



PROVINCIAL DUAL CREDIT STRATEGY

IMPLEMENTATION EVALUATION FINAL REPORT

June 2017
Developed for:
Alberta Education

Developed by



Alberta  Government

Table of Contents

| | |
|--|-----------|
| EXECUTIVE SUMMARY..... | 2 |
| SECTION 1: PROJECT ACTIVITIES AND METHODOLOGY..... | 5 |
| 1.1 OBJECTIVES..... | 5 |
| 1.2 REVIEW OF EXISTING DOCUMENTS AND RESEARCH INSTRUMENT DEVELOPMENT..... | 5 |
| 1.3 Methodology..... | 5 |
| 1.3.1 Student and teacher/instructor surveys..... | 5 |
| 1.3.2 Stakeholder survey..... | 5 |
| 1.3.3 CASS reporting template..... | 6 |
| 1.3.4 Key informant interviews..... | 6 |
| 1.4 ANALYSIS..... | 6 |
| 1.5 SURVEY RESPONDENT DEMOGRAPHICS..... | 6 |
| 1.5.1 Sample size..... | 6 |
| 1.5.2 Demographics..... | 7 |
| 1.6 READING THIS REPORT..... | 8 |
| 1.7 CASE STUDIES..... | 9 |
| SECTION 2: FINDINGS..... | 10 |
| 2.1 DID THE STRATEGY MEET ITS STATED GOALS?..... | 10 |
| 2.1.1 Increase learner retention and completion rates of high school programs – Strategy Goal One..... | 10 |
| 2.1.1.1 Optimizing dual credit opportunities..... | 12 |
| 2.1.2 Increase participation of young adults in post-secondary programs – Strategy Goal Two..... | 13 |
| 2.1.2.1 Optimizing dual credit opportunities..... | 15 |
| 2.1.3 Assist young adults in making meaningful connections to the current and emerging labour market – Strategy Goal Three..... | 15 |
| 2.1.3.1 Optimizing dual credit opportunities..... | 18 |
| 2.1.4 Expand local partnerships to offer dual credit programming – Strategy Goal Four..... | 19 |
| 2.2 HOW SUCCESSFUL WERE GOVERNMENT AND STAKEHOLDERS IN COMPLETING THE STATED ACTIONS IN THE STRATEGY?..... | 19 |
| 2.2.1 Action 1: Engage more high school students in dual credit programming..... | 19 |
| 2.2.1.1 Optimizing dual credit opportunities..... | 20 |
| 2.2.2 Action 2: Invest in student success in dual credit programming at the local level..... | 21 |
| 2.2.3 Action 3: Expand pathways for high school students..... | 22 |
| 2.2.3.1 Optimizing dual credit opportunities..... | 23 |
| 2.3 DID THE GOVERNANCE STRUCTURE FOR THE STRATEGY SERVE ITS PURPOSE?..... | 24 |
| 2.4 TO WHAT EXTENT DID THE ACCOUNTABILITY STRUCTURES IN THE STRATEGY HELP INFORM DECISION MAKING?..... | 26 |
| 2.4.1 What is required for an appropriate level/structure of accountability for dual credit in the future?..... | 27 |
| 2.5 WHAT WERE THE COSTS INCURRED AND WHAT WAS THE VALUE RECEIVED FOR THE DOLLARS SPENT IN RELATION TO THE STRATEGY?..... | 28 |
| 2.6 TO WHAT EXTENT WERE PARTNERSHIPS ABLE TO FULFIL THE SUSTAINABILITY REQUIREMENTS OF THE STRATEGY?..... | 31 |
| 2.6.1 What types of approaches were used to ensure financial sustainability once funding provided through the Strategy expired?..... | 32 |
| 2.6.2 How did each dual credit partner (K–12, post-secondary, and business/industry) contribute to the financial sustainability of the dual credit opportunities?..... | 32 |
| 2.6.3 What did partners learn regarding achieving greater efficiency of financial and other resources for future dual credit opportunities?..... | 33 |
| 2.6.4 What elements within the implementation of partnerships’ dual credit opportunities enabled programming and financial sustainability?..... | 34 |
| 2.6.5 What elements within the implementation of partnerships’ dual credit opportunities were barriers to sustainability?..... | 38 |
| 2.6.6 What are the implications for dual credit in Alberta going forward?..... | 39 |
| 2.7 WHAT FACTORS SHOULD BE CONSIDERED FOR THE FUTURE OF SUSTAINABLE DUAL CREDIT IMPLEMENTATION IN ALBERTA?..... | 40 |
| SECTION 3: CONCLUSIONS..... | 42 |

EXECUTIVE SUMMARY

PROJECT OBJECTIVES

The Provincial Dual Credit Strategy Implementation Evaluation (the evaluation) was designed to identify the successes, challenges, and opportunities associated with the implementation of the Provincial Dual Credit Strategy (the Strategy) to date. The following Guiding Questions were answered by the evaluation:

1. Did the Strategy meet its stated goals?
2. How successful were government and stakeholders in completing the stated actions in the Strategy?
3. Did the governance structure for the Strategy serve its purpose?
4. What were the costs incurred and what was the value received for the dollars spent in relation to the Strategy?
5. To what extent were partnerships able to fulfil the sustainability requirements of the Strategy?
6. To what extent did the accountability structures in the Strategy help inform decision making? What is required for an appropriate level/structure for accountability for dual credit in the future?
7. What factors should be considered for the future of sustainable dual credit implementation in Alberta?

METHODOLOGY

A multi-modal methodology was used to collect data for the evaluation. These data sources included

- background document review;
- student and teacher/instructor survey;
- stakeholder survey;
- administrative data analysis of the College of Alberta School Superintendents (CASS) Reporting template; and
- key informant interviews.

The data collected from these sources ensured that a broad range of information and perspectives was included, generating a comprehensive understanding of the dual credit opportunities.

FINDINGS

Overall, this evaluation has highlighted the significant value that dual credit programming can offer high school students in Alberta. From providing students with the knowledge, skills, and confidence to continue with post-secondary training to assisting them with making decisions about their future career pathways, the benefits are considerable. The values also extended to secondary, post-secondary, and business/industry dual credit partners who built greater understandings of the others' systems as they worked together to plan, develop, and implement dual credit opportunities that fit their local contexts.

Through the clear identification of the successes and challenges associated with the implementation of the Strategy, government can build on the successes and minimize the challenges to develop a more systemic long-term plan to support dual credit moving forward. This evaluation, along with Government of Alberta dual credit pilot projects feedback (2008–2011), the CASS survey of Strategy-funded partners, the CASS literature review, and Alberta Education's cross-jurisdictional research, informs the direction that government will take to facilitate sustainable dual credit in Alberta.

Highlighted below are the key findings associated with the evaluation. Key findings are organized around the seven Guiding Questions provided by the government at the outset of the evaluation project.

Did the Strategy meet its stated goals?

All lines of evidence clearly indicated that the Strategy met all four of its goals. All key informants agreed that the Strategy had been successful in meeting its stated goals, although some informants noted that longitudinal data would need to be collected to determine the extent of the success. Data collected from the student, teacher, and stakeholder surveys provided more direct evidence that the Strategy goals were met. Over half of student and stakeholder survey respondents indicated that the Strategy had increased learner retention and completion rates; over two-thirds of students and stakeholders reported that the Strategy increased the participation of young adults in post-secondary programs; over half of students, teachers, and stakeholders reported that the Strategy assisted young adults in making meaningful connections to the labour market; and over three-quarters of teachers reported that the Strategy expanded local partnerships to offer dual credit.

How successful were government and stakeholders in completing the stated actions in the Strategy?

The data collected demonstrated that the Strategy was successful in completing its stated actions. Key informants noted the provincial nature of the Strategy allowed for more students to participate in dual credit and expanded learner pathways. Key informants also reported that local partnerships implemented methods to ensure student success in dual credit. Data collected from the student and stakeholder surveys supported these observations. A total of 1,564 students participated in dual credit under the Strategy, and 91% of stakeholders reported that the Strategy allowed more students to participate in dual credit. Over three-quarters of students completed their dual credit course(s) and received high school credit and post-secondary or industry credit. Finally, the majority of stakeholders reported that the Strategy developed additional pathways for high school students.

Did the governance structure for the Strategy serve its purpose?

It was generally felt that the governance structure for the Strategy served its purpose. While some challenges were reported by the key informants, overall, it was felt that the governance structure was highly engaged in the success of the Strategy and effectively oversaw the allocation of funding and support of the local partnerships. Stakeholders who completed the survey provided a similar view of the governance structure. Stakeholders reported that the governance structure provided effective support and served its purpose. As with the key informants, some challenges were noted.

To what extent did the accountability/governance structures in the Strategy help inform decision making? What is required for an appropriate level/structure for accountability for dual credit in the future?

The reporting and data collection of the 51 Strategy-funded partnerships have provided the government with valuable information to support evidence-based decisions to continue supporting dual credit programming for high school students. In terms of the opportunities funded through the Strategy, responses were mixed concerning the impact of the accountability structures on decision making. While over half (59%) of respondents to the stakeholder survey agreed that the governance structures established to implement the Strategy informed decision making, less than half (49%) agreed that the governance structure provided adequate guidance for the Strategy's implementation. Specifically, key informants noted that the accountability structures lacked clarity in roles and responsibilities. Moving forward, there was agreement that there needed to be a clearly articulated lead for dual credit, and the roles and responsibilities of all partners, including the governance structures, needed to be further defined.

What were the costs incurred and what was the value received for the dollars spent in relation to the Strategy?

The government allocated \$5.35 million to support partnership dual credit development and implementation under the Strategy. This funding allowed 51 partnerships to receive an average of \$104,902 in grants. Further, most opportunities raised additional funds, increasing average total funding to \$172,383. The average cost of the opportunities, as reported through the CASS template, was \$171,167, with 57% of the cost related to the ongoing maintenance of the opportunity. It cost an average of \$5,582 for each student who participated in a dual credit opportunity. The greatest value achieved through the opportunities was the positive impact on students, on the community, and on partnerships. Among students, dual credit opportunities increased retention of marginalized students, improved student understanding of post-secondary education, and provided students the opportunity to experience post-secondary education and future career options. Further, the Strategy enhanced the development of local partnerships, increasing the partners' understanding of each other. Finally, the Strategy allowed partnerships to develop dual credit opportunities that met the learning needs of their students and the local labour market needs, thereby allowing students to study and ultimately gain employment in their own community.

To what extent were partnerships able to fulfil the sustainability requirements of the Strategy?

While there was an expectation under the Strategy that dual credit partnerships would build sustainability into their dual credit opportunities, local partner key informants (e.g., jurisdiction/school, post-secondary, and business/industry) felt that their opportunity may not be financially sustainable without continued funding support from government. However, beyond funding needs, data provided from program leads in the CASS template discussed other aspects of sustainability, including program design, student recruitment, partnership development, and dual credit promotion. Across these elements, best practices were put forward to improve the sustainability of dual credit opportunities that could influence sustainability in the future. For example, student interest was imperative to sustainability of a dual credit opportunity. In addition, the data highlighted several factors associated with opportunities that reported being sustainable in the future. These factors included delivering the opportunity online; utilizing post-secondary instructors who were industry-certified as opposed to post-secondary instructors who were university-trained; having the optimal number of students; and involving more than one high school.

What factors should be considered for the future of sustainable dual credit implementation in Alberta?

There was strong consensus among stakeholders interviewed and surveyed, as well as information provided through the CASS template, that the Alberta Education funding model for dual credit needed to be reworked and that curriculum mapping needed to be revisited to facilitate recognition of post-secondary credits in the Kindergarten to Grade 12 system. Another factor that required consideration was the definition of roles and responsibilities among the governance and accountability structures, more specifically Alberta Education and Alberta Advanced Education. Based on analysis of the key informant interviews, the CASS template data, and the stakeholder survey, key considerations for future sustainable dual credit implementation also included equitable student access to opportunities provincially; strong partnerships with open communication and clearly defined expectations and roles; student interest and readiness to participate in dual credit opportunities; awareness and consideration of local community and labour market needs; provincial and local promotion of dual credit to encourage student and partner participation; collection and sharing of provincial-level student outcome data; and, provincial access to and sharing of information on available opportunities and best practices.

SECTION 1: PROJECT ACTIVITIES AND METHODOLOGY

1.1 Objectives

The evaluation was designed to identify the successes, challenges, and opportunities associated with the implementation of the Strategy. The evaluation was designed to answer the following Guiding Questions:

1. Did the Strategy meet its stated goals?
2. How successful were government and stakeholders in completing the stated actions in the Strategy?
3. Did the governance structure for the Strategy serve its purpose?
4. What were the costs incurred and what was the value received for the dollars spent in relation to the Strategy?
5. To what extent were partnerships able to fulfil the sustainability requirements of the Strategy?
6. To what extent did the accountability structures in the Strategy help inform decision making? What is required for an appropriate level/structure for accountability for dual credit in the future?
7. What factors should be considered for the future of sustainable dual credit implementation in Alberta?

1.2 Review of Existing Documents and Research Instrument Development

Following commencement of the project, Malatest worked with Alberta Education to review drafts of existing Strategy documents, including the evaluation framework and logic model, student and teacher survey instruments, key informant guides, and the CASS reporting template. All documents were examined in relation to the Guiding Questions and reviewed for length, relevance, clarity, and neutrality of language.

Further, a stakeholder survey was developed. This survey was designed to target key stakeholder groups (Government of Alberta ministry representatives, Steering Committee members, CASS representatives, industry/business partners, post-secondary institution partners, and secondary school partners) while not duplicating the information provided by these partners through the CASS reporting template.

1.3 Methodology

At the outset of the project, the proposed timelines were significantly amended to prioritize completion of the student and teacher surveys during the 2015/16 school year, while the project was still active. Timelines at the start of the project, including revision and finalization of the evaluation matrix and logic model, were thus truncated to accommodate this change.

1.3.1 Student and teacher/instructor surveys

After the student and teacher/instructor (teacher) survey instruments were finalized, they were programmed on the Malatest server and internally tested. As the survey was being administered to students who might be underage, Malatest was not able to contact the student population directly. External links were provided to Alberta Education with the intention that the links be distributed to students and teachers to confidentially complete the surveys online; the data would be stored on Malatest's secure system. However, following full programming and testing, it was decided to host the surveys on Alberta Education's secure servers, so survey administration was moved to Alberta Education.

Alberta Education conducted the student and teacher surveys beginning May 31, 2016, and closed them on June 24, 2016. In total, Alberta Education reported 268 student completions and 108 teacher completions. To increase the overall response rate of the student and teacher surveys, Alberta Education completed a second period of data collection from November 21, 2016, to December 22, 2016. An additional 181 students and 78 teachers completed the survey during the second data-collection period. Thus, a total of 449 students and 186 teachers participated in the survey.

1.3.2 Stakeholder survey

Administration of the stakeholder survey was hosted and administered by Malatest. Following programming and internal testing, the stakeholder survey launched on September 26, 2016, and closed on November 6, 2016. Stakeholders who had not completed the survey were emailed weekly reminders encouraging their participation. A total of 93 stakeholders completed the survey.

1.3.3 CASS reporting template

Following finalization of the CASS reporting template, CASS distributed it to the 51 dual credit partnerships for completion. Respondents were asked to complete the template by October 15, 2016. The CASS template closed on October 29, 2016, after two extensions were provided to accommodate its completion by the partnerships. Data collected through the CASS template was provided to Malatest for review and analysis to support the Strategy's evaluation.

1.3.4 Key informant interviews

In total, 24 key informant interviews were conducted with individuals from various stakeholder groups. The interviews took place from October 12, 2016, to November 15, 2016, and were primarily completed over the phone. Participants were provided the questions in advance to enable them to prepare for the interview. The stakeholder groups and number of interviews from each are listed in Table 1-1.

Table 1-1: Number of Key Informant Interviews

| Stakeholder Group | Number of Interviews |
|------------------------------------|----------------------|
| Government of Alberta/CASS | 5 |
| Steering Committee | 5 |
| Jurisdictional and School Partners | 6 |
| Post-secondary Partners | 4 |
| Business and Industry Partners | 4 |
| Total | 24 |

1.4 Analysis

Closed questions from the survey were analyzed using descriptive statistics. Frequency analyses were conducted on each question to determine the level of agreement to the responses. Given that respondents were not required to answer all questions on the survey, only valid responses to each question were used when determining the frequencies. As a result, the base used to calculate the percentage of agreement may change between questions.

Open-ended questions on the survey were coded prior to analysis. Coding lists were developed and individual responses were assigned a code relevant to their responses. Respondents who provided a unique comment to a question, or whose response did not address the question, were coded as "other." Frequency analyses were then conducted on the coded data.

The data collected through the key informant interviews was completed using inductive content analysis. Inductive reasoning was used to develop themes that emerged from the raw responses through careful examination and comparison. The analyses of the interview data were completed for each group of stakeholders separately and were then compared and contrasted across groups to determine similarities and differences in perceptions.

1.5 Survey Respondent Demographics

1.5.1 Sample size

A total of 302 students and 144 teachers completed the survey over both data-collection periods. However, 26 students indicated that they were under 16 years of age, and five students indicated that they did not want to complete the survey. Additionally, 17 students who completed the survey in December indicated that they had previously completed the survey for their opportunity during the June data-collection period. As such, these students were removed from the sample prior to analysis, resulting in a final sample of 254 students. Some of the respondents did not provide answers for all of the questions on the survey, and while these respondents were not removed from the analysis, the frequency analysis only includes respondents who provided a valid response to each specific question. This resulted in a changing base for each question reported.

1.5.2 Demographics

Most of the survey respondents, for both the student and teacher surveys, were located in an urban community. Community size was determined from the first three letters of respondents' postal codes.

Table 1-2: Student and Teacher Survey: Respondent Community Size

| Community Size | Student | Teacher |
|----------------|------------|-----------|
| Urban | 72% | 75% |
| Rural | 28% | 25% |
| Total | 213 | 91 |

Student Survey Question E4: Please enter the first three digits of your home postal code

Teacher Survey Question G3: Please enter the first three digits of your home postal code

Two-thirds of the student respondents (67%) were female. Additionally, the majority of the students did not identify as Aboriginal (90%) and were born in Canada (86%). The majority of the students (84%) were in grades 11 or 12, and their ages were fairly evenly distributed from 16 to 18 years. Finally, the majority of students (84%) had an average grade of 65% or higher and had at least one course in their dual credit opportunity (51%).

Table 1-3: Student Survey – Demographics

| Student Demographics | | | | | |
|---|------------------|------------------|-------------------|--------------------------|--------------------------|
| Identify as Aboriginal | Yes | | No | | Prefer not to say |
| Total=240 | 9% | | 90% | | 1% |
| Immigrant/Refugee | Yes | | No | | Prefer not to say |
| Total=240 | 13% | | 86% | | 1% |
| Gender | Female | Male | Other | Prefer not to say | |
| Total=240 | 67% | 30% | 1% | 3% | |
| Average Grade | 50 to 64% | 65 to 79% | 80 to 100% | Prefer not to say | |
| Total=238 | 10% | 40% | 44% | 6% | |
| Student Age | 16 years | 17 years | 18 years | 19 years | 20 years |
| Total=210 | 31% | 39% | 22% | 7% | 1% |
| Student Grade | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Graduated |
| Total=240 | <1% | 4% | 44% | 36% | 15% |
| Number of Courses in Dual Credit Opportunity | 1 | 2 | 3–5 | 6–10 | 11–20 |
| Total=234 | 51% | 22% | 15% | 7% | 5% |

Student Survey Question E1: What gender do you identify with?

Student Survey Question E5: Do you identify as Aboriginal (First Nations, Métis, or Inuit)?

Student Survey Question E6: Are you an immigrant or a refugee to Canada?

Student Survey Question E2: What is your age?

Student Survey Question E3: What grade are you in?

Student Survey Question E7: Overall what was your average grade across all classes last year?

Student Survey Intro Question: How many courses did your dual credit opportunity include?

Other than community size, no demographic data was collected from teachers; however, just under two-thirds of teachers reported being secondary teachers (64%).

Table 1-4: Teacher Survey – Type of Teacher/Instructor

| Teacher/Instructor Position | Percentage |
|---|------------|
| I am a secondary teacher | 64% |
| I am a post-secondary instructor/professor | 32% |
| I am both a secondary teacher and a post-secondary instructor/professor | 4% |
| Total | 180 |

Teacher Survey Question 2: Which of the following best applied to you?

1.6 Reading This Report

- The report is structured around the Guiding Questions provided by the government for the evaluation of the Strategy. Evidence used to answer the Guiding Questions was collected from key informant interviews with different stakeholder groups (see Table 1-1); surveys with students, teachers, and stakeholders; and information provided by the 51 Strategy-funded partnerships through the completion of the CASS template.
- The individual sources of evidence are only discussed in relevant sections. As such, some topics may not include information from specific lines of evidence.
- When the report discusses data from survey questions with rating scales, e.g., agreement scales, information in the body of the report combines the top two categories. Thus, the term “agreement” in the body of the text combines respondents who agreed and strongly agreed with the statement.
- When the report discusses open-ended questions from surveys, responses that were provided by fewer than three respondents and responses that did not address the question asked were coded as “other.”
- When the report discusses data collected from key informant interviews, information is presented by respondent group (see Table 1-1). Where different opinions arose between the respondent groups, these differences are reported separately. Where informants in the respondent groups provided similar perspectives, the information is reported across the different groups.
- When the report discusses the number of stakeholders who provided a similar perspective, the terms used in the body of the report are defined as follows:
 - Few – three or fewer respondents;
 - Some – less than half of the respondents;
 - Most – more than half but less than three-quarters of the respondents; and
 - Majority – more than three-quarters of the respondents, but less than all.

1.7 Case Studies

Information from two case studies has been provided in text boxes throughout the report. These case studies were selected based on the depth of information available through the CASS template concerning the opportunities and their differences in approaching dual credit. Best practices or key successes identified by the case studies are discussed in relevant sections. The two case studies reported are listed below.

Case Study #1 – Liberal Arts Education

Lethbridge School Division No. 51, University of Lethbridge, and WestJet partnered together to offer students the opportunity to participate in a post-secondary education program. This locally developed course provided a total of 27 students the opportunity to participate in face-to-face workshops on information literacy, research skills, and learning strategies. Course instruction was provided by a PhD instructor at the university. The opportunity was open to all students in grades 11 and 12.

Case Study #2 – Trades Exposure Dual Credit Program

Northern Lights School Division No. 69, Lakeland College, Ensign Energy, Savanna Energy, Canadian Natural Resources, and Quinn Contracting partnered to provide courses designed to expose students to different trades. This opportunity utilized a CTS provincially developed pathway along with other CTS courses to provide a total of 27 students with industry-standard training that could result in certifications that would assist them in obtaining employment. Training was provided by the high school with an instructor holding a bachelor's degree.

SECTION 2: FINDINGS

2.1 Did the Strategy Meet Its Stated Goals?

All lines of evidence clearly indicated that the Strategy met all four of its goals. All key informants agreed that the Strategy had been successful in meeting its stated goals, although some informants noted that longitudinal data would need to be collected to determine the extent of the success. Data collected from the student, teacher, and stakeholder surveys provided more direct evidence that the Strategy goals were met. Over half of student and stakeholder survey respondents indicated that the Strategy had increased learner retention and completion rates; over two-thirds of students and stakeholders reported that the Strategy increased the participation of young adults in post-secondary programs; over half of students, teachers, and stakeholders reported that the Strategy assisted young adults in making meaningful connections to the labour market; and over three-quarters of teachers reported that the Strategy expanded local partnerships to offer dual credit.

All key informants agreed that the Strategy had been successful in meeting its stated goals. Informants from the Steering Committee, government, and CASS observed that this was, in part, because dual credit opportunities were selected based on their alignment with the four strategic goals. Key informants from jurisdiction and post-secondary partners also agreed that the opportunities in which they participated had been designed to directly address Strategy goals.

There was a consensus on the overall success of partnership alignment with the goals. Some key informants from the Steering Committee indicated that geography and politics sometimes took precedent over the relative merits of the grant proposals submitted to support equal funds distribution across the province. Should there be a grant selection process in the future, it was suggested that common language and processes be created for use across ministries.

All key informants believed that the goals of the dual credit opportunities implemented aligned with the goals of the Strategy. Key informants from the Steering Committee indicated that some partnerships had challenges implementing their opportunities due to a lack of experience or lack of student participants. Additionally, it was noted that funding students in dual credit who already intended to transition to post-secondary studies may have created misalignment in some opportunities.

Moving forward, some key informants from the Steering Committee and post-secondary partners were concerned about the sustainability of the opportunities, and felt that more attention should be paid and guidance provided toward helping partnerships build future sustainability, particularly for those that may not have the experience to maintain the necessary partners.

The degree to which the Strategy met its goals is discussed further below by goal.

2.1.1 **Increase learner retention and completion rates of high school programs – Strategy Goal One**

With respect to increased learner retention and completion, key informants from the Steering Committee, government, and CASS felt that, while they have early evidence of the Strategy's success, longitudinal data should be collected to unequivocally demonstrate success in this area. It was noted that dual credit opportunities had served as a retention strategy for marginalized students who may have previously experienced challenges in their education; as such, they had the potential to assist these students in the precarious transition phase from high school to post-secondary education. Dual credit opportunities had allowed students to begin making a connection to meaningful career pathways and to better understand how learning in high school can lead to a greater outcome.

Some jurisdictional and school partner key informants believed that dual credit opportunities had been instrumental in keeping students in high school because the credits earned linked students to post-secondary and gave them a sense of how their schoolwork related to the world of work. Greater understanding also increased student enthusiasm, confidence, and excitement about moving on to post-secondary studies. Other key informants stressed that dual credit opportunities are one of the many factors that contribute to student retention. They noted that dual credit may have had minimal or no impact on student retention and completion. It was suggested that dual credit supports early transition to post-secondary studies rather than high school retention. As such, the Strategy may not have targeted the students at greatest risk of not completing high school.

Respondents who completed the stakeholder survey tended to feel that dual credit opportunities had a positive impact on students' interest in and completion of high school (see Table 2-1). The majority of stakeholders who completed the survey agreed that dual credit opportunities gave students a greater variety of course options (92%), helped keep students interested in high school (90%), and provided students with more knowledge about their dual credit opportunity topic areas (88%). Additionally, over two-thirds of respondents (70%) agreed that dual credit opportunities increased learner retention and students' completion rates. Respondents who completed the teacher survey tended to agree with stakeholders: 74% of teachers felt that their dual credit opportunities were successful in increasing completion rates of high school programs.

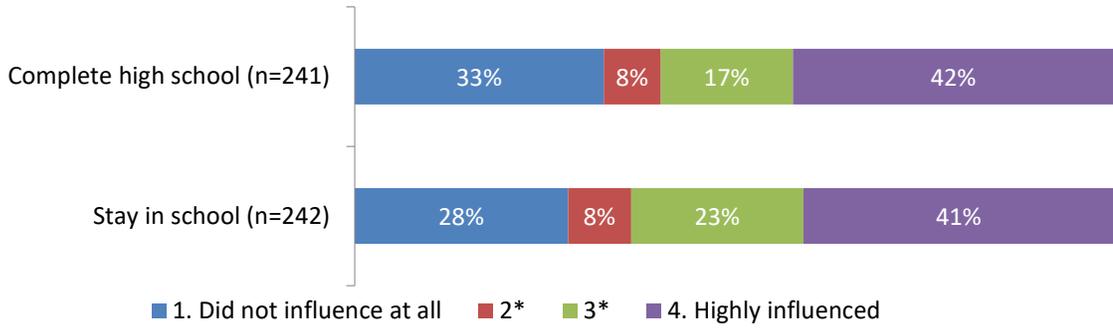
Table 2-1: Stakeholder Survey – Impact of Dual Credit on Learner Retention and Completion Rates

| | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|---|-------------------|----------|----------------------------|-------|----------------|----------------|
| To what extent do you agree that the Strategy... | | | | | | |
| Increased learner retention and completion rates of high school programs | 0% | 2% | 16% | 30% | 40% | 12% |
| Thinking about students, to what extent do you agree that the following were benefits of the Strategy... | | | | | | |
| Providing students with more knowledge related to their dual credit opportunity topic area | 0% | 0% | 9% | 41% | 47% | 3% |
| Allowing students to take a greater variety of courses in high school | 0% | 0% | 4% | 34% | 58% | 3% |
| Keeping students interested in high school | 0% | 1% | 4% | 34% | 56% | 4% |

n=93, Stakeholder Survey Questions F1, F8

Among the students who completed the survey, the majority indicated that their involvement with a dual credit opportunity influenced their decision to stay in school (64%) and complete school (59%) (see Figure 2-1). Additionally, 50% of students reported that dual credit opportunities allowed them to take a greater variety of courses in high school, and 38% of students reported that their involvement in dual credit opportunities helped keep them interested in school. Finally, 62% of students reported that their involvement in dual credit better prepared them to complete high school. As such, students’ perceptions of the Strategy echo those of the key informants, i.e., dual credit had a strong impact on school completion, but it was not universal.

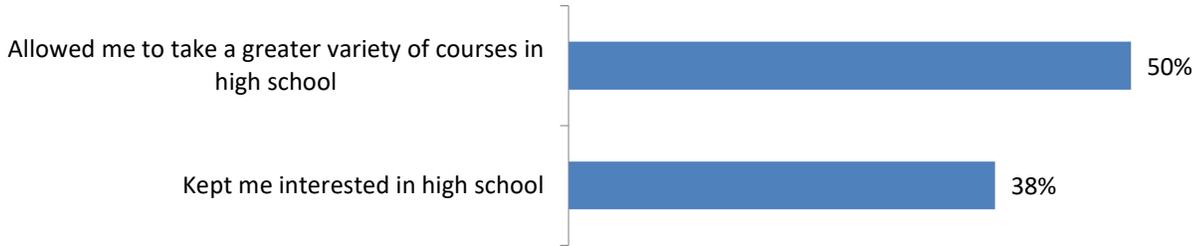
Figure 2-1: Student Survey – Influence of Involvement in Dual Credit



* Only extreme values of scale were anchored with response options.

Student Survey Question C1: On a scale of 1 to 4, how much has your involvement in dual credit affected your decision to...

Figure 2-2: Benefits of Dual Credit on High School Retention, Reported by Students



N=274, Student Survey Questions 4f, 4j

2.1.1.1 Optimizing dual credit opportunities

To support student completion of dual credit opportunities in high school, post-secondary and jurisdiction/school partners employed a variety of strategies, including

- maintaining ongoing communication between the post-secondary instructor and the high school teacher regarding student progress;
- having a resource teacher available to support students and monitor their progress;
- providing teacher support for online distance learning modules;
- developing a blended learning room staffed with an educational assistant who monitored and supported the progress of dual credit students; and
- maintaining contact with parents of dual credit students.

2.1.2 Increase participation of young adults in post-secondary programs – Strategy Goal Two

The Steering Committee, government, and CASS key informants believed the Strategy provided opportunities to increase participation in post-secondary programs. However, as with retention/completion, they noted that longitudinal data should be collected to support any conclusions. That said, some had seen greater participation in the program than originally expected.

Jurisdictional and school partners noted that the linkages made by students to post-secondary programs would lead to greater participation. Additionally, it was felt that the opportunities increased participation in post-secondary programs by allowing students to complete portions of their post-secondary studies within their community, thus helping to eliminate geographical barriers to attendance.

Key informants from all stakeholder groups noted the importance of opportunities in reducing student anxiety about post-secondary, building student confidence through success, increasing awareness of post-secondary opportunities, narrowing interests, and highlighting labour market and future career opportunities.

Overall, teachers tended to feel that dual credit helped students transition to post-secondary education. The majority of teachers who completed the teacher survey (85%) felt that dual credit was successful at increasing student participation in post-secondary education programs.

Stakeholders who completed the survey also reported that the Strategy had a positive impact on student transitions to post-secondary education. The majority of respondents (79%) agreed that dual credit increased student participation in post-secondary programs. It was reported by the majority of stakeholders (see Table 2-2) that dual credit allowed students to preview post-secondary (93%), thereby exposing them to what it was like (91%), assisting them in developing skills that would be needed at post-secondary (86%), and making them more confident about their ability to succeed (90%). As such, it was reported by the majority of stakeholders that dual credit helped students decide about transitioning to post-secondary education (91%).

Case Study #1:

Students were exposed to a new phase of learning in a supportive environment, learning skills that would assist in their transition to post-secondary education.

Table 2-2: Stakeholder Survey – Impact of Dual Credit on Post-Secondary Participation

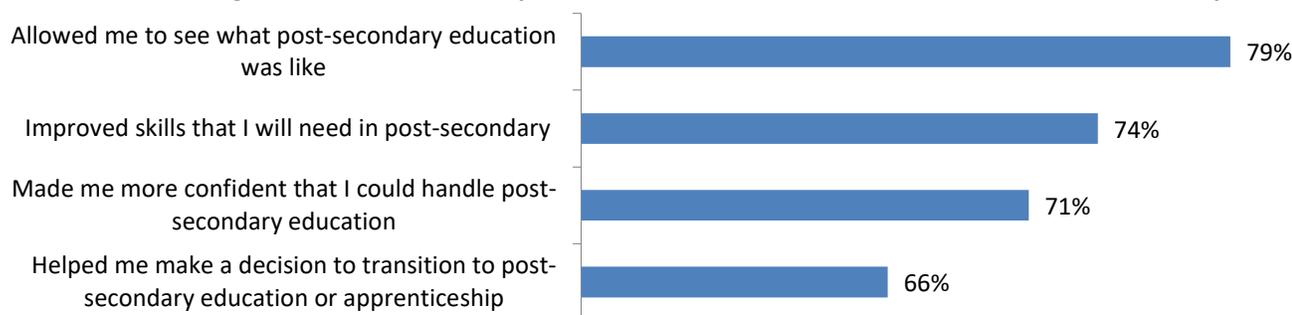
| | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|---|-------------------|----------|----------------------------|-------|----------------|----------------|
| To what extent do you agree that the Strategy... | | | | | | |
| Increased participation of young adults in post-secondary programs (n=93) | 0% | 2% | 10% | 28% | 51% | 10% |
| Thinking about students, to what extent do you agree that the following were Strategy benefits ... | | | | | | |
| Providing students with the opportunity to try out post-secondary while still in high school (n=91) | 0% | 0% | 4% | 33% | 60% | 2% |
| Helping students to make the decision to transition to post-secondary education or apprenticeship (n=91) | 0% | 1% | 6% | 34% | 57% | 2% |
| Exposing students to what post-secondary education was like (n=91) | 0% | 0% | 6% | 30% | 63% | 2% |

| | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|--|-------------------|----------|----------------------------|-------|----------------|----------------|
| Making students more confident about their ability to handle post-secondary education (n=91) | 0% | 0% | 7% | 26% | 64% | 3% |
| Improving students' skills that will be needed in post-secondary (e.g., time-management, critical-thinking, and study skills) (n=91) | 0% | 0% | 10% | 29% | 57% | 4% |
| Providing students with the opportunity to earn high school credits while studying at a local college or taking apprenticeship training (n=91) | 0% | 0% | 3% | 28% | 66% | 3% |

Stakeholder Survey Questions F1, F8

Overall, students agreed with the key informants, with most students reporting that their involvement in dual credit provided many benefits related to transitioning to post-secondary education. The majority (84%) stated that they were better prepared to enrol in a post-secondary institution because of their involvement in dual credit. Additionally, at least two-thirds reported that other benefits of participating in dual credit included giving them a preview of post-secondary (79%), developing skills needed in post-secondary (74%), increasing their confidence that they could succeed in post-secondary (71%), and helping them decide about transitioning to post-secondary (66%). Thus, students' involvement in dual credit gave them the knowledge, skills, and confidence to transition to post-secondary education.

Figure 2-3: Student Survey – Benefits of Dual Credit on Transition to Post-Secondary



N=274, Student Survey Questions 4f, 4i, 4h, 4b: What do you feel are the benefits of the dual credit opportunity?

The majority of students (82%) reported that they had a better understanding of post-secondary program requirements as a result of participating in a dual credit opportunity (see Table 2-3). While only 26% of students had applied to a post-secondary institution, the majority (86%) of students planned to apply in the future. Further, two-thirds (66%) of the students stated that their decision to apply to a post-secondary institution was influenced by their involvement in dual credit. Finally, over three-quarters of the students (76%) reported that they had applied, or that they planned to apply, to a post-secondary program that was related to their dual credit opportunity.

Table 2-3: Student Survey – Impact of Dual Credit on Transition to Post-Secondary Education

| As a result of participation in the dual credit opportunity, did you... | Yes | No | Prefer not to say |
|--|------------|-----------|------------------------------|
| Better understand the program requirements for post-secondary programs that you were interested in pursuing? (n=243) | 82% | 15% | 3% |
| Post-secondary institution application... | Yes | No | Don't know/ Undecided |
| Have you applied to a post-secondary institution? (n=244) | 26% | 58% | 16% |
| Do you plan to apply to a post-secondary institution? (n=244) | 84% | 3% | 12% |

Student Survey Questions C4b, C5

2.1.2.1 Optimizing dual credit opportunities

To encourage increased participation of dual credit students in post-secondary programs, post-secondary and jurisdiction/school partners supported student career pathway decision-making by

- exposing students directly to career options through a practicum, workplace experience, or course;
- orienting students to a career pathway;
- immersing students in the post-secondary environment; and
- allowing students to explore careers and determine what interested them, as well as what they did not like.

2.1.3 Assist young adults in making meaningful connections to the current and emerging labour market – Strategy Goal Three

It was suggested by the Steering Committee, government, and CASS key informants that the process of partnership selection ensured that the Strategy would assist in the development of meaningful connections to the labour market. Partnerships were tasked with developing dual credit opportunities that connected to local labour market needs. In addition, Alberta Education developed 20 provincial dual credit pathways that aligned with provincial labour market needs. Bringing business and industry partners to the table also helped create connections, as it allowed learning opportunities for students to better match their interests and skills with labour market needs. Student interest similarly impacted partnership selection, which meant that students would be more meaningfully engaged with the labour market. Finally, all key informants, including jurisdictional and school partners, noted that the Strategy supported meaningful connections through workplace experience that directly exposed students to the labour market and provided hands-on training.

Business and industry partners believed workplace exposure allowed students to apply their education in a “real world” setting and obtain feedback on their performance from those who work in the occupation they were studying. Through the practicum/workplace experience/internship or mentorship, students were said to gain job-specific skills. Teachers felt that dual credit helped students prepare for future careers. The majority of respondents (88%) reported that their dual credit opportunities were successful at assisting students in making meaningful connections to the labour market.

Stakeholders generally felt that dual credit opportunities provided students with valuable information and experience about their future careers and entry into the labour market. The majority of respondents to the stakeholder survey agreed that the Strategy helped students make connections to the labour market (83%) and allowed students to make more informed career decisions (85%). Additionally, the majority of stakeholders felt that participating in a dual credit opportunity provided students with a head start on their future career (91%), an opportunity to enhance their resume (91%), an opportunity to try out a career (89%), an opportunity to learn about other career options (88%), an opportunity for workplace experience (80%), and an opportunity to decide not to pursue a career path (87%). Thus, stakeholders agreed that dual credit opportunities provided students with valuable information that assisted them in making decisions about their future career.

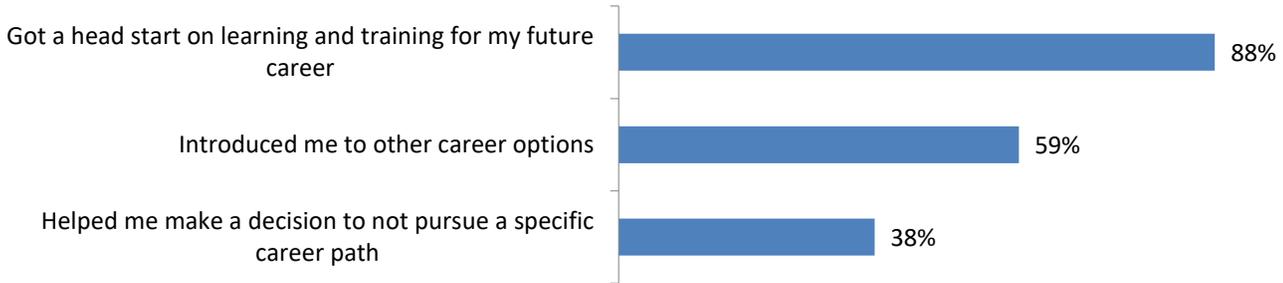
Table 2-4: Stakeholder Survey – Impact of Dual Credit on Developing Student Connections to the Labour Market

| | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|---|-------------------|----------|----------------------------|-------|----------------|----------------|
| To what extent do you agree that the Strategy.... | | | | | | |
| Allowed dual credit learners to make more informed career decisions (n=93) | 0% | 1% | 8% | 29% | 56% | 7% |
| Assisted young adults in making meaningful connections to current and emerging labour markets (n=93) | 0% | 1% | 10% | 29% | 54% | 7% |
| Thinking about students, to what extent do you agree that the following were benefits of the Strategy... | | | | | | |
| Providing a head start on learning and training for the student's future career (n=91) | 0% | 1% | 4% | 23% | 68% | 3% |
| Providing students with the opportunity to enhance their resume (n=91) | 0% | 1% | 4% | 29% | 62% | 4% |
| Providing students with the opportunity to try out a career (n=91) | 1% | 1% | 7% | 29% | 60% | 2% |
| Introducing students to other career options (n=91) | 0% | 1% | 8% | 31% | 57% | 3% |
| Providing students with the opportunity for a work experience/practicum (n=91) | 1% | 0% | 11% | 23% | 57% | 8% |
| Helping students to make a decision to not pursue a specific career pathway (n=91) | 0% | 1% | 8% | 31% | 56% | 4% |

Stakeholder Survey Questions F1, F8

Students reported that a benefit of participating in dual credit was that it helped them with their future career. The majority of students (88%) reported that they were able to get a head start on training for their future career. Additionally, over half of students (59%) reported that participation in dual credit exposed them to different career options, with over a third (38%) noting that their involvement helped them to decide not to pursue a career option. Thus, students were not only able to pursue their career of choice, they were also able to clarify which career options they might want to pursue in the future, which could reduce wasted time spent in programming that does not match students’ skills or passions.

Figure 2-4: Student Survey – Benefits of Dual Credit on Developing Connections to the Labour Market

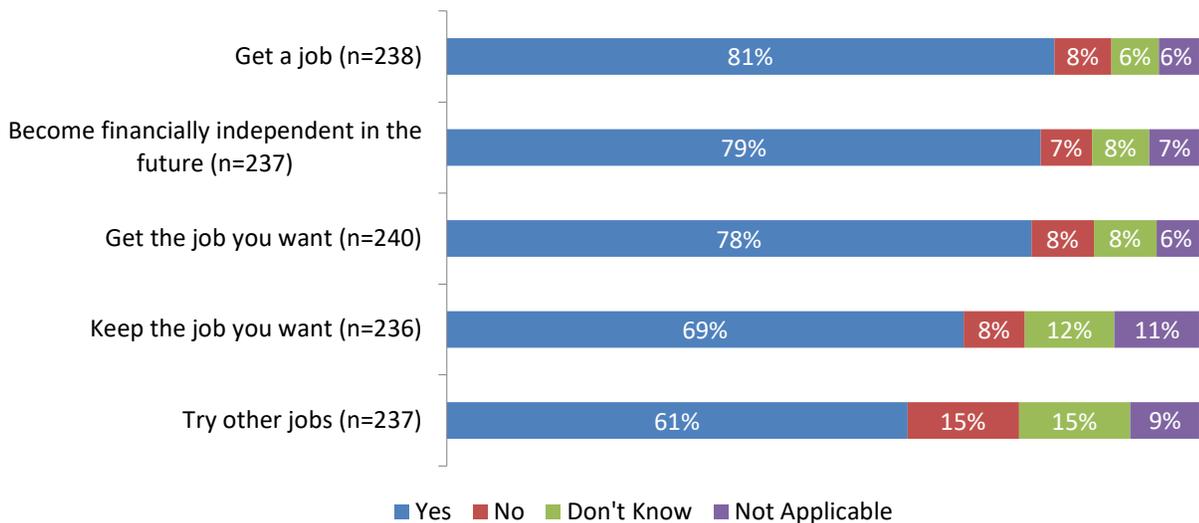


N=274

Student Survey Question A4: What do you feel are the benefits of the dual credit opportunity?

In addition to helping them develop their career options, students reported that dual credit prepared them for more pragmatic aspects of entering the labour market (see Figure 2-5). The majority of students stated that they felt more prepared to get a job (81%), become more financially independent (79%), get the job they wanted (78%), and keep the job they wanted (69%). Additionally, students felt better prepared to try other jobs (61%), implying that while their dual credit opportunity might have been related to a specific industry, the knowledge they gained increased their confidence in entering the broader labour market.

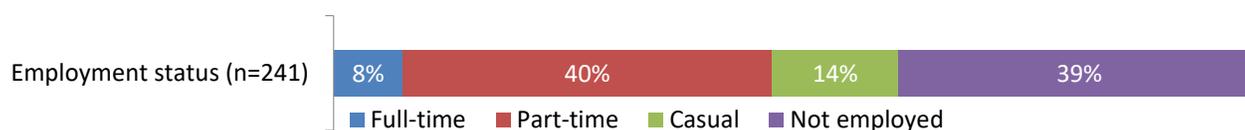
Figure 2-5: Student Survey – Impact of Dual Credit on Preparing Students for the Future



Student Survey Question C3: Because of your involvement in dual credit, do you feel more prepared to...

Most students (61%) reported being employed in some capacity. The current employment of most students (55%) was not related to the dual credit opportunity they participated in. Additionally, the majority of students (80%) noted that their involvement in dual credit did not help them get their current job. Thus, students who participated in dual credit did not appear to gain direct benefit in the labour market from the instruction and training they received; however, this may have been the result of students being employed prior to participation in dual credit. The large proportion of students who reported being employed in some capacity (61%) could indicate that a dual credit opportunity prepares students to enter the broader labour market, in addition to providing specific job skills.

Figure 2-6: Student Survey – Current Employment Status



Student Survey Question C9: What is your current level of employment?

Table 2-5: Student Survey – Impact of Dual Credit Participation on Current Employment

| If you are employed... | Not at all related | Somewhat related | Very much related | |
|---|---------------------|------------------|-------------------|--------------|
| How much is your current employment related to the dual credit opportunity you are/were involved in? (n=145) | 55% | 26% | 20% | |
| If you are employed... | Did not help at all | 2 | 3 | Helped a lot |
| On a scale of 1 to 4, how much did your participation in dual credit help you to get your current job? (n=45) | 80% | 2% | 9% | 9% |

Student Survey Questions C10, C11

2.1.3.1 Optimizing dual credit opportunities

Student connections to the labour market were supported by post-secondary, jurisdiction/school, and industry partners through

- developing dual credit opportunities based on current industry needs (i.e., industries currently hiring);
- providing mentorship, practicum, job exploration, and summer workplace experience opportunities;
- including industry partners that demonstrated to students what a career pathway would be within their company; and
- supporting students in developing critical-thinking skills, which are required in a knowledge-based economy.

2.1.4 Expand local partnerships to offer dual credit programming – Strategy Goal Four

The Strategy succeeded in expanding local partnerships to offer dual credit programming. Partnerships among schools/jurisdictions, post-secondary, and business/industry were required under the Strategy, and jurisdictional and school informants highlighted the impact of the opportunities on their working relationships with both post-secondary and business/industry partners.

As a result, the Strategy's implementation encouraged open communication and improved understanding between partners. In some cases, the opportunities led to the development of new local partnerships to deliver dual credit programming. In other instances, jurisdictional and school informants reported that partnerships existed prior to the implementation of the Strategy, although new opportunities expanded the scope of the partnerships. Key informants from the Steering Committee, government, and CASS suggested that the provision of Strategy funding was a necessary catalyst in the development of local partnerships, as it gave incentive for partners to work together.

Case Study #2:

Strong partnerships at the local level are essential for dual credit programming. These arrangements must be beneficial to all parties without costing any partner too much.

Respondents to the teacher survey generally felt that their dual credit opportunities helped to expand local partnerships. The majority of teachers (87%) reported that their dual credit opportunities were successful in achieving this goal.

2.2 How Successful Were Government and Stakeholders in Completing the Stated Actions in the Strategy?

The data collected demonstrated that the Strategy was successful in completing its stated actions. Key informants noted the provincial nature of the Strategy allowed for more students to participate in dual credit and expanded learner pathways. Key informants also reported that local partnerships implemented methods to ensure student success in dual credit. Data collected from the student and stakeholder surveys supported these observations. A total of 1,564 students participated in dual credit under the Strategy, and 91% of stakeholders reported that the Strategy allowed more students to participate in dual credit. Over three-quarters of students completed their dual credit course(s) and received high school credit and post-secondary or industry credit. Finally, the majority of stakeholders reported that the Strategy developed additional pathways for high school students.

2.2.1 Action 1: Engage more high school students in dual credit programming

The Steering Committee, government, and CASS key informants reported that the provincial nature of the Strategy allowed for more high school students to participate in dual credit programming. It was recognized that dual credit opportunities were available in some school districts in Alberta prior to the Strategy; however, these opportunities were available on a piecemeal basis within a limited number of schools. By providing a province-wide strategy, additional schools were able to provide a dual credit opportunity.

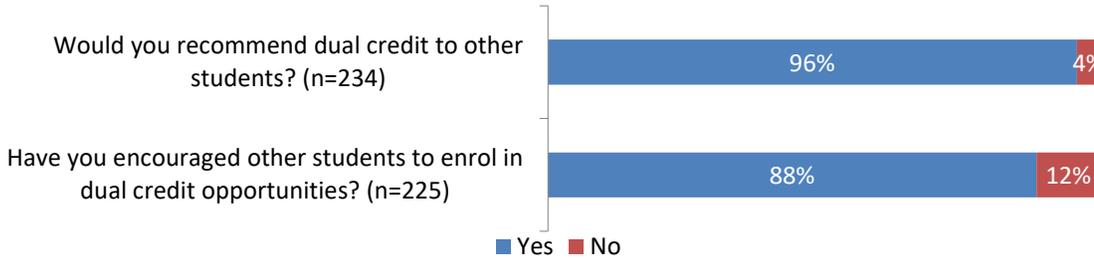
Jurisdiction and school partners reported that while student participation in some dual credit opportunities was low at the start, participation rates increased over the years. Some informants noted that opportunities that required extensive recruitment efforts in the first year were being oversubscribed in later years. Thus, as opportunities matured, more students were being engaged by them.

The majority of stakeholders who completed the survey (91%) also reported that the Strategy allowed more high school students to participate in dual credit programming.

Data collected from the CASS template indicated that 1,564 students participated in dual credit courses offered under the Strategy, with 92% of students receiving high school credit, 88% of students successfully completing all dual credit courses in a pathway, and 78% of students achieving the grades necessary to receive post-secondary or industry credit for the course(s).

The success rate for dual credit indicates their appropriateness for high school students and helps to assure increased engagement by students. The increasing engagement of students is also indicated by the high recommendation rates of students. The majority of students (96%) responding to the student survey reported that they would recommend dual credit to other students, and 88% reported that they had encouraged other students to enrol in a dual credit opportunity.

Figure 2-7: Student Survey – Recommending Dual Credit Opportunity to Others

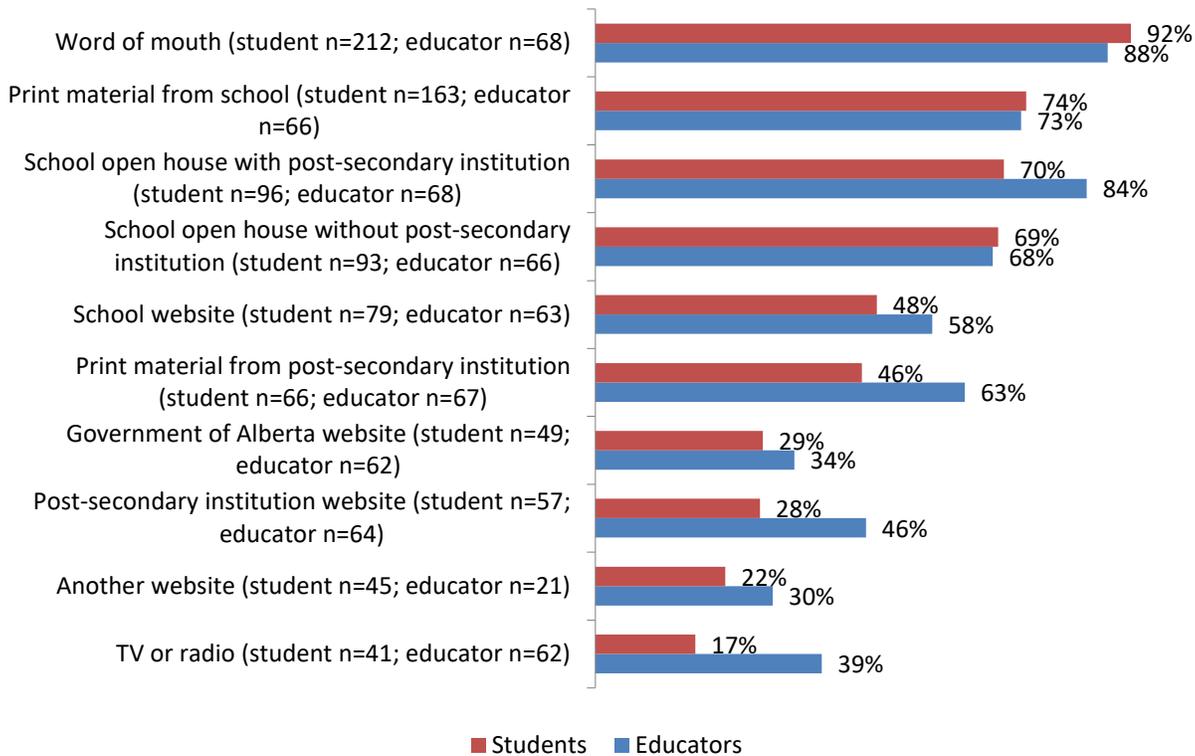


N=234, Student Survey Questions D2, D3

2.2.1.1 Optimizing dual credit opportunities

Numerous recruitment efforts were used to engage students in dual credit opportunities. The most effective recruitment method reported by students and teachers was word of mouth (see Figure 2-8), underscoring the increasing engagement of students as opportunities matured.

Figure 2-8: Student and Teacher Survey: Rating of Student Awareness Materials as Effective or Highly Effective



Student Survey Question A1: In which ways did you hear about dual credit? Check either yes or no and then indicate how effective it was.

Student Survey Question C1: In your opinion, how effective are the following for increasing student awareness of dual credit?

To better engage students, the Steering Committee, government, and CASS key informants suggested

- improving communication and promotion to high school students at both the local and provincial levels;
- providing longer project development time to allow for improved engagement with schools, post-secondary institutions, and businesses and to increase information sharing;
- improving sharing of best practices among dual credit partnerships and opportunities;
- synchronizing timetables for high school students across jurisdictions so they can access opportunities in other schools;
- providing more opportunities online to overcome geographic obstacles for students;
- engaging the Ministry of Labour and industry to develop more employer linkages, leading to more workplace opportunities, either as part of a practicum/work placement or long-term placement; and
- normalizing dual credit opportunities within the Kindergarten to Grade 12 system.

2.2.2 Action 2: Invest in student success in dual credit programming at the local level

Both jurisdictional/school informants and post-secondary informants reported that efforts were made to ensure that students succeeded in their dual credit opportunities. It was noted that adjustments were made as to how coursework was provided and how students were supported. Students were provided more time, as needed, to complete course materials and generally had access to high school staff in addition to a post-secondary instructor. This helped students keep track with coursework and complete assignments in a timely manner.

The Strategy also better enabled remote or rural communities to meet the learning goals of their young people as well as the labour market needs of the local community. While Alberta Education developed 20 Career and Technology Studies (CTS) dual credit provincial pathways (CTS PPW) under the Strategy, partnerships also developed dual credit pathways that reflected local needs either by aligning post-secondary/industry learning outcomes to CTS courses or to other high school courses; through creation of a locally developed course (LDC); or through a combination. The greatest proportion of students participated in pathways that were aligned to CTS courses (36%), with just under a quarter of students participating in CTS PPWs (23%). Other pathway types included LDCs (12%), a combination of CTS and LDCs (7%), a combination of CTS and CTS PPWs (7%), a combination of CTS and other high school courses (12%), or other high school courses (3%).

Table 2-6: Student Participation Rates by Type of Pathway

| Pathway Type | Participated |
|--------------|--------------|
| CTS | 558 |
| CTS PPW | 363 |
| LDC | 191 |
| CTS and LDC | 105 |
| CTS and PPW | 113 |
| CTS and OTH | 189 |
| OTH | 45 |
| Total | 1,564 |

2.2.3 Action 3: Expand pathways for high school students

It was widely agreed that the Strategy's implementation expanded pathways for students. The Steering Committee, government, and CASS informants indicated that along with the 20 new dual credit provincial pathways developed by Alberta Education, several unique dual credit pathways were developed by partnerships that aligned with local needs.

It was reported that over a quarter (29%) of the 51 dual credit opportunities utilized the pathways developed by Alberta Education. Most partnerships created their own pathways through curriculum mapping to other provincial high school learning outcomes or through the creation of a locally developed course. Key informants generally believed that the magnitude of pathway expansion achieved in the Strategy was extraordinary, given the time and steep learning curve for many stakeholders. Respondents to the stakeholder survey recognized this increase in pathways, with 92% stating that the Strategy created additional learner pathways for high school students.

Before the Strategy's introduction in 2013, dual credit was available to students in Alberta, mostly through the five first-period apprenticeship pathways that were in place. For example, prior to the implementation of the Strategy (2009/10 to 2012/13), an average of 6,900 students participated in these pathways annually with the majority (94%) participating in two opportunities: Hairstylist Apprenticeship (HSA) and Cook Apprenticeship (CKA). The Strategy expanded the scope of dual credit programming within apprenticeship and beyond apprenticeship, introducing students to additional pathways.

As well as increasing the scope in programming type, the Strategy contributed to significant gains in increasing accessibility across the province. The number of schools and school authorities participating in the dual credit opportunities before the Strategy was relatively narrow. Prior to its implementation, an average of 42 unique school authorities and 110 unique schools offered dual credit programming each year.

Case Study #1:

Courses for dual credit were chosen to complement Alberta Education curriculum and provide new experiences, ensuring students gained familiarity with post-secondary processes.

Case Study #2:

Dual credit opportunities must align with the school's and the jurisdiction's goals, the needs of the communities, and students' interests.

The Strategy engaged a wider range of school authorities and schools in dual credit programming. Through two rounds of proposals, the Strategy encouraged participation from 105 school authorities, 281 schools, 55 post-secondary institutions, and 152 business/industry partners across all zones. As shown in Table 2-7, school authorities in all Alberta School Boards Association (ASBA) zones developed dual credit opportunities under the Strategy, making dual credit a truly provincial initiative.

Table 2-7: School Authority, School, and Partner Participation Rates by ASBA Zone

| ASBA Zone | Total number of school authorities | Total number of high schools | Total number of post-secondary institutions | Total number of businesses |
|--------------|------------------------------------|------------------------------|---|----------------------------|
| 1 | 17 | 27 | 6 | 11 |
| 2/3 | 47 | 101 | 22 | 64 |
| 4 | 12 | 56 | 7 | 48 |
| 5 | 23 | 87 | 16 | 23 |
| 6 | 6 | 10 | 4 | 6 |
| Total | 105 | 281 | 55 | 152 |

Based on information provided through the CASS template, approximately 16% of the 51 dual credit opportunities developed under the Strategy were apprenticeship while 84% were non-apprenticeship. This is a significant increase in participation in non-apprenticeship opportunities compared to previous years. Additionally, over the course of the Strategy, 1,381 students participated in non-apprenticeship opportunities (86% of students).

Overall, 1,564 students participated in dual credit opportunities under the Strategy. As demonstrated by the distribution of dual credit opportunities by ASBA zone, the Strategy enabled increased access across the province. Of the total number of students participating in dual credit opportunities under the Strategy, 9% participated in opportunities in Zone 1, 48% in Zone 2/3, 15% in Zone 4, 20% in Zone 5, and 7% in Zone 6.

Table 2-8: Student Participation Rates by Zone

| Zone | Participated | Completed post-secondary course | Completed high school course |
|--------------|--------------|---------------------------------|------------------------------|
| 1 | 136 | 115 | 135 |
| 2/3 | 758 | 640 | 681 |
| 4 | 238 | 112 | 241 |
| 5 | 318 | 245 | 273 |
| 6 | 114 | 102 | 108 |
| Total | 1,564 | 1,214 | 1,438 |

2.2.3.1 Optimizing dual credit opportunities

Differing opinions were offered on how to optimize the expansion of learner pathways. Some informants believed there was no need for continued expansion of pathways. However, among those who indicated that learner pathways should continue to expand, suggestions for assisting in this process included

- streamlining the curriculum mapping requirement of dual credit courses, e.g., defining dual credit courses as students receiving post-secondary course credit while in high school, providing greater flexibility on how closely post-secondary dual credit courses need to align with high school courses; and
- encouraging local partnerships to work together to develop courses.

2.3 Did the Governance Structure for the Strategy Serve Its Purpose?

It was generally felt that the governance structure for the Strategy served its purpose. While some challenges were reported by the key informants, it was felt that the governance structure was highly engaged in the success of the Strategy and effectively oversaw the allocation of funding and support of the local partnerships. Stakeholders who completed the survey provided a similar view of the governance structure. Stakeholders reported that the governance structure provided effective support and served its purpose. As with the key informants, some challenges were noted.

Overall, key informants from the Steering Committee, government, and CASS believed that the governance structure of the Strategy functioned effectively and served its purpose. Key informants felt that the effectiveness of the governance structure was evidenced by the fact that the government was able to provide guidelines and structure to the overall Strategy, while CASS and the Steering Committee, in alignment with the Guiding Principles, were able to review Strategy applications, allocate funding, and support partnerships.

The governance structure for the Strategy included government representatives from Alberta Education, Alberta Advanced Education, and Alberta Labour; CASS; and the Steering Committee, comprised of stakeholders representing secondary schools, post-secondary institutions, and business/industry. It was felt that the governance structure was highly engaged in ensuring the success of the Strategy, committing significant time and effort to the management of the process.

The governance structure was based on a collaborative model, which had successes and challenges. The degree to which some members felt included in the collaborative process varied. Specifically, some participants suggested that not all voices were heard at all times during the implementation process. It was also suggested that the collaborative process may have been impacted by the timeline of the Strategy implementation.

Respondents to the stakeholder survey also believed that the governance structure for the Strategy functioned effectively. Around three-quarters of respondents agreed that the government (66%), the Steering Committee (77%), and CASS (72%) provided effective support to the Strategy's implementation, although fewer (59%) agreed that the membership of the governance structures served their purpose.

Respondents to the stakeholder survey were less inclined to agree that the governance processes themselves were effective. For example, fewer than half of respondents to the stakeholder survey agreed that the processes used to approve government funding (40%), to manage the Strategy grants (45%), or to report on dual credit opportunities (38%) were effective.

It is important to note that respondents were more likely to be indifferent (i.e., respond “Neither disagree nor agree”) to the governance processes than to disagree that they were effective.

Table 2-9: Stakeholder Survey – Effectiveness of Governance Structure

| | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|---|-------------------|----------|----------------------------|-------|----------------|----------------|
| In your role, to what extent do you agree that the following partnering groups effectively supported the implementation of the Strategy? | | | | | | |
| The Government of Alberta | 5% | 13% | 11% | 42% | 24% | 5% |
| The Provincial Dual Credit Steering Committee | 4% | 9% | 7% | 38% | 39% | 4% |
| The CASS School Superintendents | 5% | 7% | 9% | 36% | 36% | 9% |
| Referring to the three Strategy governance structures listed in this section, do you agree that... | | | | | | |
| The membership of the governance structures identified served their purpose | 1% | 10% | 25% | 45% | 14% | 5% |
| The process used to approve Government funding to dual credit partnerships was effective | 5% | 13% | 31% | 29% | 11% | 11% |
| The process used to manage Strategy grants was effective | 3% | 7% | 34% | 33% | 12% | 11% |
| The dual credit opportunity reporting processes (e.g., CASS Partnership Data Collection Instrument, CCI reporting, etc.) were effective | 10% | 13% | 30% | 28% | 10% | 10% |

n=93
Stakeholder Survey Questions C1, C5: For the following question, please rate your level of agreement on a scale of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree and 5 = strongly agree.

Most of the respondents to the stakeholder survey reported that the same governance structures should remain in place (61%), indicating that no additional provincial governance structures were required (57%) to support dual credit moving forward. Further, over half of stakeholders indicated that they would not modify the membership of governance structure and, with the exception of the government, would not modify the membership roles. In the response of those who stated that they would modify the roles, suggestions included that Alberta Education needed to be the lead ministry and that Alberta Advanced Education needed to be more visible.

Table 2-10: Stakeholder Survey – Modifying Governance Structure

| | I would not modify membership | I would not modify roles |
|-------------------------------|-------------------------------|--------------------------|
| Government Partner Ministries | 57% | 42% |
| PDCS Steering Committee | 63% | 55% |
| CASS | 57% | 54% |

n=93, Stakeholder Survey Question C4: For each governance structure, please indicate if the membership is appropriate or if you would suggest modifying the membership or the role of the governance structure.

A further challenge mentioned regarding the governance structure was bringing multiple ministries together, as each ministry has different internal processes and mechanisms that can inhibit communications. Key informants felt that clearer terms of reference concerning the roles and responsibilities of the different members of the governance structure could have helped to address these issues.

Industry key informants generally believed that the governance structure had resulted in the provision of the necessary resources for the Strategy to operate. That said, this group of respondents had not necessarily interacted with representatives of the governance structure directly, working more directly with partners.

To improve the effectiveness of the governance structure, key informants suggested that there needed to be greater clarity on the reporting structure for the Steering Committee. Some Steering Committee informants noted that it was occasionally unclear where, and to whom, they should address their concerns. Additionally, Steering Committee participants noted that greater clarity was needed around roles, decision-making processes, and expectations, including the relationship between the government and the Steering Committee.

2.4 To What Extent Did the Accountability Structures in the Strategy Help Inform Decision Making?

The reporting and data collection of the 51 Strategy-funded partnerships have provided the government with valuable information to support evidence-based decisions to continue supporting dual credit programming for high school students. In terms of the opportunities funded through the Strategy, responses were mixed concerning the impact of the accountability structures on decision making. While over half (59%) of respondents to the stakeholder survey agreed that the governance structures established to implement the Strategy informed decision making, less than half (49%) agreed that the governance structure provided adequate guidance for the Strategy's implementation. Specifically, key informants noted that the accountability structures lacked clarity in roles and responsibilities. Moving forward, there was agreement that there needed to be a clearly articulated lead for dual credit, and the roles and responsibilities of all partners, including the governance structures, needed to be further defined.

Partnerships were required to report on their opportunities through the CASS template as part of the granting process. Additionally, through the government's evaluation of the Strategy, information from partners was collected through numerous instruments, including key informant interviews, a stakeholder survey, a student survey, and a teacher survey. The different sources of data ensured a solid understanding about the processes, successes, and challenges related to the Strategy's implementation, providing the government with the evidence-based information needed to assist it in moving forward with sustainable dual credit programming in Alberta high schools across the province.

In terms of the impact of the accountability structures on the implementation of dual credit opportunities funded through the Strategy, all Steering Committee key informants stated that decision making was significantly impeded by a lack of clear roles and responsibilities. This included internally (i.e., between members of the Steering Committee) as well as externally (i.e., what role the government was going to play in the decision-making processes). The lack of clarity around roles and responsibilities also resulted in uncertainties and complications. For example, when prospective business partners requested parameters relating to accountability structures (e.g., where accountabilities rested), Steering Committee members were unable to provide this information. Steering Committee members stated that having clear roles, responsibilities, and expectations early on would have supported them in fulfilling their role more effectively.

Government and CASS key informants also reported challenges related to communication and responsibilities. It was noted that the different ministerial processes sometimes hindered communication, and that ministries occasionally appeared to have different understandings of the Strategy's governance structure.

Responses on the stakeholder survey tended to reflect similar challenges around decision making and accountability processes. While over half (59%) of respondents to the stakeholder survey agreed that the governance structures established to implement the Strategy informed decision making, less than half (49%) agreed that the governance structures provided adequate guidance for the implementation of the Strategy. Additionally, less than a third of stakeholders (29%) agreed that the governance structures provided adequate training for implementation. Thus, while it was generally felt that the governance structures did inform decision making, it was less clear how those decisions were communicated to partnerships and supported through implementation. It is important to note that a significant number of respondents were indifferent (i.e., respond “Neither disagree nor agree”) in their responses regarding the effectiveness of the accountability structures.

Table 2-16: Stakeholder Survey – Effectiveness of Accountability Structures

| Referring to the three Strategy governance structures listed in this section, do you agree that... | Strongly disagree | Disagree | Neither disagree nor agree | Agree | Strongly agree | Not applicable |
|--|-------------------|----------|----------------------------|-------|----------------|----------------|
| The governance structures established to implement the Strategy informed decision making | 1% | 9% | 24% | 45% | 14% | 8% |
| The governance structures provided adequate guidance for the implementation of the Strategy | 2% | 20% | 25% | 38% | 11% | 4% |
| The governance structures provided adequate training for the implementation of the Strategy | 8% | 23% | 34% | 22% | 7% | 8% |

n=93, Stakeholder Survey Questions C5a, C5c, C5d: For the following question, please rate your level of agreement on a scale of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree and 5 = strongly agree.

2.4.1 What is required for an appropriate level/structure of accountability for dual credit in the future?

The government and CASS key informants agreed that the Government of Alberta needed to continue to provide leadership for dual credit. However, there were differing opinions about the continued need for an arm’s length governance body; some informants felt that it was critical moving forward, while others indicated that it was not necessary. Additionally, it was reported that there needed to be a more clearly articulated lead for dual credit moving forward.

Government, CASS, and Steering Committee informants stated that stakeholder participation is required to make dual credit a province-wide initiative. More clarity concerning roles and responsibilities would assist in the development of local partnerships. The provision of clear structures relating to partnership expectations would assist in the development of local partnerships. Greater clarity would also assist different ministries in working together for a common goal by helping to ensure common language and processes across ministries.

2.5 What Were the Costs Incurred and What Was the Value Received for the Dollars Spent in Relation to the Strategy?

The government allocated \$5.35 million to support partnership dual credit development and implementation under the Strategy. This funding allowed 51 partnerships to receive an average of \$104,902 in grants. Further, most opportunities raised additional funds, increasing average total funding to \$172,383. The average cost of the opportunities, as reported through the CASS template, was \$171,167, with 57% of the cost related to the ongoing maintenance of the opportunity. It cost an average of \$5,582 for each student who participated in a dual credit opportunity. The greatest value achieved through the opportunities was the positive impact on students, on the community, and on partnerships. Among students, dual credit opportunities increased retention of marginalized students, improved student understanding of post-secondary education, and provided students the opportunity to experience post-secondary education and future career options. Further, the Strategy enhanced the development of local partnerships, increasing the partners' understanding of each other. Finally, the Strategy allowed partnerships to develop dual credit opportunities that met the learning needs of their students and the local labour market needs, thereby allowing students to study and ultimately gain employment in their own community.

On average, the 51 partnerships received \$104,902 in funding from Strategy grants, and some partnerships accessed additional funding from other sources. Through the CASS template, partnerships reported receiving on average \$172,383 in total funding per opportunity, indicating that partnerships generated an average of \$67,481 in additional funding. Not all partnerships accessed additional funding, with 17 indicating that the Strategy grant was their sole source of funding for the opportunity.

Table 2-11: CASS Template – Average Funding for Opportunities

| Funding | Mean | Minimum | Maximum |
|-----------------------------|-----------|----------|-----------|
| Strategy Grant Funding Only | \$101,063 | \$11,716 | \$150,000 |
| Total Opportunity Funding | \$102,341 | \$24,449 | \$770,500 |

n=50

CASS Question 37-1: Identification of all funding sources available and accessed by your partnership to set up and operate this specific dual credit opportunity and the total \$ amount from each source used during the Strategy – Strategy Grant

CASS Question 38: Total funding amount accessed from all sources

The average reported cost of the opportunities was \$171,167, with \$73,000 required for start-up of the opportunities and \$98,168 needed for the maintenance of them. The average cost reported for each student who participated in a dual credit opportunity was \$5,582, with an average of \$2,380 per student being spent on start-up costs and an average of \$3,201 per student being spent on maintenance costs. The cost breakdown differed between opportunities, as partnerships used their funding for different purposes (e.g., some opportunities used part of their funding to cover student transportation costs). As such, the cost breakdown of each opportunity was generally unique. Table 2-12 shows the breakdown of the average costs by category.

Table 2-12: Breakdown of Average Cost Across Opportunities

| Cost Category | Start-up Costs | | Ongoing Costs | |
|--|----------------|-------------------------|---------------|-------------------------|
| | Mean | Number of Opportunities | Mean | Number of Opportunities |
| Certificated Teacher/Instructor Costs | \$48,486 | 10 | \$59,827 | 39 |
| Facility Costs | \$139,021 | 6 | \$40,367 | 4 |
| Coordination and Consultant Costs | \$22,338 | 26 | \$27,008 | 34 |
| Non-Certificated Staff Costs | \$500 | 2 | \$26,935 | 9 |
| Post-Secondary Tuition Costs (per student) | \$8,766 | 9 | \$22,904 | 10 |
| Partnership Development and Legal Costs | \$6,727 | 22 | \$12,332 | 20 |
| Curriculum Development and Mapping Costs | \$24,435 | 26 | \$8,878 | 16 |
| Administrative and Travel Costs | \$2,334 | 26 | \$8,778 | 31 |
| Student Counselling | \$4,470 | 18 | \$6,835 | 23 |
| Textbooks, Resources, and Equipment Costs | \$18,922 | 19 | \$6,266 | 23 |
| Student Transportation Costs | \$2,121 | 5 | \$5,242 | 11 |
| Materials and Supplies Costs | \$20,303 | 13 | \$3,192 | 20 |
| Recruiting and Technology Costs | \$6,374 | 29 | \$2,138 | 18 |

n=51, CASS Questions 45–57: Breakdown of your opportunity's total actual costs

Note: Only those opportunities that reported costs in a specific category are included in the calculation of the average cost for that category.

The values of dual credit were broad and included benefits to students, to partnerships, and to the local community. The CASS template asked partnerships to describe their key successes, with the most commonly mentioned success being the development of partnerships and increase in collaboration between high schools and post-secondary institutions. It was noted that participation in the Strategy enhanced connections with industry partners, as many industry partners provided ongoing guidance to participating students via practicum and other work place experiences. Also, working with industry partners expanded program leads' understanding of the industry in general. Participation in dual credit also assisted in developing and nurturing relationships between school authorities and post-secondary institutions. In some cases, the increased collaboration between high schools and post-secondary institutions led to the development of additional dual credit opportunities. More generally, as discussed above, the Steering Committee, government, and CASS key informants noted that the provincial focus of the Strategy provided additional schools with the ability to offer dual credit, enabling the development of partnerships across a broad range of communities. Additionally, it was noted that the flexibility of the Strategy allowed communities to develop dual credit opportunities that best met the learning needs and the community labour market needs.

Table: 2-13: Value of Dual Credit Opportunities

| Key Dual Credit Successes | Percentage of Opportunities |
|---|-----------------------------|
| Partnership | |
| <ul style="list-style-type: none"> Developed partnerships with industry partners/Increased collaboration between high school and post-secondary institutions | 21% |
| <ul style="list-style-type: none"> Developed new learner pathways | 8% |
| Students' Participation in Post-Secondary | |
| <ul style="list-style-type: none"> Exposed students to post-secondary | 16% |
| <ul style="list-style-type: none"> Increased learner retention | 6% |
| <ul style="list-style-type: none"> Increased high school completion rates | 3% |
| <ul style="list-style-type: none"> Increased students' interest in attending post-secondary | 5% |
| Career Pathways | |
| <ul style="list-style-type: none"> Assisted students in deciding on their career pathways | 3% |
| <ul style="list-style-type: none"> Gave students a head start on their future career | 8% |
| <ul style="list-style-type: none"> Enabled students to gain work experience through practicums | 9% |
| Personal Development | |
| <ul style="list-style-type: none"> Developed student confidence | 6% |
| <ul style="list-style-type: none"> Improved communication between students and teachers | 2% |
| Community Development | |
| <ul style="list-style-type: none"> Helped to develop the community | 2% |

CASS Template Question 73: Describe your key dual credit successes revealed through your participation in the Strategy.

Students' increased participation in dual credit was also highlighted as a key success. It was noted that dual credit was "eye-opening" for many students, as it improved their understanding of post-secondary. Dual credit exposed students to content areas that would otherwise not be available to them in regular high school programs, leading to a higher number of students indicating that they wanted to attend post-secondary upon graduation. Dual credit programming under the Strategy also offered secondary students the opportunity to participate in post-secondary courses at no cost.

Ultimately, program leads believed that dual credit led to increased learner retention and completion rates in high school programs, which resulted in a decrease in the number of students not completing high school. As discussed above, these observations were reinforced by jurisdictional/school informants who reported that dual credit helped to keep marginalized students interested in and involved with school, as well as allowed students to complete portions of post-secondary education in their home communities. Additionally, the Steering Committee, government, and CASS informants reported that dual credit supported early transition to post-secondary studies for students.

Further, students' engagement in the dual credit programming presented them with the opportunity to either choose a new career pathway or build upon their existing career pathway. For many students, participation in dual credit enabled them to develop confidence in their academics, their future career pathways, their communication abilities, and their overall social skills. These benefits were also noted in the stakeholder survey, where it was reported that participation in dual credit provided students with a head start in their future career as well as the opportunity to learn about and try different career options, gain workplace experience, and enhance their resume. The benefit to the community was also highlighted, as dual credit opportunities made it possible for some students to study and ultimately gain employment and remain living in their own community.

2.6 To What Extent Were Partnerships Able to Fulfil the Sustainability Requirements of the Strategy?

While there was an expectation under the Strategy that dual credit partnerships would build sustainability into their dual credit opportunities, local partner key informants (e.g., jurisdiction/school, post-secondary, and business/industry) felt that their opportunity may not be financially sustainable without continued funding support from government. However, beyond funding needs, data provided from program leads in the CASS template discussed other aspects of sustainability, including program design, student recruitment, partnership development, and dual credit promotion. Across these elements, best practices were put forward to improve the sustainability of dual credit opportunities that could influence sustainability in the future. For example, student interest was imperative to sustainability of a dual credit opportunity. In addition, the data highlighted several factors associated with opportunities that reported being sustainable in the future. These factors included delivering the opportunity online; utilizing post-secondary instructors who were industry-certified as opposed to post-secondary instructors who were university-trained; having the optimal number of students; and involving more than one high school.

Key informants from jurisdiction/school, post-secondary, and business/industry partners noted that it would be challenging for the dual credit opportunities they had been involved in to be sustainable in the future without continued government support. Most would have to determine how the opportunity would obtain sufficient funding. Some jurisdiction/school partner key informants felt that they could access funding from industry partners or develop a sustainable tuition agreement with a post-secondary institution. Some post-secondary partner key informants indicated that their post-secondary institutions had covered overages for their dual credit opportunities, but noted that the institution would be unable to continue to do so in the future.

Similarly, business/industry partner key informants indicated that their continued participation in the dual credit opportunity would require funding to cover the costs of staff resources. However, it was further acknowledged by business/industry that the government may not have such funds available, and suggested that industry has services that could be provided at no cost.

Respondents to the stakeholder survey tended to feel similarly uncertain about the sustainability of their dual credit opportunities. Less than a third (32%) of the partnerships reported in the stakeholder survey that they were able to complete all of the sustainability requirements of the Strategy. Most partnerships (57%) indicated they were able to fulfil at least some of the requirements. However, a small number (5%) reported they were unable to fulfil any of the sustainability requirements.

The survey defined sustainability requirements as follows: “Attributes of sustainability for dual credit opportunities/partnerships are able to be maintained over the short-term and long-term; are competitive and transparent; entail cooperation and collaboration amongst partners; meet student, parent, and labour market needs; are resilient; and address resourcing costs.”

Table 2-14: Stakeholder Survey – Fulfilment of Sustainability Requirements

| | Percentage |
|---|-------------|
| Able to fulfil ALL of the requirements | 32% |
| Able to fulfil SOME of the requirements | 57% |
| Able to fulfil NONE of the requirements | 5% |
| Not applicable | 6% |
| Total (n=81) | 100% |

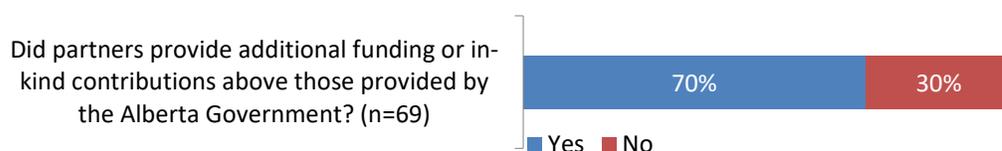
Stakeholder Survey Questions E3, H14, I14, J14, K14, L14: To what extent was your partnership in the dual credit opportunity able to fulfil the sustainability requirements of the Strategy?

2.6.1 What types of approaches were used to ensure financial sustainability once funding provided through the Strategy expired?

Over half of respondents to the stakeholder survey (52%) did not provide an example for best practices of maintaining the sustainability of their dual credit opportunities. Among those who did respond, the most common theme was the need for an appropriate funding model (53%). It was noted that the funding model needs to be transparent and needs to ensure that it does not reduce funds from schools to offer dual credit programming. A second recurring theme for ensuring sustainability was the need for partner buy-in to the program (18%). Partner commitment to dual credit opportunities was viewed as essential to ensure that adequate support was provided for the management and maintenance of the opportunities. Additionally, committed partners provided financial support to the opportunities through tuition waivers, direct funding, and in-kind support. However, it was noted that while post-secondary partners and business/industry partners could help financially support opportunities in the short term, there were concerns about relying on them to fund ongoing dual credit programming. In particular, it was noted that the changing needs and priorities of post-secondary and business/industry partners could make any financial support provided inherently unstable.

2.6.2 How did each dual credit partner (K–12, post-secondary, and business/industry) contribute to the financial sustainability of the dual credit opportunities?

The majority of partnerships (70%) reported in the stakeholder survey that their dual credit opportunities received additional contributions, either financial or in-kind, from their partners. Examples of in-kind support provided included donating staff time, providing human resource support, and waiving or reducing tuition rates for students. Additionally, business/industry partners reported providing job/volunteer and mentoring opportunities to students, as well as providing additional funding to the opportunities.

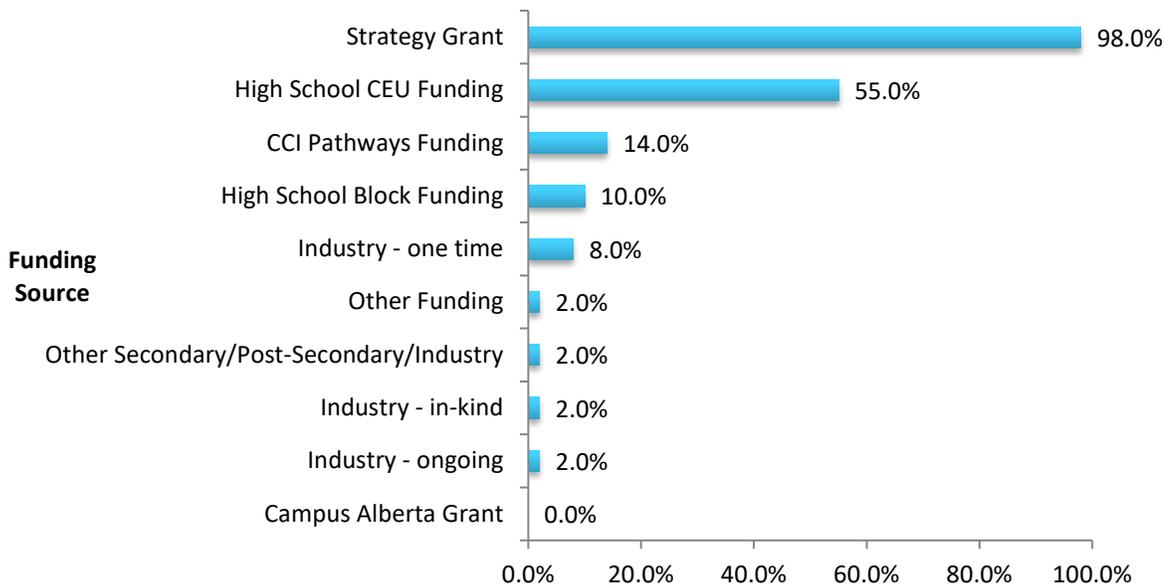
Figure 2-9: Stakeholder Survey – Provision of Additional Funding or In-kind Contributions

Stakeholder Survey Questions F3a, H15a, I15a, J15a, K15a, L15a: Along with the grants provided through the Strategy, partners were encouraged to access additional financial or in-kind contributions for their dual credit opportunity/ies. For the dual credit opportunity in which you participated, did partners provide additional funding or in-kind contributions above those provided by the Alberta Government?

2.6.3 What did partners learn regarding achieving greater efficiency of financial and other resources for future dual credit opportunities?

Key informants reported that the current Alberta Education funding model for high school was insufficient to cover the costs of offering dual credit opportunities. Dual credit courses entail additional administrative and instructional costs that need to be recognized in a future funding model. The data from the CASS template supported this position, with only 10% of opportunities indicating that the current high school funding model (either CEU funding or block base funding) was sufficient to cover maintenance costs. For the duration of the Strategy, over a quarter (27%) of the opportunities received external funding aside from the Strategy grant and high school funding. However, the long-term sustainability of this external funding was uncertain.

Figure 2-10: Proportion of Opportunities Accessing Funding by Source



N=51; CASS Question 37: Identification of all funding sources available and accessed by your partnership to set up and operate this specific dual credit opportunity and the total \$ amount from each source used during the Strategy

Even with all additional sources of funding, only 14% of partnerships reported sufficient ongoing funding to cover maintenance costs. An additional concern noted was that funding from industry partners could be inconsistent. It was stated that when industry was faced with other challenges, e.g., increased competition or fiscal restraints, it affected their support toward educational outreach programs. As such, more consistent methods of addressing funding were needed, such as providing a premium on CEU funding for dual credit courses as well as lowering post-secondary costs for dual credit opportunities.

Case Study #2:
The program received significant contributions from industry partners, including a functional service rig that enables students to receive practical training and certifications.

Suggested methods by which post-secondary costs could be adjusted for dual credit included

- removing the general admission fee from post-secondary courses to reduce costs; and
- reducing or waiving tuitions fees for students, anticipating their later attendance at the post-secondary institution.

2.6.4 What elements within the implementation of partnerships' dual credit opportunities enabled programming and financial sustainability?

The CASS template asked partnerships to indicate if they felt their dual credit opportunities were sustainable. Partnerships that indicated that their opportunities were sustainable highlighted several factors that impacted perceived sustainability: delivery method, instructor certification requirements, number of students, and number of high schools. The impact of these factors on sustainability is detailed below:

- A higher proportion of opportunities that were delivered online were deemed sustainable compared to opportunities that were offered face-to-face or blended (both online and face-to-face).
- Opportunities that achieved the optimum number of students were more likely to be sustainable.
- Opportunities that had post-secondary instructors who were industry-certified were more likely to indicate that the opportunity was sustainable compared to opportunities that had instructors who were university-trained (e.g., bachelor's or master's degree).
- Dual credit opportunities in which multiple high schools were involved had a higher rate of sustainability than programs where there was only one high school involved.

Case Study #1:

The focus of dual credit should be on facilitating student success. Post-secondary institutions should not view it as simply a way to recruit students; high schools should not see it as merely another option for students.

While the limited number of partnerships that provided an answer to the question of sustainability warrants caution when interpreting these results, the responses do suggest areas for further exploration.

In addition to being asked directly about the perceived sustainability of their opportunities, the program leads of each partnership were asked questions throughout the CASS template that pertained to the sustainability of their opportunity as well as best practices that would benefit their opportunity and others moving forward. Several areas were discussed, including program design, student recruitment, partnership development, and dual credit promotion, to name a few.

Student recruitment and screening were highlighted as critical elements of a successful dual credit opportunity. Without sufficient student interest, no amount of planning or partnership development would make an opportunity successful. Partnerships, therefore, commonly stressed that student interest needed to drive opportunity development. Student interest, however, could not be the only criteria for student participation. Students needed to be prepared to perform at the post-secondary level if they were going to experience success in a dual credit opportunity. Preparation was not limited to academic preparedness, but also included students having a clear understanding of the level of effort required to meet the post-secondary performance expectations; although partnerships also noted that post-secondary institutions must have realistic expectations of high school student performance.

To support student success, partnerships suggested that students must be screened for academic preparedness and personality suitability for coursework. Successful partnerships, therefore, needed to balance the requirement for a critical mass of students to facilitate financial sustainability with the students' ability to succeed in that opportunity. Further, the importance of students experiencing success in dual credit was underscored by the fact that students who experienced success could serve as program ambassadors or mentors for new program participants.

Many elements of program design and implementation were highlighted as key to successful dual credit opportunities. Overall, it was noted that any partnership embarking on developing a dual credit opportunity must be aware that program design and implementation is a lengthy process that requires substantial commitment from partners, including clearly defined roles and expectations and limited staff turnover. Staff turnover among partners was said to significantly slow program design and implementation.

Case Study #2:

Students must be truly interested in the opportunity, and recruitment must be stringent and specific.

As noted above, successful partnerships considered and planned for a sufficient base of students to support financial sustainability. Successful approaches included gauging preliminary student interest within a school prior to opportunity development or recruiting students from multiple schools or school authorities. Cross-school/school authority opportunities utilized program delivery methods that allowed participation from different regions (discussed more below). Dispersed opportunities must also make an increased effort to develop and sustain partner collaboration. For example, more formal communication policies may be necessary to overcome the geographic separation between partners. Similarly, the importance of industry and community collaboration was also highlighted when partnerships discussed program design. Partnerships commonly stressed the requirement to match the opportunity with industry or community need, noting that opportunities should focus on careers in high demand or growing occupations in general or within a community.

With respect to program design, it was suggested that curriculum alignment, when needed, was best completed in collaboration between a post-secondary instructor and a high school curriculum writer. In this way, the curriculum would meet local student and community needs while aligning with the requirements of the post-secondary institution. Given the volume of work associated with curriculum alignment, it was recommended that a dedicated person work on curriculum alignment at the jurisdictional level. Most dual credit opportunities were developed to include both theory and practical experience; thus, the dual credit opportunity required both classroom instruction and hands-on workplace experience. Workplace experience was well supported by co-location of the post-secondary institution with industry, although this option was not available to all partnerships. Conversely, partnerships without nearby industry explored the possibility of alternate program delivery methods such as off-site programming or mobile labs. Mobile labs, while a costly option, were considered a best practice by some opportunities and financially unattainable by others. Other opportunities provided dual credit coursework off-site, such as at a post-secondary institution or a worksite outside the local community.

Important considerations on incorporating off-site programming in dual credit opportunity design included the following:

- Covering transportation costs would remove a significant barrier for many students.
- The regular school timetable readily incorporates theory components of dual credit; however, block formatting of course schedules could hamper workplace placement and practical components.
- Intensive summer instruction for rural students, allowing them to be housed on a post-secondary campus, would be a good method of overcoming challenges associated with providing hands-on workplace experience when infrastructure is not available locally.

Partnerships provided many examples of unique approaches to program delivery and administration that would encourage opportunity success. These included

- rolling out existing or newly developed opportunities to different school districts;
- utilizing existing non-dual credit programs as a base for dual credit opportunities, since these have the infrastructure in place and can more easily be expanded into a dual credit opportunity;
- utilizing a train-the-trainer model, which allows high school teachers to deliver dual credit opportunities;
- providing students with a supervisor (beyond the post-secondary instructor) to monitor and support them;
- hiring program coordinators at the school or district level; and
- having the post-secondary institution or industry host portions of instruction, since they have the necessary equipment and infrastructure.

Online course delivery was an important element of program design and delivery, particularly in rural communities or where opportunities were offered across schools/school jurisdictions. Online courses were considered a best practice, as they allowed students to complete workplace experience and coursework simultaneously. Further, online courses helped address transportation barriers, thereby increasing access for rural students.

As noted earlier, in rural areas, online learning allowed a critical mass of students to participate in an opportunity (i.e., from multiple schools or jurisdictions), contributing to the financial sustainability of the opportunity. Should an online component be included in a program, additional considerations must be addressed to optimize the opportunity's success. Specifically, a post-secondary instructor and technical support must be available to support online program delivery, and video conferencing could be successfully deployed to deliver the theory components of the program.

Universally, partnership development was seen as critical to successful opportunity design and implementation. The process requires significant commitment and collaboration from all parties. Thus, consideration needs to be given to the different structures associated with secondary and post-secondary learning institutions, such as program delivery time frames, funding frameworks, systems for granting credit, and assessment expectations. All partners must, therefore, work to understand the others' operating structures and make appropriate accommodations.

Case Study #1:

All stakeholders need to be at the table and have an authentic voice. Policies must be collaboratively developed (and refined) to make the program straightforward to administer.

Developing common administrative practices was said to support partners in program operation, as was having a single point person at the school district, post-secondary level, and/or industry to guide the collaboration. As part of the necessary relationship building, open and frequent communication is required between the school and post-secondary institution, both at the administrative and teacher/instructor level. Partnerships also must be clear about short-term and long-term expectations of their opportunity and the expectations of their other partners; this helps to resolve challenges as they arise.

For success to be realized in the long term, it was noted that opportunities must align with the school/jurisdictional and post-secondary goals, as well as the needs of students, industry, and the community. Finally, sustainability cannot be considered without industry partners. Industry associations and business are key partners that provide invaluable in-kind contributions (time, expertise, guidance). Further, industry partners are well positioned to offer workplace experience for students. Other considerations for successful partnerships included the following:

- Existing partnerships aid in the development of new partnerships (particularly business associations).
- Pre-existing partnerships allow faster program implementation.

At an oversight level, moving forward, respondents felt that increased collaboration between Alberta Education and Alberta Advanced Education is required. Further, it was suggested that all partners must clearly establish the roles they will fulfil in dual credit, incorporating their goals and expectations.

An additional area related to program design and implementation that received considerable attention in the CASS data was curriculum mapping. New partnerships must be adequately prepared to complete this work, as it is a resource-intensive and time-consuming activity. CTS programming, however, offers numerous courses that fit well with post-secondary curriculum, which allows for easier mapping. Moving forward, one approach would be the development of authorized dual credit courses that can result in standardized programming; however, this may reduce the ability to implement locally designed solutions. Alternately, developing a method by which post-secondary credits are recognized in the Kindergarten to Grade 12 system could maintain the necessary flexibility.

Dual credit promotion was viewed as a significant element of achieving and maintaining dual credit sustainability. Promotion is an important way to educate students, parents, and teachers about the benefits of dual credit. At the local level, some partnerships used social media to promote program successes and build momentum and interest in the program. These partnerships further suggested that the government could play an important role in promoting dual credit provincially; educating parents and students on the value of dual credit; and raising the profile of dual credit among school jurisdictions, post-secondary institutions, and industry. It was suggested that a database of existing opportunities be created, which would support the sharing of best practices across the province. Further, longitudinal tracking of dual credit student outcomes would support the promotion of dual credit as an important option for students.

The review of program activities used to successfully design and implement dual credit opportunities, as well as to take steps toward sustainability, provided several suggestions for partner roles moving forward. Specifically, by partner, some of the roles the various partners could assume are listed below.

Schools/school jurisdictions

- Promote dual credit locally to students and parents;
- Gauge student interest;
- Assess student readiness and commitment;
- Ensure a critical mass of engaged students;
- Support students through mentorship and oversight;
- Act as the opportunity leader;
- Look for innovative community-based solutions to address programming challenges; and
- Develop and maintain partnerships.

Post-secondary institutions

- Provide expertise in curriculum development;
- Provide expertise in course instruction;
- Assist in training teachers and incorporating them in instruction and student assessment;
- Adapt course materials to high school students' level of performance;
- Connect with industry partners;
- Provide equipment, infrastructure, and resources;
- Provide in-kind support; and
- Actively participate in the partnership.

Industry/business

- Promote dual credit among businesses and industry;
- Provide insight into labour and industry needs;
- Connect programs and students with work placement opportunities;
- Provide equipment, infrastructure, and resources;
- Provide in-kind support; and
- Actively participate in the partnership.

Government of Alberta

- Develop a single body to provide provincial leadership;
- Lead course articulation and curriculum mapping;
- Maintain the necessary governance infrastructure;
- Provide an appropriate funding model for set-up and maintenance of opportunities;
- Support equitable student access to opportunities;
- Lead the collection of program/student outcome data; and
- Provide opportunities for cross-program information sharing provincially.

2.6.5 What elements within the implementation of partnerships' dual credit opportunities were barriers to sustainability?

Key informants from all groups noted a number of challenges that had impacted sustainability, both at the governance level and the project level. At the governance level, this included the way sustainability was defined, curriculum mapping requirements, the funding model, and differing structures and processes across ministries. At the project level, student numbers, student readiness, and partner experience all impacted sustainability.

Across most of the key informant groups that were interviewed, it was felt that a clearer definition of financial and project sustainability, accompanied by clear guidelines on how to achieve sustainability, would have allowed the governance structure to better support sustainable opportunities. However, while sustainability was not clearly defined in the Strategy, a description was provided in the applications that partners completed to receive funding. Similarly, the majority of key informants pointed to the Alberta Education funding model as a barrier to sustainability for dual credit opportunities. Overall, the level of per credit funding provided to high schools was not sufficient to cover each high school's administrative costs and support teacher costs, plus pay post-secondary costs. Either the high school or the post-secondary was left with a shortfall. Some opportunities used the grant funding provided by the Strategy to cover the shortfall. In other instances, the post-secondary covered the shortfall; this was commonly done in the hopes of gaining future students. Stakeholders thus stressed that given the additional cost per credit of a dual credit opportunity, additional funding was required. Many also suggested that a process that eliminated the duplication of administrative or curriculum-development costs would help to reduce the overall cost per credit. It was noted that funding recipients appeared to not understand or to forget that the funding would not be ongoing and was only provided to cover start-up costs.

Importantly, a key informant from a post-secondary institution observed that funding models developed in the future may impact program access. Some post-secondary programs were charging higher per credit costs than others; some institutions were running opportunities on a cost recovery basis. This may result in some programs being eliminated in a region where the costs are higher, creating unequal opportunity access across the province.

The majority of the stakeholders interviewed felt that the process of curriculum mapping had impacted the sustainability of their dual credit opportunities. The process was noted to be costly and time consuming, without significantly adding to the value of the dual credit opportunities. Some key informants questioned whether the process was necessary, suggesting instead that the post-secondary credit be awarded to students without the need to map post-secondary curriculum to high school provincial curriculum. Further, it was noted that some partnerships were required to add additional learning outcomes to map back to CTS learning outcomes, creating a more challenging curriculum. Several post-secondary partners interviewed reported being dissatisfied with communication surrounding curriculum-mapping requirements. Some Steering Committee interviewees felt that the money used for curriculum mapping would have been better used to develop opportunities.

The Steering Committee, government, CASS, jurisdiction/school, and post-secondary partners stated that there appeared to be a lack of alignment of language, processes, and structures between Alberta Education and Alberta Advanced Education. Further, it was observed that some work may have been duplicated across the ministries and between the high schools and post-secondary institutions, which could negatively impact sustainability. The challenges in alignment between Alberta Education and Alberta Advanced Education may have been in part due to the higher level of oversight occurring within Alberta Education to ensure the appropriate duty of care required to work with minors.

Barriers impacting project implementation noted by jurisdiction/school and post-secondary partners included the degree of engagement of dual credit opportunity leaders, short timelines for student recruitment, the interest level of students, and the limited variety of opportunities available. As well, it was noted that the Strategy resulted in significant funds spent on a relatively small number of students. It was also observed that the age of participating students was a challenge, since some students were not ready for post-secondary-level work. Some jurisdiction/school partners noted that they experienced challenges by not knowing what organization they should speak to in order to obtain answers to their questions.

Respondents to the stakeholder survey also reported funding issues as a barrier to the sustainability of dual credit opportunities. The most common concern was the need for ongoing funding. Stakeholders reported that without continued funding, it would be challenging to continue some opportunities. Additionally, it was reported that a provincial funding model was needed to sustain the dual credit opportunities. An appropriate funding model would allow school authorities to determine how to offer dual credit opportunities in their jurisdictions. Concerns about tuition and fees were also noted.

Table 2-15: Stakeholder Survey – Barriers to Sustainability of Dual Credit Opportunities

| | Percentage |
|--|-------------|
| Lack of ongoing funding | 45% |
| Lack of a provincial funding model | 25% |
| High tuition and fee costs | 13% |
| Block funding may hinder school support of dual credit initiatives | 8% |
| Other* | 11% |
| Total (n=40) | 100% |

* Includes responses provided by fewer than three respondents.

Stakeholder Survey Question E5: Based on your experience, what are the barriers to maintaining sustainability for dual credit opportunities?

2.6.6 What are the implications for dual credit in Alberta going forward?

To support sustainability of dual credit programming across Alberta, jurisdiction/school and post-secondary partners suggested

- aggregating students at a single site to complete an online course;
- utilizing blended learning (online and face-to-face);
- increasing the scale of participation to achieve economies of scale;
- negotiating tuition agreements between post-secondary institutions and high schools;
- utilizing champions at different levels to promote existing activities and increase student numbers;
- communicating successes to stakeholders to encourage sustained participation;
- reserving seats in post-secondary classes for dual credit students (mixing high school and adult students);
- charging students tuition;
- having post-secondary institutions share their lesson plans with high school teachers to reduce the amount of work needed;
- sharing administrative processes and costs across high schools and post-secondary institutions;
- asking industry to donate or loan equipment to schools, which schools can then rent out during summer months to help finance dual credit opportunities; and
- completing a cost analysis prior to developing an opportunity to determine the minimum student participation needed.

2.7 What Factors Should Be Considered for the Future of Sustainable Dual Credit Implementation in Alberta?

There was strong consensus among stakeholders interviewed and surveyed, as well as information provided through the CASS template, that the Alberta Education funding model for dual credit needed to be reworked and that curriculum mapping needed to be revisited in order to facilitate recognition of post-secondary credits in the Kindergarten to Grade 12 system. Another factor that required consideration was the definition of roles and responsibilities among the governance and accountability structures, more specifically Alberta Education and Alberta Advanced Education. Based on analysis of the key informant interviews, the CASS template data, and the stakeholder survey, key considerations for future sustainable dual credit implementation also included

- equitable student access to opportunities provincially;
- strong partnerships with open communication and clearly defined expectations and roles;
- student interest and readiness to participate in dual credit opportunities;
- awareness and consideration of local community and labour market needs;
- provincial and local promotion of dual credit to encourage student and partner participation;
- collection and sharing of provincial-level student outcome data; and
- provincial access to and sharing of information on available opportunities and best practices.

The Steering Committee, along with government and CASS interviewees, felt that if the Strategy was to be developed into a long-term, province-wide dual credit framework, it could have a significant positive impact on a broad spectrum of high school students by connecting them to the post-secondary system at an early age. It was further noted that the Strategy was a “call to action” that sparked dual credit opportunities across the province, and it should evolve from the short-term Strategy to a long-term provincial dual credit framework. Further, some interviewees stated that dual credit needed to be mainstreamed into the high school system, becoming a regular option available to students. All of the Steering Committee interviewees felt that the four Strategy goals were appropriate for moving forward.

Two key challenges identified across jurisdiction/school partner, Steering Committee, and post-secondary informant groups were those of sustainability and funding. It was also felt that ongoing, effective communication between willing partners was a challenge. Across the groups, informants identified the need for partners to work together to provide students with opportunities; this required clear governance, communication, and a long-term framework that coupled guidance with flexibility. Finally, there was a call for a more centralized system that streamlined operational processes to be more efficient and effective. This would support clarity around roles and responsibilities across all stakeholders, so that each understood the importance of their role. Government and CASS key informants suggested that sustainability would be supported by the participating ministries working to normalize dual credit within the K-12 education system. Thus, Alberta Education could provide structure through implementing policies and guidelines, encouraging student participation, and developing a funding model that supports sustainable dual credit.

The perceptions of stakeholder survey respondents mirrored those of key informants. The recurring issues mentioned by stakeholders that needed to be considered for the future of dual credit were

- a need for a sustainable funding model;
- a structured and streamlined approach for implementing a dual credit opportunity;
- clearly defined roles and responsibilities of the governance structures; and
- the establishment of a provincial course-mapping framework.

The majority of key informants felt that in order for the Strategy to have a positive long-term impact, a few gaps needed to be addressed. These include

- ensuring that opportunities are reaching the high school students they are intended to reach;
- focusing on increasing high school completion rates;
- continuing to “break down” barriers between the different educational institutions;
- redesigning the Alberta Dual Credit website to be more student-oriented; and
- providing structural supports around credentialing.

In line with addressing these challenges and gaps, jurisdiction/school partner and post-secondary informants identified having strong or long-standing relationships with key contacts within partner organizations as being of key importance to the development of sustainable dual credit opportunities. Further, open and ongoing communication between partners was key. The strength of the relationships and nature of the communication impacted how partners could discuss, establish, and make decisions about partnerships in a way that complemented everyone's needs, and was seen as an important initial part of the process.

It was further noted that, while participating in post-secondary courses, students were still in high school. As such, a comprehensive duty of care needs to be ensured for students participating in dual credit opportunities. Jurisdiction/school partner and post-secondary informants felt it was important to have conversations at the outset. It was suggested that this could be done informally by having "thoughtful" discussions with partners where the "what ifs" were discussed or, more formally, by detailing each partner's responsibilities within a formal agreement (i.e., memorandum of understanding). Further, most felt it was appropriate to follow duty of care protocols established by high schools, since dual credit students were high school students. Finally, ensuring that students have appropriate instructional support at the high school, wherever the dual credit opportunity occurred (either onsite in the high school or off-site), was also considered an important mechanism to have in place.

The willingness of government to invest time and resources into the development of dual credit was identified by the government and CASS as one of the factors that contributed to the success of the Strategy's implementation. The Strategy provided a developmental structure and start-up money to assist in the creation and expansion of local opportunities and partnerships. Some interviewees suggested that a "tier funding" model be provided to school jurisdictions that would detail the funding a high school would receive for a completed dual credit course and what the post-secondary institution should receive. This would allow school authorities to estimate dual credit expenditures. That said, it was believed that moving forward, there should be some discussions between ministries and post-secondary institutions about tuition fees. For example, some post-secondary institutions waived tuition fees completely while others charged full tuition, and so consistency was felt to be required.

Another key factor that supported the successful implementation of the Strategy in Alberta was the commitment made by key stakeholders to move forward with development and implementation of dual credit opportunities. The importance of different organizations finding ways to work together was seen as a key element. The Strategy was prescriptive enough to provide guidance, but also "loose enough" to allow for flexibility. Thus, it allowed partners to address local challenges around timetabling, sharing resources, etc. Informants also felt it was important to support stakeholders in the work they did by listening to what they needed, providing them with a forum to communicate with the governance partners, and ensuring ongoing commitment between secondary and post-secondary partners. All of the business/industry informants felt that, to develop new dual credit opportunities in the future, partners would need to be open to new ideas, markets, and models. For example, interviewees noted that partners needed to remain aware of labour market trends to support students as different careers and niches presented themselves. Once these new careers or niche opportunities appeared, dual credit partners would need to remain flexible enough to adjust their partnerships to support the needs of the emerging opportunity.

Almost all post-secondary and jurisdiction/school partner informants identified the sharing of success stories, experiences, and best practices via electronic platforms, such as the Alberta Dual Credit website, as the best way to share experiences across the province. Further, a website was seen as a possible venue for outlining and promoting available dual credit opportunities to prospective students and their parents. Other suggestions included

- attending dual credit meetings to hear about better planning, structure, and economic practices;
- advertising through the media;
- developing a promotional video highlighting different stakeholders and opportunities across the province, to be hosted on the Alberta Dual Credit website; and
- supporting a provincial think tank to focus on how to move forward.

SECTION 3: CONCLUSIONS

Across multiple lines of evidence from multiple sources, there is strong evidence of the positive impact of the Strategy's implementation. Students participating in a dual credit opportunity were more engaged in school and reported that it positively influenced their decision to stay in and graduate from high school. Dual credit opportunities introduced students to career options and provided them with valuable workplace skills. The impact of the Strategy-funded dual credit opportunities also extended beyond student benefits. Local community stakeholders, i.e., schools/jurisdictions, post-secondary, and industry/business, reported that the opportunities expanded local partnerships. Dual credit opportunities provided the impetus for different stakeholders to meet and plan for the education of the students. Local industries/businesses increased their involvement in student education, providing workplace practicum opportunities as well as financial and in-kind support to the partnerships. Additionally, the support and tools provided to partnerships by the government assisted the process. As a result of these partnerships, communities were better positioned to meet the local needs of students and the community. As such, the Strategy had a positive impact at multiple levels, including on students, on partners, and on the community.

In addition to having a strong impact on local communities, the Strategy had an impact on the province as a whole. The Strategy was able to increase access to dual credit across the province, reaching rural and remote communities as well as urban centres, making it a truly provincial initiative. Additionally, the Strategy was able to expand the range of dual credit opportunities available to students. Prior to the Strategy, most students participating in dual credit were involved in apprenticeship opportunities. In contrast, the majority of students participating in dual credit under the Strategy were involved in non-apprenticeship opportunities. Broadening the range of opportunities helped attract students who may not have considered an apprenticeship-based dual credit program. Thus, the Strategy made dual credit more available both across the province and across student interests.

The impact of the Strategy on student participation in post-secondary education has been assumed by various stakeholders. All of the key informants indicated that students were developing skills needed for post-secondary education and were expressing interest and/or continuing to post-secondary after completing high school. Additionally, students reported an interest in post-secondary education, crediting the dual credit opportunity with contributing to this interest. As such, it is expected that the Strategy is having a positive impact on the continuing education of students. To determine the magnitude of the Strategy's impact on student involvement in post-secondary education, longitudinal follow-up with students would be beneficial. Tracking student outcomes will help to demonstrate the long-term impact on students, including their pursuit of post-secondary education.

Stakeholders occasionally provided mixed feedback concerning the roles that different partners were expected to play in the Strategy. It was reported that greater clarity was needed around the various roles and responsibilities of the partners. However, local partnerships still worked together and developed engaging dual credit opportunities for students. As well, they effectively supported each other and contributed their expertise to the opportunities they developed and implemented. The efforts of the partners displayed a commitment to the education of students and to the overall Strategy. Thus, the Strategy helped to demonstrate and tap into community interest in improving the education of its young people.

To help future partnerships develop across other communities, it would be important to improve communication about the successes and challenges of current and past dual credit opportunities. Providing a repository of information on dual credit opportunities and best practices will inform other communities with examples of how to develop local opportunities. In this way, those developing dual credit programs will have access to what has been done and what has worked in the past. While the information will not necessarily be directly relevant to a specific community, it will generate ideas about how local resources can be leveraged to offer dual credit to high school students.

Finally, it was broadly felt by the various stakeholders that work was needed to address the Alberta Education funding model and dual credit curriculum mapping. The current model for funding was viewed as inadequate for the sustainability of dual credit opportunities, and future funding models would need to recognize the additional costs associated with dual credit. While other stakeholders could occasionally provide help to fund dual credit programs (e.g., industry), more consistent and reliable sources of funding would be needed. Additionally, given the cost and time required for curriculum mapping, a more streamlined approach would be needed going forward, as the current-mapping requirements utilized limited funds that could have been used to provide instruction to students.