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Volume 2

BC AVID Pilot Project:
[Interim Impacts Report]



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***BCAVID* Pilot Project:
Interim Impacts Report**

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BC AVID Pilot Project: [Interim Impacts Report]

Prepared by:

Social Research and Demonstration Corporation



For:

The Canada Millennium Scholarship Foundation



CANADA MILLENNIUM SCHOLARSHIP FOUNDATION
FONDATION CANADIENNE DES BOURSES D'ÉTUDES DU MILLÉNAIRE

Table of Contents

7	Acknowledgements		
8	Highlights		
10	Chapter 1: Introduction to the BC AVID Pilot Project		
10	Introduction		
12	Two Points Concerning BC AVID and Its Evaluation		
14	A Review of the Early Implementation Report		
16	Research Design		
23	Project Organization		
25	Purpose and Structure of This Report		
28	Chapter 2: Maintaining the BC AVID Program		
28	Introduction		
31	Chapter Summary		
32	Essential 10: Resources, Commitment to AVID Implementation, and Training		
34	Essential 11: The AVID Site Team		
42	Essential 1: Student Selection		
44	Essential 3: Full Implementation of the AVID Program		
50	Essential 4: Enrolment in a Rigorous Curriculum		
54	Essential 9: Data-Informed Delivery		
55	How BC AVID Has Been Maintained		
56	Chapter 3: Participation in BC AVID		
56	Introduction		
58	Chapter Summary		
58	Student Participation in the AVID Elective Class		
68	Educators' Participation in BC AVID		
71	Voluntary Participation in AVID		
72	Chapter 4: Implementing the AVID Elective		
72	Introduction		
74	Chapter Summary		
74	Implementation of the Curriculum Class		
80	Implementation of Tutorials		
89	Motivational Activities		
93	Conclusion		
94	Chapter 5: The BC AVID Treatment Differential		
94	Introduction		
97	Chapter Summary		
98	The Grade 11 "How Do You Learn?" Survey		
98	Comparing the Program and Comparison Groups		
110	Comparing Students in the Comparison Group With Students at Non-AVID Schools		
119	Conclusion		
120	Chapter 6: Interim Impacts of BC AVID		
120	Introduction		
123	Chapter Summary		
124	Data and Methodology		
124	Baseline Characteristics		
127	Interim Impacts		
140	Conclusion		
144	Chapter 7: What Has Been Learned So Far and Future Directions		
144	Introduction		
146	Chapter Summary		
147	The Main Features of BC AVID		
148	Has BC AVID Been Given a Fair Test?		
150	Administrative Essentials		
150	Student Engagement and Participation		
151	Implementation of the AVID Elective Class		
152	The BC AVID Treatment Differential and Potential Biases in the Estimation of Impacts		
152	Interim Impacts of BC AVID on Enrolment in Rigorous Courses, Attendance, and Achievement		
153	Remaining BC AVID Program Delivery and Analysis		
153	Summing Up		
154	Appendices		
155	1 Glossary of Terms		
159	2 AVID Participating Sites and Associated Feeder Schools		
160	3 Main Stages of the Project		
161	4 Certification Summary by BC AVID Pilot Site and Cohort		
164	5 Cumulative Exposure to BC AVID		
168	6 Characteristics of Active BC AVID Tutors		
170	References		



List of Tables

40	Table 2.1:	BC AVID Teacher Academic and Personal Support for Students, by Cohort
41	Table 2.2:	BC AVID Student Experience of Academic and Personal Support, by Site Type
41	Table 2.3:	BC AVID Student Experience of Academic and Personal Support, by Cohort
52	Table 2.4:	BC AVID Teacher Advice to Student and Class to Take Challenging Courses, by Cohort
53	Table 2.5:	BC AVID Teacher Advice to Student and Class to Take Challenging Courses, by Site Type
53	Table 2.6:	BC AVID Student Experience of Teacher Advice on Challenging Courses, by Site Type
59	Table 3.1:	Number of Students Recruited for the BC AVID Pilot Project
60	Table 3.2:	BC AVID Class Departures for Program Group Students Between Cohorts
61	Table 3.3:	BC AVID Class Departures for Program Group and Waitlist Students Between Random Assignment and Case Study Sites
62	Table 3.4:	BC AVID Expected Class Membership on October 1, by Cohort and Grade
63	Table 3.5:	Characteristics of Students by Departure
81	Table 4.1:	Overview of BC AVID Elective Class Tutorials by Grade (Cohorts 1 and 2)
92	Table 4.2:	BC AVID Teacher Advice to Student and Class for Extracurricular Activities, by Cohort
92	Table 4.3:	BC AVID Student Encouragement to Enrol in PSE, by Cohort
99	Table 5.1:	Characteristics of Grade 11 Survey Respondents, by Experimental Group
100	Table 5.2:	Attendance at AVID Classes Between Grade 9 and Grade 11
101	Table 5.3:	Reported Receipt and Use of AVID Lessons and Techniques Between Grade 9 and Grade 11, by Experimental Group
103	Table 5.4:	Cornell Notes and Note Taking Between Grade 9 and Grade 11, by Experimental Group
105	Table 5.5:	Tutorials Between Grade 9 and Grade 11, by Experimental Group
107	Table 5.6:	Other AVID Techniques Between Grade 9 and Grade 11, by Experimental Group
109	Table 5.7:	Number of AVID Techniques Used Between Grade 9 and Grade 11, by Experimental Group
111	Table 5.8:	Characteristics of Comparison Group and Students in Non-AVID Schools Between Grade 9 and Grade 11, by School Type
112	Table 5.9:	Attendance at AVID Classes Between Grade 9 and Grade 11
113	Table 5.10:	Reported Receipt and Use of AVID Lessons and Techniques Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups
115	Table 5.11:	Note Taking Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups
116	Table 5.12:	Tutorials Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups
117	Table 5.13:	Other AVID Techniques Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups
118	Table 5.14:	Number of AVID Techniques Used Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups
126	Table 6.1:	Selected Baseline Characteristics of the Impact Sample, by Experimental Group
130	Table 6.2:	Impacts on “Rigorous” Courses Taken in Grades 10 and 11
133	Table 6.3:	Impacts on Courses Taken in Grades 9, 10, and 11
134	Table 6.4:	Impacts on Marks Achieved and GPA in Grades 9, 10, and 11
136	Table 6.5:	Impacts on Attendance in Grades 9, 10, and 11
138	Table 6.6:	Impacts on Grades 10 and 11 Provincial Exams
159	Table A2.1:	AVID Participating Sites and Associated Feeder Schools
160	Table A3.1:	Project Timelines
162	Table A4.1:	Certification Summary by BC AVID Pilot Site and Cohort
168	Table A6.1:	Characteristics of Active BC AVID Tutors

List of Figures

- 18 Figure 1.1a: BC AVID Logic Model
18 Figure 1.1b: BC AVID Research and Analysis Objectives and Reporting
- 47 Figure 2.1: Share of BC AVID Class Activities, by Type of Activity (Cohorts 1 and 2)
48 Figure 2.2: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 9
48 Figure 2.3: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 10
49 Figure 2.4: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 11
- 64 Figure 3.1: Proportion of BC AVID Departures (Cohorts 1 and 2)
64 Figure 3.2: Proportion of BC AVID Departures Between Cohorts
67 Figure 3.3: BC AVID Class Absences Over Time Between Random Assignment and Case Study Sites (Cohorts 1 and 2)
- 82 Figure 4.1: Total Yearly Attendance at BC AVID Elective Class Tutorial Activities (Both Cohort 1 and Cohort 2)
83 Figure 4.2: Three Years Student-to-Tutor Ratio for BC AVID Tutorials (Cohort 1 and Cohort 2)
86 Figure 4.3: BC AVID Active Tutors Training
- 163 Figure A4.2: Proportion of Sites With Each Essential Rated as "Not AVID" in Each Implementation Year
164 Figure A5.1: Cumulative Exposure to BC AVID for Program Group Students (Cohorts 1 and 2)
166 Figure A5.2: Cumulative Exposure to BC AVID for Core Group Students (Cohorts 1 and 2)

List of Text Boxes

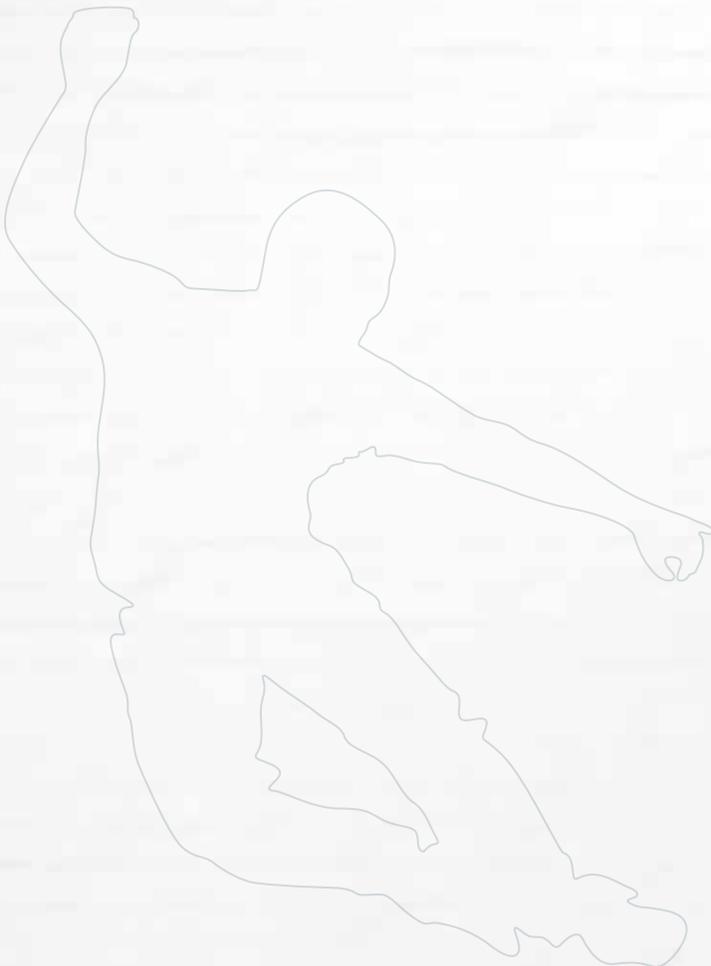
- 20 Text Box 1.1: Presence of AVID-Trained Math, English, and Other Subject-Area Teachers
- 23 Text Box 1.2: Support and Feedback Checklist
- 26 Text Box 1.3: Data Sources Used in This Report

- 42 Text Box 2.1: Summary of Project Participant Recruitment and Selection
- 45 Text Box 2.2: Scheduling the AVID Elective Class at BC AVID Pilot Sites

- 69 Text Box 3.1: BC AVID Elective Teacher Turnover
- 70 Text Box 3.2: The Workload of AVID Teachers
- 71 Text Box 3.3: Turnover of Senior Staff From the Time of Recruitment to the End of Grade 11

- 84 Text Box 4.1: Case Study and Random Assignment Sites

- 125 Text Box 6.1: Calculation of BC AVID Impacts
- 142 Text Box 6.2: Benefits of BC AVID for Students: Qualitative Evidence



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Highlights

The BC AVID Pilot Project is testing a version of the US Advancement Via Individual Determination (AVID) program that has been implemented in high schools in British Columbia since 2005. The program aims to improve access to post-secondary education for “students academically in the middle.” Although AVID is delivered in nearly 4,500 schools worldwide, this is the first large-scale evaluation of the AVID program using a rigorous random assignment design. This approach was chosen to avoid the many challenges that face non-experimental evaluations of educational programs, such as their weakness in separating outcomes due to participant selection from outcomes of the program.

The research project has involved the recruitment of 1,522 AVID-eligible students in Grade 8 at 18 school sites. At 14 of these sites, SRDC randomly assigned the eligible students into program, waitlist, and comparison groups. Those assigned to the program group were offered a place in the AVID elective class; those assigned to the comparison group were not offered a place in the AVID class and therefore had to choose a different high school elective. Data are being collected from multiple sources on both groups for six years to determine the intervention’s impacts on secondary and post-secondary outcomes. At 4 smaller “case study” sites, assignment was to program and waitlist groups only and researchers tracked the implementation of the program without calculating impacts.

This report is the second of three on the BC AVID Pilot Project. It presents early results on the impact of the offer of BC AVID and assesses the implementation of BC AVID through Grade 11. No firm conclusions about the ultimate success or failure of BC AVID are drawn. The third and final report, expected in the fall of 2012, will present impact findings for the main outcome of interest—enrolment in post-secondary education (PSE).

The basic idea behind AVID is to change the high school experience of students academically in the middle by increasing the rigour of their coursework and providing, in the context of an elective class, several different kinds of support for their learning. The U.S. non-profit AVID Center develops the AVID curriculum, trains educators to deliver the program, and certifies sites on their delivery of AVID. The AVID elective class is the primary vehicle for the delivery of these supports, often termed AVID strategies or techniques. The course is structured into three main components: the curriculum class, tutorials, and motivational activities.

SRDC’s implementation research documented staff experiences delivering and students’ experiences receiving the AVID elective course. The report finds that AVID classes broadly conformed to AVID expectations: they were scheduled year long and nearly always within the regular school timetable. However, while the AVID Center recommends that the AVID elective class include approximately 40 per cent curriculum, 40 per cent tutorial, and 20 per cent motivational activities, BC AVID class activities included a considerably higher proportion of curricular activities and a considerably lower proportion of tutorial time than recommended. Although more than two-thirds of BC AVID sites enrolled their AVID students in a rigorous curriculum, some BC staff reported that difficulties arose in implementing this requirement because, for them, the level of “rigour” required for BC AVID was not clearly defined.

Implementation of the curriculum class portion of the AVID elective generally corresponded well to expectations. BC AVID elective teachers implemented AVID’s WIC-R (Writing, Inquiry, Collaboration, and Reading) methodology extensively and with a high degree of diligence. Tutorials were generally difficult to implement with wide variation in the number, duration, and frequency of tutorials among the 18 sites. Overall, BC AVID students received only half the recommended hours of tutoring. A lack of tutors also meant that only 38 per cent of tutorials had the recommended ratio of at least one tutor per seven students. BC AVID schools offered a variety of motivational activities to their students in grades 9–11, including team-building activities, guest speakers, field trips, and general encouragement for leadership, community-building, and enrolment in post-secondary education.



Approximately half of all students who were ever assigned to the AVID elective had left the class by the end of their Grade 11 year; just over one-third had departed by the end of Grade 10. Forty-eight per cent of students who left the class did so to pursue a different elective, while 29 per cent moved to a different school. Although class departures were expected, a considerable proportion of eligible students were not on track to receive the four years of AVID programming they were offered.

Despite implementation challenges, program group members had high levels of exposure to AVID techniques. For example, the program group was 61 percentage points more likely to have frequently received instruction in 8 or more of the 17 techniques commonly associated with AVID. This substantial treatment differential generated by the offer of AVID is important because it allows the program to demonstrate its potential impact, whether it turns out to be small or large, on the current and future educational outcomes of the program group.

There was exposure to some AVID techniques among the comparison group; however, this was, for the most part, similar to that found among students at non-AVID schools. Because many AVID techniques are educational "best practices," they are in common use outside of AVID programs. The similarity in exposure between the BC AVID comparison group and students in non-AVID schools implies that the exposure to AVID techniques among comparison group members was likely due to the pre-existing use of AVID techniques in BC high schools rather than due to spillover caused by the project itself.

The program offer brought about significant changes in the courses students took, in the examinations they sat, and the marks received:

- In Grade 9, program group students took the AVID elective class in lieu of other elective courses, primarily in fine arts and applied skills. Enrolment in fine arts courses by AVID program group students decreased by 18 percentage points and in applied skills courses by 14 percentage points.

- BC AVID increased enrolment in all but one type of "rigorous" course during Grade 10. Enrolment was increased in Principles of Mathematics 10 by 9 percentage points, English by 5 percentage points, science by 5 percentage points, and in Social Studies 10 by 5 percentage points. There was also a positive impact on the proportion taking between four to eight rigorous courses. By Grade 11, the offer of BC AVID influenced enrolment in English and social studies.

- BC AVID students' course marks indicated that fewer of them were receiving failing grades in their courses. In Grade 11, program group students were 6 percentage points less likely to have at least one failing grade. Initially, in Grade 9, they had somewhat lower grades than the comparison group.

- The positive effect on the rigorous course choices of BC AVID students was reflected in provincial examination data. By the end of Grade 11, BC AVID students were more likely to have taken the provincial exams for Principles of Mathematics 10 and Social Studies 11. There were no significant differences in the proportion taking the English 10 or Science 10 examinations. The BC AVID offer caused not only a 7-percentage-point increase in the proportion of students who took the provincial examinations in Principles of Mathematics 10 (possibly one of the most rigorous Grade 10 courses), but also a 3.8-percentage-point increase in the proportion failing the exam. At the same time though, students offered BC AVID were more likely to receive a C- or better as the final grade for the Principles of Mathematics 10 course, a grade that took into account their in-class work.

Results to date support the idea that AVID may be a promising program for enhancing BC students' achievement in high school and their chances of meeting post-secondary program eligibility requirements. The next report will assess the impact of BC AVID on participants' engagement in their senior year at high school, and on their enrolment in and completion of the first year of a post-secondary education program. It will also include a benefit-cost analysis of BC AVID.

Introduction to the BC AVID Pilot Project

Introduction

AVID, an acronym for Advancement Via Individual Determination, is an American program that attempts to improve post-secondary access for “students academically in the middle” (Dunn *et al.*, 2008, p. 2). The BC AVID Pilot Project is a test of a version of AVID that was implemented in high schools in British Columbia. Although AVID is delivered in nearly 4,500 schools worldwide, this is the first large-scale evaluation of the AVID program using a rigorous random assignment design. This approach was chosen to avoid the many challenges that face non-experimental evaluations of educational programs, such as their weakness in separating outcomes due to participant selection from outcomes of the program.

This report is the second in a series of three reports on the BC AVID Pilot Project. The first report was the Early Implementation Report, which presented information on the design of the project and findings of its early implementation (Dunn *et al.*, 2008). Here, the implementation of BC AVID through Grade 11 is assessed and early results on the impact of the offer of BC AVID are presented. It should be emphasized, however, that no firm conclusions about the ultimate success or failure of BC AVID can be drawn yet. The third and final report, expected in the fall of 2012, will present impact findings for the main outcome of interest—the experiences of the students in post-secondary education (PSE).

The questions that will be answered here include the following:

- How was the program implemented in British Columbia?
- What problems arose in the implementation of BC AVID?
- How were these problems addressed? and
- What difference did the program make to students’ educational experiences?



The answers to these questions will involve qualitative assessments of how the offer of the BC AVID program affected the high school experience of BC students. The assessments will present early experimental impacts using quantitative data on attendance, course choices, and high school achievement. Necessarily, this report adopts several technical terms from the program and the education system. These are explained as they first arise and in a project glossary (Appendix 1).

This introductory chapter will begin by highlighting two crucial points concerning the project: (1) BC AVID, as implemented, differs in significant ways from AVID-as-designed by its American proponents; and (2) the evaluation question is how the *offer* of BC AVID will affect post-secondary enrolments, as opposed to how BC AVID will affect those who stay with the program throughout high school. The chapter will then continue with two main sections. The first section is a review of material presented in the Early Implementation Report: the policy problem AVID is intended to tackle, the AVID Essentials, the theoretical paths by which AVID might change post-secondary outcomes, and the main findings up to that point in the project. The second section will then present greater detail on the research design and planned analysis, including a “logic model”—an explanation of how the program is expected to unfold. The logic model implies three main types of planned analysis: (1) an analysis of program impacts via a random assignment experimental design; (2) an assessment, based on implementation research, of whether the program has been given a “fair test”; and (3) a benefit-cost analysis. The chapter concludes with a review of the project organization and an outline of the structure of the remainder of the report.

TWO POINTS CONCERNING BC AVID AND ITS EVALUATION

Because of their importance to the material contained in the remainder of this report, we begin this chapter with two crucial points concerning BC AVID and its evaluation.

1. BC AVID Differs From AVID-as-Designed

AVID is a program designed to help underachieving middle and high school students prepare for and succeed in four-year university programs. The substance of AVID is defined by the AVID Center, a San Diego-based non-profit organization established in 1992 to promote the AVID program. The AVID program as envisaged by the AVID Center will be called “AVID-as-designed” in this report. Both AVID-as-designed and BC AVID start by identifying underachieving Grade 8 students believed to have as-yet-untapped potential to succeed in post-secondary education.¹ The selected students are expected to commit to full enrolment in the AVID elective class (in the case of BC AVID that spans four years in high school) and also to enrol in the most rigorous courses in their school.

In AVID-as-designed, the elective class meets daily during the regular school day and offers a program of instruction in academic “survival skills.” For example, the curriculum teaches the students how to study, read for content, take notes, work collaboratively, and manage time. Students participate in tutorials led by tutors who graduated from their high school and are now post-secondary students. Tutors are trained to use skillful questioning to raise students’ understanding of their course work. AVID students’ elective class time is devoted 40 per cent to curriculum class activities, 40 per cent to tutorials, and 20 per cent to motivational activities. This last category includes guest speakers, team-building activities, and field trips to post-secondary campuses, all intended to promote the idea that post-secondary study is attainable. These are all part of the ideal vision of AVID-as-designed that may or may not exist in most implementations of the program.²

1 Note that implementing AVID as a four-year program starting in Grade 9 is just one version of AVID-as-designed since some AVID programs start during elementary school.

2 This ideal vision of AVID-as-designed is the principle standard against which BC AVID, as implemented, over the period covered by this report will be compared.

The version of AVID that is being tested in British Columbia differs in several important ways from AVID-as-designed. Some of the differences are intentional, created by those who funded and designed BC AVID. Other differences emerged only when staff in BC high schools tried to implement AVID-as-designed in their own classrooms. In this section, the most important differences are described, beginning with those that were intentional and then moving to those that arose in the process of implementation.

Intentional Differences

First, AVID-as-designed focuses on *university* enrolment, but the outcome of interest in BC AVID is whether the program increases enrolment in *any form* of post-secondary education, including college, university, or apprenticeship programs. However, BC AVID does encourage students to take courses that provide them with the academic eligibility requirements for attendance at a university should they decide to pursue that option.

Second, the BC Ministry of Education requires that all high school students take a Grade 10 course known as Planning 10. The curriculum of Planning 10 overlaps, to a significant extent, with the curriculum in the AVID elective class. BC AVID schools therefore arranged to combine the curriculum of Planning 10 with the Grade 10 and 11 AVID elective class curricula. While mixing the curricula represented a viable solution to enable BC AVID students to meet the requirements of Planning 10, the extent to which the mixture caused the BC AVID curriculum to stray from AVID-as-designed is unclear.

Third, a central aspect of AVID-as-designed is the enrolment of all AVID high school students in courses defined as “rigorous.” In the United States, the system of Advanced Placement (AP) courses is well-established and allows for an easy definition of a “rigorous” course. AP courses are university-level courses taught to high school students and, as such, the course curricula cover material that is more difficult (more “rigorous”) than that covered by general high school courses. Because Canada’s system of AP courses is less developed than in the United States, defining what courses qualify as “rigorous” is more challenging. By design, staff in BC AVID schools were allowed to define a “rigorous” course as they thought best fit the objectives of BC AVID.

Finally, standardized testing plays an important role in the selection of incoming students by U.S. universities, and part of AVID-as-designed is increased participation of AVID students in standardized testing. British Columbia, however, does not have similar “high stakes” testing that influences the post-secondary careers of high school students. British Columbia administers provincial examinations in various high school subjects, but these tests are not intended as a method of “gatekeeping” or student selection for universities.³ The absence of such high stakes testing makes it difficult to assess how far BC AVID meets AVID-as-designed objectives associated with such tests.

Differences That Arose During Implementation

BC AVID, as implemented, also differed from AVID-as-designed in ways that were not anticipated by the project partners.

First, neither the project partners nor AVID-as-designed anticipated the level of turnover in students or staff that was actually experienced in BC AVID. As Chapter 3 documents, half of all Grade 8 students who were assigned to receive four years of AVID elective classes had stopped attending BC AVID by the last day of June of their Grade 11 year. Three in every ten departures were due to students transferring to a non-AVID school. Moreover, approximately two-thirds of the project’s AVID elective classes experienced turnover of the teacher between grades 9 and 11.

Neither student nor teacher turnover is likely to be unique to AVID in British Columbia, but such turnover is an important consideration if a program requires extended exposure—and continuous presence of the same AVID teacher—to be effective. If so, such turnover levels may have serious implications for the measured impact of the program. If large numbers of the program group did not participate in BC AVID throughout their high school years, then the program is unable to exert its full effect on them. If continuing in BC AVID would have been more effective for these students than the classes they chose instead of BC AVID, then their departures from the elective class will reduce the overall impacts observed for the program.

Second, AVID-as-designed anticipates that 40 per cent of AVID elective class time will be spent in tutorials; however, as chapters 2 and 4 demonstrate, tutorials have been a difficult aspect of the AVID model to implement. Observations by SRDC staff indicated substantial variation across the 18 sites in terms of adherence to the AVID-as-designed tutorial model. AVID-as-designed suggests using local university students as tutors, while making allowances for the use of older high school students and adults if necessary. BC AVID, as implemented, has had difficulty both in recruiting sufficient numbers of tutors for the AVID elective classes and in scheduling a sufficient number of tutoring hours. As a result, BC AVID tutors were usually high school students who were, by Grade 11, only slightly older than those they were tutoring. Moreover, the proportion of AVID elective class time devoted to tutorials for BC AVID students was 24 per cent, far below the desired 40 per cent.

3 Nagy (2000) defines three roles for testing: gatekeeping, accountability, and instructional diagnosis.

Third, the students who participate in AVID programs in the United States are different from the students who are participating in BC AVID, even though both groups are composed of “students in the middle” who have academic potential. The recruitment process for BC AVID was carefully orchestrated by the project partners with the goal of recruiting a group of students who met criteria equivalent to those set out by the AVID Center. Nonetheless, those criteria do not guarantee that the resulting characteristics of the recruited participants will be the same, in part, due to differences in school populations and existing programs. For example, one of the recruitment recommendations from the AVID Center is that AVID programs seek out students who are eligible for subsidized school lunch programs, a criterion that is often used to identify low-income students in U.S. schools. However, British Columbia lacks such a convenient way of identifying low-income students. Perhaps as a result, and as documented in the Early Implementation Report for BC AVID, “[s]tudents from minorities under-represented in [university] and economically disadvantaged groups, such as single-parent families, were not over-represented in the project sample (p. 52).” The implications of having “students in the middle” who were not as economically disadvantaged as U.S. AVID students and who were not as likely to belong to ethnic minorities as U.S. AVID students are not clear.

Lastly, BC AVID had to deviate, in a number of ways, from AVID-as-designed because the structure of high school education in British Columbia is different from the structure assumed by AVID’s designers. The most important of these differences involved the scheduling of the elective class. AVID-as-designed suggests that the AVID elective class meet for 50 minutes every day of the school year, implying about 150 hours of AVID instruction per student per year. Because of the nature of scheduling practices in British Columbia, detailed in Chapter 2, BC AVID elective classes were scheduled for 65–85 minutes, but only on every other day of the school year. The overall time spent per student per year in the AVID elective class amounted to about 110 hours.

2. The Impact Assessment Is of the Offer of BC AVID

The evaluation of BC AVID was designed to measure the effect of *offering* a place in the AVID elective to AVID-eligible students. Crucially, this is not the same as a measure of the effect of attending four years of the BC AVID elective class. AVID is voluntary, so not all students will take up the offer and not all who take up the offer will stay in the class for four years. As noted above, half of all students assigned to BC AVID had left the elective class by the end of Grade 11.

The impact of the *offer* of BC AVID is relevant to a hypothetical policy option of offering AVID as a voluntary program in all BC high schools. Many of those who would volunteer in Grade 8 for this hypothetical AVID program would likely not complete four years of AVID. The impact of BC AVID on those who actually participate in all four years of the program—known in the evaluation context as the “impact of the treatment on the treated”—is relevant only if the hypothetical policy option is to offer the program to students who are considered, when they are in Grade 8, to be very likely to complete four years of AVID.

Comparisons of the experience of those assigned to the program group to those assigned to the comparison group allow the estimation of the impact of the *offer* of BC AVID. Measuring the impact of participating in the program for all four years of high school requires complicated non-experimental methods and a host of assumptions whose validity can easily be questioned. All experimental impacts included in this report are impacts of the *offer* of BC AVID and *do not* represent the impact of being in BC AVID for four years.

A REVIEW OF THE EARLY IMPLEMENTATION REPORT

The Policy Problem

Researchers from any number of disciplines have assessed the relevance of the factors that are believed to influence post-secondary education (PSE) enrolment, including, among others, parental income and education, academic achievement in high school, PSE costs, the nature and availability of financial aid, high school “attachment,” and the extent to which families have information about the costs and potential benefits of PSE. The AVID program focuses on *academic achievement*, which consists of a number of important and interrelated factors, including course grades and students’ level of engagement in learning. Previous research in this area (e.g., Adelman, 1999) suggests that more rigorous coursework offered to students—more math, more science, more foreign language—combined with academic support can make their post-secondary enrolment more likely.

Staff at the Canada Millennium Scholarship Foundation identified AVID as a program aimed at improving the academic achievement of high school students with only middling grades but who showed, either by their performance on standardized tests or in the opinion of their teachers, potential for greater academic success than they had thus far experienced. Based on reports of the success of AVID in increasing the university enrolment of such “students academically in the middle” and after studying the implementation of AVID in the Chilliwack school district in British Columbia, the Foundation decided to fund a demonstration project to test the effectiveness of AVID in Canada.

The BC AVID Pilot Project was established to answer two central research questions about the effects of offering a place in the AVID elective to AVID-eligible Grade 8 students in British Columbia on their (1) rates of enrolment in and (2) completion of the first year of post-secondary education. These are only two questions among many that could be asked about AVID. Importantly, this research does not directly answer questions about how well AVID achieves its own stated purposes, which are to (a) restructure the teaching methods of an entire school and (b) improve access to four-year universities among all students.⁴ This research will answer many additional questions of importance to decision makers in education, but its design is specifically focused on AVID’s effect on the post-secondary access of AVID-eligible students.

4 These goals are stated in Swanson *et al.* (2004).

The AVID Essentials

The basic idea of AVID is to change the high school experience of AVID students by increasing the rigour of their coursework and providing, in the context of an elective class, several different kinds of support for their learning. The main features of AVID are summarized in 11 AVID “Essentials” developed by the AVID Center and provided to all the project sites.⁵ The Essentials function as a theoretical ideal to which all AVID programs should aspire and are discussed in more detail in subsequent chapters.

- **Resources:** The school or district must identify resources to meet program costs, agree to implement AVID Program Implementation Essentials, and work toward participation in annual AVID certification.⁶ Commitment to ongoing participation in AVID staff development is also required. [Essential 10]
- **School site team:** An active interdisciplinary site team must collaborate on issues of student access to, and success in, rigorous university preparation courses.⁷ [Essential 11]
- **Selection:** AVID student selection must focus on students in the middle (with a GPA of 2.0 to 3.5 as one indicator), who have untapped academic potential and would benefit from AVID support to improve their achievement and post-secondary preparation. [Essential 1]
- **Full implementation:** The school must be committed to full implementation of the AVID Program, with the AVID elective class available within the regular academic school day.⁸ [Essential 3]
- **Rigour:** AVID students must enrol in a rigorous course of study that will enable them to meet requirements for post-secondary enrolment. [Essential 4]
- **Data:** AVID schools/districts must provide program implementation and student progress data. These will be monitored through the AVID Data System, with results analyzed to inform the AVID certification process. [Essential 9]
- **Participation:** AVID program participants, both students and staff, must choose to participate. [Essential 2]
- **Writing:** A strong, relevant writing curriculum must provide the basis for instruction in the AVID elective class. [Essential 5]

- **Inquiry:** Inquiry must be used as a basis for instruction in the AVID classroom. [Essential 6]
- **Collaboration:** Collaboration must be used as a basis for instruction in the AVID classroom. [Essential 7]
- **Tutorials:** A sufficient number of trained tutors must be available in the AVID class to facilitate student access to a rigorous curriculum. [Essential 8]

The importance of providing each of the Essentials was incorporated into the guides to implementation of BC AVID, as well as into agreements between the Ministry of Education and the school districts, and in the Project Operations Manual. In principle, the Essentials form a coherent whole that should not be adopted piecemeal. They include numerous non-teaching tasks: recruiting and selecting students; organizing motivational activities inside and outside school; recruiting, training, and coordinating the activities of AVID tutors; and ensuring that AVID students have support as they enrol in rigorous high school courses, tackle the course work in those classes, and navigate the post-secondary application and financial aid systems.

AVID classroom teachers alone cannot provide sufficient resources to maintain all the essentials of the program. They are thus assisted by other members of a designated AVID site team. The AVID coordinator, AVID counsellor, and AVID administrator, together with the AVID elective teacher, constitute a “core” site team that is responsible for the day-to-day operation of the program. Additionally, the AVID site team should include four teachers of core subject areas, see Text Box 1.1 on page 20.

The Theoretical Mechanisms Through Which AVID Might Operate

In the Early Implementation Report (Dunn *et al.*, 2008), SRDC identified four different theoretical mechanisms through which participation in the AVID elective might affect students. These four mechanisms are not mutually exclusive and, as the Essentials make clear, all depend on the implementation of the AVID package as a whole.

AVID as an Academic Upgrading Program

AVID assumes that the middle-achieving students who volunteer for AVID lack certain academic skills that would allow them to be better prepared for post-secondary education. Since the AVID curriculum involves instruction in well-known study skills, the elective class could be a powerful path through which AVID positively affects students.

5 The AVID Center has assigned specific numbers to each Essential. In later chapters of this report, the implementation of the Essentials dealing with program administration is considered first, before looking at those dealing with participation and classroom activities. The Essentials will therefore not be considered in their usual order; the number assigned to the Essential under consideration will nonetheless be noted in the text.

6 Since 1996, the AVID Center has orchestrated an annual certification process to recognize the implementation level of the AVID program that sites have achieved. To use the AVID curriculum, trade name, trademark, and logo, each site must agree to annual participation in the online certification process.

7 The word “university” is replaced with “post-secondary” in the Essentials appended to BC school districts’ BC AVID contracts.

8 The title of this Essential is “Scheduling” in the Essentials appended to BC school districts’ BC AVID contracts.

AVID as an “Untracking” Program

To the extent that “tracking”—the practice of assigning students to different courses based on an assessment of their academic ability—is in operation, the AVID elective may provide academic support that allows AVID students who are newly enrolled in more advanced high school courses to catch up with their university-bound peers. Since students of average achievement would not usually be assigned to the university-bound “track,” the “untracking” (or “retracking”) process of AVID may affect AVID students’ access to post-secondary education. This interpretation was promoted by Mehan *et al.* (1996). Note that tracking is less common in Canada than it is in the United States and, consequently, there is less scope for AVID to “untrack” BC students.

AVID as a Mentoring Program

AVID may work by focusing attention on middle-achieving students, connecting them through an active support network to the school’s services and helping them to better coordinate their paths through high school. The AVID elective teacher may play the role of an adult mentor for the students. A committed AVID teacher and site team may thus affect student achievement.

AVID as a Peer Group Program

Students may form close bonds not only with the AVID elective teacher but also with their fellow AVID students because of their active and frequent participation in the AVID elective class. This may create a peer group of students who have similar background achievement experiences and expectations. The mutual support and validation provided by the peer group could have a positive effect on the success of AVID students.

Main Findings of the Early Implementation Report

BC AVID’s Early Implementation Report described how students and their parents or guardians were notified and informed about the project and how volunteers were questioned to ensure they understood what participation in the BC AVID Pilot Project involved. It documented the attendance at information sessions and completion of application forms and reported that recruitment and selection followed the procedures set out for the project, with only minor deviations. Analysis of the characteristics of students and their family backgrounds suggested that the project sample was broadly in line with the academic profile of AVID-eligible students. As noted above, however, the socio-economic profile of BC AVID participants differed from that of U.S. AVID programs.

Findings from the earlier report also suggested that delivering the program had proven to be a challenge in British Columbia. Several sites experienced difficulties recruiting and maintaining suitable tutors for their AVID classes. Students spent considerably less time in tutorial classes and more time in curriculum classes than predicted by AVID-as-designed. Implementation of the motivational components of the AVID program was more in line with expectations of AVID-as-designed, including team-building activities, special presentations, and field trips.

RESEARCH DESIGN

Overview of Planned Research

The BC AVID Pilot Project was established to test the effect of offering a place in the AVID elective to AVID-eligible students. The evaluation calls for a *random assignment experimental design* because, when properly implemented, such a design provides internally valid estimates of program impacts. Individuals are assigned by chance to program and comparison groups, meaning that no systematic differences between the groups exist, apart from the offer of the intervention. Sampling variation aside, the groups are the same and, for that reason, a valid estimate of the impacts of the program is provided by the differences in later outcomes between the groups.

The project’s principal research question asks whether AVID-eligible students offered a place in the AVID elective become more likely to enrol in a post-secondary education (PSE) program than they would have been in the absence of AVID. The research design involves the recruitment of AVID-eligible students in Grade 8 and their random assignment into program and comparison groups. Those assigned to the program group are offered a place in the AVID elective class; those assigned to the comparison group are not offered a place in the AVID class and must therefore choose a different high school elective. Data are collected on both groups for six years to determine whether the intervention increases the proportion of students enrolling in—and completing the first year of—any form of post-secondary education (college, university, private vocational institute, or apprenticeship).

A secondary research objective is to determine whether AVID can be effectively adapted to a Canadian context. The project aimed to implement the AVID program within the parameters conventionally accepted by the program’s developers at the AVID Center, but appropriate to the BC educational context. As mentioned above and in the three chapters that follow, adjustments have been made intentionally and unintentionally to the program in British Columbia. The project must therefore include *implementation research* to document the BC AVID program as modified and delivered at each site and to compare this delivery to AVID’s accepted norms.

Implementation research also includes analysis of four case study sites whose small size and remote locations most obviously diverged from those of the large U.S. urban high schools where AVID originated. Evidence of challenges and adaptations to the program were expected at such sites. If these adaptations were effective, the collection of lessons learned from these sites about how to implement AVID could be applicable to many other schools in British Columbia and in other Canadian provinces.

The research design also includes a third and final component—a benefit-cost analysis of the intervention—to complement the impact analysis and implementation research. The following sections present a BC AVID logic model and consider how the three types of analyses relate to it.

The BC AVID Logic Model

The BC AVID logic model—developed at the outset of the project and presented in the Early Implementation Report—captures the broad intent of the project’s implementation and its anticipated outcomes. Figure 1.1 (a) presents an abbreviated form of the model, which forms the basis for the planned research and analyses. The logic model focuses first on inputs: establishing the resources that will allow BC AVID program services to be delivered to AVID-eligible students. It then predicts how students should respond and lists the program’s anticipated impacts (short-, medium-, and long-term) for those who receive the program.

The logic model sets out the resources expected to be needed to achieve the objectives of the intervention. These resources (with the exception of adequate post-secondary spaces) can be classified into two types broadly concerned with the administration of the program and delivery of AVID class activities in British Columbia. Notably, the resources include provision of all project services according to the project’s Operations Manual—a broad set of expectations covering both administration of the program and delivery of class activities. Both are subject to equivalent sets of expectations within the AVID Essentials [also shown in Figure 1.1(a)]. The logic model acknowledges that, for the BC AVID intervention to have a chance to work, ongoing student and staff participation is expected. Thus, the majority of inputs documented in Figure 1.1(a) correspond with the three highlighted groupings of the AVID Essentials. Chapter 2 of this report presents implementation research on administrative aspects of the program (Essentials 10, 11, 1, 3, 4, and 9) up to the completion of Grade 11, while Chapter 3 considers students’ and teachers’ program participation to the end of Grade 11 (Essential 2). Chapter 4 presents research on the delivery of class activities (Essentials 5, 6, 7, and 8).

The logic model anticipates impacts on students’ outcomes as a result of their participation in BC AVID. These are divided into short-term, medium-term, and long-term impacts. The following three short-term impacts are measured to the completion of Grade 11 with data from student records made available for the current report [see Figure 1.1(a)]:

- Increased attendance at high school;
- Enrolment in more rigorous high school courses; and
- Improved course grades, test scores, and overall GPA.

Medium-term impacts are mostly measured through a telephone survey with participants during Grade 12 and with data collected from school records:⁹

- Increased orientation towards future activities;
- Increased awareness of post-secondary options;
- Increased interest in high school;
- Lower high school drop-out rates;
- Increased chances of high school graduation;
- Changes in approach to learning;
- Change in intentions to pursue post-secondary education;
- Increased knowledge of post-secondary education options, costs, and financing; and
- Increased saving to meet the additional costs of post-secondary education.

The expected impacts on short-term and medium-term outcomes stem largely from the assumption that BC AVID students will be newly motivated and equipped to enrol in post-secondary education and thus will engage more in behaviours conducive to achieving those goals.

Two major long-term impacts are of particular interest in the project: (1) successful enrolment in a post-secondary education program, and (2) successful completion of the first year of a chosen post-secondary education program.¹⁰ In addition, a third long-term impact will likely prove important in understanding BC AVID’s overall impacts: changes in the post-secondary program choices that students make. Medium-term and long-term impacts will be included in the project’s final report.

Impacts on even longer-term outcomes such as persistence into the second and later years of post-secondary programs, completion of programs, and certification will not be observed under current research plans. Similarly, subsequent labour market participation outcomes are beyond the scope of current research plans.

Figure 1.1(b) illustrates the project’s different research and analysis objectives and shows how the reporting of research results will be divided between the current report and the final report in 2012.

⁹ Although project participants participated in a survey in Grade 11 on BC AVID strategies and techniques, the Grade 11 survey did not collect data on program outcomes.

¹⁰ BC AVID may contribute additionally to the second impact because AVID students who successfully enrol in a post-secondary education program will have been equipped with learning skills from BC AVID. As a result, they might be better equipped to undertake more advanced study and persist further in their studies.

Figure 1.1a: BC AVID Logic Model

Resources needed to achieve project objectives		Expected initial/intermediate changes in behaviour
<ul style="list-style-type: none"> Sufficient PSE spaces Adequate funding School district involvement Parents who agree to student participation Spaces in high school courses Evaluation expertise Professional development 	<ul style="list-style-type: none"> Grade 8 students who volunteer School staff participation BC AVID Operations Manual BC AVID services 	<ul style="list-style-type: none"> Students and parents are notified and understand what participation involves Students and parents apply to participate, attend information sessions, and complete applications Students take up BC AVID places, if offered, and persist in the AVID class for four years
BC AVID services organized around 11 AVID Essentials		
<ul style="list-style-type: none"> Financial resources and training [AVID Essential 10] The AVID site team [AVID Essential 11] Student selection [AVID Essential 1] 	<ul style="list-style-type: none"> Full implementation of the AVID program [AVID Essential 3] Enrolment in a rigorous curriculum [AVID Essential 4] Data informed delivery [AVID Essential 9] 	
<ul style="list-style-type: none"> Participation by students and staff [AVID Essential 2] 		
<ul style="list-style-type: none"> Writing as a basis for instruction [AVID Essential 5] Inquiry as a basis for instruction [AVID Essential 6] 	<ul style="list-style-type: none"> Collaboration as a basis for instruction [AVID Essential 7] Tutorials [AVID Essential 8] 	

Figure 1.1b: BC AVID Research and Analysis Objectives and Reporting

Implementation research objectives:	Reported in:
<ul style="list-style-type: none"> document the operation of the project to provide an account of the activities undertaken and to serve as a source of "lessons learned" 	Chapter 2, Chapter 3, Chapter 4, Final report
<ul style="list-style-type: none"> determine whether program delivery was consistent across sites and through time 	Chapter 2, Chapter 3, Chapter 4, Final report
<ul style="list-style-type: none"> help to interpret the 'black box' findings produced by the impact analysis 	Chapter 2, Chapter 3, Chapter 4, Chapter 5, Final report
<ul style="list-style-type: none"> profile the socio-economic environment within which the project operates 	Final report
<ul style="list-style-type: none"> confirm whether the program has had a "fair test" in a real-world setting 	Final report

Expected short- and medium-term impacts	Expected long-term impacts
<ul style="list-style-type: none"> ■ School attendance* ■ Enrolment in rigorous courses* ■ Grades, test scores, and GPA* ■ Orientation toward future activities ■ Awareness of PSE options ■ Interest in high school achievement ■ School dropout rates ■ High school graduation ■ Approach to learning ■ PSE intentions ■ Knowledge of PSE options, costs, and financing ■ Saving for PSE 	<ul style="list-style-type: none"> ■ Successful enrolment in first year of a chosen PSE program ■ Successful completion of first year of a chosen PSE program ■ Changes in the PSE choices that students make

Analysis of program impacts objective:	Reported in:
<ul style="list-style-type: none"> ■ estimate program impact by comparing program group and comparison group outcomes 	<p>Chapter 6 (outcomes marked *) Final report</p>
Benefit-cost analysis objectives:	Reported in:
<ul style="list-style-type: none"> ■ assign a dollar value to all the measured costs and benefits associated with the program ■ estimate net benefits (costs) to program group members, government, and society as a whole 	<p>Final report Final report</p>

Planned Analyses

Impact Analysis

Using data from surveys and administrative records, the impact study is intended to collect evidence of BC AVID's effectiveness from Grade 9 through the start of the second year of a post-secondary education program. Each impact is calculated by comparing appropriately weighted average outcomes of the program group (including those students who left the AVID elective class) and statistically equivalent students in the comparison group. Such an analysis provides an estimate of the program's effectiveness in a relatively straightforward way because the experimental design ensures that the only systematic difference between the two groups is the offer of the program. As Cook (2003) states: "Design-wise the randomized experiment is widely known as the best tool for attributing observed student change to whatever classroom or school option is under consideration as a possible cause of the observed change (p. 115)."

The key AVID program feature that necessitated random assignment of individuals was its criteria for determining who should be selected to be offered a place in the AVID elective class. These are students selected as those academically in the middle, motivated to seek post-secondary education, and who might not enrol in post-secondary education without the program. Some of the criteria applied in the selection process are subjective, derived from educators' assessments of written responses and interviews. When intricate selection criteria—and particularly subjective ones—are applied to determine who will be treated, it becomes difficult for researchers to identify an untreated group who can convincingly provide a comparison or "counterfactual" against which the experience and outcomes of the group offered the program can be compared. A rigorous evaluation has to control effectively for the selection. In this project, this control is achieved by selecting a comparison group using exactly the same criteria as the program group.

The random assignment experimental design has a good track record in avoiding the bias in the estimation of impacts from education programs that might be created by student self-selection. Such projects can thus anticipate internally valid impact estimates. As an evaluation method for AVID, however, random assignment is not perfect as there are several threats to validity originating in other aspects of the AVID program, two of which are discussed below. Researchers need to be wary of such threats, seek ways to assess the extent to which they arise in practice, and provide means to mitigate the bias they may produce.

"Spillover" of AVID to the Comparison Group

The current research design assumes that comparison group members will be unaffected by the program. School district contracts specified that the BC AVID program was not to be delivered to comparison group students. The project took many active steps to avoid comparison group exposure by implementing procedures intended to prevent comparison group students from being selected to enter the class to fill any vacancies or being trained as AVID tutors. However, this assumption of "no exposure" rests uneasily alongside the presence of AVID-trained math and English teachers and other site team members in BC AVID high schools, as described in Text Box 1.1, as well as others trained in AVID methodologies such as AVID tutors and program group members. These individuals, deliberately or inadvertently, may teach, inform, or advise comparison group students.

Text Box 1.1: Presence of AVID-Trained Math, English, and Other Subject-Area Teachers

The AVID Center's expectations regarding the composition of the site team and its training generate potential problems for the project's research design. Subject-area teachers will have received training in AVID methodologies and will thus be able to use them in their classes. If this happens while BC AVID program group members are in the classes, it may strengthen these students' AVID experiences by reinforcing their adoption of AVID strategies and techniques. However, if this happens while comparison group members are in the classes, it may expose comparison group students to AVID strategies and techniques. If comparison group students learn and adopt these techniques, they may enhance their academic performance and increase their chances of attending post-secondary education, as hypothesized by the BC AVID logic model. If this happens, the project's planned comparison of program group and comparison group outcomes may underestimate the impact of introducing the AVID elective, because some part of that AVID experience "spilled over" to the comparison group. What is labelled "spillover" (or sometimes "contamination") and considered a problem from a research perspective is usually promoted from a program perspective since more widespread adoption of AVID might then benefit more students.

At the design phase of the project, this risk of comparison group “spillover” or “contamination” was recognized but not considered sufficiently large to justify a different research design. Comparison group members would not participate in the elective class itself and so would be unlikely to receive the same degree of exposure as program group members who would have up to four years in such classes. In addition, some initial inertia was anticipated in the spread of the strategies to non-AVID classes. That is, as with most programs, several years of operation might be required before any AVID practices became institutionalized outside the AVID elective class, especially since this was the only class specifically established for the purposes of disseminating them.

Determining whether or not comparison group members become “AVID-contaminated” through contact with AVID-trained staff and students is made difficult by the fact that AVID strategies and techniques are rarely unique to the program. Students at many non-AVID high schools may use one or more strategies, such as “Cornell Notes,” that are promoted by the program. Many high schools in British Columbia already promote related but different strategies, such as peer tutorial programs. But student exposure to the full combination of strategies and techniques promoted in the AVID curriculum is very unlikely outside an AVID school.

The BC AVID Pilot Project tackled the challenge of detecting “spillover” by asking different groups of Grade 11 students about their instruction in, and use of, AVID strategies and techniques. At AVID schools, program group, comparison group, and non-project participants were surveyed in Grade 11. The survey also included students at non-AVID schools, to detect ongoing levels of familiarity and adoption of AVID strategies in a set of BC schools that did not experience AVID training. The results of the survey are presented in Chapter 5 of this report.

Analysis of the First Two Cohorts

There are risks in planning to estimate the impacts of a program from the first years of its implementation. There can be “bugs” in the program that need to be identified and resolved. Staff may not be fully trained, or—even with training—may not be sufficiently experienced to deliver the program with appropriate adherence to the program model. Nonetheless, the BC AVID Pilot Project will estimate the impacts of the program based on the experiences of the initial two cohorts of program participants.

To mitigate some of the risks, the project took several steps to ensure educators were appropriately prepared. There was a “start up year” during which each AVID site team, including the elective teacher, attended training sessions at two annual Summer Institutes, organized by the AVID Center, prior to delivery to the first class. Team members were provided with the first sections of an operations manual and instruction in the project’s standardized procedures for student recruitment and selection.¹¹ Teams were invited to annual site team conferences to share their experiences and had access to support and training provided by Chilliwack School District educators who had been delivering AVID in BC for two to three years.

Inevitably as programs mature, and regardless of project efforts to support the standardization and sharing of experience, program effectiveness will change. Program maturation may allow lessons learned from early experience to create strategies that help prevent problems in later implementation, to adapt the program better to meet local needs, and to overcome apparent flaws or errors. However, more mature implementations may also be less effective, as the initial enthusiasm and energy among staff for a new program can diminish and some effective but awkward program practices may be dropped. For instance, staff might choose to bypass the more time-consuming elements of a complicated recruitment procedure. It is thus difficult to identify the direction of the effect of maturation on impact estimates.

In the BC AVID Pilot Project’s analysis, it will be important to recall that impacts reported are valid for an initial implementation and that generalizing the findings to more mature implementations could be inappropriate.

Implementation Research

Implementation research is an important complement to the impact analysis. It provides context for the evaluation and contributes to its plausibility. Specific implementation research objectives include

- documenting the operation of the BC AVID Pilot Project to provide an account of the activities undertaken;
- determining whether the delivery of BC AVID was consistent across sites and over time;
- interpreting the black box findings produced by the impact analysis;
- profiling the educational and socio-economic environments within which the BC AVID intervention is operating; and
- confirming whether BC AVID has had a fair test in a real-world setting.

BC AVID’s implementation research uses quantitative and qualitative data to answer a number of implementation research questions related to each of these objectives. The first and second objectives above are addressed—to the completion of Grade 11—in chapters 2, 3, and 4 of this report. They will be considered again, alongside the third, fourth, and fifth objectives in the final report.

11 The first sections of the manual were distributed in 2004, prior to recruitment. The final sections of the manual—concerning program delivery—were made available in late 2006, roughly a year after program delivery began.

It is worth dwelling a little on the most fundamental of the objectives for the implementation research, which is to determine whether the intervention has had a “fair test” in a real-world setting. In any program evaluation, the question of “implementation fidelity” arises. Implementation fidelity is defined as “how well an intervention is implemented in comparison with the original program design during an efficacy and/or effectiveness study” (O’Donnell, 2008, p. 33). Ensuring that the program as implemented is true to the program as it was designed—that it gives the program a “fair test”—is problematic when evaluating educational programs. For example, most educational interventions rely on teachers to deliver the program and teachers are likely to adapt the planned intervention to their individual circumstances and preferences. Nonetheless, policy-makers, practitioners, and other researchers are keen to know whether the intervention being tested (BC AVID in this case) has the anticipated impact or not, and want to be sure that the results are attributable to the intervention. Researchers cannot draw conclusions about this unless they can be sure that the intervention they wish to test has been delivered.

BC AVID asks teachers and school staff in a number of high schools to implement a detailed set of educational practices defined initially by the AVID Center (and characterized here as “AVID-as-designed”) and also contained in the BC AVID Operations Manual. Inevitably, there will be gaps between AVID-as-designed and BC AVID, as implemented, and some of those gaps have been described earlier. Chapters 2, 3, and 4 of this report document the degree to which BC AVID, as implemented, corresponds to AVID-as-designed.

From the point of view of schools, differences between intent and actual implementation may be beneficial since they may allow the program to be adapted to the actual situations in which students and staff find themselves. From the point of view of measuring the effectiveness of the AVID-defined educational practices, however, variations across schools in implementation fidelity may lead to doubts about whether experimental impact estimates actually measure the effectiveness of AVID or some unknown mix of site-specific AVID adaptations. If the impact analysis finds only small impacts, as has happened in several recent experimental evaluations of education interventions in the United States, “how can researchers conclude... that programs do not work, if they have not been implemented well or consistently under different conditions?” (Penuel *et al.*, 2007, p. 7)

Deciding whether or not BC AVID as implemented has had a fair test requires comparison of the characteristics of BC AVID to thresholds that define whether the program should carry the BC AVID label. As one example, the frequency of class tutorials in BC AVID might be compared to a threshold frequency consistent with what AVID designers might have envisaged.

Identifying the thresholds for a BC version of the program solely from existing documentation would be quite arbitrary, in some respects, due to the range of possible interpretations of requirements stated in different sources. Thus, a set of acceptable thresholds still need to be established for use in analysis. This work is scheduled for 2010–11, in time for application in the final report. Without these thresholds, the analysis in chapters 2 through 4 compares researchers’ descriptions of what actually happened in BC AVID to three overlapping sets of AVID program expectations: AVID-as-designed described earlier in this chapter, the requirements set by AVID Center in its site certification process, and the requirements and expectations of the BC AVID Operations Manual. These sources provide yardsticks against which to assess how far a school’s AVID organization and classroom activities appear to meet program requirements. Because the BC AVID criteria are not yet set and because the program still has a year to run for the project cohorts, the analysis of implementation is not sufficiently complete to fulfill the “fair test” objective of the implementation research: determining whether delivery is sufficient to carry the label “BC AVID.”

Benefit-Cost Analysis

The project will estimate the impacts of offering BC AVID on project participants, and will also consider the indirect impacts the program has on other members of society. These include costs and benefits that accrue to the government and to the broader population. A benefit-cost analysis in the final report will estimate these effects by assigning a dollar value to the costs and benefits associated with the program, including those that occur within the study period and those that can be projected for the future. The analysis will be cautious because of the difficulty of estimating longer term returns to education. Nonetheless, such analysis can be very important for those responsible for decisions about how future funding is divided among different interventions.

PROJECT ORGANIZATION

The BC AVID Pilot Project is made possible through a partnership between the Canada Millennium Scholarship Foundation (the Foundation) and the BC Ministry of Education (the Ministry). The nature of the relationship and obligations of the two partners are outlined in a Memorandum of Understanding signed in 2003.

The Foundation covers the costs of implementing the AVID program at 18 pilot sites for up to two consecutive cohorts of students in grades 9–12. School districts and schools receive an annual project grant administered by the Ministry.¹² In addition to funding AVID program delivery, the Foundation also covers the costs of the evaluation of the project. Evaluation research is conducted by the Social Research and Demonstration Corporation (SRDC).

To ensure that the requirements for both program implementation and rigorous research are met, an AVID Steering Committee (ASC) was established in late 2003 as the main decision-making body for the project. It includes representatives from the AVID Center, the Chilliwack School District, and SRDC who advise and guide decisions made by the Foundation and the Ministry.

Within the ASC, specific roles were assigned to some members. The Foundation-appointed Project Manager chairs the committee. The Ministry and Foundation assigned a former teacher and administrator from Chilliwack School District with experience implementing AVID as the “project leader” to be responsible for overseeing program delivery. The project leader visits schools and, using the support and feedback checklist described in Text Box 1.2, advises on the delivery of the program. For the first two years of the project, the former principal of an AVID secondary school in British Columbia assumed the role of field-based coordinator to assist with BC AVID site and program development.

Text Box 1.2: Support and Feedback Checklist

The checklist process is intended to encourage sites to identify any gaps in their implementation and to assist them in identifying strategies to fill them. The implementation of the support and feedback checklist involves twice-annual visits to each school by the project leader, followed by reports sent to the visited site teams. The process provides a useful channel for sharing information and has fostered a cross-pollination of ideas among sites. The checklist also acts as an early warning system for any problems or areas of concern regarding implementation. It was designed based on the AVID Essentials, core requirements, and expectations. The project leader specifically looks at aspects of AVID delivery:

- **Site team**—Are they trained, meeting regularly, committed to implementation, and developing the site plan?
- **Learning environment**—Is it motivational? Career- or PSE-focused? Is there evidence of AVID?
- **Instructional techniques**—Are the student binders organized? Are writing, inquiry, collaboration, and reading (WIC-R) strategies in use? Are tutorials regularly scheduled?

Observations in the checklist are categorized. Evidence of each of the expected activities is either observed or not observed during the site visit. A key distinction is made between situations where (a) there was an opportunity to observe an AVID practice and it was not observed; and (b) there was no feasible opportunity to see the practice in question. The AVID elective teacher has the opportunity to provide comments on the completed report.

Some key issues that emerged from early stages of the support and feedback process concerned AVID staff turnover at pilot sites and the level of commitment of school administration to the AVID program. Analysis of the checklist reports also helps researchers to understand the range of implementation issues, what strategies are effective, and what might be missing where sites are struggling with certain aspects of the program design.

¹² The annual grant covers initial site team training for two years plus funds for additional site team training as needed. Training takes place at AVID Center Summer Institutes and BC locations. The Ministry provides funding to districts who, in return, provide evidence of project-related expenditure.

The role of the ASC is to oversee the research objectives and the implementation of the BC AVID Pilot Project. As a committee, the group has engaged in *ad hoc* face-to-face meetings and weekly/monthly teleconference calls to discuss many issues, including the following:

- program design elements and coherence among them,
- broad policy issues and implications,
- research activities,
- administrative direction, and
- development of overall communication strategies.

Although program delivery involves the participation of several partners, the site team at each participating school has been primarily responsible for program implementation. The responsibilities of the participating partners are explained in more detail in Chapter 3 of the *BC AVID Pilot Project: Early Implementation Report*.

School Recruitment and Selection

A critical early phase of the project was identifying the BC school districts that would volunteer to establish a BC AVID program. Beginning in November 2003, the Ministry sought out school districts interested in implementing the project at one or more schools as either random assignment or case study sites. The Ministry received 28 applications for individual sites. The school selection sub-committee of ASC members evaluated the submissions according to set criteria and made recommendations to the Minister of Education regarding final site selection. Districts were formally notified regarding the selection in June 2004.

Four case study sites and 14 random assignment sites were selected, located within 15 school districts. These 18 sites represented 21 schools because some sites were combinations of secondary or senior secondary schools and the middle schools that were their feeder schools. Other schools (additional to the 21) were involved in the project for recruitment only (where the project site was a grades 9–12 school with a Grade 8 feeder school). The different school permutations represented in the project are illustrated in Appendix 2.

Most regions of the province (Vancouver Island, Lower Mainland, Interior, and North) were represented in the final set of sites selected. The committee, however, had hoped for more applications from schools in large urban districts with high proportions of students from families with lower socio-economic status (SES), since AVID had originally been developed for such schools. Without many applications from schools of this kind, the committee included schools with smaller student populations and higher SES.

The Recruitment and Random Assignment of Project Participants

In a process described fully in the Early Implementation Report and summarized in Chapter 2, 1,671 Grade 8 students applied to join the BC AVID Pilot Project during the 2004–05 and 2005–06 school years. Of these, 1,522 were determined to be AVID-eligible and became project participants.¹³ At random-assignment sites, SRDC randomly assigned the 1,348 project participants into one of three groups—program, comparison, and waitlist. Those in the program group (numbering 790) were immediately offered a place in the AVID elective. Another 455 students were randomly assigned to a comparison group that would never be offered a place in AVID. The remaining 103 students were assigned to the waitlist.

Broadly speaking, random assignment implies the program and comparison group should be similar across all characteristics. While differences can arise because of sampling variation, there should be very few statistically significant differences in the average values of observed characteristics.¹⁴ In Chapter 6, Table 6.1 illustrates the similarity between program and comparison groups at random assignment sites. Statistical tests for differences in the baseline characteristics of students assigned to the program group and to the comparison group found the groups very similar on most measurable dimensions.

¹³ Case study sites recruited a total of 174 participants and assigned 111 to the program; the remaining 63 were placed on a waiting list and could receive an offer of a place should a vacancy arise.

¹⁴ At a conventional five per cent level of statistical significance, differences between the groups on 1 in every 20 observed characteristic tested could be expected by chance factors such as sampling variation.

Project Timeline

The Early Implementation Report included a project timeline that illustrated how the main project activities would interact with data collection and reporting as participants passed through consecutive grade years. The first cohort of Grade 8 participants was recruited in early 2005. The second cohort was recruited a year later. Results from both cohorts are combined in all analyses, meaning that the availability of data for the younger cohort drives the reporting schedule. Cohort 2 completed Grade 9 in June 2007, allowing the release of the Early Implementation Report in 2008. Cohort 2 completed Grade 11 in June 2009, allowing the release of this report during 2010. The final analyses for the project will use data collected throughout the project and up until the participants' second post-secondary year (for Cohort 2, the 2011–12 academic year) meaning that the final report will not be available until late in 2012. This timeline appears in Appendix 3.

PURPOSE AND STRUCTURE OF THIS REPORT

This report provides a review of project implementation and impacts observed by the time project participants had completed Grade 11. Analyses for Cohort 1 are based on data covering the period from the commencement of the project through to June 2008. For Cohort 2, analyses use data covering their experience through to June 2009. The data sources are described in Text Box 1.3.

Chapters 2 through 4 consider the implementation of the BC AVID program. They present what has been delivered as BC AVID and consider the extent to which delivery matches prior expectations for the AVID program or represents adaptations or departures from that model. The three chapters are structured to consider implementation in relation to each of the AVID Essentials. Chapter 2 is concerned with the administrative organization of the program and includes Essentials 10, 11, 1, 3, 4, and 9, dealing with resources, site team, student and staff recruitment, full implementation, promotion of a rigorous course of study, and data collection. Chapter 3 focuses on student and staff participation over time—the subject of Essential 2. It reports the level of exposure to the program that students had, allowing for absences and departures from the class. Chapter 4 examines the delivery of the program in the elective class according to Essentials 5, 6, and 7, which promote adoption of the AVID curriculum based on writing, inquiry, collaboration, and reading, and Essential 8, the delivery of tutorials. It includes AVID motivational activities (which do not have their own Essential but are mentioned in Essential 3).

Because Chapter 4 focuses on what was delivered as BC AVID, the analysis is based largely on the experience of a particular subgroup of the students who were offered the program—those who stayed in the class from Grade 9 to Grade 11. This “core sample” consists of roughly half of all students randomly assigned to the program group.

Chapter 5 returns to the full project sample to consider the differences between the program and comparison groups in the extent to which they were exposed to BC AVID. Because many students left the class over time, not all received the full range of experiences documented in Chapter 4. Nonetheless, it will be the experiences of *all* members of the program group that will be compared to *all members* of the comparison group in estimating the program's impacts. This chapter thus compares reports of instruction in and use of AVID strategies and techniques by program group students to those of comparison group students. This analysis establishes the project-generated “treatment differential” to which any impacts will be attributable. The chapter also compares the reports of AVID strategies and techniques from comparison group students with those from students in non-AVID schools. This analysis establishes whether there is any “spillover” of AVID treatment to comparison group students.

Chapter 6 considers the impact of offering AVID on students' educational pathways, attendance, and academic achievement. It considers whether AVID program group students took different courses from comparison group members and, based on course marks and results on standardized provincial examinations, how they fared in those courses.

Chapter 7 summarizes what has been learned from the project so far and looks forward to analysis of the implementation of the full four years of the program, of impacts on high school achievement, graduation, and post-secondary outcomes, as well as a detailed benefit-cost analysis of the program, all of which will be presented in the final report due in 2012.

Text Box 1.3: Data Sources Used in This Report

SRDC organized the collection of quantitative and qualitative data to aid the evaluation of BC AVID. The large number of primary data sources used in this report are summarized below:

- **Baseline survey of project participants and their parents**—Grade 8 students completed a paper questionnaire as part of the application process in 2005 and 2006. The survey asked about their educational experiences, employment experiences, and peers. Those students who were subsequently found eligible for AVID (and became members of the program group, the comparison group, or waitlist) are termed “project participants.” The parents of project participants were also subject to a telephone survey on household characteristics.
- **Application forms and administrative data used during recruitment**—Baseline information related to recruitment and selection criteria were obtained by project researchers from students’ applications to join the project.
- **Grade 11 survey**—A “How do you learn?” Web survey was designed and commissioned for Grade 11 students to measure exposure to AVID techniques and strategies among members of the program, waitlist, and comparison groups at AVID schools, as well among non-project participants at AVID and non-AVID schools. The survey was fielded in the spring of 2008 and the spring of 2009 in order to capture the two cohorts of students at approximately the same time in Grade 11.
- **Fieldwork during site visits**—Project researchers made regular visits to the 18 pilot sites implementing BC AVID and to AVID schools in the Chilliwack School District. They observed information sessions during recruitment and AVID classroom activities, for a total of 62 field observations. The visits covered both research cohorts at each site in each year in order to follow the implementation of the program for both cohorts. SRDC researchers developed protocols for the observations to ensure comprehensive consideration of each aspect of program implementation. Field observation notes recorded the AVID teachers’ use of a variety of AVID curriculum activities and materials. The types of questions asked by students, and whether and how teachers and tutors answered them, were also recorded. The level of student participation in the AVID elective was noted by their observed attentiveness and participation in activities. Notes on the classroom environment were recorded for purposes of describing the implementation of BC AVID at the classroom level.
- **Interviews during site visits**—Project researchers also interviewed key members of the site team, totalling 128 interviews over a three-year period. Interviews were conducted at pilot sites with district directors as well as with BC AVID staff including AVID teachers, AVID counsellors, AVID tutor trainers, and AVID coordinators. SRDC researchers developed protocols for the interviews to ensure that this qualitative data would be systematically gathered and able to address whether or not implementation objectives were achieved. BC AVID staff were asked to describe their tasks as they related to the implementation of BC AVID and which parts of the tasks were problematic and which ran smoothly. Staff were asked for their impressions of students’ responses to BC AVID and for their feedback on whether and how the intervention might succeed.
- **Data collection forms**—Researchers established a system of teacher-completed forms to record daily the nature of AVID class activities, attendance by project participants, departures from the class, and additions from the waiting list. Tutors also completed an initial information form, and their attendance at tutorials was recorded. The resulting database is referred to in this report as the AVID multiple information system or “AVID MIS.”
- **Notes from conferences, the AVID Summer Institute, project training workshops, and other communications between site team members, project researchers, and AVID Steering Committee members**—These communications and activities were noted by researchers and provide important background information to help interpret implementation successes and challenges.

Secondary data sources are also of considerable importance to the analysis—including administrative data collected by the BC school system. The sources used in this report include the following:

- **Student records provided by school districts**—These data, capturing information such as courses taken, grades, and attendance records, cover grades 9 to 11, collected over the school years 2005–06 to 2008–09.
- **Student records provided by the BC Ministry of Education**—These data are collected for two periods before the start of the AVID program (pre-program) and during the program years (in-program). The in-program data, which cover grades 9 to 11, cover the school years 2005–06 to 2008–09. The data capture information concerning examinable courses (those for which provincial examinations are held), non-examinable courses, student credentials, and provincial examination records.
- **AVID Center certification reports** (AVID Certification Report and Self-Study Continuum)—These are reports on AVID program implementation completed by the pilot sites for each school year and submitted to the AVID Center.
- **AVID Center guides, curriculum, and website; BC AVID Project Operations Manual, project design documents, memos, minutes from meetings, and related communications; BC AVID support and feedback reports for each pilot site; and BC AVID site plans submitted by each pilot site to the AVID Center each year** —These materials generated by project partners are important reference sources in interpreting project development and program delivery.

Notes from observations and transcripts from interviews were subjected to qualitative data analysis in order to better understand the implementation of recruitment, selection, and subsequent program activities. SRDC researchers developed a framework for coding that was directly linked to the information requirements of the implementation research objectives. All transcripts and notes from qualitative data collection activities were coded using NVivo software to assist in the organization and analysis of the data.

A “core” sample, most exposed to AVID

In order to determine the effect of student exposure to AVID strategies and the support provided by the AVID program, the analysis of the Grade 11 survey presented in chapters 2 through 4 focuses on the experience of a “core sample” of students who remained in the AVID elective class through Grade 11. This core group consisted of 447 students who were registered continuously in the AVID class between the first day of October in their Grade 9 year and the last day of May of their Grade 11 year. The core sample represents 56.6 per cent of the 790 students offered the AVID elective class.

2

Maintaining the BC AVID Program

Introduction

Establishing AVID elective classes in 21 pilot schools at 18 sites was an arduous task that BC AVID staff accomplished with skill and dedication.¹ With that task completed, another difficult one awaited—maintaining the BC AVID program over time. This chapter discusses the administrative implementation of BC AVID over its first four years and sets out the challenges that have been overcome along the way. The chapter is organized around six of the eleven AVID “Essentials” described in the last chapter:

- The school or district has identified resources for program costs, has agreed to implement all AVID Implementation Essentials and to participate in AVID Certification, and has committed to ongoing participation in AVID staff development [Essential 10].
- An active interdisciplinary AVID site team collaborates on issues of student access to and success in rigorous college preparatory courses [Essential 11].²
- AVID student selection must focus on students in the middle, with academic potential, who would benefit from AVID support to improve their academic record and begin college preparation [Essential 1].
- The school must be committed to full implementation of the AVID Program, with students enrolled in the AVID year-long elective class(es) available within the regular academic school day [Essential 3].
- AVID students must be enrolled in a rigorous course of study that will enable them to meet requirements for university enrolment [Essential 4].
- AVID program implementation and student progress must be monitored through the AVID Center Data System, and results must be analyzed to ensure success [Essential 9].

¹ BC AVID was established in 14 random assignment and 4 case study sites. This includes 18 schools that offered the BC AVID program beginning in Grade 9 and 3 senior schools to which AVID students transferred.

² Preparation for “college” refers to the four-year college programs that are common in the U.S., not the two-year programs typical of BC college programs. AVID students are expected to prepare for four-year college and university programs.



As Chapter 1 explained, BC AVID, as actually implemented, involves adaptations to AVID-as-designed promoted by the AVID Center. This chapter describes what was delivered on the administrative side, captured in AVID Essentials 10, 11, 1, 3, 4, and 9.

In September 2004, SRDC provided all participating districts with a set of pilot project research requirements, as part of the contractual commitment for participating school districts. In essence, the participating sites were asked to adhere to AVID-as-designed. Specifically, the research requirements included the following:

- A commitment to adhere to the agreed-upon AVID program model (the “AVID Essentials”) since the AVID Pilot must test AVID and not a variant of the program, and
- Adherence to an Operations Manual that describes the implementation of the BC AVID Pilot in detail. This is critical for ensuring consistency among the sites in the Pilot.

Given these requirements, the analysis that follows compares what BC AVID sites delivered with expectations set out in AVID implementation guides, as well as in the project’s Operations Manual that provided guidelines for the implementation of the BC AVID program in BC schools.

In some areas, what is delivered as BC AVID appears to fall short of AVID Center and Operations Manual expectations. This does not automatically imply that the sites failed to deliver a recognizable “AVID” program. No detailed independent evaluations of the implementation of AVID across multiple sites have been published to date, so it is difficult to know how well AVID program implementation across typical U.S. schools would compare to AVID Center expectations. The analytical comparison to AVID Center expectations is undertaken here because it is useful for assessing how far (and how many) BC sites fell short on some components of delivery relative to other components. This process helps to characterize the program that has been tested as part of the project.

This chapter uses both primary and secondary data sources for the analysis. Primary data sources include in-depth interviews that were conducted at pilot sites with district directors and AVID staff members, observations of AVID elective classes, and Grade 11 survey responses from a core group of AVID students.³ Secondary data sources include the AVID Center certification reports completed by the pilot sites for each school year, the BC AVID Support and Feedback reports for each pilot site, the AVID Management Information System (MIS), the BC AVID Pilot Project Operations Manual, and the BC AVID site plans submitted by each pilot site each year to the AVID Center. Data sources are described in Text Box 1.3.

In this chapter, the implementation of each Essential is discussed in turn. The chapter ends with an assessment of how well AVID staff maintained their programs over the past five years.

3 The core group of Grade 11 survey respondents consists of program group and waitlist students who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) and who did not depart from that class before May 31 of their Grade 11 school year. See also Glossary.

CHAPTER SUMMARY

- **All BC AVID sites received resources to deliver the AVID program and to pay for AVID staff training.** AVID staff often praised the funding provided by the project. BC AVID schools have participated in the AVID certification process.
- **Full AVID site teams have been in place at all the pilot sites for most of the program implementation,** although the level of participation of site team members has varied between sites. The BC AVID administrator role has been carried out by a school administrator; sometimes this person has also been a school-based district director.⁴ The BC AVID counselling role varies from the role outlined by the AVID Center, in large part, due to the differences in the post-secondary information and application processes between the BC AVID school system and its U.S. counterparts. The BC AVID coordinator responsibilities have often been shared among team members.
- **The support and mentoring of AVID students that is recommended by the AVID Center was primarily carried out by AVID elective teachers.** AVID staff commented on the importance of the AVID teacher-student relationship, the sense of “family” in the AVID classroom, the time required for mentoring students and for students to make the necessary changes in their study habits, the personal counselling done by the AVID teacher, and the importance of staff support for the AVID teacher to deal with his or her expanded role.
- **AVID site teams completed site plans as required by the AVID Center;** the site plans provided a plan of action for continuing and improving the implementation of the BC AVID program.
- **AVID staff faced many challenges to meeting and functioning as site teams.** They reported varying levels of site team involvement at the school level, from very active to relatively inactive. The challenges for site teams included the following: the large amount of time required to implement BC AVID, combined with limited staff availability; turnover of core AVID-trained staff members and new team members sometimes lacking the same level of training or commitment; AVID teachers not delegating tasks or site team members not providing support; and the lack of a strong AVID profile within the school.
- **Some BC staff indicated that the AVID students they received did not match the student profile they were expecting;** in particular, they lacked sufficient motivation to change academic direction. Due to declining enrolment in AVID classes at some pilot sites, new students were later introduced into some AVID elective classes to ensure that classes were of a sufficient size to be considered viable by the school; not all of these additions were done according to procedures in the Operations Manual.
- **AVID staff implemented AVID curriculum classes, tutorial classes, and motivational activities, and have attempted to fully implement the program.** AVID classes have been scheduled year long and within the regular school timetable (with two exceptions). However, while the AVID Center recommends that the AVID elective class include approximately 40 per cent curriculum, 40 per cent tutorial, and 20 per cent motivational activities, BC AVID class activities included a considerably higher proportion of curricular activities and a considerably lower proportion of tutorial time than recommended.
- **More than two-thirds of BC AVID sites enrolled their AVID students in a rigorous curriculum.** At other sites, some AVID students were enrolled in courses the school did not consider rigorous, based on their interpretation of AVID Center guidelines. Some BC staff reported that difficulties arose in implementing this Essential because, for them, the level of “rigour” required for BC AVID was not clearly defined.

4 The district director is the district staff member who is assigned by the school district to oversee the AVID site team(s) in their district and the implementation of the AVID program at each participating school.

ESSENTIAL 10: RESOURCES, COMMITMENT TO AVID IMPLEMENTATION, AND TRAINING

AVID Essential 10:

The school or district has identified resources for program costs, has agreed to implement all AVID implementation Essentials and to participate in AVID Certification. It has committed to ongoing participation in AVID staff development.

AVID Essential 10 requires schools to have sufficient resources for program implementation, to send staff to the professional development programs offered by the AVID Center, and to participate in the AVID certification process. When AVID is introduced to a new district, the AVID Center requires the school district to assign a district director to oversee the implementation of AVID in district school(s).⁵ The director must first receive training in this role and then provide support to AVID staff at district schools for program development, including AVID curriculum, tutor recruitment and training, student recruitment and selection, parent involvement, site visitations, and data collection.⁶ Also, at the time AVID is introduced to a new school, AVID site team members must attend at least one AVID Summer Institute. Subsequently, new AVID elective teachers must attend at least one Summer Institute, and other new site team staff, including administrators and subject area teachers, are expected to participate in relevant AVID professional development. These guidelines were designed by the AVID Center to provide a common foundation for AVID program development and common guidelines for student success in the program. As outlined below, all BC AVID sites received resources to deliver the AVID program and to pay for AVID staff training, and have participated in the AVID certification process.

Access to Financial Resources and AVID Curriculum Materials

All sites had access to financial resources provided by the Canada Millennium Scholarship Foundation (the "Foundation") through the BC Ministry of Education (the "Ministry"): district directors were key to this process. In interviews, district directors frequently cited financial management as an important part of their role, although the method for overseeing the distribution of funds and compliance with project budgetary guidelines varied between districts.⁷

District directors often noted that the oversight of AVID implementation was only one (and most often a minor) part of their portfolio of duties and indicated that the work required much more time than they originally anticipated. In most cases, the role of district director was added to a district staff member's duties without making any additional time or funds available.

Staff often praised the funding the project provided and the support available from the Foundation for ongoing implementation of the program. As one teacher explained:

I think the support has been phenomenal. . . I know it's been out there and I've got a very good understanding of it. . . I just wish the Millennium Scholarship Foundation continued on, so that we could make sure that we had the continued support.

Schools used their project funding for a variety of AVID-related purposes, including to obtain training in AVID methodologies, to purchase the AVID library and curriculum materials, to cover the costs for teacher replacements to enable staff to attend BC AVID-related activities, and to fund field trips for students. According to the project leader's Support and Feedback reports, the majority of AVID Elective teachers were using their AVID library and curriculum materials. During interviews, a few AVID staff reported that they did not know what costs could be covered by project funding or how to access such funding for AVID purposes; for example, they were not sure what funds were available for purchasing curriculum materials and resources for the AVID class.

While BC AVID staff often praised the scope of available resources and a plan for implementation of AVID was in place, the process of learning how to deliver the AVID program took time. Even though AVID elective teachers had a large quantity of AVID curriculum materials available to them, the AVID resources were organized differently than other BC course materials. This often required additional preparation time for teachers beyond what they would normally spend when teaching a new course, particularly since the AVID curriculum was different from other courses the teachers had taught.⁸

Access to district funding to support implementation of the BC AVID program for "post-project" classes for cohorts younger than those involved in the research project has been an ongoing issue at the participating schools. Some staff supported maintaining a strong BC AVID program even after the research cohorts had left the school. Toward that end, some district directors and AVID staff had made presentations to their school boards and district personnel in an effort to inform them of progress with AVID implementation, to provide assessments of AVID student progress in the program, and to encourage their district's continued financial support of the BC AVID program.

⁵ Each of the 15 BC school districts involved in the pilot project assigned a district staff member to receive AVID training and perform the role of district director.

⁶ AVID Administrator Guide, 2004, p. 9.

⁷ In some districts (less than half), the district director was based at the school and was a member of the school's administration, while in others, the district director was off-site.

⁸ See Text Box 3.2 concerning the workload of AVID teachers.

In some districts, however, financial constraints had lowered the expectations of site teams for future financial support. One reason cited by some district directors and school staff was declining school enrolment.⁹ The high cost of travelling to San Diego (or other U.S. locations) for staff training places another constraint on continuing implementation of AVID. While Foundation funding has covered training costs for delivery to project participants, it does not cover the training of elective teachers that may prove necessary for cohorts recruited later.¹⁰ At the same time, staff at some sites indicated that their school district had made some funds available to assist with program costs for subsequent non-research cohorts.

Summer Institute and Other Training in AVID Methodologies

BC AVID staff had participated in the Summer Institute training provided by the AVID Center soon after their schools were selected as pilot sites. At that time, administrators recruited interested teachers to be part of their school's site team and to take the Summer Institute training in August 2004. School staff trained in a variety of AVID roles, including the role of AVID elective teacher, AVID administration, AVID coordination, AVID "tutorology"—the study of how to recruit and train AVID tutors—and subject areas such as science, math, or languages. Schools continued their recruitment and training of site team members during the 2004–05 school year and participated in Summer Institute training again, sometimes with additional team members, in August 2005. Other staff attended subsequent Summer Institute training from 2006 to 2009, as they were recruited to the site team.

Some BC AVID staff attended additional training sessions (as recommended by the AVID Center): sessions were held in Chilliwack in August 2006 and 2007 and in two different pilot site locations in the summer of 2008 and 2009. This training, called "AVID Path training," covers instructional strategies that are intended to lead students to success and engage them with a rigorous curriculum. These training sessions included AVID strategies and techniques for subject area teachers, those responsible for tutors, and experienced AVID elective teachers. Site team members generally spoke favourably about the training, but not all sites were represented at these training sessions.

Certification Procedures and Results

Since 1996, the AVID Center has orchestrated an annual certification process to recognize the implementation level of the AVID program that sites have achieved. To use the AVID curriculum, trade name, trademark, and logo, each site must agree to annual participation in the online certification process. The process includes both the Initial Self Study (ISS) and the Certification Self Study (CSS), completed in the fall and spring, respectively.¹¹ Forms are completed by the site's AVID coordinator, in consultation with the site team, and then submitted to the district director responsible for each site. The process is intended to determine each site's conformity with the AVID model and to help identify next steps to improve the implementation level of the AVID program at the site.

The four possible designations awarded in the certification program are as follows:

- Affiliate sites have either completed their first year of AVID implementation or are in a later year and have partially implemented the 11 Essentials (at least one of which is rated at Level 1 "meets certification standards") and are continuing in their efforts to fully meet the requirements for certification.
- Certified sites have fully implemented the 11 Essentials (i.e., all are rated at Level 1 or higher) and have completed all the necessary data collection documentation.
- Sites certified with distinction have fully implemented the 11 Essentials (i.e., all are rated at Level 2 "routine use" or higher), and the site met additional achievement benchmarks established annually by the AVID Center.
- Demonstration sites are those judged to have shown exemplary AVID implementation practices (i.e., all Essentials are rated at Level 2 or higher) and to have raised levels of student achievement. Sites must apply specifically for demonstration status, in addition to completing the self-study process. Potential demonstration sites should attend special sessions held at the AVID Summer Institute, host visits by the AVID National Validation Team, and, if certified, take a leadership role for other AVID sites.

⁹ BC school districts typically receive funding from the Ministry of Education based on the number of students enrolled in their schools.

¹⁰ Project-trained AVID elective teachers sometimes taught later non-project AVID classes, particularly when students (but not the teacher) transferred from a middle or junior secondary school to a senior school or when one teacher began teaching both research cohorts. See the discussion of AVID teacher turnover in Chapter 3.

¹¹ The ISS is a requirement for certification; access to the CSS is conditional on completion of the ISS each year. The CSS form is submitted in April each year.

Across all AVID sites in all countries, AVID certification is the principal means by which the AVID Center exercises control over the quality of programs that call themselves AVID. Certification has considerable strengths in that the exercise generates a biannual flow of data to the AVID Center, which it can use to gauge trends in implementation. The self-study process also allows site teams to reflect upon their own implementation and to take active steps to improve it. The reliance on self-study results has some drawbacks in terms of comparing certification outcomes between sites since these outcomes rely on the judgements of individual site team members and district directors with respect to (a) the applicability of indicators, (b) which sources of evidence are relevant, and (c) the levels of implementation achieved.

The ongoing AVID certification process, in principle, should shed some light on site team and district director assessments of the level or quality of AVID implementation for project participants. In practice, however, it is difficult to draw conclusions from certification about the experiences of BC AVID participants. A few of the reasons are the following:

- Certification procedures were not always completed on time, meaning that ISS and CSS forms did not always reach the AVID Center approval stage.
- Certification does not recognize the level of implementation fidelity in the first year of program implementation. This year was 2005–06 for all BC AVID Pilot Project sites, but also included later years at those sites where schools began implementing AVID in grades 10, 11, or 12, taking students from an initial AVID site feeder school. Furthermore, the AVID Center did not usually approve the submitted forms indicating levels of implementation experienced by Cohort 1 participants in Grade 9.
- The interpretation of indicators, and of the applicability of some indicators to schools in British Columbia, will be subjective resulting in the assignment of different certification outcomes to sites with ostensibly similar implementations.
- The certification standard is applied to all AVID sections running at a school. Thus, from 2007–08 onwards, certification is based on the delivery of AVID to cohorts of students who are not BC AVID Pilot Project participants in addition to those who are.

Although the results of certification are not used to assess program fidelity in this report, a summary of results appears in Appendix 4. All but three project sites had certified status for each year of the project in which it was possible (or in all but one year). Just three sites had two or more years in “affiliate” status. For the reasons stated above, no weight is attached here to the differences in certification statuses between sites for interpreting the program experience of research project participants.

ESSENTIAL 11: THE AVID SITE TEAM

AVID Essential 11:

An active interdisciplinary AVID site team collaborates on issues of student access to and success in rigorous college preparatory courses.

Essential 11 requires that schools maintain an active interdisciplinary AVID site team that helps AVID students succeed in courses that will meet university entrance requirements. In order for students to be successful, the AVID Center recommends that the site team provides ongoing mentoring of AVID students. In addition to this, the site team must meet other requirements to meet the AVID Center certification standards. In particular, the AVID site team must complete and use a site plan for program implementation, meet regularly to collaborate effectively on program implementation, and assist the AVID elective teacher in the implementation and operation of the AVID program. This section discusses the composition of the BC AVID site teams, including the core roles of the AVID elective teacher, the AVID administrator, the AVID counsellor, and the AVID coordinator, and the efforts of BC site teams to implement the program as expected.

BC AVID site teams had limited success in implementing Essential 11. As described in Chapter 1, program delivery in the BC AVID Pilot Project involves the participation of several partners, but the site team at each participating school has been primarily responsible for program implementation. While a few schools had a large active site team, more frequently, a smaller team of core staff members carried out the AVID tasks, as discussed below. According to many BC staff, a large part of the responsibility for the AVID program has fallen on the shoulders of the AVID elective teachers; and the support provided to AVID students has primarily been provided by AVID teachers, with some assistance from AVID counsellors. In addition, the ongoing turnover of site team members has required ongoing recruitment and training of new staff. While staff turnover occurs at all schools, it has been particularly challenging for the BC AVID program due to the extensive training required for new AVID team members and the level of commitment that the program requires. (See Essential 10 regarding teacher use of resource materials.)

The Composition of AVID Site Teams

The AVID site team consists of staff performing a set of “core” team roles—AVID elective teacher, AVID counsellor, AVID administrator, and AVID coordinator—supplemented by AVID-trained subject area teachers (such as math, science, social studies, and English teachers). The coordinator responsibilities are often taken up by the AVID administrator, AVID counsellor, and AVID teacher. The core site team leads the implementation of the AVID program in the school, while the subject area teachers ideally use the AVID strategies in their classrooms, particularly with AVID students, and provide support for implementation of the program as a whole. The district director oversees the site team and implementation of the AVID program.

The role of *AVID elective teacher* is vital for effective implementation of the AVID program: the elective teacher teaches AVID strategies to students and provides them with support to improve their study habits and perform well in challenging courses. In the BC AVID project, AVID teachers taught AVID strategies and provided support for students as expected. While district directors and core site team members frequently reported that it was important that participation in the AVID program was voluntary for all site team members, some staff indicated that this was particularly important in the case of AVID elective teachers. The demands on the teacher, including their mentoring role, were reportedly heavy. The mentoring and support provided for BC AVID students is discussed on page 37. Many BC staff believed this support was important for the success of students in the AVID program.

The *AVID administrator* role focuses on providing leadership for the program at the school level. In pilot sites, this role has often been carried out by a vice-principal (rather than a principal); at some sites, this person has also been a school-based district director. Following AVID Center guidelines, BC AVID administrative tasks have included providing leadership for the AVID program in the school; scheduling the AVID elective; assisting the district director with site team recruitment, including recruitment of AVID elective teachers; communication at school staff meetings regarding the AVID program; and budgetary decision making, such as the provision of release time for AVID staff. BC staff reported varied levels of administrative leadership in their schools (from strong to weak). Administrator turnover (including both principal and vice-principal) was frequently a challenge at sites: new administrators could lack either AVID training or an interest in promoting the AVID program within the school.

The *AVID counsellor* role is to provide academic and personal support for AVID students and guidance for the AVID program. BC AVID counselling has included assisting AVID students with planning, selecting, and scheduling courses in the school timetable (for both the AVID elective and other courses); discussing post-secondary education (PSE) and career plans with AVID students, both through presentations to the AVID class and one-on-one with each student; and maintaining contact with AVID students and providing personal counselling support as needed. Some BC counsellors indicated that their workload in this last area was lighter than expected as the AVID teacher provided much of the personal counselling that a school counsellor would normally provide.

The BC AVID counselling role varies from the role outlined by the AVID Center in large part due to the differences between the BC curriculum and school system and their U.S. counterparts. U.S. AVID educators are encouraged to consider four-year college entrance requirements, including standardized tests. BC students need to meet different requirements for Canadian PSE institutions. Standardized testing, for example, does not play the central role in Canada that it does in the United States. While the AVID Center encourages site teams to have a designated AVID counsellor for all AVID students, BC AVID sites did not always do this. At some sites, there was a designated AVID counsellor, while at other sites, AVID students were divided alphabetically among the school counsellors, some (but not all) of whom were AVID trained.¹² Not having a trained AVID counsellor assigned to the AVID students may result in less support for student retention, both in the program and in a rigorous academic curriculum.

The *AVID coordinator* role includes responsibilities for a variety of organizational tasks that are required to implement the AVID program. These tasks are sometimes carried out by the elective teacher or by one or more other site team members. The coordinator role can also be a position in its own right.¹³ BC AVID sites differed in the way they defined the AVID coordination responsibilities and how they would be carried out. Responsibilities included assisting with student and teacher recruitment, communication with school staff regarding the AVID program, organizing site team meetings, scheduling guest speakers, organizing field trips, and coordinating meetings with parents.

¹² Some BC AVID counsellors did not attend the AVID counselling training provided by the AVID Center because of the differences between the U.S. and Canadian school systems and related differences in AVID program content. Some counsellors indicated that as an alternative they attended other training provided by the AVID Center in order to gain background knowledge about the AVID program.

¹³ Implementing and Managing the AVID Program for High Schools, 2004, p. 82.

The role of the BC AVID coordinator was often shared: pilot sites created position descriptions such as AVID teacher-coordinator, AVID administrator-coordinator, or AVID counsellor-coordinator. Some BC AVID teachers pointed out how important it was for the coordinator to understand clearly what was going on in the AVID program in order to provide support. Some teachers believed the AVID teacher best fulfilled the role of coordinator; others believed the coordination tasks had to be shared among site team members. Staff indicated that, in either situation, there was a heavy time commitment.¹⁴ As BC AVID implementation progressed over time, the role of the AVID coordinator sometimes shifted from the AVID teacher to another site team member, or additional team members took on a shared role. Thus the role of coordination was less fixed than other core AVID roles. Between the time of recruitment and the end of Grade 11,

- at just over half of the schools (11 of 21), the AVID coordination role was shared between the AVID teacher and one or more other members of the site team;
- at one-third of the schools (7 of 21), the coordination was primarily completed by one or more members of the site team other than the AVID teacher; and
- at 3 of 21 schools, coordination was primarily completed by the AVID teacher.

Subject area teachers (such as math, science, social studies, and language teachers) receive training in AVID strategies at Summer Institutes and AVID Path training sessions and are encouraged to use those strategies in their subject area classes. This is intended to support AVID students in their academic classes as well as other students, thus spreading AVID strategies throughout the school.¹⁵ Most BC AVID staff reported limited instances of AVID site team members using AVID strategies in their academic classes, although usage was more common over time.

As discussed under Essential 10, *district directors* oversee their AVID site teams and AVID program implementation from the school district level. According to BC AVID district directors, their role has included acquiring and applying a broad knowledge of the AVID program, advocating for the AVID program, communicating with site team members, supporting the AVID teachers in particular and the site team as a whole, recruiting site team members, ensuring that site team members receive AVID training, managing the BC AVID budget and distribution of funds, and overseeing implementation of the AVID site plan and AVID certification procedures. AVID district directors also received the Support and Feedback reports (see Text Box 1.2) and communicated this feedback to their site teams.

Site Team Plans and Activities

The AVID Center requires site teams to complete a site plan for each school year: this is a plan of action for continuing and improving the implementation of the AVID program. Site teams must outline the methods they plan to use to strengthen their AVID implementation for specific AVID Essentials, along with the indicators that they would use to assess progress. According to the Support and Feedback reports, all BC AVID site teams completed site plans for each school year (with one exception).

Between 2005–06 and 2008–09 (when Cohort 1 and Cohort 2 students moved from Grade 9 to Grade 11), the two essentials most frequently chosen by BC staff for their attention each school year (and overall) were Essential 8 (which focuses on tutors and tutorials) and Essential 11 (which focuses on a strong site team): 69 per cent of the schools chose each of these two essentials as priorities for further work. Essential 5 (which focuses on a strong writing and reading curriculum) was the next most commonly chosen essential for staff attention (chosen by 45 per cent of the schools).

Maintaining Functioning Site Teams

According to Support and Feedback reports, full site teams have been in place at all the pilot sites for most of the BC AVID program implementation. Teams have included trained AVID elective teachers (with a few time-limited exceptions) available to teach the cohorts of project participants. The reports indicate about one-third of the BC sites experienced difficulty maintaining a full complement of AVID-trained subject area teachers. Some sites also lost AVID-trained district directors, AVID administrators, or AVID counsellors and had to find ways to replace them. Both BC AVID staff interviews and Support and Feedback reports indicate the necessity for ongoing recruitment and training of AVID staff members. Some staff noted that, due to the high turnover of AVID-trained staff, their site teams sometimes included members who had not yet been fully trained.¹⁶

14 BC AVID teachers are responsible for teaching other courses in addition to the AVID elective class. This results in a heavy workload, particularly because of the time commitment that AVID requires. See the Chapter 3 discussion of support for the AVID elective teacher.

15 As mentioned in Chapter 1, the spread of AVID strategies to other classes in the pilot schools implies that comparison group students may be exposed to AVID strategies in their academic classes when those classes are taught by AVID-trained teachers. See Chapter 5 for a discussion of the use of AVID strategies by comparison group students. That discussion concludes that the actual exposure of comparison group students to AVID techniques was not extensive.

16 See Chapter 3 for further discussion of site team turnover.

BC AVID staff faced many challenges in keeping their site teams meeting and functioning. According to the Support and Feedback reports, about two-thirds of site teams met regularly. Staff reported varying levels of site team involvement at the school level, from very active to relatively inactive. While many staff indicated that their core site team met regularly as a small group, they met less frequently with the whole team. BC AVID teachers at two pilot sites indicated that the AVID teachers were the only staff “actively” involved in implementing the program for at least part of grades 10 and 11. A district director also commented on one site team’s struggle to understand what “active” involvement really requires:

... the key word is “active.” And we took that Essential apart and defined what active meant, and when we did that, I think the light went on for a lot of people, because active does not mean just attending the site team meetings once a month. It means actually being involved when you’re not at the site team meetings.

By the end of Grade 11 program delivery for research participants, many site teams appear to have moved through various stages of strength and struggle (sometimes due to a change in AVID teacher or other team members, scheduling difficulties, or introducing the program to a senior school) as they attempted to implement the BC AVID program. Challenges for site teams included the large amount of time required to implement BC AVID, combined with limited staff availability (due to their other commitments); turnover of core AVID-trained staff members and replacement team members sometimes lacking the same level of training or commitment; AVID teachers not delegating tasks or site team members not providing support; and a lack of a strong AVID profile within the school.

The AVID Center recommends that staff mentor AVID students and provide them with encouragement to improve their study habits and grades while in high school in order to access a university program.¹⁷ While this mentoring is not explicitly part of Essential 11, it is discussed here as this essential requires site team members to collaborate in order to help students succeed in rigorous courses: this implies support and mentoring for students.

Support and Mentoring for AVID Students

While the AVID Center promotes collaboration of site team members to provide needed support and mentoring for AVID students, at several BC sites the majority of the mentoring has been provided by the AVID teacher, often with assistance from the AVID counsellor. Of course, the AVID teacher is in a convenient position to provide such mentoring (more so than other core team members or subject area teachers). The Support and Feedback reports indicate very little involvement of other site team members in mentoring AVID students. Some BC staff reported that site team involvement with mentoring AVID students was difficult to implement. At the same time, they indicated that the mentoring relationships that developed between the AVID student and the AVID teacher were an important part of preserving the student’s interest and attendance in the AVID elective, as discussed below.

Some BC staff indicated that they used site team meetings to discuss the progress and difficulties experienced by individual students and to offer suggestions for action and support to the respective AVID teachers. At some sites, discussions on student progress were carried out by core team members rather than the whole site team. In many cases, the AVID teacher was the one most likely to take action resulting from team discussions. Thus the site team appeared involved at the level of team discussion and problem solving rather than working one-on-one with students. An AVID counsellor commented:

One of the things that happens at site team [meetings] is that individual kids are brought up [for discussion]. And a typical case might be this kid is in math, and this kid is dying in math, but they need it to go to [the] university program that they want. Or they need it to stay in AVID,¹⁸ and so what do we do about that?... And then it might go through me, for example, to say, “Okay we’ve got to find this kid a tutor, we’ve got to send this kid to homework club,” which is an after-school program for kids who are struggling in particular courses. And so the site team is a place where problems are introduced and then not necessarily solved at site team, but the resources needed to solve them are contacted through the site team.

¹⁷ Mentoring within the AVID program includes the provision of both personal and academic counselling. It involves supporting students to make difficult changes or to find ways to overcome challenges to their academic progress.

¹⁸ The AVID Center requires that AVID students take rigorous courses that meet university entrance requirements; in British Columbia, this includes the Principles of Mathematics course sequence, which students can find very challenging.

Relationships in the AVID Class

BC AVID teachers often commented on the close nature of the relationship they have developed with their AVID students and the sense of “family” in the relationship. Both AVID teachers and other members of site teams often said they believed the relationships that develop between AVID teachers and students are instrumental in helping students to make necessary changes in their behaviour and study practices and to challenge themselves. Some staff indicated that the personality of the teacher matters greatly in that the student must be able to relate to the teacher, or that the AVID teacher role is similar to a parenting role. Thus not every teacher will be suitable for this role. As these AVID teachers commented:

I don't think you can be an AVID teacher, and not be one of those people who feels connected to everything. It's not a "walk in the classroom and do it and walk out" kind of thing. It is about caring deeply, caring deeply enough to go beyond your own comfort level, and to make the kids go beyond their comfort level in order to get to that deeper level of ability that you know just gets kind of glossed over otherwise. . . the personality of the teacher is huge. . . the kids have to be able to relate to the teacher.

I've built a strong relationship with these students. . . I thought at the beginning of last year—my first AVID year—that I would be bored with these students, seeing them every day of the year, because I'm used to seeing students for five months and then getting a new batch. . . but what happened was that our relationship deepened, and we became comfortable with each other and very, very respectful of each other and very understanding of each other's ways. . . So they were willing to do a lot for me. . . and we became quite close, which is contrary to what I expected.

My [several] years experience as a teacher. . . kind of helps. . . They're no different than any other student I've taught in the past [but] we have a different relationship. . . Other students that. . . I've had throughout the years, you always maintain kind of a familiar rapport. But with my AVID students. . . I'm like their. . . surrogate parent.

They've come a long, long ways. . . and that's what it is to work with people [the students]. I mean, you just start to love them.

Some AVID counsellors commented that because the AVID teacher maintains close contact with the students, and carries out some of the tasks frequently done by a school counsellor, this relieves some of their counselling workload. As this counsellor explained:

My role has been quite different with that group. . . It's been nice to have somebody that basically becomes the parent of all of those kids and is well aware of any personal needs that they have and she's able to deal with them much sooner. . . Being. . . the counsellor for the AVID group has been easier in some ways because [the AVID teacher]. . . has dealt with a lot of the personal issues.

AVID teachers also often referred to the family-like atmosphere within their classroom. They commented on the strong bond and support that develops between the students, as well as the bond between teacher and students. They said the students became very comfortable with each other and developed a sense of belonging in the class. As these teachers explained:

I'm so close to that group of kids; we have a very open communication throughout that room. . . like that girl singing today. Kids want to do things [like that] all the time. It's like they want to show and tell in that class. "Can I show them this? Can I bring this in?" "Yeah, you can." Because they don't think anyone in that room is going to judge them, or make fun of them. They just know this is our class; we're going to be together until Grade 12.

You know, there have been some students that may not have done great progress in their academics, but you understand that they have a place to come to that's sort of home. So what I've noticed more. . . is some of the AVID 10s come in in the morning, come in at break, they're in the classroom at lunch. And, you know, they might be working on something or they just might simply be hanging out. So it's turned out to be a home for them, a place that's comfortable. . . they might be doing silly, silly things with their behaviour still or not doing well in a course, but you know what? They come to tell [AVID team member] and I. We're the first ones to know that they got booted out for, you know, for this particular reason or not, or we're also the first ones that they tell when they got 20 out of 24. It's like that.

Some BC AVID staff believed it was very important for the same teacher to remain with a group of AVID students for the duration of their time in the program. They believed this allowed the necessary time to strengthen the relationship between teacher and student and in turn encouraged students to make the difficult changes that could improve their performance in school. As this teacher noted:

I feel quite strongly... that the AVID elective teacher needs to have the students for more than one year... I think these students, especially the ones in the middle, they need that building of the relationship that somebody is looking out for them... I know all the courses they've taken now. I know where they're at. I know what they need for next year... that continuity is so extremely important.

Maintaining Contact With Subject-Area Teachers

Maintaining contact with AVID students' subject area teachers in order to monitor and support their academic progress is an important part of the mentoring role carried out by the BC AVID teachers. BC AVID teachers frequently asked the subject area teachers to provide them with regular updates on how the students were performing in their classes. In addition to this, they often reviewed grades with their students following a reporting period. One teacher referred to this part of their role as being a "watchdog":

And you know, they don't like [that]... I'm their watchdog. All the teachers get a little AVID form, an intervention sheet that, the second they screw up, it comes back to me and I deal with them. I don't know, I think they feel... that they don't get the leeway other kids get sometimes. But I think that's a good thing.

Support From Other Members of the Site Team

BC AVID teachers indicated that mentoring students can be very challenging, particularly due to the heavy time commitment it requires. While most of the mentoring of students was provided by AVID teachers, with assistance from counsellors, other site team members occasionally took on this responsibility. At two schools, staff reported that members of the AVID site team each took a few AVID students to mentor on a one-on-one basis. An AVID teacher at one of those schools spoke very positively about the site team support for the elective teachers:

Achievements of our site team: I would say one would be just the support for each other and the elective teachers.

Another BC AVID teacher praised the communication with the counsellor and the support from the site team as a whole when mentoring students:

[The AVID counsellor] and I keep that line of communication open. So what really works here, it is very much a team, to know that I'm not the only person holding this down. And whether it's formally... done or informally, we're all networking on the site team and letting people know what's going on, and that is really beneficial to know that it's a whole team approach rather than just one individual.

Some counsellors believed that since AVID teachers often learned about students' personal difficulties earlier than they did, this could provide the basis for successful early intervention, as this counsellor explained:

What I know about [the difficulties experienced by] Cohort 1... I think that AVID has been the anchor for [those students], that they haven't given up on school and they haven't given up on their goal in life because of it... Those things, we wouldn't know about unless there was a teacher in the school advocating—and finding out—and having a relationship with the student. So the student feels open to share those things with the teacher. And the teacher comes to me and says, "Oh, did you know..." and then we can go from there to see what we can do to support them.

Student Perceptions of Mentoring

In this section, student perceptions of the frequency of mentoring they received are discussed based on Grade 11 survey questions about mentoring. These perceptions (and other findings later in the chapter) are drawn from the responses of the "core sample" of AVID respondents. This sample consists of program group and waitlist students with long-term exposure to the AVID program.¹⁹ Because the core sample had the most extensive experience of program implementation, their perceptions on the frequency of delivery of AVID components are considered most pertinent in chapters 2, 3, and 4. While these responses are informative, they are not representative of the perceptions of all those assigned to start the AVID elective in Grade 9. As Chapter 3 will document, many AVID elective students stopped attending the class before the end of Grade 11.

¹⁹ See "core sample" in the AVID glossary.

Results from the core sample of Grade 11 survey respondents corroborate the information from BC AVID staff members regarding staff support for AVID students. Table 2.1 shows that more than half (51.7 per cent) of the core sample of AVID respondents indicated that they "often or very often"²⁰ had a classroom teacher they could rely on to support their *academic progress* across all their courses. An additional 28.4 per cent indicated that they "sometimes" had this support.

Slightly less than half (47.0 per cent) of the core respondents indicated that they often had a classroom teacher they could rely on to support them if *personal matters* affected their school work. An additional 28.0 per cent indicated that they "sometimes" had this support. Results were similar for random assignment and case study sites, as well as between cohorts (See tables 2.2 and 2.3).²¹

Table 2.1: BC AVID Teacher Academic and Personal Support for Students, by Cohort

	Percentage reporting frequency of support		
	Cohort 1	Cohort 2	All
Since you started Grade 9, how often have you had a classroom teacher you could rely on to support your academic progress across all your courses?			
Never/rarely	16.48	16.13	16.33
Sometimes	28.35	28.49	28.41
Often/very often	51.34	52.15	51.68
Since you started Grade 9, how often have you had a classroom teacher you could rely on to support you if personal matters affected your school work?			
Never/rarely	21.46	20.97	21.25
Sometimes	25.29	31.72	27.96
Often/very often	49.04	44.09	46.98
Sample size	261	186	447

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2) and who also responded to the Grade 11 survey.

²⁰ To simplify the text throughout the remainder of the report, the word "often" will be used as shorthand for survey responses in the "often" or "very often" categories.

²¹ As will be seen in Chapter 5, a much higher proportion of the program group reported such support than the comparison group.

Table 2.2: BC AVID Student Experience of Academic and Personal Support, by Site Type

	Random Assignment	Case Study	Difference (standard error [s.e.])
Student <i>often/very often</i> had a classroom teacher to rely on to support her/his academic progress across all courses	50.76	58.82	-8.10 (7.44)
Student <i>often/very often</i> had a classroom teacher to rely on to support her/him if personal matters affected her/his school work	45.71	56.86	-11.20 (7.42)
Sample size (total = 447)	396	51	

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2) and who also responded to the Grade 11 survey.

Two-tailed t-tests were applied to differences in characteristics between groups.

Statistical significance levels are indicated as follows: * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Table 2.3: BC AVID Student Experience of Academic and Personal Support, by Cohort

	Cohort 1	Cohort 2	Difference (standard error [s.e.])
Student <i>often/very often</i> had a classroom teacher to rely on to support her/his academic progress across all courses	51.34	52.15	-0.80 (4.81)
Student <i>often/very often</i> had a classroom teacher to rely on to support her/him if personal matters affected her/his school work	49.04	44.09	4.96 (4.79)
Sample size (total = 447)	261	186	

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2) and who also responded to the Grade 11 survey.

Two-tailed t-tests were applied to differences in characteristics between groups.

Statistical significance levels are indicated as follows: * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

ESSENTIAL 1: STUDENT SELECTION

AVID Essential 1:

AVID student selection must focus on students in the middle, with academic potential, who would benefit from AVID support to improve their academic record and begin college preparation.

The recruitment and selection of students to participate in BC AVID took place in winter and spring 2005 (for Cohort 1) and winter and spring 2006 (for Cohort 2), following procedures developed by a subcommittee of the AVID Steering Committee. As required by Essential 1, the selection criteria focused on students in the middle with academic potential. Due to attrition and to ensure viable class size, a small number of

additional students who also met the criteria for AVID selection were added to some AVID classes during grades 10 and 11. A detailed account of the recruitment and selection of BC AVID students was included in the *BC AVID Pilot Project: Early Implementation Report*. Some important points are summarized in Text Box 2.1.

As BC staff became more familiar with the AVID students' work habits and ability to adopt the AVID strategies, they sometimes found that the students did not have the characteristics they were expecting to see in the program. In particular, some students appeared to lack the level of motivation to succeed that staff were expecting. The following section discusses comments from AVID staff concerning the suitability of their AVID students for the BC AVID program.

Text Box 2.1: Summary of Project Participant Recruitment and Selection

Recruitment procedures began with schools raising awareness among their students of the BC AVID program and taking active steps to identify the pool of potentially AVID-eligible Grade 8 students. In order to be considered for participation in BC AVID, interested students had to complete an application form and attend an interview with educators who were part of the school's AVID selection committee. Points were assigned to students based on various eligibility criteria (such as holding a B to C letter grade average). Students who scored at least 45 points out of the maximum of 100 were deemed "AVID eligible." Eligible students and their parents or guardians had to complete a survey and sign a project informed consent form in order for the students to participate in the project. SRDC randomly assigned eligible participants from the 14 random assignment sites to one of three groups: the program group, a waitlist group, or a comparison group; while participants from four case study sites were assigned by school staff to be in the AVID class or on a waitlist. All students received letters from SRDC notifying them of their status within the project.

There were differences between random assignment and case study sites, and between cohorts, in the numbers recruited and found eligible for AVID: case study sites, being smaller, secured fewer recommendations and applications; and fewer students were found AVID-eligible and fewer students were recruited for Cohort 2 than for Cohort 1, resulting in smaller class sizes and much shorter waitlists.²² Staff commented that their approach to recruitment and selection varied from Cohort 1 to Cohort 2 because they had learned from their experience with Cohort 1. While staff generally agreed that they were more knowledgeable and confident with the selection of Cohort 2, they had mixed views on whether the selection process was better in Cohort 1 or in Cohort 2, though most staff believed that more Cohort 2 students fit the criteria for AVID, compared with Cohort 1. However, the socio-demographic characteristics of the two cohorts, based on students' and parents' survey responses, differed little. Random assignment occurred after AVID eligibility was determined, so any characteristics that made students more or less suitable for AVID can be expected to appear equally in both the program and comparison groups.

Profile of Selected Students

AVID staff were asked to comment on the extent to which the AVID students in Cohorts 1 and 2 matched the profile of the AVID students they were expecting to see in the program. Some of the characteristics that students presented did match what their teachers were expecting: they found students lacked organization, had poor study skills, and had middling academic achievement levels. However, staff at several sites indicated that Cohort 1 students did not match their expectations in other ways. In particular, they lacked the motivation to work hard and succeed. These student attributes were assessed during the selection process by site team members using student interviews and written sections of the application. There was evidence that team members altered how they assessed these attributes during selection of Cohort 2, as the following comments from an AVID coordinator imply:

Our retention level of Cohort 2 is much higher than Cohort 1. And it may have been the fact that we recruited a much smaller cohort, and I guess focused a little bit more on the determination part. We use[d] the same criteria but it just seemed that the kids were a little bit more motivated in Cohort 2 than Cohort 1.

BC staff commented that both Cohort 1 and Cohort 2 required much more AVID staff time to teach and support than they originally expected. According to some teachers, the low academic capabilities of some Cohort 1 students limited their achievement in grades 10 and 11. While some staff thought Cohort 2 students were less “needy,” they too required more time than their teachers had anticipated. Some staff commented that Cohort 2 students tended to have more of the characteristics they expected (including motivation), while other staff said they too lacked sufficient motivation. An AVID counsellor and an AVID teacher commented:

A lack of work ethic is a real big one. And sometimes you just have kids that really don't have that. They don't have that drive to push themselves to reach the bar that we've set in AVID. . . you have to know the student a bit to know if that work ethic and the work habit is there.

Part of the AVID program is having the individual determination to do the work. . . I do have a lot of kids in here actually that. . . really do want to be successful. However, I do have some that really aren't willing to do the work, aren't willing to work as hard as the others. . . They question some parts of the program. They don't want to do Cornell Notes. They don't want to do a tutorial every week. . . My understanding when I did come into the position was that the kids would be very gung-ho and they would want to go, go, go, go, go, and that hasn't exactly been the case.

Some BC staff believed the lack of determination to succeed among some AVID students was related to the middle-class background that many of them had. The socio-economic environment of the majority of BC AVID students (whose family incomes at baseline were very similarly distributed to those of all BC families) may thus have differed from that of middle-achieving students in the large urban American high schools where the AVID program originated. Some BC staff, particularly those in more urban areas, commented that their students were more middle class than those exemplified in the literature on AVID students. A few staff questioned whether this might affect the level of motivation students had to overcome barriers and succeed.²³ An AVID teacher and an AVID counsellor commented:

I think the AVID students in the States, for the most part. . . are on the outside looking in. And they are motivated by the two cars you have sitting in your garage; they can see that and they want that and they know that an education is the key to that. Our kids are already living in families that have those kinds of things and they take for granted that they will have it. . . They're just not as “hungry” as the AVID students are down in the States. . . Not all, because there certainly are some who are determined and are showing that, but I think some of that determination is developed by being on the outside looking in.

We're missing the hunger, what we call the “hunger,” which is that when you have poverty issues or cultural issues. . . and that is what is making a marginalized student. . . feel like there's a ceiling on [them]. That is a different student than a person who comes from a fairly middle class upbringing. There's no issues with poverty [here], you know; home is not great but it's not terrible and I'm just going to float my way through. . . And what we're noticing [is] that our kids are not “hungry.” They don't have that drive or that motivation. . . I mean, some do. But the majority don't. So, it is different. And I think that, in other contexts, I can see [AVID] would work out better. I could certainly see if it was rural. . . if the social economic situation was quite low, I could see that being more similar to the original intent of AVID. But in our neighbourhood. . . yes, there's a benefit, I will never say that there isn't a benefit, but it's a different kind of benefit than the intent of the program.

In contrast, other BC staff, particularly those in more rural areas, indicated that some of their students are affected by poverty. At the same time, however, those in rural areas are also often affected by the lack of a PSE presence in their area. This combination of issues—poverty in a rural setting alongside a lack of PSE presence in the area—is also different from the original context for AVID, which was urban and within closer proximity to colleges and universities.

²³ AVID was originally targeted at students who might have been motivated to pursue higher education as a means to escape their socio-economically disadvantaged home background. Students already enjoying more comfortable economic circumstances may lack similar motivation.

Additional Students

Due to declining enrolment in AVID classes over time at some pilot sites, the AVID Steering Committee (ASC) developed procedures for schools to bring new students into their AVID classes if classes were too small to be viable and there were no more AVID-eligible students available on a waitlist for the class.²⁴ These procedures were introduced to pilot sites during the third year of AVID implementation (in February 2007) and were outlined in the Operations Manual. The procedures were intended to minimize any negative effects on research participants and on the reliability of the study as a whole, while ensuring that participating schools were able to continue implementation of the AVID program for the research cohorts. In regular AVID programs (where research requirements are not a concern), it is not unusual for some students to be added to AVID classes in order to maintain full enrolment. As a result, these students would also be offered less AVID exposure than students originally selected for the AVID program.

By the end of Grade 11 AVID implementation, six pilot sites had added one or more additional (non-research) students to AVID classes. In total, 34 additional students were added at the six sites.²⁵ A total of 24 students were added at two sites because the AVID elective class sizes had become too small. Staff at both of these schools indicated that adding the new students was an effective way to deal with the decline in the size of the original AVID class: at both schools, students were added to a merged class.²⁶ The remaining 10 new students were added to single cohort classes at four other sites; staff at those sites believed that those students were suitable for AVID and included them in the project class without having followed the procedures for adding new students as recommended by the ASC. In each case, the grade level of the new student matched the grade level of the AVID class. According to some of the AVID teachers involved, the disadvantages of having the new students in the AVID class (such as working through an initial adjustment period) were minor compared to the advantages. One example of an advantage arising from adding new students was that it allowed the original AVID students to take on a leadership role in teaching newcomers some of the AVID strategies.

ESSENTIAL 3: FULL IMPLEMENTATION OF THE AVID PROGRAM

AVID Essential 3:

The school must be committed to full implementation of the AVID Program, with students enrolled in the AVID year-long elective class(es) available within the regular academic school day.

The third Essential requires full implementation of the program. To meet basic (Level 1) certification standards, AVID site teams must provide proof of year-long AVID classes, with each AVID class scheduled within the regular school timetable (within the time frame where the majority of academic classes are offered). The AVID class must be fully enrolled, meaning that it must have about as many students as any other class in the school. The class must also have a balanced use of AVID curriculum, tutorial, and motivational team-building activities, with 40 per cent of the time devoted to teaching the AVID curriculum, 40 per cent to tutorials, and 20 per cent to motivational activities. AVID motivational activities include field trips to PSE institutions and guest speakers.

According to Support and Feedback reports compiled by the AVID project leader, pilot sites have been committed to full implementation of the BC AVID program. AVID staff scheduled year-long AVID elective classes within the school timetable in order for students to access the BC AVID program readily (with two exceptions²⁷), and AVID classes have been fully enrolled. However, as shown by AVID MIS data, while BC staff implemented AVID curriculum classes, tutorial classes, and motivational activities, they have not been able to maintain the recommended balance of activities. Overall, BC schools have had proportionately more AVID curriculum time and less tutorial time than recommended by the AVID Center. The following section discusses the efforts of BC AVID staff to schedule the AVID elective to meet this AVID Essential while working within the complexities and restrictions of the BC school timetable.

Scheduling the AVID Elective

According to BC staff, scheduling the AVID elective class has been an ongoing difficulty, in part due to the nature of the BC school timetable and course offerings and in part due to the demands of the AVID program, including the need to schedule tutors for tutorial classes. In the majority of BC sites, the school year is divided into two distinct semesters. Electives typically run in one or the other semester. The AVID program, however, requires AVID classes to be held throughout the school year. School staff found various ways to meet the challenge of scheduling AVID. Most frequently, they placed AVID in the timetable as a "linear" course occurring every second day throughout the entire school year, resulting in AVID being scheduled on different days of the week.

In addition to the linear and semester-related aspects of timetabling, many BC schools have a rotating timetable where the same class meets on different days and times during the school week. In this way, no one course gets preferential placement in the school timetable and each course receives a balance of the more and less desirable time slots in the schedule. Whatever its merits, such a timetable makes it difficult for outsiders, such as potential AVID tutors attending post-secondary institutions, to work with an AVID class on a regular basis. For that reason, the timetable made the already difficult task of finding AVID tutors even more challenging.²⁸

24 See Chapter 3 for a discussion of participation over time, including student departures from the AVID class.

25 The new students added to the research classes provided stability for schools in terms of providing a viable class size: their attendance in AVID classes was recorded in order to understand the overall dynamic and size of AVID classes. However, as non-research participants, they were not required to complete student surveys, nor were their courses or grades recorded.

26 AVID staff sometimes joined students from two or more grade levels into a single merged-grade AVID class (combining, for example, Grade 10 and Grade 11 AVID students into a single elective class).

27 The only exception to the AVID elective class being scheduled within the regular school timetable occurred at one site during the first year of BC AVID implementation; all other scheduling has occurred exclusively within the regular school timetable. The only exception to year-long classes occurred at one site where Grade 11 students attended AVID classes during one semester only.

28 See Chapter 4 for a detailed discussion of BC AVID tutoring.

The AVID Center recommends that AVID classes be held every day within the regular school timetable for the entire school year. This works well for many U.S. schools that have a timetable in which students attend classes on a daily basis. According to the AVID Center, U.S. AVID students typically attend six or seven classes per day throughout the year, averaging approximately 150 hours of AVID class time during a school year.²⁹ However, due to the nature of the BC school timetable, the average amount of AVID class time for BC students is less than that of many U.S. AVID students. The BC school timetable is based on a system in which students attend fewer classes per day but of longer duration. They attend a class either for one semester of the school year only (semester system) or every other day for the entire school year (linear system). Since Essential 3 requires that

AVID be a year-long course, BC AVID elective classes were more frequently scheduled on the linear system. In both the semester and linear systems, BC students typically attend eight courses per year. In the end, the average number of hours available per school year for BC AVID classes is about 116, considerably less than the AVID Center's estimate of 150 hours.³⁰ Although the actual number of annual hours among BC AVID classes is higher than this estimate (due to the additional time for field trips), the number still falls short of the class time recommended by the AVID Center. Indeed, the design of the BC school timetable may make it impossible for BC schools to provide the amount of class time recommended by the AVID Center. Text Box 2.2 outlines the scheduling of BC AVID elective classes.

Text Box 2.2: Scheduling the AVID Elective Class at BC AVID Pilot Sites

BC schools use two main types of timetables for scheduling classes: a semester timetable and/or a linear timetable. In addition, many BC schools use a rotating block, rather than a fixed block schedule. Most schools require students to take eight courses per year and organize the timetable to provide four classes of approximately 75–80 minutes per day. The main components of each type of timetable are described below, along with a summary of the timetables used at BC AVID schools from grades 9 to 11:

- **Semester timetable**—a timetable configuration that is used in many BC high schools. Semester timetables run the same four courses every day for one semester. Typically schools require students to take four courses each semester for a total of eight courses per year. Semester 1 runs from September to January and Semester 2 runs from February to June.

- **Linear timetable**—a timetable configuration that is used in many BC middle schools and high schools. Linear timetables run the same courses year long (both semesters) using a Day 1/Day 2 system where the courses occur every second day for the entire school year.

It is possible to schedule a school timetable that combines linear and semester formats. To run a linear course in a semester timetable format requires linking two classes (such as AVID and English) and having the classes meet every other day for both semesters (so students could have either English or AVID each day all year).

- **Block**—an individual period in the school timetable into which a course is scheduled; most BC high schools have four blocks per day averaging 75–80 minutes per block.
- **Rotating block timetable**—a system for scheduling the course blocks in a school timetable so that the blocks rotate through all time slots in the timetable. Rotating block timetables are common in BC high schools.
- **Fixed block timetable**—a system for scheduling the course blocks in a school timetable so that the blocks occur at the same time each day; also referred to as “static” block.

BC AVID schools scheduled their timetables for Grade 9–11 as follows:

- 13 schools had a **semester** system for most academic subjects (two semesters per school year), with the **AVID elective** operating on a year-long **linear** schedule in which AVID occurred every second day;
- 5 schools had a **linear** system for all (or most) subjects;
- 2 schools had a **linear** system for all subjects for grades 9–10 and switched to a **semester** system for Grade 11 (while **AVID** remained **linear**);
- 1 school had a **linear** system for Grade 9 and switched to a **semester** system for grades 10–11 (while **AVID** remained **linear**);
- 10 schools had a **rotating block** system from grades 9–11; 9 schools had a **fixed block** system for grades 9–11; and 2 schools had a **rotating** system but put **AVID** in a **static block** for grades 10–11.

²⁹ Typically, U.S. AVID schools with a six- or seven-period daily schedule average 150 hours per school year based on a standard of nine months of school per year, with four weeks per month, a five-day week, and 50 minutes of AVID class time per day ($9 \times 4 \times 5 \times 50 / 60 = 150$). This type of schedule typically has the same classes each day at the same time.

³⁰ A BC linear class with 75–80 minutes of class time would average about 112 to 120 hours per year. The average class time reported by BC AVID schools for curriculum, tutorial, and special presentation classes (those held within the regular class time in the timetable) was less than that: 107.9 hours per year overall for Grade 9–11 (101.4 hours for Grade 9; 110.1 hours for Grade 10; and 112.5 hours for Grade 11). When the time for field trips is included, the total average number of hours reported for BC AVID classes was greater than that although still less than the amount recommended by the AVID Center: 126.6 hours per year overall for Grade 9–11 (123.3 hours for Grade 9, 129.2 hours for Grade 10, and 127.1 hours for Grade 11).

BC AVID staff faced other issues when scheduling the AVID elective class. First, in a few schools, it was possible to exempt AVID from the rotating timetable by according it “priority” status and placing it in one of the few available fixed or “static” blocks in the timetable. This caused difficulties with other staff who saw this practice as unfairly giving the AVID class preferential treatment compared to other courses or programs. Second, as students progressed from Grade 10 to Grade 11, scheduling students into both their preferred academic courses as well as the AVID elective became more difficult, particularly when both AVID and the academic elective occurred at the same time in the timetable. This was more common in smaller schools where there were fewer course options.³¹ Third, BC teachers also noted that a linear timetable creates problems for them in covering topics that require several consecutive classes to teach. Infrequent classes made it difficult to maintain continuity. At times, teachers would see their students for an AVID curriculum class only once in a week.

Since AVID classes occur every second day in a linear timetable, those schools with AVID scheduled as a linear course must schedule a second course to “back” AVID in the timetable. This other course is taught in the alternating time slots when the AVID class is not scheduled. Such “backing” can be difficult when most of a school’s courses are taught using the semester system. Some AVID teachers preferred having AVID backed in the timetable with another course that they themselves taught, as this allowed them to teach both AVID and the other subject in more flexible ways. For example, a teacher might have AVID backed with English and follow a schedule where they teach two weeks of AVID and then two weeks of English. Those AVID elective teachers who also taught English to the same group of AVID students indicated that this worked particularly well due to the overlap they perceived between the AVID and the English curricula.³²

AVID and Planning 10

Another challenge faced by BC staff concerned the overlap in curriculum between AVID and a course called Planning 10, which is mandatory for all BC students. Both courses include content on preparing students for post-secondary transitions such as decision making, education and career goals, future planning, health and financial well-being, time management, PSE entrance requirements, choosing a PSE institution, the PSE application process, and preparing a portfolio of work. In order to accommodate both Planning 10 and AVID requirements, BC AVID sites combined the two curricula for grades 10 and 11. Students typically received AVID 10 plus the first half of the Planning curriculum in Grade 10 and AVID 11 plus the second half of Planning in Grade 11. Students received credit for Planning 10 after completing the combined AVID-Planning curriculum at the end of Grade 11.³³

According to Support and Feedback reports, the large majority of sites developed and received approval for a Board/Authorities-Authorized (BAA) course that combined the Planning and AVID curricula, applied throughout Grade 10 and Grade 11, for the research cohorts.³⁴ Most sites merged the learning outcomes for AVID and Planning 10.³⁵ The majority of teachers reported that the integration of the two curricula worked well. In particular, they noted the overlap in curriculum concerning careers, financial planning, PSE access and requirements, and scholarships.

There did not appear to be any major concerns surrounding the Planning-AVID curriculum, although a few sites had to work around difficulties students experienced. Some staff commented that not receiving credit until the end of Grade 11 encouraged some students who might have left AVID earlier to remain in the AVID class until the end of Grade 11. However, not all students chose to remain in AVID until the end of Grade 11, which could prevent them from receiving credit for AVID and Planning 10 if they had only completed part of the Grade 10–11 AVID-Planning curriculum.

31 Some students had experienced similar scheduling difficulties earlier, such as those trying to accommodate French immersion courses alongside AVID.

32 See Chapter 4 for further discussion of this overlap in curricula.

33 A committee of AVID district and school staff reviewed the curricula for both Planning 10 and AVID 10–11 and developed an AVID/Planning curriculum to incorporate all important elements of both AVID and Planning for grades 10 and 11 that could then serve as a template for BC staff to use for their particular schools.

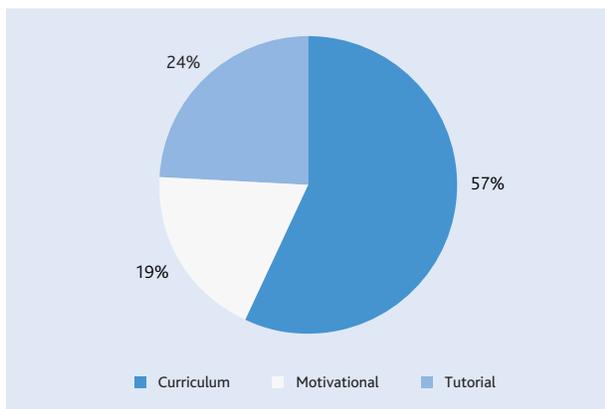
34 BC school boards offer Board/Authorities Authorized courses to meet local needs or interests; they must meet BC Ministry of Education requirements.

35 In the BC school system, learning outcomes refer to the learning goals for a set of curriculum.

Exposure to AVID Curriculum, Tutorial, and Motivational Activities

According to AVID MIS data, the proportion of time spent in BC AVID class activities varied from that recommended by the AVID Center. While the AVID Center recommends that the AVID elective class include approximately 40 per cent curriculum, 40 per cent tutorial, and 20 per cent motivational activities, Figure 2.1 shows that BC AVID included considerably more curriculum and considerably less tutorial time than expected: 57 per cent of class time was spent in curriculum activities, while only 24 per cent (just over half the recommended proportion of class time) was spent on tutorials. Motivational activities accounted for 19 per cent of BC AVID class time, similar to the proportion of time recommended by the AVID Center.³⁶ The results were similar between cohorts over the years. However, there were differences between random assignment and case study sites: while random assignment sites remained fairly constant in their distribution of curriculum, tutorial, and motivational activities between Grade 9 and Grade 11, case study sites gradually decreased the share of tutorial activity (from 24 per cent in Grade 9 to 16 per cent in Grade 11). In addition, case study sites reduced the share of curriculum class activity in Grade 11.

Figure 2.1: Share of BC AVID Class Activities, by Type of Activity (Cohorts 1 and 2)



Source: SRDC calculations using BC AVID class activities forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in random assignment sites.

There are 4 BC AVID elective classes in case study sites.

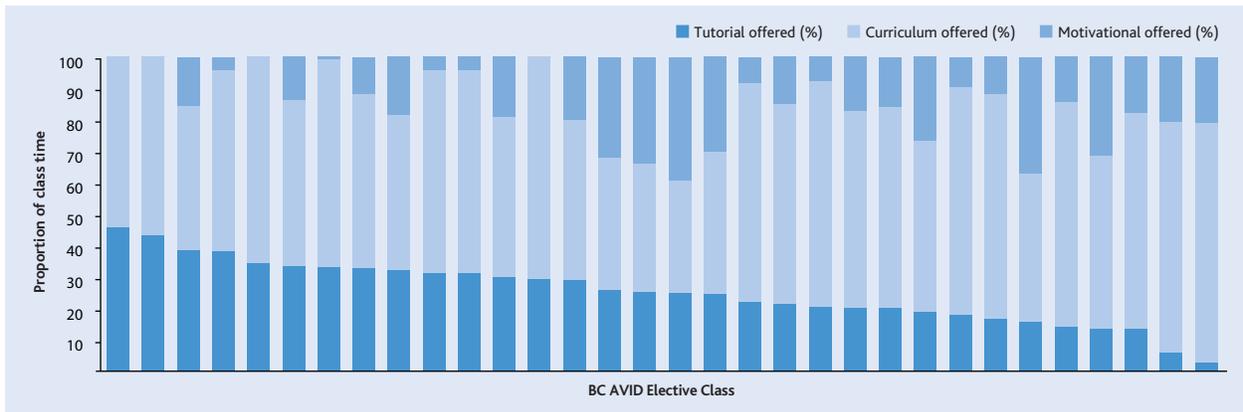
The duration of field trips is adjusted to 16 hours maximum per day.

There was considerable variation between the 32 classes delivering BC AVID in the proportion of time allotted to each class activity (curriculum, tutorial, and motivational) as shown in figures 2.2, 2.3, and 2.4:

- The range of tutorial time in BC AVID classes varied from 3.3 hours to 55.0 hours (Grade 9); 8.7 hours to 41.8 hours (Grade 10); and 6.0 hours to 52.0 hours (Grade 11). As a comparison, AVID-as-designed would expect 40 per cent of 150 hours of annual class time, or 60 hours of tutorials in total per year (see Chapter 1).
- Only one-third of Grade 9 and Grade 10 AVID classes and one quarter of Grade 11 classes received at least 75 per cent of the recommended proportion of tutorial time.
- The proportion of curriculum class time varied from 35.9 per cent to 76.1 per cent in Grade 9; from 40.6 per cent to 81.7 per cent in Grade 10; and 35.1 per cent to 85.1 per cent in Grade 11.
- The range of motivational activities varied greatly between AVID classes and increased over time: 31.3 per cent of Grade 9 classes, 40.6 per cent of Grade 10 classes, and 43.8 per cent of Grade 11 classes allocated at least 20 per cent of their time to motivational activities (the proportion recommended by the AVID Center).

³⁶ The motivational activities represented in these figures include field trips and special presentations to AVID classes (such as guest speakers discussing educational or career options). It does not include various team-building activities (which are also motivational activities) that often occurred within regular AVID curriculum classes for short periods of time. Therefore, the actual proportion of motivational activities is greater than shown here.

Figure 2.2: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 9



Source: SRDC calculations using BC AVID class activities forms collected from the pilot project sites.

The sample is limited to the first year of data collection for Cohort 1 (September 2005–June 2006) and Cohort 2 (September 2006–June 2007).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

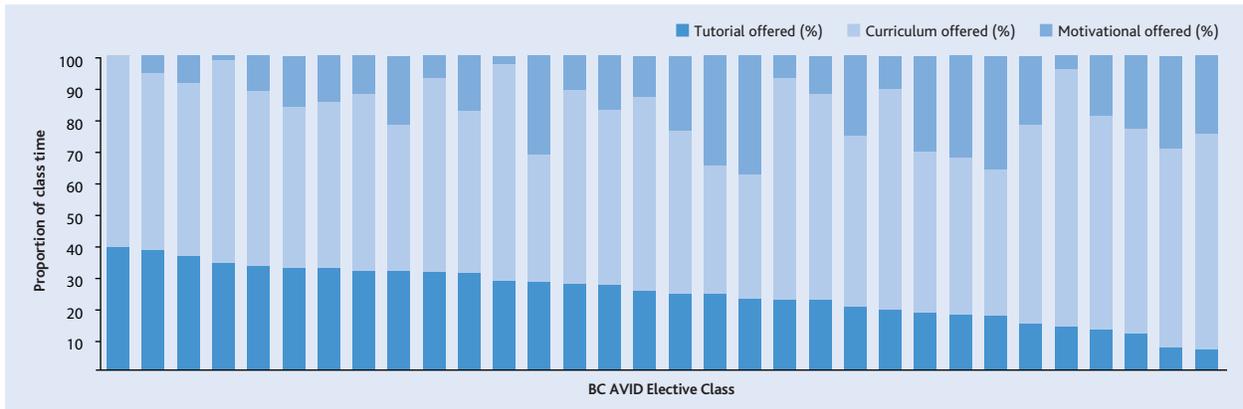
There are 28 BC AVID elective classes in random assignment sites.

There are 4 BC AVID elective classes in case study sites.

Motivational activities include field trips and special presentations only.

The duration of field trips is adjusted to 16 hours maximum per day.

Figure 2.3: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 10



Source: SRDC calculations using BC AVID class activities forms collected from the pilot project sites.

The sample is limited to the second year of data collection for Cohort 1 (September 2006–June 2007) and Cohort 2 (September 2007–June 2008).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

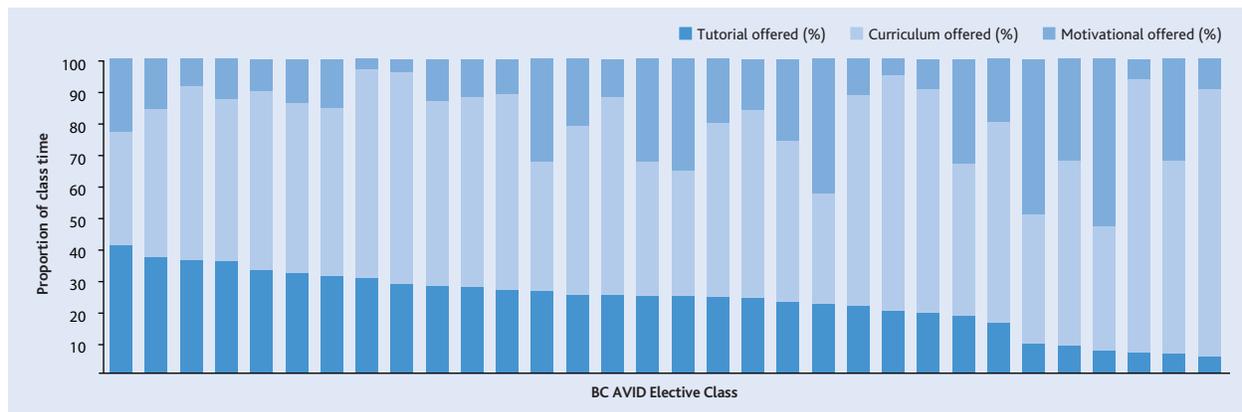
There are 28 BC AVID elective classes in random assignment sites.

There are 4 BC AVID elective classes in case study sites.

Motivational activities include field trips and special presentations only.

The duration of field trips is adjusted to 16 hours maximum per day.

Figure 2.4: Total Proportion of BC AVID Class Activities, by Type of Activity and Elective Class/Grade 11



Source: SRDC calculations using BC AVID class activities forms collected from the pilot project sites.

The sample is limited to the third year of data collection for Cohort 1 (September 2007–June 2008) and Cohort 2 (September 2008–June 2009).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in random assignment sites.

There are 4 BC AVID elective classes in case study sites.

Motivational activities include field trips and special presentations only.

The duration of field trips is adjusted to 16 hours maximum per day.

Due to their geographical remoteness, case study sites spent more time on motivational activities (such as visits to PSE institutions) than more centrally located random assignment sites. At both random assignment and case study sites, staff faced challenges in delivering tutorials to AVID students, including scheduling difficulties and lack of access to suitable tutors (particularly PSE tutors).³⁷

In summary, BC AVID staff had difficulty meeting all the requirements for AVID Essential 3. Nonetheless, they implemented year-long fully enrolled AVID classes within their regular school timetables between Grade 9 and Grade 11 (with one exception at the Grade 9 level and one at the Grade 11 level). This required considerable effort by staff and dedication to the program due to the complexities of BC school timetables. BC schools offered a variety of AVID curriculum, tutorial, and motivational activities as required by this Essential, but the distribution of time spent in each kind of activity in BC AVID included more curriculum and less tutorial time than recommended, with great variation between sites, some of which had very little tutorial time.

37 See Chapter 4 for further discussion of BC AVID curriculum, tutorial, and motivational activities.

ESSENTIAL 4: ENROLMENT IN A RIGOROUS CURRICULUM Defining Rigour

AVID Essential 4:
AVID students must be enrolled in a rigorous course of study that will enable them to meet requirements for university enrolment.

As discussed in Chapter 1, AVID is designed to support students' enrolment in a rigorous curriculum that meets university entrance requirements. To meet basic AVID certification standards, AVID schools must have 100 per cent of AVID students registered in courses that will enable them to meet requirements for university enrolment. By Grade 11, AVID students should be participating in the standardized testing that is an entrance requirement for university enrolment in the United States.

According to the Support and Feedback reports, more than two-thirds of AVID sites enrolled their AVID students in a rigorous curriculum based on AVID Center standards. At other sites, some AVID students were enrolled in courses the school did not consider rigorous by those standards. Some staff indicated that certain aspects of this Essential were not applicable to the BC school system or to the outcomes sought by BC AVID, which considers a broader range of PSE outcomes as "successful" than would the AVID Center.³⁸ As a result, BC staff interpreted "rigour" in different ways and struggled to find a balance between encouraging individual students to take rigorous courses and meeting what were perceived as their career needs. Another challenge for AVID staff occurred when their colleagues were reluctant to accept AVID students into a rigorous course if they did not believe that the student had sufficient ability to succeed in the course. In addition, some schools also faced difficulties in scheduling rigorous courses for AVID students, particularly by Grade 11.

Rigour is not precisely defined for BC AVID.³⁹ As a result, BC staff faced challenges meeting AVID requirements to enrol students in a rigorous set of courses. While BC staff were aware of the AVID Center's definition of academic rigour—that courses meet university entrance requirements—this did not align fully with the BC AVID definition of post-secondary education, which includes four streams of post-secondary programs: university, community college, private technical or vocational institute, or apprenticeship program. The level of rigour in the high school courses required to meet entrance requirements of any one of these programs varies considerably. Without a single clear definition of how to interpret rigour, BC staff developed their own interpretations of what this Essential implied and their interpretations varied.

At AVID Summer Institute training sessions attended by BC AVID staff and SRDC researchers, the question, "What is rigour?" was discussed and various definitions considered. For example, at a session for administrators and coordinators, rigour was described as helping students to develop the capacity to understand content that is complex, ambiguous, provocative, and personally or emotionally challenging. At another session for AVID teachers, the focus for examining rigour was on helping students to increase their reading comprehension to access a more rigorous curriculum. The Summer Institute sessions frequently placed an emphasis on rigour and preparing students for the level of rigorous coursework that they could expect at a college or university level.

For a variety of reasons, BC AVID teachers and counsellors were sometimes faced with conflicting information concerning the correct placement of students in rigorous courses. As already noted, Essential 4 requires students to be enrolled in courses that meet requirements for university enrolment, but this does not align well with BC AVID. Operationally in U.S. AVID, this has often assumed placing students in Advanced Placement (AP) or honours courses. However, BC schools do not use AP courses as extensively as U.S. schools do. In addition, BC AVID counsellors did not always attend AVID counsellor training at Summer Institutes (due to the lack of appropriate content for BC counsellors); they may not have had some of the background knowledge of the AVID program and, in particular, the focus on rigour. At the same time, some teachers could act as gatekeepers and prevent AVID students from enrolling in their courses if they considered the course too challenging for the student.

³⁸ See Chapter 1 for discussion of the differences between BC AVID and U.S. AVID. Essential 4 discussed here is one aspect of the variation between U.S. AVID and BC AVID.

³⁹ In Chapter 6, a precise definition of a "rigorous" course is adopted for research purposes. However, no precise definition was supplied to BC AVID sites.

Some staff questioned whether they should be encouraging students to take more rigorous courses if these courses were not required for the students' own PSE goals. If a less rigorous course met the student's PSE goals, they believed it could be in the students' best interests to take that course. While BC staff interpretations of rigour varied, they commonly included that the level of rigour should meet PSE requirements, even if those requirements varied depending on the type of PSE program.

BC staff often indicated that most of the regular academic courses that BC students took in high school were rigorous and met requirements for many types of PSE. These staff argued that it was not necessary for students to enrol in special courses such as the College Board's AP courses—promoted by the AVID Center—to ensure sufficient rigour, even for university enrolment. A district director commented:

The so-called "rigour" as the Americans would put it is a little bit less of an issue in the BC curriculum because we don't have streaming essentially. So if a person takes say, "Math 12," then they're taking the rigorous course. It doesn't need to be an AP course in order to be rigorous. So as much as possible... students would be taking the standard English 11, Social Studies 11, Math 11 kinds of curriculum.

Many staff noted that their schools encouraged or required AVID students to take the most rigorous courses that their school offered. This often included the school's regular academic courses, supplemented with one or more challenging courses such as an AP, honours, or enriched course. Staff offered varying comments about the levels of rigour in pre-AP or AP courses versus non-AP courses. An English teacher explained:

The learning outcomes are the same, but it's the academic rigour that's different. I mean the expectation is far higher for what you need to know, what your skill level should be, how you can read, what you can comprehend, the materials that you look at. You'll look at... materials... more in-depth... the rigour is just different.

According to several BC educators, the most difficult courses in grades 10 and 11 for many students are Principles of Mathematics 10 and Principles of Mathematics 11.

BC staff often indicated that it is important to consider what is rigorous for the particular student involved and noted that this varies from one student to the next. An AVID teacher commented:

The "rigorous" term, seems to be that... they have to be specific academic-based courses and it's funny, as an elective teacher, I don't think of it that way. I think a "rigorous" course could be an auto-shop course because there's lots of different dimensions to learn... I think sometimes "rigorous" only applies to Math, English, Science, the academic courses... I don't even look at what the term "rigorous" means any more... "Rigorous" from one student to another student can be totally different.

Encouragement to Take More Rigorous Courses

Many BC staff reported that they made an effort to ensure that AVID students were enrolled in rigorous courses during Grade 10 and Grade 11. Staff encouraged students to "keep the door open" with respect to their PSE options and often "pushed" students to challenge themselves, as recommended by the AVID Center. At BC AVID provincial conferences, site teams were encouraged to take AVID students to a level of academic achievement by the time they were due to graduate from high school where they had at least the option to go to university.

Staff at some sites indicated that they used their site team meetings to discuss the individual progress of AVID students and how to assist particular students who were struggling with difficult coursework. Solutions to this challenge have included arranging one-on-one regular tutoring or study sessions with the academic teacher. Some students have chosen to repeat particular academic courses in order to improve their marks.

Staff at a few sites reported difficulties with academic subject teachers refusing to accept some AVID students into their classes due to a student's poor earlier academic performance. As one teacher explained:

It's sometimes hard, because we may have this agenda that we think the kid can do it, but then, when we actually talk to the teacher, who has maybe taught them in past years, their attitude is, "No way..." Or "why would they take that?" So we have to encourage the kid and the teacher... In Math, it happens often... and we're pushing them. "Principles, stay in Principles. Come on." And the teacher's going, "No, they should be in Essentials." So I would say in Math it's happened in maybe four cases this year.

By Grade 11, some students expected to be able to opt out of rigorous academic requirements when they were not required for the student's PSE program of choice. Some staff explained that they allowed students to opt out of courses that were designed to meet university entrance requirements when the student demonstrated that other, less rigorous course(s) could meet their particular PSE entrance requirements, such as for a trade or apprenticeship program. A teacher and a counsellor gave these examples:

In Cohort 2, we have a boy who wants to go into the trades, so that is post-secondary. He doesn't have any interest in university; he stated that. So we're trying to get him into the math that he'll need to go to trades school and he's taking the courses that will benefit him for the trade.

It was because of this first cohort that we started to investigate. . . one [student] just said, "I don't need the language." "Why?" "You know, I'm going into the trades. I don't need the language" . . . And so then, we started to consider. . . does it make sense for him to have the language? And so, we started to look at the individuals and thought, okay. . . they've stayed with it. And is it worthwhile if they failed Spanish 10 that they have to go back and repeat Spanish 10 in order to have success in where they're going? Probably not. So, we started to look at trying to maintain the rigour but also allow students to show that they know what they need. They've done the research; they've done the homework. . . They've had to do some work to show that, "I'm making a conscious decision here that I don't need the second language."

Some BC staff commented that, while the Grade 10 curriculum is largely pre-determined and includes rigorous core academic subjects, their students can graduate quite easily without taking many rigorous courses at the Grade 11–12 level. They believe modest graduation requirements can work against their encouragement to AVID students to take the most rigorous courses. This will be a theme the evaluation returns to in the final report as it follows research participants through their Grade 12 year.

Results from the core sample of Grade 11 survey respondents indicate that students received only moderate encouragement at the classroom level to take rigorous courses and very little personal encouragement in this area. Less than half (46.8 per cent) of the core sample of AVID students said teachers often encouraged *their class* to take academically challenging courses (Table 2.4). Only a quarter of the core sample (26 per cent) reported that teachers and/or counsellors often encouraged him or her *personally* to take more challenging courses. AVID students from case study sites were more likely to report that their class received encouragement to enrol in challenging courses and were more likely to receive similar personal encouragement (Tables 2.5 and 2.6).

Table 2.4: BC AVID Teacher Advice to Student and Class to Take Challenging Courses, by Cohort

	Percentage reporting frequency of advice		
	Cohort 1	Cohort 2	All
Since you started Grade 9, how often have your teachers advised your class to take more difficult or academically challenging courses?			
Never/rarely	17.24	23.12	19.69
Sometimes	31.03	29.03	30.20
Often/very often	48.28	44.62	46.76
Since you started Grade 9, how often have your teachers and/or counsellors advised you personally to take more difficult or academically challenging courses?			
Never/rarely	32.95	38.71	35.35
Sometimes	35.25	34.95	35.12
Often/very often	27.97	23.12	25.95
Sample size	261	186	447

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2), who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2), and who also responded to the Grade 11 survey.

Table 2.5: BC AVID Teacher Advice to Student and Class to Take Challenging Courses, by Site Type

	Percentage reporting frequency of advice		
	Random Assignment	Case Study	All
Since you started Grade 9, how often have your teachers advised your class to take more difficult or academically challenging courses?			
Never/rarely	21.21	7.84	19.69
Sometimes	31.06	23.53	30.20
Often/very often	44.19	66.67	46.76
Since you started Grade 9, how often have your teachers and/or counsellors advised you personally to take more difficult or academically challenging courses?			
Never/rarely	36.36	27.45	35.35
Sometimes	36.11	27.45	35.12
Often/very often	23.99	41.18	25.95
Sample size	396	51	447

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2), who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2), and who also responded to the Grade 11 survey.

Table 2.6: BC AVID Student Experience of Teacher Advice on Challenging Courses, by Site Type

	Random Assignment	Case Study	Difference (standard error [s.e.])
Teachers often/very often advised class to take more difficult/academically challenging courses	44.19	66.67	-22.50 *** (7.36)
Teachers/counsellors often/very often advised student personally to take more difficult/academically challenging courses	23.99	41.18	-17.20 *** (6.49)
Sample size (total = 447)	396	51	

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2), who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2), and who also responded to the Grade 11 survey.

Two-tailed t-tests were applied to differences in characteristics between groups.

Statistical significance levels are indicated as follows: * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Scheduling Difficulties With Rigorous Courses

According to BC staff, encouraging AVID students to enrol in rigorous academic courses is most frequently carried out by the AVID counsellor with assistance from the AVID teacher. They believe that this is a very important step for AVID student success in the program and requires careful management. At the Grade 10 level, the majority of BC students' courses are pre-determined. However, at the Grade 11 level, when students choose between a variety of academic electives, students sometimes experienced scheduling conflicts that prevented them from taking both the AVID elective class and their chosen rigorous academic courses. A teacher commented:

We always seem to draw enough students into Grade 9 and 10, but by 11 and 12, that's where they really start focusing their elective choices to their post-secondary requirements. So now AVID is in competition with things like biology, chemistry, geography, history, Math 12, those kinds of things.

A few AVID teachers reported that some students dropped out of academic courses without their knowledge and this was a problem. They believe this was sometimes due to a lack of understanding of AVID requirements by staff new to BC AVID (such as a new counsellor).

Despite these difficulties, as will be seen in Chapter 6, many students who were offered AVID were enrolled in at least some university prerequisite courses, and AVID students were somewhat more likely to be enrolled in these courses than their comparison group counterparts.

ESSENTIAL 9: DATA-INFORMED DELIVERY

AVID Essential 9:

AVID program implementation and student progress must be monitored through the AVID Center Data System, and results must be analyzed to ensure success.

AVID Center Data Collection

AVID site teams are required to submit data to the AVID Center concerning their AVID program implementation and student progress. The AVID Center monitors the data through the AVID Center Data System. District directors frequently reported that one of their roles was to ensure that their site team submitted the required data to the AVID Center. According to the Support and Feedback reports, almost all BC AVID sites completed this requirement in a timely manner. In addition to submitting data to the AVID Center, site teams were responsible for the ongoing analysis of their data to ensure successful implementation of the AVID program. This Essential is intended to encourage site teams to improve their AVID program over time. This process is closely tied with the AVID certification procedures discussed under Essential 10. As described earlier, internal data were being used to inform the certification process.

A few BC staff indicated in interviews that they maintained additional internal data for use by their site team; for example, they might record AVID student course registration and marks to inform local decision making. Some district directors and teachers commented that they found it challenging to meet the expectations of their boards of education in providing proof of the effectiveness of the AVID program, as BC AVID Pilot Project research results would not be known for some time. Some school boards were reluctant to provide funding for further implementation of the AVID program without more proof of the program's effectiveness.

HOW BC AVID HAS BEEN MAINTAINED

This chapter has examined the BC AVID implementation of six of the eleven AVID Essentials (those that primarily focus on the administrative aspects of program implementation). Most BC sites have been able to meet basic requirements of most (though not all) AVID Essentials as outlined below:

- All BC sites had project funds available (Essential 10) and began implementation with staff trained and students recruited and selected: funding and resources have continued to be available. Staff at all pilot sites have participated in the AVID certification process. All but three project sites had certified status for each year of the project in which it was possible (or in all but one year). Three sites had two or more years in “affiliate” status.
- Maintaining a functioning site team has been a challenge for BC sites (Essential 11). Due to staff turnover, many sites have had to frequently recruit and train new staff. This has been difficult due to the extensive training required for new AVID staff. In addition, it has sometimes been difficult for site teams to maintain the same level of commitment to the program over time. Site teams have also had varying levels of success in maintaining administrative support for the program. Site teams have often not met as frequently as recommended. While the mentoring of students who have remained in the program appears to be relatively successful, the weight of that responsibility has largely fallen on the shoulders of AVID teachers, raising the question how long these staff members will be able to maintain this level of commitment.
- BC staff met the requirements of Essential 1 to recruit and select students in the academic middle with academic potential, although many staff have questioned the suitability of some students (in particular, they perceived a lack of sufficient motivation to succeed among many of their students).

- While BC sites have largely been committed to full implementation of the AVID program (Essential 3), they have had limited success in implementing the balance of AVID activities recommended by the AVID Center. In particular, the majority of sites have devoted insufficient time to AVID tutorials (an important component of the AVID program).
- Meeting AVID Essential 4 requirements for “rigour” has not only been difficult for sites to maintain for all AVID students, but some staff have also questioned the applicability of this Essential for many BC students due to the differences between U.S. AVID (with its requirement that students meet university entrance requirements) and BC AVID (that recognizes a variety of PSE outcomes as successful).
- As required by Essential 9, BC schools have submitted AVID program data to the AVID Center annually.

In summary, BC staff have worked diligently to implement the AVID program at their schools, a task that often required considerable effort to meet the requirements of the AVID Essentials. While they have not always met the AVID Center’s expectations on all of these Essentials, the programs appear to be recognizably “AVID.” The process and outcomes of implementation have varied across BC sites, likely because of differences between the U.S. and BC school systems and the demands of implementing a complex program. In many situations, staff have worked to create a viable alternative for the BC context, such as using a linear system for scheduling BC AVID classes and recruiting and training new AVID staff on an ongoing basis to meet program needs. Whether BC schools will consider the program as promoted by the AVID Center viable over the long term will be a question to examine in future research as Cohort 1 and 2 students move through Grade 12 and beyond.

3

Participation in BC AVID

Introduction

AVID Essential 2:

AVID program participants, both students and staff, must choose to participate in the AVID program.

All BC AVID schools met the basic requirement of Essential 2—AVID students and staff were all volunteers. The requirement that staff and students be volunteers, however, implies that they would be allowed to stop participating if they so chose. This chapter analyzes the participation of AVID students and AVID staff during implementation of the BC AVID program from the beginning of Grade 9 to the end of Grade 11.

First, the processes for students to become part of the AVID elective class and the school to maintain membership in the AVID class are reviewed, followed by a discussion of student departures from the AVID class.¹ AVID student expectations of the BC AVID program are discussed in order to provide context for the departures. Then student attendance in the elective class is considered, including estimates of the total duration of exposure to AVID. These are presented for both the program group students and a core group of students who remained in the AVID class through the study period. The chapter concludes with an examination of AVID staff participation. The recruitment and turnover of AVID staff—and AVID elective teachers in particular—are discussed. The workload of AVID teachers in implementing BC AVID and the importance of support from other staff are also reviewed.

¹ The word “departure” refers to students leaving the AVID class in which they have been enrolled. There are a number of reasons why a student offered a place in BC AVID might not stay in the class throughout his or her high school years. These reasons are discussed later in the chapter.



CHAPTER SUMMARY

- BC AVID project participants were recruited through a project-orchestrated process in the winter and spring of 2005 and the winter and spring of 2006. The procedures for maintaining AVID class membership outlined in the Operations Manual covered student departures from the class, additions to the class, and management of a waitlist for students who could enter the class when a vacancy arose.
- Approximately half of all students who were ever assigned to the AVID elective class had departed from the class by the end of their Grade 11 year; just over one-third had departed by the end of Grade 10. This includes students who were members of the AVID program group at the start of the project as well as students from the waitlist who joined the class later. Their departures included 56 per cent of Cohort 1 students and 45 per cent of Cohort 2 students.
- According to the BC AVID MIS data, the most frequent reason given for departures from the AVID class was to choose another elective: 48 per cent of students left the class for this reason. The second most common reason for departures was moving to a different school (29 per cent overall). According to staff, some BC AVID students experienced scheduling difficulties and chose another elective in place of AVID.
- The majority of schools had procedures in place to manage student departures from the AVID class. Procedures sometimes included meetings with the AVID teacher, student, parent, and possibly another AVID site team member such as the AVID counsellor or district director.
- BC AVID students who were registered in the AVID class (and had not departed from the class) attended class more than 90 per cent of the time between Grade 9 and Grade 11. The absentee rate varied by site type: case study sites experienced a higher absentee rate than random assignment sites throughout more than half of Grade 9 and all of grades 10 and 11.
- AVID staff indicated that the role of the AVID elective teacher included a heavy workload with a demanding time commitment. Some site team members helped in a variety of ways to lighten the workload of the AVID teachers.

- Approximately two-thirds of the AVID elective classes experienced turnover of their AVID elective teacher between grades 9 and 11. BC staff reported that the reasons for AVID elective teacher turnover included school transfers, staff leave, and teachers' choosing new roles. A change in elective teacher occurred at four sites as students moved from a middle or junior secondary school to a senior school. Staff turnover among other core site team members occurred for similar reasons.

STUDENT PARTICIPATION IN THE AVID ELECTIVE CLASS

Project participants became part of the BC AVID elective classes through a project-orchestrated recruitment and selection process (briefly described in chapters 1 and 2) undertaken when students were in Grade 8. The classes started in Grade 9 and their composition through to the end of Grade 11 is tracked here.² Although 901 project participants were initially assigned to the program group and offered a place in the class, a large number of these participants left the class over time. However, 56 participants from the waitlist group—supplemented at some sites by “additional students”³—joined the elective class at different times over the course of this reporting period. Overall, half (51.3 per cent) of the students who had ever been assigned to the class (who were either members of the program group or those assigned to the class from the waitlist group) had departed from the class by the end of June in Grade 11 (as seen in Table 3.3).

Becoming Part of the AVID Elective Class

As described in the previous chapter, at the start of the pilot project, the AVID Steering Committee developed procedures, including those for student recruitment and selection, to guide the implementation of BC AVID in the participating schools. BC AVID staff followed these procedures to recruit and select their AVID-eligible students, all of whom volunteered to become the project's research participants.⁴ The application and informed consent process was described in the Early Implementation Report and provides evidence of students' voluntary participation. Of the 1,522 Grade 8 students who signed consent forms to join the project, 59 per cent were offered a place in the program group and were scheduled to begin Grade 9 AVID in the following September; 11 per cent were placed on a waitlist for vacancies in the AVID class at their site (see Table 3.1). The program group is important to the evaluation of BC AVID because the outcomes of this group of students, all of whom were offered a place in the AVID class, will be compared to the outcomes of the comparison group, in order to assess the impact of the offer.

2 Both qualitative and quantitative data have been used to examine the participation of BC AVID students and BC AVID staff while implementing the program at 14 random assignment pilot sites and four case study sites. Quantitative data include AVID MIS data on attendance and departures, baseline survey data, and Grade 11 survey data using a core group of students representing long-term AVID exposure (n = 447). See Text Box 1.3 for more detail on data sources. Qualitative data include interviews with BC AVID staff and observations of AVID classes as well as Support and Feedback reports completed by the AVID project leader.

3 See Chapter 2 (Essential 1: Student Selection) for a discussion of the additional non-project students who were added to some BC AVID classes.

4 AVID staff at 14 random assignment sites recruited a total of 1,348 research participants during two recruitment periods (Cohort 1 in winter and spring 2005 and Cohort 2 in winter and spring 2006). This included 791 program group members, 454 comparison group members, and 103 students on a waitlist for the AVID elective class. Thirteen of 14 random assignment sites recruited two cohorts. AVID staff at four case study sites recruited a total of 174 students during the first year of recruitment. AVID staff at these sites assigned participants to either the AVID class (n = 110) or a waitlist (n = 64). Thus the total number of research participants recruited at both random assignment and case study sites was 1,522. While the total number of school cohorts was 31, there were 32 AVID classes as one cohort at a random assignment site had two AVID classes.

Table 3.1: Number of Students Recruited for the BC AVID Pilot Project

	RA sites		CS sites		All sites	
	Mean per site	Total	Mean per site	Total	Mean per site	Total
2005						
Program Group	31.8	445	27.5	110	30.8	555
Waitlist Group	6.1	86	16.0	64	8.3	150
Comparison Group	19.3	270			15.0	270
2006						
Program Group	26.6	346			26.6	346
Waitlist Group	1.3	17			1.3	17
Comparison Group	14.2	184			14.2	184
Both Cohorts						
Program Group	29.3	791	27.5	110	29.1	901
Waitlist Group	3.8	103	16.0	64	5.4	167
Comparison Group	16.8	454			14.6	454
Total number	1,348		174		1,522	

Source: SRDC calculations using baseline information.

RA = random assignment

CS = case study

BC AVID staff received the procedures for *maintaining* the AVID class (and additional training in following them) prior to the start of Grade 9 implementation in September 2005. These procedures are outlined below.

Maintaining AVID Student Participation and Attendance in Class

BC AVID staff were provided with guidelines for maintaining membership in the AVID class, which were intended to allow research requirements to be met while ensuring fairness to the students participating in the pilot project. The guidelines were also intended to ensure that participation in the BC AVID program was voluntary for both students and staff, as outlined in Essential 2. The guidelines for maintaining BC AVID class membership and data collection are summarized below:⁵

- Students who were recruited for BC AVID at the 18 participating pilot sites could choose to leave the class at any time. However, as recommended by the AVID Center, schools were encouraged to maintain student participation in the class as long as possible. Any departure from the AVID class should be a carefully considered decision by the student and school staff.
- School staff could create a vacancy in the AVID class at any time. When the school determined that there was a vacancy to be filled, staff were required to refer to the waitlist for that class.
- Before a student could be added to the AVID class from the waitlist, staff were to review the student's AVID eligibility. If, upon review, a student was no longer considered AVID eligible (for example, due to insufficient motivation, failing grades, or poor attendance at school), staff were to leave that student on the waitlist and consider the next student on the waitlist for admission to the class.
- BC AVID staff were required to submit data to SRDC, during four reporting periods each year, on AVID class activities, AVID student attendance, student departures from the AVID class, and adherence to procedures concerning the waitlist for each AVID class. These data form part of the AVID MIS (Text Box 1.3).

⁵ These guidelines are from the BC AVID Pilot Project Operations Manual (Chapter 5: Maintaining AVID Class Membership and Data Collection).

Class Additions

Most of the activity involving students moving from their school's waitlist into the AVID class took place during Grade 9. Between grades 9 and 11, 56 students moved from the waitlist into the AVID class. Of those 56 students, 48 (85.7 per cent) entered the class during Grade 9, and more than half of those students (26 of 48 students) entered the class by September 30 of Grade 9.

Program group students who departed from the AVID class were given the option to request reconsideration if they decided that they wanted to return to the class; if this happened, they would be placed on a lower priority section of the waitlist until there was a vacancy in the class.⁶ They could then return to the class providing they still met the requirements for AVID eligibility. Some program group students who left the class ($n = 23$) chose to be reconsidered and returned to the AVID class. More than two-thirds (67.1 per cent) of the 79 students who ever entered the AVID class from the waitlist (including both program group and initial waitlist students) entered the AVID class during Grade 9.

Student Attrition From the BC AVID Elective Class

Approximately half of the students who were ever assigned to the BC AVID elective class departed from the class by the end of Grade 11. Table 3.3 indicates that 43.6 per cent of program group students departed from the AVID class by the end of May of their Grade 11 year.⁷ By the end of the school year (June 30), just over half (51.7 per cent) of these students had chosen not to continue in BC AVID and had departed from the class. This included 55.9 per cent of Cohort 1 students and 45.1 per cent of Cohort 2 students (see Table 3.2).

Table 3.2 indicates that 18.4 per cent of program group students had departed from the AVID class by the end of Grade 9. An additional 15.8 per cent of program group students left the class between the end of Grade 9 and the end of Grade 10; and 18.6 per cent of program group students left the class between the end of Grade 10 and the end of Grade 11.⁸

Table 3.2: BC AVID Class Departures for Program Group Students Between Cohorts

	Program group students that ever departed					
	Number of ever departed			Percentage of ever departed		
	Cohort 1	Cohort 2	Total	Cohort 1	Cohort 2	Total
Departures from the AVID class between becoming a project participant and June 30 of Grade 11	310	156	466	55.9	45.1	51.7
Departures from AVID class between becoming a project participant and June 30 of Grade 9	108	58	166	19.5	16.8	18.4
Departures from AVID class between September 1 and June 30 of Grade 10	90	52	142	16.2	15.0	15.8
Departures from AVID class between September 1 and June 30 of Grade 11	119	49	168	21.4	14.2	18.6
Total expected class	555	346	901			

Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09). Expected class includes all BC AVID program group students that were expected to be in the BC AVID elective class.

There are 14 program group students that departed twice from the BC AVID elective class. The earlier departure date was used in the calculations of departures from the AVID class between becoming a project participant and June 30 of Grade 11.

Out of 14 program group students who departed twice, 4 students departed twice in the same grade and 10 students departed twice during different grades.

There is 1 student that departed twice during Grade 9. There are 2 students that departed twice in Grade 10. There is 1 student that departed twice during Grade 11. Ever departed calculations for Grade 9 include those departures from the AVID class between assignment to the AVID class and before any AVID exposure.

6 Waitlist students were considered for the AVID class in order of priority. High priority was given to program group students who were returning to the class following a departure due to medical reasons or a family move; students from the initial waitlist were then considered, followed by program group students requesting reconsideration for the AVID class.

7 In the analysis of the Grade 11 survey results, the "core sample" of students who had long-term exposure to AVID ($n = 447$) includes all program group and waitlist students who entered the class on or before September 30 of their Grade 9 year and did not depart that class before May 31 of their Grade 11 year. This allows for the inclusion of students who had entered the class from the waitlist by the end of the first month of Grade 9; it also includes all program group and waitlist students who remained in the class throughout the majority of their Grade 11 year (students who departed from the class at the end of Grade 11 departed on varying June dates.)

8 There were 14 program group students who departed from the AVID class more than once (in each case, the student left the class twice); 10 of those students departed in different school years. As a result of these multiple departures, the sum of percentages of annual departures from Grade 9–11 (52.8 per cent) exceeds the total percentage of departures by the end of Grade 11 (51.7 per cent).

Table 3.3 indicates that some students departed from the AVID class with little or no AVID exposure: 5.1 per cent of program group students left the AVID class by September 30 of their Grade 9 year, and 3.8 per cent of program group students left before having had any AVID exposure (that is, they left before attending an AVID class).

Table 3.3 also shows that the results were very similar when the 56 students from the initial waitlist who were assigned to the AVID class are included in the analysis. About half (51.3 per cent) of program group and waitlist students departed from the AVID class by the end of their Grade 11 year: 43.4 per cent had departed from the class by May 31 of Grade 11.

Table 3.3: BC AVID Class Departures for Program Group and Waitlist Students Between Random Assignment and Case Study Sites

	Program group students that ever departed						Program group & waitlist students that ever departed					
	Number of ever departed			Percentage of ever departed			Number of ever departed			Percentage of ever departed		
	RA	CS	Total	RA	CS	Total	RA	CS	Total	RA	CS	Total
Departures from the AVID class between becoming a project participant and June 30 of Grade 11	417	49	466	52.7	44.5	51.7	440	51	491	52.8	41.1	51.3
Departures from the AVID class between becoming a project participant and May 31 of Grade 11	344	49	393	43.5	44.5	43.6	364	51	415	43.7	41.1	43.4
Departures from the AVID class between becoming a project participant and September 30 of Grade 9	38	8	46	4.8	7.3	5.1	40	8	48	4.8	6.5	5.0
Departures from the AVID class between assignment to the AVID class and before any AVID exposure	29	5	34	3.7	4.5	3.8	30	5	35	3.6	4.0	3.7
Total expected class	791	110	901				833	124	957			

Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

RA = random assignment

CS = case study

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

Expected class includes all BC AVID program group students that were expected to be in the BC AVID elective class. This includes 35 students (30 in random assignment sites and 5 in case study sites) that were expected to be in the BC AVID elective class but were never exposed to AVID. Out of 35 students that were never exposed to AVID, 34 are program group students, and 1 is an initial waitlist student.

There are 14 program group students that departed twice from the BC AVID elective class. The earlier departure date was used in the calculations of departures from the AVID class between becoming a project participant and June 30 of Grade 11.

Out of 14 program group students who departed twice, 4 students departed twice in the same grade and 10 students departed twice during different grades.

There is 1 student that departed twice during Grade 9. There are 2 students that departed twice in Grade 10. There is 1 student that departed twice during Grade 11.

Ever departed calculations for Grade 9 include those departures from the AVID class between assignment to the AVID class and before any AVID exposure.

There is 1 student who was assigned at baseline to a case study site, departed from this site, but returned to a random assignment site.

Average Class Size

While the size of BC AVID classes dropped considerably between grades 9 and 11 due to attrition, it compared favourably with the average BC class size for part of that time. The average size of BC AVID classes was higher than the average BC Grade 9 class but lower than the BC average for Grade 11. Table 3.4 shows that the average class size for the

BC AVID elective classes varied from a high of 28 students in Grade 9, to 23 students in Grade 10, and 19 students in Grade 11. According to BC Ministry of Education statistics, the average class size among BC Grade 8–12 classes was 25.0 students in September 2005 (when Cohort 1 students were in Grade 9) and 24.4 students for the remainder of the Grade 9–11 time period for BC AVID classes (2006–09).⁹

Table 3.4: BC AVID Expected Class Membership on October 1, by Cohort and Grade

	Expected class membership (average) on October 1		
	Cohort 1	Cohort 2	All
Grade 9	29	25	28
Grade 10	24	21	23
Grade 11	19	18	19
Number of classes	19	13	32

Source: SRDC calculations using BC AVID departure and waitlist forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1. There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in random assignment sites. There are 4 BC AVID elective classes in case study sites.

Characteristics of Students Who Departed From the AVID Class

Table 3.5 shows that despite the high attrition rate, the proportion of male to female participants remained relatively constant. Cohort 1 students and students from random assignment sites were more likely to leave the AVID class,

particularly those from lower income families (less than \$60,000 annual income). Both random assignment and case study sites were more likely to retain their higher income students than their lower income students. Students' AVID eligibility scores do not appear to have had much bearing on attrition from either case study or random assignment sites.

Table 3.5: Characteristics of Students by Departure

	Never departed	Ever departed
Gender		
Male	48.4	51.7
Female	49.0	51.0
Total family income		
Less than 60 K \$	42.9	57.1
60 K \$ or more	54.3	45.7
Site type and total family income		
<i>Random Assignment</i>	47.2	52.8
Less than 60 K \$	41.5	58.5
60 K \$ or more	52.9	47.1
<i>Case Study</i>	58.9	41.1
Less than 60 K \$	53.7	46.3
60 K \$ or more	62.9	37.1
Cohort		
Cohort 1	45.2	54.8
Cohort 2	54.6	45.4
AVID eligibility score		
Less than median	47.2	52.8
Median or more	49.8	50.2
Sample size	957	

Source: SRDC calculations using baseline information and BC AVID departure forms collected from the pilot project sites.

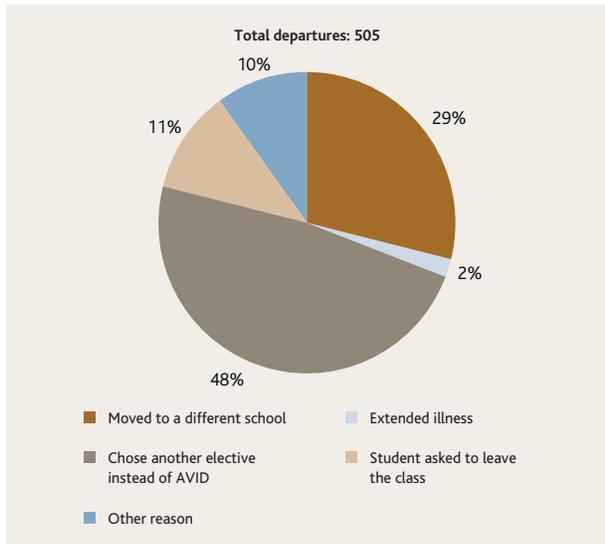
The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09). The AVID eligibility score was intended to indicate AVID suitability at the time of recruitment and selection (see Chapter 2), whereby more suitable students would have received higher scores.

Reasons for Student Departures From the AVID Class

BC AVID students departed from the AVID elective class for a variety of reasons, including choosing another elective, moving, and being asked by staff to leave. According to AVID MIS data, the most frequent reason for both Cohort 1 and 2 students to leave the AVID class was in order to choose another elective instead of AVID: 47.7 per cent of students left for this reason—43.5 per cent of Cohort 1 and 56.3 per cent of Cohort 2. Students chose a variety of academic and non-academic courses in place of the AVID elective. The second

most common reason for student departures from the AVID class for both cohorts was moving to a different school (29 per cent). The third most frequent reason for departures was students being asked by the school to leave the class: 11.7 per cent of AVID students were asked to leave the AVID class, with disproportionately more from Cohort 1 than Cohort 2 (14.5 and 6.0 per cent, respectively). This section discusses some of the reasons that led to student departures from the AVID class from the perspective of AVID staff.

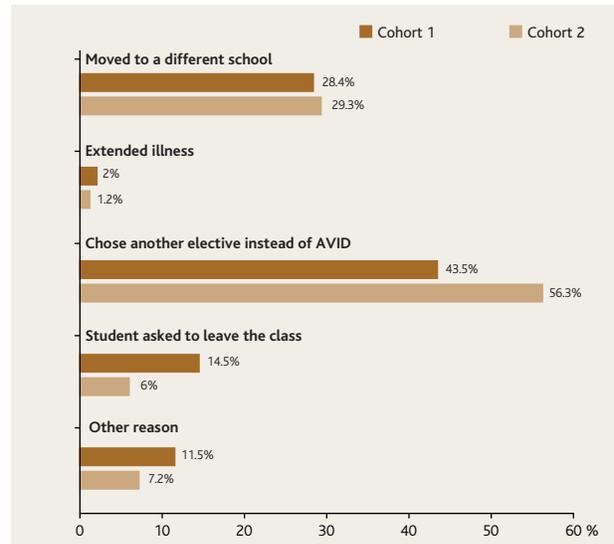
Figure 3.1: Proportion of BC AVID Departures (Cohorts 1 and 2)



Source: SRDC calculations using BC AVID departure forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

Figure 3.2: Proportion of BC AVID Departures Between Cohorts



Source: SRDC calculations using BC AVID departure forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

According to BC AVID staff, there were a variety of reasons students chose another elective in place of the AVID class. For some students, AVID was not what they had expected or they did not like the level of work required. For example, some were resistant to the amount of repetition required to adopt AVID strategies. Some students found the transition from a junior- to senior-level school very difficult and did not always continue with AVID at their new school. Many students expected, in addition to taking the AVID elective, to be able to take other electives that were important to them as a matter of personal interest or in connection with their future plans. However, scheduling difficulties sometimes meant that students could not fit both into their timetable.

Scheduling difficulties accounted for many student departures. Compared with urban high schools in the United States, BC AVID schools have relatively small student populations. Staff often indicated that smaller schools offer a narrower range of elective options, which makes scheduling students into their preferred courses very difficult. Students were not always able to fit into their timetable both the AVID elective as well as the academic courses that they required for graduation or as post-secondary prerequisites; in addition, students sometimes chose another non-academic elective in place of the AVID elective.¹⁰ While there were specific academic courses at the Grade 10 level that were required for high school graduation (and the school timetable could be set up to accommodate both these required courses as well as the AVID elective), at the Grade 11 level students needed to choose among academic electives. In some cases, where AVID occurred in the timetable at the same time as an academic course that was important to the student, students chose the other course in place of AVID. Such students were therefore in a position of having to choose between AVID and a required academic course at a time when the extra support provided by AVID (in particular, AVID tutorials) might have made an important difference to their academic success. This highlights one of the major challenges to the viability of the BC AVID program in grades 11 and 12.

Staff indicated that the most frequent reason for students being asked to leave the AVID class was for disciplinary reasons.¹¹ When a student did not meet the expectations of the program over a period of time (perhaps because of inappropriate classroom behaviour or lack of attendance in class), staff asked the student to leave. As discussed below, AVID staff had procedures in place to manage such departures from the AVID class.

School Procedures for Students Leaving the AVID Class

Based on the Support and Feedback reports as well as interviews with BC staff, the majority of schools had procedures in place to manage student departures from the AVID class. Procedures sometimes included meetings (with the AVID teacher, student, parent, and possibly another AVID educator such as the AVID counsellor or district director) and a probationary period (during which the student may or may not have attended the AVID class). At some sites, where students left the AVID class without the knowledge of the AVID teacher, staff became aware of the need to “tighten” procedures for student departures and attempted to do so.

Some AVID teachers indicated that following student departures, where the student left the class at the school’s request and due to disciplinary reasons, the AVID experience of both the teacher and other students improved. Staff reported that where scheduling difficulties were the reason for student departure, the student frequently expressed disappointment that he or she could not take both AVID and the other course. This was particularly evident at the Grade 11 level when students chose academic electives to meet graduation requirements.

Student Expectations of BC AVID

BC AVID staff were often well-positioned to understand the reasons behind the high rate of student attrition from the AVID class.¹² During in-depth interviews, they shared their interpretations of the reasons students left the class. They reported that many students found that AVID was not what they had expected. They also shared their understanding of how their students had responded to BC AVID and these insights help to explain much of the student attrition.

Many staff believed that several of their students did not have realistic expectations concerning their participation in BC AVID. For example, they did not anticipate the amount of work required or the time it would take to make the necessary changes to become more successful in school. At times, a student’s expectations resulted in difficulties and frustrations for both the student and the teacher involved. Working with students to move beyond those expectations was often a difficult process and required time and patience. At the same time, some staff commented on the positive changes they saw in students who persisted in BC AVID to the end of Grade 11. This section discusses attrition from BC AVID in light of student expectations and the difficulties both students and teachers faced arising from those expectations.

10 Academic courses may include math, sciences, social studies, English, and other languages, whereas the non-academic electives often include a variety of courses of general interest to the student but not required for graduation purposes (such as music, fine arts, or drama classes).

11 The BC Ministry of Education does not currently maintain a record of the rate at which or reasons for why students leave classes in which they have been registered. At this time, it is not known how student attrition from the AVID elective class compares with attrition from other classes.

12 As part of the BC AVID Pilot Project, SRDC will also collect information from students through focus groups to be undertaken in Grade 12 and surveys to be completed in Grade 12 and two years following Grade 12.

While most students expected to take the rigorous academic courses offered by their school, many BC AVID staff believed that their students frequently did not anticipate the amount of work required. During recruitment, BC AVID staff had made an effort to explain to students the requirements for hard work and improved study habits. However, many students (and, in some cases, their parents) did not fully understand some of the basic requirements of BC AVID. A counsellor commented on this lack of understanding, which proved to be a big challenge for their site team:

It's selective hearing, parents and kids hear. . . "AVID can eventually cause you to get better grades and go to college." They hear that. It's kind of like those exercise programs that say, "You can run a marathon if you do this." And all people hear is "I can run a marathon." They don't hear that you'll have to spend three years of pretty intense work before you can run that marathon. And same thing with AVID, "Well I'm going to university, great; I have to take Cornell Notes every freaking day, no." And that's the struggle. . . keeping them paying attention on a day-to-day basis to what you have to do to make AVID work for you. . . getting people to develop those habits, which are not natural to them. That's the major struggle; that's the major topic of school-based teams with individual kids who just don't want to do it anymore.

Another counsellor pointed out the lengthy time commitment involved with BC AVID and the improbability that this type of commitment could be kept by many adults, let alone adolescent students:

A student going into a Grade 9 class and sticking in till Grade 12, it's a huge commitment. I mean, I would venture that adults would have a tough time doing that, never mind kids that are 13, 14 years of age, through their adolescent years, and then in Grade 12, having the electives eliminated from their option list because they have to take an AVID course.

BC staff reported that student expectations changed over time as they gained more experience. For example, one counsellor described how the counselling focus changed between grades 9 and 11 in order to accommodate the changes students go through in BC AVID:

When the students are entered into Grade 9, I will see a number of students toward the end of October-November who are quite taken back by what AVID is, and it's not what they thought they were signing up for, and there will be a lot of dismay, "How do I get out of this?" And so there's a lot of conversations with the individual students; sometimes they come in as groups; and sometimes those meetings will then require me to meet with parents. . . With Grade 10s, we're still feeling some pangs of pain, but they're beginning to understand maybe the benefits of the study and of the tutorials. . . And so I think the benefit starts to show itself in Grade 10. . . And by Grade 11, the students. . . for the most part have come to terms with what AVID can provide.

Staff discussed the time and patience needed to allow students to make the necessary changes to succeed academically and in BC AVID. Some students had negative expectations of their capabilities or their ability to take on challenges, such as Advanced Placement courses, or to adapt to new ways of learning.¹³ A teacher commented:

My students see. . . the course label, and they panic. This is AP; I can't do that. They're just freaking out. I think there's a couple of kids who. . . could possibly face a challenge like that. Labelling the course itself "pre-AP," I'm not sure if that's a benefit.

¹³ Advanced Placement (AP) courses are college level courses run at some high schools across the United States and Canada. The intent is typically to provide more rigorous courses than already available.

Some students found that AVID did not meet their expectations concerning the AVID elective teacher or class procedures. For example:

- Some students expected to have the same teacher from Grade 9 to Grade 12 as was sometimes discussed at the time of recruitment.¹⁴ When there was a change in AVID teacher, requiring students to adapt to a new teacher and sometimes new classroom procedures, students sometimes felt “abandoned” by their teacher and by BC AVID.
- Students sometimes did not relate well to their AVID teacher and, in some cases, both the teacher and students struggled with the class. Site teams had to work to overcome these difficulties.
- Some students expected a remedial program rather than a program with high academic standards.
- Many students expected to be able to do homework in tutorial classes.
- Some students expected to have input on how the class was run.

Some staff noted that discussions with students about what was working in the program and what was not working helped to alleviate some of the frustration students were feeling.

Student Attendance in the AVID Elective Class

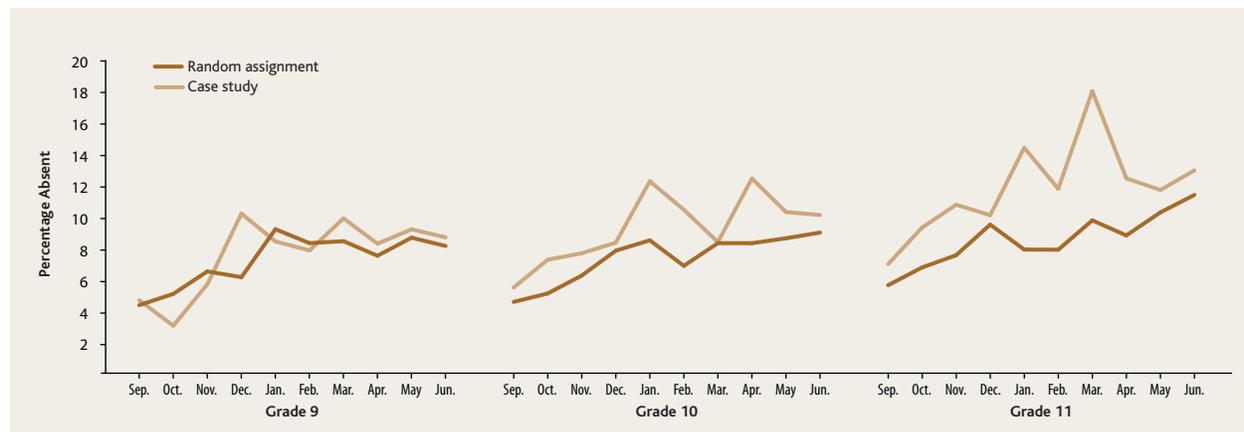
Students who were currently enrolled in the AVID elective class—those who had joined the class and had not left it for the reasons already noted—were expected to attend the class. However, as with any school class, day-to-day absences might occur. Because these absences would reduce participants’ exposure to AVID, data were collected to assess the extent of such absences.

Absences From the AVID Class

The BC AVID students who registered in the AVID class attended class more than 90 per cent of the time between Grade 9 and Grade 11.¹⁵ AVID students attended class more frequently at the start of each school year and absences increased gradually during the first few months of the school year in grades 9 and 10. During Grade 11, the absentee rate rose gradually in the first few months and continued to rise to the end of the school year.

Figure 3.3 shows how case study sites experienced a higher absentee rate than random assignment sites throughout the school year for over half of Grade 9 and for all of grades 10 and 11. This finding was more pronounced in Grade 11 when the case study site absentee rate rose to almost 18 per cent (17.9 per cent) while the random assignment site rate rose only to 11.3 per cent.

Figure 3.3: BC AVID Class Absences Over Time Between Random Assignment and Case Study Sites (Cohorts 1 and 2)



Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1. There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in random assignment sites. There are 4 BC AVID elective classes in case study sites.

¹⁴ Having the same AVID teacher for an AVID class throughout the program is not an AVID requirement. It is a recurring theme in AVID literature, however. In an interview with Education News in 2005, Swanson says, “In AVID one teacher is responsible for a group of students throughout their tenure in a school setting.” (Retrieved December 23, 2009, from <http://www.avidonline.org/content/pdf/2048.pdf/>.) Some pilot schools saw this continuity as preferable and discussed this with AVID applicants at the time of recruitment.

¹⁵ This includes students who were originally assigned to the program group as well as students who were assigned to the waitlist and later joined the AVID class. It does not include students after they had left the AVID class.

Also, among the 922 students who had ever attended an AVID class between grades 9 and 11, girls were disproportionately more likely to be absent 20 or more times.¹⁶ There are no data to determine how similar or different the above patterns of absences were compared to those in other types of class.

In summary, the evidence indicates that BC AVID student participation was voluntary; indeed, half of the students assigned to the AVID class chose to leave AVID by the end of Grade 11, the most frequent reason being to choose another elective. BC AVID students were recruited following procedures set out by the AVID Steering Committee with students participating in an informed consent process. BC AVID staff followed guidelines for maintaining AVID class membership, including when and how to fill vacancies in the AVID class. Students who were assigned to their school's waitlist were given the opportunity to enter the AVID class when vacancies occurred. There was a high attendance rate among AVID students while they were registered for the AVID class. Many BC staff believe that AVID students frequently did not have realistic expectations regarding the amount of work required to be successful in school and that this could have contributed to the 50 per cent attrition rate from the AVID class. According to staff, scheduling difficulties accounted for many students leaving AVID, particularly at the Grade 11 level where students often had to choose between a required academic elective and the AVID elective class. The small size of BC schools (relative to that of the large American schools where AVID originated) may challenge the viability of the BC AVID program, particularly at the senior levels.

Students' Cumulative Exposure to the AVID Elective

BC AVID students were unlikely to receive the level of AVID exposure expected by the AVID Center due to the nature of the BC school timetable and attrition. As discussed in Chapter 2, the AVID Center anticipates approximately 150 hours of AVID elective class time per school year. However, the BC school timetable makes it difficult for schools to meet this expectation. Figure A5.2 in Appendix 5 shows that only 15.7 per cent of core group students (those who remained in AVID until May 31 of their Grade 11 year), received more than 400 hours.¹⁷ Less than 10 per cent (8.9 per cent) of program group students received more than 400 hours of AVID (Figure A5.1), while more than a third of program group students (38.4 per cent) received 250 hours or less AVID program exposure (in part because many left the class during this period).

EDUCATORS' PARTICIPATION IN BC AVID

AVID Elective Teacher Participation

The AVID elective teacher plays a key role in the implementation of BC AVID: by teaching the AVID strategies to students; by mentoring AVID students; and by communicating with the AVID site team to ensure effective implementation of the AVID program (including curriculum, tutorial, and motivational activities). Many elective teachers also play an important coordinating role in program implementation. In order to fulfill these responsibilities, an elective teacher must be adequately trained and have a good understanding of the program. This section discusses the participation and experience of BC AVID elective teachers in the program: their recruitment, departures (staff turnover) resulting in the need for additional recruitment, their workload (in Text Box 3.2), and the staff support they received.

Recruitment of AVID Elective Teachers

The recruitment of AVID elective teachers followed a similar pattern from the start of the project to the end of Grade 11. BC AVID elective teachers for Grade 9 were often recruited for the position by a school administrator.¹⁸ At about half the sites, the administrator encouraged the teacher to apply, while at the other half of the sites a teacher expressed interest in becoming the AVID elective teacher after being provided with information about the AVID program. In about one-third of the research classes, the original Grade 9 AVID teacher continued to teach that class through to the end of Grade 11. At the remaining sites, the original AVID teacher left the program and other staff were recruited to teach the AVID 10 or AVID 11 classes. Some elective teachers were already teaching English or humanities; others came from other subject areas such as Planning 10, languages, math, science, physical education, music, and home economics. Staff recruited for grades 9, 10, and 11 elective classes often commented that a background in teaching English was very beneficial for teaching the AVID elective because of the overlap in curriculum. Many also spoke favourably about AVID strategies representing good teaching practices.

16 Of the 957 students who were ever assigned to the AVID class, 922 students attended at least one class. The other 3.8 per cent had no AVID exposure and are not included in this analysis. Absence is recorded for students expected to attend and does not include absence due to attrition.

17 Based on the AVID Center expectation of 150 hours (180 daily classes of 50 minutes each) of AVID exposure per school year, students would be expected to receive approximately 450 hours from Grade 9 to 11.

18 BC AVID Pilot Project: Early Implementation Report, 2008, p. 69.

AVID Elective Teacher Turnover

Approximately two-thirds of the BC AVID research classes experienced AVID teacher turnover during grades 9 to 11 (Text Box 3.1). That is, AVID students in about two-thirds of the AVID elective classes were taught by two or more different AVID teachers during this three-year time period. This posed challenges for BC site teams; AVID teachers were required to have attended AVID Summer Institute training, had to have had sufficient time to learn about program implementation, and had to be in a position to mentor AVID students.

BC staff reported that AVID elective teacher turnover occurred for a variety of reasons, including school transfers, staff leave, and the teacher's choice to take a different position. A change in the elective teacher occurred (almost inevitably) at four pilot sites as students moved from a middle or junior secondary school to a senior school. Some turnover was due to staff leave (such as maternity leave). Some staff left in order to take on new teaching or administrative positions at different schools.

Text Box 3.1: BC AVID Elective Teacher Turnover

There were 32 AVID elective classes of students in cohorts one and two for grades 9 to 11. Of those 32 AVID classes:

- 10 classes had one AVID elective teacher for Grade 9 to Grade 11;
- 8 classes had two AVID elective teachers for Grade 9 to Grade 11; and
- 14 classes had three or more AVID elective teachers for Grade 9 to Grade 11.

While the AVID Center does not require that an AVID elective teacher remains with the same cohort of students throughout the length of the AVID program, it does recommend that AVID teachers develop a strong mentoring relationship with students to better assist them in making difficult transitions. The elective teacher should provide the necessary support for students to take on the challenges of rigorous courses and improved study habits. Staff at some pilot sites informed students and parents at the time of student recruitment that the AVID elective teacher would remain with students throughout their time in the program. However, as noted above, this was not the experience at the majority of sites.

While AVID elective teachers should develop a strong mentoring relationship with students, the development of such relationships may have been undermined by the extent of teacher turnover that characterized BC AVID. Essential 2 requires AVID teachers to be volunteers; the teachers choose to participate and can choose to stop participating. However, AVID-as-designed assigns a role to AVID teachers that seems to imply a long-term relationship with the AVID students. According to the Support and Feedback reports, BC AVID staff at the majority of sites had a contingency plan to replace the AVID teacher if necessary. However, even with such planning, the challenges posed by high teacher turnover made effective program implementation difficult.

Text Box 3.2: The Workload of AVID Teachers

BC AVID teachers often indicated that they found their role as elective teacher (as outlined in Chapter 2) very intense and that it included a heavy workload with a demanding time commitment. They and other core members of the site team and district directors spoke of the danger of "burnout." Two AVID counsellors commented on the heavy workload, one from the perspective of the teacher needing to provide support for students and the other on the importance of providing support for the teacher:

"Any kind of support program requires a lot of one-on-one kind of help and support. I think that there is a huge workload for teachers. Most of our teachers have multiple subject areas that they teach and to prep and to mark, and the AVID class is only one in their seven block load. And I know that, ideally, it would be great to have an extra prep period for each AVID class... but that's too expensive."

"That kind of support system, the AVID site team supporting its own members is another achievement, because if you had to do this by yourself, you wouldn't. You couldn't survive; it's fairly stressful. Much more stressful than any other regular course, I think."

Staff pointed out that BC AVID work gets added to an already difficult workload. An AVID teacher and a district director commented:

"The elective teaching... is a very demanding role. Out of all my classes, it is by far the most demanding, and that's because you're involved with the kids at so many levels."

"Schools are incredibly busy places. Teachers are incredibly busy people, especially in high school. Demands are very high on teacher time."

The "burnout" of AVID elective teachers was not often explicitly named as a cause of their leaving the AVID class. However, staff generally recognized the potential for burnout of elective teachers and the need to provide them with support. While some AVID teachers spoke very positively about the support they received, other AVID teachers reported that it was difficult to get the assistance they required from the site team.

AVID Site Team Participation

Essential 2 requires that a process be in place to identify and select AVID site team members who choose to participate in the AVID program. As discussed in Chapter 2, site team members' roles included attending site team meetings and AVID events, recruiting and scheduling AVID tutors, providing updates on the progress of AVID students in their academic classes, and recruiting new students for BC AVID. This section tracks the participation of BC AVID site team staff. In particular, it examines the process for their recruitment and staff turnover.

Initial Recruitment of AVID Site Team Staff

The original recruitment of AVID site team staff occurred at around the time schools were selected as pilot sites and were preparing for early AVID training during the spring and summer of 2004. Teachers and administrators often discussed their application to participate in the project and, once their school was selected as a pilot site, administrators recruited interested teachers to be part of their site team and to take the Summer Institute training. School staff trained in a variety of AVID roles, including AVID administration, AVID coordination, and AVID "tutorology" (recruitment and training of AVID tutors), as well as subject areas such as science, math, and languages.

Turnover of AVID Site Team Members

As was true for AVID elective teachers, there was considerable turnover among site team members. Some BC schools found it difficult to maintain trained staff for key positions, including the AVID coordinator, AVID administrator, and (although not formally part of the site team) district director. To manage staff turnover and in an effort to expand team membership, schools had a process in place to continue to recruit and train additional AVID staff in subsequent years (as expected by Essential 2).

According to BC staff, the roles of district director and school principal were important for effective implementation of BC AVID as they provided necessary leadership. BC AVID schools experienced turnover for both positions (see Text Box 3.3). At some schools, the principal was also the AVID administrator for a period of time; however, the role of AVID administrator was more often occupied by a vice-principal. Even where the AVID administrator role was held by a vice-principal, some staff commented that it was important to have the principal's support for the program. While both senior and junior administrators carried out much of the initial site team recruitment, other AVID staff (such as AVID teachers, AVID coordinators, and district directors) often assisted administrators in subsequent recruitment. Site teams attempted to cover all required core team roles and subject areas. Communications concerning recruitment occurred by word-of-mouth or through school staff meetings.

Text Box 3.3: Turnover of Senior Staff From the Time of Recruitment to the End of Grade 11

Change in district directors: 18 of 31 school cohorts experienced no change in district director between recruitment and the end of Grade 11; 9 school cohorts experienced one change; and 4 school cohorts experienced two changes.

Change in principal at the school level: 17 of 31 school cohorts experienced one change in senior administration between the time of recruitment and the end of Grade 11; 10 school cohorts experienced two or more changes; and 4 school cohorts experienced no change.

The reasons given for the changes in staffing among AVID site team members were similar to those given for turnover among AVID elective teachers:

- The transfer of students from one school to another created the necessity for recruitment of an additional site team.¹⁹
- Some core AVID staff members such as coordinators or administrators left their school in order to take on administrative positions at another school.
- Some schools experienced staff lay-offs and, in some cases, site team staff were among those laid off.
- Some teachers or administrators had competing educational interests and left the site team in order to develop other interests.

VOLUNTARY PARTICIPATION IN AVID

This chapter has examined the implementation of AVID Essential 2, which requires that both staff and students choose to participate in the AVID program. All BC AVID schools met the basic requirement of this Essential; all BC AVID students and staff were volunteers. The requirement that staff and students be volunteers, however, implies that they be allowed to stop participating if they so choose. Approximately half of all BC AVID students had left the AVID elective class by the end of Grade 11. Approximately two-thirds of AVID classes experienced AVID teacher turnover (indeed 44 per cent of classes had three or more AVID elective teachers). Thirteen of 31 school cohorts (42 per cent) experienced a change in district director between Grade 9 and Grade 11.²⁰

BC staff followed the procedures, intended to ensure voluntary participation and fairness, set out by the AVID Steering Committee for the recruitment and selection of students and the maintenance of AVID classes. Schools also had a process in place to recruit and train new staff. However, because of the large amount of staff training required for new staff members and the high level of commitment to the program needed to implement BC AVID, the level of staff turnover challenged the ability of site teams to implement the AVID program effectively.

¹⁹ Students from four pilot sites transferred from a junior- to senior-level school between grades 9 and 11; students from two of those sites moved to a single senior school. These transfers required the recruitment of three additional AVID site teams. The students at a fifth pilot site moved from a junior campus to a senior campus of that school but this did not require the recruitment of an additional site team.

²⁰ See footnote 4 for an explanation of *school cohort*.

4

Implementing the AVID Elective

Introduction

The AVID elective class is the primary vehicle for the delivery of BC AVID. This course is structured into three main components: the curriculum class, tutorials, and motivational activities. This chapter describes the delivery of these components to students in the BC AVID Pilot Project from Grade 9 to Grade 11, each in its own section. Each section describes the nature of the component and the efforts of AVID elective teachers to implement the program as recommended by the AVID Center in its Implementation Guide and other documents. The accomplishments of AVID elective teachers during implementation of the program—as well as the challenges they faced—are documented here, using observations from SRDC staff, interviews with BC AVID school personnel,¹ as well as the responses of a subset of AVID students to the Grade 11 survey.

¹ Interviews were held with BC AVID elective teachers, AVID counsellors, tutor coordinators, and directors from each of the participating school districts (see Text Box 1.3).



CHAPTER SUMMARY

- **Implementation of the curriculum class portion of the AVID elective generally corresponded well to expectations.** BC AVID elective teachers implemented the WIC-R (Writing, Inquiry, Collaboration, and Reading) methodology extensively and with a high degree of diligence. Consistent with the program, they adapted the WIC-R curriculum—choosing certain techniques and activities over others—to meet their students' needs and to suit their own teaching styles.
- **Of the four WIC-R strategies, Writing was emphasized most and Reading least.** This appears to be due to the fact that the AVID Writing curriculum is relatively comprehensive and well organized, and that many AVID teachers felt reading activities outside the elective class were already extensive, often as part of existing school-wide literacy programs. While some teachers were aware that WIC-R strategies were not necessarily new—and were best taught in a holistic manner—they also noted that the AVID curriculum had helped them to structure and formalize good teaching practices.
- **Tutorials were generally difficult to implement.** There was wide variation in the number, duration, and frequency of tutorials among the 18 BC AVID school sites—a few schools had successful, well-resourced tutorial programs; however, most struggled to find enough tutors, and a few ended up with tutorials that did not resemble AVID-as-designed very closely. Overall, BC AVID students received only half the recommended hours of tutoring, because, although BC tutorials were slightly longer, they were held, on average, only 3.6 times per month (versus 8 in AVID-as-designed). The lack of tutors also meant that only 38.2 per cent of tutorials had the recommended ratio of at least one tutor per seven students.
- **BC AVID schools used creative means to overcome the challenges to implementing tutorials,** including on-line tutoring, using high school seniors as tutors, and adapting how tutorial questions were prepared. Many of the BC AVID tutorials that took place were consistent with AVID-as-designed in how they were organized and how they operated. AVID teachers and other staff were generally positive about the potential for learning that tutorials offered, even though few were observed to fully follow the student-led model in which tutors play a limited, facilitative role.
- **BC AVID schools offered a variety of motivational activities to their students in grades 9–11,** including team-building activities, guest speakers, field trips, and general encouragement for leadership, community-building, and enrolment in post-secondary education. Exceeding expectations, trips to post-secondary institutions were conducted even in the first year of implementation.

IMPLEMENTATION OF THE CURRICULUM CLASS

The core of the AVID curriculum class is the WIC-R (Writing, Inquiry, Collaboration, and Reading) methodology. For each of these strategies, the AVID Center provides extensive and detailed curricular resources to AVID elective teachers about the methods to be used in the classroom.² The relevant methods are often well-known and highly regarded approaches drawn from the pre-existing array of pedagogical techniques. For example, the "Socratic Seminar" is an important method recommended for teaching Inquiry, but is also in wide use outside of AVID.³ Moreover, the AVID curriculum—while detailed—is neither standardized nor prescriptive. A course outline and Daily Planning Guide map out the content of the AVID curriculum course, but teachers decide what aspects of the curriculum to focus on and what techniques to use, based on their training and professional development (received at AVID Summer Institutes and at regional meetings sponsored by BC AVID), their collaboration with other teachers, and their own experience and teaching style. In this respect, the implementation of the AVID curriculum class—in British Columbia and elsewhere—is subject to the same kinds of adaptations and variations that occur in the practical application of any educational model or program innovation. This next section explores how AVID elective teachers implemented—and adapted—the AVID curriculum class, in particular the WIC-R strategies that constitute the core curriculum.

2 The curriculum for the AVID elective is derived from three main documents: 1) *Strategies for Success*, which focuses on academic and personal skills such as organization and goal setting; 2) *Colleges and Careers*, which focuses on self-awareness and personal development as well as preparation for application to post-secondary education; and 3) *The Writing Curriculum*, which focuses on writing as a tool for effective learning. Together, these three documents are the backbone of the AVID elective class library, which also contains supplemental guides to using AVID techniques in other courses at AVID schools (Swanson *et al.*, 2004, p. 54).

3 Socratic Seminars are teacher- or student-led dialogues on a specific text that employ the widely known method of using constant questioning to explore a complex issue. Participants sit facing each other to encourage participation, and the seminar leader allows participants to develop their own interpretations of the text through interaction, rather than guiding them to a specific conclusion.

Writing Strategy

AVID Essential 5:

A strong, relevant writing and reading curriculum provides a basis for instruction in the AVID classroom.

The AVID writing program stresses different stages and types of writing that are intended to help students clarify and organize their thoughts and experiences, and to lead to greater understanding. Toward that goal, the AVID curriculum teaches specific writing-to-learn techniques such as Cornell Notes⁴, Learning Logs⁵, letter writing, and essays.

Interviews with BC AVID teachers indicated that most took a developmental approach to the implementation of the writing curriculum, meaning that they sought to build students' writing skills incrementally. In part, this is because the curriculum naturally focuses on fundamental skills before more sophisticated ones. In Grade 9, for example, much of the emphasis was on pre-writing activities (such as brainstorming and reflection) and note taking. AVID teachers saw Cornell Notes in particular as fundamental not just to the writing curriculum, but to developing organizational and study skills as well:

"I've spent a lot [of] time on note taking. I personally thought that that was the most important. . . So that has been a real push for me, to do your notes and have them organized and keep your binders organized."

In grades 10 and 11, however, AVID teachers—consistent with curriculum expectations—engaged students in a wider variety of writing activities, and taught them how to write for different purposes (emphasizing, for instance, the difference between creative writing and essay writing). When visiting AVID classes, SRDC researchers observed students engaged in a number of different writing forms, including poetry, autobiographical essays, and Quick Writes.⁶

Some teachers said they needed to alter the implementation of the writing curriculum to learn how it could best be used with their students. When asked about their first year of teaching AVID, many teachers said they found the curriculum and its associated resources "overwhelming" (Dunn *et al.*, 2008). In subsequent interviews, several teachers remarked that it had taken some time to realize that not all the activities in the writing curriculum had to be implemented, and that recommended timelines were often far too ambitious. By grades 10 and 11, some teachers felt they had a better understanding of the material and how it could best be used with their students, even if they felt they were not yet spending enough time explicitly teaching certain aspects.

Year One I found really difficult. Because I found that you have so much time focusing on. . . the fundamentals of the teaching, the Cornell Notes—which is writing. But that it was hard to focus on other writing areas, of teaching. . . the actual writing process. But then after the second year of the AVID Summer Institute, I found I was better prepared, because I came back with some more resources of different types of activities that are smaller, easier to implement: doing Quick Writes, doing revision activities, and things like that. It's still an area that I would like to improve even more. I'm finding I don't feel like I'm covering as much as what I would like to cover with the kids. So as I'm. . . continuing and getting more experience, I'm finding what works better in the class with those activities.

Not surprisingly, most teachers felt English was the subject area that overlapped most with the AVID writing curriculum, and those who had training or experience teaching English had an easier time with its implementation. These teachers said they felt very much at ease implementing AVID writing strategies because they were "common practice"; "a lot of things I would normally do in a regular English class anyway." Regardless of their specialization, however, most teachers praised the quality of the AVID writing curriculum, particularly in being structured and well laid-out: "I love the way they go about it. . . The way they scaffold ideas and concepts is so user-friendly. . . So the kids don't even know they're doing a five paragraph essay, because it's so much fun."

Not all teachers said their students were enthusiastic about writing, however. A few reported that their students "struggle" with writing, and that Cornell Notes and more formal writing such as essays were particularly unpopular. There were also concerns expressed about the need to make the curriculum more "Canadian":

I think one of the things that I've seen that is different here in Canada than the American model. . . is the emphasis on writing that the American AVID really promotes. And I've come to realize over the last three or four years that a lot of that is because they're dealing with kids who, it's either English as a second language, or like total lack of facility with the English language. . . I would lose the kids very quickly if I did as much writing activities in terms of essays, and. . . the big writing process things. . . AVID doesn't say, "You have to do them all." But to do five major writing projects a year, the kids would just tune out.

4 The AVID note-taking system is an adaptation of the sophisticated Cornell system, in which students take detailed notes from class lectures and texts in a wide right-hand margin, and develop clarifying ideas or questions on those notes in the left-hand margin (Swanson *et al.*, 2004, p. 92)

5 Learning Logs are a form of journaling, intended to help students process the work they do in class. In Learning Logs, students write answers to questions such as, "What did I learn today? What questions do I have about what I learned? What connections can I make to previous ideas or lessons?" (Swanson *et al.*, 2004, p. 101)

6 Quick Writes are timed writing exercises on a specific topic, aimed at helping students learn to write with ease.

In terms of students' experience of BC AVID, the Grade 11 survey responses of the core sample of AVID students (defined in Text Box 1.3) indicated that the AVID writing curriculum was implemented extensively across sites. For example, 85 per cent of the core sample said they often used some form of note taking and 74.1 per cent said they often used Cornell Notes.⁷ A substantial number said they often used specific note-taking techniques, such as only writing down the most important things the teacher says (73.6 per cent), and using notes to prepare for exams (71.4 per cent). However, they reported less frequent use of some other techniques closely associated with Cornell Notes such as correcting notes after class (16.3 per cent) and writing short summaries in their notes (23.5 per cent).

Roughly half the core sample of BC AVID students reported often using other writing techniques such as essay pre-writes, outlines, and, to a lesser extent, peer-reviewed drafts; a large majority reported at least occasional use. While most of these writing techniques are not unique to AVID, the consistency of the responses suggests these are being implemented in a comprehensive manner in the project. A technique that is particularly identifiable with the AVID curriculum—Quick Writes—was often used by 47.9 per cent of students.

Inquiry Strategy

AVID Essential 6:
Inquiry is used as a basis for instruction in the AVID classroom to promote critical thinking.

The AVID program is deliberately based on inquiry rather than lecture, *"because it is the process of posing and answering questions that teaches students to think."*⁸ A key concept is that levels of questioning correspond to a hierarchy of cognitive skills, such that increasingly complex types of questions correspond to higher levels of intellectual functioning.⁹

Virtually all BC AVID teachers said they emphasized Inquiry in grades 9 to 11 in order to develop their students' critical thinking skills, and Costa's three-level model was viewed as the fundamental concept in the Inquiry curriculum.¹⁰ While a few teachers viewed tutorials as the primary vehicle for implementing Inquiry, most described a more deliberate approach to teaching it, using a variety of techniques. These included creating posters based on different questioning styles, applying questions to fairy tales or to solve a murder mystery, and paired interviewing or "partner talks." Several teachers said they found Socratic Seminars and Philosophical

Chairs (or modified versions of these) to be particularly effective ways to teach Inquiry, and very popular with students—*"they really engage in that sort of thing"*—but also that these could be quite time consuming to implement.¹¹

BC AVID teachers said they had spent a great deal of time in Grade 9 teaching Costa's three levels of questions; by grades 10 and 11, the focus had generally shifted to helping students develop a better understanding of more complex questioning. As one elective teacher remarked, *"I've... tried to get people to understand that the purpose of questioning is not to arrive at an answer immediately but to understand more deeply and broadly."* Another noted, *"So what I want to do in the second part of the program is start getting them to apply some of the skills that they've got, and widening their understanding of what we call critical thinking skills."*

Teachers also noted a number of difficulties implementing the Inquiry curriculum. For example, there could be an inherent tension between adhering to the Inquiry methods—especially their emphasis on higher-level questions—and facilitating collaboration, confidence, and learning:

It becomes hard because if a kid asks a question, is my real focus to re-phrase it in a Costa level question, or run with the question and get as much out of it [as possible]? And I choose the latter... I look at the kids that I have, and you begin to see, "Okay, this kid has never come up with a Level Three or Two question so we're just going to deal with the question that's brought to the table."

Many teachers remarked that their Grade 10 and 11 students struggled to use Level Two and Three questions. In some cases, this challenge was attributed to the conceptual complexity of the Inquiry curriculum: *"... it's the... hardest one to kind of explain... [and]... it's probably the hardest one for them to actually get."* A few teachers ascribed their implementation challenges to a lack of motivation on the part of students, saying that students are often more accustomed to being given the answer to a question, and are at times reluctant to put in the extra work required to explore the question in more depth.

7 At several points in this chapter, the survey responses of the core sample of AVID students—those who were assigned to be in the AVID classes and who continued in the program through Grade 11—are used as another source of information about what went on in the AVID elective classes. Many questions asked respondents to report, on a five-point scale, how often they experienced a particular technique. To ease the exposition, the text uses the word "often" to refer to responses in the "often" or "very often" categories. Here, for example, 85.1 per cent of the core sample checked the "often" or "very often" categories in response to the note-taking question.

8 Swanson et al., 2004, p. 90.

9 Two models are recommended in the AVID curriculum, one by Arthur Costa, and the other by Benjamin Bloom. In Costa's three-part Model of Intellectual Functioning, Level One questions ask a student or reader to gather and recall information that can be found explicitly within a given text; Level Two questions ask for analysis or inference from what is implied in a text; and Level Three questions ask the reader to evaluate and apply information, deriving answers from his or her own prior knowledge or experience. See Costa, Arthur L. (1985). *Developing Minds: A Resource Book for Teaching Thinking*. Alexandria: Association for Supervision and Curriculum Development. Bloom's taxonomy, on the other hand, entails six levels of cognitive skills. See Bloom, Benjamin Samuel. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co. Inc.

10 Bloom's taxonomy is sometimes used as an alternative to Costa's Levels of Questions. BC AVID teachers preferred Costa to Bloom because it seemed to them to be much simpler and easier for students to understand.

11 Socratic Seminars employ the widely known method of using constant questioning to explore a complex issue. Philosophical Chairs are a kind of structured dialogue in which the discussion is organized using a modified debate format. It has specific ground rules (for example, each speaker must summarize what the previous speaker said) and students try to convince other participants to "join their side" of the debate.

One of the greatest challenges described by BC AVID teachers was to help students apply their inquiry skills to subject areas outside the AVID curriculum class:

It has been a very big challenge for them to come up with Level Two and Three questions. . . I've done the fairy tale with them: "Okay, think of a Level Two question for Little Red Riding Hood. Think of a Level Three question." Or I put objects in a paper bag: "Take out an object, write a Level Two question about it." If I do activities like that, they are excellent at Level Two and Three questions, no problem. We've done enough work on that and they get it. But it's writing Level Two and Three questions that are connected to your curriculum and your learning, your science, your social studies, your math. That is still a very big challenge for them, to take it to that next level and not just write sort of superficial questions.

A few teachers admitted that they, too, struggled with the Inquiry curriculum—"that was a whole new concept for me"—and that they strove to practise using in-depth, higher level questions in their own teaching: "the whole questioning thing is really hard"; "I'm not as good as I would like to be at asking those Level Two and Three questions. That's something I'm constantly working on." Some remarked that learning how to teach the Inquiry curriculum had improved their teaching in general: "the Inquiry [curriculum] has actually helped me become a better teacher, period."

Based on the survey responses of the core sample of AVID students, it is clear that the Inquiry curriculum received considerable attention in grades 9 to 11. An overwhelming proportion of students in this group (95.5 per cent) reported ever having been taught about different types of questions and 68.0 per cent reported having been often taught about Costa's Levels of Questions. Moreover, just over half (52.8 per cent) reported having often used Costa's levels in their notes or in class, primarily in English, social studies, and science classes. Many students (60.8 per cent) also reported having seen posters about Costa's levels in two or more of their classrooms.

Many AVID students reported having participated at least occasionally in Socratic Seminars and Philosophical Chairs. Overall, 67.1 per cent recalled ever having participated in Philosophical Chairs, with 40.7 per cent saying they had often done so.¹² Seventy-two per cent of students said they had participated in at least one Socratic Seminar and 45.4 per cent said they had often done so. Moreover, there appeared to be general adherence to specific techniques associated with these activities, such as students facing each other and the teacher not indicating an opinion about what was said.¹³ Nonetheless, substantial proportions of students at a few schools said they had never participated in either of these activities.

Collaboration Strategy

AVID Essential 7:

Collaboration is used as a basis for instruction in the AVID classroom.

According to the AVID Implementation Guide, "the stimulation and inherent creativity fostered by collaboration among students produces enthusiasm and a thirst for knowledge."¹⁴ BC AVID teachers were particularly enthusiastic about the Collaboration curriculum. As one elective teacher put it, "[It's] probably my favourite and their favourite" of the WIC-R strategies. Many of the activities used to teach collaboration involved either discussions or activities in groups, so once students had a chance to become accustomed to this approach, they seemed quite engaged and enthusiastic.¹⁵ Consequently, teachers generally found implementation of this strategy easier in grades 10 and 11 (in most cases) than it had been in Grade 9, or in comparison with other, more challenging WIC-R curricula.

As with Inquiry, teachers saw tutorials as an important vehicle for collaboration, but most used a wide variety of activities to teach collaboration skills in the curriculum class as well. Collaboration activities took place in a variety of formats—pairs, triads, small groups, teams, or large groups—and involved a wide range of learning processes. These included problem solving, discussion, reporting back to a larger group, presentations and public speaking, question and answer sessions or partner interviews, essay writing in small groups, peer editing of written work, group problem solving and cooperation to complete a task (e.g., building a structure), cooperative research and analysis, and organizing events. Collaboration activities were often strongly linked with other WIC-R strategies, particularly Inquiry (such as problem-solving activities) and Writing.

12 "Often" is defined here as three times or more.

13 However, students indicated in the survey that they had less often taken notes during Philosophical Chairs.

14 Swanson et al., 2004, p. 3.

15 Activities used to teach collaboration are closely linked with motivational activities (see below) and, in fact, several teachers did not distinguish between the two. However, most teachers associated motivational activities with games and activities to promote team building, while collaboration activities were generally viewed as those which involved the academic curriculum.

As this description of activities suggests, effective collaboration involves a varied and sophisticated set of skills and strategies, and BC AVID teachers took a comprehensive and deliberate approach to teaching these to their students. One district director remarked, “[the students] were really taught how to collaborate. . . in the classroom, and it wasn’t just, ‘You’re going to do this together, figure it out’ . . . The teachers really did use strategies to teach kids how to work together.” According to teachers, however, it wasn’t always easy to teach students that collaboration involves more than just sitting in groups:

You know, we call it group work, right? So what happens? Well, you sit with your best friend and that’s what you do. You do group work. Whatever that means, I don’t know. I’ve really focused in on the whole idea of, “No, this is not a group; this is a team. And as a team, you have a goal. And here’s what your team has to accomplish.” So I’ve . . . put a big emphasis on the team aspect of it, in that everybody has to do something. There’s nobody here for a free ride.

It’s not “collaborgab,” where [they] like to sit around and talk and they think they’re collaborating. Collaborating’s hard. . . having everybody be involved and take part. . . It’s not necessarily just, “You go off and do this piece and I’ll do that piece and then we’ll get together and put it together.” That’s not really what collaboration is. Collaboration goes beyond that. . . You’re working with others to a common goal. And it’s not necessarily always going to be a personal benefit to you.

According to teachers, not all students were enthusiastic about collaboration. Collaboration was seen as particularly challenging for students who were quieter or shyer than their peers; for others, it didn’t seem to match their learning styles or preferences. One teacher described her elective class this way: “This group in particular. . . will say, ‘I like working on my own.’ They really don’t like collaborating. They don’t like sharing their ideas, they don’t like doing any of these [activities]. . . They just absolutely refused to participate.”

A few teachers noted that in Grade 9, some students initially resisted working with others whom they didn’t know or like, and those who taught merged classes noted that students in different grades or from different feeder schools often did not mix with others on their own accord. As a result, many teachers made a point of strategically assigning people to teams or groups. As one elective teacher put it, “Sometimes I let them choose their groups. Sometimes I assign the groups, depending on what the activity is and what I want them to get out of it. Because they will always gravitate to their friends.” This strategy appears to have been successful; most teachers indicated that students’ resistance to collaboration had been overcome by grades 10 and 11. Several teachers echoed the following comment: “They are much more comfortable now working with anybody in a classroom than they were in Grade 9.”

BC AVID teachers also found they had to structure or modify some of the Collaboration curriculum to deal with disruptive behaviour from students; this was seen as stemming from students’ lack of focus, lack of maturity, or excessive “chattiness.” Assigned seating arrangements, worksheets, and close supervision were found to be effective means of handling the “distraction” of collaboration: “I’ve had to put them in a seating plan and limit kind of how much and how often we do collaborative activities, and figure out what. . . kinds of activities work best for them. . . , to keep them focused and on task.”

Such challenges to managing collaboration in the classroom were among the reasons a few teachers were initially “leery” about how effective collaboration would be for their AVID students. For many teachers, however, cooperative learning had long been part of their personal teaching style or practice: “My whole classroom I based on collaboration. My whole approach to education is based on collaboration”; “I’ve done that all my teaching career.”

Nevertheless, even those who were accustomed to using collaborative techniques indicated that either they were doing more of it since becoming part of BC AVID or that their approach had become more focused and structured as a result: “AVID just kind of re-focuses the whole idea of doing it more, I guess. And taking it into more activities, than what I would have done before”; “Now, after having been through AVID, I probably structure it more for. . . individual accountability within the collaboration. . .” Many teachers remarked that collaboration had become the norm or routine in their AVID elective classes: “the collaborative stuff is just kind of embedded in how we run the class now.” A couple of teachers even said their experience with AVID’s Collaboration curriculum had improved their teaching, making it “ten-fold better.”

Not only did implementation of the Collaboration curriculum generally become easier over time, but many BC AVID teachers also said that by Grade 11, they had started to see their students collaborating more effectively. Specifically, these teachers observed their AVID students being more supportive of each other, more inclined to work with different people, and more willing to take risks expressing their opinions and challenging each other. Moreover, a few BC AVID personnel said the AVID students’ collaboration skills compared favourably with others:

They do transition a little more efficiently, really, towards those things, because they are very used to working in groups, it seems. And I know other teachers in other classes have commented that the students who have been in AVID seem to work quite well in small groups and are quite efficient and they don’t spend as much time just having to figure out who can do what, and who’s good at this, and well, what part are you going to do. They sort of know that already.

Based on the responses of the core sample to the Grade 11 survey, it would seem that small group work was a predominant feature of AVID students' collaboration experiences. For example, 61.8 per cent of AVID students in the core sample said they had often worked in small groups. This seemed to occur in all classes in roughly the same proportions (except that small group work was less likely to occur in math classes). None of the questions on the survey asked about specific AVID collaboration techniques, but AVID students were twice as likely to report that group work was frequently done collaboratively as opposed to being divided up and done individually; 50.1 per cent said this often happened, while only 26 per cent said group work was often divided up.

Reading Strategy

According to BC AVID teachers, the R in WIC-R appears to have been the strategy that received the least attention in the BC AVID curriculum class, both initially and in grades 10 and 11. AVID elective teachers from a large number of sites said they had experienced difficulties with the Reading curriculum, and many remarked that it was the hardest one to implement or the "weakest" area of their program.

Commonly recommended techniques in the Reading curriculum include identifying and deconstructing different types of text, and active reading,¹⁶ as well as note taking, highlighting, and annotating. For AVID elective teachers who were also English teachers, AVID reading techniques were already well-known. One such teacher described many of the reading strategies from the AVID curriculum as part of her common practice: previewing a text and predicting its content, "and background knowledge, and teaching vocabulary, and just teaching the structure, the diction, the way things are written, and why they're written that way."

The perception that the BC AVID implementation of the Reading curriculum was relatively weak does not imply that AVID students did not read. In fact, most teachers said their students read frequently and that reading was an inherent part of many WIC-R activities used in the elective class. However, it seems many AVID teachers made a distinction—much as they had done with other elements of WIC-R—between reading in general and the more deliberate instruction of reading strategies as outlined in the AVID curriculum. Furthermore, many elective teachers felt they were not implementing the AVID Reading curriculum to the extent or in as structured or focused a manner as they would have liked: "I guess first of all I'd have to say I'm not sure I'm doing a strong Reading program"; "I almost feel that we dabble a little bit..." As another teacher put it, "I have very, very little opportunity to use a Reading curriculum. So... I haven't implemented a proper Reading curriculum, to be honest with you... There... was a reading component; however, it was not reading strategies, beyond literacy strategies that overlap with a Writing curriculum." In several cases, BC AVID teachers said their Grade 10 students in particular had received less reading instruction than planned or than they had in Grade 9.

Teachers offered a number of reasons for these implementation challenges. A few said they simply didn't see students often or long enough to teach reading strategies in any depth. For others, the timing of the AVID class (when it is scheduled as the last class of the day) sometimes meant that students had difficulty focusing on reading tasks. Others felt the demands of BC AVID were such that they had to prioritize some elements of WIC-R over others. Reading tended to be "the... one that's been on the losing end," either because it was not a focus of the BC curriculum in Grade 10, or because other skills were considered more in need of development, especially if reading was already being taught in a literacy program or an English class.¹⁷ "[With] the reading and the writing in particular, I know they're going to get very good development of that in the English class, so I think I can de-emphasize that in the AVID class and emphasize some of the other things that they will not get in English or in any other class."

The overlap in curricula with English meant a few BC AVID teachers were reluctant to spend a lot of time teaching reading: "I don't want to turn AVID into an entire second English class." One teacher said students felt the same way: "... they... seem to think they get enough of it in their English classes." As with writing, some teachers who had difficulty with the Reading curriculum attributed this to not having a background in English, whereas former or current English teachers were generally very comfortable with the curriculum.

A few teachers said they felt a responsibility to, at a minimum, teach students that reading can be pleasurable, particularly boys who don't see themselves as readers. Application of the reading strategies to other subject areas was seen as a long-term goal.

There was only one question on the Grade 11 survey about reading and the specific practice of providing opportunities to read without linking it to class work. Student responses indicate that this practice was implemented sporadically; 39.6 per cent said they had this opportunity occasionally, and a small proportion (12.3 per cent) had this opportunity on a regular basis (i.e., a few times per week). More than a quarter of respondents (27.1 per cent), however, reported never having had this opportunity.

WIC-R in General

In interviews, BC AVID teachers often discussed their experience with WIC-R as a whole. A number of them remarked that WIC-R strategies are integrated and overlapping, so implementation was often done (and done most successfully) in a holistic manner. Moreover, many said that very little is done in an elective class that does not involve all four aspects of WIC-R. As one elective teacher remarked, "If they're writing, they're likely reading, and if they're reading, there's some inquiry, and if they're doing that, then they're doing it with some other people and so... you get all four."

¹⁶ Techniques for active reading included "SQ3R" ("Survey, Question, Read, Recite, and Review" also known as "PQ5R": "Preview, Question, Read, Record, Recite, Review, Reflect") and "KWL" ("what I Know, what I Want to Learn, and what I Learned").

¹⁷ More than half of the BC AVID sites initiated school-wide literacy programs in the period covered by this report.

For some BC AVID teachers, WIC-R was “*nothing new*”: “*WIC-R has been part of most of the teaching practice that I’ve seen. Yeah. Forever. . . It just happens automatically, at least in my classes. And so. . . and virtually every class I see around here, teachers, that’s what they’re trying to do, is get the kids to inquire, work collaboratively, do some writing, you know.*”

But sometimes “what happens automatically” doesn’t necessarily entail explicit teaching of strategies in all four areas. It would appear that, for many AVID elective teachers, AVID has helped to structure and formalize their implementation of good teaching practice and make it routine.

Nevertheless, the high expectations of the “*very full*” AVID curriculum—not to mention teachers’ own expectations for themselves and the demands of being part of the research project—were perceived by many teachers as “*almost impossible*” to meet. The need to cover all four areas of WIC-R as well as the tutorials and motivational activities was seen as particularly challenging: “*What I find is that there’s so many different aspects to AVID, you know, with having guest speakers and field experiences and the tutorial and curriculum, that there’s almost kind of no time sometimes for making sure you’re WIC-Ring each day.*”

WIC-R Summary

Evidence from a variety of sources indicates that for AVID students in grades 9 to 11, the curriculum class portion of the AVID elective generally corresponded well to the expectations outlined in the AVID Implementation Guide. AVID elective teachers implemented the WIC-R methodology extensively and with a high degree of diligence, even though some—especially those who did not teach English—found certain WIC-R strategies easier to implement than others. In accordance with its non-prescriptive nature, BC AVID elective teachers adapted the WIC-R curriculum to meet their students’ needs and to suit their own teaching styles; in some cases, this meant delaying introduction of certain strategies (such as Collaboration) until students’ skills in other strategies were more developed.

A significant amount of effort seems to have been devoted to Writing strategies in particular, perhaps because this curriculum is the most highly elaborated component of WIC-R. In contrast, the Reading curriculum was reported to be the least developed, and to have been implemented in a less deliberate fashion in BC AVID schools, often as part of existing school-wide literacy initiatives. While some teachers indicated that WIC-R strategies were not necessarily new—and were best taught in a holistic manner—they also noted that the AVID curriculum had helped them to structure and formalize good teaching practices.

IMPLEMENTATION OF TUTORIALS

AVID Essential 8:

A sufficient number of tutors must be available in AVID elective class(es) to facilitate student access to a rigorous curriculum. Tutors should be students from colleges and universities and they must be trained to implement the methodologies used in AVID.

Tutorials—small groups of AVID students working together with a trained tutor—are a central element of AVID, along with the curriculum class just described and the motivational activities described next. Tutorials are intended to give students “an active learning experience” in which to practice Inquiry and Collaboration by discussing notes, clarifying concepts from lectures and reading assignments, reviewing for tests, and solving homework problems.¹⁸

Ideally, roughly 40 per cent of the AVID elective class time should be allocated to tutorials. Chapter 2 has already noted that the proportion of time devoted to tutorials in BC AVID was 24 per cent, and, as a result, BC AVID students received roughly half the hours of tutoring that the AVID Center recommends. As will be discussed, the primary reason for the relative paucity of tutorials in BC AVID schools was difficulty recruiting enough tutors and matching their schedules with those of the AVID elective classes. Many of the BC AVID tutorials that did take place displayed characteristics of the tutorials envisioned by AVID-as-designed, and AVID teachers and other staff were generally positive about the potential for learning that tutorials offered. Nevertheless, AVID staff routinely described tutorials as the most difficult aspect of BC AVID to implement, and observations by SRDC researchers indicated substantial variation in implementation, both in terms of adherence to AVID-as-designed and across the 18 sites.

The following section provides more detailed information about BC AVID tutorials and the tutors who led them. The material presented here pertains to how tutorials were implemented in BC AVID between 2005 and 2009, when students in the two research cohorts were in grades 9, 10, and 11. Much of the analysis for this section is based on interviews with AVID staff and on observations by SRDC, supplemented by administrative data provided by each of the participating schools. Responses from the core sample of Grade 11 survey respondents are also included.

18 Swanson et al., 2004, p. 120.

How Many Tutorials Were Held, How Often, and for How Long?

The AVID Implementation Guide recommends that tutorials should be held for periods of approximately 45–50 minutes, at least twice a week. Table 4.1 presents an overview of the number, duration, and frequency of AVID tutorials offered to students from grades 9 to 11 in all the elective classes at participating schools.^{19,20} It shows that BC AVID tutorials lasted, on average, 60.1 minutes—somewhat longer than the AVID recommendation. However, the mean number of tutorials offered each year was only 29.9; at an average of 3.6 tutorials per month, which is well below the AVID-as-designed recommendation of two times per week. The lower allocation of time to tutorials noted in Chapter 2, therefore, appears to have been a problem of frequency, not duration.

The most striking feature of BC AVID tutorials at this point in time, however, is their variability. This is seen in the substantial differences between the minimum and maximum values for all the characteristics in Table 4.1, and shows the difficulty of describing a “typical” tutorial. In some cases, this variability was due to scheduling idiosyncrasies such as consecutive class periods that were occasionally combined; in other cases, it was due to the fact that some elective classes were divided between curriculum class and tutorial. However, the substantial range in the number, duration, and frequency of tutorials also points to the fact that, while a few schools had active AVID tutorial programs, most faced significant implementation challenges that ultimately affected the amount of tutorial time offered to their AVID students.

Table 4.1: Overview of BC AVID Elective Class Tutorials by Grade (Cohorts 1 and 2)

	Grade 9	Grade 10	Grade 11	Grades 9–11
	all sites	all sites	all sites	all sites
Number of tutorials				
minimum	5	8	6	5
maximum	61	59	58	61
mean	30.6	30.7	28.4	29.9
Duration of tutorials (min)				
minimum	15	20	15	15
maximum	90	150	120	150
mean	60.0	59.6	60.8	60.1
Frequency of tutorials per month				
minimum	1	1	1	1
maximum	11	10	10	11
mean	3.7	3.5	3.4	3.6
Total Number of Tutorials	n = 978	983	910	2,871

Source: SRDC calculations using BC AVID class activities forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09). BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1 and 13 BC AVID elective classes in Cohort 2.

¹⁹ For each of these characteristics, minimum and maximum figures are presented to show variability among school sites. While medians are less sensitive to extreme values than means, in this case, the two do not differ substantially. Means are presented here for ease of comprehension.

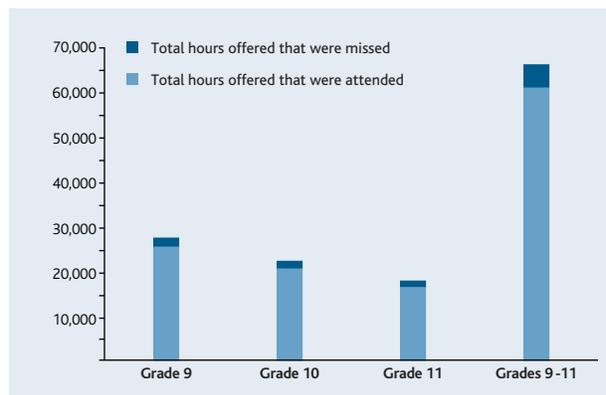
²⁰ To further improve the sensitivity of this analysis, calculations for Table 4.1 and subsequent figures have been based on the number of AVID elective classes at each site, since two schools had more than one AVID elective class in a single cohort involved in the pilot project.

Recruiting sufficient tutors was generally viewed as the primary challenge to implementing tutorials, but many BC AVID staff said that scheduling tutorials was almost as difficult. The challenges described in Chapter 2 on scheduling the AVID elective into a semestered timetable—especially one with rotating “blocks” or periods—were compounded by the fact that most schools attempted to alternate tutorials with curriculum classes; in some cases, more than a week could go by between tutorials. As one elective teacher noted, *“There’s just not really enough time with everything else. And that’s why. . . we can’t have a tutorial once a week. We have it once every. . . second week, because there’s just no way.”* One school experimented with offering tutorials (and curriculum classes) more frequently for Grade 9 students as part of an “extended timetable,”²¹ but abandoned this approach after recognizing it did not conform to AVID certification requirements. Several schools tried splitting their AVID class period into tutorial and curriculum portions. While this meant that durations were short for both, it had the advantage of keeping tutorials frequent and helped to *“reinforce those tutorial expectations very quickly.”*

How Much Exposure Did Students Have to Tutorials?

When asked on the Grade 11 survey how often they had attended tutorials, the vast majority (86.8 per cent) of BC AVID students in the core sample reported having attended often (32.7 per cent) or very often (54.1 per cent).²² When attendance data are considered along with expected class size and hours of tutorial time offered, students’ exposure to tutorials can be calculated.²³ Figure 4.1 shows how many tutorial hours students attended and how many they missed, both in each grade and overall. As shown in the right-hand column, over 65,000 hours of tutorial were offered to BC AVID students from grades 9 to 11. Of these, BC AVID students attended over 60,000 tutorial hours, which translates to an attendance rate of roughly 92 per cent. While the total number of tutorial hours is lower in each grade year, the proportions of time attended and missed are very similar.²⁴

Figure 4.1: Total Yearly Attendance at BC AVID Elective Class Tutorial Activities (Both Cohort 1 and Cohort 2)



Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

The sample is limited to the three school years for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

BC AVID elective class is group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in Random assignments sites.

There are 4 BC AVID elective classes in Case study sites.

How Many Tutors Led Tutorials and What Was the Ratio of Tutors to Students?

A total of 659 people were recruited as tutors by BC AVID schools between 2005 and 2009. Of these, 484 tutored AVID students in the research cohorts at least once during that time and so are considered “active tutors.”²⁵ The number of active tutors at each school in any given year ranged widely, from as few as 2 to as many as 25. There were more tutors active in the second year of the project (2006–07), after which most schools experienced a decline in numbers. This reflects both ongoing difficulties with recruitment of post-secondary students as tutors, as well as the diminishing engagement of senior high school students as tutors since AVID students themselves became seniors.

On average, tutors assisted with 10.8 tutorials each, or approximately 11.4 hours per tutor, though again, this varied considerably. The vast majority of tutors were active in one year only. With a few notable exceptions at specific schools, most tutors did not return for a second year of tutoring.

²¹ The extended period was between 2:30 and 3:45 p.m. each school day, outside the time period when regular academic classes were scheduled at the school.

²² It should be remembered that this core sample comprises students who remained in BC AVID for three years and therefore have much higher rates of attendance than the program group in general.

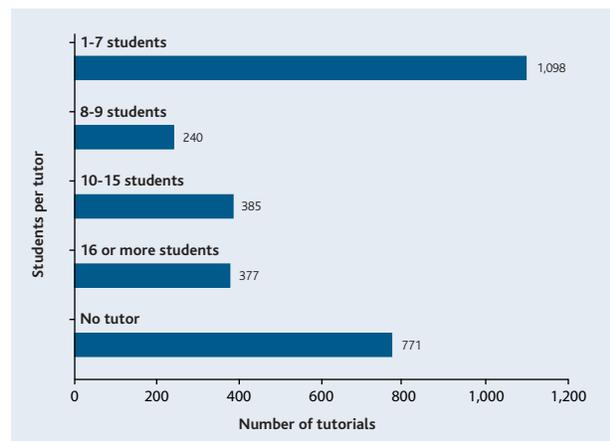
²³ That is, once departures from the class are accounted for.

²⁴ The columns for each grade year indicate the sum total of the number of hours offered to every class member. The height decreases because class size diminished over time (see Chapter 2).

²⁵ Some of the others tutored younger AVID students in lower grades who were not part of the pilot project, or left the project after training, usually because of scheduling problems.

The ratio of students to tutors for BC AVID tutorials can be calculated using records of tutor and student attendance and the dates of tutorials held for both cohorts of students from 2005 to 2009. The AVID Center states that AVID tutorials should have at least one tutor for every seven AVID students.²⁶ As Figure 4.2 shows, the largest proportion of BC AVID tutorials (38.2 per cent) featured the ideal ratio; however, this was not true for the majority of tutorials. A substantial proportion were held with no tutor present (26.9 per cent), meaning that groups were led by the students themselves, with assistance from the teacher.

Figure 4.2: Three Years Student-to-Tutor Ratio for BC AVID Tutorials (Cohort 1 and Cohort 2)



Source: SRDC calculations using BC AVID class activities, departure, waitlist, student attendance, and tutor attendance forms collected from the pilot project sites.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09). BC AVID elective class is a group of students in each site. There are 19 BC AVID elective classes in Cohort 1 and 13 BC AVID elective classes in Cohort 2.

Who Were the BC AVID Tutors and How Were They Recruited?

In AVID-as-designed, tutors are vital to the success of tutorials. According to the AVID Implementation Guide, tutors are expected to be “*advocates for the students’ academic and social growth... [and] inspire [them] to overcome their own difficulties*” (p. 25). When BC AVID began, the AVID Center advised that AVID tutors should be students currently enrolled in college or university and, ideally, should have graduated from the same high school where they tutor. The rationale was that tutors with such post-secondary experience would be academically qualified, dedicated to the students at the school, and able to act as successful role models.

Perhaps acknowledging the difficulty that AVID schools in the United States have had recruiting sufficient numbers of tutors, the AVID Center has since broadened the range of acceptable tutors. A more recent statement suggests that tutors should be “*current college/university students or older secondary students, from a different grade level and a different classroom than those in the AVID elective class.*”²⁷ The Participant Handbook also allows that “*in specialized cases, adults who are trained in the AVID WIC-R strategies and tutorial process may serve as tutors*” (p. 149).

In BC AVID, only 33.1 per cent of active tutors were students currently attending college or university; most of the remaining tutors were students in higher grades (usually grades 11 or 12) at the same school (62.5 per cent). BC AVID tutors were also typically female (74.2 per cent) and did not have previous tutoring experience (66 per cent). More detailed information about the characteristics of BC AVID tutors is available in Appendix 6.

It was anticipated from the outset of the pilot project that BC AVID schools in rural or remote locations would have difficulty recruiting post-secondary students as tutors and this was, in fact, the case. As one elective teacher at a case study site noted, “*Getting enough tutors, that’s hard. We live in a small community and we don’t have a university or a college here, so that’s been a challenge for us.*” Yet the struggle to find post-secondary tutors was not limited to case study sites, nor was location always the cause.²⁸ Staff at most BC AVID schools said they had tried hard to recruit post-secondary tutors, with only modest success. Many said that it was virtually impossible to match the tutorial schedule with the schedules of potential tutors, and as a result, many otherwise interested candidates dropped out. One AVID coordinator described the challenge this way: “*... because the AVID block rotates in the timetable, you can’t just say the tutor should come in the morning from 9 to 10... One day it’s 9 to 10, the next day it’s 1 to 2, then it’s not that day but this day... [A] rotating timetable is a big challenge.*” Other reasons for the failure of recruitment plans for post-secondary tutors included miscommunication or turnover within the site team, local colleges not having students who fit the AVID tutor profile,²⁹ and reimbursement strategies that were not sufficiently enticing.³⁰

Despite these difficulties, all but three schools had at least one post-secondary tutor at some point in the first four years of the project, and a few schools—typically those located close to a college or university—had many. Staff found that making personal connections was an effective recruitment strategy; these connections were with former students, colleagues’ children, or with a specific faculty member or department at a local institution. Having a designated staff person such as a “tutor trainer” to make these connections and follow through with recruitment plans was also viewed as helpful. Successful recruitment did not guarantee availability, however; several teachers noted that there were certain times of the year when post-secondary tutors were often not available to run tutorials.³¹

26 AVID Certification Report and Self-Study Continuum, 2005, p. 17.

27 Summer Institute 2008 Participant Handbook, p. 149.

28 Further differences in program delivery between case study and random assignment sites are summarized in Text Box 4.1.

29 Some community colleges near participating schools had programs focused on basic education and re-training rather than higher education.

30 Compensation for tutors varied widely among BC AVID sites. Following recommendations from the AVID Steering Committee, many schools provided tutors with a bursary or honorarium. Others were prevented from doing so because of existing labour agreements, and so many tutors were provided with gift certificates from a local campus bookstore. A few schools elected to pay tutors directly. Tutors who were students in peer tutoring courses received course credit and/or credit to fulfill Ministry of Education requirements for volunteer hours.

31 Post-secondary tutors tended to be less available in December due to exams, in April because of graduation, and in May and June because of summer employment.

Text Box 4.1: Case Study and Random Assignment Sites

Of the 18 sites participating in the BC AVID Pilot project, 4 were case study sites with only one cohort of research participants. The remaining 14 were random assignment sites with student populations that were perceived to be sufficiently large to recruit enough students for random assignment in each of two years. In the end, 13 of these sites had two cohorts of students.

Case study sites tended to be smaller and located in rural or more remote areas of British Columbia than random assignment sites. Small size and remote location were expected to pose a challenge for the implementation of some aspects of the AVID program—such as tutorials.

This assumption held true for recruitment of post-secondary tutors. Because of their locations, case study (CS) sites had far fewer post-secondary tutors and, in fact, fewer tutors overall than random assignment (RA) sites (an average of 7 per year versus 10). However, CS tutors each assisted with more tutorials than did tutors at RA sites, and almost half (47.7%) of tutorials at CS sites met the recommended ratio of seven students per tutor. CS sites also tended to have more special presentations in Grade 11, and almost twice as many field trips in grades 10 and 11, on average, than RA sites.

Unexpectedly, Grade 11 survey responses from the core sample of BC AVID students tended to indicate closer adherence at CS sites than at RA sites (on average) to many of the techniques used to implement the WIC-R methodologies, in terms of both what they had been taught and their own use of these techniques. For example, 82.4 per cent of CS site students said they had often been taught about Costa's Levels of Questions (compared to 66.2 per cent of RA site students), and 70.6 per cent said they often used Costa's questions in their work or class (versus 50.5 per cent at RA sites). The proportion of those who said they had participated in activities such as Philosophical Chairs, Socratic Seminars, and Quick Writes (among others) also tended to be much higher at CS sites.

It is unclear if this closer adherence is the result of extra effort on the part of AVID staff at CS sites, perhaps to compensate for perceived challenges. It may also be explained by subtle differences in school populations, such as the higher proportion of students at CS sites coming from families with no post-secondary credential than those at RA sites. Further analysis of impacts and implementation in Grade 12 may yield a better understanding of differences between RA and CS sites. Regardless, these findings suggest that schools in rural or remote locations may be able to find viable ways to implement AVID, despite initial challenges.

Because of these challenges, several schools tried creative means to access post-secondary tutors. With the closest university nearly 100 kilometres away, one case study school experimented with using video conferencing technology to conduct an on-line tutorial with a college student who was a graduate of the school. Other schools took advantage of existing support arrangements with student teachers, educational assistants, First Nations support workers, or library staff. These people were especially prized as tutors because they were seen to readily understand the goals of BC AVID and were generally available for one semester or longer.

As described in the Early Implementation Report, several schools broadened their search for potential tutors to include post-secondary graduates in the community. While they comprised only a small proportion of BC AVID tutors, they were a diverse group, including recent graduates “between jobs,” retirees, and others.³² As with post-secondary tutors, the recruitment of community members was not without its challenges: “*Getting people from the community [was difficult] because... we're talking about business hours, so we had to try to find retired people. But... retired people have got better things to do than come to a school. That's why I went the route of using Grade 12 students... And... once I got Grade 12 students on board, it was easy.*”

Virtually all schools in BC AVID used senior high school students as tutors. These students were often recruited from Advanced Placement (AP), International Baccalaureate (IB), or PACE (Programming for Academic and Creative Excellence) classes.³³ AVID elective teachers either asked for volunteers from among students in those classes or asked other teachers to recommend suitable students. Students who were already designated as peer tutors were also approached.

AVID elective teachers were generally very positive about their high school AVID tutors, describing them as “*excellent... phenomenal, lots of energy*”; “*outstanding*”; “*socially engaging... dynamic, and really responsible*.” They also said high school tutors had the advantage over post-secondary tutors in being more committed to the school, able to relate to the students, and generally accessible.

Scheduling could still be a problem, in that ideal candidates were not necessarily available during the same block as the AVID elective class. One elective teacher remarked, “*The program shoots itself in the foot because [it]... depends on the one group of kids that has [the] least amount of... free time to devote to these kinds of extracurricular activities... You're trying to attract the best kids, the most academic, the most successful, competent kids. Those are the kids that are most busy in the school already.*”

32 Other examples of tutors not currently enrolled in school included members of a local junior hockey team, representatives from Canada World Youth, and the spouse of a school board member.

33 All three programs are either implicitly or explicitly focused on accessing post-secondary education.

The fact that high school tutors were close in age to AVID students meant tutors sometimes felt uncomfortable being role models and found it challenging to manage tutorial dynamics. However, most AVID elective teachers indicated that, on the whole, senior high school tutors were very effective and were the foundation of the tutorial program. The teachers' main concern was how to continue tutorials without them: *"And next year, when the kids go into Grade 12 AVID, I really don't know what we're going to do for our tutors. It's going to be very difficult."* Many hoped that current tutors would return to the school once they were in post-secondary education, and felt this could be a good long-term strategy for recruiting post-secondary tutors. As one AVID coordinator remarked, *"So we're hoping that by utilizing high school students, we'll have support at both ends. We'll have our university students for most of the time, but when they move on then we'll have our secondary students that will be able to assist."*

What Training Did Tutors Receive?

Because of the importance of tutorials to the AVID program and its emphasis on the collaborative process, the AVID Center requires potential tutors to attend training sessions to learn the strategies and skills needed to conduct tutorials in the approved manner. Virtually all of the 18 sites participating in BC AVID had designated tutor trainers/coordinators for at least the first years of the project, and most continued to integrate this position into the site team over the duration of the project. The majority of these tutor trainers had themselves been trained in tutorial techniques, either at AVID Summer Institutes or at specialized two-day training sessions the project organized in British Columbia each summer. The latter was intended to model the training for tutors at each school. As such, it was divided into two levels—basic and intermediate—and was comprehensive, covering the expectations and responsibilities of the tutor role, WIC-R and other AVID methodologies, group facilitation, as well as effective communication with adolescents.

Originally, the AVID Center recommended that tutors receive 16 hours of training over two days. Many AVID staff, however, felt this training model was neither realistic nor appropriate, especially for high school student tutors: *"... that's never successful, learning something in a big chunk of time"; "Nobody has the time, nobody has the energy, and I'm not even sure the benefits are really there."* This is another area in which AVID Center recommendations have grown more flexible over the years; a new AVID tutor training program developed by the AVID Center in 2007 has a more practical focus and can be delivered in smaller time segments.

From interviews with tutor trainers, AVID elective teachers, and other BC AVID staff, it was clear that the duration, breadth, and format of tutor training varied considerably across sites and over time. Some sites condensed their training, providing only the basic training module or focusing on what they felt were the core elements. Other schools continued to adhere to the 16-hour requirement, but after the first year, divided the training into smaller segments of one, two, or four hours each, or included practise time in the calculation:

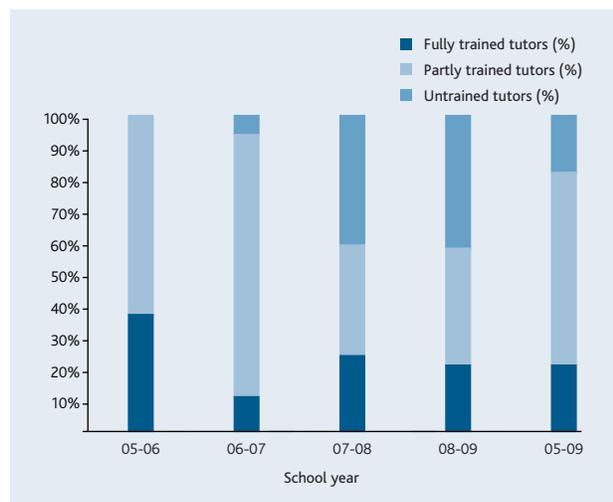
It's been done differently this year where it's been broken down into smaller tutoring sessions on the fly, which is in line with the new AVID methodologies... The way it's being done now... the tutors can get a greater understanding. They can be sort of introduced, do some tutoring and say "Oh okay, now I understand what you mean" and then you continue on with the training, going more in-depth rather than giving them an eight-hour session [where] they have no idea what they're actually going to see. You get into tutoring for two or three months, then come back and do another eight-hour session. Breaking it down gives them [a chance]... to focus... see how it works, apply it, and then you can refine it as you go on.

Most tutor trainers said it was important to provide ongoing training support to tutors, whether in "refresher" training sessions, group debriefings after each tutorial, informal chats, or one-on-one coaching. They felt this support has helped address "slippage" in tutors' delivery of AVID strategies and techniques. However, it also happened that AVID students in grades 11 and 12 were sometimes themselves recruited as tutors for AVID students in earlier grades. In these cases, it was not unusual that these tutors did not receive the full tutor training, in part because it was assumed they already knew enough about AVID and tutoring techniques.³⁴

³⁴ This happened primarily—but not exclusively—for non-research cohorts. Four of those who were active tutors for research classes and who did not receive any training as tutors were AVID students from cohorts 1 or 2.

Figure 4.3 indicates the extent to which BC AVID tutors received training and its duration, whether two days' training, one day, or none.³⁵ As shown, most tutors received some training. However, only a minority of tutors in any given year received the full complement of training, and the proportion of those who received no training increased over time.

Figure 4.3: BC AVID Active Tutors Training



Source: SRDC calculations based on data collected from schools re: BC AVID tutor cover sheet and tutor attendance.

The sample is limited to the first three school years of data collection for Cohort 1 (2005–06, 2006–07, 2007–08) and Cohort 2 (2006–07, 2007–08, 2008–09).

How Did BC AVID Tutorials Function?

The AVID Implementation Guide provides a clear sense of ideal tutorial functioning. It notes that “[t]here is a clearly defined art and philosophy of effective tutoring” (p. 147) and articulates three different models of tutoring:³⁶

1. *the student-centred model*, in which students direct the session and tutors play a limited role, using questions to facilitate students’ discovery of a subject;
2. *the collaborative model*, in which the tutor identifies the problem areas for discussion, but shares in the discussion and problem-solving equally with the student; and
3. *the teacher-centred model*, in which the tutor briefly provides information about a subject or issues directives for the work to be done, and students generally listen or clarify ideas.

While the student-centred model is considered ideal, the AVID Implementation Guide suggests that all three models are appropriate at different times, and that tutors should be flexible about moving between them, depending on the situation. Regardless of the specific model used, the following four principles of tutoring are suggested:

1. Tutors establish and maintain rapport with students, modelling academic skills and personal success.
2. Students—not tutors—do the work of finding answers to questions, with guidance from tutors.
3. Students’ learning needs are ordered and prioritized, so that time is spent on areas that are most critical or where improvement is needed most.
4. Tutors need not be subject-area experts, but rather focus on helping students improve in all subject areas.

Ideally, students should come to tutorials prepared to participate and learn, with two or three challenging questions already formulated on a Tutorial Request Form³⁷ and with the required notes, binders, and books. Tutorial groupings (of seven students or fewer) are made according to the subject area of the questions posed. Students take turns posing questions to the group and then working collaboratively to develop an answer, written versions of which are handed in to the teacher or tutor for marking. Tutors are also often expected to mark students on their preparation and the degree to which they ask questions, collaborate with other students, and participate in discussions to answer questions posed by the tutor or their peers.

Over the course of several interviews, AVID elective teachers were asked to describe a typical tutorial for their classes and were questioned closely about how tutorials actually functioned. SRDC staff also made an effort to observe at least two tutorials during four site visits to each research class.³⁸ In addition, the core sample of AVID students was asked specific questions about their tutorial experiences on the Grade 11 survey. Together, these data were used to assess the extent to which BC AVID tutorials demonstrated the characteristics described above—small groups, organized by subject area and on the basis of students’ questions, and student-led, collaborative discussions.

Most tutorials at BC AVID schools followed the *small group* ideal. The majority (83.2 per cent) of the core sample respondents to the Grade 11 survey reported working in small groups in tutorials; moreover, interview and observational data suggest that students were accustomed to doing so. However, students were occasionally seen by SRDC researchers working independently or in pairs, usually when there were no other students working on the same questions or in the same subject area.

35 Data on tutor training was provided annually by schools and is only available on the number of days of training, not hours. Educators were not routinely asked directly about the tutor training.

36 The three models are based on Reigstad’s 1980 study of group conferences with professional teachers.

37 The Tutorial Request Form is typically provided to AVID students before they are divided into tutorial groups. Students are expected to write down question(s) they want answered during the tutorial. They later record what they learned in the tutorial on the same form. The form should be graded by the tutor (or teacher).

38 While these observations are not necessarily representative, they provided a glimpse into the tutorial process.

As recommended, groupings were primarily *organized by subject area*. In addition to subject, elective teachers said they considered which classes or teachers the students had in common (so they could work on similar questions); students' personalities and friendships (usually to avoid "cliques"); and the skills, personalities, and interests of the tutors. Not surprisingly, some elective teachers indicated that selecting tutorial groups could be challenging, especially in higher grades when fewer students took the same courses: "*Part of the problem with our timetable... [is that] we don't stream the AVID kids together; they're not all in the same Socials class, they're not all in the same Math class... So when it comes to the tutorials, we don't necessarily have a large cluster of students in the same class taking the same courses at the same time, and that presents problems with effective tutorial use.*"

BC AVID tutorials also generally followed the model of *using students' questions* as the basis for organizing tutorial discussions. The vast majority (89.9 per cent) of respondents in the core sample indicated on the Grade 11 survey that they were expected to bring questions to tutorials. While teachers at most sites said they generally expected tutorial questions to be prepared in advance, a few said they had become more lenient over time. At some tutorials, for example, students were observed writing their questions just before class, and at others, students were given a few minutes at the start of class to complete theirs. Virtually all sites used the Tutorial Request Form for students to record their questions and corresponding answers for at least the first years of implementation, though a few appear to have discontinued the practice in higher grades or marked them only occasionally.

There were a few instances in which tutorial topics were generated differently from the scenarios described above. At one site, the AVID elective teacher took what he described as a "*fairly radical departure*" from the tutorial model, choosing newspaper articles of interest and developing relevant questions himself, then using tutorial time for discussion in small groups of his own choosing. Two teachers at another school stayed closer to the model but said they eventually discouraged students from "*going through the motions*" of preparing questions in advance. Instead, students took time at the start of tutorials to review what they had learned in their classes the previous week, focusing on areas where they needed clarification, and then used this to generate questions collectively in their groups. As one of them described it, this adaptation of the format made for more effective tutorials:

So we've been taking the best out of their [AVID] tutorial and coming up with something, and it took us a couple years. So I feel like this year [Grade 11] is the first year that I can go to tutorial and say, "Wow, this is very, very useful, I'm excited about it." I can see their learning process, I can see how they're learning to review their material, pull out higher level questions, and then go about analyzing and getting more from their material and getting help with understanding.

In general, the tutorials were not intended as a means for completing homework assignments, but only 24.4 per cent of the core sample of AVID students said they were expected *never* to do homework in tutorials. Most teachers seemed to feel it was not appropriate for students simply to do their homework during tutorials, but rather, they could use homework as a basis for developing questions and tutorial discussion (completing their assignments after tutorial was finished). A few teachers were adamant that homework had no place in tutorials, and spoke of having spent a great deal of effort communicating this to students: "*... they're basically wanting to turn it into a homework session and that's not what it's about, right?*" Conversely, a couple of teachers said that they had become very permissive on this issue, mostly because they did not have regular access to sufficient numbers of tutors and students had not had the opportunity to experience how tutorials could benefit them. As one teacher ruefully noted,

... for many of them, I've been trying in vain to get them to see the difference between a tutorial and just simply doing your homework. For some of them, if they're in crisis mode, I let them go. Do your homework, do whatever it takes to get you where you need to be. As long as you're prioritizing. As long as I can see that you're using your time constructively, that's fine.

Responses of the core sample to the Grade 11 survey show that BC AVID tutorials were expected to be *collaborative* and *student-led*; 79.4 per cent said they were often expected to help each other with problems or questions and 60 per cent said the tutor rarely or never answered questions without helping them to first find the answer themselves. AVID elective teachers gave more nuanced feedback on this issue. Many noted their students enjoyed the collaborative aspect of tutorials and learned a great deal from one another. On the other hand, many teachers indicated that the degree of collaboration and student leadership in tutorials depended on the quality of the questions students brought. Specifically, when students brought only the most basic questions to tutorials, there was limited opportunity for group discussion and learning, and the focus was often just on finding the correct answer. There were a number of comments from teachers about how frustrated their AVID students had initially been with the tutorial format—especially in grades 9 and 10—and its emphasis on exploratory learning instead of answering questions.

BC AVID staff noted that tutors, too, sometimes found it difficult to resist the temptation to answer questions directly, especially high school tutors. In fact, very few tutors were observed supporting a fully student-led tutorial. Most tutors appeared more comfortable playing a facilitative role, moving between teacher-led and collaborative models of tutoring. As one teacher pointed out, student-led discussions are, in fact, complex interactions, one that even teachers have difficulty mastering.

Faced with either an existing or an anticipated lack of tutors, a few elective teachers deliberately encouraged a model in which tutorial groups were led by students themselves, without any tutor being present. In these cases, students tended to take on the role of tutor in turns, each asking his or her question and leading that particular discussion before allowing the next student to do the same. As with many aspects of BC AVID, these teachers said it took some time—and maturity on the part of students—for this more self-sufficient approach to develop, but they thought it was ultimately very effective:

We're at a point now where the kids themselves are working as tutors within their own groups. . . And some of them are really doing a good job of that now, and I see that. It's taken a while to get them looking at the higher-level questions and to actually understand the idea is more about, again, looking at ideas, not looking at answers. And that's been quite a mind shift for them, to try to get away from that. . .

On the other hand, observations suggested that, without a tutor or teacher as part of the group, tutorial discussions tended to shift from exploratory learning to answering homework questions, and to stray more easily from the topic or question at hand to social matters.

Were Tutors Effective Role-Models for Students?

The AVID Implementation Guide notes that “AVID tutors. . . should be excellent role models of motivated, organized, successful, college students who believe that the AVID students will succeed as they did” (Swanson et al., 2004, p. 26). In interviews, AVID elective teachers generally expressed support for this ideal, even when they didn't have access to post-secondary tutors: “I can see the post-secondary tutor connection as being incredibly powerful. . . ; I just don't think we've realized that piece of it.” Other educators were very positive about the connection post-secondary tutors had established with AVID students, especially those “who are already lacking models in their lives of people who attend university and post-secondary education.”

Several AVID staff maintained that high school students who were on the path to post-secondary education could be equally inspiring role models. One administrator described her school's tutors as follows:

So these. . . are kids that are in Grade 12 and they're working on community service, how to do scholarships, university preparation. . . So they're kind of the other end of the extreme; a lot of gifted kids. And. . . we timetabled them back-to-back with AVID because part of the community thing that they could do was to do tutor training and be in the classroom with the younger kids, to build that kind of sense of [a] team. . . It's a. . . good thing in that those [AVID] kids could be in with. . . their older, very high-achieving, university-bound peers.

In addition to modelling academic success and organizational skills, senior high school tutors could be “*fun to be with. . . [and]. . . incredibly skilled*” as social role models. This was perceived to be more difficult when tutors were close in age to students, however, especially in terms of evaluating students and handling any challenging behaviours. One tutor trainer said she felt that, “. . . it's a little bit tight of a balance for them because they are their peers, they're exactly the same age, and for them to come in as role models and facilitators is asking a little bit [much] of them.” For these reasons, senior high school students were perceived as being most effective as tutors to AVID students in younger grades.

How Might Tutorials Help Students Succeed in a Rigorous Curriculum?

One of the fundamental goals of tutorials is to provide academic support to AVID students who have enrolled in a rigorous set of high school courses.³⁹ When AVID elective teachers were asked if they thought tutorials at their schools were achieving this goal, the majority agreed. A couple of them said they thought tutorials were “*the best part of AVID, to be quite honest.*” As one teacher explained,

This year I'm noticing a huge change in the courses they have selected. They're very academic, all upper level sciences. They're taking the upper level math. They have English with me, but they're all taking classes that really require a lot of work, academic performance. And so the tutorial has helped them in terms of supporting their learning. We've had excellent tutors this year who have been able to really support that as well. And the kids are really supportive of one another in tutorial, and so they really feed off each other's strengths and weaknesses. And often I'll have a kid in here that'll say, “Oh, I have a chemistry test today”; another kid will say, “I've taken chemistry, I know it really well.” They'll sit in tutorial and work through things together, and it's a really wonderful process.

When asked to describe *how* tutorials helped AVID students with a more rigorous curriculum, some teachers said that tutorials provided AVID students with “a safety net” or sense of security. One elective teacher remarked:

I think it gives them the confidence to know that they will have the support when they access [a rigorous curriculum]. . . It takes away a little bit of the danger of taking harder classes. Not only are they able to take those [harder] questions back to the tutorial, but they know that the people in the tutorial will also be in those classes. And so they'll be able to question each other.

39 The extent to which BC AVID students actually enrolled in rigorous courses is discussed in Chapter 6.

Other staff thought that students developed a sense of empowerment as they undertook and succeeded in difficult courses such as math and science, especially by helping others: *"They feel good about helping someone else. . . [T]hey feel like, 'Oh, I'm not that dumb, I'm pretty smart. I can help them with that question.' And they like to do it in return. So, I just think it's a huge part of the program, because. . . it builds up their confidence as students. . ."* Other responses focused on how tutorials provided support or "scaffolding" to first understand basic concepts and then to develop a deeper understanding of their subject material and related concepts. This was thought to happen through the continuous clarification and questioning that happened in tutorials: *"I think it's that same old. . . 'Engage with the material three times,' right? And in a tutorial, the way I set mine up, they have the question, then they have. . . the actual tutorial, they have the note taking, and then the summary—so they're actually engaging four times and I think their stuff just stays with them."* Another teacher echoed this view:

It gives them a chance to. . . gain that deeper understanding. . . It's being able to find out, 'With the materials that I have, how can I answer these questions or how can I gain a deeper understanding with what I do have and by using those people around me and by asking questions?' Because getting an answer and understanding. . . are two different things. . . And. . . being able to do that with their peers I think is really important, because like I said they're not always going to have a teacher or a professor to call on.

Not everyone was so positive about tutorials helping students with more rigorous courses. Several teachers said that, for this to happen, tutorials had to be implemented consistently, sufficient tutors had to be available, and tutors had to be knowledgeable in the areas in which students needed help—especially math and science. Staff at sites that had modified the tutorial format felt that it was only through these adaptations that student needs were being met:

We trained the Grade 12s [as tutors] and they were great. They were really good, but in the little experience we had with the [post-secondary] students, it was far superior in terms of quality of questioning support. . . and we'd like to offer that to all of the students.

Tutorial Summary

Implementation of tutorials in BC AVID schools was tremendously varied and, according to AVID staff, very challenging. With a few notable exceptions, most schools found it difficult to recruit enough post-secondary and high school students as tutors and to match their schedules with those of the AVID elective classes. As a result, BC AVID tutorials, on average, did not meet some AVID Center recommendations, notably those about frequency, the ratio of students to tutors, and delivery of required training to all tutors. However, many of the tutorials that did take place corresponded reasonably well with AVID Center recommendations in how they were organized and how they functioned, though few were fully student-led. Educators were particularly enthusiastic about how AVID tutorials had the potential to help students succeed in a rigorous curriculum, particularly if the format could be made more flexible.

MOTIVATIONAL ACTIVITIES

AVID Essential 3 prescribes full implementation of the AVID program. After the AVID curriculum and tutorials, the third component of the AVID elective class is a set of motivational activities intended to encourage AVID students to participate in post-secondary education and enhance their educational and cultural experience. Motivational activities can be broadly categorized as either team-building activities, presentations by guest speakers, or field trips. The extent to which AVID elective teachers encourage students to enrol in post-secondary education is considered another form of motivational activity, as is encouragement for student leadership and community-building. While one might expect students in non-AVID classes to also be exposed to all these types of activities at some point during their high school years, AVID motivational activities are intended to be much more frequent, to be implemented more systematically, and to have a more explicit focus on team building and success in post-secondary education.⁴⁰

As suggested by the AVID Center, about 20 per cent of AVID elective class time overall was spent on these motivational activities between grades 9 and 11. Moreover, the majority of BC AVID sites met the requirement to provide a range of motivational activities.⁴¹ Team-building activities, guest speakers, and field trips were all reported, with the former described by teachers as particularly popular with students. Teachers also reported a greater number of guest speakers (401) than field trips (289), although the total number of hours for guest speakers was about one-quarter that of the total hours for field trips.

⁴⁰ For example, Planning 10 is a mandatory course for all BC students and covers similar topics to AVID, including graduation planning, post-secondary education and careers, health, and finances. As such, students in both program and comparison groups would have been exposed to this material. However, the BC AVID curriculum was designed to exceed the requirements for Planning 10, particularly in terms of guest speakers and field trips to post-secondary institutions. Chapter 2 provides a more detailed discussion of the overlap between AVID and Planning 10. Chapter 5 compares the experiences of students in the AVID program and those in non-AVID classes.

⁴¹ BC AVID schools provided data on the type and number of hours of motivational activities as part of monthly records from data collection forms (Text Box 1.3). However, the level of detail as to the type of activity (e.g., the nature of a presentation by a guest speaker) varied considerably, so frequencies for specific types of activity are not presented here.

Team Building

Team-building activities occurred both within BC AVID classrooms and as part of field trips at all BC AVID schools. Some schools organized their AVID elective so that a full class period could be devoted to these activities, on what came to be known as “Fun Fridays.” Examples of team-building activities included guessing games (such as trivia or word games), problem-solving activities (such as constructing an object), and timed challenges (such as relay races). Typically, these activities involved a challenge that required students to work together in groups in order to arrive at a solution, sometimes in competition with other groups.

While team-building activities have much in common with activities in the Collaboration component of the WIC-R curriculum, they are distinguishable by the latter’s focus on applying collaboration skills to the academic curriculum. Team-building activities, on the other hand, appeared to serve as an introduction to effective collaboration and inquiry among students, and as an entertaining means of developing those skills. One elective teacher described the dynamic as follows:

Sometimes... the kids will have an activity or a structure they need to build, or a mission they need to accomplish, and then it's got a set of questions afterwards... "What did you do? What was the point of doing what you did? How did it work?"... There's so many questions that you can ask... And these can be really, really fun activities that have educational lessons to them and the kids really like doing that kind of stuff. They really do.

Team-building activities also appear to have helped build social cohesion within the AVID class—teachers believed they helped students become more comfortable with and accepting of each other, to communicate better; this helped to break down social cliques, allowing students to participate more fully in school activities. As one elective teacher noted, “There’s a group, there’s a teamwork, there’s a connectedness. We’re in this together.” In this sense, team-building activities were seen to help prepare students for tutorials and a variety of other AVID curriculum activities. Teachers reported choosing team-building activities from the AVID curriculum, from their own resources, and from recommendations from other teachers.

Guest Speakers

While not specifically mandated by the AVID Implementation Guide, all BC AVID schools reported having had at least one presentation by a guest speaker for each cohort between grades 9 and 11, although less than half of the random assignment sites reported having a guest speaker for each cohort for each of those years.⁴² Among elective classes that had guest speaker presentations, these ranged from one to 23 hours in total annually, with the average in each year around 4–6 hours.

According to BC AVID staff, guest speakers made presentations to AVID students on a wide variety of topics. The most common theme was that of careers; representatives from several fields of work spoke to students about their own careers and experiences, including those in health and medicine, law, agriculture, trades, accounting, music, engineering, and the Canadian Forces. Presentations on health and safety were the next most frequent, and included topics such as workplace safety, family life, drug and alcohol awareness, addictions, and sex education.

Another common theme for guest speaker presentations was post-secondary education—campus life, admissions, and access to scholarships and financial aid. Other presentations were related to employment (such as planning, resumé writing, and interview skills) or graduation requirements, and others were more motivational in nature (such as those about overcoming obstacles and goal setting). Guest speaker presentations were most often organized by AVID elective teachers, but AVID counsellors (or other site team members) sometimes assisted, and at some schools students also assisted.

Field Trips

According to the AVID Implementation Guide, “*Field trips motivate students. They open students’ eyes to the endless opportunities in the community and help them learn about exciting possibilities for the future. They give students a reason to work hard and be successful.*”⁴³ All BC schools reported field trips for their AVID elective classes between Grade 9 and Grade 11, with the majority of classes participating in at least one field trip each year. The number of field trips and time spent on them varied considerably, however, due in large part to the travel time required by schools in rural or remote locations. Consistent with the BC AVID goal of encouraging post-secondary participation, the most frequently reported type of field trip was a visit to the campus of a college, university, or technical institute. Eighty-one per cent of the core sample Grade 11 survey respondents said they had attended two or more school-organized visits to a post-secondary institution. Although field trips to post-secondary institutions are not a requirement of Essential 3 for basic certification, the majority of BC AVID elective classes participated in post-secondary field trips, even during their first year of AVID implementation, as well as subsequent years.⁴⁴

⁴² Guest speakers were reported as “special presentations” on monthly Class Activities forms. Nine random assignment sites reported no special presentations during a school year for either a Cohort 1 or Cohort 2 AVID class.

⁴³ Swanson et al., 2004, p. 122.

⁴⁴ There was one site that reported no field trips during the first year of implementation, while five sites (six school cohorts [see Chapter 3, footnote 4]) reported no field trips during a subsequent school year.

BC AVID staff believed visits to colleges and universities broadened students' awareness of post-secondary education as a realistic option, gave them an opportunity to ask questions, and provided them directly with information on necessary prerequisites for programs of interest. Some reported that their students perceived post-secondary education to be a much more realistic option after visiting post-secondary campuses. As one AVID elective teacher noted, *"They have a much, much better understanding of where they could go or what post-secondary is all about and what is required. And just having been on campus was a real eye opener. . . we went to [local university] and they. . . couldn't believe their eyes, the sheer size of it."* A director from another district echoed this sentiment, saying, *"The difference with being able to go and see what the site is like, what's involved, what the campus looks like, is just going to be one of those things that gets students fired up and realize what's out there. Some of the students that will be going on these trips have never been to Vancouver and have never stepped foot on some of these campuses. So it's pretty exciting for them."*

Another frequent type of field trip involved attendance at programs that challenge students (for example, outdoor challenge courses), team-building activities, or activities such as games or movies. Other field trips included trips to museums, the provincial legislature, theatrical productions, and career-related tours. An AVID counsellor commented on the cultural importance of the field trips for some students: *"There are some kids that really don't get a lot of life experiences out of the community. So, even just going to the city and eating in a nice restaurant and visiting a museum or going to a show, you know, we try to fit all of those things into the few days that we're on the trip. . . To me, those things are so important for these kids."*

Despite the importance of field trips, many educators said that the cost and time involved made them challenging to implement. Project funds covered most of the cost of field trips, although some educators reported that, at times, they had to use supplementary school or district funds and students contributed to the cost of some non-mandatory field trips.⁴⁵ The AVID Implementation Guide acknowledges that fundraising may be necessary to cover the cost of AVID field trips⁴⁶, but many BC AVID staff indicated that this was not feasible—either fundraising was very difficult in their area, or they already had enough to do without this added responsibility. BC staff also said it took considerable time and energy to plan and execute field trips that would meet the expectations of the program. At some sites, the AVID counsellor or AVID coordinator assisted with the planning and execution of these trips; at a minority of sites, the AVID teacher completed all or most of the tasks involved. In addition, careful coordination was needed to minimize the impact of AVID field trips on students' other, regularly scheduled classes, and to ensure that their homework was completed.

Encouragement for Leadership, Community Building, and Post-Secondary Education

The AVID Center encourages AVID teachers to maintain a learning environment in their AVID classrooms that helps motivate students personally, academically, and toward post-secondary education. Teachers are encouraged to display AVID strategy posters, inspirational posters, college and university pennants or posters, samples of students' outstanding work, student recognition items, and graduation requirements. Site visits to BC AVID schools confirmed that the majority of BC AVID classrooms displayed AVID strategy posters (such as those promoting WIC-R) most of the time, but that displays of the other recommended items were more varied.

Some BC AVID teachers also took the opportunity to encourage student leadership and a sense of community among their students through such means as having T-shirts made up for AVID classes, and having their class participate in community projects such as packing Christmas hampers, preparing cards for seniors, or volunteering at a children's fair. At some schools, AVID students spoke at school staff meetings to provide information about BC AVID and to potential students and their parents about their experience in the program, during subsequent program recruitment.

45 The BC Ministry of Education requires schools to cover the costs of all mandatory activities within the school curriculum or programs. Some BC AVID schools offered non-mandatory field trips as part of their AVID elective class, apparently to avoid conflicting with this requirement.

46 Swanson et al., 2004, p. 125.

While the AVID Center recommends that AVID students participate in extracurricular activities, this appears to have had a limited focus in BC schools. Table 4.2 shows that less than one-third (31.1 per cent) of the core sample of respondents to the Grade 11 survey indicated that teachers had often advised their class to participate in school-based extracurricular activities such as school teams, clubs, or school organizations; and fewer still (27.3 per cent) reported receiving personal encouragement to participate in these activities.

On the other hand, it seems clear that BC AVID staff provided plenty of encouragement to students to enrol in post-secondary education. On the Grade 11 survey, a large majority (82 per cent) of the core sample of AVID students indicated that AVID teachers had often encouraged their class to take further education after high school, and almost two-thirds (64 per cent) said they had received this encouragement personally. (See Table 4.3)

Table 4.2: BC AVID Teacher Advice to Student and Class for Extracurricular Activities, by Cohort

	Percentages of respondents reporting frequency of advice		
	Cohort 1	Cohort 2	All
Since you started Grade 9, how often have teachers advised your class to take part in school-based extracurricular activities?			
Never/ rarely	24.52	38.17	30.20
Sometimes	35.25	34.41	34.90
Often/ very often	36.02	24.19	31.10
Since you started Grade 9, how often have teachers and/or counselors advised you personally to take part in school-based extracurricular activities?			
Never/ rarely	32.95	49.46	39.82
Sometimes	29.89	27.96	29.08
Often/ very often	32.95	19.35	27.29
Sample size	261	186	447

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2) and who also responded to the Grade 11 survey.

Table 4.3: BC AVID Student Encouragement to Enrol in PSE, by Cohort

	Percentage of respondents reporting frequency of advice		
	Cohort 1	Cohort 2	All
Since you started Grade 9, how often have teachers advised your class to take further education after high school (university, community college, etc.)?			
Never/ rarely	3.45	2.15	2.91
Sometimes	9.58	11.83	10.51
Often/ very often	81.99	82.26	82.10
Since you started Grade 9, how often have teachers and/or counsellors advised you personally to take further education after high school?			
Never/ rarely	13.41	9.14	11.63
Sometimes	18.77	23.12	20.58
Often/ very often	63.60	63.98	63.76
Sample size	261	186	447

Source: BC AVID Grade 11 Web survey.

This sample comprises waitlist or program group members from random assignment or case study sites who took up a place in the AVID class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2) who did not depart from that class before May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2) and who also responded to the Grade 11 survey.

Motivational Activities Summary

BC AVID sites provided a range of motivational activities for AVID students between Grade 9 and Grade 11, including team-building activities, guest speakers, and field trips. Guest speakers spoke to BC AVID students on a variety of topics: careers, health and safety, and post-secondary experience and admission. BC AVID staff at the majority of sites reported several field trips and stressed the importance of them to the AVID students. Field trips included visits to post-secondary campuses and cultural events. AVID students consistently reported being encouraged, both individually and collectively, to take up post-secondary education.

CONCLUSION

This chapter has examined the implementation of the AVID elective class in terms of what typically happens within the classroom—the curriculum class, tutorials, and motivational activities. Interviews with BC AVID teachers and other staff, observations by SRDC researchers, administrative data, and responses of the core sample of Grade 11 survey respondents were used to compare actual implementation to AVID-as-designed, as characterized in Essentials 3, 5, 6, 7, and 8 and in the AVID Implementation Guide.

This evidence suggests that, overall, the curriculum class portion of the AVID elective was implemented in a manner consistent with expectations. AVID elective teachers took considerable care overall to teach the WIC-R (Writing, Inquiry, Collaboration, and Reading) methodology to their students in grades 9 to 11, though some components received much more emphasis than others. Teachers selected specific techniques and activities from among a wide variety of curricular resources, and adapted delivery of material according to student needs and their own training and teaching styles.

Implementation of tutorials was much more varied across BC AVID schools, primarily because it was difficult to recruit tutors and then to match their schedules with the schedule of the AVID elective. As a result, the frequency and overall number of hours of tutorial time offered to AVID students was roughly half the recommended amount. BC AVID schools tried a variety of creative means to overcome challenges to tutorial implementation, including one school experimenting with an on-line tutorial, another adapting how questions were prepared, and virtually all using high school seniors as tutors. Many of the BC AVID tutorials that took place matched AVID-as-designed in how they were organized and how they operated. BC AVID teachers and other staff were generally positive about the potential for learning offered by tutorials, even though few fully followed the desired student-led model of discussion.

BC AVID schools offered a variety of motivational activities to their students in grades 9–11, including team-building activities, guest speakers, field trips, and general encouragement for leadership, community involvement, and enrolment in post-secondary education. Trips to post-secondary institutions were conducted even in the first year of implementation, exceeding the expectations of AVID-as-designed.

The following chapters examine the extent to which the experience of those offered the BC AVID elective class differed from the experience of students in the comparison group and provide early evidence of the impacts of the offer on course choices, attendance, and achievement.

5

The BC AVID Treatment Differential

Introduction

The potential for bias is a serious matter in any program evaluation. An important goal of any evaluation is to estimate the program's effect on those who participated in it and, crucially, to estimate what would have happened to them had they not participated. Any large and systematic bias in the estimation of either "what happened" or "what would have happened" threatens the validity of the evaluation. As a result, SRDC has devoted considerable effort to determining whether such a bias exists in the evaluation of BC AVID. Part of that effort involved a specially commissioned Grade 11 survey, the results of which form the basis for this chapter. As will be shown, this analysis demonstrates that there is likely some bias, but it is unlikely to be large or to have any substantial effect on estimates of program impacts.

Chapters 2, 3, and 4 discussed the evolution of BC AVID and compared it to AVID as it is envisaged by the AVID Center. Those chapters were based primarily on in-depth interviews with BC AVID staff and observations by SRDC implementation researchers. The Grade 11 survey responses obtained from the "core sample"—those AVID students who remained in the AVID elective class until the end of Grade 11—were also used.

Again using responses from the Grade 11 survey, this chapter compares the extent to which AVID strategies and techniques were taught to, and used by, the entire program group and the entire comparison group. In general, there should be a large difference in the BC AVID experience between these groups as the program group had the opportunity to attend the AVID elective class and to learn AVID techniques, while the comparison group did not. However, Chapter 3 showed that more than half of the program group had left the AVID elective class before the end of Grade 11 and therefore had not received the full AVID "treatment" available to that point. Also, across the sites, the delivery of different AVID strategies and techniques varied.



Should I bring a beach ball?
 I'm like sooo jazz!
 We're makin T-Shirts!!!

BEFORE READING
 DURING READING
 AFTER READING

NETWORK

S
 12)

While some program group members had less exposure to AVID than they might have, some comparison group members might have had more exposure than they should have if their experience is to be considered as a counterfactual measurement of “what would have happened” to the program group in the absence of the program offer. Comparison group members may have learned AVID techniques—such as Cornell Notes—from AVID-trained subject area teachers, from their fellow students, or from teachers who had been using AVID techniques even before BC AVID came to their school.

Either or both of “less treatment” for program group members and “more treatment” for control group members would reduce the difference in treatment—the “treatment differential”—between the program group and the comparison group. If this “treatment differential” is small, then the chances of detecting the impact of offering BC AVID on students’ achievement will be correspondingly reduced. If this is due to “more treatment” for the comparison group, the test being applied to BC AVID could be considered “unfair” or biased. If this is due to “less treatment” for the program group because of attrition (or shortfalls in delivery) below levels normally experienced with the program, then the test might also be considered “unfair.”

This chapter thus assesses the size of the treatment differential produced by BC AVID and the extent to which the “treatment” was provided to the comparison group. The chapter uses the Grade 11 survey first to compare the program and comparison groups’ exposure to AVID techniques. It then goes on to use the same survey to compare the use of AVID techniques by comparison group members with the use of AVID techniques by students in schools in which AVID is not part of the curriculum. If comparison group students have the same level of exposure to AVID techniques as students in non-AVID schools, then it is likely that the AVID exposure of the comparison group was not caused by the BC AVID program. In this case, the experimental impact estimates are unbiased. However, if exposure to AVID techniques in the comparison group substantially exceeds that among the non-AVID school group, then comparison group members may have learned AVID techniques from AVID-trained teachers and students. If so, comparing the experience of the comparison group to the program group members would lead to an underestimate of the true impact of BC AVID.

In conclusion, the analysis in this chapter is important in determining whether the comparison group experience is a reliable measure of what the program group would have experienced without the program.

CHAPTER SUMMARY

- **SRDC commissioned a special Grade 11 survey to investigate the treatment differential between BC AVID program and comparison group students and between the BC AVID comparison group and non-AVID school students.** This survey was sufficiently successful to allow estimation of the extent of program spillover to comparison group members. These estimates are important in determining how fair or biased the planned impact analysis comparing outcomes for program and comparison group students will be.
- **Program group members were much more likely to have been taught AVID techniques than comparison group members.** These differences, known as treatment differentials, were sometimes more than 60 percentage points. For example, the program group was 61 percentage points more likely to have frequently received instruction in 8 or more of the 17 techniques commonly associated with AVID. Only occasionally were small treatment differentials found, for example, with several writing techniques. The substantial treatment differentials generated by the offer of AVID are important because they allow the program to demonstrate its potential impact, whether it turns out to be small or large, on the current and future educational outcomes of the program group.
- **For the most part, exposure to AVID techniques among the comparison group was similar to that found among students at non-AVID schools.** Because many AVID techniques are “best practices,” they are in common use outside of AVID programs. The similarity in exposure between the BC AVID comparison group and students in non-AVID schools implies that the exposure to AVID techniques among comparison group members was likely due to the pre-existing use of AVID techniques in BC high schools rather than due to spillover caused by the project offer itself.
- **The detailed look at potential bias found that the spillover effects were quite limited.** These effects are unlikely to cause much bias in the estimation of either the magnitude or the statistical significance of the results either in this report or in future reports.

THE GRADE 11 "HOW DO YOU LEARN?" SURVEY

SRDC commissioned the special "How do you learn?" Web survey of Grade 11 students (hereafter, the "Grade 11 survey") to understand how BC AVID was implemented and to understand the treatment differential between the program group and the comparison group in BC AVID schools. The survey was fielded in the spring of 2008 and the spring of 2009 in order to capture the two cohorts of BC AVID students at approximately the same time in Grade 11. All program and comparison group members were invited to respond to the survey.¹ In the comparison group, 321 students answered the Grade 11 survey for a 71.3 per cent response rate, while 601 students in the program group responded for a response rate of 76.0 per cent.

Students from eight non-AVID schools also took part in the survey. The response rate in these non-AVID schools was only 17.0 per cent, which is far below usual response rates.² Despite the low response rate, the survey of non-AVID students serves some useful purposes. First, it may only be necessary to have a small number of students in a broad range of classes to learn what was taught in those classes. Second, as will be shown, the non-AVID school respondents are very similar to the respondents from the BC AVID comparison group in terms of their personal characteristics. This gives us some assurance that the non-AVID students would have broadly similar access to AVID techniques that the comparison group would have had in the absence of the experiment. Nonetheless, any conclusions based on responses from students at non-AVID schools should be treated cautiously.

COMPARING THE PROGRAM AND COMPARISON GROUPS

Comparisons between the program group and comparison group are not only a central part of this chapter and the following one but also a central part of all randomized social experiments. Consequently, it is important to understand their purpose and their power.

The central characteristic of a randomized experiment is that research participants are assigned by a lottery-like random process into a program group that is eligible to receive the intervention being tested (here, the offer of BC AVID) or into a comparison group that is not eligible for the intervention. The process of random assignment ensures that there are no systematic differences between the program group and the comparison group in any observed or unobserved characteristics. For example, the groups are statistically identical in terms of their demographic characteristics and past life experiences, their motivation to participate in the program, and in any other unobserved characteristics that might influence their subsequent outcomes. They differ systematically only in that the program group is eligible for the intervention and the comparison group is not. As a result, any (statistically significant) difference in subsequent outcomes can be attributed with confidence to the program rather than to differences in personal characteristics between the two groups. However, in practice, the characteristics of the program group can sometimes differ from those of the comparison group either due to chance, small sample sizes, or differing survey response rates.

The analysis in this section (and in Chapter 6) involves separately comparing the program and comparison groups in each cohort at each BC AVID site. The resulting site-specific impact estimates are then weighted by the original number of AVID-eligible participants in each site-cohort and summed to produce an overall weighted average of the impacts for the entire BC AVID sample.

1 Students placed initially on the waitlist and non-AVID students in random assignment sites were included, although their data are not used in this report.

Students at case study sites also took part in the survey, and their responses were used in chapters 2, 3, and 4.

2 Securing consent for participation in the survey from students and their parents, together with safeguards to ensure only one survey response per student and respondent confidentiality, involved a convoluted process before students could complete the survey. It is very likely that these procedures reduced response rates, compared to project participants who had already consented to take part in this survey.

Personal Characteristics of Program and Comparison Groups

Table 5.1 shows that the survey respondents in the program and comparison groups were similar in most, but not all, of their personal characteristics at the time of the Grade 11 survey. One exception is that the proportion of boys among the program group respondents was a statistically significant 7.7 percentage points higher than the proportion of boys

among the comparison group respondents. A second exception is that the proportion of comparison group members who said few or none of their Grade 8 schoolmates were currently attending the same school as they were in Grade 11 was 5.9 percentage points higher than in the program group.³

Table 5.1: Characteristics of Grade 11 Survey Respondents, by Experimental Group

Characteristics	Program Group	Comparison Group	Difference (s.e.)
Male	48.82	41.15	7.67 ** (3.53)
Born in Canada	92.01	93.30	-1.29 (1.67)
Number of household members			
Three or less	32.17	29.30	2.87 (3.29)
Four	36.96	42.42	-5.46 (3.47)
Five or more	30.87	28.28	2.59 (3.27)
Household members under 18 years of age			
One	43.27	39.29	3.98 (3.61)
Two	36.87	41.50	-4.63 (3.55)
Three or more	19.86	19.21	0.65 (2.89)
Lives with one parent	23.59	20.27	3.32 (3.00)
that has a PSE qualification	11.62	9.15	2.47 (2.21)
Lives with both parents	73.54	76.34	-2.79 (3.14)
and at least one parent has a PSE qualification	34.13	32.53	1.60 (3.39)
Number of Grade 8 schoolmates that are attending respondents' Grade 11 school			
Few or none	11.97	17.89	-5.92 ** (2.49)
Some, most, or all	88.03	82.11	5.92 ** (2.49)
Sample size	601	321	

Source: Grade 11 survey

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for differences are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

³ Chapter 6 will use school administrative data to examine whether program group members are less mobile than comparison group members. The Grade 11 survey was administered to program and comparison group members using contact information maintained by researchers, not school databases, in an effort to avoid the possible influence on response rates of different rates of residential mobility among the experimental groups.

Attendance in AVID Classes

Survey responses concerning attendance in the AVID elective class from Grade 9 to Grade 11 have a broad but imprecise correspondence with attendance records compiled by schools for approximately the same period.⁴ Panel (a) of Table 5.2 compares school administrative records of attendance to survey responses by students about attendance. According to the AVID MIS (described in Chapter 1), 20.9 per cent of the program group (120 of the 574 program group respondents) attended fewer than 200 hours of the AVID elective between grades 9 and 11. Another 72.0 per cent attended between 200 and 400 hours, with the remaining 7.1 per cent attending more than 400 hours.⁵ Not surprisingly, respondents who had high AVID elective class hours in the AVID MIS all reported

that they attended the class often or very often. It is also not surprising that those with less than 200 AVID elective class hours recorded in the administrative data reported attending the class "never," "rarely," or "sometimes" since these respondents are unlikely to have been in the class in all three years. This suggests that the survey questions provide a guide to services received by students that is broadly useful but not precise.⁶ Both school administrative records and survey responses show (not surprisingly) that the program group was vastly more experienced with AVID classes than the comparison group. Student records provided by school districts show that less than five comparison group members enrolled in the AVID elective (not shown) and these records are likely in error.⁷ This issue is returned to later in this chapter.

Table 5.2: Attendance at AVID Classes Between Grade 9 and Grade 11

(a) Program group survey responses about attendance compared to different administrative attendance records					
Survey responses on how often attended AVID classes and tutorials					
Attendance in AVID classes and tutorials (administrative records)	Never/Rarely	Sometimes	Often/Very Often	Total	n =
200 hours or less	45.83	33.33	20.83	100	120
201 to 400 hours	3.87	6.30	89.83	100	413
More than 400 hours	0.00	0.00	100.00	100	41

(b) Program group survey responses about attendance compared to comparison group responses				
Survey responses on how often attended AVID classes and tutorials	Program Group	Comparison Group	Impact (s.e.)	
Never	3.90	85.70	-81.80 *** (1.82)	
Rarely	8.58	9.20	-0.63 (2.00)	
Sometimes	12.23	3.27	8.96 *** (1.99)	
Often/very often	75.29	1.83	73.47 *** (2.52)	
Sample size	574	311		

Source: Grade 11 survey and administrative data

Administrative data covers AVID exposure in hours for three years for program group members.

Survey data covers approximately the same period from Grade 9 until late in Grade 11.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

4 The relevant survey question asked if respondents had attended AVID "classes or tutorials." Since the tutorials were part of the AVID classes; however, the text is written as if the question had asked about attendance in "AVID classes."

5 Many students will have a low number of hours in the AVID elective class because they left the class before the end of Grade 11. The number of hours spent in the AVID elective class also varied across sites, leading to further differences in hours spent in the AVID class.

6 Survey recall error is probably the source of much of the discrepancies between survey and administrative data. The survey asked students to recall being taught or using techniques over a three-year period. An additional source of variation is differences in students' interpretation of survey subjective response categories such as "rarely," "sometimes," "often," or "very often." For example, some students who were enrolled in AVID only in Grade 9 might have answered questions about their AVID experience "never" (in recent years) or "very often" (when I was enrolled). Finally, students might respond "rarely" or "sometimes" if they vaguely recall having heard of a given technique rather than if they specifically recall having been taught the technique or used it.

7 Sample sizes of less than five are suppressed in order to respect the confidentiality of research sample members' data. Student records showing the enrolment of comparison group members in the AVID elective conflict with reports by AVID teachers. In all cases where the administrative record said comparison group members were enrolled in AVID, the AVID teacher denied that those students were enrolled in the AVID class. All of the comparison group students that administrative records indicate attended the AVID elective reported on the Grade 11 survey that they never attended AVID classes.

Panel (b) of Table 5.2 provides a first look at the size of the "treatment differential" and an initial indication of an answer to the first question posed in the introduction. Because comparison group students were barred from enrolling in the AVID elective class, the proportion of the comparison group that reported ever having attended the class should be small or non-existent. Panel (b) of Table 5.2 shows that 85.7 per cent of the comparison group said they "never" attended AVID classes. If BC AVID was successfully implemented, almost all of the students assigned to the program group will have enrolled in the elective class. Panel (b) of Table 5.2 shows that only 3.9 per cent of the program group said that they "never" attended the class. This implies that being assigned to the program group had a very large 81.8-percentage-point impact on "never" attending AVID classes. This is a very important result because attendance in AVID elective classes is the most important element of the AVID program. It would be very difficult to argue that the program group received anything like AVID-as-designed if most of the program group did not attend the AVID class.

As few comparison group members claimed to have attended the AVID elective class, any AVID techniques that they learned would likely have been acquired during their regular classes from teachers who had either been officially trained in

AVID techniques or had learned those techniques from some other source. Comparison group members may have also learned the techniques from other students.

AVID Strategies and Techniques

Substantially more program group members reported being taught and using AVID techniques from Grade 9 to Grade 11 than did comparison group members. Table 5.3 shows that the proportion of program group members who reported that they were often taught AVID strategies and techniques was 40.7 percentage points higher than the same proportion among comparison group members.⁸ Program group members were 31.0 percentage points more likely to say they were taught AVID strategies and techniques by three or more teachers than were comparison group members. Finally, program group members were 37.5 percentage points more likely to say they had often used techniques they knew were from AVID than comparison group members. These results show that there was a strong treatment differential between the program group and the comparison group. However, Table 5.3 also shows that the comparison group reported levels of exposure to AVID techniques that were greater than zero. For example, even though program group members were far more likely to report having been taught AVID techniques by three or more teachers, 16.6 per cent of the comparison group responded in the same way.

Table 5.3: Reported Receipt and Use of AVID Lessons and Techniques Between Grade 9 and Grade 11, by Experimental Group

	Program Group	Comparison Group	Impact (s.e.)
Teachers taught respondent lessons or techniques that they told student were from AVID			
Never or rarely	20.17	70.77	-50.61 *** (2.94)
Sometimes	31.83	21.89	9.94 *** (3.18)
Often or very often	48.00	7.33	40.67 *** (3.03)
Number of teachers who taught respondent lessons and techniques from AVID			
None	9.95	42.73	-32.78 *** (2.64)
One or two	42.43	40.69	1.74 (3.45)
Three or more	47.62	16.58	31.04 *** (3.22)
Respondent used lessons or techniques they knew were from AVID			
Never or rarely	24.75	78.21	-53.47 *** (2.96)
Sometimes	32.48	16.51	15.97 *** (3.16)
Often or very often	42.77	5.28	37.49 *** (2.99)
Sample size	576	311	

Source: Grade 11 survey.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. Rounding may cause slight discrepancies in sums and differences.

⁸ As in previous chapters, we use "often" in place of "often or very often" in order to simplify the text.

It is conceivable that program group members simply had greater knowledge of which techniques were part of AVID without actually using or being taught those techniques more frequently than the comparison group. Under this scenario, for example, program group members and comparison group members would be equally likely to have been taught Cornell Notes, but only the program group would have known that Cornell Notes was an AVID technique. If so, there would be no difference between the two groups when they were asked about being taught specific techniques such as Cornell Notes; for that reason, the Grade 11 survey asked about several such techniques.

Program group members were much more likely to report receiving instruction in Cornell Notes from Grade 9 to Grade 11 than were comparison group members. They were also more likely to use many, though not all, Cornell note-taking techniques during the same period.⁹ Table 5.4 shows that the proportion of program group members who said they were taught Cornell Notes six times or more was 43.5 percentage points higher than the same proportion among comparison group members. However, most of the comparison group had some familiarity with Cornell Notes. Only 9.9 per cent of the comparison group said they had never received any instruction in this note-taking technique (not shown).

Program group members were also much more likely to use Cornell Notes from Grade 9 to Grade 11 than comparison group members. Table 5.4 shows that more program group members (by 34.9 percentage points) said they often used Cornell Notes than did comparison group members. There are somewhat smaller impacts on some of the specifics of Cornell note taking such as writing questions or short summaries of the notes.

Program group members were more likely to receive other instruction and grading on their note taking than comparison group members. For example, Table 5.4 shows that the program group was 44.0 percentage points more likely to have often been taught how to take good notes. The program group was also 27.7 percentage points more likely to be graded on their notes or on whether they took notes. Since these note-taking experiences are an important part of what BC AVID tried to deliver, these figures, and other impacts in Table 5.4, provide strong evidence of a substantial treatment differential.

⁹ Cornell Notes is a collection of specific note taking techniques that includes asking questions in the notes and writing short summaries of the notes. Respondents would often say they used "Cornell Notes" more frequently than many of the specific techniques that comprise Cornell Notes.

Table 5.4: Cornell Notes and Note Taking Between Grade 9 and Grade 11, by Experimental Group

	Program Group	Comparison Group	Impact (s.e.)
Respondent note-taking lessons			
Teachers taught Cornell Notes			
Two times or less	16.38	64.33	-47.95 *** (2.82)
Three to five times	27.10	22.66	4.43 (3.04)
Six times or more	56.52	13.01	43.52 *** (3.13)
Respondent was taught how to take good notes			
Two times or less	11.50	41.98	-30.48 *** (2.74)
Three to five times	26.26	39.82	-13.56 *** (3.18)
Six times or more	62.24	18.20	44.04 *** (3.17)
Teacher or tutor graded respondent on their notes or whether they took notes			
Never or rarely	34.00	67.47	-33.47 *** (3.27)
Sometimes	29.37	23.60	5.77 * (3.19)
Often or very often	36.63	8.93	27.70 *** (2.98)
Respondent's note taking			
Respondent used Cornell Notes			
Never or rarely	22.72	60.45	-37.73 *** (2.93)
Sometimes	17.44	14.60	2.84 (2.61)
Often or very often	59.84	24.95	34.89 *** (3.18)
When respondent took notes, he/she wrote questions in notes about things to learn more about			
Never or rarely	37.35	55.54	-18.19 *** (3.50)
Sometimes	36.51	28.25	8.26 ** (3.36)
Often or very often	26.14	16.21	9.93 *** (2.98)
When respondent took notes, he/she wrote a short summary in notes of what respondent learned			
Never or rarely	50.93	68.27	-17.34 *** (3.50)
Sometimes	29.65	20.88	8.77 *** (3.15)
Often or very often	19.42	10.85	8.57 *** (2.62)
Other lesson-summary techniques			
Respondent summarized lessons in "Learning Logs"			
Never or rarely	54.56	79.16	-24.60 *** (3.26)
Sometimes	26.84	16.94	9.90 *** (2.97)
Often or very often	18.60	3.90	14.70 *** (2.34)
Sample size	594	317	

Source: Grade 11 survey.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Tutorials

Earlier chapters in this report suggest that tutorials were an important feature of AVID-as-designed that was difficult to implement within BC AVID. The Grade 11 survey provides additional evidence on the frequency with which students took part in tutorials. Program group members were more likely to attend tutorials and those tutorials were more likely to have features prescribed by AVID.

Table 5.5 shows that program group members were 55.3 percentage points more likely than comparison group members to say they often attended tutorials from Grade 9 to Grade 11. The tutorials they attended were more likely to have the characteristics of AVID tutorials, as described in Chapter 4. The proportion of program group members who said they had attended tutorials where they had a choice over which courses would be worked on was 51.9 percentage points higher than

in the comparison group. Table 5.5 shows that, compared to the comparison group, a substantially greater proportion of program group members—by 63.1 percentage points—said they were often expected to bring questions to the tutorial they attended. Sixty-eight per cent of program group members said they were often expected to help each other answer questions without getting the answer from the tutor, as compared with only 10.8 per cent of the comparison group who said they were expected to do so. Finally, program group members were 55.3 percentage points more likely to say that they often worked in small groups to help each other with problems or questions in the tutorials they attended.

Once again, these differences between the program and comparison group indicate the presence of a substantial treatment differential.

Table 5.5: Tutorials Between Grade 9 and Grade 11, by Experimental Group

	Program Group	Comparison Group	Impact (s.e.)
Respondent attended tutorials			
Never or rarely	19.10	72.56	-53.46 *** (2.87)
Sometimes	16.84	18.68	-1.84 (2.66)
Often or very often	64.07	8.76	55.31 *** (2.93)
Respondent attended tutorials that gave the student a choice over which courses to work on			
	72.38	20.52	51.86 *** (3.01)
In tutorials that respondent attended, students were expected to bring questions or topics to the tutorials			
Never or rarely	5.10	25.17	-20.06 *** (2.23)
Sometimes	9.13	15.28	-6.16 *** (2.21)
Often or very often	78.80	15.69	63.11 *** (2.77)
Student did not attend tutorials	6.95	43.86	-36.91 *** (2.42)
In tutorials that respondent attended, students were expected to help each other answer questions without getting the answer from the teacher/tutor			
Never or rarely	6.30	22.70	-16.40 *** (2.18)
Sometimes	18.89	22.43	-3.54 (2.81)
Often or very often	67.86	10.79	57.07 *** (2.90)
Student did not attend tutorials	6.95	43.86	-36.91 *** (2.42)
In tutorials that respondent attended, students were expected to work in small groups to help each other with problems or questions			
Never or rarely	5.61	15.90	-10.30 *** (2.02)
Sometimes	15.01	23.07	-8.06 *** (2.71)
Often or very often	72.42	17.17	55.25 *** (2.95)
Student did not attend tutorials	6.95	43.86	-36.91 *** (2.42)
Sample size	589	313	

Source: Grade 11 survey.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Other AVID Techniques

Table 5.6 shows the treatment differentials for a number of other AVID techniques, including some that are part of WIC-R (Writing, Inquiry, Collaboration, and Reading).¹⁰ By and large, these treatment differentials are smaller than those reported in tables 5.2–5.5. For example, the top panel of Table 5.6 shows that BC AVID had relatively little success in getting program group members to make greater use of additional AVID writing techniques from Grade 9 to Grade 11. There was a significant 7.2-percentage-point impact on use of “Quick Writes,” but there was no difference between the program and comparison groups on the use of many other writing techniques that are associated with AVID-as-designed, including quickly writing down ideas and constructing autobiographical essays. BC AVID also did not have an impact on using outlines, writing more than one draft of an essay, and getting suggestions for improvement from other students (not shown). This lack of treatment differentials was either due to a lack of emphasis on these techniques or substantial use of these techniques among the comparison group, or both.¹¹

From Grade 9 to Grade 11, BC AVID was more successful in promoting the “Inquiry” aspect of AVID-as-designed by requiring students to develop questions and to learn about the different types of questions they could and should ask. The program group was 17.5 percentage points more likely than the comparison group to be required to develop questions that would be answered in class by the participant or by other students. Both AVID-as-designed and BC AVID use Costa’s Levels of Questions to classify questions according to their complexity and to encourage students to ask better and more complex questions. Program group members were 46.3 percentage points more likely to have been taught often about Costa’s Levels of Questions. The treatment differential in whether program and comparison group members often used Costa’s questions was 32.9 percentage points. However, BC AVID did not increase the frequency with which program group members asked questions in class.

In another aspect of Inquiry, program group members were more likely to engage in AVID-specific debating and discussion techniques, but BC AVID had less influence on the prevalence of generic debates and discussions. Table 5.6 shows that, from Grade 9 to Grade 11, more program group members (by 44.6 percentage points) were likely to have taken part in Philosophical Chairs. However, there was only an 11.9-percentage-point impact on students having taken part in any kind of debate (not shown). Similarly, more program group members (by 29.1 percentage points) took part three or more times in Socratic Seminars. However, when asked about generic discussions about short readings, there was a negative impact of 8.9 percentage points (not shown). In short, the treatment differentials related to debates and discussions do not reveal a general increase in debate and discussion but rather increases in the types of debates and discussions that are specific to BC AVID. The ability of these AVID techniques to produce favourable outcomes depends on whether the AVID-specific strategies represent an improvement over the generic strategies.

BC AVID increased “Collaboration” by increasing the amount of group work from Grade 9 to Grade 11. Program group members were 17.5 percentage points more likely to often work in small groups than comparison group members were. However, BC AVID appears to have had little effect on the amount of that small group work that was truly “joint or collaborative,” rather than merely work “divided up” among group members.

10 As noted in Chapter 4, the last element of WIC-R—reading—was given less emphasis in British Columbia in order to place more emphasis on other AVID techniques that were deemed to have a high priority. The survey included one question specifically on reading, but the results are not reported here.

11 The survey posed questions on AVID techniques as generically as possible. For example, this question was worded as follows: “Sometimes, a teacher will give students only a few minutes to do a writing exercise in class about a particular topic. These exercises are sometimes called ‘Quick Writes’ or ‘Warm-ups.’ Since you started Grade 9, how often have you done a ‘Quick Write’ or ‘Warm-up,’ even if it was called something else?”

Table 5.6: Other AVID Techniques Between Grade 9 and Grade 11, by Experimental Group

	Program Group	Comparison Group	Impact (s.e.)
Writing			
Respondent started most or all essays by quickly writing ideas/facts	46.57	46.70	-0.12 (3.55)
Respondent did writing exercise called "Quick Writes" often or very often	40.75	33.54	7.21 ** (3.30)
Respondent wrote autobiographical essay three times or more	20.81	23.24	-2.43 (2.94)
Inquiry			
Respondent asked questions in class often or very often	59.11	55.28	3.83 (3.49)
Respondent was required often or very often to think up questions that he or she and/or other students will answer in class	42.76	25.25	17.51 *** (3.37)
Respondent has been taught about different types or levels of questions	88.07	39.71	48.36 *** (2.67)
Respondent was taught Costa's Levels of Questions often or very often	51.73	5.46	46.26 *** (3.00)
Respondent used Costa's Levels of Questions often or very often	38.03	5.15	32.88 *** (2.92)
Respondent took part in a type of debate called "Philosophical Chairs"	59.19	14.59	44.59 *** (3.17)
Respondent took part in discussion of short reading called "Socratic Seminars" three or more times	36.97	7.86	29.11 *** (3.03)
Collaboration			
Respondent often or very often worked in small groups	55.11	37.56	17.54 *** (3.49)
Most or all group work that was done was done all together by the group in a joint or collaborative effort	47.57	43.55	4.02 (3.56)
Binders, organization, and planning			
Respondent was often or very often graded on binders and how they were organized	48.80	8.22	40.59 *** (2.97)
Respondent often or very often kept notes in a single binder	49.61	29.05	20.55 *** (3.34)
Respondent often or very often recorded important dates (exams, deadlines) in a calendar or planner	46.80	26.18	20.62 *** (3.36)
Respondent has written out long-term plans three times or more	42.09	21.90	20.19 *** (3.35)
Teachers' advice and assistance			
Teacher often or very often advised CLASS to take academically challenging courses	37.67	14.80	22.86 *** (3.08)
Teacher often or very often advised RESPONDENT to take academically challenging courses	23.29	14.81	8.48 *** (2.84)
Teacher often or very often advised CLASS to take further education after high school	76.49	58.38	18.11 *** (3.19)
Teacher often or very often advised RESPONDENT to take further education after high school	61.51	46.98	14.52 *** (3.49)
Respondent often or very often had a classroom teacher who...			
supported academic progress in all courses	45.59	31.89	13.71 *** (3.45)
supported respondent if personal matters affected respondent's school work	42.16	34.17	7.99 ** (3.46)
Other			
Class often or very often had guest speakers talking about education experiences	35.99	28.85	7.15 ** (3.32)
Class visited PSE institution two or more times	78.04	35.02	43.02 *** (3.01)
Sample size	596	318	

Source: Grade 11 survey.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

From Grade 9 to Grade 11, BC AVID increased the use of various organizational techniques as well as the probability of being graded on some of those techniques. More program group members (by about 20 percentage points) often organized their notes in a single binder, put important dates in a planner or calendar, and wrote out long-term plans three times or more. BC AVID also produced a 40.6-percentage-point impact on students' reports that their binders were "often or very often" graded on how they were organized.

BC AVID increased advice and mentoring from teachers, which is crucial to both AVID-as-designed and BC AVID. This treatment differential is particularly important because it provides an independent sense of how much mentoring was going on. Based on in-depth interviews and survey responses from the "core" sample, Chapter 2 confirmed that AVID elective class teachers were mentoring students. Contrasting program and comparison group members provides a much wider view of the prevalence of mentoring. Program group members were more likely to report that their teachers often advised their class to take academically challenging courses or education after high school. There were also similar, but smaller, impacts on teachers often giving students individual advice to take academically challenging courses or to continue their education after high school. Finally, program group members were more likely to report that they often had a classroom teacher who would support them academically or a teacher who would support them if personal matters interfered with their school work. These treatment differentials are smaller, however, than differentials for other techniques. This may reflect less emphasis on mentoring and advice in BC AVID or that the comparison group also received considerable advice and mentoring.

BC AVID also increased the percentage of students receiving other AVID-endorsed activities and techniques from Grade 9 to Grade 11. For example, more program members (by 43 percentage points) made three or more visits to a post-secondary education (PSE) institution than did comparison group members. BC AVID students were also more likely to have guest speakers come to class "often" or "very often."

Summary Measures

Table 5.7 gives a sense of the overall treatment differential in BC AVID by showing that program group members cumulatively reported receiving many more AVID techniques than comparison group members. The first panel of Table 5.7 looks at five "core" AVID elements:

- often attending the AVID elective class,
- doing work in small groups,
- attending tutorials,
- being taught Cornell Notes, and
- being taught Costa's Levels of Questions.

On average, program group members were often exposed to 3.0 of these 5 core AVID techniques, while the comparison group received 0.7 core AVID techniques. In the comparison group, 86.3 per cent often received either no core AVID techniques or just 1 (compared with 24.0 per cent of the program group). In contrast, 63.9 per cent of program group members were often taught 3 or more AVID techniques compared with 2.0 per cent of the comparison group. This implies a very large 61.9-percentage-point impact on the receipt of multiple AVID techniques.

The second panel of Table 5.7 also shows a large treatment differential using an even broader measure of exposure to AVID techniques.¹² Of 17 AVID techniques, the program group received about 9 techniques “frequently,” while the comparison group received only 3 of the 17 techniques “frequently.” Only 10.0 per cent of the program group “frequently” received 2 AVID techniques or less, compared with 48.9 per cent of the comparison group. In contrast, 64.2 per cent of program group members “frequently” received 8 or more AVID techniques, compared with 2.7 per cent of the comparison group. Just under 32 per cent of the program group received 12 or more techniques frequently, while none of the comparison group reported receiving this many techniques.

Table 5.7: Number of AVID Techniques Used Between Grade 9 and Grade 11, by Experimental Group

	Program Group	Comparison Group	Impact (s.e.)
Five core AVID techniques			
Of the five core AVID techniques...			
Number of techniques received often or very often	2.97	0.66	2.31 *** (0.10)
Per cent receiving no techniques often or very often	10.24	50.51	-40.27 *** (2.68)
Per cent receiving either zero or one technique often or very often	24.01	86.27	-62.26 *** (2.78)
Per cent receiving two techniques or more often or very often	76.00	13.73	62.26 *** (2.78)
Per cent receiving three techniques or more often or very often	63.92	2.04	61.88 *** (2.80)
Seventeen AVID techniques			
Of the seventeen AVID techniques...			
Number of techniques received frequently	8.79	2.81	5.98 *** (0.25)
Per cent receiving no techniques frequently	2.32	12.11	-9.80 *** (1.59)
Per cent receiving two techniques or less frequently	10.04	48.89	-38.85 *** (2.69)
Per cent receiving five techniques or more frequently	80.35	20.61	59.74 *** (2.78)
Per cent receiving eight techniques or more frequently	64.20	2.72	61.48 *** (2.76)
Per cent receiving twelve techniques or more frequently	31.85	0.00	31.85 *** (2.64)
Sample size	600	320	

Source: Grade 11 survey

The five “core” AVID techniques are “often or very often” attending AVID class, doing work in small groups, attending tutorials, being taught Cornell Notes, and being taught Costa’s Levels of Questions.

These five core techniques are also included in the 17 AVID techniques, which include “often or very often” being expected to bring questions to tutorials attended, working in small groups to help in other tutorials attended, writing Learning Logs, putting notes in a single binder, being graded on how binders were organized, having guest speakers, and putting important dates in a calendar or planner. They also include doing Socratic Seminars, writing long-term plans, and having teachers advise a class to take challenging courses three or more times. Finally, they include visiting PSE institutions two or more times and taking part in Philosophical Chairs at least once.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

¹² Receiving each of the 17 techniques “frequently” means responding “often or very often” to receiving any of the following 17 AVID techniques: bringing questions to tutorials, working in small groups, attending tutorials, writing Learning Logs, putting notes in a single binder, being graded on binders, having guest speakers, putting important dates in a calendar or planner, doing Socratic Seminars, writing long-term plans, having teachers advise a class to take challenging courses three or more times, visiting PSE institutions two or more times, and taking part in Philosophical Chairs at least once.

Thus, program group members were vastly more likely than comparison group members to have been exposed to a *combination* of strategies and techniques commonly promoted as components of AVID-as-designed. By some measures, this treatment differential ranges between 32 and 62 percentage points. This treatment differential remains high despite the evidence in Chapter 3 of the declining attendance of program group members in the AVID class over time. That said, some program group members reported receiving only a few techniques associated with BC AVID.

In conclusion, the program group was substantially more engaged with BC AVID than the comparison group. There were very large treatment differentials in some of the most important aspects of AVID—attending the AVID elective class, attending tutorials, and being taught Cornell Notes. Some other AVID techniques show smaller, but still important, differentials of less than 20 percentage points. For example, the treatment differentials on the questions measuring the extent of mentoring by teachers fell in this range. In still other cases, specific AVID techniques, such as Philosophical Chairs, had large treatment differentials, while possible substitutes, such as debates, had small or even negative differentials. BC AVID had little effect on most writing techniques. These substantial differentials on *specific* AVID strategies make it plausible that the large treatment differentials for *general* questions about AVID techniques in Table 5.3 were due to real differences in what was learned and used rather than differences in knowledge about which techniques were associated with BC AVID and which were not.

COMPARING STUDENTS IN THE COMPARISON GROUP WITH STUDENTS AT NON-AVID SCHOOLS

To some extent, AVID is a compilation of techniques that are widely taught and used in many BC schools. Survey respondents may therefore have known about and used these techniques even without BC AVID. If so, the knowledge exhibited by comparison group members in the last section may be an unbiased estimate of what techniques would have been known by program group members even if they had not been in BC AVID. An alternative explanation is that, to some degree, the comparison group learned the techniques only because of the presence of BC AVID in their school. Under this explanation, the knowledge of AVID techniques by the comparison group would be greater than that which the program group would have attained if BC AVID had never existed at their school. That is, BC AVID would have “spilled over” into the comparison group, creating a bias in the estimation of the experimental impacts of BC AVID.

To distinguish between these two explanations, this section uses the Grade 11 survey to compare the levels of exposure to AVID strategies and techniques among BC AVID comparison group members with those among students attending schools in other BC school districts that had no BC AVID program; these students will be called the “non-AVID school group.” If there are few differences between these two groups, the explanation that knowledge of AVID techniques among the comparison group simply reflects the widespread use of AVID techniques among BC students would be supported. However, if the comparison group reports higher levels of exposure to AVID techniques than students in non-AVID schools, this would support the second explanation that the comparison group has been affected by the BC AVID program in their schools. As noted at the start of the chapter, however, any comparison between the BC AVID comparison group and the non-AVID group must be viewed with caution due to the low response rate among students in non-AVID schools and the non-experimental nature of the comparison.

Despite these considerations, Table 5.8 shows that the personal characteristics of the BC AVID comparison group recorded in the survey are remarkably similar to the characteristics of the non-AVID school group. This similarity gives some assurance that any differences in exposure to AVID techniques are not caused by major differences in such observed characteristics. However, it remains possible that there are differences between the two groups in unobserved characteristics.

Table 5.8: Characteristics of Comparison Group and Students in Non-AVID Schools Between Grade 9 and Grade 11, by School Type

Characteristics	AVID School Comparison Group	Non-AVID School Group	Difference (s.e.)
Male	41.43	40.52	0.91 (3.52)
Born in Canada	92.81	86.35	6.47 *** (2.28)
Number of household members			
Three or less	28.80	28.46	0.35 (3.27)
Four	42.39	36.87	5.52 (3.53)
Five or more	28.80	34.67	-5.87 * (3.39)
Household members under 18 years of age			
One	38.91	40.17	-1.26 (3.63)
Two	40.96	35.40	5.55 (3.58)
Three or more	20.14	24.43	-4.29 (3.11)
Lives with one parent	20.00	18.80	1.20 (2.85)
that has a PSE qualification	9.03	8.62	0.42 (2.05)
Lives with both parents	76.45	79.40	-2.95 (2.98)
and at least one parent has PSE education	32.58	40.20	-7.62 ** (3.49)
Number of Grade 8 schoolmates that are attending respondents' Grade 11 school			
Few or none	18.01	17.27	0.74 (2.75)
Some, most, or all	81.99	82.73	-0.74 (2.75)
Sample size	321	501	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

Table 5.9 shows that students in the comparison group and the non-AVID school group were equally likely to claim they attended AVID classes, but both sets of claims lack credibility. The responses of the non-AVID school group are quite similar to the responses of the BC AVID comparison group but must be attributable to response error as their schools had no BC AVID classes to attend.¹³ The level of such response errors in the non-AVID school group suggests that the BC AVID

comparison group may have been erroneous in their claims of AVID elective class attendance in the survey. This, and the evidence mentioned in the last section, strongly suggest that there was virtually no comparison group attendance in AVID elective classes. Moreover, there were no observations by SRDC researchers or reports by BC AVID teachers suggesting that comparison group members were attending AVID classes.

Table 5.9: Attendance at AVID Classes Between Grade 9 and Grade 11

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Attended AVID classes or tutorials...			
Never	85.33	84.19	1.14 (2.59)
Rarely	9.42	7.81	1.61 (2.03)
Sometimes	3.52	4.15	-0.63 (1.42)
Often/Very often	1.73	3.85	-2.12 * (1.24)
Sample size	311	488	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

¹³ Conceivably, a student who participated in BC AVID could have moved to one of the non-AVID schools and been asked to respond to the Grade 11 survey. However, all project participants and all Grade 11 survey respondents provided PENs (provincial education numbers) that uniquely identify every student in the province. Less than five matches were found between project participants and non-AVID school survey participants. Sample sizes less than five are suppressed in order to respect the confidentiality of research sample members' data.

Even though we can assume that comparison group attendance in the AVID elective class was non-existent or extremely rare, Table 5.10 shows non-trivial differences between the comparison group and the non-AVID school group with respect to their exposure to AVID techniques. Between Grade 9 and Grade 11, more comparison group members (by 4.9 percentage points) said that teachers often taught them lessons or techniques that they identified as from AVID. About 15 percentage points

more said that teachers sometimes did. About 42 per cent of the BC AVID comparison group members said that one or two teachers taught them techniques the teachers said were from AVID, 29 percentage points more than in the non-AVID group, while 13.5 percentage points more said that three or more teachers did the same. More comparison group students (by about 12 percentage points) said they sometimes used techniques that they knew were from AVID.

Table 5.10: Reported Receipt and Use of AVID Lessons and Techniques Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Teachers taught respondent lessons or techniques that they told students were from AVID			
Never or rarely	70.13	89.94	-19.80 *** (2.69)
Sometimes	21.98	7.10	14.88 *** (2.39)
Often or very often	7.89	2.96	4.93 *** (1.57)
Number of teachers who taught respondent lessons and techniques from AVID			
None	41.49	83.86	-42.37 *** (3.06)
One or two	41.73	12.86	28.87 *** (2.94)
Three or more	16.78	3.28	13.50 *** (2.00)
Respondent used lessons or techniques they knew were from AVID			
Never or rarely	77.87	93.44	-15.56 *** (2.38)
Sometimes	16.63	4.90	11.74 *** (2.12)
Often or very often	5.49	1.67	3.83 *** (1.28)
Sample size	311	493	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

These responses may reflect true differences in exposure to AVID techniques but the results in tables 5.11–5.14 suggest that they reflect only differences in knowledge about which techniques were associated with BC AVID. That is, comparison group students had the same exposure to specific AVID techniques as the non-AVID school group, but were more aware that these techniques were related to BC AVID. Comparison group students may have obtained this knowledge because teachers or students in AVID schools were more likely to know and mention that a technique was used in BC AVID. This explanation implies that comparison group members did not have higher levels of specific AVID techniques than the students from non-AVID schools.

Tables 5.11–5.14 demonstrate that there are few statistically significant differences in the level of exposure to specific AVID techniques between the comparison group and the students at non-AVID schools. This suggests that, with the exceptions noted below, the exposure to AVID techniques was about the same in the BC AVID comparison group and in the non-AVID group. This in turn implies that the spillover of AVID techniques to the comparison group was relatively small and that the experience of the comparison group can be used as a reasonable proxy for what would have happened to the program group had BC AVID not existed at the project sites. Of the statistically significant differences, many are either too small to be important to the estimates of the program impacts or suggest that the comparison group was exposed to *fewer* AVID techniques than students at non-AVID schools.

The first exception is that the comparison group appears to have had modestly more instruction in Cornell Notes than students in non-AVID schools and they used Cornell Notes somewhat more often. These differences are reasonably consistent across a number of separate questions and, consequently, are not likely to be due to chance alone. Table 5.11 shows that, between Grade 9 to Grade 11, more comparison group members (by 7.0 percentage points) said they had been taught Cornell Notes six times or more than did students at non-AVID schools. More comparison group members than students at non-AVID schools (by 12.4 percentage points) said they often used Cornell Notes. These differences suggest that there may be a modest level of AVID spillover to comparison group members with respect to Cornell Notes.¹⁴

14 A substantial portion of these differences comes from a single BC AVID school in which Cornell Notes were known to have been taught to students *prior to the start of BC AVID*. In that one school, 75 per cent of the comparison group said they often used Cornell Notes. If that one school is removed, the difference in the use of Cornell Notes between the comparison group and non-AVID schools is reduced by 4.0 percentage points to 8.4 percentage points. This shows that the magnitude of any potential spillover with respect to Cornell Notes is sensitive to the inclusion of one school with a strong pre-study history of using the technique.

Table 5.11: Note Taking Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Respondent note-taking lessons			
Teachers taught Cornell Notes			
Two times or less	64.20	73.10	-8.90 *** (3.30)
Three to five times	22.95	21.05	1.90 (2.97)
Six times or more	12.85	5.85	7.00 *** (2.02)
Respondent was taught how to take good notes			
Two times or less	41.79	45.57	-3.77 (3.61)
Three to five times	40.79	35.56	5.23 (3.51)
Six times or more	17.41	18.87	-1.46 (2.80)
Teacher or tutor graded respondent on their notes or whether they took notes			
Never or rarely	67.31	65.18	2.13 (3.45)
Sometimes	24.36	26.01	-1.65 (3.18)
Often or very often	8.33	8.81	-0.48 (2.06)
Respondent's note taking			
Respondent used Cornell Notes			
Never or rarely	61.14	69.96	-8.82 *** (3.39)
Sometimes	14.21	17.82	-3.60 (2.68)
Often or very often	24.65	12.22	12.43 *** (2.68)
When respondent took notes, he/she wrote questions in notes about things to learn more about			
Never or rarely	56.32	60.57	-4.25 (3.57)
Sometimes	28.03	27.84	0.19 (3.26)
Often or very often	15.65	11.58	4.07 (2.47)
When respondent took notes, he/she wrote a short summary in notes of what respondent learned			
Never or rarely	68.05	75.83	-7.78 ** (3.25)
Sometimes	21.25	16.75	4.50 (2.83)
Often or very often	10.70	7.42	3.28 (2.06)
Other lesson-summary techniques			
Respondent summarized lessons in "Learning Logs"			
Never or rarely	78.96	75.39	3.57 (3.05)
Sometimes	17.09	17.27	-0.18 (2.74)
Often or very often	3.95	7.34	-3.39 ** (1.71)
Sample size	317	505	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

Other differences between the two groups are more likely due to chance. The final rows of Table 5.11 show a *negative* impact on the percentage of students that have summarized their lessons using a technique called Learning Logs. Table 5.12

shows *negative* differences on AVID techniques used during the tutorials the students attended. Table 5.13 shows a negative difference regarding teacher advice to the respondent to take challenging courses.

Table 5.12: Tutorials Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Respondent attended tutorials			
Never or rarely	73.27	73.28	-0.01 (3.22)
Sometimes	18.72	18.72	0.01 (2.84)
Often or very often	8.01	8.00	0.01 (1.98)
Respondent attended tutorials that gave student a choice over which courses to work on			
	20.66	15.33	5.33 * (2.73)
In tutorials that respondent attended, students were expected to bring questions or topics to the tutorials			
Never or rarely	24.95	22.36	2.60 (3.08)
Sometimes	15.45	14.85	0.61 (2.59)
Often or very often	15.99	16.52	-0.53 (2.70)
Student did not attend tutorials	43.62	45.98	-2.36 (3.62)
In tutorials that respondent attended, students were expected to help each other answer questions without getting the answer from the teacher/tutor			
Never or rarely	22.49	16.67	5.82 ** (2.85)
Sometimes	23.06	21.54	1.51 (3.02)
Often or very often	10.72	15.60	-4.88 * (2.49)
Student did not attend tutorials	43.62	45.98	-2.36 (3.62)
In tutorials that respondent attended, students were expected to work in small groups to help each other with problems or questions			
Never or rarely	16.18	11.74	4.44 * (2.49)
Sometimes	23.79	18.62	5.17 * (2.94)
Often or very often	16.42	23.46	-7.04 ** (2.93)
Student did not attend tutorials	43.62	45.98	-2.36 (3.62)
Sample size	313	504	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

Table 5.13: Other AVID Techniques Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Writing			
Respondent started most or all essays by quickly writing ideas/facts	45.92	45.04	0.88 (3.61)
Respondent did writing exercise called "Quick Writes" often or very often	33.87	24.80	9.07 *** (3.27)
Respondent wrote autobiographical essay three times or more	23.64	19.15	4.49 (2.98)
Inquiry			
Respondent asked questions in class often or very often	54.98	55.09	-0.11 (3.61)
Respondent was required often or very often to think up questions that he or she and/or other students will answer in class	25.39	27.32	-1.93 (3.21)
Respondent has been taught about different types or levels of questions	40.24	31.13	9.11 *** (3.45)
Respondent was taught Costa's Levels of Questions often or very often	5.31	0.64	4.67 *** (1.11)
Respondent used Costa's Levels of Questions often or very often	5.10	1.59	3.51 *** (1.23)
Respondent took part in a type of debate called "Philosophical Chairs"	14.30	14.09	0.21 (2.68)
Respondent took part in discussion of short reading called "Socratic Seminars" three or more times	7.90	3.97	3.94 ** (1.77)
Collaboration			
Respondent often or very often worked in small groups	38.35	36.61	1.74 (3.51)
Most or all group work that was done was done all together by the group in a joint or collaborative effort	43.37	38.26	5.11 (3.62)
Binders, organization, and planning			
Respondent was often or very often graded on binders and how they were organized	8.30	9.39	-1.08 (2.08)
Respondent often or very often kept notes in a single binder	28.81	27.96	0.85 (3.27)
Respondent often or very often recorded important dates (exams, deadlines) in a calendar or planner	27.43	30.81	-3.38 (3.19)
Respondent has written out long-term plans three times or more	22.55	23.05	-0.49 (3.05)
Teachers' advice and assistance			
Teacher often or very often advised CLASS to take academically challenging courses	14.22	16.39	-2.18 (2.64)
Teacher often or very often advised RESPONDENT to take academically challenging courses	14.82	20.34	-5.52 ** (2.80)
Teacher often or very often advised CLASS to take further education after high school	58.64	56.07	2.57 (3.61)
Teacher often or very often advised RESPONDENT to take further education after high school	46.52	47.71	-1.19 (3.65)
Respondent often or very often had a classroom teacher who...			
supported academic progress in all courses	31.10	28.91	2.20 (3.33)
supported respondent if personal matters affected respondent's school work	33.59	30.35	3.24 (3.39)
Other			
Class often or very often had guest speakers talking about education experiences	29.02	28.12	0.91 (3.28)
Class visited PSE institution two or more times	34.74	35.17	-0.43 (3.49)
Sample size	318	505	

Source: Grade 11 survey

When the AVID comparison group is contrasted with the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

However, Table 5.13 also shows several positive impacts on using and being taught about levels of questions, including Costa's Levels of Questions. The consistency of these results over several questions again suggests that these responses represent some form of spillover. However, the magnitude of these differences is small and, as a likely consequence, so would be any resulting bias. On balance, it would seem that these two differences—in exposure to Cornell Notes and to Costa's Levels of Questions—represent real differences between the comparison group and the non-AVID school group. However, the lack of additional confirming questions, the large number of tests, and the unknown level of measurement error leave substantial room for arguing that one or both of these results are artefacts of either chance or response error.

Only a small percentage of the comparison group often received a greater number of techniques than the non-AVID school group. Table 5.14 shows that the comparison group received on average 0.1 more of the five core AVID techniques. The non-AVID school group was 7.0 percentage points more likely to receive at most one AVID technique often or very often. However, the comparison group was 7.0 percentage points more likely to receive two or more AVID techniques often or very often. There are no statistically significant differences between the two groups when the broader measures using seventeen AVID techniques are examined. These results are broadly consistent with a very modest spillover with respect to the core techniques of Cornell Notes and Costa's Levels of Questions, as well as possible effects on the non-core techniques of Quick Writes and Socratic Seminars.

Table 5.14: Number of AVID Techniques Used Between Grade 9 and Grade 11, by Comparison and Non-AVID Groups

	AVID School Comparison Group	Non-AVID School Group	Impact (s.e.)
Five core AVID techniques			
Of the five core AVID techniques...			
Number of techniques received often or very often	0.66	0.55	0.11 ** (0.05)
Per cent receiving no techniques often or very often	50.12	52.82	-2.70 (3.62)
Per cent receiving either zero or one technique often or very often	86.43	93.50	-7.07 *** (2.09)
Per cent receiving two techniques or more often or very often	13.57	6.50	7.07 *** (2.09)
Per cent receiving three techniques or more often or very often	1.84	0.82	1.02 (0.80)
Seventeen AVID techniques			
Of the seventeen AVID techniques...			
Number of techniques received frequently	2.81	2.86	-0.05 (0.15)
Per cent receiving no techniques frequently	11.83	10.81	1.03 (2.28)
Per cent receiving two techniques or less frequently	48.84	49.45	-0.61 (3.59)
Per cent receiving five techniques or more frequently	20.82	19.24	1.58 (2.88)
Per cent receiving eight techniques or more frequently	2.49	3.40	-0.91 (1.24)
Per cent receiving twelve techniques or more frequently	-0.03	0.42	-0.45 (0.36)
Sample size	320	506	

Source: Grade 11 survey

The five "core" AVID techniques are "often or very often" attending AVID class, doing work in small groups, attending tutorials, being taught Cornell Notes, and being taught Costa's Levels of Questions. These five core techniques are also included in the 17 AVID techniques, which include "often or very often" being expected to bring questions to tutorials attended, working in small groups to help in other tutorials attended, writing Learning Logs, putting notes in a single binder, being graded on how binders were organized, having guest speakers, and putting important dates in a calendar or planner. They also include doing Socratic Seminars, writing long-term plans, and having teachers advise a class to take challenging courses three or more times. Finally, it includes visiting PSE institutions two or more times and taking part in Philosophical Chairs at least once.

When the AVID comparison group is contrasted to the AVID program group, the percentages of both groups are weighted to reflect the original recruitment into the AVID program. As a result, the comparison group percentages in those tables are slightly different from the unweighted percentages in the current table.

Sample sizes vary for individual measures because of missing values.

Statistical significance levels for impacts are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Estimates adjusted.

CONCLUSION

The Grade 11 "How do you learn?" survey showed that program group members were much more likely to have been taught AVID techniques than comparison group members. These differences, known as treatment differentials, were sometimes more than 60 percentage points. For example, the program group was 62 percentage points more likely to have frequently received exposure to 8 or more of the 17 AVID techniques noted in Table 5.7. Specifically, large treatment differentials exist for variables such as being taught AVID techniques often, attending AVID classes, being taught and using Cornell Notes, and attending tutorials. Smaller, but still important, differentials existed for other techniques such as often working in small groups. Only occasionally, as with most writing techniques, were there only small treatment differentials. Substantial treatment differentials are important because they allow the program to demonstrate its potential impact, small or large, on the current and future educational outcomes of the program group. In contrast, a small treatment differential would typically imply limited potential to produce large impacts on outcomes for the entire sample.

The Grade 11 survey also showed that, for the most part, the level of exposure to specific AVID techniques among the comparison group was similar to that found among students at non-AVID schools. This implies that, for the most part, exposure to AVID techniques among the comparison group was due to these techniques being widespread among BC high school students rather than due to spillover caused by the experiment itself.

The *potential* for comparison group spillover and its *potential* for inducing bias is a serious matter for any research study, whether it is an experimental or non-experimental study. Out of respect for this *potential* effect, this study has gone beyond normal research practice to commission a special survey to examine whether, and to what extent, BC AVID spilled over into the comparison group as a result of the operation of the BC AVID experiment in their schools. However, the detailed look at potential bias found that the spillover effects were quite limited. They are unlikely to affect either the magnitude or the statistical significance of the results either in this report or in future reports.



6

Interim Impacts of BC AVID

Introduction

Chapter 5 concluded that (1) BC AVID had created a significant "treatment differential" between the BC AVID program and control groups; and (2) the limited "spillover" of BC AVID to the comparison group was unlikely to lead to biased estimates of the interim and final impacts of the *offer* of BC AVID. This chapter presents the experimental impacts of the offer of BC AVID on the outcomes that could be expected to occur in high school if an increase in post-secondary education is to be realized. These are the impacts suggested by the logic model developed for the project (and reproduced in Chapter 1, Figure 1.1).

According to that logic model, BC AVID tries to change the high school experience of AVID students in ways that will encourage their enrolment in post-secondary education. As described in earlier chapters of this report, students selected for BC AVID are expected to participate in the AVID elective classes from Grade 9 to Grade 12. Compared with students who are not enrolled in the program, BC AVID students would be more likely to have adopted specific study skills, taken more rigorous courses, and been exposed to a wider range of information about post-secondary education. These new experiences are expected to lead to changes in behaviours, such as better attendance at school, completion of a greater number of rigorous courses, improved grades, and improved test scores and overall grade point averages (GPAs). This chapter provides the first indications of whether these key precursors to post-secondary education enrolment are happening. In particular, this chapter presents experimental impacts on the following outcomes:

- the number and type of rigorous courses taken in grades 10 and 11;
- subject areas of study in grades 9, 10, and 11;
- the number of days absent in grades 9, 10, and 11;
- GPAs in grades 9, 10, and 11; and
- results on provincial examinations taken in grades 10 and 11.



Divergent: Move Away!
← →

Convergent: Move +
→

Transform: Move Side

Because these are interim impacts, readers should not judge the efficacy of BC AVID by its success in affecting these outcomes. The true impact of BC AVID will be observed only when data on enrolment in post-secondary education become available. If, however, positive impacts on these interim outcomes are observed, then it might seem that the mechanisms through which BC AVID is intended to affect post-secondary education enrolment are operating as envisioned. Alternatively, observing no differences between the program and comparison groups on these measures would show that the desired changes in high school behaviour were not yet occurring. In either case, the offer of BC AVID might still have an effect on post-secondary education enrolment.

The chapter begins by discussing the data and methodology used in calculating the effects of BC AVID up to the end of Grade 11. It then presents a statistical comparison of the BC AVID program and comparison groups, using selected characteristics of the sample just before they began participating in the project. The remaining sections examine the interim impacts of BC AVID. At the very end of this chapter, qualitative evidence of AVID's effects on students, as reported to SRDC by AVID staff, are included in Text Box 6.2.

CHAPTER SUMMARY

- **In Grade 9, program group students took the AVID elective class in lieu of other elective courses, primarily in fine arts and applied skills.** Enrolment in fine arts courses by program group students was lower by 18.2 percentage points and in applied skills by 13.9 percentage points.
- **BC AVID increased enrolment in all but one type of rigorous course during Grade 10.** Enrolment was higher in Principles of Mathematics 10 by 8.6 percentage points, English by 4.7 percentage points, Science by 4.7 percentage points, and Social Studies 10 by 5.1 percentage points. There was no statistically significant difference in the proportion taking foreign language courses. There was also a positive impact on the proportion taking between four to eight rigorous courses. By Grade 11, the offer of BC AVID influenced enrolment in English and Social Studies.
- **In Grade 10, program group students who took the AVID elective class did so in place of the required Planning 10 course,** likely because they were given credit for Planning 10 if they enrolled in the Grade 10 and Grade 11 AVID elective classes. Only 48.3 per cent of program group members enrolled in Planning 10, compared to 74.9 per cent of comparison group members.
- **The offer of BC AVID increased the number of days absent from classes during grades 9 and 10.** In Grade 9, the proportion recorded absent from their BC AVID school between one and twenty days is larger among program group members. Fewer comparison students were absent one to ten days in Grade 10 and more of them were never absent.
- **Results on BC AVID students' course marks indicated that they had somewhat lower grades than the comparison group. However, fewer of them were recording failing grades in their courses.** In Grade 9, a higher proportion of BC AVID students did not receive an A grade in any of their courses, and in grades 9 and 10, a higher proportion received a C grade in more than half of their courses. In Grade 11, program group students were 6.4 percentage points less likely to end up with at least one failing grade.
- **BC AVID had a positive effect on the rigorous course choices of BC AVID students, as reflected in provincial examination data.** By the end of Grade 11, BC AVID students were more likely to have taken the provincial exams for Principles of Mathematics 10 and Social Studies 11. There were no significant differences in the proportion taking the English 10 or Science 10 examinations. The BC AVID offer caused a 7-percentage-point higher proportion of students that took the provincial examinations in Principles of Mathematics 10 (possibly one of the most rigorous Grade 10 courses), but also a 3.8-percentage-point higher proportion that failed the exam. At the same time though, students offered BC AVID were more likely to receive a C- or better as the final grade for the Principles of Mathematics 10 course, a grade that took into account their in-class work.

DATA AND METHODOLOGY

The data for the impact analyses conducted in this chapter come from two different sources: the BC Ministry of Education (MOE) and the school districts in which the AVID schools were located. *Only data for students in the 14 sites where random assignment took place in Grade 9 will be used in this analysis.* This includes 791 students in the BC AVID program group and 450 students in the comparison group.¹ The MOE provided individual-level data for grades 10 and 11. These data included results for grades 10 and 11 provincial examinations, course choices, and marks for non-exam courses taken in grades 10 and 11, from whichever BC high school the student was in at the time.² The school districts participating in BC AVID provided individual-level data on course choices, course marks, and incidence of absences for grades 9, 10, and 11.³ Data from all three files—MOE provincial exam course records, MOE non-exam course records, and school district records—were combined to create an analysis file that captures the students' course and provincial examination participation, their attendance in school, and academic achievement from grades 9 through 11. While there is some overlap between the MOE non-exam records and the school records, neither file contained complete information on all students in the sample. Combining the files provides a more reliable analysis of students' experiences from Grade 9 through Grade 11 than each individual data source would allow. In addition, data from surveys completed by students and parents prior to random assignment in Grade 8 are used for a comparative statistical analysis of the characteristics of the program and comparison groups prior to the implementation of BC AVID.

The method used to measure the impacts of BC AVID takes into account a feature of the project that would create biased estimates if a simple difference in group means was used to calculate the impacts.⁴ When participation in a program is randomly determined, the usual way to measure the impact is to compare the mean outcome, calculated across all program group members, to the mean outcome calculated across all comparison group members. However, because the two cohorts of BC AVID participants were randomly assigned in 14 different sites, using different assignment ratios, a simple comparison of the group means would not be a valid impact estimate.⁵ Instead, impacts are first calculated for each cohort within each site. An overall weighted average impact is then estimated, using the proportions of AVID-eligible students in each site and cohort as the weights.⁶ Such a weighted average not only addresses the potential bias created by different assignment ratios but also takes into account the fact that treatment effects may differ across sites and cohorts. For this reason, using a method that allows for different treatment effects is preferred. Text Box 6.1 provides an illustration and more details on why the use of weights was necessary for the calculation of BC AVID impacts.

BASELINE CHARACTERISTICS

Usually, one of the first steps in examining the impact of a program is to compare the pre-program characteristics of the participants in the program and comparison groups. This is to determine whether there are systematic differences between the two groups before the "treatment" is implemented for the program group. Ideally, if the random assignment process worked as designed, the program and comparison groups would have similar observable and unobservable characteristics *before* the start of the program. Any differences observed *after* program participation can then be confidently attributed to the intervention. Random assignment is generally accepted as one of the best mechanisms to obtain similar experimental groups. However, it is not uncommon that a well-designed and implemented random assignment procedure yields, by chance, experimental groups that are statistically different in one or more characteristics. Differences created by such sampling variation do not bias the impact estimates. However, any large differences that exist prior to participation in the program may justify controlling for important covariates in the statistical analysis in order to improve the precision of the impact estimates.⁷

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- 1 The sample used for analysis in this chapter excludes four students who withdrew from the research project after they became project participants. The 103 waitlist students are not included in the impact estimates because they do not receive the same treatment as program group members. Waitlist students might never be invited to join the AVID course or might join much later than other AVID students in their cohort. Those who do not attend AVID cannot be included in the comparison group because being on the waitlist may have changed their outlook and subsequent behaviour.
 - 2 Because the MOE provided data on all provincial exams taken in all BC high schools, exam results are known even for students who transferred to a different school. The information provided by the MOE consists of (1) "non-exam" records, which contain information on high school courses taken; and (2) exam records, which contain the results of the class and examination components of high school courses with associated provincial examinations.
 - 3 In general, it is difficult to obtain individual-level data from the BC AVID school on course choices, course marks, and incidence of absences for students who have moved away from the school. By the end of Grade 11, 14.2 per cent of program group students and 19.3 per cent of comparison group students had left their original AVID school. Because the MOE centralized database does not include all district data, it does not capture attendance for any grade or the nature of Grade 9 courses.
 - 4 One source of bias—the spillover of BC AVID to the comparison group—was discussed in Chapter 5. The analysis in that chapter suggested that the bias created by any spillover was likely to be inconsequential. The bias discussed here is a different one that might be created by unequal assignment ratios.
 - 5 The assignment ratio in an experiment is the ratio of program members to comparison group members. For example, a 2–1 assignment ratio would involve randomly assigning two students to the program group for each student assigned to the comparison group.
 - 6 While there are several different weighting schemes that might be used, it was decided to use the proportion of all AVID-eligible students in each cohort and site. Therefore, even though the waitlist students are not included in the calculation of site-specific program-comparison impacts, they are included in the calculation of the weights because they are deemed part of the AVID-eligible population in each grade year at the school. That is, they were identified as AVID-eligible in the same way as other participating students.
 - 7 SRDC researchers have adopted a technique called "regression adjustment," which is the usual procedure for increasing the precision of estimates of impact by taking into account ("adjusting") the chance differences found at baseline.

Text Box 6.1: Calculation of BC AVID Impacts

The randomized trial of BC AVID is taking place in 14 British Columbia sites. A “site” is either a single high school with students enrolled in grades 8 through 12 or a combination of a middle school with Grade 8 students and the (senior) secondary school that it normally feeds (see Appendix 2). Each of the 14 sites created at least one AVID class for the first cohort of BC AVID students who were in Grade 9 in the 2005–06 school year; 13 of the 14 schools also created a BC AVID class for a second cohort of students who were in Grade 9 in the 2006–07 school year. Thus, there are 27 distinct **school cohorts** of AVID students.

Each AVID-eligible student was randomly assigned to one of three groups: (1) a program group that would be offered a place in the AVID elective class; (2) a comparison group whose members were not allowed to enrol in the AVID elective class; or (3) a group that was placed on a waiting list. Those on the waiting list were assigned their position on that list at random and could be considered for entry into the AVID elective class if a space became available. Random assignment occurred within each of the 27 school cohorts. To accommodate operational needs at the school level (with an assumed maximum class size of 30) the assignment ratio of program group to comparison group members varied by school and cohort according to the number of eligible participants at the school. In school cohorts with a small number of AVID-eligible students (45 or fewer), the ratio of program group to comparison groups members was 2–1; when more AVID-eligible students were available, the assignment ratio was lower than 2–1. See Dunn *et al.* (2009) for a complete description of how the assignment ratios were determined. These different assignment ratios across sites had important implications for how the impact of BC AVID was calculated.

Because the assignment ratio was somewhat different across the 27 school cohorts, the overall impact of BC AVID on any outcome cannot be calculated by simply subtracting the overall mean of the comparison group from the overall mean of the program group. To illustrate this, Line 1 of the table below shows a situation in which the assignment ratio in a school with high average achievement scores was 1–1, with 100 students in each group. Line 2 shows the assignment ratio in a school with low average achievement scores was 2–1 (with 100 students in the program group and 50 in the comparison group). Suppose the impact of the program was the same in both schools, raising the average score by 10 points, from 70 to 80 in the high achievement school and from 50 to 60 in the low achievement school. The impact of the program on average exam scores is clearly 10 points, but the simple unweighted difference in means, as shown in the table, would be only 6.7 points. The fact that the comparison group in the high achievement school is relatively large creates a downward bias in the impact estimate. One solution is to first calculate school cohort impacts, then estimate an overall weighted average impact using the proportion of AVID-eligible students in each school and cohort as the weights. This is the solution adopted for this report.

	Program Group	Comparison Group	Program Group Mean	Comparison Group Mean	Impact
High Achievement School	100	100	80.0	70.0	10.0
Low Achievement School	100	50	60.0	50.0	10.0
Overall Sample (without weights)	200	150	70.0	63.3	6.7

In the end, however, the varying assignment ratios and the consequent need to weigh the impact estimates did not lead to BC AVID impacts that differed very much from the simple difference in means. The impact estimates are not very sensitive to the use of weights or to the nature of the weights adopted.

Table 6.1 presents selected characteristics of students in the BC AVID program and comparison groups when the students were in Grade 8, the year preceding any involvement with BC AVID. These results demonstrate the effectiveness of the random assignment process. The baseline measures include

attributes that are important to the BC AVID selection process or that may affect post-secondary education attainment. As will be shown below, the two groups were quite similar when selected, with one notable exception: the intention (reported in Grade 8) to go on to university.

Table 6.1: Selected Baseline Characteristics of the Impact Sample, by Experimental Group

Characteristics	Program Group	Comparison Group	Difference (s.e.)
Male	47.64	45.10	2.54 (2.97)
Average age (years)	13.86	13.87	-0.01 (0.02)
Aboriginal	9.02	9.11	-0.09 (1.70)
English as a second language	3.85	5.23	-1.38 (1.03)
Average grade in B–C range	82.73	83.50	-0.77 (2.12)
Never absent	12.15	13.20	-1.05 (1.94)
Absent 7 or more days	24.28	24.88	-0.60 (2.52)
Did homework often or all the time	80.98	81.90	-0.92 (2.26)
Did as little work as possible	7.46	8.24	-0.78 (1.59)
Completed homework on time often or all the time	72.28	75.16	-2.88 (2.58)
Took notes often or all the time	43.82	43.63	0.19 (2.88)
Studied from notes taken often or all the time	42.84	43.84	-1.00 (2.92)
Expected to graduate from high school	99.89	100.00	-0.11 (0.16)
Expected to go to university	67.99	73.99	-6.00 ** (2.97)
Expected to go to college	22.88	19.12	3.77 (2.69)
Expected to go to vocational institution	6.63	4.44	2.19 (1.54)
Single-parent family	20.68	18.66	2.02 (2.38)
Family income (\$)	69,540.18	70,277.86	-737.68 (2,493.97)
Mother expected the student to go on to PSE	75.95	79.75	-3.80 (2.68)
Father expected the student to go on to PSE	82.49	84.42	-1.93 (2.31)
Sample size	791	450	

Source: BC AVID Pilot Project baseline survey of parents and students.

Sample sizes vary for individual measures because of missing values.

This could cause slight discrepancies in sums and differences.

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Sample baseline characteristics were discussed in the Early Implementation Report (Dunn *et al.*, 2008), but it is worth revisiting some of the main characteristics of participants at the time they joined the study, when students were, on average, almost 14 years old. About 10 per cent of students in both the program and the comparison groups identified themselves as Aboriginal. There was a slightly larger proportion of girls than boys in both experimental groups—52.4 per cent of the program group and 55.0 per cent of the comparison group were female students. Approximately one-fifth of the students in the program and comparison groups lived in a single-parent household and, on average, the family income was \$69,540 for program students and \$70,278 for the comparison group. This difference in average family income is not statistically significant.

Most students reported that they intended (often or all the time) to complete their homework and did so on time. The students all expected to graduate from high school and the vast majority expected to pursue some type of post-secondary education. High proportions of the students' parents also expected the participants to pursue further education after high school. However, compared to the program group, a higher proportion of students in the comparison group expressed an intent to pursue a university degree (74 per cent versus 68 per cent), a difference that is statistically significant at the 5 per cent level. However, the proportion expecting to enrol in any form of post-secondary education—the main goal of BC AVID—is identical across groups. Consequently, any statistically significant differences in outcome measures for students in the program group compared to students in the comparison group can be attributed to the offer to be part of BC AVID.

INTERIM IMPACTS

The remainder of this chapter presents estimates of the impacts of offering BC AVID on the outcomes mentioned in the introduction. First, however, the challenges in measuring the program's impact are addressed. This section then reports on the impact estimates calculated for the outcome measures in Grade 9 through Grade 11.

At least three issues complicate the interpretation of the BC AVID impact results. First, a sizeable proportion of AVID students did not participate fully in the AVID class. As mentioned in Chapter 3, roughly half of the students assigned to the program group had left the AVID elective class by the end of Grade 11. Approximately 5 per cent of program group students departed from the Grade 9 elective class after less than a month and just under 4 per cent of the program group never attended an AVID class. The impact results presented below are the effect of *offering* BC AVID to eligible students, not the effect of participating in BC AVID for three years.

The second issue pertains to one of the most common reasons students gave (as reported in Chapter 3) for leaving the AVID elective course—moving to another school. While movement of students is quite normal, a *differential* rate of movement between students in the program and comparison group was not expected. About 9 per cent of the BC AVID program group students and 13.8 per cent of the comparison group had left the BC AVID school by the end of Grade 10. This difference is statistically significant at the 1 per cent level of significance. At the end of Grade 11, about 14 per cent of the program group and 19.3 per cent of the comparison group had left the AVID school. More of the students offered BC AVID (by about five percentage points) remained in the BC AVID school. It is not known how, or if, those who left the AVID school may have changed the impact results.

The third issue, which, unlike the first two, creates a potential bias, arises because of missing information on individual outcomes. This is especially problematic for measures of school attendance. Several school districts did not provide complete information on school attendance. In Grade 9, attendance data are missing for 6.3 per cent of the program group and 12.3 per cent of the comparison group. In grades 10 and 11, the data on attendance were of better quality and the proportion missing is equivalent for both groups—about 5–6 per cent in Grade 10 and 3–4 per cent in Grade 11. Outcome data were also missing because some students moved out of the province or dropped out of school. If outcome data are missing because of random factors, no bias is created by using only the existing information. Because it cannot be known with certainty why the outcome data are missing, however, all the impact tables below include information on (a) the proportion of students that had left the BC AVID school and (b) the proportion of students with missing information on the outcome measures in the relevant grade.⁸

Impacts on Courses

The BC school curriculum, for grades 9 through 11, consists of a varying number of required and elective courses. Required courses include mathematics, sciences, social studies, English, and physical education. Elective courses usually include courses in foreign languages, computer skills, drama, music, fine arts, and applied skills.

Typically, BC ninth graders are required to enrol in eight courses. Five are required courses in English, mathematics, social studies, science, and physical education. The remaining three electives are selected from available courses, primarily those in fine arts and applied skills. Grade 9 BC AVID students were offered the chance to fill one of these elective spaces with the AVID elective class.

⁸ When provincial examinations are being analyzed, data are available for students who left their BC AVID school in order to attend another high school in British Columbia.

In grades 10 through 12, students are accumulating credits towards high school graduation and are required to again take courses in English, mathematics, social studies, science, and physical education, as well as Planning 10, a Grade 10 course that is required for graduation.⁹ Students must complete 28 elective credits between grades 10 and 12 in order to graduate. As in Grade 9, one of the electives available to program group participants was the AVID elective course. And, as discussed in Chapter 2, the content of Planning 10 was commonly incorporated into the Grade 10 and Grade 11 AVID elective classes. Students who completed both the Grade 10 and Grade 11 AVID elective class should thus have received credit for Planning 10.

Some required academic courses are organized into distinct patterns or “pathways.” For example, during the study period, there were three distinct patterns in high school mathematics in British Columbia—Principles, Applications, and Essentials.¹⁰ The course labelled “Principles of Mathematics” is the most challenging of the three. It focuses on understanding concepts of algebra, trigonometry, statistics, and probability. Moreover, it is an important course for those looking to go on to university because it is an entrance requirement for the University of British Columbia (UBC). “Applications of Mathematics” prepares students for post-secondary programs that do not require calculus, such as certificate and vocational programs and some university degrees. It develops applied mathematical skills with little emphasis on symbol manipulation. The course called “Essentials of Mathematics” develops the numeracy skills and knowledge necessary for daily life. “Essentials” is the least rigorous of the three mathematics courses and prepares students for a limited number of trade and vocational programs. A passing grade in any of the three Grade 11 mathematics courses is sufficient to graduate from high school, but it is clear that not all three will meet the requirements for university enrolment. Similar streams exist for English, with the choice being English or Communications; Communications is the less challenging of the two streams.

Impacts on Rigorous Courses

Despite the existence of the various pathways and despite the fact that there are no formal prerequisites for any high school courses, course choices and performance in Grade 9 clearly play a role in determining courses selected in grades 10 through 12.¹¹ As documented in chapters 2 and 5, BC AVID encouraged students to select more rigorous courses than they normally would have chosen. Although rigorous course choice is critical to BC AVID and thus to its evaluation, neither the US AVID program nor the BC Ministry of Education has a formal definition of what constitutes a “rigorous” course. The AVID Center’s abbreviated statement of the fourth Essential—labelled “Rigor”—states that AVID students must become enrolled in a rigorous course of study that will enable them to meet requirements for post-secondary enrolment.¹² In the BC AVID context, this Essential has been interpreted to mean students should graduate “able” to participate in a range of possible post-secondary options (including community college and apprenticeships).

9 In order to graduate from a BC high school, students must earn 48 credits from required courses, 28 credits from electives and 4 credits from Graduation Transitions Programs. These 80 credits are accumulated during grades 10 through 12.

10 The BC math curriculum is being revised, with the revision to take effect in September 2010. See http://www.bced.gov.bc.ca/irp/irp_math.htm, accessed April 29, 2010.

11 According to the Ministry of Education, there are no formal prerequisites for any high school courses and “educational practice” informs decisions about whether a student has the background to succeed in any given course.

12 See chapters 1 and 2. AVID-as-designed tries to increase enrolment in four-year colleges and universities.

Without a precise definition, one of the first steps for the researchers evaluating the impact of the program offer on course choices was to decide how to define a “rigorous” course. SRDC developed a very specific—albeit ultimately arbitrary—definition for looking at the impact on rigorous course choices. After considering available data and several features of the program, a “rigorous” course in this chapter is defined as one that meets the general admission requirements of the University of British Columbia.¹³ UBC has relatively high general admission requirements that, if met, would be sufficient to ensure admission to many other institutions. It is also the largest post-secondary institution in the province, and more than half the provincial population lives within commuting distance of one of its four campuses. Therefore, high school courses that met UBC’s entrance requirements were defined as “rigorous” for the purposes of this report. Of course, many other courses involve a high level of skill and effort but will not meet this definition of “rigorous.” Moreover, many students will be able to enrol in post-secondary education without taking rigorous courses as defined here. That said, a “rigorous” course in the context of this chapter should be understood as one that meets UBC entrance requirements. For example, while Applications of Mathematics meets the requirement for enrolment in Canadian colleges and in some university programs, only Principles of Mathematics 11 meets UBC general entry requirements. Therefore, only Principles of Mathematics meets the definition of “rigorous” used in this chapter.

None of the UBC general admission requirements, however, involves courses taken in grades 9 and 10. Therefore, the definition of “rigorous” was expanded to include courses that are assumed to be prerequisites for courses that meet UBC general admission requirements. For example, while not a formal prerequisite, students are usually expected to take Principles of Mathematics 10 prior to taking Principles of Mathematics 11. Therefore, both Principles of Mathematics 10 and Principles of Mathematics 11 count as rigorous courses.¹⁴ Since courses in Applications of Mathematics and Essentials of Mathematics were not counted as “rigorous,” the expectation is that BC AVID would encourage students to enrol in Principles of Mathematics.

Using the definition provided above, the analysis of rigorous courses looked at enrolment in Principles of Mathematics, English, science, social studies, and any foreign language course, including French or Aboriginal languages, but excluding language courses at the introductory or beginner level. The analysis examines the number of rigorous courses that were taken by the students in grades 10 and 11 and the proportion taking each course or category of courses.¹⁵ The number of rigorous courses taken includes all rigorous courses taken at the enrolled grade level or higher.¹⁶

13 The general admission requirements of the University of British Columbia (found at <https://you.ubc.ca/ubc/vancouver/bcyt.ezc#gar>, accessed April 29, 2010) are as follows: (1) English 12; (2) Principles of Mathematics 11; (3) a Grade 11 language course; (4) a Grade 11 science course; (5) a Grade 11 social studies course; and (6) three additional Grade 12 courses (other than English 12).

14 To be specific, for this report: (1) Principles of Mathematics 10 and 11 are interpreted as the rigorous math courses; (2) English 10 and 11 are the rigorous English courses; (3) Grade 10 and 11 courses in science, chemistry, physics, biology, Earth science, and geology are rigorous science courses; (4) any Grade 10 and 11 language course, including French, are rigorous, except for language courses designated as “introductory”; (5) Grade 10 and 11 social studies, civic studies, First Nations studies, history, and Geography are rigorous social studies courses. International Baccalaureate (IB) certificate and Advanced Placement (AP) courses are rigorous since they also meet UBC requirements. Note that no arts courses, technology-related courses, vocational courses, or physical education courses are considered rigorous, because none are part of the UBC general admission requirements.

15 Grade 9 courses are not divided into rigorous and non-rigorous courses because it was not possible to make this determination for all students in the program and comparison groups. For example, Grade 9 mathematics prepares students for all three mathematics pathways—Principles, Applications, and Essentials. Nonetheless, some school divisions were already making pathway distinctions in Grade 9, while others only did so starting in Grade 10. In districts that did not make these distinctions, it was difficult to ascertain which Grade 9 students were on a Principles pathway.

16 The measure of the type of rigorous courses taken looks only at courses at the enrolled grade level. For example, a student in Grade 10 that takes Biology 11 will have that course counted towards *the total number of* rigorous courses taken in Grade 10, but it will not be included in Grade 10 results for taking rigorous Grade 10 science courses.

Table 6.2 presents the impacts of the BC AVID offer on the number of rigorous courses taken. The results show that the proportion of program group students enrolled in one to three rigorous courses in Grade 10 is quite similar to the comparison group enrolment. On the other hand, the proportion of program group students enrolled in four to eight courses was greater—71.5 per cent, compared with 64.9 per cent of the comparison group. This difference is statistically significant, and suggests that the offer of BC AVID is causing program group students to take on more rigorous courses than they would have taken without the offer. A complication is that 14 per cent of the comparison group had left their BC AVID school, compared to 9 per cent of the BC AVID program group, an impact of 5 percentage points. It is not known how many rigorous courses these extra comparison group students would have taken and therefore the true impact on the number of rigorous courses taken cannot be known with certainty. The same caveat applies to all the impact tables except Table 6.6, which presents impacts on exam courses.

The second panel of Table 6.2 shows the proportion of students that enrolled in rigorous Grade 10 courses (while in Grade 10) and rigorous Grade 11 courses (while in Grade 11). By Grade 10, the offer of BC AVID appears to have led to a higher proportion of students taking Principles of Mathematics, English, science, and social studies courses. These results seem to indicate that students in the BC AVID program group are aiming to meet the academic requirements for entry into university more so than they would have done without BC AVID. About half of the students in both the program and comparison groups were enrolled in a Grade 10 foreign language course that was not at the introductory level. By Grade 11, the offer of BC AVID had led to a higher proportion of program group students enrolled in English and social studies. About 79 per cent of program group members were enrolled in the rigorous Grade 11 English course compared to about 73 per cent of students in the comparison group. This result is statistically significant at the 1 per cent level of significance. About 76 per cent of program group members and 70 per cent of comparison group members enrolled in social studies.

Table 6.2: Impacts on "Rigorous" Courses Taken in Grades 10 and 11

Outcome measure	Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Number of rigorous courses						
zero	0.98	0.89	0.09 (0.59)	3.03	3.32	-0.29 (1.03)
1–3	17.58	18.81	-1.22 (2.23)	44.04	39.25	4.79 * (2.84)
4–8	71.49	64.91	6.58 ** (2.66)	38.19	37.89	0.30 (2.82)
over 8	0.00	0.22	-0.22 (0.17)	0.13	0.00	0.13 (0.17)
missing	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Taking rigorous courses						
Known to have taken Principles of Math	61.65	53.02	8.63 *** (2.82)	46.04	42.84	3.19 (2.87)
Not known to have taken Principles of Math	28.40	31.81	-3.41 (2.62)	39.35	37.61	1.74 (2.80)
No course information	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
Left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)

Continued on next page

Table 6.2: Impacts on "Rigorous" Courses Taken in Grades 10 and 11 (Cont'd)

Outcome measure	Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Taking rigorous courses						
Known to have taken English	86.85	82.18	4.67 ** (2.07)	79.35	72.73	6.61 *** (2.46)
Not known to have taken English	3.21	2.65	0.55 (1.01)	6.05	7.72	-1.68 (1.47)
No course information	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
Left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Known to have taken science	84.86	80.20	4.66 ** (2.18)	72.20	68.00	4.21 (2.64)
Not known to have taken science	5.20	4.64	0.56 (1.28)	13.19	12.46	0.73 (1.95)
No course information	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
Left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Known to have taken social studies	85.76	80.65	5.11 ** (2.14)	76.13	69.82	6.32 ** (2.56)
Not known to have taken social studies	4.30	4.18	0.12 (1.19)	9.26	10.64	-1.38 (1.73)
No course information	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
Left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Known to have taken a foreign language	54.81	52.07	2.75 (2.81)	39.67	38.34	1.33 (2.79)
Not known to have taken a foreign language	35.25	32.77	2.48 (2.69)	45.72	42.12	3.61 (2.81)
No course information	0.96	1.34	-0.38 (0.61)	0.41	0.22	0.19 (0.35)
Left the AVID school	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Sample size	791	450		791	450	

Source: SRDC's calculations using course participation records from BC AVID Pilot project schools and BC Ministry of Education

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Impacts on Courses Taken in Different Subject Areas

Table 6.3 presents results on the broad subject areas in which courses were taken in grades 9, 10, and 11. The categories include a mix of rigorous and non-rigorous courses, academic requirements, and elective courses. For example, the category "English" includes courses in English, Communications, Literature, and Writing. "Support" courses are those that provide support to the student, such as English as a Second Language. While courses in mathematics, English, science, social studies, physical education, and planning are usually academic requirements, courses in the remaining categories—fine arts, business, applied skills, BC AVID, and work experience—are electives. Participating in BC AVID might affect course choices because students have a limited number of electives on their course schedule; program group students taking the AVID elective class may be forced to give up another elective (e.g., a fine arts course) that is of interest to them.

For Grade 9, Table 6.3 shows that the offer of BC AVID led to reduced participation in courses related to fine arts (18 percentage points), applied skills (13.9 percentage points), business (5.4 percentage points), and planning (5.4 percentage points).¹⁷ That is, fine arts, applied skills, business, and planning courses represent the counterfactual experience of the BC AVID program group in Grade 9; these are the courses that program group students would have been taking had BC AVID not been introduced at their schools.

In Grade 10, the AVID elective appears to have mostly been a replacement for the required Planning 10 course. Recall that the Planning 10 curriculum was incorporated into the AVID elective class curriculum and students taking both the Grade 10 and the Grade 11 AVID elective classes were given credit for Planning 10.

The "treatment" experience of program group students included taking more of *other courses* as well as taking the AVID elective class. Program group students were more likely to take at least one mathematics course, at least one social studies course, and at least one English course in grades 9 and 10. By Grade 11, program group students were more likely to enrol in at least one course in English, social studies, a foreign language, and planning. While most of these effects are small in magnitude, there is a 20-percentage-point increase in enrolment in planning courses by AVID program group students. This apparent large increase in enrolment in planning courses is most likely due to the special treatment of Planning 10 described above, with credits for Planning 10 awarded at the end of Grade 11 upon completion of the combined, two-year AVID/Planning 10 course. Without AVID/Planning 10, credits for a Planning 10 course begun in Grade 10 would normally be awarded at the end of Grade 10.

As discussed in Chapter 3 and confirmed here, the proportion of BC AVID program group students participating in the Grade 10 AVID elective was much lower than it was at the start of the program—81 per cent were registered in Grade 9 but only 56 per cent in Grade 10. In Grade 11, the enrolment in the AVID elective continued to decline. Only 51 per cent of AVID program group members were enrolled in the AVID elective in Grade 11. These results coincide with observations and data from the implementation analysis, presented in Chapter 3. Fewer Grade 11 program group students enrolled in courses related to business and computers, fine arts, physical education and leadership, and courses that trained students to provide support to their peers. However, only the difference in enrolment in business- and computer-related courses was statistically significant.

¹⁷ Changes in the proportions taking courses in various categories are noted in the text only when there were both a statistically significant difference in the proportion taking a course in the category and a significant difference in the proportion who were not known to have taken such a course.

Table 6.3: Impacts on Courses Taken in Grades 9, 10, and 11

Outcome measure	Grade 9			Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Left the AVID school by Grade 10	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Known to have taken at least one course in the following subject areas:									
Math	93.55	84.73	8.81 *** (1.65)	86.29	82.40	3.89 * (2.08)	79.33	75.81	3.52 (2.44)
English	86.80	80.43	6.37 *** (1.61)	87.36	83.29	4.07 ** (2.03)	83.05	77.15	5.91 ** (2.30)
Science	93.85	86.06	7.79 *** (1.59)	86.80	81.52	5.28 ** (2.09)	78.64	74.22	4.42 * (2.45)
Social studies	93.52	85.41	8.12 *** (1.63)	87.63	83.31	4.32 ** (2.02)	81.62	75.57	6.05 ** (2.36)
Languages	76.04	67.59	8.45 *** (2.45)	61.99	58.92	3.08 (2.80)	44.98	42.57	2.41 (2.86)
Arts	44.62	62.81	-18.19 *** (2.78)	36.15	35.50	0.65 (2.78)	29.37	31.13	-1.76 (2.69)
Business	10.35	15.67	-5.33 *** (1.86)	10.87	10.36	0.51 (1.77)	10.31	13.79	-3.48 * (1.88)
Technology and applied skills	52.11	66.02	-13.91 *** (2.80)	49.58	46.22	3.36 (2.91)	40.54	39.90	0.64 (2.87)
AVID ¹	81.18	0.44	80.74 *** (1.44)	56.04	0.00	56.04 *** (1.99)	51.16	0.00	51.16 *** (2.19)
Planning	25.36	30.71	-5.35 *** (1.04)	48.27	74.93	-26.66 *** (2.32)	36.99	16.94	20.04 *** (2.20)
Support	11.35	14.59	-3.24 *** (1.16)	8.57	9.53	-0.96 (1.28)	14.94	16.10	-1.16 (2.06)
PE and leadership	92.90	84.27	8.63 *** (1.70)	85.34	81.75	3.59 * (2.12)	38.16	41.15	-2.99 (2.81)
Work experience and apprenticeship	0.28	0.00	0.28 (0.25)	1.47	0.23	1.24 ** (0.57)	5.18	4.86	0.32 (1.28)
Other courses	1.12	1.99	-0.87 (0.64)	2.08	2.61	-0.53 (0.87)	4.07	2.86	1.21 (0.96)
Sample size	791	450		791	450		791	450	

Source: SRDC's calculations using course participation records from BC AVID Pilot project schools and BC Ministry of Education.

¹ On further investigation by SRDC it was determined that the data showing control group members attending the AVID elective class is due to an error in the school records of these students.

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Course Grades

While course choices are an important feature of BC AVID, indicators of high school success, such as course grades, are also predictors of how well students are prepared for post-secondary education. Students who are failing would be less likely to graduate from high school and pursue a post-secondary education. In contrast, students with good grades in the courses required for post-secondary education have a higher probability of getting into the post-secondary education institution of their choice. Since the AVID elective class provides students with studying techniques, students in the BC AVID program group might be expected to do better than they would have without BC AVID. On the other hand, they are expected to take on more difficult courses than they would have without BC AVID. They may find their school work much more challenging and therefore find it more difficult to get high grades. Table 6.4 looks at the marks and grade point averages of participants in grades 9, 10, and 11. The analysis looked at credit-weighted marks and grade point averages (GPAs).¹⁸ To calculate the GPA, a weight of 0 to 4 is assigned to each letter mark. The credits for each course are then weighted accordingly, and the weighted scores are summed together. The summed weighted score is then divided by the total number of credits undertaken in the grade by the student.

The Grade 9 results in Table 6.4 show that the BC AVID offer led to (1) a statistically significant smaller proportion of BC AVID Grade 9 students that received at least one A grade; (2) a simultaneous higher proportion of students with a C grade; and (3) a smaller proportion with failing grades. About 37 per cent of program group students did not receive any “As,” compared to 29 per cent of students in the comparison group. At the same time, 41.4 per cent of program group students received a C in over half of their Grade 9 courses, compared to 34.4 per cent of comparison group students. However, the proportion of program group students that were failing was smaller—79.7 per cent did not receive any failing grades. Conversely, 74.1 per cent of comparison group students did not receive any failing grades in Grade 9.

The results for Grade 10 show a similar pattern. There is no impact on receiving an A grade; however, about 13.0 per cent of program group students did not receive a B grade in any of their courses, while only 9.7 per cent of comparison group students had the same experience. In Grade 10, program group students were more likely than comparison group students to receive a C grade in over half of their courses. In Grade 11, the proportion of program group students that did not fail any of their courses was higher; 59.5 per cent did not fail, compared to 53.1 per cent in the comparison group.

Table 6.4: Impacts on Marks Achieved and GPA in Grades 9, 10, and 11

Outcome measure	Grade 9			Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Proportion of grades that are As (credit weighted):									
Zero	36.73	28.72	8.01 *** (2.67)	30.37	29.49	0.87 (2.67)	27.92	29.56	-1.64 (2.66)
0.01–0.25	33.91	32.33	1.58 (2.73)	33.77	30.63	3.14 (2.73)	32.28	27.28	5.00 * (2.70)
0.26–0.50	15.19	15.72	-0.53 (2.08)	18.07	18.32	-0.25 (2.24)	17.22	16.77	0.45 (2.19)
0.51–1.00	8.69	10.39	-1.70 (1.65)	7.86	6.17	1.69 (1.51)	7.71	6.85	0.85 (1.52)
Missing	3.27	6.70	-3.43 *** (1.08)	0.96	1.56	-0.60 (0.63)	0.67	0.22	0.46 (0.43)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Proportion of grades that are Bs (credit weighted):									
Zero	9.97	8.92	1.05 (1.73)	12.99	9.68	3.31 * (1.90)	12.10	13.71	-1.61 (1.95)
0.01–0.25	32.24	32.16	0.08 (2.74)	29.90	26.53	3.37 (2.68)	31.57	26.65	4.92 * (2.71)
0.26–0.50	33.57	28.79	4.78 * (2.75)	33.93	32.22	1.71 (2.79)	29.84	27.54	2.30 (2.70)
0.51–1.00	18.74	17.30	1.45 (2.27)	13.24	16.18	-2.94 (2.07)	11.62	12.56	-0.94 (1.90)
Missing	3.27	6.70	-3.43 *** (1.08)	0.96	1.56	-0.60 (0.63)	0.67	0.22	0.46 (0.43)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)

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¹⁸ The interpretation of letter grades and their equivalent percentage score is as follows: A is equivalent to 86–100 and demonstrates excellent performance; B is equivalent to 73–85 and shows very good performance; C+ is equivalent to 67–72 and demonstrates good performance; C is 60–66 and shows satisfactory performance; C- is 50–59 and demonstrates minimally acceptable performance; and F is 0–49 and indicates the student did not demonstrate minimally acceptable performance in the course. These marks carry a weight of 4, 3, 2.5, 2, 1, and 0, respectively. The vast majority of courses are worth four credits. Other letter grades reported in the data are I for a course in progress or incomplete; W for withdrawal; SG for “standing granted” (for a course the student could not complete but had attained a sufficient level of performance); TS indicates “transfer standing” for courses completed at another institution; and RM indicates the student did not meet the requirement for the course.

Table 6.4: Impacts on Marks Achieved and GPA in Grades 9, 10, and 11 (Cont'd)

Outcome measure	Grade 9			Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Proportion of grades that are Cs (credit weighted):									
Zero	13.59	13.90	-0.31 (2.00)	10.73	10.13	0.59 (1.79)	8.32	8.22	0.10 (1.61)
0.01–0.25	17.21	18.37	-1.16 (2.21)	16.55	17.06	-0.51 (2.20)	16.17	12.98	3.19 (2.10)
0.26–0.50	22.36	20.46	1.89 (2.43)	25.99	27.14	-1.15 (2.60)	25.71	27.37	-1.66 (2.60)
0.51–1.00	41.37	34.44	6.93 ** (2.80)	36.79	30.27	6.52 ** (2.80)	34.93	31.89	3.04 (2.77)
Missing	3.27	6.70	-3.43 *** (1.08)	0.96	1.56	-0.60 (0.63)	0.67	0.22	0.46 (0.43)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Proportion of grades that are Fs (credit weighted):									
Zero	79.68	74.29	5.40 ** (2.37)	67.17	65.58	1.59 (2.76)	59.54	53.10	6.44 ** (2.88)
0.01–0.25	12.30	8.40	3.90 ** (1.82)	16.94	14.15	2.79 (2.16)	20.63	19.73	0.91 (2.39)
0.26–0.50	1.79	3.12	-1.33 (0.87)	4.86	3.52	1.33 (1.21)	3.77	6.95	-3.18 ** (1.27)
0.51–1.00	0.75	1.36	-0.61 (0.59)	1.09	1.35	-0.26 (0.64)	1.18	0.68	0.50 (0.59)
Missing	3.27	6.70	-3.43 *** (1.08)	0.96	1.56	-0.60 (0.63)	0.67	0.22	0.46 (0.43)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Credit weighted GPA									
Zero	0.24	0.47	-0.23 (0.35)	0.63	0.22	0.42 (0.42)	0.12	0.22	-0.10 (0.24)
0.01–2.00	21.79	16.63	5.17 ** (2.28)	23.59	19.13	4.46 * (2.43)	23.78	22.67	1.11 (2.50)
2.01–3.00	45.09	42.23	2.86 (2.88)	41.21	41.64	-0.43 (2.90)	40.09	38.85	1.25 (2.91)
3.01–4.00	27.40	27.84	-0.44 (2.52)	24.62	23.62	1.00 (2.48)	21.14	18.72	2.42 (2.34)
Missing	3.27	6.70	-3.43 *** (1.08)	0.96	1.56	-0.60 (0.63)	0.67	0.22	0.46 (0.43)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Sample size	791	450		791	450		791	450	

Source: SRDC's calculations using course participation records from BC AVID Pilot project schools and BC Ministry of Education.

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

These results suggest that AVID program group members initially found their school work more challenging than it had been prior to their enrolment in BC AVID. In grades 9 and 10, therefore, they were more likely to get C grades in their courses. However, in Grade 11, they were less likely to have F grades than their peers in the comparison group.

The results on overall grade point average (GPA) in the bottom panel of Table 6.4 show that program group students were initially more likely to have a GPA of two or less, a finding that supports the idea that students who enrol in BC AVID may start out struggling with their school work. Indeed, during interviews with BC AVID staff, it was reported that some students did not anticipate the amount of work required in carrying a rigorous course load. By Grade 11, there are no longer differences in overall GPA.

Attendance

Another expected interim outcome is better attendance for students offered BC AVID. If realized, such an outcome may later affect on-time high school graduation rates and, ultimately, the rate of post-secondary education enrolment.

BC AVID sites collected and provided attendance data for grades 9 through 11. However, the data provided on attendance were not complete. For example, in some instances, attendance data were not provided for all students. As well, the sites did not collect and provide attendance data in a standardized way. Some sites provided attendance information in the form of the total number of days absent during the school year, while others provided the number of days absent for each course during the school year. A single unit of analysis—the number of days absent in the school year—was calculated and used in the analysis on school attendance.¹⁹ Also, some schools include field trips in recorded absences and because field trips are a component of BC AVID, it is plausible that this may account for some of the differences observed between the program and comparison group on this outcome measure. Given these caveats, results on attendance should be interpreted with caution.

As shown in Table 6.5, the offer of BC AVID appears to have led to an increase in the number of days that program group students were absent from school in grades 9 and 10. In these grades, the proportion of program group students who were absent for up to 10 days in the school year was higher by 6.5 and 7.6 percentage points, respectively. In Grade 9, program group students were also more likely to miss between 11 and 20 days during the school year than their peers in the comparison group. In Grade 10, the proportion of program group students who were never absent during the school year was smaller. In Grade 11, program and comparison group students were absent at similar rates. It is not clear—beyond the possibility that AVID field trips were treated as absences—why BC AVID would negatively influence the school attendance of program group students.

Table 6.5: Impacts on Attendance in Grades 9, 10, and 11

Outcome measure	Grade 9			Grade 10			Grade 11		
	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)	Program Group	Comparison Group	Impact (s.e.)
Number of days absent									
zero	2.85	5.20	-2.36 ** (0.98)	2.51	4.39	-1.88 ** (0.95)	1.75	2.13	-0.38 (0.76)
1–10	61.40	54.87	6.53 *** (2.53)	57.40	49.83	7.57 *** (2.79)	54.12	50.22	3.91 (2.78)
11–20	18.46	9.94	8.52 *** (2.05)	14.58	16.72	-2.14 (2.08)	17.46	15.68	1.78 (2.17)
over 20	8.81	11.59	-2.78 * (1.57)	10.66	10.19	0.47 (1.66)	8.54	9.37	-0.82 (1.54)
Still at AVID school, missing data	6.27	12.26	-5.99 *** (1.12)	5.87	5.04	0.83 (1.32)	3.93	3.28	0.64 (1.10)
Left the AVID school	2.21	6.14	-3.93 *** (1.09)	8.98	13.83	-4.85 *** (1.80)	14.20	19.33	-5.13 ** (2.14)
Sample size	791	450		791	450		791	450	

Source: SRDC's calculations using course participation records from BC AVID Pilot project schools and BC Ministry of Education.

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

¹⁹ In order to obtain a single unit of analysis, absence data provided as the number of days absent per course were converted to the number of days absent per school year using the following assumptions: (1) a typical school day has four different courses scheduled during regular school hours; and (2) there are two semesters per year. Daily absence is then calculated as the sum of days absent per course across the school year divided by eight.

Provincial Exams

Several high school courses have a mandatory examination component in grades 10, 11, and 12. Grade 10 provincial examinations assess students in English 10, Français Langue première 10, Applications of Mathematics 10, Essentials of Mathematics 10, Principles of Mathematics 10, and Science 10. Grade 11 students complete Civic Studies 11 and Social Studies 11 examinations. These “exam” courses must be taken in order to meet BC high school graduation requirements, and, in general, students take provincial exams while they are enrolled in the associated courses. Several exam courses also meet the definition of a rigorous course adopted in this chapter. These are Principles of Mathematics 10, English 10, Français Langue première 10, Science 10, Civic Studies 11, and Social Studies 11.

Records of examination achievements represent important outcomes for the BC AVID evaluation because the examinations are standardized across schools in the province and examination results are available even for students who left the AVID district. Deriving outcome variables from the MOE examination records has two advantages for this analysis: (1) the MOE data appear to be more complete and more reliable than school district data; and (2) because the examinations are standardized, grades on the examination will not be affected by any tendency for teachers at BC AVID schools to mark program students selectively (up or down).

The grade on the provincial examination counts as 20 per cent of the student’s final grade for the corresponding high school course. For example, a student enrolled in Principles of Mathematics 10 will receive three grades: (1) a grade for work undertaken in class; (2) an examination grade on the Principles of Mathematics 10 provincial examination; and (3) a blended final course grade, which is a weighted average of the class grade (with a weight of 0.8) and the grade on the provincial exam (with a weight of 0.2).²⁰ Because a passing grade is C- (or a minimum grade of 50 per cent) and the exam grade counts for only 20 per cent of the final grade, it is possible to achieve a passing final grade in the course without passing the examination.

Table 6.6 shows the proportion of program group students who took each Grade 10 and Grade 11 provincial examination and the effects of the BC AVID offer on taking, or taking and passing, the examination.²¹ In general, taking a provincial examination in a course implies having taken the corresponding course, so “taking the exam” can be interpreted as “taking the course.” There was a positive impact of seven percentage points on the proportion of students who took the provincial examination for Grade 10 Principles of Mathematics. This finding provides strong evidence that offering BC AVID increased students’ access to a rigorous math curriculum during Grade 10.

²⁰ Students are allowed to retake the course or examination, in which case a new blended final grade is reported in the year in which a new course grade or new examination grade is submitted.

²¹ Results are not presented for Français Langue première 10 and Civic Studies 11 because of the small number of students in the research sample that took those examinations.

Table 6.6: Impacts on Grades 10 and 11 Provincial Exams

Provincial Examination Courses	Program Group	Comparison Group	Impact (s.e.)
Principles of Mathematics 10			
Proportion that took the course/exam	69.57	62.59	6.98 *** (2.65)
Proportion that did not take the course/exam	27.69	34.08	-6.39 ** (2.58)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	66.85	59.24	7.61 *** (2.72)
Proportion that failed the course (F)	2.72	3.35	-0.63 (1.02)
Proportion that passed the exam (A, B, or C)	54.69	51.49	3.21 (2.87)
Proportion that failed the exam (F)	14.88	11.10	3.78 * (2.00)
Proportion with a blended mark of A, B, or C	66.60	59.24	7.36 *** (2.73)
Proportion with a blended mark of F	2.97	3.35	-0.37 (1.05)
Applications of Mathematics 10			
Proportion that took the course/exam	17.55	21.27	-3.72 * (2.09)
Proportion that did not take the course/exam	79.71	75.40	4.32 * (2.24)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	15.86	20.64	-4.78 ** (2.04)
Proportion that failed the course (F)	1.70	0.64	1.06 (0.65)
Proportion that passed the exam (A, B, or C)	15.45	18.88	-3.43 * (2.01)
Proportion that failed the exam (F)	2.10	2.17	-0.06 (0.85)
Proportion with a blended mark of A, B, or C	16.51	20.83	-4.33 ** (2.06)
Proportion with a blended mark of F	1.05	0.44	0.61 (0.53)
Essentials of Mathematics 10			
Proportion that took the course/exam	9.16	15.56	-6.40 *** (1.85)
Proportion that did not take course/exam	88.11	81.11	7.00 *** (2.03)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	8.61	15.32	-6.71 *** (1.81)
Proportion that failed the course (F)	0.55	0.24	0.31 (0.41)
Proportion that passed the exam (A, B, or C)	8.02	13.32	-5.30 *** (1.75)
Proportion that failed the exam (F)	1.14	2.24	-1.10 (0.72)
Proportion with a blended mark of A, B, or C	8.92	15.32	-6.41 *** (1.82)
Proportion with a blended mark of F	0.24	0.24	0.01 (0.31)

Continued on next page

Table 6.6: Impacts on Grades 10 and 11 Provincial Exams (Cont'd)

Provincial Examination Courses	Program Group	Comparison Group	Impact (s.e.)
English 10			
Proportion that took the course/exam	95.32	95.14	0.18 (1.27)
Proportion that did not take the course/exam	1.95	1.53	0.42 (0.80)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	92.53	91.86	0.67 (1.56)
Proportion that failed the course (F)	2.79	3.28	-0.49 (0.98)
Proportion that passed the exam (A, B, or C)	90.37	90.03	0.34 (1.76)
Proportion that failed the exam (F)	4.82	4.89	-0.06 (1.27)
Proportion with a blended mark of A, B, or C	93.96	93.82	0.15 (1.42)
Proportion with a blended mark of F	1.36	1.32	0.03 (0.67)
Science 10			
Proportion that took the course/exam	93.89	94.01	-0.12 (1.43)
Proportion that did not take the course/exam	3.38	2.66	0.72 (1.05)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	92.11	91.78	0.33 (1.62)
Proportion that failed the course (F)	1.78	2.23	-0.45 (0.80)
Proportion that passed the exam (A, B, or C)	76.62	74.26	2.36 (2.45)
Proportion that failed the exam (F)	17.27	19.75	-2.48 (2.19)
Proportion with a blended mark of A, B, or C	92.32	92.00	0.33 (1.60)
Proportion with a blended mark of F	1.57	2.01	-0.44 (0.75)
Social Studies 11			
Proportion that took the course/exam	80.53	75.75	4.78 ** (2.39)
Proportion that did not take the course/exam	16.73	20.92	-4.18 * (2.26)
Proportion missing (i.e., no data on MOE file)	2.73	3.33	-0.60 (1.01)
Proportion that passed the course (A, B, or C)	76.91	70.58	6.32 ** (2.51)
Proportion that failed the course (F)	3.63	5.17	-1.54 (1.16)
Proportion that passed the exam (A, B, or C)	75.79	71.28	4.50 * (2.56)
Proportion that failed the exam (F)	4.75	4.47	0.28 (1.22)
Proportion with a blended mark of A, B, or C	78.46	72.37	6.09 ** (2.47)
Proportion with a blended mark of F	2.07	3.38	-1.31 (0.92)
Sample size	791	450	

Source: SRDC's calculations using BC Ministry of Education data files on provincial examinations.

A two-tailed test was applied to differences between the outcomes for the BC AVID and comparison groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

While the BC AVID offer caused a higher proportion (by 7.6 percentage points) in the number of students that passed the related class work, and a 7.4-percentage-point higher proportion in those that achieved a final blended grade of C- or better, it did not lead to a significantly higher proportion of those that passed the provincial examination. Instead, BC AVID caused a 3.8-percentage-point higher proportion in those that *failed* the Principles of Mathematics 10 examination. Note that because more BC AVID students overall took the examination, it is possible for both the proportion “taking and passing” and the proportion “taking and failing” the examination to be higher (as is seen in Table 6.6).

The results also show that the program offer caused a simultaneous smaller proportion of students in the BC AVID group to take the Essentials of Mathematics 10 or the Applications of Mathematics 10 examinations. This suggests that BC AVID caused a net shift of students from the less challenging mathematics courses to the more challenging Principles of Mathematics. The BC AVID program may have encouraged more switches between all three math courses than is suggested by this net shift, but this is not detectable in the impact findings. It is known that at least some schools—not more than half—did not run the Applications course in Grade 10. The net shift in mathematics courses is important, because while Essentials of Mathematics would not help students meet admission requirements for university, Principles of Mathematics, a UBC entry requirement, will certainly help them do so.

The vast majority of students in both the program and the comparison group took and passed Grade 10 examinations in Science 10 and English 10, and did so in similar proportions. The high proportion of students taking these courses is not surprising, because these courses and their mandatory examination component are required for high school graduation. Such high rates of course participation also leave little room to observe measurable impacts of BC AVID on these courses. Both Science 10 and English 10 are also among the courses students must successfully complete in order to take the corresponding Grade 11 and Grade 12 courses that meet the UBC general entry requirements.

The BC AVID offer caused a higher the proportion of AVID students to take the Grade 11 social studies examination. While slightly more than 75 per cent of comparison group students took the examination in social studies, just over 80 per cent of the BC AVID program group did so. This difference is statistically significant at the five per cent level of significance. BC AVID also led to a higher proportion of AVID program group students that passed both the course and examination components. Given this treatment effect on both components of the course work, it is not surprising that there was a higher proportion of program group students that received a final blended grade of C- or better. This finding provides evidence that offering BC AVID increased students’ achievement in an important component of university admissions’ requirements: Grade 11 social studies.

CONCLUSION

The impact results presented in this chapter suggest that making BC AVID available to eligible middle-achieving students is likely to have influenced some of the precursors of post-secondary education enrolment in the manner set out in the project’s logic model. The numerical size of the impacts was not large. Nonetheless, the results may be substantively important for two distinct reasons.

First, the impacts on these outcomes may translate into relatively large impacts on post-secondary education enrolment. For example, the seven-percentage-point impact on enrolment in Principles of Mathematics 10 provides evidence of increased access to a rigorous curriculum consistent with the logic model. This leaves open the possibility of impacts on post-secondary enrolment that are also forecast by the model. The actual link between the observed impacts on interim outcomes and the eventual impact on post-secondary education enrolment cannot be known at this time.

Second, it is known that only about half of those assigned to the BC AVID group stayed in the BC AVID elective class through the end of Grade 11. The impacts reported in this chapter are the impact of offering BC AVID to all program group members. The impacts on those members of the program group who received full exposure to AVID may well have been larger, but the estimation of the impacts of BC AVID on this self-selected sub-sample involves non-experimental techniques, which—for reasons discussed in Chapter 1—lie beyond the scope of this report.

This chapter presented experimental impacts on five categories of outcomes:

- the number of and type of rigorous courses taken in grades 10 and 11;
- subject areas of study in grades 9, 10, and 11;
- the number of days absent in grades 9, 10, and 11;
- marks and grade point averages in grades 9, 10, and 11; and
- results on provincial examinations taken in grades 10 and 11.

With regard to rigorous courses, Table 6.2 demonstrated that BC AVID increased enrolment in all but one type of rigorous course in Grade 10. Enrolment was higher in Principles of Mathematics 10 by 8.6 percentage points, English by 4.7 percentage points, science by 4.7 percentage points, and Social Studies 10 by 5.1 percentage points. In Grade 11, the offer of BC AVID continued to influence enrolment in English and social studies. There was also an impact in the proportion of students taking between one to three rigorous courses.

The analysis on subject areas of study revealed that, in Grade 9, program group students were taking the AVID elective class in lieu of other elective courses, primarily in fine arts and applied skills. Enrolment in fine arts courses by program group students was about 18 percentage points lower and in applied skills 13.9 percentage points lower than the comparison group. As expected, in Grade 10, program group students were taking the AVID elective class in lieu of Planning 10. Only 48.3 per cent of program group members enrolled in Planning 10, compared to 74.9 per cent of comparison group members. In Grade 11, there was still a small decline in participation in other elective courses, but the differences in most cases were not large enough to be statistically significant.

Students in the program group were more likely than those in the comparison group to be absent from class during each school year. In Grade 9, the proportion absent between one and twenty days was larger among students offered BC AVID. In Grade 10, fewer comparison students were absent one to ten days and more of them were never absent.

Results on program group students' course marks indicated that they might have experienced challenges with their rigorous course work, but fewer of them went on to fail their courses. In Grade 9, a higher proportion of program group students did not receive an A grade in any of their courses, and in grades 9 and 10, a higher proportion received a C grade in more than half of their courses. In Grade 11, there were more program group students (by 6.4 percentage points) with no failing grades.

The results from the provincial examination data—a much more complete and reliable data source than records obtained from individual school districts—suggest that offering BC AVID had the expected positive effect on the course choices of program group students. By the end of Grade 11, program group students were more likely to have taken the provincial exams for Principles of Mathematics 10 and for the Grade 11 social studies course. Most importantly, Table 6.6 shows that the program offer caused a higher proportion of students (by 7 percentage points) that took the provincial examinations in Principles of Mathematics 10 (the most rigorous Grade 10 math course); however, they were somewhat more likely to fail that examination than students who were in the comparison group. This may be an indication of the initial difficulty AVID students experience with a more challenging curriculum. At the same time though, program group students were also more likely to receive a C- or better as their final grade for Principles of Mathematics 10.

Overall, these results are somewhat encouraging, because some are statistically significant, in the expected direction, on outcomes that are precursors to post-secondary education enrolment. The final report will address the question of whether the changes on these outcomes actually led to an increase in post-secondary education enrolment. That report will assess the full impact of offering BC AVID on the students' senior year in high school (Grade 12) and their first potential year of participating in post-secondary education.

Text Box 6.2: Benefits of BC AVID for Students: Qualitative Evidence

Implementation researchers collected qualitative evidence on the benefits of BC AVID from interviews with BC AVID staff. Findings from these data cover a broader range of outcomes than the quantitative results presented in this chapter, but with a perspective that is restricted to changes over time among a subset of students. This is because BC AVID teachers would most often observe those students who have persisted with the program and because they cannot compare systematically AVID students to any equivalent comparison group. Yet, some of the reports do coincide with quantitative impacts, especially those for enrolment in rigorous courses and reduced chances of failing courses.

BC AVID staff felt that many of their AVID students benefitted from aspects of the AVID program: in particular, they mentioned tutorials, field trips, guest speakers, collaboration with other students, the support students received, and the sense of “family” in the class. Staff described some of the positive changes and strengths they had observed in their students as they participated in the program. Even though there was attrition from the program, staff often said that they believed students had received some benefit from being in the AVID class. This text box describes some of these benefits of the AVID program from the perspective of BC AVID staff.²²

Some staff noted the support provided by AVID had improved students’ sense of belonging and friendships. Many staff commented that AVID had helped students to be more organized and that that affected their ability to perform well in school. They believed AVID had helped students to engage in discussions with more confidence and take more rigorous courses than they would have taken without AVID: some staff thought that many students would have been failing courses without the help of AVID. They predicted that some students would now graduate from Grade 12 who would not have done so without this kind of support. Other staff commented that they believed AVID students to be much better prepared for post-secondary education, to think about their future more, to plan more for their post-secondary lives, and to foresee studying on a campus where previously this was doubtful.²³ A counsellor and a district director commented on their AVID students:

When I talk to the AVID students, I am very aware that they are much better versed than the average student in what they’re planning to do in the future, what the requirements are for various programs and so on. So that knowledge that they have acquired in class is really... helping them make better decisions... “If I go to this school, this is what I need to have in order to get accepted, but if I go to this one...” They can talk intelligently about requirements, and they can apply those requirements to different schools and different programs... Some [students in general] are really keen, and they do their own research, but it’s relatively rare among the majority of students.

I think they feel better about themselves. I think they’re more confident. I think they feel that they are supported... those particular kids are better integrated into the school. And, more importantly, I think that they feel better prepared to handle whatever it is that comes next.

Some staff described students at the start of the program as being “fearful” or anticipating academic failure. They felt that this changed with increased exposure to the AVID program, after students had experienced some academic success. In some cases, staff reported that these students had moved to an expectation of success. A district director explained:

It’s the increased self-confidence that these kids have experienced as being part of the program... That’s a very common theme in... what they speak of... they start to believe in themselves... when they go into a math test, there’s no longer that expectation of failure, there’s that expectation of success. And for a lot of these kids, that’s a huge difference for them.

²² Students who remained in BC AVID may have been a select subgroup of students. Table 3.4 compared the characteristics of departing students and those who remained and found some evidence of family income differences. It remains an untested possibility that those remaining in the class were those better able to realize benefits from doing so. They may have found the WIC-R strategies or organizational skills more easily accessible; they may have been more ready to make changes in their study habits; or they may have been more drawn to the mentoring offered to students. Those that departed may have had more behavioural challenges or more family instability.

²³ Teachers were commenting on outcomes that students are asked about in the project’s Grade 12 survey. The impact of offering AVID to students on these survey outcomes will be reported in the Final Impacts Report.



7

What Has Been Learned So Far and Future Directions

Introduction

This chapter reviews findings to date from the BC AVID Pilot Project. It first revisits the main features of the project and its core objectives. The complexities involved in determining whether the BC AVID Pilot Project is giving a fair test to the intervention are then underscored before the implementation research and impact analysis findings are discussed, with reference to the logic model presented in Chapter 1. The chapter ends by outlining the project's remaining program delivery and related research activities.



CHAPTER SUMMARY

- **This report described the implementation of BC AVID and the patterns of its impacts up until the end of Grade 11.** Nearly all participants will have graduated by the time this report is published. Nonetheless, data on their Grade 12 experience can only be compiled during 2010–11, and so will be analyzed and presented in the BC AVID Pilot Project final report. The hypothesis underlying the offer of four years of BC AVID is that AVID students will apply for and enrol in post-secondary education at higher rates than they would have without the intervention. This report, however, can assess only what has happened during the first three of these years.
- **BC AVID had similarities and differences compared to the US AVID model.** Deciding whether the students' resulting experience of the program constitutes a fair test of its effectiveness is difficult as currently there is no strict definition of how the US AVID program of instruction, motivational activities, and tutorials should be delivered over four years in a Canadian province like British Columbia. In this report, the intervention delivered in British Columbia has been compared to "model" AVID-as-designed programming and the recommendations and the requirements set by the AVID Center, applicable to US AVID in its site certification process. The final verdict on the fair test of program delivery will take place when four years of data are available and an "expert-defined" yardstick for BC AVID against which to compare actual student experiences has been developed; these are tasks set for 2010 and will be reported in the final report.
- **BC AVID met the requirements of the AVID Essentials concerned with administrative aspects of the program.** Funding appeared quite adequate for the maintenance of BC AVID. Students with "academic potential" were appropriately selected for the program and most were enrolled in advanced high school courses. AVID staff devoted themselves to implementing and maintaining BC AVID as planned and they were sufficiently trained to do so.
- **About half of BC AVID students departed the AVID elective class at some point before the end of Grade 11.** The most common reason for leaving the class was to enrol in other high school course electives. Many also left the class because they left the school. There was considerable teacher turnover as well. The recruitment of participants and teachers, and the level of turnover in students and teachers, illustrate that the AVID requirement for voluntary participation (Essential 2) was met in BC AVID.
- **Delivery of the AVID Essentials concerned with program content resulted in students engaging in activities that were "recognizably AVID."** As described in Chapter 4, the Reading curriculum appeared to receive less attention than Writing, Inquiry, and Collaboration. There were problems at most sites in organizing sufficient numbers of tutorials and with delivering them in line with the format recommended in AVID-as-designed.
- **AVID program group members consistently experienced more instruction in, and made more use of, AVID learning strategies and tutorials than comparison group members did.** Analysis of the experience of comparison and non-BC AVID school groups revealed minor "spillover" of only a small number of AVID strategies, including Cornell Notes.
- **Impacts of BC AVID on educational participation and achievement to Grade 11 show increases in enrolment in rigorous courses, subsequent success in some of those courses and on specific provincial examinations, plus increased student retention within the BC AVID schools.** These results support the idea that BC AVID may be a promising program for enhancing BC students' achievement in high school and their chances of meeting post-secondary program eligibility requirements.
- **The final report will assess the impact of BC AVID on participants' engagement in their senior year at high school, and on their enrolment in and completion of the first year of a post-secondary education program.** It will also include a benefit-cost analysis of BC AVID.

THE MAIN FEATURES OF BC AVID

BC AVID is attempting to learn what works to increase access to post-secondary education for “students in the middle”—those with academic potential but only middling success in school by Grade 8. Non-experimental research, relying mainly on data from large urban schools in the United States, has concluded that AVID can help underachieving American youth increase their achievement and enrol in post-secondary education. BC AVID is an attempt to implement a version of the US AVID program in British Columbia.

Uncertainty exists as to whether implementing an AVID program will increase access to post-secondary education in Canada, particularly in British Columbia, where the target population of middle-achieving high school students differs in its socio-economic status and ethnicity from the students typically reported as benefiting from the US AVID model. Moreover, Canadian students are enrolled in an educational system that is noticeably different from the US system. To lessen that uncertainty, a rigorous evaluation of a version of AVID in British Columbia—called BC AVID to distinguish it from its US counterparts—is underway. The evaluation is a randomized trial, involving a program group offered a place in a special class called the “AVID elective class” during grades 9–12 and a comparison group that was not offered a place in the AVID elective class. Detailed implementation research is being undertaken to document the version of AVID being implemented, and to allow the comparison of the implementation to what could legitimately be expected of delivery in the BC context. This report has described the implementation of BC AVID and the pattern of its impacts through to the end of Grade 11.

Program group members who were in the AVID elective class experienced program content meant to raise their high school achievement and to improve their chances of meeting post-secondary education eligibility requirements. They were instructed in a variety of academic skills, including note taking, writing, and group work and were taught how to better comprehend lessons learned in other classes. They were encouraged to enrol in the most rigorous courses offered in their school and they took part in tutorials led by trained tutors.

In grades 9–11, program group members had varying levels of exposure to this content. Only half had accumulated three years in the AVID elective class; the other half had left the class. The main reasons were choosing other electives or moving away from the school itself. For many students, staying in the Grade 11 AVID elective class might mean giving up another elective that they wanted to take; so some decided to take the other elective instead of the AVID class. Whatever their decisions, nearly all program group members attended some of the class and so might reap educational benefits from their experiences in the program, including those who chose to leave the AVID class before the end of Grade 11.

Collectively, BC AVID program group members are expected to demonstrate improved readiness for post-secondary education, as indicated by improved grades, scores on standardized tests, and overall grade-point average relative to the comparison group. These findings have been presented in Chapter 6 of this report. Later, relative to the comparison group, the program group should have higher rates of graduation from high school, enrolment in post-secondary education, and completion of its first year. Any evidence of such impacts will appear in the final report.

HAS BC AVID BEEN GIVEN A FAIR TEST?

A complicating factor in determining the effectiveness of AVID is that every incarnation of the program is new and different in at least some ways. Because US AVID is evolving and adapting over time to reach different intended audiences within different settings across a wide-reaching educational landscape, it necessarily takes on new features and stresses alternative goals with each manifestation, even if much of the core content remains unchanged. While the AVID Center continues to refine its curriculum, assessments, and methodologies, the measure used for judging the BC AVID implementation was based on the 11 Essentials and AVID curriculum as understood at the outset of implementation, during the 2005–06 school year.

BC AVID asked teachers and school staff in a number of high schools to implement a detailed set of educational practices defined initially by the AVID Center (and characterized in previous chapters as “AVID-as-designed”) and also contained in the BC AVID Operations Manual. Inevitably, there will be gaps between AVID-as-designed and BC AVID, as implemented, and some of those gaps have been described earlier. Chapters 2, 3, and 4 documented the degree to which BC AVID, as implemented to the end of Grade 11, corresponded to AVID-as-designed.

The assessment of whether BC AVID as implemented represents a fair test of AVID-as-designed is presently hampered by the lack of a clear definition of how the US AVID program of instruction, motivational activities, and tutorials *should* be delivered over four years in British Columbia. That is, the decision about what criteria should be applied to determine whether this delivery can be labelled “AVID” is somewhat arbitrary.

Across many facets of the program logic model presented in Chapter 1 (Figure 1.1(a)), it is clear that, so far, BC AVID has provided a fair test of AVID-as-designed—funding was adequate, AVID staff were trained in AVID methods, school district involvement and school staff participation was as recommended. As Grade 11 ends, these components plus others—Grade 8 students who volunteered to take part in BC AVID, parents who agreed to have their children participate in BC AVID, and sufficient places in rigorous high school courses to accommodate any likely increase in student numbers generated by the program—appear to be in place.

The delivery of a four-year program of recognizably “AVID” curricular instruction, motivational activities, and tutorials to AVID-eligible students is likely what matters most to the attainment of the student-level outcomes of interest in the project. As described in Chapter 4, what was delivered in AVID classrooms varied by school but, with the exception of the organization of tutorials, was generally in line with AVID-as-designed. Some of the variation was to be expected. In line with typical education practice, AVID lesson content is not fully prescribed. Teachers have the discretion to implement different elements that they judge as best meeting their students’ needs.

Perhaps recognizing the same reality, the AVID Center assesses only whether a program is “AVID” or “not AVID” at a relatively general level. Such assessment is accomplished through a certification process that involves aggregate indicators of program delivery to students, along with school-level indicators of adherence to AVID Center requirements—such as submitting data collection forms to the Center. These indicators are silent on some possibly vital aspects of delivery—like the balance between traits to consider when selecting AVID students, the precise frequency of instruction in and use of different strategies, and interpretations of “rigorous” when defining the courses in which AVID students should enrol. Thus a range of interpretations of what it means to be an “AVID” program can apply during the practice of site certification.

The AVID Center's site certification process is not sufficient for determining whether the delivery of BC AVID to project participants constitutes a fair test of AVID-as-designed. This is in part due to the interpretation described above, but also because many of the AVID indicators are not appropriate for the British Columbia school system. For example, a noteworthy challenge is posed by the timetable structures most common in the province; these are quite dissimilar from those in place in many U.S. schools, a fact which makes the incorporation of key aspects of U.S. AVID virtually impossible (such as "receiving tutorial support... at least twice a week"). This raises the question of how equivalent AVID-as-designed (at least when delivered to meet certification standards) and BC AVID can be.

It is important to underscore another distinction between AVID-as-designed and BC AVID. The former is more ambitious in that it aims at whole-school reform. In the latter, emphasis is almost solely placed on the AVID elective class as the main conduit of program delivery to AVID students. The AVID Center's certification process applies at the *level of the school*, which may poorly reflect the individual experiences of AVID program group members. Added to this is another layer of complexity; some certification criteria established by the AVID Center are not based on program delivery, but instead reflect student outcomes; for example, one criterion is "at least 70% of students scoring proficient and/or above on high school exit exams." To determine whether BC AVID fairly tests the delivery of AVID-as-designed, conditions on program delivery must be set that are distinct from the hoped-for outcomes of the delivery.

The project developers recognized from the outset (see Dunn *et al.*, 2008, Chapter 3) that adaptations to AVID-as-designed would be required for delivery in British Columbia. However, not all of those adaptations have been systematically defined, making it hard to assess which of the AVID Center's requirements should apply to the delivery of BC AVID. For example, the BC school schedule typically allocates approximately 116 hours of class time per year to each class. The typical BC block schedule includes four classes per day with 75–80 minutes available per class. In contrast, California high schools (where AVID began) allocate approximately 150 hours of class time per year using blocks of six to seven classes per day with about 50 minutes per class. This renders the AVID Center's day-by-day guides—which assume the California model of daily class time—difficult to implement in British Columbia. It also raises the question of whether the AVID Center's expectations for what should happen in a class a minimum of once or twice each week are unrealistic for British Columbia. The scheduling challenges—alongside other differences such as lower reliance on and availability of standardized tests for post-secondary education admission requirements—made it difficult for BC schools to implement a program that met the AVID Center's certification standards.

To move forward, the researchers plan to seek BC AVID "expert" opinion to develop minimum expectations for BC AVID delivery. Such expert opinion will be sought from those closest to the implementation of the program: BC educators. During 2010, SRDC will construct a practitioner-informed set of indicators, which it aims to use to draw a conclusion on whether a version of AVID has been on offer in pilot sites. Actual student experiences from Grade 9 through to the end of Grade 12 (mostly from already-collected data) will be compared with this new yardstick to establish whether the "expert-defined" version of BC AVID received a fair test, site by site. The aim is to finish this analysis by the end of 2010 and present the verdict on "fair test" in the final report. The result will greatly inform researchers' interpretations of how fairly AVID meets local expectations. It will not, of course, be a substitute for AVID Center certification, which serves a different purpose.

ADMINISTRATIVE ESSENTIALS

Chapter 2 identified the administrative structures that have thus far supported BC AVID. These structures are important for program maintenance and captured under BC AVID's logic model heading, "Resources needed to achieve project objectives." Such inputs allow BC AVID to function as intended and were depicted earlier in Figure 1.1 (a) in Chapter 1, along with six related AVID Essentials. Chapter 2 reported that BC AVID was "recognizably AVID" by reference to these six key Essentials, summarized here:

- **Essential 10: Financial resources and training**—BC AVID Pilot Project funding and resources were ample. There appeared to be consensus among AVID staff that the training they received was good quality, which has undoubtedly contributed to ongoing maintenance of the BC AVID program.
- **Essential 11: The site team**—There was some difficulty maintaining a site team, and varying levels of staff involvement were observed over time. Sustaining BC AVID entailed more work than anticipated by staff—district directors, administrators, elective class teachers, coordinators, and counsellors—whose roles unavoidably overlapped and fluctuated by degree across sites. Some AVID staff found the needs of AVID students to be higher than expected and a few were uncertain about the curriculum's suitability for middle-achieving students. Despite these reservations, AVID site teams appeared to be successfully established, generally engaged, and invested in the maintenance of the intervention.
- **Essential 1: Student selection**—Though a few AVID staff perceived certain students to be insufficiently motivated to achieve academically, all requirements for this Essential were adequately met.
- **Essential 3: Full implementation**—BC AVID sites were dedicated to implementing the intervention as designed and as outlined in the BC AVID Pilot Project Operations Manual. Despite the earnest and repeated efforts by BC AVID staff, however, the AVID elective class met fewer times than typically indicated in AVID-as-designed and the number of tutorials was far below the number implied by AVID-as-designed.

- **Essential 4: Enrolment in a rigorous curriculum**—Some AVID program group members were observed to be successfully placed in advanced courses. This implementation finding was confirmed by analysis of quantitative data in Chapter 6. Some staff felt uncertain on the level of rigour required by BC AVID and a few questioned the suitability of this Essential, given differences between American and Canadian post-secondary education systems, specifically regarding entrance requirements. Moreover, the definition of "post-secondary enrolment" adopted by BC AVID was broader than that used in AVID-as-designed, encompassing more education outcomes than just university attendance.
- **Essential 9: Data informed delivery**—It appears requirements for this Essential were met. Nearly all AVID sites submitted the required data to the AVID Center on time. Internal data were used to inform the certification process and additional internal data were maintained and evaluated to inform local decisions on how to improve implementation.

STUDENT ENGAGEMENT AND PARTICIPATION

Chapter 3 examined participation in BC AVID by AVID students and staff, as it evolved from Grade 9 to Grade 11.

- **Essential 2: Participation by students and staff**—AVID Essential 2 requires that the participation of both students and staff be voluntary. This in turn implies *both* that students and staff had willingly agreed to be part of the program *and* had willingly stayed in the program. Staff and students entered BC AVID by volunteering for it. The students (and their parents) signed an informed consent. AVID staff, by and large, seem to have asked or willingly agreed to participate.

Evidence of students and staff leaving the program, whatever effect this might have on program outcomes, shows that students and staff who wanted to leave could do so. Half of all AVID students left the elective class at some point between the start of Grade 9 and the end of Grade 11. The most commonly reported reason for leaving the AVID elective class was to enrol in another elective; other AVID students moved to a different school. Approximately two-thirds of the AVID classes experienced turnover of the AVID elective teacher between grades 9 and 11.

IMPLEMENTATION OF THE AVID ELECTIVE CLASS

Chapter 4 discussed the implementation of the AVID curriculum, tutorials, and motivational activities, readily identifiable in Essentials 5 (Writing and reading as a basis for instruction), 6 (Inquiry as a basis for instruction), 7 (Collaboration as a basis for instruction), 8 (Tutorials), and a component of Essential 3 (Full implementation) for motivational activities. Interviews with AVID teachers, as well as observations of AVID elective classes, indicated that most of these Essentials were delivered, although there was relatively light emphasis on the reading curriculum and there were many problems establishing tutorials according to AVID-as-designed. Major implementation findings from Chapter 4 are as follows:

■ Essential 5: Writing and reading as a basis for instruction

—The AVID writing curriculum was broadly implemented across sites. Many AVID teachers and students had good knowledge of the curriculum, especially by Grade 11. “Note taking” was the most common writing strategy used in the AVID elective class. Some AVID teachers felt they were not implementing the reading curriculum as intended.¹

■ Essential 6: Inquiry as a basis for instruction—

The Inquiry curriculum received considerable attention in grades 9 to 11. Some AVID staff indicated that implementing this curriculum had been challenging. For example, Socratic Seminars and Philosophical Chairs were in use, but not regularly. According to the responses of a core sample of long-term AVID students to the Grade 11 survey, experiences of inquiry as a basis for instruction were more common at AVID case study sites than random assignment sites. The specific AVID techniques most frequently associated with Inquiry were adhered to by BC AVID staff and program participants.

■ Essential 7: Collaboration as a basis for instruction

—The Collaboration curriculum was successfully implemented. AVID staff had a planned approach to teaching this curriculum to the AVID students and, according to reports, it became easier to accomplish over time. Collaboration activities took place in a variety of formats and involved a wide range of learning processes.

■ Essential 8: Tutorials—

Problems with AVID tutor recruitment emerged during the period covered by this report, due both to the paucity of those willing to be tutors and to the difficulty of scheduling them into BC schools’ rotating block class schedule. As a consequence, BC AVID involved proportionately less tutorial time than suggested by the AVID Center. In some situations, AVID tutorials were little more than study groups with no evidence of questions being prepared in advance, group collaboration, or higher level questioning. The duration, breadth, and format of AVID tutor training also varied considerably across sites and over time. Based on AVID staff and student reports, some AVID schools implemented tutorials in ways consistent with AVID-as-designed. When AVID tutors were available and could work according to the school timetable, the specified tutor-to-student ratio was usually observed.

■ Essential 3: Full implementation—

AVID staff at most AVID sites reported on the occurrence of numerous motivational activities, such as field trips to colleges, universities, and technical institutes. They also stressed the importance of such visits to the AVID students, which seemed to increase these students’ acceptance of post-secondary education as a viable option for them. As planned, AVID program group members also visited other venues that offered team-building activities and attended special presentations, usually on career-orientated topics.

¹ Recently, the AVID Center developed a new curriculum called “Critical Reading.”

THE BC AVID TREATMENT DIFFERENTIAL AND POTENTIAL BIASES IN THE ESTIMATION OF IMPACTS

Analysis of the Grade 11 survey found significant differences between the educational experiences of program group members (those who had been offered a place in the AVID elective class) and comparison group members (those who were not offered a place in the class) during grades 9 to 11. Such “treatment differentials” are important because these differences are expected to produce later impacts on students’ achievement. As anticipated, very large treatment differentials (above 80 per cent) with respect to attendance in AVID elective classes and tutorials were observed. Other differences of note included those for instruction in and use of Cornell Notes (above 40 per cent). In general, there was a significant treatment differential for almost all AVID techniques. Program group members consistently experienced more instruction in and made more use of AVID learning strategies than comparison group members.

Nonetheless, some comparison group members seemed to be receiving instruction in and using BC AVID techniques. Comparison of the reports from AVID comparison group members and reports from students attending BC schools that were not involved in BC AVID and thus had no AVID elective classes revealed that the AVID exposure of comparison group members would have occurred regardless of the presence of BC AVID in the school. That is, the BC AVID comparison group experienced AVID techniques to roughly the same extent as students in schools that were not part of the project.

Modest “spillover” of AVID strategies to comparison group members was observed in several areas, notably Cornell Notes and Costa’s Levels of Questions, with comparison group students reporting more experience with these BC AVID techniques than students in other schools. Smaller differences favouring the comparison group surfaced on Quick Writes and Socratic Seminars. These interim findings suggest only minor spillover of these particular BC AVID strategies. The learning of AVID techniques by comparison group members almost certainly occurred during instruction in classes taught by AVID-trained teachers or through informal interactions with AVID students. However, some of these observed differences in survey responses are likely to be due to chance factors. For example, students in non-AVID schools were actually *more* likely than comparison group members to report using Learning Logs, a particular AVID technique. When frequent exposure accumulated across 17 techniques commonly associated with BC AVID was considered, comparison group members’ exposure was indistinguishable from that of students at the other schools. The likelihood of future impacts being affected by the marginal levels of spillover detected here—relative to the large program group treatment differentials—is negligible.

INTERIM IMPACTS OF BC AVID ON ENROLMENT IN RIGOROUS COURSES, ATTENDANCE, AND ACHIEVEMENT

At this intermediate stage of the evaluation, it is too early to assess the impact of offering a place in the AVID elective class on access to post-secondary education. However, impacts on several interim measures of achievement have been calculated. Note that these are impacts on the entire program group—including those who left the AVID elective class—expressed relative to the entire comparison group. Statistically significant impact results from Chapter 6 are repeated here.

Courses

- Compared with comparison group members, more BC AVID program group members enrolled in “rigorous” courses in Grade 10. This finding suggests that AVID students might have been starting to think about, and been supported in enacting plans for, their future earlier in high school than those in the comparison group. This result aligns with three of the expected short- and medium-term impacts identified under BC AVID’s logic model (see Figure 1.1 (a) in Chapter 1): (1) enrolment in rigorous courses, (2) orientation toward the future, and (3) interest in high school achievement.
- A significant reduction in enrolment in fine arts, technical/applied skills, business, and planning courses was also observed in Grade 9, implying that AVID students who enrolled in the AVID elective class did so in lieu of these other courses. During Grade 10, BC AVID program group members were less often enrolled in Planning 10.²

Attendance

- BC AVID was associated with increased retention in the AVID school.
- The school attendance records available thus far are incomplete and inconsistently collected or provided across sites. Thus, interim results on day-to-day attendance are interpreted with caution. So far, attendance records show an increase in the number of days that BC AVID students were absent from their high school in grades 9 and 10. Both this outcome and the previous one were not anticipated.

² As described in Chapter 2, credit for a mandatory Grade 10 planning course was granted if students completed the Grade 10 and Grade 11 AVID elective classes.

Grades

- The AVID program group demonstrated a small but statistically significant reduction in the average proportion of A grades achieved during Grade 9.
- By Grade 11, there was an approximately six-percentage-point increase in the proportion of program group members not receiving an F as a final course mark on their high school transcript. This finding, taken together with the previous one, is consistent with one interpretation of how AVID works. This interpretation, called “implementation dip” (Dunn *et al.*, 2008, p. 21), proposes that students initially struggle as they encounter a more rigorous curriculum, and then improve their performance in rigorous courses with increasing experience using AVID strategies and techniques.

Provincial examinations

- A higher proportion of AVID students took the most demanding of the three math courses offered in Grade 10—Principles of Mathematics—and its corresponding examination.
- Fewer AVID students took the least demanding Essentials of Mathematics course and its corresponding examination.
- BC AVID was not associated with a significant increase in the proportion of students who passed their Principles of Mathematics provincial exam. However, significantly more AVID program group students achieved a final grade (blending course and exam marks) in their Principles of Mathematics course of C- or better.
- BC AVID was associated with an increase in the proportion of AVID students who took the Grade 11 Social Studies provincial exam, passed its course component, achieved a final blended grade in that course of C- or better, and passed the corresponding provincial exam.

REMAINING BC AVID PROGRAM DELIVERY AND ANALYSIS

BC AVID activities delivered in Grade 12—to those who remain in the AVID elective class—include those that will assist AVID students in making a transition to post-secondary education. Among other things, AVID elective class members will be building their résumés, applying for scholarships, gathering letters of recommendation, and applying for colleges and universities, seeking information on financial aid, applying for assistance, and going on campus visits.

As depicted in Figure 1.1 (a) in Chapter 1, the next phase of the evaluation will examine Grade 12 and post-secondary outcomes to determine the efficacy of the BC AVID intervention. These include high school graduation, successful enrolment in the first year of a post-secondary program, and completion of the first year of the program. In addition, a benefit-cost analysis is underway to assist decision makers in the assessment of whether the ratio of gains to costs makes the BC AVID intervention worthwhile.

The final report is scheduled for release in late 2012 and will include the impact of BC AVID across a wide range of measures collected in a Grade 12 participant survey and a post-secondary participant survey, as well as in administrative data on secondary and post-secondary courses, achievement, and financing.

SUMMING UP

At this interim stage of research, firm conclusions about the success or failure of BC AVID have yet to be drawn. The BC AVID Pilot Project is an ambitious undertaking that, to date, has successfully offered the AVID elective class to more than 800 eligible students in 18 British Columbia high schools. The research project has documented operations carefully to provide a record of what has been delivered. This record will provide a source of lessons learned in the final report. Up to Grade 11, and with the main exception of tutorials, BC AVID program delivery has been broadly consistent with the AVID Essentials.

Many other specific challenges, adaptations, and solutions have been documented in implementation research findings. Once BC AVID has run its course, conclusions can be reached in accordance with implementation research objectives—including whether the resulting delivery has given AVID-as-designed a “fair test” in British Columbia. The interim impacts to date show AVID students had, in Grade 10, demonstrated somewhat greater enrolment in courses that are prerequisites to university admission with no initial effect on achievement and some later positive effects. The next report will determine how far these impacts will translate into increased senior-year high school achievement and access to post-secondary education.

APPENDICES

APPENDIX 1: Glossary of Terms

APPENDIX 2: AVID Participating Sites and Associated Feeder Schools

APPENDIX 3: Main Stages of the Project

APPENDIX 4: Certification Summary by BC AVID Pilot Site and Cohort

APPENDIX 5: Cumulative Exposure to BC AVID

APPENDIX 6: Characteristics of Active BC AVID Tutors



APPENDIX 1: Glossary of Terms

Additional (or new) students—Non-project participants added to the BC AVID research classes at some point after the commencement of Grade 9 classes. Such students are added so the school can maintain a viable class size and meet expectations for full enrolment. The attendance of additional (new) students in BC AVID classes was recorded by researchers in order to understand the overall composition and size of AVID classes. However, as non-research participants who were offered less than four years of BC AVID, additional students were not offered the full intervention under test and so their experience was not part of the evaluation. Additional students were not required to complete student surveys, nor were their courses or grades analyzed.

AVID—The acronym used in this report for Advancement Via Individual Determination, the U.S. college-preparatory program that is overseen by the AVID Center. AVID is intended for students who are academically in the middle and who are keen to go to college. An underlying assumption of AVID is that students in the program are able to cope with a demanding set of courses but have previously not been achieving to their highest academic potential.

AVID-as-designed—The hypothesized model of the ideal AVID program, based on the researchers' interpretation of AVID Center literature, particularly the AVID implementation guide (Swanson *et al.*, 2004) and certification instruments. This model offers eligible students a special academic elective that runs during one academic period each day, producing a total of about 150 hours each year, for the duration of the student's school experience. Two classes each week (40 per cent of class time) are designated tutorials, during which students work in subject-specific groups with the help of at least one college tutor for every seven AVID students present. Students investigate questions arising from their other courses using a variety of inquiry methods. One class a week is devoted to "motivational" activities, including guest speakers, field trips, goal-setting, and/or other organizational activities (representing 20 per cent of total program time). The remainder of class time (approximately 40 per cent) is allocated to teaching the AVID curriculum.

AVID Center—A San Diego-based non-profit organization established in 1992 to promote the AVID program in the United States. Typically, participating school districts enter into agreements with the AVID Center for materials, membership, and professional development training opportunities, which are offered each year.

AVID Center Summer Institutes—Each year, the AVID Center offers a variety of professional development opportunities. During AVID Summer Institutes, new site teams are introduced to AVID, while other participants can choose from a variety of higher-level AVID training strands that can help enhance their understanding of AVID methodologies. The five-day training for member districts and schools provides content-specific professional development as well as time for site teams to collaborate and develop a plan for their school.

AVID certification process—The AVID Center developed an annual certification process in the fall of 1996 to ensure program integrity and implementation of the AVID program. The system recognizes the level of implementation achieved against indicators for each Essential (see below) at AVID program schools and certifies the school on an annual basis (after the implementation year). To use the AVID trade name, trademark, and logo, each participating school must agree to annual participation in the certification process and must be recognized as an affiliate, certified, or distinguished AVID School (see Chapter 2).

AVID curriculum—Based on WIC-R (Writing, Inquiry, Collaboration, and Reading), the AVID curriculum aims to build certain skills deemed necessary to succeed in post-secondary preparatory courses. The curriculum is taught mainly, but not exclusively, during "curriculum classes" in the AVID program schedule.

AVID district director—The school district staff person assigned by the school district to oversee the AVID site team(s) in their district and the implementation of the AVID program at each participating AVID school.

AVID Essentials—There are 11 AVID Essentials that form the basis for AVID certification. Each Essential describes an important aspect of implementation. The Essentials are listed in Chapter 1 and form the basis for organizing the analysis of implementation in chapters 2, 3, and 4. The AVID certification process collects information on the level of implementation of each indicator in an Essential.

AVID Good News and AVID Alerts—Teachers use techniques designed to acknowledge effectively the successes of AVID students (Good News) and how to take appropriate steps when students are not meeting AVID program expectations (AVID Alerts).

AVID motivational activities—AVID teachers use methods designed to increase student interest in academic work and career options through field trips, guest speakers, and other team-building experiences. This component should represent 20 per cent of the total program schedule.

AVID site team—The site team is the group of school-based educators responsible for recruiting AVID students, setting up the AVID class, and implementing the AVID program. Responsibilities include non-classroom activities like developing staff support and increasing the use of AVID instructional strategies among teaching staff. The local site team includes the AVID teacher, coordinator, administrator, counsellor, and at least four subject-area teachers. The team works with the AVID district director. A minimum eight-member AVID site team attends the AVID Summer Institute training.

AVID strategies and techniques—These are the core AVID program components in which AVID students should receive regular instruction. Examples of strategies include Philosophical Chairs and Socratic Seminars. Techniques include Cornell Notes and AVID Alerts. Collectively, their adoption should transform students from passive learners into active classroom contributors and critical thinkers.

AVID tutorials—Students participate in study groups with AVID-trained tutors. The tutorials serve to reinforce WIC-R learning techniques for use in all high school courses. Typically, students complete tutorial request forms before the tutorial, indicating a question from other course work that they wish to answer. Students work collaboratively in course-based study groups to answer the questions of group members. Tutors guide the students to reach their answers. Ideally, tutors are college students who can act as post-secondary role models at the same time as assisting students. AVID tutorials are meant to represent about 40 per cent of the total program schedule.

BC AVID—BC AVID is the name given to the intervention being tested in British Columbia. The province's schools were asked to deliver a four-year program to eligible students in grades 9 through 12, according to AVID Essentials, certification requirements, and manuals—used to define AVID-as-designed above. They also received an additional Operations Manual that set out procedures for the pilot project. Some adaptation of the program to the local education system was anticipated in the manual and further teacher adaption was also expected. In its final report, the project will analyze whether the program ultimately delivered as BC AVID to project participants represented BC AVID sufficiently to constitute a fair test of the program.

BC AVID Operations Manual—The BC AVID Pilot Project Operations Manual was authored and reviewed by the BC AVID Steering Committee communications subcommittee. The manual was developed gradually over the course of the design phase of the BC AVID Pilot Project. It contains recommended practices for sites implementing the program as part of the BC AVID Pilot Project on most aspects of program delivery, covering procedures from student selection through to data collection and reporting.

BC AVID Pilot Project—The BC AVID Pilot Project is the name given to the project being run in British Columbia to test the intervention called BC AVID.

BC AVID Steering Committee—Established in 2003 to advise and guide the Canada Millennium Scholarship Foundation and the BC Ministry of Education on the BC AVID Pilot Project, the committee also includes representatives from the AVID Center, Chilliwack School District, and SRDC. The roles and responsibilities of the committee were outlined in the memorandum of understanding between the partners, which establishes it as the main decision-making body for the BC AVID Pilot Project.

Block—A single period averaging 75–80 minutes in a BC high school's timetable into which a course is scheduled. Most high schools in British Columbia have four school blocks per day.

Board/Authority Authorized courses—BC courses developed at the district level and offered by BC school boards to meet local needs or interests; BAA courses must also meet BC Ministry of Education requirements. The combined AVID-Planning 10 course taken by BC AVID students during grades 10 and 11 was BAA certified.

Case study sites—The four case study sites were AVID sites in rural BC areas with smaller Grade 8 student populations. They were selected to contribute to the BC AVID Pilot Project's evaluation, mainly through implementation research. A main goal of the inclusion of these sites was to determine how well the four schools—smaller and located in more remote, rural parts of the province—managed the challenges of implementing the BC AVID intervention. AVID was originally designed for much larger city schools in the United States and so smaller and more remote schools might have faced several challenges, including locating college tutors and running a sufficient range of rigorous courses. Due to their size, random assignment was not undertaken for these sites; hence, they do not contribute to the BC AVID Pilot Project's impact analysis.

Certification Self Study (CSS)—The second of two annual processes developed by the AVID Center concerning AVID certification is termed "Certification Self Study." Its objective is to determine the implementation phase of the program that the schools have achieved. The CSS is initiated by the site team and completed by the district director, usually in the spring. The CSS and Initial Self Study (ISS) are joint processes intended to determine each school's conformity to the AVID model and to identify next steps toward improving the implementation of the program at the site.

Collaboration curriculum—For this component of the AVID curriculum (the "C" of WIC-R), students participate in group activities designed for effective collaboration. Instruction includes selection of groups and preparation for collaborative group work.

Community and student leadership—AVID students should participate in activities designed to increase their involvement in communities and strengthen their capabilities as leaders.

Core sample—The core sample comprises project participants with long-term exposure to BC AVID and is used for the analysis of the delivery of the program in chapters 2, 3, and 4. The sample includes all program group and waitlist students who entered the BC AVID elective class on or before September 30 of their Grade 9 school year (2005 for Cohort 1 and 2006 for Cohort 2), who had not departed from that class by May 31 of their Grade 11 school year (2008 for Cohort 1 and 2009 for Cohort 2), and who also responded to the Grade 11 survey.

Cornell Notes—The AVID note-taking system is an adaptation of the Cornell system, in which students take detailed notes from class lectures and texts in a wide right-hand margin and develop clarifying ideas or questions on those notes in the left-hand margin.

Costa's Levels of Questions—An important part of WIC-R's Inquiry curriculum is the process of identifying different levels of questions. Costa's Levels move from basic (e.g., gathering and recalling information from a given text), to more advanced (e.g., inferring or analyzing what a text is implying), to the highest level of questioning where students must evaluate and apply information and to derive answers based on past knowledge and/or experience.

Fixed block timetable—A system for scheduling school blocks in a school's timetable so that they occur at the same time each day; also referred to as a "static" block timetable.

Initial Self Study (ISS)—The first of two annual processes developed by the AVID Center to inform AVID certification, the ISS determines the implementation phase of the program that schools have achieved relatively early in the year. This study is completed by AVID staff at the school, usually in the fall, and it encourages them to reflect and plan for higher levels of program development. Forms are completed by the school's AVID coordinator, in consultation with the site team, and then submitted to the district director responsible for the school. The ISS and Certification Self Study (CSS) are joint processes intended to determine each school's conformity to the AVID model and to identify next steps toward improving the implementation of the program at the site.

Inquiry curriculum—For this component (the "I" of WIC-R), students engage in a wide range of exercises including AVID tutorials that provide opportunities to practise Costa's Levels of Questions and learn critical thinking skills. Other strategies to develop inquiry include Philosophical Chairs and Socratic Seminars.

Learning Logs—A form of journaling intended to help students cognitively process the work they do in class at a deep level. In learning logs, students write answers to questions such as, "What did I learn today? What questions do I have about what I learned? What connections can I make to previous ideas or lessons?"

Learning outcomes—The learning goals for a set of curricula within BC schools.

Linear timetable—A timetable configuration that is used in many BC middle schools and some high schools, which runs the same courses year long using a Day 1/Day 2 system, alternating courses every second day for the entire academic year.

Mentoring—In the AVID context, the provision of both personal and academic counselling for AVID students; it involves supporting students to make difficult changes or to find ways to overcome challenges to their academic progress.

Merged-grade class—A classroom that contains students from more than one grade level, for example, one that includes both Grade 10 and 11 students. Often this occurs if there are too few students in a single grade to make it economical for the school to provide a class. Two or more grades can be merged together to produce a viable class size.

Philosophical Chairs—A structured dialogue in which the discussion is organized using a specific seating pattern and with specific ground rules (for example, each speaker must summarize what the previous speaker said).

Planning 10—A mandatory Grade 10 high school course that covers topics such as graduation requirements, post-secondary education, career, health, and finance. Because of some content overlap between Planning 10 and the BC AVID elective class, the Operations Manual recommended that schools offer BC AVID students a combined curriculum for BC AVID and Planning 10 to be taken during grades 10 and 11.

POLLARA—SRDC subcontracted POLLARA—a commercial survey company—for the BC AVID Pilot Project survey research interviews.

Post-secondary education—For the purposes of the BC AVID Pilot Project, post-secondary education is taken to mean Canada Student Loans-recognized programs operating at universities, community colleges, or private vocational institutions and as apprenticeships. This definition does not necessarily match other post-secondary education definitions employed by the research cited in the *BC AVID Pilot Project: Early Implementation Report* (SRDC, 2008) or by the AVID Center itself. Where differences occur, further clarification has been provided.

Pre-writes—A pre-write is what a student writes down about a topic prior to doing research on it or writing an essay on the topic. This might take the form of a Quick Write.

Quick Writes—Timed writing exercises that aim to help students learn to write with ease. For example, a student might be asked to write continuously on a topic for a set period of time, such as two to three minutes without stopping.

Random assignment sites—The 14 BC AVID sites where SRDC assigned students to three research groups using a lottery-like process. Using a computer program, SRDC assigned the students to a program group offered BC AVID, to a comparison group not offered the program, or to a waitlist group. The technique ensures that there are no pre-existing systematic differences between the students assigned the new program and the students whose outcomes will be compared to theirs over time. Identifying a comparison group by methods other than random assignment with a highly selective program like AVID is very likely to introduce an unquantifiable selection bias into results.

Reading curriculum—Students use text-processing strategies, reading strategies, and techniques like KWL (“what I Know,” “what I Want to learn,” and “what I Learned”) for this component (the “R” of WIC-R).

Rigorous post-secondary preparation courses—The most advanced high school courses available in schools, typically taken by higher-achieving students to meet university entrance requirements. The level of rigour in high school courses required to meet such entrance requirements varies considerably and thus the term “rigorous” is usually context dependent.

Rotating block timetable—A system for scheduling school blocks in a school timetable so that the blocks rotate through all time slots on the timetable. Rotating block timetables are common in BC high schools.

Semester timetable—A timetable configuration that is used in many BC high schools, which runs the same four courses every day for one semester. Under this semester system, schools require students to take four courses each semester for a total of eight courses per academic year. The first semester runs from September to January and the second semester runs from February to June.

Socratic Seminars—Teacher- or student-led dialogues on specific texts that employ this widely known method of rigorous inquiry and consensus-building to explore a complex issue. Participants sit facing each other to encourage participation, and the seminar leader allows participants to develop their own interpretations of the text through interaction, rather than guiding them to a specific conclusion.

Spillover—In the context of the BC AVID Pilot Project, spillover refers to the effects of the BC AVID intervention on those assigned not to receive it (specifically, members of the comparison group).

Student binders and organization—AVID encourages students to learn and adopt the habit of organizing their daily school activities and assignments for all subject areas.

Treatment differential—The change in educational programming experience generated by the treatment. In an experiment, this is assumed to be the difference between the educational experiences of program group members, who are offered a place in the AVID program, and comparison group members, who are not offered a place. Evaluators see a large treatment differential as evidence that an intervention has been received by the program group. Impact estimates can then be attributed to the intervention.

WIC-R—The foundation of the AVID curriculum, which stands for Writing, Inquiry, Collaboration, and Reading. The Writing curriculum includes Learning Logs, for example, and the components of the Inquiry curriculum include Socratic Seminars and Costa’s Levels of Questions. As part of the Collaboration curriculum, students engage in activities such as group projects, games, and presentations. Some Reading strategies are SQ3R (“Survey, Question, Read, Recite, and Review” now known as PQ5R “Preview, Question, Read, Record, Recite, Review, Reflect” and KWL “what I Know,” “what I Want to learn,” and “what I Learned”).

Writing Curriculum—Students learn the Cornell note-taking method, and use Learning Logs to reflect on what they have learned and other writing techniques for this (the “W”) component of the WIC-R strategy.

APPENDIX 2: AVID Participating Sites and Associated Feeder Schools

Table A2.1: AVID Participating Sites and Associated Feeder Schools

	BC AVID Pilot Project program delivery years					
	Recruitment	1	2	3	4	
	Grades					
Site type	8	9	10	11	12	Number of sites
A						9
	Grade 8–12 AVID school					
B						5
	Grade 9–12 AVID school, Grade 8 feeder					
C						1—AVID in all schools
	AVID Middle School (to Grade 9) feeding AVID Grade 10–12 school					
D						2—AVID in all schools
	2 AVID Middle Schools (to Grade 9) feeding a single AVID Grade 10–12 school					
E						1—AVID in all schools
	AVID Middle School (to Grade 10) feeding AVID Grade 11–12 school					
<p>Legend: A = one high school with students in grades 8–12 attending. B = two schools: one middle school (Grade 8) feeds into one high school (grades 9–12). C = two schools: one middle school (grades 8–9) feeds into one high school (grades 10–12). D = three schools: two middle schools (grades 8–9) feed into one high school (grades 10–12). E = two schools: one middle school (grades 8–10) feeds into one high school (grades 11–12).</p>						

"Site" refers to each high school or combination of middle and high schools that offers the AVID elective for the same class of AVID students across grades 8–12. The majority of the BC AVID Pilot Project sites were like site type A. Site type B recruited its AVID students from the feeder school in which they were completing Grade 8. Site types C, D, and E require AVID students to switch schools following Grade 9 (site types C and D) or Grade 10 (site type E) of AVID.

APPENDIX 3: Main Stages of the Project

Important aspects of the BC AVID Pilot Project are summarized in Table A3.1. The table shows key project activities and their timing relative to the grade and school year of the participants.

Chapter 1 describes the timeline for data collection and reports. The Longitudinal Panel mentioned in Table A3.1 is a qualitative study of high school students' decision making over time that

collects data from participants in the BC AVID Pilot Project and the Future to Discover Pilot Project (Currie *et al.*, 2007). The Panel study aims to learn about the key influences on Canadian students' decision making about their post-secondary futures, as they move from Grade 10 to their first post-secondary year. It is anticipated that the Panel results will aid in the understanding of program impacts presented in the final reports of both projects.

Table A3.1: Project Timelines

Year	Grade	Cohort 1 Activities	Grade	Cohort 2 Activities
2004–05	8	School Recruitment + Selection, AVID Summer Institute/Training, Orientation Sessions, Student Recruitment + Selection (Baseline surveys for students and parents)	7	
2005–06	9	BC AVID Delivery: Placement in BC AVID Elective	8	AVID Summer Institute/Training, Orientation Sessions, Student Recruitment + Selection (Baseline surveys for students and parents)
2006–07	10	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective (Longitudinal panel wave 1)	9	BC AVID Delivery: Placement in BC AVID Elective
2007–08	11	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective (Longitudinal panel wave 2) (Grade 11 follow-up survey)	10	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective
Early Implementation Report				
2008–09	12	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective (Longitudinal panel wave 3) (Grade 12 follow-up survey)	11	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective (Grade 11 follow-up survey)
2009–10	PSE1	(Longitudinal panel final telephone follow-up)	12	BC AVID Delivery: Placement in Rigorous and/or Advanced Courses and BC AVID Elective (Grade 12 follow-up survey)
Interim Impacts Report				
2010–11	PSE2	(66-month follow-up survey)	PSE1	
2011–12	PSE3		PSE2	(66-month follow-up survey)
Final Impacts Report, Including Longitudinal Panel Findings				

APPENDIX 4: Certification Summary by BC AVID Pilot Site and Cohort

Table A4.1 indicates the AVID certification status of each site in the project. Schools submitted their certification reports electronically to the AVID Center according to the procedures outlined in Chapter 2. Based on the certification report process for the 2005–06 year, there are four possible statuses for each school in each of the project years to date:

- **New AVID site**—a school that was implementing AVID for the first year should submit its report but should not have its submission reviewed by the AVID Center. The status of these sites' programs in their first year of implementation as New is thus "inferred" (as the AVID Center did not approve the report).¹
- **Affiliate AVID site**—a school that has one or more Essentials rated as "Not AVID."
- **Certified AVID Site**—when all AVID Essentials meet certification standards.
- **Certified, possible demonstration site**—when 11 Essentials are rated at "Routine Use" or higher, the district director can recommend the school apply to be a demonstration site. Such a certification report submission can be approved, without implying the site has become a demonstration site.

The rules for processing the reports state that the submission relating to first year of implementation (usually when Cohort 1 was receiving Grade 9 AVID) is not certified by the AVID Center. This is likely the reason why most (but not all) sites did not have their certification status approved in 2005–06. Some sites also missed out on AVID Center approval of their reports in later years because their first year of AVID implementation was later (e.g., in Grade 10) or for unknown reasons (which could include late submission). All project schools submitted reports in every year, and so when the AVID Center did not approve the report, rather than leave the status blank, the status is indicated as "inferred."

A shading system—either pink or green shading—is used when a certification submission included a district director recommendation. Schools whose status was either AVID certified or "on track" to become certified as soon as the system allowed are shaded green. Pink shading occurs when schools were recommended for affiliate status in situations where certified status was an option. Thus the pink-shaded sites were "not AVID" on one or more Essential and thus not on track to become certified at that point.

¹ The AVID Center definition of "Affiliate" cannot be inferred because this applies only when the site has one or more AVID Essentials rated as "Not AVID" (Level 0) and the site is working to implement all 11 AVID Essentials. This definition does not apply to all New project sites reports, many of which had no Essentials rated as "Not AVID," so the term "New AVID site" (which is also a permitted recommendation in the electronic system) is used here.

Table A4.1 is structured to record the school's AVID status against the year in which the program delivery would have been experienced by each project cohort. The project includes several sites with more than one school, where feeder schools feed senior secondary schools. Each school is certified separately. Therefore, because the project cohorts moved between schools at these sites, cohorts at the same *site* could be at different *schools* in a given year and experience AVID at different certification levels.

Figure A4.2 plots the proportion of project sites that report themselves "not AVID" on each Essential in each year. The only Essential that all sites felt they delivered consistently as "AVID" was Essential 1 (student selection). Sites most often judged themselves "not AVID" on Essential 8 (data collection).

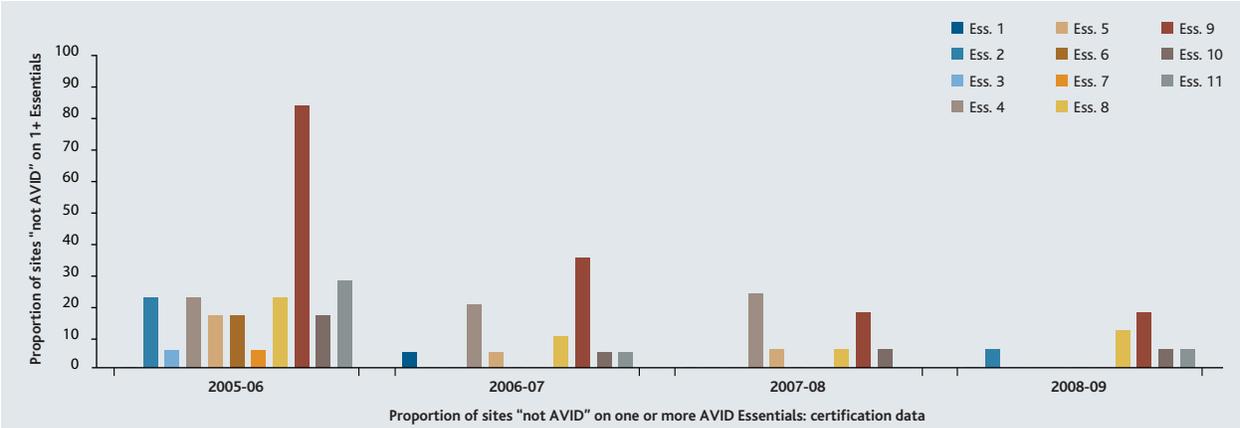
Table A4.1: Certification Summary by BC AVID Pilot Site and Cohort

		2005–06	2006–07	2007–08	2008–09
Site A	Cohort 1	Inferred New AVID Site	Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site A	Cohort 2		Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site B	Cohort 1	Inferred New AVID Site	Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site B	Cohort 2		Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site C	Cohort 1	Inferred New AVID Site	Inferred Affiliate	Certified AVID Site	Certified AVID Site
Site C	Cohort 2		Inferred Affiliate	Certified AVID Site	Certified AVID Site
Site D	Cohort 1	Inferred New AVID Site	Certified AVID Site	Certified AVID Site	Certified AVID Site
Site D	Cohort 2		Certified AVID Site	Certified AVID Site	Certified AVID Site
Site E	Cohort 1	Inferred New AVID Site	Certified AVID Site	Certified AVID Site	Certified, Possible Demonstration Site
Site E	Cohort 2		Certified AVID Site	Certified AVID Site	Certified, Possible Demonstration Site
Site F	Cohort 1	Inferred New AVID Site	Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site F	Cohort 2		Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site G	Cohort 1	Inferred New AVID Site	Certified AVID Site	Affiliate AVID Site	Affiliate AVID Site
Site G	Cohort 2		Certified AVID Site	Affiliate AVID Site	Affiliate AVID Site
Site H	Cohort 1	Inferred New AVID Site	Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site H	Cohort 2		Affiliate AVID Site	Certified AVID Site	Certified AVID Site
Site I	Cohort 1	Inferred New AVID Site	Affiliate AVID Site	Affiliate AVID Site	Certified AVID Site
Site I	Cohort 2		Affiliate AVID Site	Affiliate AVID Site	Certified AVID Site
Site J	Cohort 1	Inferred New AVID Site	Certified AVID Site	Certified AVID Site	Certified, Possible Demonstration Site
Site J	Cohort 2		Certified AVID Site	Certified AVID Site	Certified, Possible Demonstration Site
Site K	Cohort 1	Inferred New AVID Site	Inferred New AVID Site	Affiliate AVID Site	Affiliate AVID Site
Site K	Cohort 2		Affiliate AVID Site	Affiliate AVID Site	Affiliate AVID Site
Site L	Cohort 1	Inferred New AVID Site	New AVID Site	Certified AVID Site	Certified AVID Site
Site L	Cohort 2		Certified AVID Site	Certified AVID Site	Certified AVID Site
Site M	Cohort 1	Inferred New AVID Site	New AVID Site	Certified AVID Site	Certified AVID Site
Site M	Cohort 2		Certified AVID Site	Certified AVID Site	Certified AVID Site
Site N	Cohort 1	Inferred New AVID Site	Inferred Affiliate	Certified AVID Site	Certified AVID Site
Site O	Cohort 1	Inferred New AVID Site	Inferred Certified	Certified AVID Site	Certified AVID Site
Site P	Cohort 1	Inferred New AVID Site	Certified AVID Site	Certified AVID Site	Certified AVID Site
Site Q	Cohort 1	Inferred New AVID Site	Certified AVID Site	Certified AVID Site	Certified AVID Site
Site R	Cohort 1	Inferred New AVID Site	Certified AVID Site	New AVID Site	Certified AVID Site

Chapters 1 and 2 review some of the challenges in using certification status to judge program delivery, such as the fact that the system changed over time, so certification status has not been used to judge program delivery in this report. It is worth noting that the certification reports include notes entered by

site team members or district directors in places where they judged certain indicators (such as indicators referring to standardized tests) did not apply. In the most recent year of reporting, 2008–09, all but two sites were certified as delivering all the AVID Essentials.

Figure A4.2: Proportion of Sites With Each Essential Rated as "Not AVID" in Each Implementation Year



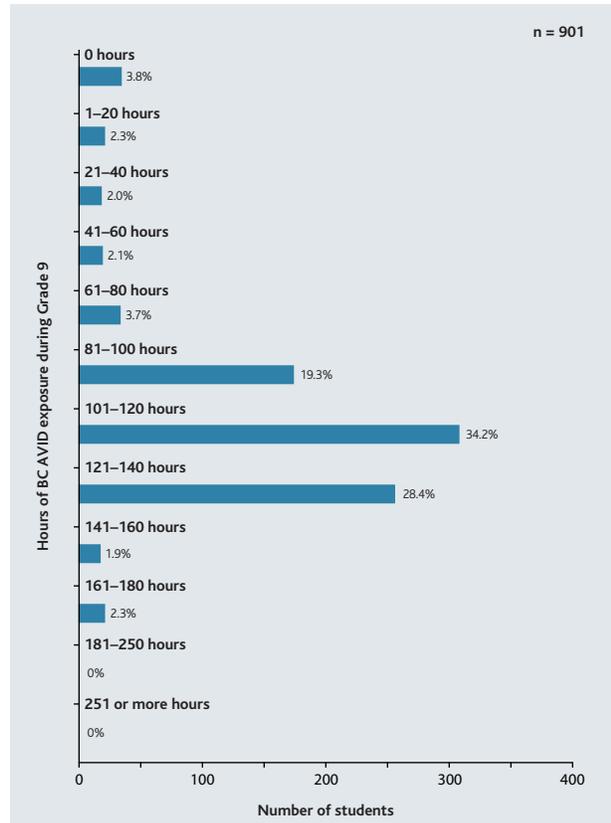
APPENDIX 5: Cumulative Exposure to BC AVID

The following charts record hours of AVID curriculum class, tutorials, and motivational activities combined for two groups of project participants. Figure A5.1 records the hours for program group members (upon whom the impact analysis in

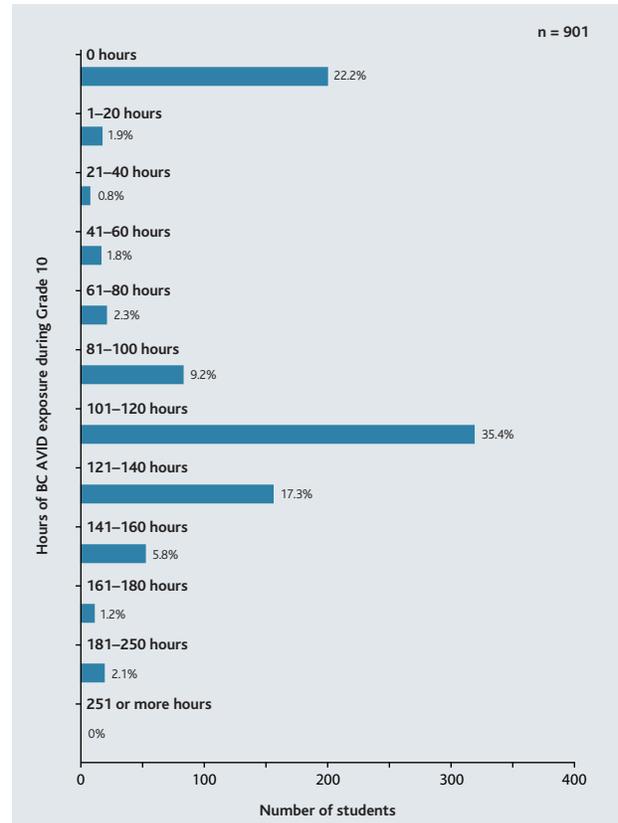
chapters 5 and 6 is based). Figure A5.2 does the same for the core group of students who remained in the AVID class from September 30 of Grade 9 to at least May 31 of Grade 11 (upon whom the analysis of delivery in Chapter 4 is largely based).

Figure A5.1: Cumulative Exposure to BC AVID for Program Group Students (Cohorts 1 and 2)

Grade 9



Grade 10



Continued on next page

Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

The sample is limited to the first year of data collection for Cohort 1 (September 2005–June 2006) and Cohort 2 (September 2006–June 2007).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

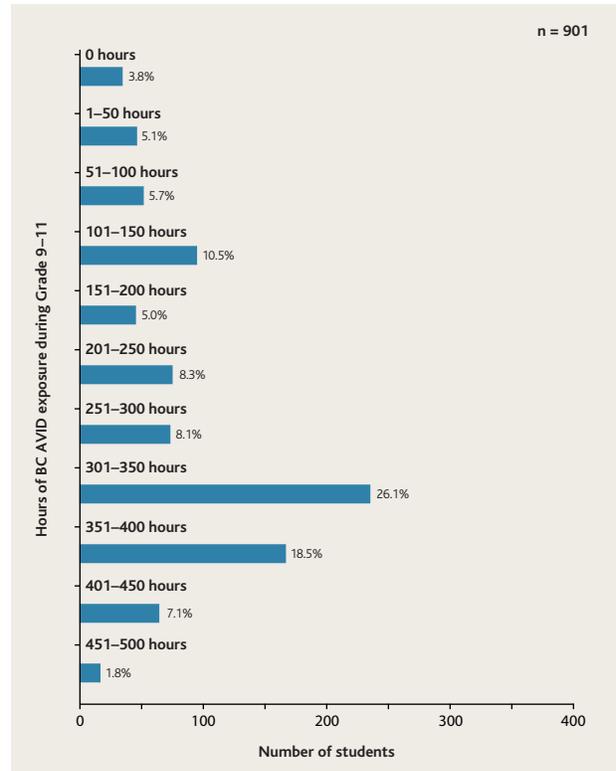
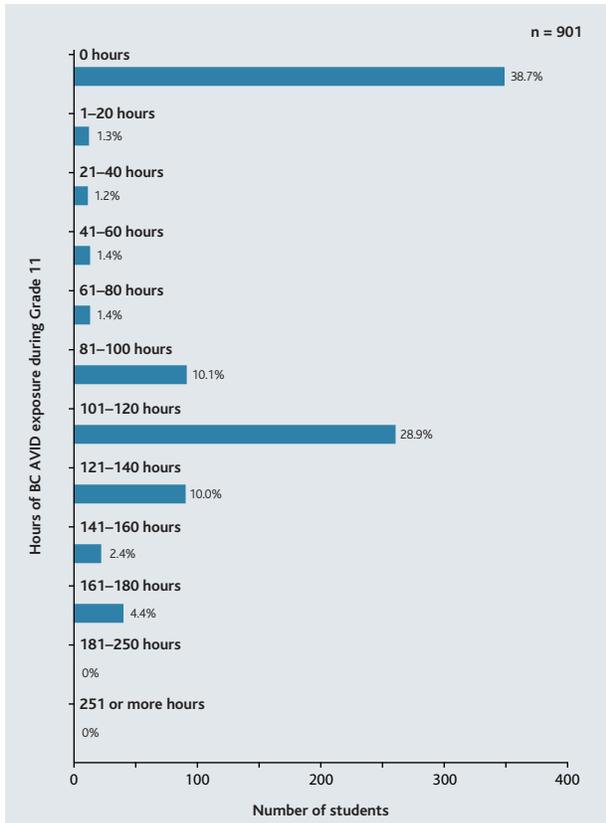
There are 28 BC AVID elective classes in random assignments sites.

There are 4 BC AVID elective classes in case study sites.

Figure A5.1: Cumulative Exposure to BC AVID for Program Group Students (Cohorts 1 and 2) (Cont'd)

Grade 11

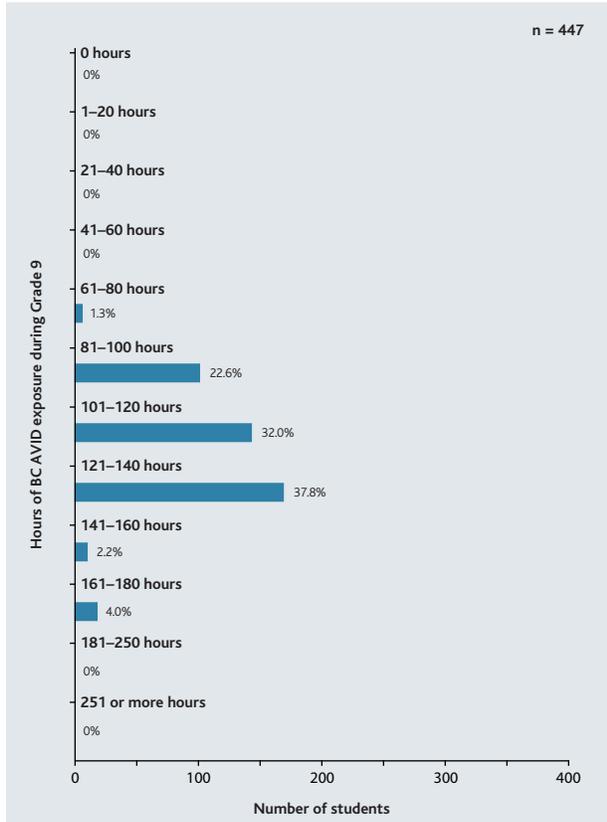
3 Years Combined—Program



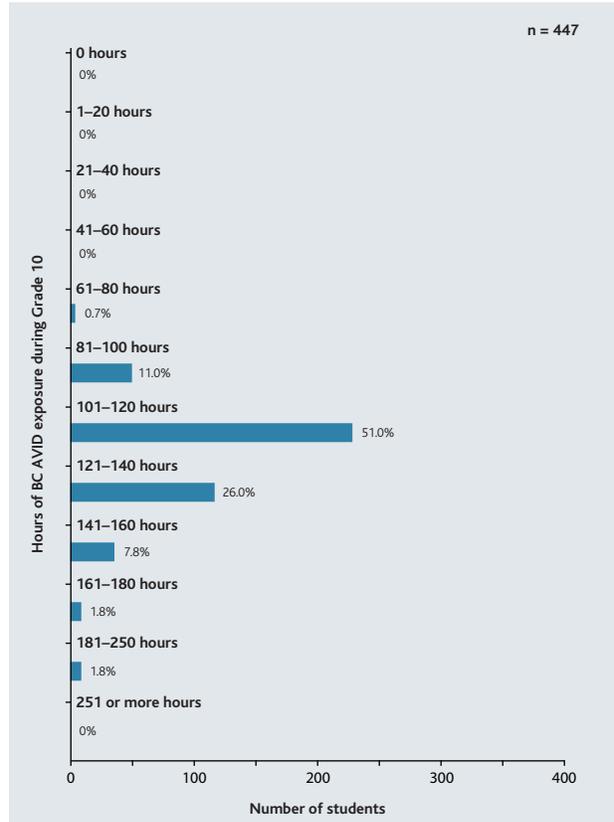
Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites. The sample is limited to the first year of data collection for Cohort 1 (September 2005–June 2006) and Cohort 2 (September 2006–June 2007). The BC AVID elective class is a group of students in each site. There are 19 BC AVID elective classes in Cohort 1. There are 13 BC AVID elective classes in Cohort 2. There are 28 BC AVID elective classes in random assignments sites. There are 4 BC AVID elective classes in case study sites.

Figure A5.2: Cumulative Exposure to BC AVID for Core Group Students (Cohorts 1 and 2)

Grade 9



Grade 10



Continued on next page

Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites.

The sample is limited to the first year of data collection for Cohort 1 (September 2005–June 2006) and Cohort 2 (September 2006–June 2007).

The BC AVID elective class is a group of students in each site.

There are 19 BC AVID elective classes in Cohort 1.

There are 13 BC AVID elective classes in Cohort 2.

There are 28 BC AVID elective classes in random assignment sites.

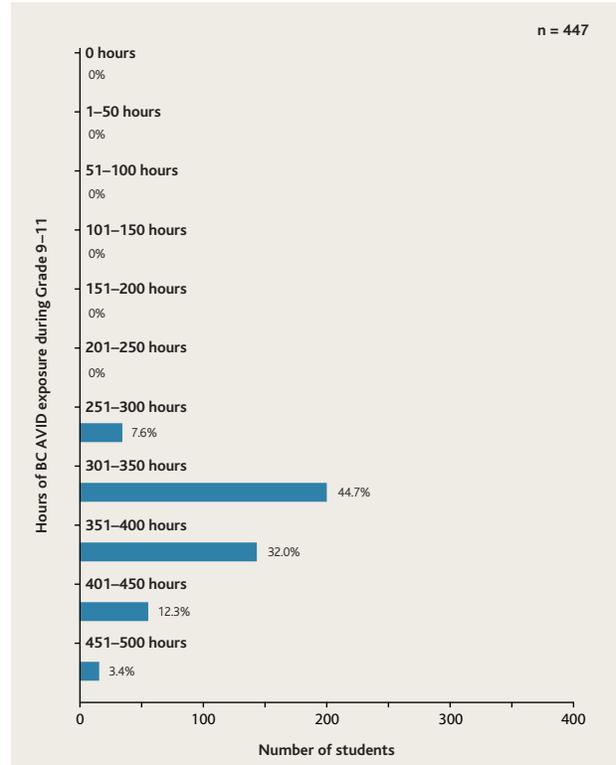
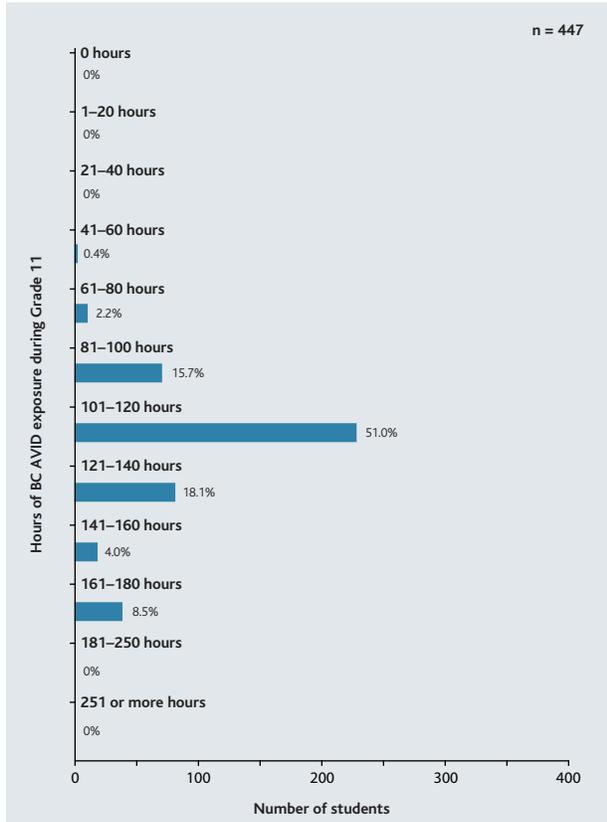
There are 4 BC AVID elective classes in case study sites.

Core group students are program or waitlist students who took up a place in the AVID class on or before September 30 of their Grade 9 year and did not depart that class before May 31 of their Grade 11 year and who completed the Grade 11 survey.

Figure A5.2: Cumulative Exposure to BC AVID for Core Group Students (Cohorts 1 and 2) (Cont'd)

Grade 11

3 Years Combined—Core



Source: SRDC calculations using BC AVID class activities, departure, waitlist, and student attendance forms collected from the pilot project sites. The sample is limited to the first year of data collection for Cohort 1 (September 2005–June 2006) and Cohort 2 (September 2006–June 2007). The BC AVID elective class is a group of students in each site. There are 19 BC AVID elective classes in Cohort 1. There are 13 BC AVID elective classes in Cohort 2. There are 28 BC AVID elective classes in random assignment sites. There are 4 BC AVID elective classes in case study sites. Core group students are program or waitlist students who took up a place in the AVID class on or before September 30 of their Grade 9 year and did not depart that class before May 31 of their Grade 11 year and who completed the Grade 11 survey.

APPENDIX 6: Characteristics of Active BC AVID Tutors

Table A6.1: Characteristics of Active BC AVID Tutors

Tutor Characteristics	Percentages
Gender	
Female	74.2
Male	25.8
Total	100.0
Age	
14–15	0.2
16–17	41.5
18–19	30.3
20–24	13.4
25–29	5.2
30–34	3.0
35–39	1.6
40+	4.8
Total	100.0
Previous tutor experience	
Yes	34.0
No	66.0
Total	100.0
Graduated from high school	
Yes	38.4
No	61.6
Total	100.0
Currently attending school or college	
Yes	93.6
No	6.4
Total	100.0
Type of school or college	
Post-secondary education	33.1
Post-secondary education graduates, not currently attending	1.2
Pilot schools	62.5
Other high schools	0.2
Other	2.9
Total	100.0

Continued on next page

Table A6.1: Characteristics of Active BC AVID Tutors (Cont'd)

Tutor Characteristics	Percentages
How tutor heard about the tutoring opportunities with AVID¹	
Information session	10.7
Teacher	13.0
Posters and brochures	2.1
Word of mouth	61.3
Internet	0.9
Other	18.9
Where tutor heard about the tutoring opportunities with AVID¹	
High school	76.5
College/University	13.7
Other	9.8
Reasons for becoming an AVID Tutor	
Interested in becoming a teacher	
Yes	40.5
No	59.5
Total	100.0
Work experience	
Yes	56.5
No	43.5
Total	100.0
Financial benefits	
Yes	36.9
No	63.1
Total	100.0
Want to help	
Yes	69.2
No	30.8
Total	100.0
Other reasons	
Yes	12.1
No	87.9
Total	100.0

Source: SRDC calculations using AVID tutor consent and tutor attendance forms collected from the pilot project sites.

Information presented only for tutor consent forms completed and received by SRDC before June 30, 2009.

Out of 659 tutors recruited by pilot project sites before June 30, 2009, 484 individual tutors actually tutored in the research cohorts during the 2005–2009 school years. Of the 484 active tutors in the research cohorts, 439 completed the tutor consent form and 45 refused to release their information to SRDC.

¹ Multiple choices accepted.

References

Adelman C. (1999). *Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*. Washington, DC: U.S. Department of Education.

Currie, S., Hutchison, J., Ford, R., Kwakye, I., and Tattie, D. (2007). *Future to Discover Pilot Project: Early Implementation Report*. Montreal: Canada Millennium Scholarship Foundation.

Dunn, E., Ford, R., Kwakye, I., Hutchison, J., Hébert, S., Foley, K., and Wilson, L. (2008). *The BC AVID Pilot Project: Early Implementation Report*. Montreal: Canada Millennium Scholarship Foundation.

Mehan, H., Villanueva, I., Hubbard, L., and Lintz, A. (1996). *Constructing School Success: The Consequences of Untracking Low Achieving Students*. Cambridge: Cambridge University Press.

Nagy, P. (2000). The Three Roles of Assessment: Gatekeeping, Accountability, and Instructional Diagnosis. *Canadian Journal of Education*, 25(4), 262–279.

O'Donnell, C.L. (2008). Defining, Conceptualizing, and Measuring Fidelity of Implementation and Its Relationship to Outcomes in K–12 Curriculum Intervention Research. *Review of Educational Research*, 78(1), 33–84.

Penuel, W.R., Frank, K.A., Fishman, B.J., Sabelli, N., and Cheng, B. (2007). *Expanding the Scope of Implementation Research in Education to Inform Design*, Menlo Park, CA: SRI International.

Shaughnessy, M.F. (2005). *An Interview with Mary Catherine Swanson: About (AVID) Advancement Via Individual Determination*. Retrieved December 23, 2009, from <http://www.avidonline.org/content/pdf/2048.pdf>.

Smith Fowler, H., Currie, S., Hébert, S., Kwakye, I., Ford, R., Hutchison, J., and Dobrer, S. (2009). *Future to Discover Pilot Project: Interim Impacts Report*. Ottawa: Social Research and Demonstration Corporation.

Swanson, M.C., Contreras, M., Cota, D., and Gira, R. (2004). *Implementing and Managing the High School AVID Program: The AVID Teacher/Coordinator Guide*. San Diego: AVID Academic Press.

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