial writing prompt. Posttest results however, show a much higher level of achievement for students participating in Campus Calgary/Open Minds programs. It is important to note that teachers of students in both the experimental and control groups represented a variety of teaching approaches and styles. This evidence further supports the premise that students involved in Campus Calgary/Open Minds Programs are positively impacted.

The results of this study support the notion that education can and should take place in a variety of settings and in collaboration with people who are not considered educators in the traditional sense. The opportunities for long-term exploration, student ownership, social construction of knowledge and on-going journal writing provided within the context of the Campus Calgary/Open Minds Program have a significant impact on student writing performance. When children are able to immerse themselves in learning environments that are rich in resources and provide authentic, meaningful life experiences they are able to construct knowledge that is truly learned and remembered. Rather than responding to teacher-assigned writing topics, children become keen to share stories related to personal experiences. Students working together with site coordinators and resource people from each of the sites are able to build more specific vocabulary and become more proficient at expressing their own thoughts and ideas. The reflective writing that takes place not only at the site but throughout the school year becomes a powerful tool for connecting and changing ideas, and is a language-based medium that can be used to paint a landscape of learning.

Appendix A

Table 1 - Intra-class Correlation Coefficient

Average Measure Intra-class Correlation = .9704**		
95% C.I.	Lower = .9525	Upper = .9815
F = 33.7910	DF = (70)	Sig. = .0000 (Test Value = .0000)
** : This estimate is computed if the interaction effect is absent		
Reliability Coefficients: N of cases = 71 N of items = 2 Alpha = .9704		

Table 2 - One-way ANOVA - Pretest and Posttest Means

ANOVA

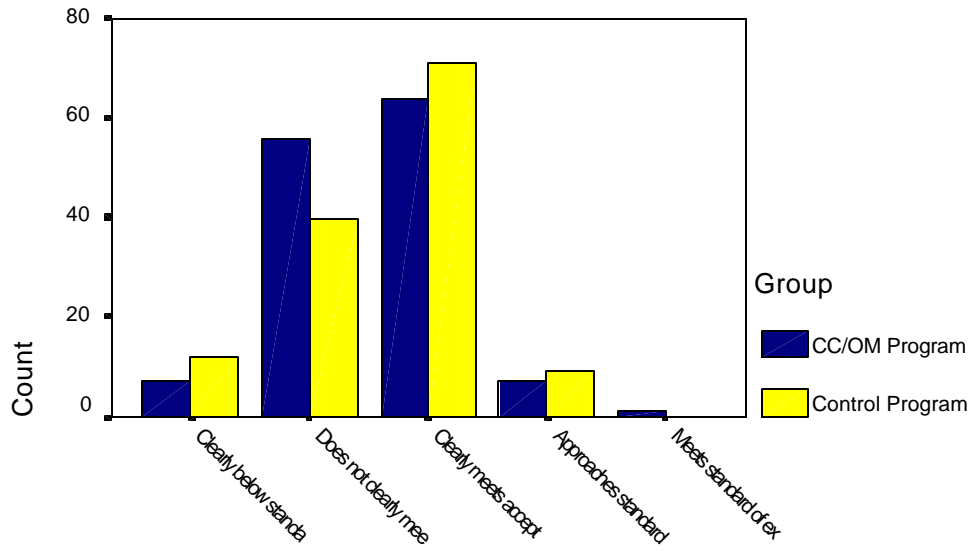
		Sum of Squares	df	Mean Square	F	Sig.
Pretest	Between Groups	.190	1	.190	.371	.543
	Within Groups	135.464	264	.513		
	Total	135.654	265			
Posttest	Between Groups	57.304	1	57.304	79.956	.000
	Within Groups	189.207	264	.717		
	Total	246.511	265			

Table 3 - Mean Scores for Control and Experimental Groups

	Mean Scores & Percentages		% Increase
	Pretest	Posttest	
Control Group	2.5/5.0 50%	2.8/5.0 56%	6%
OM/CC Program	2.5/5.0 50%	3.7/5.0 74%	24%

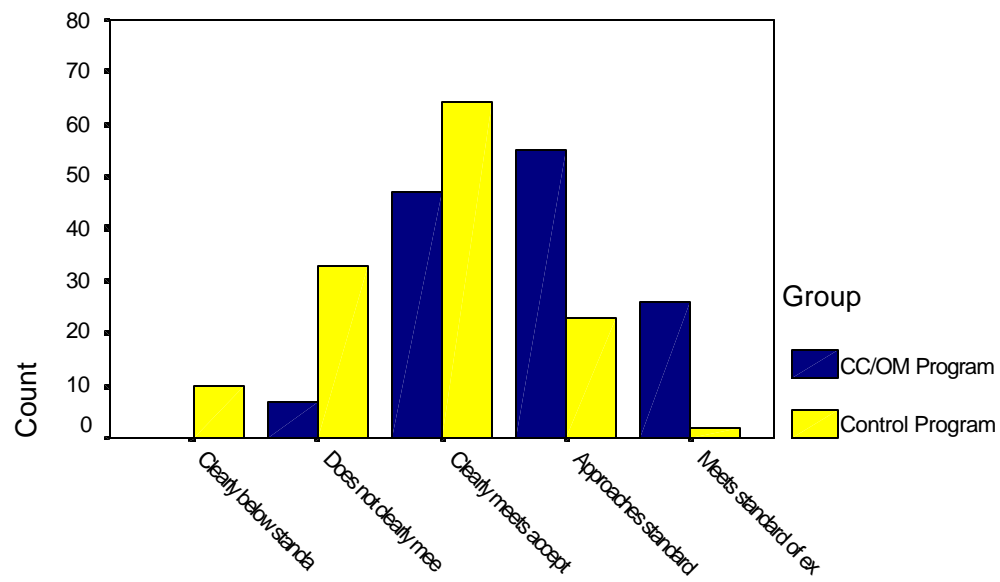
Appendix B

Figure 1 - Comparison of Pretest Scores



Pretest

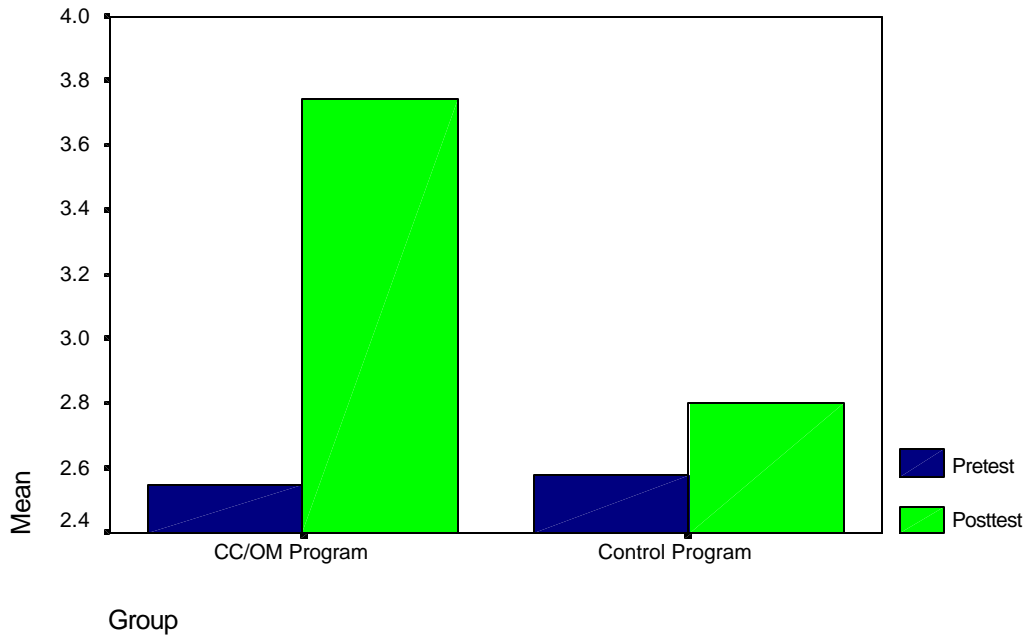
Figure 2 - Comparison of Posttest Scores



Posttest

Appendix C

Comparison of Means: Pretest & Posttest



Appendix D

Figure 1 - Comparison of Pretest Scores

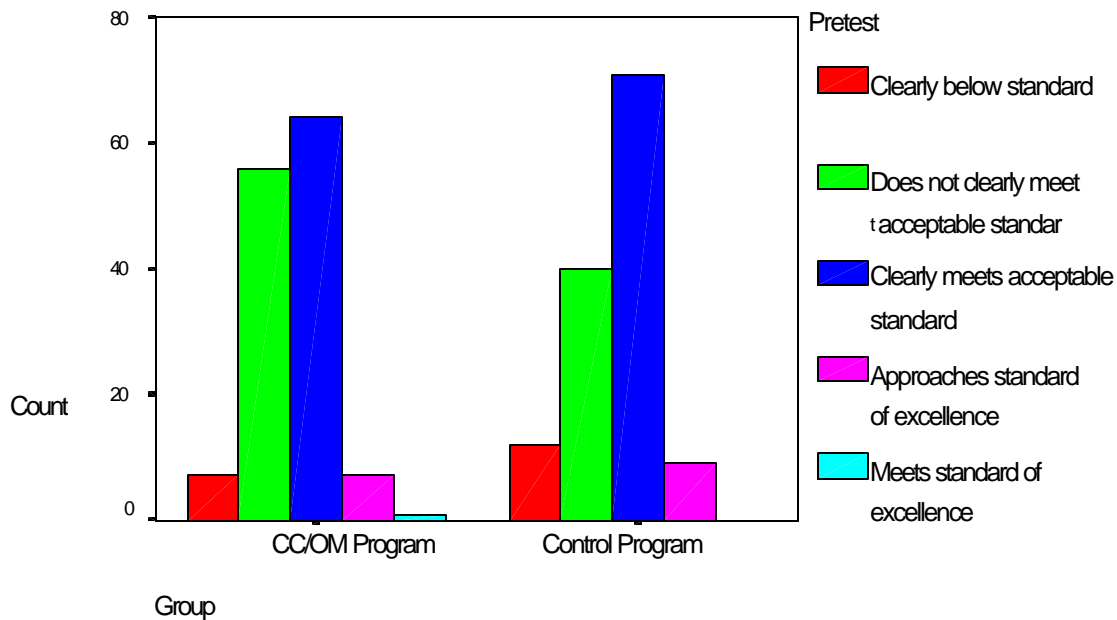


Figure 2 - Comparison of Posttest Scores

