

The Alberta 2013-16 Provincial Dual Credit Strategy:
Laying the Groundwork
Technical Report

March 14, 2017

A REPORT OF THE PROVINCIAL DUAL CREDIT STRATEGY STEERING COMMITTEE

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Acknowledgements

On behalf of current and past members of the Dual Credit Steering Committee, co-chairs Cathy Faber, Cheryl Knight and Ron Woodward thank all those who completed the Dual Credit Data Collection Instrument for their valuable input on the early work of laying the groundwork of the strategy, and for sharing the successes and challenges encountered over the course of the past three years. Thanks also to those in secondary education, post-secondary education and business / industry who enthusiastically worked to create effective partnerships.

Thank you to Barry Litun, Executive Director of the College of Alberta School Superintendents (CASS), to Debbie Vance, the CASS representative to the Provincial Dual Credit Steering Committee; to Art Bauer for the Literature Review in support of this report; to Sitebuilder 360, Ltd for the Data Collection Instrument design and compilation of data; to Dr. John M. Burger, Director of Practical Data Solutions, Inc. for analyzing the data and authoring this report; and lastly to Cathy Faber, Barb Mulholland, Sandra Pochylko and other Steering Committee members for providing feedback on the several drafts of this report. Any errors or omissions are the sole responsibility of the author.

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EXECUTIVE SUMMARY

The May 2013 Provincial Dual Credit Strategy (PDCS) recognized the profound link between an effective education system and a well-prepared labour force positioned to compete in a global economy. The goals of the Strategy included improved high school completion rates and post-secondary transition rates, as well as enhanced labour force entry and expanded local partnerships supportive of dual credit programming. Fifty-one approved projects were created and implemented beginning in the fall of 2013. Several of the partnerships included more than one MOU with multiple school authorities and partners with the result that in the 51 projects a total of 62 dual credit program opportunities were delivered.

Data for this report was provided through an on-line data collection instrument completed by school jurisdiction staff, with support from post-secondary staff and/or business/industry staff. A complete Literature Review was completed parallel to this report and is included in Appendix K. Several common messages emerge from the Literature Review across the many state and provincial jurisdictions that have demonstrated positive experiences with dual credit. The research supports that dual credit students gain a more seamless student experience in navigating between secondary and post-secondary systems and thus are more likely to:

- Complete high school, and enter college shortly after high school and less likely to be placed in remedial English or math.
- Be prepared for college and have higher first year grade point averages.
- Have higher second year retention rates and four and six year completion rates.
- Have shorter time for completion of a bachelor's degree.
- Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy.

The universal theme that emerges from the project narratives is that the Provincial Dual Credit initiative from 2013 to 2016 has been a successful story with compelling evidence of effective partnerships between secondary, post-secondary and business/industry. The survey data and the Literature Review provide substantial evidence that the Provincial Dual Credit Strategy now should be expanded to a Provincial Approach to Dual Credit. This conclusion is based on the clear benefits to students through a more personalized education program, and to society through improved high school completion and post-secondary transition rates as well as enhanced labour market opportunities.

The experiences gained through laying the groundwork for a Provincial Approach to Dual Credit over the past three years has generated conclusions and recommendations presented within and at the end of this report. There is now a need to envision a broader provincial approach building on the efficiencies that can be achieved with a provincial model. The essential infrastructures are already in place. What is needed now is the commitment within the provincial Government and across the secondary, post-secondary and business/industry sectors to build the bridges to link the existing structures. The means to get there are defined in the Recommendations detailed herein.

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1) INTRODUCTION

I SETTING THE CONTEXT

The May 2013 Provincial Dual Credit Strategy (PDCS) <http://www.albertadualcredit.ca/provincial-dual-credit-strategy.html> recognized the profound link between an effective education system and a well-prepared labour force positioned to compete in a global economy. The goals of the Strategy included improved high school completion rates and post-secondary transition rates, as well as enhanced labour force entry and expanded local partnerships supportive of dual credit programming. The document envisioned, “...five guiding principles: student-centred, flexibility, accountability, sustainability and excellence [that] will guide the development, design and implementation of the Strategy to ensure a seamless system and excellence in educational experiences for all students” (Alberta Government, 2013: 10). These guiding principles provide useful reference points for reflecting back on the successes and challenges experienced as the Strategy was implemented between 2013 and 2016, as well as a starting point to build a relevant framework for a universal dual credit model for the province.

The Strategy also called for two future actions: the development of a plan for a lifelong learning transcript, and a review of the initial implementation of the Provincial Dual Credit Strategy. This report is the fulfillment of the second future action.

II. INTER-MINISTERIAL INVOLVEMENT

Three ministries, Education, Advanced Education, and Human Services¹ contributed 5.35 million dollars² to support the initial work of the PDCS through an application process administered by an arm-length entity, the Dual Credit Steering Committee, which was supported by the College of Alberta School Superintendents. The earmarked 5.35 million dollar support monies supplemented existing High School Credit Enrollment Unit funding at the secondary level and Campus Alberta Grants at the post-secondary level. Business/industry contributions were also anticipated. A fourth ministry, Indigenous Relations, joined the ministerial group in 2015. An additional \$884,775³ has been awarded for the administration costs of the project from 2013 – 2017, including the costs incurred by the volunteer Steering Committee.

III. PROJECTS AND DATA SOURCES

Dual credit funding requests defined in Table 1 were considered in two primary phases, June and November 2013 and in April 2014. In total 85 funding requests totaling \$11.4 million were received with 51 getting final approval for a total funded amount of \$5.35 million.

¹ “Enterprise and Advanced Education” changed the Ministry name to ‘Advanced Education’ in 2015. Human Services withdrew and Labour joined the Strategy in 2015.

² The 5.35 million dollars were supported by Education (\$3 million), Advanced Education (\$1.35 million) and Labour (\$1 million).

³ The \$884,775 administrative monies were supported by Advanced Education, (\$447,500), Labour (\$400,000), and Education (\$37,275).

Table 1 – Funding Requests and Total Allocations				
Intake Date	Number of Total Applicants	Amount Requested	Number of Funded Applicants	Funding Awarded
June 2013 and November 2013	48	\$7,078,200	27	\$3,220,000
April 2014	37	\$4,343,794	24	\$ 2,130,000
Totals	85	\$11,421,994	51	\$ 5,350,000

The 51 approved projects <http://www.albertadualcredit.ca/opportunities.html#> were created and implemented beginning in the fall of 2013. Several of the partnerships included more than one MOU with multiple school authorities and partners with the result that in the 51 projects a total of 62 dual credit program opportunities were delivered. The above URL provides information on the school authorities and post-secondary institutions engaged in each of the projects.

Data for this report was provided through an on-line data collection instrument completed by school jurisdiction staff, with support from post-secondary staff and/or business/industry staff, assigned responsibility for administering the dual credit projects. In a small number of cases the post-secondary representative held primary responsibility for completing the instrument, and for one opportunity the business / industry representative held primary responsibility to do so. The instrument was designed by the ACAT Dual Credit Articulation Sub-Committee with input from the PDCS Steering Committee and was administered by Sitebuilder 360, Inc. Data entry began in June 2016 and was closed in early November 2016. A copy of the data collection instrument is provided in Appendix A.

Close-ended, quantitative data was summarized by Sitebuilder 360 in MS Excel and were then captured and converted to charts by the writer. Open-ended, qualitative input was converted to MS Word and given content analysis, where patterns of input were categorized and quantified and reported in table format. The audit trail of content analyses are provided in Appendices B through J. A complete Literature Review was completed parallel to this report and is included in Appendix K.

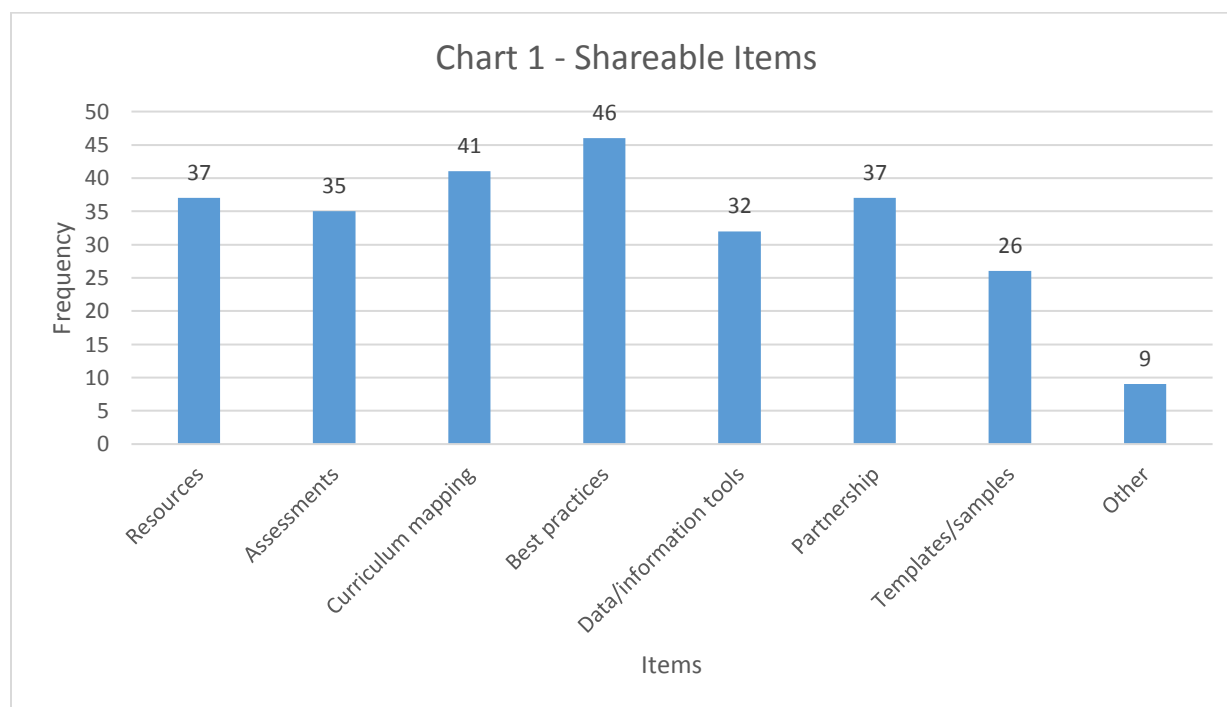
Limitations of the data collection survey instrument were influenced by the complexity of the 51 projects and the number of projects in one district that in some cases contributed to some redundancy in survey responses. Some of the answers may be very context specific and, typical for survey data, is based on the way that the respondent interpreted the questions. Additionally, the survey results reported here are in addition to data collection and research tools administered by the Ministries prior to and over the duration of the Strategy.

IV. PARTNERSHIPS-

The dual credit strategy had a broad reach across the province with 48 of 61 provincial school boards, 21 of 26 post-secondary institutions and 128 businesses/industries engaged in varying degrees in the related partnerships. Two First Nations Education Authorities participated.

The terms of most (76%) of the partnerships were defined in MOU's. Forty-five of the 51 projects included an agreed upon fee schedule or specifically identified how and when fees would be determined. In response to Question 24 in the survey, 45 of 52 respondents indicated a plan to continue the dual credit project after June 2016, four said they did not plan on continuing and three were unsure.

Project participants were asked in Question 26 to identify if specific categories of items have been or will be shared provincially to support the dual credit strategy and next steps. The frequency that each category was checked is presented in Chart 1. Best practices and curriculum mapping were the most frequently selected items, but an extensive degree of sharing across the categories is noted.

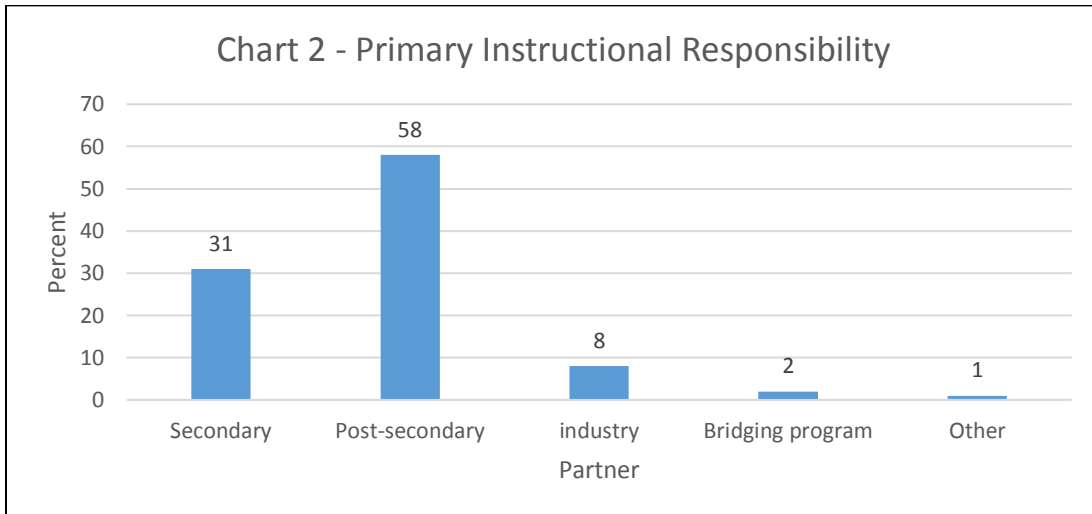


2) OPERATIONAL PARAMETERS – FIRST STEPS AND APPROACHES

Section 3 is based on survey data that describes contextual factors that helped shape each of the projects.

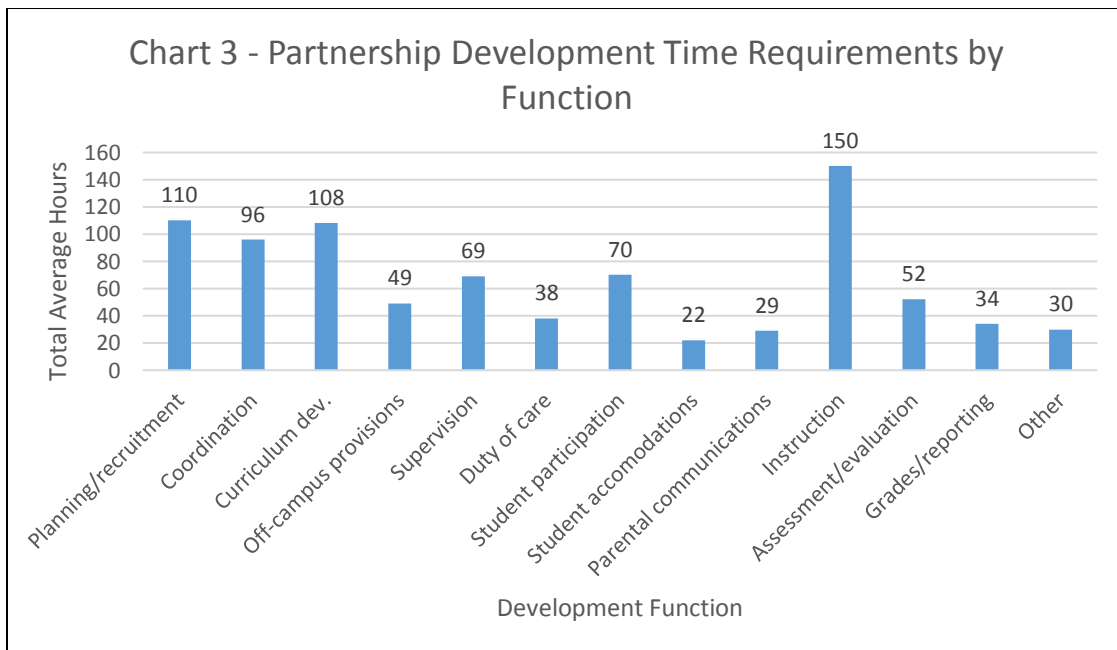
I. ROLES AND RESPONSIBILITIES

In the majority of projects the primary responsibility for student instruction (Chart 2) rested with a post-secondary partner in relationship to an assigned certified teacher also directly involved.

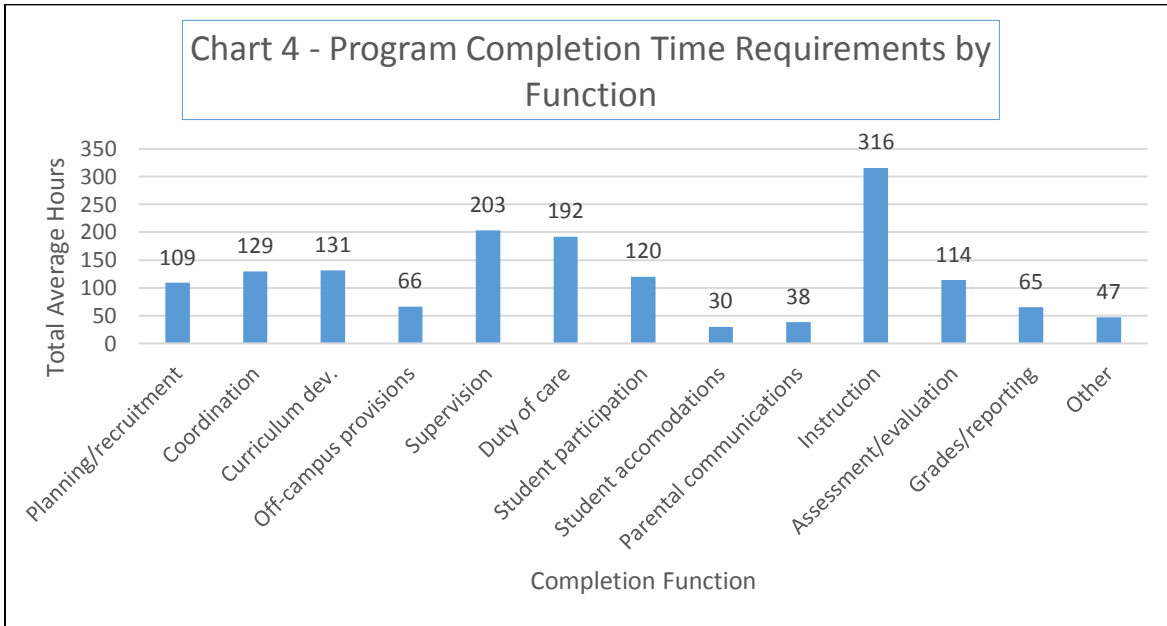


II. Time Investments

On average across the projects a total of 857 hours was required to “...develop your partnership.” The breakdown of the total time requirements by function is detailed in Chart 3. After instruction, the front end functions of planning/recruitment, curriculum development and coordination were the most significant development time investments.

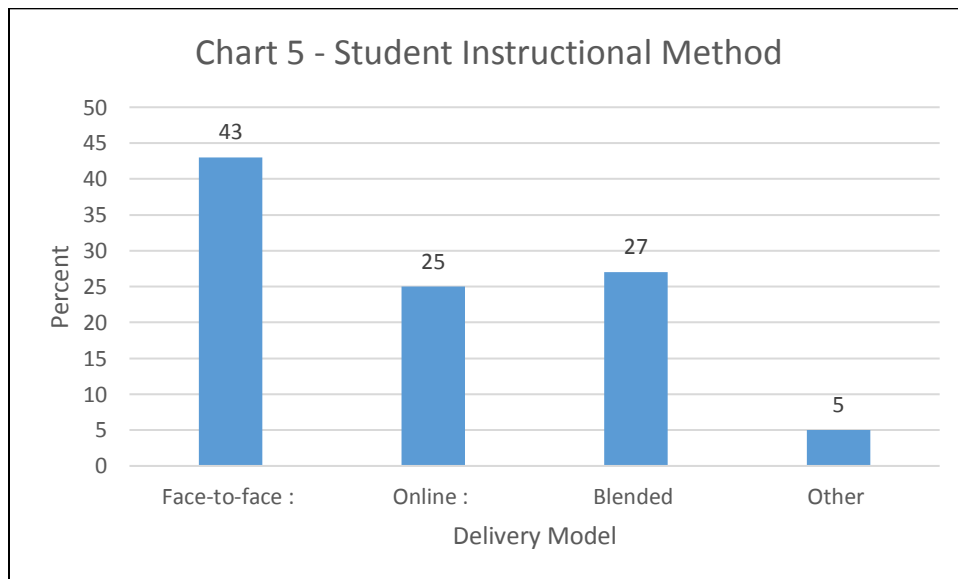


Supplemental to the survey question (#3) regarding time required to develop the dual credit program, respondents were asked in Question 9 to identify the total hours required to complete key items for the program. The total average hours to develop and deliver a dual credit program was 1,560. This data is presented in Chart 4.

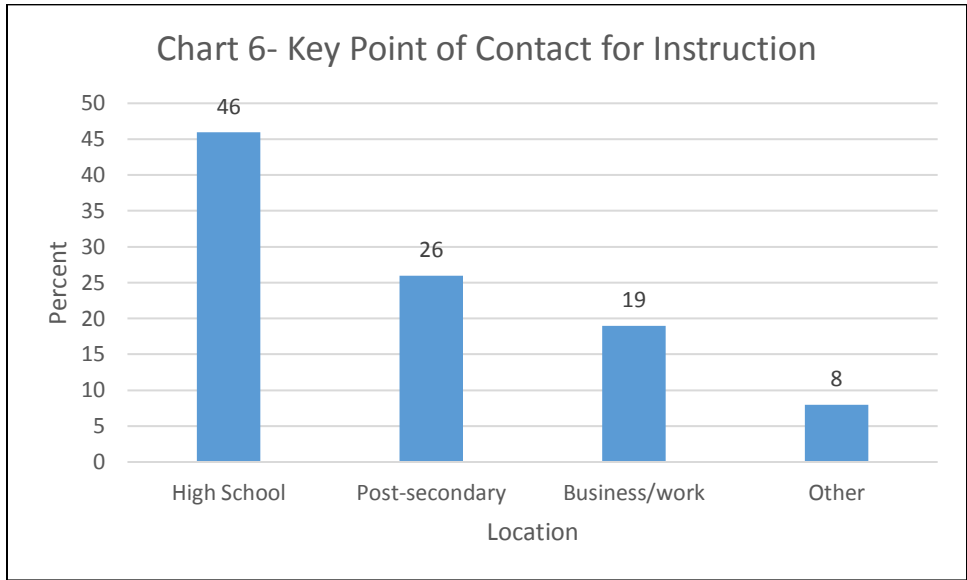


III PROGRAM/CURRICULAR DESIGN

The instructional models (chart 5) used to deliver the dual credit programs to students were primarily face to face, followed by blended and on-line. In addition, 70% of the programs were reported to have been cohort-based, with a total of 86 cohorts that have completed a program between September 2013 and June 2016. An additional 15 cohorts were estimated to complete a program with funds extended beyond June 2016.



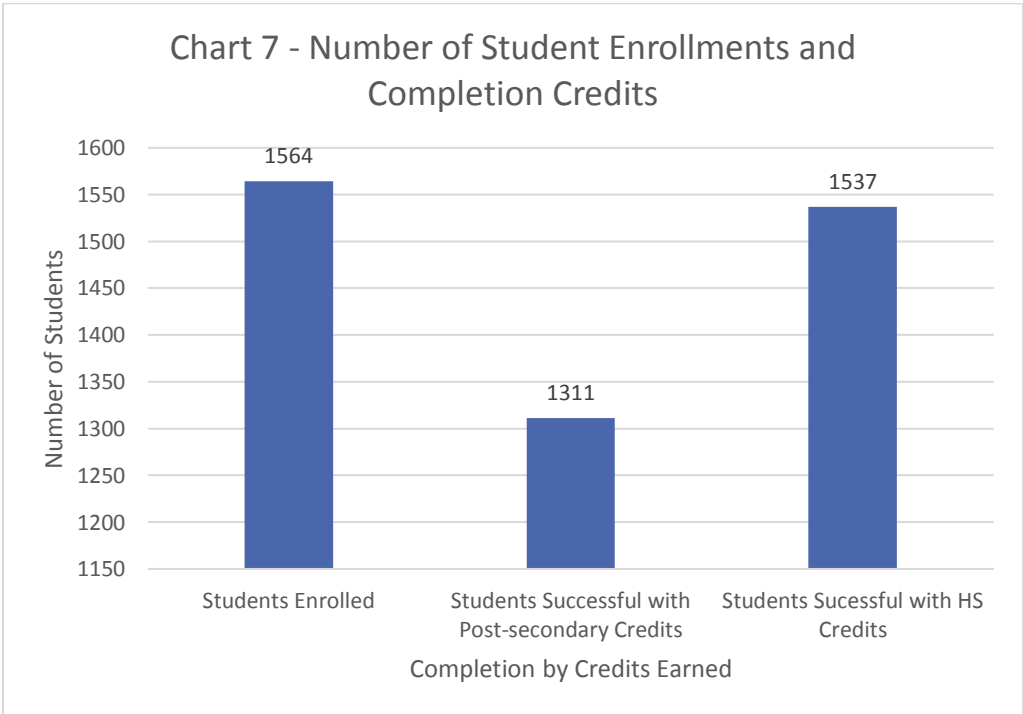
The most frequent location for instruction (Chart 6) was the high school setting (46%), followed by post-secondary venues and then business/work sites.



In terms of cohort participants, 85 percent of the projects involved student cohort composition premised completely on strategy-funded high school students versus course cohorts blended with non-strategy funded post-secondary/industry students.

IV. STUDENT ENGAGEMENT

Student engagement (Chart 7) between 2013 and 2016 across the 51 projects or 62 opportunities totaled 1564, of whom 1311 (84%) were reported to have earned post-secondary credits, and 1537 (98%) earning high school credits.

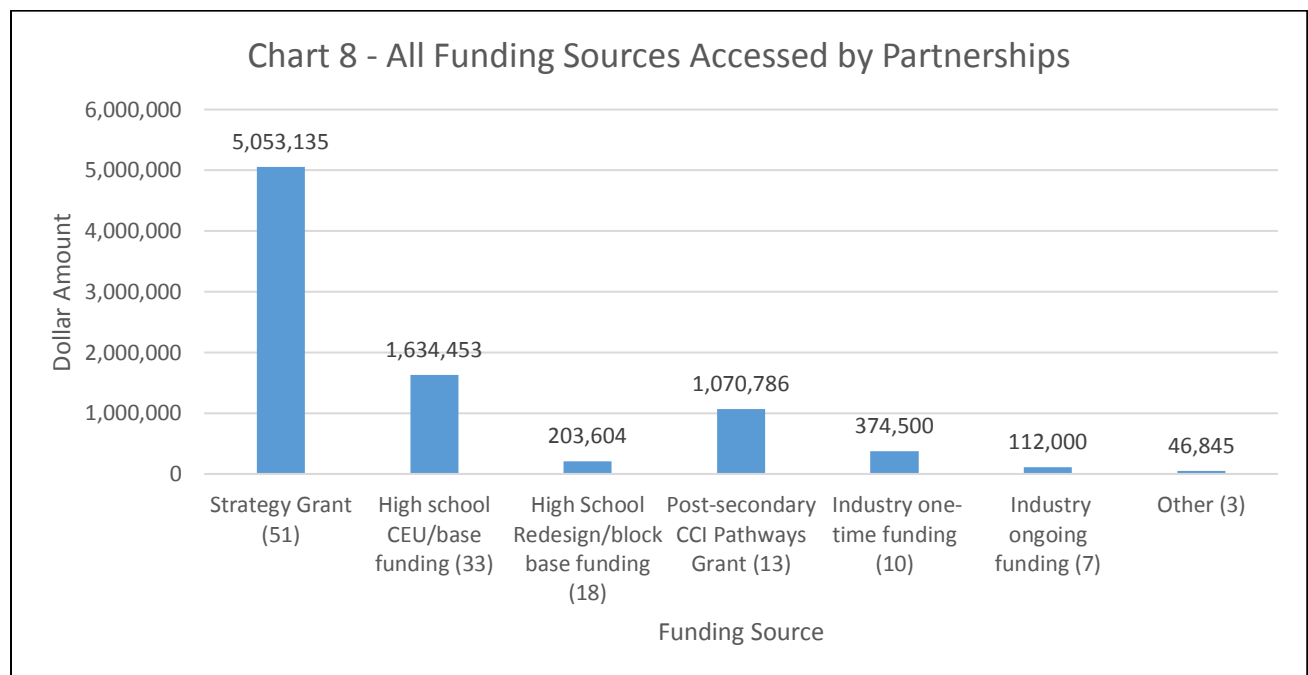


3. FINANCIAL FACTORS

This section presents quantitative data on the 51 partnerships and 62 opportunities financial information and grant funding, including sources, costs and fiscal pressures. One caveat to note is financial data collected by survey is less accurate than data based on audited financial statements and should be interpreted as informed estimates of financial variables.

I. Funding Sources (Inputs)

Seven funding sources across the secondary, post-secondary and business/industry sectors were identified and are detailed in Chart 8. The number of partnerships that reported funding for each category are noted in parentheses in the funding source descriptions on the X axis. The total amount of funding from all sources is \$8,495,323.

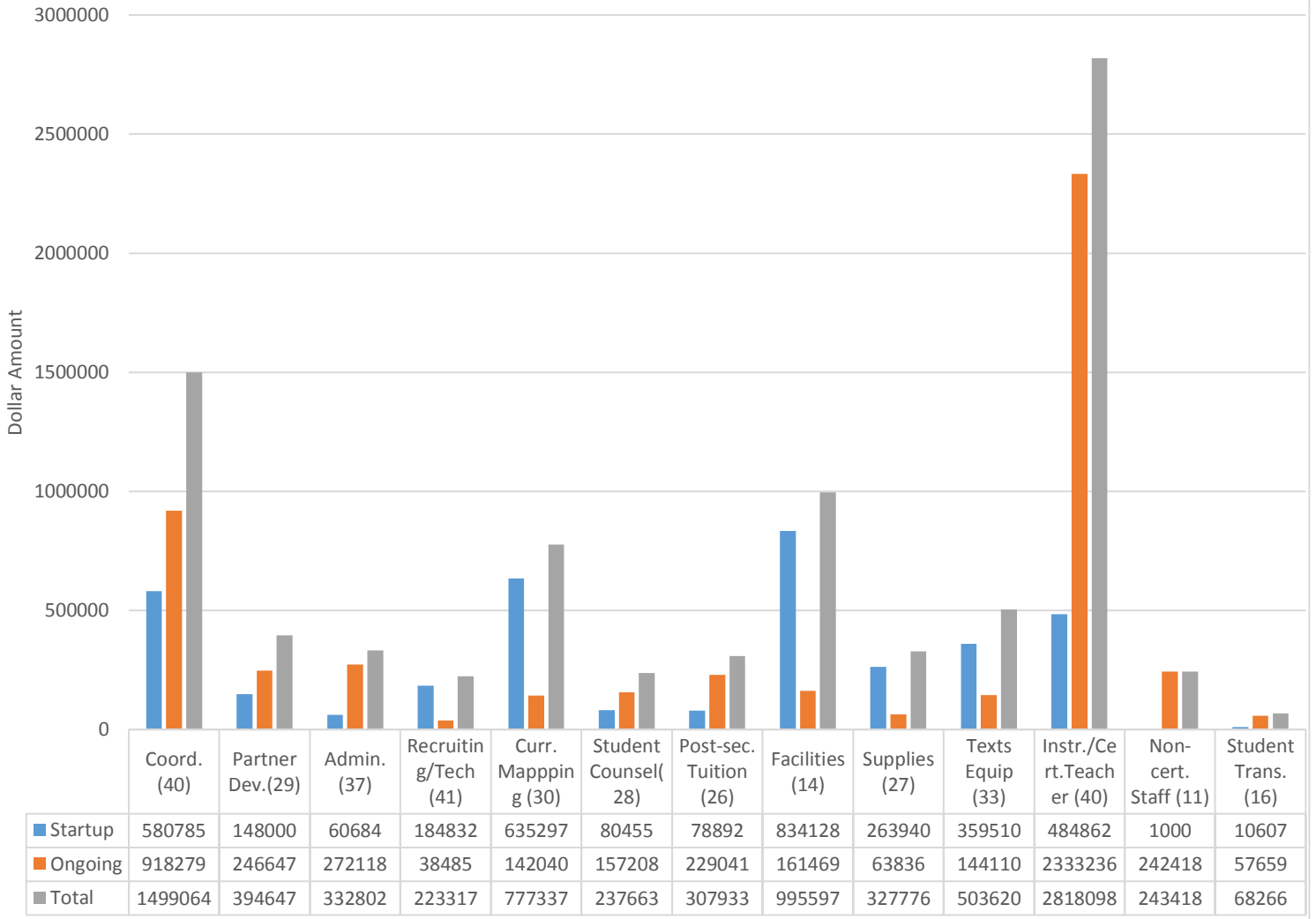


Survey respondents indicated a total of \$349,868 of tuition was waived for the students enrolled in dual credit courses. This amount reflects a per student savings of \$224 assuming the total tuition savings were equally distributed across all 1564 students. Respondents also reported allocating \$343,424 from CEU or High School Redesign/block base (secondary) funding towards post-secondary tuition costs.

II. Costs by Function

Startup, ongoing, and both or total costs are reported in Chart 9. Respondents had the option of entering a N/A or not applicable entry for each cost category. The number of partnerships that provided cost data is indicated in parentheses in each case in Chart 9 on the X axis descriptor

Chart 9 - Startup, Ongoing and Total Costs by Category



Cost Category
■ Startup ■ Ongoing ■ Total

The total startup, ongoing and grand total costs reported in Chart 9 were \$3,722,992, 5,006,546 and \$8,729,538 respectively. The single biggest cost was instructor/certified staff followed by coordination, facilities and curriculum mapping respectively.

Survey respondents reported spending \$4.13 million of the \$5.35 million Dual Credit Strategy Grant with a remaining \$1.18 million⁴ to be spent post-June 2016 as requested by 22 of the 51 partnerships.

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III. Fiscal Pressure Points

Survey respondents who reported shortfalls in funding were asked to identify the factors that most greatly contributed to the fiscal pressures. The factors are identified in Table 2.

Table 2 – Project Cost Pressures	
Frequency	Fiscal Pressure Factor
18	Instructor/Certified Teacher costs
11	Coordination/consultant
11	Post-secondary Tuition
10	Curriculum Development/Mapping/Updates costs
6	Planning/Partnership Development and Agreement/Legal costs
5	Administrative and/or Staff Travel Costs
5	Materials/Supplies costs
5	Textbooks/Resources/Equipment costs
5	Student Transportation
5	Other
3	Marketing/Recruitment
3	Student Counseling
3	Facility costs
1	Non-certified Staff

Three of the four most frequent cost pressures also were reported as the highest cost factors reported in Chart 9.

4) KEY LESSONS LEARNED

This section reports on the open-ended, qualitative responses from the 51 dual credit project respondents relative to each of the 62 dual credit program opportunities. The objective was to capture rich descriptions of the dual credit experience and recommendations for the future of dual credit programs in Alberta. Options were provided for more than one partner to provide responses.

⁴ A discrepancy of .04 million in totalling dollars spent and to be spent relative to the total grant is attributed to reporting error.

I. Project Narrative Stories

Respondents were asked to provide a narrative that “explains the story” of the dual credit opportunity including information on partnership background, implementation, and coordination; program features and student benefits; as well as financial factors. Preliminary content analysis of the stories identified four major themes: Partnership Dynamics, Program Design Issues, Financial Factors and Student Effects. Each of these four major themes was given a further content analysis to identify sub-themes. These sub-themes and their frequency of mention are detailed in Table 3 and are further explained below. One caveat, while frequency of mention may provide some insight to the importance of a sub-theme, lower frequency items may still hold significant strategic importance. The detailed text submission content analysis is provided in Appendix B.

Major Theme	Sub-themes	Frequency
Partnership Dynamics	Business Key to Successful Project	18
	Multiple Partners Engaged	16
	Multiple Year Time Lines	11
	Staff Contributions to the Project	11
	Networking to Build Support	8
	Community-based Support	8
	Labour Sector Connections Relevant	6
	Successes Achieved	6
	Challenges Encountered	5
	Extendable Project	3
	Priority for Post-Secondary Institution (PSI)	2
Program Design Issues	Curriculum Mapping Links to PSI Curriculum	21
	Curriculum Mapping Links to Industry	12
	Curriculum Mapping Challenges Encountered	7
	PSI Setting for Course	6
	On-line Course Delivery	6
	Staffing Shared	5
	Face to Face Instruction	3
	Blended Model (on-line and face to face)	2
	Industry Setting for Course	2
	Coordinators Critical	1
Financial Factors	Grant Fund Impact Key Support	10
	PSI Contribution Important	7
	Industry Partner Contribution	5
	CEU Fund Application	5
	Self-sustaining Model	4
	Challenges Noted	2
Student Effects	Links to Post-secondary Study	21
	Links to Employment Opportunities	15
	Supports for Students	9
	Personalized Learning Support	5
	Limited Benefits	4
	Increased High School Completion	3

The universal theme that emerges from an overview of Table 3 is that the Provincial Dual Credit initiative from 2013 to 2016 has been a successful story. In terms of the Partnership Dynamics the linkages with business and industry, the realization of multiple partners and local staff contributions are notable. Additionally the value of community support, relevant labour sector connections and successes achieved are mentioned a total of 20 times. Some challenges were noted, particularly with coordinating aspects of multiple partnerships.

Program Design frequently mentions the value of linking high school curriculum with post-secondary curriculum and with the needs of industry, both of which add value to course relevance for students. Curricular mapping challenges were noted seven times and typically addressed the complexities involved in aligning high school with post-secondary programs. A wide variety of course designs and settings were described with on-line and blended models expanding student access to the dual credit opportunities.

Recommendation I.a. Dual credit should be expanded for all students and become a permanent program.

Recommendation II.b. Dual credit courses should be part of the regular program offering for any high school student whether locally initiated by school authorities and/or PSI's or by Alberta Education or Alberta Advanced Education and be coordinated at the provincial level.

Recommendation II.c. School authorities should consider a combination of blended face to face and asynchronous (flexible timing) on-line delivery to ensure access to students regardless of location.

Financial Factors most frequently recognized the value of Dual Credit Strategy Grants without which most of these opportunities would not have been launched. Post-secondary financial contributions were seen as important in seven specific projects. As well, industry contributions were key supports in five of the stories. CEU funding was a key resource and when student enrollments met or exceeded 15 students four of the opportunities were seen as self-sustaining.

Student Effects were overwhelmingly described as positive with great benefit attached to the links with post-secondary curriculum for high school students. Similarly 15 of the dual credit opportunities were seen to have direct links to employment opportunities for students. These linkages provided a chance to more directly support students and to personalize learning as was mentioned in total in 14 projects. Where limited benefits were noted it was tied to challenges in establishing the dual credit program. Direct observation of benefits for students' high school completion were shared three times.

Recommendation I.b. Dual credit programs should be broadly conceptualized across any relevant industry certification or secondary/post-secondary curricular program. Dual credit has demonstrated more personalized student learning attractive to a wide variety of learners including highly capable students looking for programming not available within mainstream secondary curriculum or to students who need more direct entry to the work world.

II. Sustainability Implications

Question 72 asked survey respondents to identify attributes of dual credit opportunity sustainability with implications for maintaining the partnerships over the longer term. These sustainability factors and their related frequency of mention are summarized in Table 4. Detailed content analysis is provided in Appendix C. Most frequently mentioned was the application of CEU funding in support of dual credit opportunities, with a minimum number of between 10 and 15 students per course sometimes noted.

Sub-themes	Frequency
Sustainable with CEU funding (and x students per course)	12
Sustainable with PSI support	11
Sustainable with provincial DC framework	10
Sustainable with multiple partners	9
Sustainable with business/industry support	4
Sustainable with staffing costs (coordinator) supported	4
Sustainable with blended program	3

The importance of post-secondary institution (PSI) support in terms of subsidized costs and in-kind supports were identified 11 times. The provision for and need for a provincial dual credit framework covering a range of items from program design to on-going funding support was mentioned 10 times. The need for multiple partners to achieve economies of scale and the value of business/industry partners were noted nine and four times respectively. Staffing cost supports were identified four times with the role of coordinator specifically noted three times. Importantly, the value of blended programs as a means to make dual credit programs accessible to a wider range of students and hence achieve cost efficiencies was suggested.

Recommendation II.a. The four ministries (Indigenous Relations, Labour, Education, and Advanced Education) should continue to work together with additional ministries, school divisions, post-secondary institutions, and business and industry partners to provide dual credit opportunities.

III. Necessary Conditions for Sustainability

Question 72 in the survey had a supplemental question, 72-1, that asked respondents to further explain why and describing the factors supporting sustainability of the dual credit project, or to identify conditions necessary for sustainability to continue. Given the overlap between Question 72 summarized above, and Question 72-1, 28 projects responded to Question 72 and 23 responded to question 72-1 exclusively. Given that the two questions had subtle differences the responses to each question are reported separately and the summary of responses to question 72-1 are detailed in Table 5. Detailed content analysis is provided in Appendix D.

Table 5 – Necessary Conditions for Sustainability	
Sub-themes	Frequency
Strategy funding continued	16
Optimal enrollment numbers	7
Labour demand	7
Staffing efficiencies	6
Multiple partners – post-secondary institution support	6
Blended programs	3
Facilities available	3
Business/industry support	3
Provincial Dual Credit framework – curriculum mapped–student supports	3

Continuation of ear-marked funds supporting the dual credit initiative was the most frequently identified necessary condition for sustainability, followed by optimal enrollment numbers, often linked with CEU funding, and the importance of labour demand for the dual credit outcomes that was observed to stimulate both student/parent support as well as business/industry support. Other necessary conditions were staffing efficiencies where a certificated teacher was authorized or accredited to also teach the post-secondary aspect of the dual credit courses. Economies of scale premised on multiple partners were also noted six times as were the economies achieved with blended programs that extended access to more students. Other necessary conditions were business/industry support in specific contexts and the need for a provincial framework for dual credit programs.

Recommendation IV.c. Alberta Education and Alberta Advanced Education will need to develop a provincial governance structure that would streamline coordination provincially to allow for local implementation and facilitate, manage and support dual credit programs and opportunities. The adoption of a provincial approach to dual credit programming will achieve a number of efficiencies associated with curricular mapping, coordination, facility use, etc. that will contribute to the sustainability of the PDCS.

Recommendation III. A. A specific reporting category should be created within the Alberta Accountability Framework for basic education to monitor student outcomes including: dual credit course completion, high school completion and transition to post-secondary studies, for students enrolled in dual credit courses. This data would contribute to evaluation of the Provincial Dual Credit Strategy over time.

IV. Dual Credit Successes

Survey respondents were asked to identify key dual credit successes in Question 73 of the survey instrument. Fifty of the 51 project respondents provided input to this question. Content analysis of the feedback indicated two general categories emerged, successes for students, and successes attributable to the administration of the projects. Forty-one projects reported one or more student successes. The pattern and frequency of the student and administrative successes are summarized in Table 6. Detailed content analysis is provided in Appendix E.

Most frequently noted (n=29) were enhanced understanding or awareness of career/post-secondary pathways now available to the students. Equally mentioned in terms of frequency (n=16) were: enhanced insights into post-secondary education contexts, enhanced engagement with their education, and successfully completing dual credit course(s). Additional student success with flexible programming and experiential learning attributed to the dual credit courses were each noted two times.

Recommendation II.d. Alberta Education should review high school graduation requirements to incorporate dual credit courses as a component of high school completion and reflect this in a revised high school transcript.

Sub-themes	Frequency
Students – enhanced career/PSI pathways	29
Students – enhanced insight into post-secondary education	16
Students – enhanced engagement	16
Students – dual credit courses completed	16
Students – flexible programming	2
Students – experiential learning	2
Administration – enhanced inter-organizational understanding	18
Administration – networking with post-secondary institutions	17
Administration – networking with business/industry	12
Administration – networking with other school authorities	9
Dual credit growth anticipated	17

Numerous administrative benefits or successes were identified by 35 projects, often with multiple mentions, accruing from the dual credit projects. The most frequently mentioned (n=18) was enhanced inter-organizational understanding between the school authority and post-secondary institutions or business/industry organizations. These enhanced understandings were often seen to have indirect benefits for students within the context of a more connected community. Seventeen projects noted successes flowing specifically from their networking with post-secondary institutions, and 12 projects specifically mentioned benefits from their relationships with business/industry, while nine projects identified successes flowing from networking with other school authorities. Lastly, within the context of reporting successes, 17 projects expressed that growth in their dual credit programs was anticipated or evolving.

V Dual Credit Challenges

Question 74 asked respondents to describe key dual credit challenges revealed during their project. All 51 projects provided responses and two projects said they experienced no challenges and their projects were sustainable. These were exceptions, however, as most projects reported multiple challenges as summarized in Table 7. Detailed content analysis is provided in Appendix F.

Table 7 – Dual Credit Challenges	
Sub-themes	Frequency
Student access – scheduling or transportation	17
Student access – difficulty levels of dual credit courses	15
Financial costs	29
Administration – PSI/business-industry liaison	20
Administration – time requirements – planning or reporting	16
Administration – building awareness of DC opportunities	11
Program – curriculum mapping	16
Program – lack of a provincial dual credit model	4
Staffing – turnover	8
Staffing – roles awareness/clarity, PD, inefficiencies	6

Challenges linked to student access matters were noted in total in 22 projects for a total of 32 mentions with 17 linked to scheduling or transportation issues and 15 associated with course difficulty levels generally and in three projects difficulty was linked to the on-line nature of course delivery. Twenty-nine challenges associated with meeting the financial costs of the projects were noted in 25 of the projects, most commonly as a general issue and in 7 cases in relationship to staffing costs specifically. In 18 projects cost issues associated with block funding or CEU funding structures were mentioned. The following quote captures funding challenges particularly due to inconsistency and multiple sources:

Our biggest challenge is the financial instability and inconsistency that exists due to CEU funding. Multiple funding structures and lack of clarity make future planning more difficult.

Administration challenges were a major issue with 47 total mentions in 26 of the projects. Most commonly noted (n=20) were challenges in establishing or maintaining post-secondary institution or business industry liaison relationships, followed by the time requirements for planning or reporting dual credit opportunities (n=16) and for building awareness within a school authority around the dual credit opportunities (n=11).

The most common challenge (n=16) related to program matters were linked to curriculum mapping or aligning secondary with post-secondary curricula. Closely related to this challenge was the need for a provincial dual credit model identified by four projects. The last set of challenges dealt with staffing matters, both dealing with staff turnover (n=8) and with staff development matters involving professional development, role clarity and certification for secondary – post-secondary instruction.

Recommendation IV.d. Funding should not be a barrier to proceeding to a provincial model (premised on positive returns on investment), given the many student and societal benefits of dual credit strategies as identified in this report and the associated Literature Review and the efficiencies associated with a provincial approach to dual credit.

VI Dual Credit Key Learnings

Survey respondents were asked in Question 75 to describe their “key learnings regarding completion of dual credit partnership development and curriculum mapping processes.” Forty-seven of the 51 projects provided feedback on this question detailed in Table 8. Content analysis of the feedback identified four major categories: Staffing relationships, curriculum issues, general program needs, and student related matters. Detailed content analysis is provided in Appendix G.

The most frequently mentioned key learning focused on staffing issues as they pertained to establishing or maintaining positive and effective inter-organizational relationships. These staff relationships were often described as critical for transcending organizational differences between the secondary and post-secondary sectors and in ensuring students experienced a successful dual credit experience.

Sub-themes	Frequency
Staffing – inter-organizational relationships	22
Curriculum – local mapping inefficient	17
Curriculum – local mapping inconsistent	6
Curriculum – locally developed courses effective	6
Curriculum – CTS and post-secondary courses align well	5
Curriculum – course fit with local labour demand key	1
Program – provincial dual credit model needed	17
Students – selection and counselling key	9
Students – experiential or personalized learning key	8
Students – flexible programs key	4

Seventeen projects commented on the inefficient nature of local curriculum mapping and 11 of these respondents linked this perceived inefficiency to the need for a provincial dual credit model as a means to address this issue, and four who noted inefficiency also noted inconsistency in the curriculum mapping processes. In total 17 respondents called for a provincial approach to dual credit programming in Alberta.

In contrast to concerns about inefficient or inconsistent curricular mapping were 6 respondents who noted positive experiences in developing locally developed courses supporting dual credit and 5 respondents who commented positively on the pre-existing alignment of CTS and post-secondary courses. In total 10 respondents mentioned one or the other positive aspect of curriculum development. One respondent commented on the importance of ensuring dual credit courses align with local labour market demand as a means to stimulating student and parent interest.

Student issues also emerged repeatedly with nine projects commenting on the importance of appropriate selection of students well suited to meeting the expectations associated with dual credit courses and the value of counselling to support student selection. The value of dual credit courses supportive of experiential or personalized learning was noted by eight respondents and

four also reflected on the flexibility of programs as added student benefits associated with the dual credit courses.

Recommendation IV.e. The Alberta Government should develop a dynamic provincial communication plan defining dual credit roles and responsibilities, dual credit course options, support systems and professional development opportunities for teachers. Examples and program information for secondary, post-secondary and business communities would be provided.

Recommendation I.c. Alberta Education should adopt a provincial policy requiring all grade 7-12 students to have a personalized plan that documents ongoing career development linked to student’s ability, aptitudes, interests and achievement and is used in the dual credit course selection process for high school.

VII Financial Sustainability

Questions 76 and 77 asked respondents if the dual credit opportunity was financially sustainable without additional funding, and would the respondent consider running other dual credit opportunities in the future. There were three nil responses to question 76 and six nil responses to question 77.

Of the 48 responses to the sustainability question 14 said “yes” and 34 said “no.” The negative responses were content analyzed to identify the cost pressures that were identified that made financial sustainability a challenge and these factors are summarized in Table 9. Detailed content analysis is provided in Appendix H.

Sub-themes	Frequency
Program – overall costs	20
Program – block funding short fall	14
Staffing - post-secondary instructor or coordinator costs	4
Students – low or declining interest	4
Students – greater than 22 required to offset costs	1
Curriculum mapping costs	4

The most frequent observation was that multiple or overall program costs exceeded available funding. Of the 20 comments about overall costs, six of these also commented on the limitations linked to block funding versus CEU funding sources. Block funding associated with high school redesign was seen as a limiting factor. The following quote from one survey respondent captures these multiple issues well:

Within the current high school funding framework, neither of the two existing high school funding models (i.e., CEU funding, block funding) were designed to specifically accommodate and support the delivery of dual credit programs and opportunities. CEU funding by itself does not provide sufficient funding to cover the costs of both post-secondary tuition and the time required of school district personnel (certified teachers, administrative

and support staff) to coordinate, supervise and support program delivery. As previously noted, block funding leaves even a greater gap in the funding available for dual credit. Over time, the current enthusiasm and support for dual credit may diminish if school authorities deem the continuing burden of its extra costs outweigh its educational merits.

Other specific cost pressures were linked to low or declining student interest in dual credit courses, and the costs of curriculum mapping that were described as an on-going cost demand to keep courses current with changes in post-secondary curriculum design.

Interestingly, even with the cost pressures identified in the responses to Question 76, of the 45 responses to the question of whether the respondent would consider running other dual credit opportunities in the future, 43 answered, “yes.” One of the two respondents who answered no provided some insightful feedback relative to the challenges noted above regarding curriculum mapping, specifically:

Stop articulating high school curriculum to post-secondary curriculum. Instead, establish a system for approving post-secondary courses as available in the K-12 system. This is done relatively seamlessly in other provinces and across much of the United States. As long as we continue to pretend that the K-12 curriculum can meet all of our students needs as is, we will be limited to what we can do for Alberta students, both in scope and in cost. Locally Developed Courses and provincial “pathways” are not the answer. These are still simply trying to push a square peg in a round hole, and in some ways is even worse because it is requiring us to create a whole new third layer of curriculum that will need ever-greening and upgrading every time things change in the post-secondary world.

Recommendation IV.a A provincial framework should be made for implementation, curriculum, sustainable funding, policy and awareness of programs, given the evidence that dual credit is a positive initiative for students with enhanced relevant learning opportunities.

VIII Key Factors for a Successful Dual Credit Model

Question 78 asked respondents to identify key factors that, “...need to be considered in establishing a successful provincial dual credit model or framework for Alberta.” All 51 projects responded to this question, but one simply commented, “To be determined” and thus was not included in the content analysis of the qualitative feedback. A summary of the themes derived from the content analysis is detailed in Table 10. Details of the content analysis are provided in Appendix I.

The most commonly identified factor was the need for a provincial model or approach to dual credit programming noted by 32 respondents, nine of whom identified this factor uniquely, i.e. with no other factors provided. Background rationales for a provincial approach were linked to observations of a need for a focused dual credit funding structure (n=16) and the previously noted inefficiency of local curriculum mapping (n=4). Other sub-themes linked to the concept of a provincial approach included a model that provided for flexibility in relationship to local

contexts (n=3) or that supported streamlined processes (n=2), or provided a means to share best practices (n=1).

Table 10 – Key Factors for a Successful Dual Credit Model	
Sub-themes	Frequency
Program – provincial model needed	32
Program – student outcomes data needed	6
Program – ensure pedagogy is appropriate to student goals/needs/age	6
Program – provincial communications plan needed	4
Finance – increased dual credit funding or CEU grants	31
Finance – fund coordinators	3
Staffing – address secondary/post-secondary certification	4

Closely related to the idea of a model that supports sharing best practices were four additional project responses that identified the need to develop a provincial communications plan supporting dual credit programming. Also related to program design were six inputs that noted the importance of ensuring pedagogical dual credit courses are appropriate to secondary students’ goals, needs or ages.

Financial factors were the second most frequently identified factor with 31 projects noting the need to increase dual credit funding through a specific dual credit grant/fund or via increased CEU grants. Three of the 31 respondents calling for general dual credit funding more specifically called for funding specifically to pay for dual credit coordinators. A staffing factor was identified by four respondents regarding the need to streamline the certification of staff across the secondary and post-secondary domains. Single comments noted the importance of inter-organizational relationships, the importance of student selection/counselling and one also critiqued the survey tool as inadequate for capturing the specific financial details underlying the dual credit projects.

Recommendation V.a. Alberta Education and Alberta Advanced Education should jointly work with Alberta Faculties of Education to create mechanisms and pre-service and in-service opportunities to certify teachers qualified to teach specific dual credit courses.

IX Necessary Factors for Long Term Dual Credit Framework

The final question in the dual credit survey asked respondents for their recommendations regarding what factors need to be included in a “long-term plan/dual credit framework for Alberta.” Two respondents did not answer this question and one simply commented, “I am not sure”, therefore, a total of 48 comments were analyzed in the content analysis of this question. An audit trail of the content analysis is provided in Appendix J.

The most frequent critical factor identified by 40 project respondents was the need for a provincial model for dual credit programming. Five respondents noted this need without further breakdowns of the background rationale, but 35 expanded the reasoning with additional specifications detailed in Table 11. The most common associated benefit of a provincial dual credit model (n=21) was seen as a means to share best practices, outcomes data, etc. to stimulate opportunities to enhance dual credit programming over time. The next most frequent

benefit (n=20) was seen as a means to eliminate the inefficiency of local curriculum mapping. Nineteen respondents suggested a provincial model would contribute to enhanced student access to dual credit courses, especially for rural students in small school systems. Sixteen respondents linked sustainable funding as a feature of a provincial model and these 16 were supplemented by an additional five respondents who uniquely call for provincial dual credit grants.

Table 11– Necessary Factors for Long Term Dual Credit Framework	
Sub-themes	Frequency
Program – Provincial model needed	40
- To share best practices, data, etc.	21
- To streamline curriculum mapping	20
- To enhance equitable student access	19
- To provide sustainable funding	16
- To enhance partnerships	3
Finance – Provincial dual credit grants	5

One respondent cautioned that an over-emphasis on funding should be avoided in favor of programming features such as Prior Level of Achievement (PLAR) assessment linked to challenge exams as a means to stimulate dual credit programming within existing post-secondary entry level courses.

Recommendation IV.b. Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.

Recommendation V.b. Use dynamic Human Resource Development (HRD) planning and anticipated business/industry needs to help define the priorities in the development and adoption of courses within the provincial dual credit framework.

Recommendation V.c. The HRD planning inputs to the PDCS should include provincial partnership agreements with business and industry with opportunities for expanded business engagement.

X Conclusions

This report provides considerable evidence that the Provincial Dual Credit Strategy has met with a strong commitment by secondary, post-secondary and business/industry partners to making student transitions to post-secondary study and the work place a more seamless process. Many of the structures to make a provincial dual credit strategy universal are already in place. What is required now is to use the experience and insights gained during the past three years to define a provincial approach to dual credit available to every Alberta secondary student.

5) Recommendations

The recommendations incorporated within this report are based on the Literature Review and the PDCS survey data and are organized here according to the five principles upon which the PDCS is based, i.e. student-centred, flexibility, accountability, sustainability and excellence and are not presented necessarily in order of priority.

I. Student-Centered

- a. Dual credit should be expanded for all students and become a permanent program.
- b. Dual credit programs should be broadly conceptualized across any relevant industry certification or secondary/post-secondary curricular program. Dual credit has demonstrated more personalized student learning attractive to a wide variety of learners including highly capable students looking for programming not available within mainstream secondary curriculum or to students who need more direct entry to the work world.
- c. Alberta Education should adopt a provincial policy requiring all grade 7-12 students to have a personalized plan that documents ongoing career development linked to student's ability, aptitudes, interests and achievement and is used in the dual credit course selection process for high school.

II. Flexible

- a. The four ministries (Indigenous Relations, Labour, Education, and Advanced Education) should continue to work together with additional ministries, school divisions, post-secondary institutions, and business and industry partners to provide dual credit opportunities.
- b. Dual credit courses should be part of the regular program offering for any high school student whether locally initiated by school authorities and/or PSI's or by Alberta Education or Alberta Advanced Education and be coordinated at the provincial level.
- c. School authorities should consider a combination of blended face to face and asynchronous (flexible timing) on-line delivery to ensure access to students regardless of location.
- d. Alberta Education should review high school graduation requirements to incorporate dual credit courses as a component of high school completion and reflect this in a revised high school transcript.

III. Accountable

- a. A specific reporting category should be created within the Alberta Accountability Framework for basic education to monitor student outcomes including: dual credit course completion, high school completion and transition to post-secondary studies, for students enrolled in dual credit courses. This data would contribute to evaluation of the Provincial Dual Credit Strategy over time.

IV. Sustainable

- a. A provincial framework should be made for implementation, curriculum, sustainable funding, policy and awareness of programs, given the evidence that dual credit is a positive initiative for students with enhanced relevant learning opportunities.
- b. Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.
- c. Alberta Education and Alberta Advanced Education will need to develop a provincial governance structure that would streamline coordination provincially to allow for local implementation and facilitate, manage and support dual credit programs and opportunities. The adoption of a provincial approach to dual credit programming will achieve a number of efficiencies associated with curricular mapping, coordination, facility use, etc. that will contribute to the sustainability of the PDCS.
- d. Funding should not be a barrier to proceeding to a provincial model (premised on positive returns on investment), given the many student and societal benefits of dual credit strategies as identified in this report and the associated Literature Review and the efficiencies associated with a provincial approach to dual credit.
- e. The Alberta Government should develop a provincial communication plan defining dual credit roles and responsibilities, dual credit course options, support systems and professional development opportunities for teachers. Examples and program information for secondary, post-secondary and business communities would be provided.

V. Excellence

- a. Alberta Education and Alberta Advanced Education should jointly work with Alberta Faculties of Education to create mechanisms and pre-service and in-service opportunities to certify teachers qualified to teach specific dual credit courses.
- b. Use dynamic Human Resource Development (HRD) planning and anticipated business/industry labour market information to help define the priorities in the development and adoption of courses within the provincial dual credit framework.
- c. The HRD planning inputs to the provincial PDCS should include partnership agreements (MOU's) with business and industry with opportunities for expanded business engagement.

6. References

Alberta Government. (2013). Provincial dual credit strategy: Call to action. Retrieved from <http://www.albertadualcredit.ca/provincial-dual-credit-strategy.html>

7. Appendix A

Provincial Dual Credit Strategy Survey Instrument

Section 1 – Background Information

1. Proposal Title/Name of Opportunity: (As stated in the application proposal and grant)
2. Designated Proposal Number: (Assigned by CASS for ease of tracking/reporting)
3. High School (Secondary) Partner(s): (As stated in the application proposal and grant School Authority(s) and Specific High School site(s) if applicable)
4. Post-Secondary Institution Partner(s):
(As stated in the application proposal and grant)
5. Business/Industry Partner(s):
(As stated in the application proposal and grant)
6. Dual Credit Course(s) or Program: (As stated in the application proposal and grant the specific course(s) or program that the dual credit opportunity is providing to students)
7. Career/Program/Credential Learner Pathway: (As stated in the application proposal the section that briefly describes the career program and/or credential learner pathway that this dual credit opportunity provides access to or helps students work towards)
8. Opportunity Description:
(As stated in the application proposal the summary section that describes this dual credit course(s) or program opportunity)

Section 2 – Implementation Information

P1. Do you need to complete Section 2: Implementation Information - more than once because your partnership for this dual credit opportunity contains more than one MoU or agreement?

1. Type of legal partnership agreement developed:

EXPLANATION: Identify the specific type of legal agreement created to affirm partnership arrangements and details.

2. Did your agreement include an agreed upon fee schedule or specifically identify how and when fees would be determined during the opportunity? (E.g. tuition student fees facility fees)

3. Amount of time required to develop your partnership **(in total hours)**

EXPLANATION: Include all meetings, dialogue, negotiation, and development of the legal agreement:

Planning & Recruitment

Coordination / Coordinator

Curriculum development and mapping

Off-campus provisions

Off-campus provisions

Supervision

Duty of care

Student attendance and participation

Student accommodations

Communication with parents

Instruction

Assessment/evaluation

Grades and reporting

Other

4. Delivery model for instruction/student learning:

Explanation: Identify how the instruction was directly provided/delivered to students.

face-to-face Online Blended Other

5. Location(s) of instruction/student learning:

Explanation: Identify the physical location and/or key point of contact for instruction.

High school/secondary site Post-secondary institution/site Business/work site
Other

6. Partner who was primarily responsible for providing the instruction of the course(s) or program content:

Explanation: Identify the partner(s) who primarily provided the instruction of course(s)/program content for students understanding that a certified teacher is also directly involved with the student cohort and may/may not be directly providing content instruction.

Secondary Post-secondary Industry Results of a teacher bridging program

7. Select the specific course / program area / education and credentials required for the instructor:

Explanation: Identify the instructor credential(s) required to teach this course/program to students.

Certificate Bachelor's Degree Master's Degree PhD
 Industry designation/certification Special training Other

8. Identification of Roles and Responsibilities for Secondary Post-secondary Business/Industry or Other Organization for completion of key items for the course(s) or program:

Explanation: Identify a key role or responsibility required by one or more of the partners during development and the partner(s) responsible for this item. Please complete 8.1 - 8.12 only if applicable.

For each of the following, the choices were

Secondary, Post-secondary, Business/industry, Other Organization

8.1 Planning and recruitment

8.2 Coordination/coordinator

8.3 Curriculum development and mapping

8.4 Off-campus provisions

8.5 Supervision

8.6 Duty of care

8.7 Student attendance and participation

- 8.8 Student accommodations
- 8.9 Communication with parents
- 8.10 Instruction
- 8.11 Assessment/evaluation
- 8.12 Grades and reporting

9. Identification of Total Number of Hours Required by all partners to complete key items for the course(s) or program:

Explanation: Select the approximate **number of hours** for each key item

- Planning & Recruitment
- Coordination / Coordinator
- Curriculum development and mapping
- Off-campus provisions
- Off-campus provisions
- Supervision
- Duty of care
- Student attendance and participation
- Student accommodations
- Communication with parents
- Instruction
- Assessment/evaluation
- Grades and reporting
- Other

10. Total number of unique post-secondary/industry courses being offered under this opportunity:

Post-secondary industry course(s) or program	Number of Post-secondary Credits or credit equivalencies that can be received upon completion of each post-	High School or Post-Secondary Pre-requisite(s) required for
--	---	---

name(s) and number	secondary/industry course(s) or program	each course(s) or program (or N/A)
--------------------	---	------------------------------------

11.Total number of unique non-CTS high school courses aligned with the Post-secondary/industry courses offered under this opportunity:

12.Total number of unique CTS high school courses aligned with the post-secondary/industry courses offered under this opportunity:

High School Name(s) and number of each course(s) aligned with the post-secondary/industry course(s) or program	Number of High School Credits that can be received upon completion of each course(s) or program	Indicate at which Tier the course is funded	High School Pre-requisite(s) required for each course(s) or program (or N/A)
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13.Name(s) of each unique course(s) or program being offered under this opportunity and number of credits per unique course(s) or program:

Explanation: To see the proper data for Question #13, please make sure that Question #10 has been fully completed and saved.

Post-secondary industry course(s) or program name(s) and number	From the courses listed in questions 11 and/or 12, enter the High School Name(s) and number of each course(s) aligned with this post-secondary/industry course(s) or program. Separate each course with a semi-colon
---	--

14.What is the outcome/learner pathway most applicable to what students can obtain from the dual credit course(s) or program being offered:

Explanation: Identify the credential type towards which the course(s) or program is most applicable.

15.Is the course(s)/program for this opportunity cohort-based ?

IF this course(s)/program IS cohort-based identify:

16.The start date of the first cohort offered: month (00)/day (00) / year (0000)

17.Number of cohorts to be completed during the Strategy (between June 2013 - June 2016):

18.Number of cohorts estimated to be completed during the entire time-period for your Strategy grant if funds are being requested for use beyond June 2016:

Explanation: Identify the applicable start date or number of cohorts completed as indicated.

18-1. If OTHER is selected enter the Number of Cohorts below:

19. IF the course(s)/program for this opportunity is NOT cohort-based identify the first date that students began learning: month (00)/day (00)/ year (000)

20. Total number of all students who were enrolled in the course(s) or program for this opportunity during the Strategy (between June 2013- June 2016)(include in the total a summary of the number of students enrolled in each course(s) for all cohorts/all semesters):

Explanation: List the total number of students who were enrolled in this course(s) or program between June 2013 and June 2016)

21. Total number of students who completed the course(s) or program for this opportunity during the Strategy (between June 2013- June 2016) (include in the total a summary of the number of students who completed each course(s) for all cohorts/all semesters):

Explanation: List the total number of students who completed this course(s) or program between June 2013 and June 2016

22. Total number of students who successfully completed/achieved the required minimum grade for the post-secondary/industry course(s) or program to receive post-secondary credit during the Strategy (between June 2013- June 2016):

Explanation: List the total number of students who successfully completed this course(s) or program with the required minimum post-secondary passing grade to receive post-secondary credit for the particular program area

23. Total number of students who successfully completed/passed one or more of the high school course(s) aligned with the post-secondary/industry course(s) or program to receive high school credit during the Strategy (between June 2013- June 2016):

Explanation: List the total number of students who successfully completed this course(s) or program with a final grade of 50% or greater and/or the required Pass/Fail grade for the particular program area between June 2013 and June 2016

24. Is the opportunity planned to be offered after June 2016 ?

Explanation: Identify if the course(s) or program is intended to continued to be offered for students after June 2016 or parameters/criteria required for this decision to be made and for the opportunity to be ongoing)

25. Overall Composition of the students/student cohorts in the course(s) or program:

Explanation: Identify the most predominant approach to student composition of Strategy-funded high school students and non-Strategy-funded post-secondary/industry students present in the course(s) or program.

26. Items from this opportunity that will be or are already being provincially shared with others:

Explanation: Identify the item(s) from this opportunity that will be or are being provincially shared with others.

- Resources Assessments Curriculum mapping Best practices
 Data/information tools Partnership Templates/samples Other

27. Total number of school authorities directly participating in the course(s) or program being offered by your opportunity: #

Explanation: Identify the total number of school authorities participating in the course(s) or program being offered by your opportunity including both signatories of the grant and other school authorities that have students accessing the course(s) or program offered by the grant recipients.

28. Total number of high schools directly participating in the course(s) or program being offered by your opportunity: #

Explanation: Identify the total number of high schools participating in the course(s) or program being offered by your opportunity including both those directly involved in the grant and other schools that have students accessing the course(s) or program offered by the grant recipients

29. Total number of post-secondary institutions directly participating in the course(s) or program being offered by your opportunity: #

Explanation: Identify the total number of post-secondary institutions participating in the course(s) or program being offered by your opportunity including both signatories of the grant and other institutions that have students accessing the course(s) or program offered by the grant recipient.

30. Total number of businesses/organizations directly participating in the course(s) or program being offered by your opportunity: #

Explanation: Identify the total number of businesses/organizations participating in the course(s) or program being offered by your opportunity including both signatories of the grant and other businesses/organizations that have students accessing the course(s) or program offered by the grant recipients.

31. For CASS use ONLY - no answer required, Total number of school authorities participating in the Strategy out of the number of school authorities in Alberta:

32. For CASS use ONLY - no answer required, Total number of post-secondary institutions participating in the Strategy out of the number of publicly funded institutions in Alberta:

33. For CASS use ONLY - no answer required, Total number of businesses/industries participating in the Strategy:

Section 3 – Financial Information

(This section will contain questions seeking quantitative data about each partnership’s dual credit financial information and grant funding reporting, including identification of funding sources, costs, and surpluses/deficits.

Financial information provided in this section is to be calculated by opportunity (including all courses or program within this opportunity) and for the duration of the Strategy grant funds (between June 2013 – June 2016).

Note that additional detail or clarity may be requested about the financial breakdown in your submission if required.

If you have questions, or would like more information, please leave your name and contact information.

34. For CASS use ONLY - no answer required

From your original application proposal Total Strategy grant funding required/requested to set up or enhance this opportunity: \$#

35. For CASS use ONLY - no answer required

From your original application proposal method of curriculum mapping and total \$ amount for mapping: method and \$# (This will be pre-populated by CASS from your partnership grant, no answer required,

you can add updated information to this item if needed to reflect any changes in method and cost

(note: original information will also remain for tracking purposes)

36. For CASS use ONLY - no answer required

Total Strategy grant funds received (including the 10% holdback that will be allocated upon completion of this partnership reporting): \$#

(This will be pre-populated by CASS from your partnership grant , no answer required, just review/confirm \$ amount)

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 (between June 2013 - June 2016):

37-1. Strategy Grant - Enter \$ Amount

37-2. High school CEU/base funding

37-3. High School Redesign/block base funding

37-4. Post-secondary CCI Pathways Grant

37-5. Post-secondary Campus Alberta grant/base funding

37-6. Industry one-time funding

37-7. Industry ongoing funding

37-8. Industry in-kind funding - Identify type

37-9. Other secondary/post-secondary/industry/organization grant or funding source(s)

37-10. Other

38. Total Funding amount COMBINED from all 9 sources listed above: Calculate

NOTICE: This field is calculated using all 9 of the \$ amounts provided in question 37. NO answer is required. just review/confirm \$ amount

39. Total Funding amount accessed from all sources without Strategy grant/one-time funding: Calculate

NOTICE: This field is calculated using the \$ amounts provided in question 37 for amounts from #s 2, 3, 5, and 7 only, NO answer is required. just review/confirm \$ amount.

40. Amount of Post-secondary Tuition Costs that were waived/not charged by an institution(s) for this opportunity:

Important Note ! Please be sure to only add a number value with no \$, or period. No letters or symbols of any kind are allowed. Only NUMBERS can be entered into this field.

40-1. Actual tuition (per student) - Enter \$ Amount

40-2. Amount of tuition waived/covered by institutions for this opportunity because of its use of the Strategy grant a CCI grant or other funding sources in lieu of charging full tuition (per student) - Enter \$ Amount

40-3. Total number of students brought forward from Q 20

40-4. Total amount of tuition waived

NOTICE: This field is calculated using the \$ Amounts from 40-2 (-) 40-1 (x) the # of students in Q20, NO answer is required. just review/confirm \$ amount; Calculate

41. School authority contribution from CEU or High School Redesign/block base funding allotment towards post-secondary tuition costs (per student) for this opportunity: \$#

42. Business/Industry/Organization in-kind or one-time financial contribution towards this opportunity:

42-1 Type of Contribution

42-2 \$ Amount of Contribution

43. Did your partnership's school authority(s) move from a high school CEU base funding model to a High School Redesign/block base funding model during the Strategy (between June 2013 - June 2016) ?

44. Amount of funding difference (per student) for high school base funding available following move from CEU to High School Redesign/block base funding during your dual credit opportunity

For each of Questions 45 – 57, an option was N/A

45. Coordination/Coordinator on/off-campus and Consultant costs

Startup Costs

Ongoing Costs

Both

46. Planning/Partnership Development and Agreement/Legal costs

Startup Costs

Ongoing Costs

Both

47. Administrative and/or Staff Travel Costs

Startup Costs

Ongoing Costs

Both

48. Marketing/Recruitment/Communication/Website and Technology costs

Startup Costs

Ongoing Costs

Ongoing Variable - Costs that differed from cohort to cohort or year to year (i.e. perhaps formal advertising was used in one year but not in others)

Ongoing Fixed - Costs that were common from cohort to cohort or year to year
(i.e. website license fee designated staff in this area)

Both

49. Curriculum Development/Mapping/Updates costs

Startup Costs

Ongoing Costs

Both

50. Management of Student Screening/Applications and Registrations/Counseling costs

Startup Costs

Ongoing Costs

Both

51. Post-secondary Tuition Costs charged to School Authority (per student)

Startup Costs

Ongoing Costs

Both

52. Facility costs

Startup Costs

Ongoing Costs

Both

53. Materials/Supplies costs

Startup Costs

Ongoing Costs

Both

54. Textbooks/Resources/Equipment cost

Startup Costs

Ongoing Costs

Both

55a. Instructor/Certified Teacher costs NA

Startup Costs

Ongoing Costs

Both

55b. Non-Certificated Staff (i.e. Education Assistant) costs NA

Startup Costs

Ongoing Costs

Both

56. Student Transportation costs

Startup Costs

Ongoing Costs

Both

57. Other: Specify Cost Category and Cost Type(s) NA

58. Total Actual Costs for this opportunity (including all costs for all partners for the course(s) or program offered for this opportunity during the Strategy (between June 2013 - June 2016)): Calculate

NOTICE: This field is calculated using the Total Actual Costs provided in questions 45 - 57. NO answer is required. Just review/confirm \$ amount;

59. Total Start-up costs (all initial costs needed to set up and develop the partnership and opportunity during the Strategy): Calculate

NOTICE: This field is calculated using the Total Start-up costs provided in questions 45 - 57. NO answer is required. Just review/confirm \$ amount;

60. Total Ongoing/Maintaining Costs (all costs required to maintain and operate the opportunity during the Strategy): Calculate

NOTICE: This field is calculated using the Total Ongoing/Maintaining Costs provided in questions 45 - 57. NO answer is required. Just review/confirm \$ amount.

61. Total cost to school authority for Post-secondary Tuition: Calculate

NOTICE: This field is calculated using the \$ Amount provided in question 51 (x) the # of students in Q20, NO answer is required. just review/confirm \$ amount.

62. Total \$ amount of the Strategy grant funding spent on the items listed in your total actual cost breakdown as of June 2016:

63. Total \$ amount of the Strategy grant funding remaining/still to be spent as of June 2016:

64. If Strategy grant funding is remaining have you requested an extension on your grant using the process provided by CASS?

65. Total Non-tuition/Other Student Fees and Costs for school authority/students associated with the course(s) or program

(e.g. commitment fee, scrubs, PPE, learning modules/texts, registration fee, technology, facility use, student union, shop fee):

66. Total Amount of Surplus or Deficit for this opportunity (including all partner information):

66-1. Total number of students - Bring number forward from Q.20 total student enrolment

66-2. Total Surplus / Deficit - Calculate Q.38 total funding accessed - Q.58 total actual costs

66-3. Surplus / Deficit per student - Calculate answer from Q.66-2 total surplus or deficit / divided by Q20 total Student enrolment.

66-4. Amount of Post-secondary Tuition Costs (per student) waived/covered by institutions for this opportunity - Bring number forward from Q. 40-2.

66-5. Total amount of Post-secondary Tuition Costs waived/covered by institutions for this opportunity. Bring number forward from Q. 40-4.

66-6. Business/Industry/Organization in-kind or one-time financial contribution towards this opportunity Bring forward Q. 42 in-kind or one time financial contributions)

67. Total Amount of Surplus or Deficit for this opportunity (not including Strategy grant or one-time funding):

67-1. Total number of students - Bring number forward from Q.20 total student enrolment

67-2. Total Surplus / Deficit - Calculate Q.39 total funding accessed - Q.58 total actual costs

67-3. Surplus / Deficit per student - Calculate Q.67-2 answer total surplus or deficit / divided by Q67-1 total enrolment.

67-4. Amount of Post-secondary Tuition Costs (per student) waived/covered by institutions for this opportunity - Bring number forward from Q. 40-2.

67-5. Total amount of Post-secondary Tuition Costs waived/covered by institutions for this opportunity. Bring number forward from Q. 40-4.

67-6. Business/Industry/Organization in-kind or one-time financial contribution towards this opportunity Bring forward Q. 42 in-kind or one time financial contributions)

68. If a deficit or shortfall is identified which of the areas from your cost breakdown or other sources most greatly contributed to this deficit/shortfall:

Coordination/Coordinator on/off-campus and Consultant costs

Planning/Partnership Development and Agreement/Legal costs

Administrative and/or Staff Travel Costs:

Marketing/Recruitment/Communication/Website and Technology costs:

Curriculum Development/Mapping/Updates costs

Management of Student Screening/Applications and Registrations/Counseling costs:

Post-secondary Tuition Costs charged to School Authority (per student):

Facility costs: Materials/Supplies costs: Textbooks/Resources/Equipment costs:

Instructor/Certified Teacher costs:

Non-Certificated Staff (i.e. Education Assistant) costs: Student Transportation costs:

Other

69. Total funding needed to cover deficit/shortfall costs once grant funding is spent:

Not Applicable Applicable

70. If a surplus or remaining funds are identified which of the areas from your cost breakdown or other sources most greatly contributed to this surplus/remaining funds:

- Coordination/Coordinator on/off-campus and Consultant costs:
- Planning/Partnership Development and Agreement/Legal costs
- Administrative and/or Staff Travel Costs
- Marketing/Recruitment/Communication/Website and Technology costs
- Curriculum Development/Mapping/Updates costs
- Management of Student Screening/Applications and Registrations/Counseling costs:
Post-secondary Tuition Costs charged to School Authority (per student)
- Facility costs: Materials/Supplies costs: Textbooks/Resources/Equipment costs:
Instructor/Certified Teacher costs
- Non-Certificated Staff (i.e. Education Assistant) costs: Student Transportation costs:
Other

70-1. Please add any additional comments regarding the primary reasons for this surplus(limited to 75 words)

Section 4 – Sustainability & Lessons Learned

This section will contain questions seeking qualitative data about each partnership's dual credit opportunity, experience, and recommendations for the future of dual credit in Alberta. Maximum 300 words per question; each partnership can provide one answer per partnership per question or separate entries by one or more partners per question; will include a drop down option for each question that can allow for a single partnership response or more than one response (e.g., secondary, post-secondary, business/industry responses/perspectives)

71. Provide a narrative that explains the "story" of your dual credit opportunity (i.e. including its unique background and funding/partnership/implementation model coordination approach skills and benefits for students and the student experience effects on community potential next steps/future).

72. Attributes of Sustainability for Dual Credit Opportunities/Partnerships, as referenced in the 2014 Application Guide:

- 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
- address resourcing costs

Based on a summary of ALL of the attributes of sustainability for dual credit opportunities, is your dual credit partnership sustainable ?

72-1. If yes please explain why including a description of the factors (those internal and external to the opportunity/partnership) that have enabled you to achieve sustainability and any conditions that may be necessary for sustainability to continue.

73. Describe your key dual credit successes revealed through your participation in the Strategy.

74. Describe your key dual credit challenges revealed through your participation in the Strategy.

75. Describe your key learnings regarding completion of dual credit partnership development and curriculum mapping processes.

76. Is your dual credit opportunity able to be financially sustainable without additional funding sources?

76-1. Please explain why you will require additional funding sources.

77. Will you consider running other dual credit opportunities in the future ?

78. What key factors do you recommend need to be considered in establishing a successful provincial dual credit model or framework for Alberta ?

79. Based on feedback captured in documented sources of information in 2014 and 2015 in Alberta regarding important considerations for a long-term plan/framework for dual credit (see feedback below) what are your recommendations regarding one or more of these factors being included in a long-term plan/dual credit framework for Alberta?

Feedback regarding a Long-Term Plan/Framework for Dual Credit:

Sustainability factors; provincial process/governance/policy/funding model;

Provincial director or council as a bridge/steward for stakeholders and ministries;

Provincial access to and sharing of information;

Provincial-level data;

Post-secondary to secondary provincial structures for seamless curriculum mapping;

Equitable student access to opportunities;

Supports for partnerships and clarity regarding duty of care;

High school completion rates;

High school to post-secondary transition rates

Documented 2014 and 2015 Information Sources:

Strategy-funded partnership meetings' notes,

ACAT Dual Credit Articulation Committee meeting minutes,

ACAT Learner Pathways Modernization Initiative Phase 1 Business Assessment Report,

Community Learning Consortium Dual Credit Symposium Report)

8. Appendix B – Project Narrative Stories Content Analysis

Question 71 Input	Op #	Opportunity Name	Category	Sub-Theme
In 2014-16, our district established a partnership with Grant MacEwan University to offer business courses in our high schools.	1	Opportunity name : #1- Greater St Albert Catholic International School of Business	Partnerships	Multi year
The vision was to build this program from one course to four courses alongside work experience opportunities to ensure that students applied what they were learning. In 2016-2017, we decided to work with two high schools to plan for a business expo at one or both locations. This is still in the planning phase and the exact shape of the expo is being decided now by both principals and a core group of staff.	1	Opportunity name : #1- Greater St Albert Catholic International School of Business	Program design	Mapping links to industry
The number of interested students was smaller than first anticipated.	1	Opportunity name : #1- Greater St Albert Catholic International School of Business	Student effects	Limited benefits
The PDCS funds allowed us to spend the significant time and effort required to do this alignment, and by the fall of 2014 we were ready to offer nine courses in the accelerated diploma as dual credit opportunities.	2	Opportunity name : #2- Tourism and Hospitality	Financial factors	Grant fund impact
Olds College and Chinook's Edge School Division are in a joint venture called the Community Learning Campus. Because of our work together in the joint venture, we had well-established structures, routines, and relationships that allow us to mobilize dual credit opportunities more easily than some partnerships. We also see this as an opportunity to broaden our reach beyond Chinook's Edge School Division and intend to use a portion of the remaining PDCS funds to offer the courses to a number of school districts across the province.	2	Opportunity name : #2- Tourism and Hospitality	Partnerships	Multi year Extendable
In the spring of 2013, Olds College assumed the Hospitality and Tourism program from Red Deer College. With the addition of the new program and a Pomeroy Inns and Suites hotel being built on campus,	2	Opportunity name : #2- Tourism and Hospitality	Program design	Mapping links to industry

<p>there was a natural synergy built for this dual credit partnership. Olds College responded quickly to industry feedback, and revamped the two year Hospitality and Tourism diploma to a 15 month accelerated diploma format, offered in blocks instead of semesters, and closely linked to industry demand. While the program was being revamped, we also worked to align as many courses as possible to be dual credit. The challenges posed by the block format in the accelerated diploma led us to developing some of the courses in three new online Hospitality and Tourism certificates as dual credit. While these certificates are meant more for people working in the industry, we saw this as a great opportunity to give students some exposure to the industry and not be limited by time or by having to be onsite at the college. We were able to align 7 of the courses in the certificates as dual credit, and plan to roll these out in the fall of 2016.</p>				Mapping links to PSI curriculum
<p>Unfortunately, the block format of the accelerated diploma proved to be challenging for high school students. All of the courses required the student to be on campus for a block of time. For some of the higher interest courses, the students would need to be available for a 3 week period for full days, or sometimes for 3 hours per day, 3 days per week for a period of 5-6 weeks. So while the accelerated diploma format is preferred by post-secondary students and by industry, it did provide some significant challenges for dual credit enrollment. We had one student participate in the first year of implementation (2014-2015) taking one course in November/December, and were unable to match any students to opportunities in the second year (2015-2016).</p>	2	Opportunity name : #2- Tourism and Hospitality	Student effects	Limited benefits
<p>Bow Valley College has kept our fees charged to districts well below the funding districts would receive through the current CEU funding.</p>	3	Opportunity name : #3- Bow Valley Learning Pathway	Financial factors	PSI contribution
<p>Our Dual Credit opportunity began with the desire to fill a labour need for hospitality workers in the Bow Valley. We worked closely Bow Valley College and with our industry partners to provide enriching and engaging experiences wherein students could learn from professionals in the field. We started with one partner, The Banff Lodging Company, and through the help of the Banff Lake Louise Hospitality Association,</p>	3	Opportunity name : #3- Bow Valley Learning Pathway	Partnerships	Labor sector Multi partner Business key

we now have 10 partners throughout Banff and Canmore.				
Students who take four Business courses along with a practicum can earn a Bow Valley College Dual Credit Business Certificate. In addition, we added Medical Terminology I and Medical Terminology II. From a Bow Valley College Perspective we feel it is vital to the program to have coordinators at the school or district level to ensure success of the dual credit program.	3	Opportunity name: #3- Bow Valley Learning Pathway	Program design	Mapping links to PSI curriculum Coordinators critical
The impact on the students and community has been tremendous. Students have made valuable connections with mentors in the field and our mentors have enjoyed hosting our students and sharing their knowledge.	3	Opportunity name : #3- Bow Valley Learning Pathway	Student effects	Links to employment
This Dual Credit opportunity began when funding was offered in the spring of 2013. X, an academic leader at Springbank was in charge of a thriving environmental club called Gang Green. Dual Credit seemed to be an excellent opportunity to partner with the community and a post-secondary institution to enhance the existing program and offer an excellent enrichment opportunity to our highly academic population. X, in conjunction with Springbank’s principal at the time, X, began the process of applying for funding, finding partnerships, and aligning curricula. This process continued throughout the 2013/2014 school year, during which time partnerships were formed with Bow Point Nurseries and Mount Royal University. Serendipitously, Mount Royal was in the process of launching a new Environmental Science major so timing was perfect. Bow Point nurseries has changed ownership since this time, and as a result they have had minimal involvement with the actual course. Mount Royal has been an outstanding partner throughout this process. The 2014/15 school year saw X on maternity leave. Her role in the course was filled by X. Administrative changes also came about, bringing X on board as principal of Springbank CHS. X was assigned as the Mount Royal instructor at the outset of the partnership. ⁵	4	Opportunity name : #4- Natural Resources Management and Environmental Science	Partnerships	Multi year Staff contributions Community support Multi partner

⁵ Staff names and any related personal identifiers here and throughout the survey text have been replaced with “X” or deleted.

<p>The entire project was designed around the courses X offers at Mount Royal University. Our Dual Credit partnership is unique in that it offers university courses to our predominantly university-bound student population.</p>	4	<p>Opportunity name : #4- Natural Resources Management and Environmental Science</p>	<p>Program design</p>	<p>Mapping links with PSI curriculum</p>
<p>It has allowed students to get a taste of their lives to come at university, learning about academic research and how university courses are conducted. It has provided outstanding authentic enrichment to some of our bright students and has given them a head start in their future studies with transferrable university credits while still in high school.</p>	4	<p>Opportunity name : #4- Natural Resources Management and Environmental Science</p>	<p>Student effects</p>	<p>Links to PS study</p>
<p>We worked with AU to reduce the cost of each course. At start up, each course cost \$782 (with \$115 of this fee being a General Admission Fee). The University has removed the General Admission Fee from our costs with each course now costing \$667.</p>	5	<p>Opportunity name : #5- Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214</p>	<p>Financial factors</p>	<p>PSI contribution</p>
<p>We partnered with Xerox because of their technology possibilities with a plan to use digital analytics/parsing tools Xerox was developing for their copiers to scan student work; these tools were to be used to analyze student growth in their writing over time. However, this goal was abandoned as Xerox abandoned the project.</p> <p>We had to work through some process changes so that the University could share marks with the division, and so we had a go-to person at the University after the Letter of Understanding was signed.</p>	5	<p>Opportunity name : #5- Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214</p>	<p>Partnerships</p>	<p>Business key Challenges Staff contribution</p>
<p>This partnership was developed to fulfill a need to provide an opportunity to develop skills to help in post-secondary transitioning by offering academic, IB-like, non CTS Dual Credit courses.</p> <p>Our original plan was map two courses (COMP 210</p>	5	<p>Opportunity name : #5- Twenty-first century Learning: An</p>	<p>Program design</p>	<p>Mapping links to PSI curriculum</p>

and COMP 214), but we ended up working with 17 courses. To date, we have mapped 6 of the 17 courses, one of them being COMP 214; they are shared on LDCOMS. Completed mapping has been done for Indigenous Studies 203, Computer Studies 214, Education 201, Art History 201, Anthropology 275, and Accounting 253.		Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214		
The next steps to be considered in this partnership is the supervision model. Because our students are enrolled in courses that include adults, we cannot expect the course professors to treat all students in the class like they are in high school. We need to develop processes where our students work in supervised environments in our schools, with the expectation that schools have supervisors to monitor, encourage, motivate and / or withdraw students when necessary.	5	Opportunity name : #5- Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	Student effects	Personalized learning
Due to the fact that LLC does NOT charge tuition, and that we are now able to charge \$100/CEU to the partnering school divisions, we are able to 'break even' with the costs of this program. In all of our dual credit opportunities, we have discovered at 15 student/course is our break even number. Due to our flexibility, and some courses having more student interest than others, as long as the total number of courses and the total number of students equals the average of 15 students per course, AND LLC continuing to NOT charge tuition, we are able to continue running our dual credit opportunities indefinitely.	6	Opportunity name : #6- Esthetics Pathway	Financial factors	PSI contribution CEU fund application Self-sustaining
LLC and East Central have a cooperative partnership. We have wonderful communication and consider ourselves a team.	6	Opportunity name : #6- Esthetics Pathway	Partnerships	Successes
This dual credit initiative is a partnership between Lakeland Catholic School District, Lakeland College and Imperial. Students involved in this learning opportunity are able to complete either: PRS 1010: Overview of Alberta Geology, PRS 2020: Conventional Oil/Gas Exploration, & PRS 2030, Non-Conventional Hydrocarbons	7	Opportunity name : #7- Oil and Gas Foundations Pathway	Program design	Mapping links to PSI curriculum Mapping links to industry

<p>Exploration (these courses are aligned with the Lakeland College course HL 101: Introduction to Heavy Oil and Gas) OR Oil and Exploration (a three-credit Locally Developed Course 1016) (this course is aligned with the Lakeland College course HL 119: Oil and Exploration).</p>				
<p>Due to the fact that LLC does NOT charge tuition, and that we are now able to charge \$100/CEU to the partnering school divisions, we are able to 'break even' with the costs of this program. In all of our dual credit opportunities, we have discovered at 15 student/course is our break even number. Due to our flexibility, and some courses having more student interest than others, as long as the total number of courses and the total number of students equals the average of 15 students per course, AND LLC continuing to NOT charge tuition, we are able to continue running our dual credit opportunities indefinitely.</p>	8	Opportunity name : #8- Agricultural Studies	Financial factors	PSI contribution CEU fund application Self-sustaining
<p>LLC and East Central have a cooperative partnership. We have wonderful communication and consider ourselves a team.</p>	8	Opportunity name : #8- Agricultural Studies	Partnerships	Successes
<p>ENTR 105 was developed at Portage College at a first year university level. This course has obtained university transfer with Athabasca University and is waiting for transfers opportunities from other post-secondary institutions in Alberta. This course was mapped to 5 CTS high school credits and as such is a pure form of dual credit where successful students obtain both high school and university course credits. This course is offered on-line and functions as a cohort based, paced course over a 15 week duration. Students watch pre-recorded lectures, have ready access to their instructor (who has a MBA), and engage in interesting projects, and on-line simulation entrepreneurship gaming. Portage College looks forward to offering this course again in February 2017.</p>	9	Opportunity name : #9- Business and Entrepreneurship Dual Credit Pathways	Program design	Mapping links to PSI curriculum On-line
<p>Entrepreneurship is an excellent course topic for our secondary and post-secondary students. Regardless of field of study obtaining knowledge and skills within the entrepreneurial world is an asset. Three of the top students received \$500 bursary from Portage College.</p>	9	Opportunity name: #9- Business and Entrepreneurship Dual Credit Pathways	Student effects	Links to PS study

This opportunity provided students with a wide variety of courses to take at the post-secondary level. After pursuing CTS courses at the Secondary level, they proceeded to post-secondary. A lot of instruction was done in CTS before students went to post-secondary so they experienced more success. Highest level of success occurred when highly motivated students in Athletic Development courses in high school pursued post-secondary.	10	Opportunity name : #10- Community Knowledge Campus Science and Technology Centre	Student effects	Links to PS study
With prior experience in offering a number of trades dual credit opportunities because of prior grants, we were able to use PDCS grant funding to explore a number of different delivery methods	12	Opportunity name : #12- A Regional Approach to Pre-Employment Trades Training	Financial factors	Grant funds impact
In our second year, we partnered with Campus Alberta Central and were able to offer a pre-employment welding cohort off-site, in a mobile welding lab placed next to Sundre High School. This cohort included adult learners, and utilized a classroom space in Sundre High to offer the theory portion. This program was well received. In addition to the pre-employment welding, we also offered a number of trades exploration courses over the three years. These shorter courses provided students with an opportunity to take one or two courses in an area of interest. Unfortunately due to changes in staffing at Red Deer College, we were unable to get a cohort up and running as we had planned, so instead we offered all programming through Olds College.	12	Opportunity name : #12- A Regional Approach to Pre-Employment Trades Training	Program design	Mapping links to industry
This program has been able to continue in our school because of the additional funding we have received to support the students in this program.	13	Opportunity name : #13- Dual Credit Opportunities and Health Care Aide Program	Financial factors	Grant funds impact
We began HCA with Red Deer College spread over 5 semesters. This initial partnership was not given an additional funding support from agencies. After that experience we wanted to continue HCA but RDC did not continue their HCA program. When we investigated other opportunities we partnered with	13	Opportunity name : #13- Dual Credit Opportunities and Health	Partnerships	Multi year Multi partners Successes

Bow Valley College and Campus Alberta Central. This program was successful and we partnered with them once again for a second time. Also, very successful. We are now continuing our partnership with Campus Alberta Central but Norquest College is our third post-secondary partner.		Care Aide Program		
This program is highly beneficial for our students as they are able to earn post-secondary training and improve their earning power while they are a student in high school. Many of our students have received immediate employment offers in our and surrounding communities. We are very proud of the results of this for all of our students.	13	Opportunity name : #13- Dual Credit Opportunities and Health Care Aide Program	Student effects	Links to PS study Links to employment
The dual credit opportunity was a good partnership between our school and Red Deer College. Unfortunately, the College decided to cut the program one year into our project and we were left with no alternative but to terminate our partnership. As we move forward, we will be looking toward other post-secondary partners.	14	Opportunity name : #14- Health Care Aide Program	Partnerships	Challenges
While in the program the students were very receptive and engaged. It was disappointing for all involved that we were not able to continue to develop this career path for our students.	14	Opportunity name : #14- Health Care Aide Program	Student effects	Limited benefits
A request was made and permission received to carry forward the funding for the 2016-2017 school year to establish the program in our schools. To date, only a handful of students have started the program as we were much delayed in getting confirmation on the direction for this program.	15	Opportunity name : #15- Production Field Operator: Dual Credit Opportunity	Financial factors	Grant fund impact Challenges
The production field operator dual credit opportunity had a very difficult start. There were many meetings with CNG, NAIT, SAIT, CBE and CCSD trying to decide which part of the development of the course each organization would undertake. The decision was reached that SAIT, CBE and CCSD would develop the curriculum, and then the work began. Three LDC courses were developed and offered in the second semester of the 2015-2016 school year.	15	Opportunity name : #15- Production Field Operator: Dual Credit Opportunity	Partnerships	Challenges Successes
The Calgary Construction Association (CCA) was a very active and generous industry partner that offered to assist with the costs of equipment and student safety wear	16	Opportunity name : #16- Pre-Employment Carpenter Dual Credit Program	Financial factors	Partner contributions

This program was developed after numerous discussions between CBE, SAIT and CCSD. The Calgary Construction Association (CCA) was a very active and generous industry partner.... The CCA has been one of the key components in the commencement of this offering in schools.	16	Opportunity name : #16-Pre-Employment Carpenter Dual Credit Program	Partnerships	Challenges Business key to success
The courses were mapped by SAIT staff using SAIT's existing courses which were aligned with the CTS courses offered by the district and the modules for first period carpentry from AIT.	16	Opportunity name : #16-Pre-Employment Carpenter Dual Credit Program	Program design	Mapping links to PSI curriculum
At the request of CASS, it was originally requested that the CBE, CCSD and SAIT develop a provincial pathway for PFO. Upon further investigation, it became evident that a provincial pathway would not be possible, due to the differences in programs at the post-secondary level. This significantly delayed the implementation of the PFO Dual Credit Initiative, as we had to have Locally Developed Courses written to meet the outcomes of the program. As such, the first cohort of students will be starting this program in February 2017.	17	Opportunity name : #17-Production Field Operator: Dual Credit Opportunity	Program design	Mapping challenges
In order to ensure student success and ease the transition from high school to post-secondary, funds from the Dual Credit grant were used to contract a CBE certificated teacher to oversee the program. This teacher was contracted to a 0.2 FTE position, with the responsibilities of supporting the delivery and assessment of the Carpenter Apprenticeship curriculum. This provided an opportunity to develop professional capital within the CBE. In order to ensure the Carpenter Apprentice program was economically viable, the CCA donated over \$28,000 in tools, personal protective equipment and materials. Covering transportation cost removed a significant barrier for many students.	18	Opportunity name : #18-Pre-Employment Carpenter Dual Credit Program	Financial factors	Grant funds impact Partner contributions
Upon learning of this initiative, the Calgary Construction Association (CCA) expressed a great deal of interest in partnering with SAIT and the CBE as an industry sponsor. The CCA felt this aligned with their Try-A-Trade initiative they were partnering with the	18	Opportunity name : #18-Pre-Employment Carpenter	Partnerships	Business key

CBE on.		Dual Credit Program		
<p>Originally, the dual credit carpentry program was to be housed in a CBE high school. However, after considering all options, it became apparent that there would be greater value to have this course delivered at SAIT, by a SAIT instructor so that CBE students could gain a more authentic post-secondary experience.</p> <p>In conclusion the following were key-learnings gained through this experience. Pairing a CBE teacher with SAIT instructor aided in the success our students. Running the program during the school day was beneficial. Reducing the program to run over 2 semesters from 3 for Cohort 2. Running program at SAIT</p> <p>Our second cohort will be starting September 2016. We hope our learnings will contribute to the future success of the Dual Credit Carpentry Program.</p>	18	Opportunity name : #18-Pre-Employment Carpenter Dual Credit Program	Program design	PSI setting Staffing shared Mapping links to PSI curriculum
<p>In February 2015, 16 CBE students, representing nine high schools, enrolled in the inaugural dual credit carpentry program with SAIT. This three semester program allowed students to earn 15 CTS credits, a SAIT Pre-employment Carpentry Certificate and the opportunity to challenge their first period of apprentice training. In June 2016, ten students successfully completed the high school portion of the program, EIGHT earned SAIT certificates, and four successfully completed their first year of technical training. Four students were able to gain employment in carpentry. In October 2016, the students from the first cohort of the program were eligible to convocate from SAIT with their pre-employment certificated. 9 students attended the graduation ceremony at SAIT and walked the stage with other SAIT adult learners in recognition of their accomplishment, hard work and commitment to the previous year and a half. It was amazing to see the excitement from the student's and the pride they had in what they had accomplished.</p>	18	Opportunity name : #18-Pre-Employment Carpenter Dual Credit Program	Student effects	Links to PS study Links to employment PS graduation
Partner schools and institutions share CEU funding and offer local administrative and guidance support.	19	Opportunity name : #19-Health Care Aide	Financial factors	CEU fund application
Campus Alberta's Central Needs Assessment (2012) indicated Health Care Aide and related health care	19	Opportunity name : #19-	Partnerships	Labor sector Successes

<p>careers are in "high demand". Prairie Land Regional School Division is the administrative agent and primary producer of the document. Both PLRD and Lakeland College as well as industry partners in this large rural area have provided input and feedback on the application.</p> <p>Parents also expressed praise for the program and its future development and appreciated the opportunity for students to explore a variety of health-related careers before committing to a specialized pathway. Strong support for this pathway is evident: student surveys indicated 49% of students desire a dual credit opportunity in health and wellness.</p>		Health Care Aide		Business key Community Support
<p>The Health Care Aide Dual-Credit opportunity was designed to provide students with a sustainable pathway that allows for exploration of the role of a Health Care Aide and related occupations; and, for qualified students, the choice to continue acquiring the specialized skills, knowledge, attitudes and values necessary to successfully obtain a Health Care Aide credential. The early stage of development included a general alignment of approximately 30 CTS courses with the Government of Alberta Provincial Health Care Aide Curriculum under the supervision of a licensed post-secondary partner. The program was designed in four phases, to allow for maximum flexibility for students to step out of the program into post-secondary studies or other related CTS pathways at the end of each phase.</p> <p>Utilizing interactive online courseware, E-live paced synchronous teaching and flexible access to instruction from an online teacher in a central location, students can access post-secondary options for this pathway regardless of their geographic location and particular high-school timetable.</p>	19	Opportunity name : #19-Health Care Aide	Program design	Mapping links to industry Mapping links to PSI curriculum On-line
<p>Completing the outcomes for the first phase, (7 CTS credits) allowed students to acquire ELearning skills, obtain knowledge of human body systems and chronic illness, explore issues and trends related to aging and pain management, develop safety awareness and values specifically related to health care institutions, and complete at least twenty hours of supervised volunteer experience in a health care facility. Students described their experience positively. As a result of the exploratory phase, one of the students is enrolled in an LPN program and three students are</p>	19	Opportunity name : #19-Health Care Aide	Student effects	Links to PS study Links to employment

now employed or volunteering in their local community health care facilities.				
While still in the design stage, the dual credit strategy grants were announced and the agreement was modified to meet the guidelines required by the grant.	20	Opportunity name : #20-Dual Credit Health Care Aide Program	Financial factors	Grant fund impact
Exploration and planning of collaborative programming for the purpose of dual credit originated through discussions of the Regional Access Advisory Council (RAAC), an advisory group for Regional Stewardship at Lethbridge College. Along with foundational learning for adults, the council identified the transition of youth to post-secondary and/or employment as priority areas of focus for the Regional Stewardship portfolio. The college began to explore collaborative programming opportunities with several school divisions in a number of subject areas and organized consultative meetings with stakeholders.	20	Opportunity name : #20-Dual Credit Health Care Aide Program	Partnerships	Multi partner
The fall of 2012 began the initial planning and design of the college's first dual credit opportunity; a pilot within the Health Care Aide (HCA) program. It was determined that the college's HCA program needed to be developed for on-line delivery in order to provide access for rural high school students and funds were received for this specific purpose from the Health Workforce Action Plan. The program was developed and delivered using a third party contract model, typically used by the college to deliver programming to special cohorts such as corporate clients or First Nations Bands.	20	Opportunity name : #20-Dual Credit Health Care Aide Program	Program design	Mapping links to PSI curriculum On-line
The story of our dual credit trades program begins with a pre-existing, and long-standing relationship between Buffalo Trail Public Schools (BTPS) and Lakeland College's school of Trades and Technology. The dual credit facilitator that originally submitted the grant proposal left for 18 months on maternity leave, days after the grant was awarded in January of 2014. This lack of continuity in the secondary level program facilitation is partly to blame for the lack of industry involvement as the replacement dual credit facilitator did not pursue relationships with the named grant partners. Another factor greatly impacting industry involvement was the downturn in the economy.	21	Opportunity name : #21-Pre-Employment Dual Credit	Partnerships	Multi year Challenges Staff contributions Community support Networking

<p>Industry partners, when approached for funding and or student placement opportunities were not receptive to acquiring high school students when they were in the midst of laying off employees.</p> <p>The participation of Lakeland College Trades and Technology program coordinators and instructors cannot be adequately commended. There is no way to begin to track the amount of in-kind contributions of time, expertise, counselling, advice, planning and commiseration they have imparted as part of this pilot project. Additionally, the BTPS technology and curriculum departments, school principals, parents, students and classroom teachers, have also contributed to students being able to access and succeed in these dual credit programs.</p> <p>BTPS and Lakeland College presented perspectives on our dual credit journey at the Rural Education Symposium in March 2016. The BTPS dual credit coordinator, a parent and board member, and a dual credit student also presented in June at the PSBA spring conference. Video footage and the slides included in these presentations is available upon request as they more fully describe partnership voices from this pilot experience.</p>				
<p>Safety and quality of instruction were the driving priorities in the development of our dual credit implementation model. Geographically, schools within BTPS are far spread, and many are more than an hour commute from the Lakeland College campus in Vermilion. While we felt that instruction of the welding and carpentry programs was best suited to the state of the art facilities available on Vermilion, we were also cognizant of the travel time of high school students. As a result, we developed a blended model of delivery that had students receiving weekly video conference delivery of the theoretical components and bi-tri weekly on-campus shop skill sessions. Full day on campus sessions were often scheduled for non-instructional days to support reduced student absenteeism from regular classes, and to promote community car-pooling.</p> <p>The second and third intakes, one each of welding and carpentry, was different. There were more students, from 7 additional school sites, many of which were students requiring additional supports. Students</p>	21	Opportunity name : #21-Pre-Employment Dual Credit	Program design	Blended model Mapping challenges

<p>seemed less in tune with each other, and less motivated to participate overall. The time required for communication and management of the second and third cohort groups was easily double that of the initial cohort. This additional time was frustrating for the coordinators and the instructors alike. Conflicts with graduation schedules, general apathy from school level supports, and waning interest in dual credit course work, all resulted in frustrations in year two of implementation. As a result it was decided that the delivery model for this year (2016-2017, a year outside of strategy funding) would be condensed in an attempt to focus students and help them better retain material and maintain interest/focus. Six weeks in, it seems that the students and instructors are content with the daily interaction of the condensed model which will culminate on December 23, 2016, with the writing of the AIT exam.</p>				
<p>We know that BTPS students desire access to trades programs and other career path explorations, because approximately 80% (758 of our 950) of high school students within BTPS annually access a CTS Lakeland course, a dual credit course, or a RAP, Work Experience or Green Certificate course.</p> <p>The Lakeland/ BTPS trades partnership has offered trades based CTS programs to fulfill the needs and wants of BTPS high school students for over 10 years. The program offerings via this partnership have grown since the inception of the program, to the point where we serve approximately 250 students a year through 19 courses in seven trades' areas. Many students complete all two or three sections in each CTS course cluster area, and are left without an option to "go further". The dual credit pilot gave such students the chance to pursue their training further, and at a more advanced level.</p> <p>Success in the implementation of the dual credit programs themselves were varied. The first carpentry cohort was a group of interested and self-motivated students from only two school sites. They worked well together as a cohort group and made deep and lasting bonds with each other and the instructor. Overall, the program and the students excelled. To our knowledge, two of the eight original students are completing their final years of journeyman certification at Lakeland College. They are both</p>	21	Opportunity name : #21-Pre-Employment Dual Credit	Student effects	Student support Links to PS study Links to employment

successfully employed in their chosen trade in rural communities within the boundaries of BTPS.				
Edmonton Catholic Schools began a dual credit opportunity of Health Care Aide through the support of the Health Strategy Grant from 2009 to 2012. During this time, we established a fully equipped lab at St. Joseph High School with all the equipment / supplies necessary to conduct the Health Care Aide Program in the school.	22	Opportunity name : #22- Reaching Beyond the Classroom	Financial factors	Partner contributions
Students in Edmonton Catholic Schools at St. Joseph High School have the opportunity to attain their Health Care Aide Certificate through our partnership with NorQuest College. Through our partnership with Covenant Health, students were able to complete a one week practicum during spring break and a one month practicum in July. This gave the students the opportunity to begin to practice their skills in a real-life environment.	22	Opportunity name : #22- Reaching Beyond the Classroom	Partnerships	Business key Multi partner
We have a qualified Nurse Instructor from NorQuest College, along with a certified teacher responsible for the implementation and assessment of the students in this course. This is a cohort group of students from across the city that are able to enroll in the dual credit opportunity. The course was offered during the regularly timetabled schedule and students within the high school were able to receive face-to-face instruction 4 afternoons a week in semester one and two from 1:00 - 4:00 p.m. Students in grade 11, 12 and upgrading grade 12 were able to register for the program.	22	Opportunity name : #22- Reaching Beyond the Classroom	Program design	Staffing shared Face to face instruction
The feedback indicated that they enjoyed the opportunity to explore their interests in the area of health care, while in high school. They felt very comfortable because it was a class with their peers within their own high school environment. Upon completion of the certificate program, some students decide to continue their education in nursing, while working as a Health Care Aide. Through the guidance from the school counsellor and the Learning Coach, students were able to access on school site support in developing personal pathways and further exploring their passions and interests.	22	Opportunity name : #22- Reaching Beyond the Classroom	Student effects	Student support Links to PS study Links to employment

<p>The Health Care Aide field engages students to develop empathy and understand client care to meet their physical, emotional, intellectual, social and spiritual needs. Students establish learning plans, lifelong learning goals, and enduring understandings for themselves.</p>				
<p>This program has been developed to equip graduates with the relevant skill set to position them for success, and pursue an entry level position as an Electrician Apprentice, leading to a career as a certified trades professional.</p> <p>The dual credit Electrician Program will provide students with the opportunity to gain a sound academic foundation that supports student success. The program has 2 phases.</p> <p>Phase Dates Description</p> <p>Aug. 31- Dec. 17. 2015 1st year of Electrician Apprenticeship technical training.</p> <p>Jul. - Aug. 2016 Work Placement-minimum of 250 hours of indentured on-the-job experience. It is recommended that this job experience have a residential or commercial focus. This work placement will occur if available.</p> <p>When</p> <p>Phase 1 of the program begins in August 31, 2015 and ends December 17, 2015. Hours are from 8:45 a.m. to 3:45 p.m. (Exact times be confirmed by the instructor)</p> <p>Phase 2 runs beginning of July to the end of August 2016 and Careers the Next Generation in partnership with Keyano College will coordinate the opportunities for placements. (No placement is guaranteed)</p> <p>Upon successful completion of phase 1, students will be eligible to write the GoA Apprenticeship and Industry Training (AIT) 1st Year Electrician Provincial Exam.</p> <p>Classes will consist of 6 hours of instruction per day. There is a possibility that one designated Friday will be used to visit Keyano College campus in the morning and partake in a session with students who are in their 2nd-3rd or 4th Year of technical training. Students will be paired up to visit the Electrician shop, registrar's office, library, and skill center.</p> <p>Upon successful completion of Phase 1 and 2, students will receive credit. (Successful completion of the course with 70%, Passing of the AIT 1st Year Electrician Provincial Exam and 250 hours of indentured work).</p>	23	<p>Opportunity name : #23- Dual Credit Apprenticeship Program (DCAP) - Electrical</p>	<p>Program design</p>	<p>Mapping links to industry Mapping links to PSI curriculum PSI setting</p>

<p>Lakeland College generously waved the tuition for the students, approved an NLSD teacher to be the Instructor, and for the first cohort reserved spots for summer steam time in Lloydminster for an access fee of \$5,500. Twelve students completed the course work, Six the steam time. Spots could not be reserved for the second cohort. Five students completed the course work, none went to steam time.</p> <p>NLSD appreciates the generosity of the arrangement we had with Lakeland College. If a partial CEU arrangement is put in place it becomes more palatable for the college and certainly has dollar implications at the school level. Through generous partnerships NLSD acquired a functioning service rig, and developed a Trades Exposure Centre in Bonnyville where access to the industrial training is possible.</p>	24	<p>Opportunity name : #24-Trades Exposure Dual Credit Program</p>	Financial factors	<p>PSI contribution CEU fund application Partner contribution</p>
<p>The course was acquired by 6 other school divisions and used in 9 high schools across the province.</p> <p>This course (Class V Driver Training) has been acquired by 24 school divisions since its creation as an LDC.</p>	24	<p>Opportunity name : #24-Trades Exposure Dual Credit Program</p>	Partnerships	Networking
<p>The NLSD Trades Exposure Project involves several courses designed to expose students to different trades, industry standard training, and certifications beneficial toward employment.</p> <p>4th Class Power Engineering: An MOU was put in place with Lakeland College for Power Engineering. Two cohorts participated. One the second semester of the 2014 - 2015 school year, and one in the second semester of the 2015 - 2016 school year</p> <p>Energy Education 35- Introduction to Service Rigs: This locally developed, 5 credit (30 level) course, was developed by NLSD in conjunction with the Oil Industry and ADLC. The course covers content related to Oil and Oil Industry Service rigs. It can be taken by any Students in Alberta through ADLC as a stand-alone course toward 30 level graduation requirements, or can be used as a prerequisite for the practical training on the NLSD service rig in Bonnyville.</p> <p>Service Rig Safety and Floor Hand Experience Special Project - 30 Level (2 Credits): This special project was designed by NLSD as an opportunity to apply the</p>	24	<p>Opportunity name : #24-Trades Exposure Dual Credit Program</p>	Program design	<p>Mapping links to industry Industry setting</p>

<p>knowledge and skills from Energy Education 35 on working service rig for three full days, and attain 6 Industry level safety certifications. This course will help students toward 30 level graduation requirements. A cohort of 10 Bonnyville students participated in the pilot cohort and spent 5 days in April of 2016 completing the safety certifications and three days of service rig training. Any students who met the prerequisites can arrange to access the training.</p> <p>Class V Driver Training 35-3: This 3 credit (30 level) locally developed course was developed by NLSA. The need for better driving skills and the attainment of a valid driver's license was expressed by industry. This course in part helps address this need and also gives the student opportunity to increase knowledge and awareness for driving skills while working toward 30 level graduation requirements. Having the course completion and the drivers training certification gives them a better chance to acquire a valid license and toward employment where driving is a necessity.</p>				
<p>I was not involved in the initial aspects of the Dual Credit Program at Atikameg School. By September 2014 those directly involved with the Dual Credit program at Atikameg School were no longer at the school. As this program was already in serious trouble... it is difficult to answer most questions in this survey.... this program was not initiated well at Atikameg School.</p>	25	Opportunity name : #25-Atikameg School / NLC Dual Credit Partnership	Program design	Mapping challenges
<p>There was only one student continuing in the program during the 2014-2015 school year who dropped out in September 2015. Although there were attempts to get other students interested in the program, because of the issues with the 2013-2014 program, all but one student wanted nothing to do with the program. After the first year, the students enrolled in the program did not continue in the program.... most of the students in the program were not prepared to perform at the academic needed to be successful in this program. Thus they were unable to experience success in the program and this probably resulted at least in part, to their reluctance to continue in the program.</p>	25	Opportunity name : #25-Atikameg School / NLC Dual Credit Partnership	Student effects	Limited benefits
<p>The pathway was developed in response to regional labour needs of the petroleum industry in central and</p>	26	Opportunity name : #26-	Partnerships	Labor sector

<p>northern regions of Alberta. Pathway development occurred through the collaborative efforts of CAREERS: The Next Generation working with NAIT Department of Corporate, International and Continuing Education, Grande Prairie Public School District, Grande Prairie Catholic School District, and Peace Wapiti Regional School Division. Regional industry support has been provided by Enform and Canadian Natural Resources Limited.</p>		<p>Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program</p>		<p>Multi partner Business key</p>
<p>The Oil and Gas Production Operator (OGPO) pathway represents a two-year high school program introducing students to career opportunities in the upstream oil and gas industry. The program delivers technical training leading to further specialized study, and/or entry-level employment in battery operations, field operations, gas plants and oil refineries. Students acquire knowledge and skills relevant to gas processing, instrumentation, measurement, production equipment and refining.</p> <p>This OGPO pathway can only be offered through a partnership with NAIT to deliver theoretical course content in a high school learning environment by way of online distance learning. The pathway offers a complete post-secondary program consisting of four separate post-secondary courses. Program delivery occurs over two years or four consecutive semesters of high school, is cohort-based, and accommodates both first- and second-semester student intakes.</p> <p>Complementing interactive online course delivery, and conditional to industry sponsorship, are paid summer internships in each year of the program. The internships are designed to help students establish purpose for learning, connect theory and practice, and acquire practical skills within an industry work environment.</p> <p>Successful completion of all four OGPO courses provides the student with an industry-recognized Oil and Gas Production Operator Certificate issued by the NAIT. Program participation during the first year of pilot included a total of 10 students from strategy-funded school authorities and another seven students from non-strategy funded school authorities.</p>	<p>26</p>	<p>Opportunity name : #26- Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program</p>	<p>Program design</p>	<p>Mapping links to industry Mapping links to PSI curriculum On-line</p>

<p>School Within a College (SWAC) is a flexible and responsive program intended to support students in obtaining a high school diploma in an environment that addresses their learning style, personalizes programming to meet their high school educational needs and exposes students to post-secondary opportunities. The program brings together three school districts and Red Deer College. A high school teacher works in collaboration with a college instructor to ensure that students complete both their high school diploma and the technical training in the dual credit pre-employment Automotive Service Technician or Welding program. The entire program, including the high school program, is fully onsite at Red Deer College.</p>	27	<p>Opportunity name : #27- School within a College (SWAC)</p>	<p>Program design</p>	<p>Mapping links to PSI curriculum Staffing shared PSI setting</p>
<p>What are the benefits of the School Within a College concept? For some students, a conventional high school environment is not the best fit. These students may feel more comfortable and engaged working within a college environment. Students have access to personalized high school programming which may include direct instruction, independent learning, and online learning. Students will earn high school and post-secondary credits at the same time. Students gain experience with college level programs which build confidence, provide expanded learning opportunities, and help them to make more informed decisions regarding their post-secondary destination. Students will be more attractive to employers because they will already have demonstrated a desire to pursue a career in the Automotive Service Technician or Welding industry, as well as completed their first period of technical training.</p>	27	<p>Opportunity name : #27- School within a College (SWAC)</p>	<p>Student effects</p>	<p>Links to PS study Personalized learning Links to employment</p>
<p>We began our first Health Care Aide cohort in the fall of 2015 We have a small school of 800 so we invited other school districts to send their kids to us in order to make sure we have a sustainable cohort. We partnered with Parkland School Division, Northern Gateway Public Schools and the private school Living Waters Christian Academy in order to make sure we had suitable candidates for the program. The opportunity helped our community filling holes in the labor market.</p>	28	<p>Opportunity name : #28- Heath Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools</p>	<p>Partnerships</p>	<p>Multi partner Community support</p>

We had 17 registrants and 16 completed the program at the end of July. We had 21 students in the second year of implementation. The community has really benefited from our graduates. Most of the graduates work in our local extended care programs in town.	28	Opportunity name : #28- Heath Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Student effects	Links to employment
The district was approached by Olds College regarding Dual Credit programming. After many discussions, a decision was reached to work together to develop a Veterinary Technical Assistant program. An LDC writer was hired to work with Olds College staff to write the curriculum for the program.	29	Opportunity name : #29- Veterinary Technical Assistant	Partnerships	Multi year Staff contributions
CCSD worked with all parties across the province involved in the development of this program. Once the program was established, Bow Valley College, CASS, Intercare and CCSD met to determine how it would be offered to students in the district.	30	Opportunity name : #30- Health Care Aide CCSD and BVC	Partnerships	Multi partner Business key
The decision was made that the program would run at Bow Valley College for two hours, two evenings per week during the student's grade 11 and 12 school year. Once students finish the first five courses, they would take a Practicum course in the summer of their grade 12 year to complete the program.	30	Opportunity name : #30- Health Care Aide CCSD and BVC	Program design	PSI setting Mapping links to PSI curriculum
The Calgary Catholic School District and Mount Royal University both recognized a need to develop a program to allow students to take first year post-secondary courses during their grade 12 year. The two parties met and selected a Creative Reading and Writing course to be developed. CCSD hired an LDC writer to work with the MRU instructor to develop a High School course that would match their University course.	31	Opportunity name : #31- Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Partnerships	Multi partner Staff contributions
With this opportunity, to become a Health Care Aide, the student, as a lifelong learner will be exposed to diverse life skills; work experience; diversity within the population at need; construct meaningful relationships; problem solving; to use multiple	32	Opportunity name : #32- Health Care Aide Program - FrancoSud	Program design	Mapping links to industry

<p>literacies including technologies; continue in the health care pathway into such programs as practical nurse or recreational therapy aide programs. We hope that our students could benefit of this opportunity in the future.</p>				
<p>The impact on the student are: to get the opportunity to participate into program that a small school board could not afford to develop; to become a more confident, autonomous, responsible and proud learner; to keep them in school to obtain a certificate; to be exposed to diverse opportunity in the community</p>	32	<p>Opportunity name : #32- Health Care Aide Program - FrancoSud</p>	<p>Student effects</p>	<p>Student support Links to employment</p>
<p>The intent of this implementation model is to create a self-sustaining model. With a train the trainer model, we are building capacity within our teacher to deliver a dual credit ACAD program without many of the associated costs.</p>	33	<p>Opportunity name : #33- ACAD Design Fundamentals</p>	<p>Financial factors</p>	<p>Self-sustaining</p>
<p>The basis of this dual credit opportunity is that teachers are trained by Alberta College of Art and Design (ACAD) instructors to meet the rigor associated with the outcomes required for post-secondary credit. Students attending schools where teachers have received training and have completed the requisite courses can apply to ACAD to have the courses officially recognized for credit at the Alberta College of Art and Design. Students can attend ACAD having completed up to three post-secondary courses towards program completion, or they can apply to have the courses recognized at other post-secondary institutions.</p> <p>What we have discovered is that it will likely take up to three years to have students apply for the credit recognition from ACAD, since the requisite courses are spread out over three grade levels.</p> <p>We have also found that many of the courses are common across the CTS curriculum and it is difficult to ensure that the rigor that is required of ACAD is met if teachers who have not completed the training are awarding the credits. In order to address this, we will be examining the possibility of creating Locally Developed Courses to align with the specific outcomes for the post-secondary courses.</p>	33	<p>Opportunity name : #33- ACAD Design Fundamentals</p>	<p>Program design</p>	<p>PSI setting Mapping links to PSI curriculum</p>
<p>Unfortunately, the second scheduled cohort was not able to attract the required number of students to justify a dedicated instructor for the course. As such,</p>	34	<p>Opportunity name : #34- Fashion</p>	<p>Financial factors</p>	<p>Challenges</p>

two CBE students were granted admission to existing Olds Fashion Institute courses. The goal is to run a dedicated cohort for the 2016-2017 school year.		Marketing - Calgary Board of Education and Calgary Catholic School District		
This program began with eight students from three different CBE high schools travelling to the Olds College Fashion Institute on the Bow Valley campus to take two courses towards the Fashion Marketing Certificate.	34	Opportunity name : #34- Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Program design	PSI setting
This certification provides the opportunity for students to take finished products and gives them the skills necessary to market, display and sell the products directly to the customer. The CBE students were participants in the planning, organization, and delivery of a fashion event. The first cohort was successful in that all of the students received some sort of high school credits. However, because some of the Fashion courses at the home school had already assigned credits for some of the mapped courses, there was some variability over the final number of credits earned and in which courses.	34	Opportunity name : #34- Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Student effects	Links to employment Links to PS study
We only had 9 students actually do courses through Olds College but we had another 28 students take Lakeland College courses under an agreement with East Central Catholic, we split the CEU's 50%. So in reality 37 of our students participated in the program, earning a total of 174 credits. The staff, parents, and students feel it was very successful because it provided our students with more course choice and exposure to a variety of careers.	35	Opportunity name : #35- East Wheatland Agriculture Studies	Financial factors	CEU fund application Community Support
Our students in the East Wheatland area are from small rural communities. The closest post-secondary institution is over a hundred kilometers away. In an effort to provide them with more opportunities and choice we looked for Colleges which offered online delivery of courses. Our partnership was originally made with Olds College focusing on agriculture. We soon found out that the number of courses they offered on line was limited also their start and end dates did not align well with high school semesters, so many of our students also took courses offered	35	Opportunity name : #35- East Wheatland Agriculture Studies	Program design	On-line Mapping challenges Mapping links to PSI curriculum

through Lakeland College which provided them with more choices.				
Four of our grads from our first year have gone on to post-secondary agriculture programs and one into Health Care Aide. Dual credit opportunities are something that our students and parents have come to appreciate and would like to see continue.	35	Opportunity name : #35- East Wheatland Agriculture Studies	Student effects	Links to PS study
Norquest charged per student registration fee and a mentorship fee that enabled a Norquest Instructor to provide mentorship and guidance to the high school throughout the course. In the courses, where we did not have a certified teacher with the necessary qualifications, NorQuest supplied the instructor that collaborated with our certified teacher.	36	Opportunity name : #36- Allied Health Pathways - Edmonton Catholic Schools	Financial factors	PSI contribution
Students in Edmonton Catholic Schools at Archbishop MacDonald High School and Mother Margaret High School had the opportunity to explore courses from the Allied Health cluster courses through our partnership with NorQuest College. This opportunity began in the 2015 - 2016 school year because we needed time to establish the mapping, advertisement and recruitment within the schools. We had a combination of certified teachers with the necessary qualifications, along with NorQuest Instructors teach the courses. Through our partnership with Covenant Health, guest speakers were able to come in and share their story about how their profession as a health care professional was very rewarding. They took students through various activities and tasks that simulated some of the experiences that they encounter through their work.	36	Opportunity name : #36- Allied Health Pathways - Edmonton Catholic Schools	Partnerships	Multi year Staff contributions Business key
The course was offered during the regularly timetabled schedule and students within the high school were able to receive face-to-face instruction in Health and Wellness, Psychology, Communication for Health Care Professionals and Anatomy & Physiology.	36	Opportunity name : #36- Allied Health Pathways - Edmonton Catholic Schools	Program design	Face to face instruction
Students in grade 11 and 12 took the course and the feedback indicated that they enjoyed the opportunity to explore their interests in the area of business while in high school. They felt very comfortable because it	36	Opportunity name : #36- Allied Health Pathways - Edmonton	Student effects	Student support Links to employment Links to PS study

<p>was a class with their peers within their own high school environment.</p> <p>This [guest speakers] gave the students the opportunity to begin to aspire in which direction they would like to explore in the area of health fields. Students expressed that they felt more confident pursuing a post-secondary education because of the success that they experienced within Dual Credit. Through the guidance from the school counsellor and the Learning Coach, students were able to access on school site support in developing personal pathways and further exploring their passions and interests.</p> <p>The Allied Health field engages students to develop empathy and understand client care to meet their physical, emotional, intellectual, social and spiritual needs. Students establish learning plans, lifelong learning goals, and enduring understandings for themselves. Students enrolled in introductory Allied Health courses may envision integrating careers and subsequent laddering into University programs.</p>		Catholic Schools		Personalized learning
RDC tuition for the business dual credit courses is supported by the grant in place and the tuition costs of the Ground School training are covered by Skywings Aviation.	37	Opportunity name : #37- Aviation Management	Financial factors	Grant fund impact Partner contributions
This dual credit opportunity is a continued extension of the work of the Community Learning Campus Director working for Chinook's Edge School Division in this dual credit opportunity with Red Deer College and Skywings Aviation to provide both RDC Donald School of Business courses, followed by Ground School training at Skywings Aviation. This partnership involves Chinook's Edge, RDC and Skywings to open up these opportunities to Chinook's Edge students.	37	Opportunity name : #37- Aviation Management	Partnerships	Staff contribution Business key Multi partner
These opportunities are excellent pathway opportunities for students who are looking at business diplomas or degrees after high school, as well the Ground School Training opportunity opens up early entry into flight career opportunities for students.	37	Opportunity name : #37- Aviation Management	Student effects	Links to PS study Links to employment
Norquest charged per student registration fee and a mentorship fee of \$35000 per course offered in a year, that enabled a Norquest Instructor to provide mentorship and guidance to the high school throughout the course. No tuition was charged .	38	Opportunity name : #38- Accounting Technician Certificate - Edmonton	Financial factors	PSI contribution

		Catholic Schools		
Students in Edmonton Catholic Schools at Archbishop MacDonald High School had the opportunity to explore Accounting courses through our partnership with NorQuest College starting in the 2015- 2016 school year.	38	Opportunity name : #38- Accounting Technician Certificate - Edmonton Catholic Schools	Partnerships	Labor sector
We were not able to start earlier due to the time to map the courses, advertise / recruitment of the program and establishing location. The certified teacher at the school also held a CPA and had the necessary qualifications to teach the course. The course was offered during the regularly timetabled schedule and students within the high school were able to receive face-to-face instruction in Accounting. Through our partnership with CPA, guest speakers were able to come in and share their story about how they were able to take their business skills in a multitude of different pathways for employment.	38	Opportunity name : #38- Accounting Technician Certificate - Edmonton Catholic Schools	Program design	Mapping challenges Face to face instruction Mapping links to industry
Students in grade 11 and 12 took the course and the feedback indicated that they enjoyed the opportunity to explore their interests in the area of business while in high school. They felt very comfortable because it was a class with their peers within their own high school environment. This gave the students the opportunity to begin to aspire in which direction they would like to explore in the area of business. Students expressed that they felt more confident pursuing a post-secondary education because of the success that they experienced within Dual Credit. Through the guidance from the school counsellor and the Learning Coach, students were able to access on school site support in developing personal pathways and further exploring their passions and interests.	38	Opportunity name : #38- Accounting Technician Certificate - Edmonton Catholic Schools	Student effects	Student support Links to PS study Personalized learning
Our Dual Credit journey began in 2013. Grande Prairie Regional College approached our school division to ask if we would consider partnering with them to offer dual credit programming to students. We took most of this year to plan and select our Business Partner, Shell Canada, and The Edson Medical Centre. The rest of the time was spent in meetings mapping courses, and deciding the pathway we would offer. High Schools were consulted to find out which methods of	39	Opportunity name : #39- Office Administration Development - Grande Yellowhead Public SD	Partnerships	Multi year Multi partner Business key Staff contributions Networking

<p>delivery would work best within their setting and what the high school needs might be. We collaborated and presented to our School Division Board for approval and then started selling the idea to our schools, students, and parents. We have participated in the Alberta Council of Admissions and Transfer (ACAT), meetings to provide feedback and help set the course for implementation.</p>				
<p>There are many hurdles to get over in the areas of process, funding, policy making, etc. It is all necessary to build a functioning, sustainable program for students. Students first enrolled into dual credit courses in January of 2015 and we are currently on our 4th semester now. We had about 2 year's worth of work prior to implementation of cohorts to do the groundwork necessary for a successful start-up.</p>	39	<p>Opportunity name : #39- Office Administration Development - Grande Yellowhead Public SD</p>	<p>Program design</p>	<p>Mapping challenges</p>
<p>The U of L's Recruitment and Retention Project in the Provost's office identified Dual Credit as a priority. Three instructors were approached to discuss development of two dual credit opportunities. As two of the instructors are alumni from Lethbridge Collegiate Institute, that high school was approached. LCI had coincidentally been rethinking how to offer student exceptional experiences and dual credit courses were a perfect fit. A Dual Credit Team comprising the principal and a teacher from LCI, the three U of L instructors, Registrar Office and Enrolment Services staff, and staff from the Provost's office met regularly throughout 2014 and 2015 to establish the partnership and the courses. The industry partner for this course was Haul-All, a local manufacturing business. We also plan to deliver the program to more rural jurisdictions through the use of technology.</p>	40	<p>Opportunity name : #40- Management 1070 - Systems and Supply Chains Management</p>	<p>Partnerships</p>	<p>PSI priority Staff contributions Multi year Business key Networking</p>
<p>Management 1850 Systems & Supply Chains is a new course specifically developed for the Dual Credit program. It offers students unique experiences that build on the existing high school program and aids in the transition to post-secondary education. The course allowed students to develop skills necessary for future university studies, such as research, analysis, and communication, and to stimulate future career interests aligning their career paths to respond to the growing supply chain management job market demand locally and globally.</p>	40	<p>Opportunity name : #40- Management 1070 - Systems and Supply Chains Management</p>	<p>Program design</p>	<p>Mapping links to PSI curriculum Mapping links to industry</p>

Building on this success, the dual credit program will be expanded to include more courses as we enter the third year of our pilot project period.				
The students were able to experience first-hand supply chain principles in action by visiting the local Haul-All operations, thus seeing the application of what they had learned in the classroom. Students presented their final group projects on various aspects of the supply chain process. The presentations were held at the University for stakeholders and interested observers.	40	Opportunity name : #40- Management 1070 - Systems and Supply Chains Management	Student effects	Links to employment Links to PS study
This project was an opportunity to engage with a local business motivated to build connections with the school. Wabash welding is a well-established fabrication company that exists in the town of Westlock. They are very community-minded and sought ways to develop young people's interest to stay in, or return to work in the community.... The idea grew to offer students a chance and Blue Seal certification so they might learn the business side of Trades. The coordinator therefore explored the possibilities and created an alliance with NAIT.	41	Opportunity name : #41- Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Partnerships	Business key Labor sector Community support Multi partner
Meanwhile, the high school does not have a fabrication lab. Any students who have been interested in fabrication had to explore their interests through work experience or RAP. Unfortunately, the local high school had no journeyman to teach. However, the high school in nearby Barrhead has a fabrication lab and through the help of the CTS teacher bridging program recently recruited a journeyman who was on their way to becoming a certified teacher. It seemed like it might be a possibility to connect the business with the teacher and with students. The final piece of the puzzle with a post-secondary connection. Just was created the fabrication Dual Credit Opportunity.	41	Opportunity name : #41- Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Program design	Staffing shared Mapping links to PSI curriculum
This project was derived from an analysis of the experience of the first round of the Health Care Aide program, facilitated without grant funding. It was, and continues to be strongly supported by the health care providers in the community who have substantial employee needs. Even though we are a small community, one facility alone has nearly 100 Healthcare employees. That said, our high schools are small and it has been a challenge to meet the cohort requirements from a single school. This year we had a student from the	42	Opportunity name : #42- Health Care Aide Dual Credit - Pembina Hills RSD	Partnerships	Labor sector Business key Networking

<p>private school in Neerlandia as well as a student from Mayorthorpe, both from outside the Pembina Hills School Division. For the coming year, we have students registered from Pembina Hills schools, a Northern Gateway School, the Covenant Canadian Reformed Christian School (private), and we anticipate the potential of students from Evergreen Catholic School Division in Westlock, the Vista Virtual school, and ADLC, as well as possible adult students.</p>				
<p>In order to reduce the amount of cost and travel, the Mayorthorpe student video conferences from their school for the theory and attends face-to-face for the last. Because of the physical size of barrhead Composite High School, there is space in the facility for HCA classroom as well as for a dedicated lab.</p>	42	<p>Opportunity name : #42-Health Care Aide Dual Credit - Pembina Hills RSD</p>	<p>Program design</p>	<p>Blended model</p>
<p>We are more than pleased with the way this partnership has working for students and their respective schools and communities. This program provides some students with an opportunity for better long-term employment or career opportunities within the community. Students who want to graduate and then work, garner a certificate that will afford them an opportunity for a meaningful career with more than likely higher wages than if they didn't achieve the health care aide certificate. Other students are looking for the HCA certificate as a great foundation for further studies. Those students hope to obtain part time jobs in the community to help financially support their further studies.</p>	42	<p>Opportunity name : #42-Health Care Aide Dual Credit - Pembina Hills RSD</p>	<p>Student effects</p>	<p>Links to employment Links to PS study</p>
<p>These dollars will be used to build capacity in the system, as the in house teaching expertise of NGPS educators is merged with the proficiency of NorQuest to offer a post-secondary experience. As students become more familiar with the dual credit experience, they can be mentors for future students, alleviating the cost of the Guidance Counselor.</p>	43	<p>Opportunity name : #43-Northern Gateway Administrative Professional</p>	<p>Financial factors</p>	<p>Grant funds impact Self-sustaining</p>
<p>As NGPS and NorQuest solidify their partnership in learner programming, opportunities can be sought to meet the unique needs of this division, enhance dual credit programming for students, and expand local partnerships around schools. This hybrid learning experience will enable students to be recognized for the learning from two institutions: their high school and NorQuest College.</p>	43	<p>Opportunity name : #43-Northern Gateway Administrative Professional</p>	<p>Partnerships</p>	<p>Multi partner Community support Networking</p>

<p>NGPS will connect with local newspapers and radio stations to spotlight the partnership to generate awareness and interest.</p> <p>Schools will follow Northern Gateway's model of online and social exposure, also ensuring their local media and school news. We welcome the opportunity to share best practices with other districts.</p> <p>Offering insight to the experience (Curriculum mapping; CTS for college credit, then reverse; web conference/VC for multisite delivery; Inreach model of instructional support) through presentations at conferences will be pursued. Social media will be utilized on an ongoing basis to promote the partnership between NGPS and NorQuest and illustrate how it is benefiting our students. work force ready and fulfills a need within the rural community letters highlight this positive experience.</p>				
<p>Northern Gateway students connected with NorQuest College will benefit from this initial relationship with a local post-secondary institution.</p> <p>High school completion rates are increasing through this authentic community connected experience, students will graduate with skills that will enable them to secure employment and empower them to pursue lifelong learning.</p> <p>It will empower students to be resourceful and independent as they create opportunities in their future employment and learning pursuits.</p>	43	Opportunity name : #43- Northern Gateway Administrative Professional	Student effects	Links to PS study Links to employment Increased HS graduation
<p>An MOU was developed and signed between Lethbridge College and Kainai High School (Kainai Board of Education).</p>	44	Opportunity name : #44- Early Childhood Education - Kainai Board of Education	Partnerships	Multi partner
<p>In partnership with Lethbridge College and Kainai Head Start (3 year old education program) offered high school students two post-secondary courses towards an Early Childhood Education Certificate/Diploma as well as high school credits. Students received five CTS credits and five Knowledge and Employability credits for a total of ten high school credits. The two courses are equivalent to six post-secondary credits. The two instructors at the high school have master's degrees in education and these two teachers participated in the first cohort of each</p>	44	Opportunity name : #44- Early Childhood Education - Kainai Board of Education	Program design	Mapping links to PSI curriculum Staffing shared

course which enabled them to then be certified as college instructors representing Lethbridge College.				
The goal of this dual credit offering is to increase student engagement in learning with an end result of increasing high school completion rates and increasing post-secondary enrollment rates. It will allow students a chance to explore careers.	45	Opportunity name : #45- Early Learning and Child Care program for High school students	Student effects	Increased HS graduation Links to PS study
A key component to the dual credit opportunity was the business partnership with ATB Financial and the ability for students to go on site into a branch, work closely with a branch manager, and see first-hand the business concepts studied in their course work in action. The sacrificing of time by industry professionals was impressive for our students and they felt honoured and valued. ATB has recently changed their policies to allow 16 year olds to have a work experience opportunity in their facility, greatly encouraging these types of opportunities in the future.	46	Opportunity name : #46- Career Academic Pathway - Business Academy and Entrepreneurship	Partnerships	Business key Staff contributions Extendable
Students also received a 'taste' of the post-secondary life and practiced their self-advocacy skills. They had the opportunity to actually take a post-secondary level course, for all of its challenges and opportunities. Connecting with other students across Southern Alberta in their cohort was great for peer collaboration. In an ideal situation, there could have been an opportunity for the students to actually attend a lecture.	46	Opportunity name : #46- Career Academic Pathway - Business Academy and Entrepreneurship	Student effects	Links to PS study Student support
The LDC approach we used perfectly fits the mandate and focus of our school - to provide opportunities for young adults to explore the skills, attributes and competencies needed to be successful as life-long learners. Those students who were not suited to working with children with special needs, and who did not intend on pursuing the program at the university did not feel the stigma of having a negative grade on a post-secondary transcript that could impair their progress in the future. They completed the LCD, received both the high school credits, and the experience, and were empowered to have learned something about themselves, and their suitability for certain career pathways.	47	Opportunity name : #47- Special Needs Educational Assistant - Edmonton Public Schools	Student effects	Links to PS study Personalized learning

Funding is key to the success of dual credit	48	Opportunity name : #48-Technology Credentialing - FVSD	Financial factors	Grant fund impact
Continue the steering committee meet provincially with all school districts twice a year	48	Opportunity name : #48-Technology Credentialing - FVSD	Partnerships	Networking
We delivered ourselves and were our own business partner. Develop course codes for high school students so courses show up as dual credit	48	Opportunity name : #48-Technology Credentialing - FVSD	Program design	Mapping challenges
Pathway development occurred through the collaborative efforts of CAREERS: The Next Generation working with NAIT Department of Corporate, International and Continuing Education, Grande Prairie Public School District, Grande Prairie Catholic School District, and Peace Wapiti Regional School Division. Regional industry support has been provided by Aquatera.	49	Opportunity name : #49-Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Partnerships	Multi partners Business key
The WWO pathway provides students with the opportunity to gain industry certification through NAIT with the opportunity to participate in an industry work experience. The pathway prepares learners for entry-level operator employment in the area of water treatment, wastewater treatment, water distribution, and/or in wastewater collection. All municipal waterworks and wastewater systems are required to have certified operators supervising and/or carrying out day-to-day operations for the facility. Water and wastewater operators are also required by regional water and wastewater boards, the federal government, private utility companies, and large industrial plants. This dual credit pathway can only be offered through a partnership with NAIT to deliver theoretical course content in a high school learning environment by way of online distance learning. The program is structured over two years of high school study and includes seven post-secondary online courses. Students successfully completing the two-year program will meet requirements for a Fundamentals of Water and	49	Opportunity name : #49-Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Program design	Mapping links to PSI curriculum Mapping links to industry On-line Industry setting

<p>Wastewater Operations Certificate issued by NAIT Department of Corporate, International and Continuing Education.</p> <p>Complementing the online delivery of theoretical course content, and conditional to industry sponsorship, are paid summer internships in each year of the program. The internships provide opportunity for the application of theory through hands-on, real-time experience in a water and wastewater operations work environment. Six students were enrolled into the program in September 2016 and three additional students began their program in February 2017 from strategy funded school jurisdictions. In addition, seven students from non-strategy funded school jurisdictions have enrolled in the dual credit program.</p>				
<p>Funding was used for additional staff time and allowed the Director of Off-Campus Education to meet and work with the community.</p>	50	<p>Opportunity name : #50-Inspiring Futures - Living Waters Registered Apprentice Program</p>	Financial factors	Grant fund impact
<p>Our Living Waters "Inspiring Futures" grant focused on the development of RAP /Dual Credit programs in partnership with community based business and industry. Careers Next Generation was fundamental in building these relationships and new programs such as Power Engineering and Water and Wastewater Technician. A total of 44 student experiences in partnership with 24 businesses were provided.</p> <p>Building relationships takes time and must be done by matching student individualized career pathways with Dual Credit opportunities. Key to our success was our participation and support of two community committees. 1) Youth Career Advisory and 2) business Support Network. These groups share many common goals and support major events such as our Career and Education Expo (fall) and Forest Industry Career Days (spring).</p>	50	<p>Opportunity name : #50-Inspiring Futures - Living Waters Registered Apprentice Program</p>	Partnerships	<p>A. ULTI PART NER</p> <p>Community support Business key Multi year Successes</p>
<p>For students, These RAP/Dual Credit opportunities gave them a differentiated instructional experience that the school could not provide. Working with Journey Persons and industry leaders with technology</p>	50	<p>Opportunity name : #50-Inspiring Futures -</p>	Student effects	Links to PS study Increased HS completion

<p>not found in schools was key to student engagement and continued high completion rates. The current direction is to continue to support the project and make it a permanent, sustainable curriculum program.</p>		<p>Living Waters Registered Apprentice Program</p>		
<p>The U of L's Recruitment and Retention Project in the Provost's office identified Dual Credit as a priority. Three instructors were approached to discuss development of two dual credit opportunities. As two of the instructors are alumni from Lethbridge Collegiate Institute, that high school was approached. LCI had coincidentally been rethinking how to offer students exceptional experiences and dual credit courses were a perfect fit. A Dual Credit Team comprising the principal and a teacher from LCI, the three U of L instructors, Registrar Office and Enrolment Services staff, and staff from the Provost's office met regularly throughout 2014 and 2015 to establish the partnership and the courses.</p> <p>The industry partnership further enhanced the students learning experiences. A WestJet representative provided a session from the perspective of WestJet's marketing division. Students learned how critical creative thinking was to a successful promotion model that broke many established marketing rules. An article in the local paper ensured the wider community became aware of the dual credit program. We also plan to deliver the program in more rural jurisdictions through technology.</p>	<p>51</p>	<p>Opportunity name : #51-Liberal Education 1000</p>	<p>Partnerships</p>	<p>PSI priority Staff contributions Multi year Business key Networking Extendable</p>
<p>Liberal Education 1000 Knowledge & Liberal Education is a long established course at the U of L. As a Dual Credit course, it offers students unique experiences that build on the existing high school program and aids in the transition to post-secondary education. Through the course students participated in workshops on information literacy, research skills, and learning strategies which enhanced their educational preparedness. Building on this success, the program will be expanded to include more courses as we enter the third year of our pilot project period.</p>	<p>51</p>	<p>Opportunity name : #51-Liberal Education 1000</p>	<p>Program design</p>	<p>Mapping links to PSI curriculum</p>

9. Appendix C –Sustainability Implications Content Analysis

Question 72 Input	Op. #	Opportunity Name	Category
The district has committed to continue to support the programs in both Morinville and St Albert. The funding needed to continue has been ear-marked as a part of the budget cycle. The post-secondary partners come to the school site but only charge tuition and fees as if the students were in attendance on campus.	1	Greater St Albert Catholic International School of Business	Sustainable with PSI support
We have an excellent partnership, with a willingness to go forward with dual credit because it is good for students. The uncertainty created by the lack of a provincial framework, including the lack of guidelines, funding, direction, and support, certainly challenges our work, and would greatly help us to continue for the long term.	2	Tourism and Hospitality	Sustainable with provincial DC framework
Currently the CEU funding covers the costs associated with the tuition of the Dual Credit program, but does not cover the costs of the Coordinator's position. Being a small district, we are unable to dedicate .5 FTE from government funds to dedicate to this program without causing a negative impact on student/teacher ratios in the regular classroom. It is our opinion that the success of our current program is directly tied to the work of the Coordinator in their role of establishing partnerships, communicating with parents, building relationships with students, coordinating practicum experiences and recruitment. Without funding for a coordinator position the program would not be sustainable.	3	Bow Valley Learning Pathway	Sustainable with limitations – staffing coordinator \$ needed
Are maintainable? Yes, with consideration... 6 courses are already mapped and shared in LDCOMS. The conditions that may cause these courses to be unsustainable would be if the University chose not to offer the course in a term, or if Alberta Education decides to not renew our authorizations for the LDC. If were to consider mapping the remaining 11 courses, then this is not maintainable. If we were to consider the cost associated with giving CEU monies to post-secondary's and not retaining CEU monies in the division, then no, this is not maintainable. Are competitive / transparent? Yes.	5	Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	Sustainable - with PSI support -with LDC approvals -with staffing – coordinator \$ needed

<p>Entail cooperation and collaboration amongst partners. Yes. Athabasca University is willing to set up partnerships amongst other school divisions if they set up an MOU. School divisions would need to request the use of the course through LDCOMS then put in a request to the University for a partnership.</p> <p>Meets needs? Yes.</p> <p>These courses provide opportunities for students to take IB-type courses through University level post-secondary courses. The courses are transferrable to universities and colleges across North America. It should be noted that some students have difficulty completing these courses. The University treats our students as though they are adults, and there is not a lot of encouragement to get the coursework completed. This is left up to the virtual classroom supervisor.</p> <p>Are resilient? Yes.</p> <p>If we use the definition of resiliency to be the ability to become strong again after something bad happens, then yes.</p> <p>Bad: students' not completing courses Strength: putting processes in place to make sure that students are being monitored more closely to support their success.</p> <p>Bad: the University discontinues the courses Strength: the University has stood the test of time and it is anticipated that these courses will continue to be offered.</p> <p>Resourcing costs addressed? Yes, but with considerations...</p> <p>The University has reduced the cost of courses by \$155 per course by eliminating the Registration Fees from the costs.</p> <p>There are costs associated with supervision for students taking Dual Credit courses. This needs to be considered.</p>			
<p>East central has used the funding to build the program and cover all startup costs. LLC has NOT charged tuition and continues to not charge. Since our funding has expired, we are now charging \$100/CEU to the schools/divisions who are participating. As long as our dual credit numbers/course is equivalent to 15 students/course we break even.</p>	6	Esthetics Pathway	Sustainable with PSI support – With CEU funding and 15 students per course
<p>East central has used the funding to build the program and cover all startup costs. LLC has NOT charged tuition and continues to not charge. Since</p>	8	Agricultural Studies	Sustainable with PSI support –

our funding has expired, we are now charging \$100/CEU to the schools/divisions who are participating. As long as our dual credit numbers/course is equivalent to 15 students/course we break even.			With CEU funding and 15 students per course
IF CEU dollars are used to cover the Instructor and game license costs and ONLY IF the NLPS has at least 10 students complete the course. Cost of the course is reasonable. Students learn a great deal about entrepreneurship that is applicable to all fields of study. Successful students receive 3 university credits and 5 high school credits. Course has been created and now can be offered quite easily again.	9	Business and Entrepreneurship Dual Credit Pathways	Sustainable with CEU funding and 10 students per course With LDC approvals
The short courses are sustainable as long as we can access sufficient funding through CEU's and possibly through block funding, but offering a full trade in a pre-employment format is not. We are exploring an industry partnership that will allow us to offer a regional, blended, distributed pre-employment trade in 2016-2017.	12	A Regional Approach to Pre-Employment Trades Training	Sustainable with CEU funding - With business/industry support
Many of our students have been awarded certification that has allowed them to work in their home community and potentially work to put themselves through other post-secondary programs.	13	Dual Credit Opportunities and Health Care Aide Program	Sustainable with business/industry support
<ul style="list-style-type: none"> - The program is offered as an on-line option. Students take the courses at their home schools. - The program can be taken at any time of the day because of the on-line approach. - Support for the student comes from the staff located in each learning center. - Once sustainable funding is in place, the courses will become self-sufficient in cost recovery. 	15	Production Field Operator: Dual Credit Opportunity	Sustainable with blended program – With provincial DC framework
Once again sustainable funding will be extremely important to the success of this program. The interest for this type of work is very evident in our community and most students enjoy making things with their hands. In reference to question 40-1 and 40-2, the amount is shown as \$0 for the tuition fee for students as due to SAIT's approach to dual-credit programs, a strictly cost recovery model is used. School districts are charged strictly on the basis of recouping direct programs costs (such as instructor, supplies, etc.). It is important to consider what types of costs are involved in these programs and what the partners are willing to do in-kind in order to make these programs sustainable.	16	Pre-Employment Carpenter Dual Credit Program	Sustainable with provincial DC framework –PSI support

<p>In reference to Questions 40-1 & 40-2, SAIT's dual credit philosophy is a cost recovery model and school boards are charged strictly on the basis of recouping direct programs costs, such as instructor, supplies, etc.</p> <p>Provided that CEU funding, or its equivalent, is dedicated 100% to the maintenance, supervision and delivery of the program, this opportunity is sustainable at the current rate that SAIT is charging for the program. Costs associated with administration or overhead are provided "in-kind" by SAIT. CBE provides "in kind" donation of administration costs for the promotion, recruitment, and instructional costs of the program at both levels.</p>	17	Production Field Operator: Dual Credit Opportunity	Sustainable with provincial DC framework –PSI support – With CEU funding – With multiple partners
<p>In reference to Questions 40-1 & 40-2, SAIT's dual credit philosophy is a cost recovery model and school boards are charged strictly on the basis of recouping direct programs costs, such as instructor, supplies, etc.</p> <p>Provided that CEU funding, or its equivalent, is dedicated 100% to the maintenance, supervision and delivery of the program, this opportunity is sustainable at the current rate that SAIT is charging for the program. Costs associated with administration or overhead are provided "in-kind" by SAIT. CBE provides "in kind" donation of administration costs for the promotion, recruitment, and instructional costs of the program at both levels.</p>	18	Pre-Employment Carpenter Dual Credit Program	Sustainable with PSI support – With CEU funding – With multiple partners
<p>Post-secondary and secondary schools will need to continue to receive grant/bursaries to offset the cost of tuition. Small school divisions are not financially able to support this type of program independently. Currently, as CEUs go back to the college rather than the school division, the dollar value of the accumulated CEUs will not always be equivalent to the cost of instructor and course infrastructure.</p>	19	Health Care Aide	Sustainable with provincial DC framework
<p>The program is delivered through an online platform, where high school students are blended in course sections with post-secondary industry students. This enables high school cohorts of students to work in collaboration for the duration of their program while providing individual students with the flexibility to increase the pace of their studies. This structure also enables post-secondary to distribute program delivery costs among a broader base of learners, and thus</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	Sustainable with blended program – With business/industry support – With PSI support- With multiple partners

<p>maintain an affordable level of high school tuition fees.</p> <p>The online program structure and delivery model provide equitable program access and opportunity to rural and urban communities across the province. Information about the program is readily available to all stakeholders upon request to either CAREERS or NAIT. These practices contribute to making the OGPO program both transparent and competitive within the dual credit education community.</p> <p>Partnerships forged with industry have played a significant role to ensure the program provides both engaging and relevant learning experience for students within their local region. Industry partnerships ensure the continuing relevance of program goals and competencies to labour market needs. The summer internships extend the student's learning environment into the community, thus supporting school authority initiatives in off-campus programming. Having key industry partners (and sometimes multiple students at a worksite) facilitates effective and efficient off-campus programming at the district level.</p> <p>Dual credit requires that schools develop capacity for shared program delivery with post-secondary and industry partners. CAREERS has assumed a leadership role in facilitating collaboration and communication among delivery partners, and in developing a common understanding of respective roles and responsibilities in shared program delivery. Cooperation and collaboration among partners have been key contributing factors to the successful launch of the OGPO program.</p>			
<p>Having a certain amount of students in the cohort helps pay for the program. The Alberta teacher is an expensive part of the program. In order to sustain we need to have the right amount of students and the space for a health care lab. The lab equipment takes up a lot of room so we need to have 2 classrooms to run the program.</p>	28	Heath Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Sustainable with CEU funding and x students per course – With limitations – cert. staffing costs
<p>During this first year we had CEU funding. The post-secondary was extremely helpful in keeping down costs of their program.</p>	29	Veterinary Technical Assistant	Sustainable with CEU funding – With PSI support
<p>The district was able to offset the costs involved by using the funds generated by the CEUs earned by each student this school year. As a result of</p>	30	Health Care Aide CCSD and BVC	Sustainable with CEU funding – With PSI support

collaborating with post-secondary, a fair cost for the program was established that met the needs of both.			
The District has moved to Block Funding from CEU funding last year. The District will continue to support the program until sustainable funding is in place for the program.	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Sustainable with CEU funding – With provincial DC framework
The "train the trainer" model allows for experts to be located in the individual high schools, and allows for on-site delivery of the program. This negates the requirement of having post-secondary instructors for the students, thereby decreasing costs.	33	ACAD Design Fundamentals	Sustainable with in-house staff development
Without disrupting the tenets of High School Redesign, providing specific funding, dedicated 100% to the maintenance, supervision and delivery of the program, this opportunity is sustainable at the current rate that Olds College is charging for the program. CBE provides "in kind" donation of administration costs for the promotion, recruitment, and instructional costs of the program at both levels.	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Sustainable with CEU funding – With PSI support – With multiple partners
We have an excellent partnership, with a willingness to go forward with dual credit because it is good for students. The uncertainty created by the lack of a provincial framework, including the lack of guidelines, funding, direction, and support, certainly challenges our work, and would greatly help us to continue for the long term.	37	Aviation Management	Sustainable with multiple partners – With provincial DC framework
The dual credit initiative is sustainable given a funding model that will allow for a partnership between the institutions to continue. This requires the development of a structure that allows students to be recognized for public funding through both institutions. The desire to make dual credit work in Lethbridge work has been exceptional. The level of collaboration between school, board, and the university is a strong model for other schools to follow. As we move into our second year of classes, student interest in the courses remains strong. A clear expansion plan will be key given the financial structures put in place to support the funding of involved students. Continuing to ensure a strong fit between dual credit university courses and high school curricula will be important to maintaining broad support for the program and student success.	40	Management 1070 - Systems and Supply Chains Management	Sustainable with provincial DC framework – With multiple partners

<p>A crucial aspect of ongoing participation of qualified high school students is the funding model that allows all students, regardless of their socio economic status to become inspired and continue on with their post-secondary learning. To meet the goals of the DC strategy as outlined for all students tuition fees must be funded. Should tuition not be waived, the goals of the strategy will be compromised, as only some students will be able to access the opportunity, and the gap between have and have-not students will continue to grow. Also to key to sustainability is a simplified funding model. One option is to create a new Dual Credit Strategy CEU funding band for 8 credits, which would automate the funding distribution to offset tuition and instructional costs of approved University courses. University courses are approved via the Post-Secondary Learning Act and do not need to be re-stated as locally developed courses which will substantially streamline delivery.</p>			
<p>At this time, we are using funding from Adults learner to invest in this opportunity. We hope to be able to fund 2 opportunities under this model every year. Some funding will however be needed to develop others mainly in translation and adaptation to an asynchronous on line format.</p>	45	Early Learning and Child Care program for High school students	Sustainable with provincial DC framework
<p>As noted earlier, the LDC mechanism allows for boards and local post-secondary or industry partners to be responsive to local and quickly changing economic trends or demands. In our example, our school board needed skilled EAs, our PS partner wanted to increase program completions and mitigate attrition. The LDC situates the program within the secondary framework which then addresses many of the 'gap' issues that exist in placing secondary students in off-campus environments - such as post-secondary campuses - where issues of supervision, duty of care, reporting to parents, assessment and evaluation, communicating behavior concerns, become points of tension, and in many cases require extra personnel - and thus become economically unviable.</p>	47	Special Needs Educational Assistant - Edmonton Public Schools	Sustainable with limitations – staffing coordinator \$ needed
<p>The program is delivered through an online platform. High school students are blended in course sections with post-secondary industry students. This allows for high school cohorts of students to work in collaboration for the duration</p>	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Sustainable with blended program –

<p>of their program while providing individual students with the flexibility to increase the pace of their studies. The online delivery model also allows access to programming for students throughout the province.</p> <p>This structure also enables post-secondary to distribute program delivery costs among a broader base of learners, and thus maintain an affordable level of high school tuition fees.</p> <p>In addition, we have built partnerships with industry for an optional work experience component for the program. Having key industry partners (multiple students at a site) allows for efficiency in Off Campus programming as the dual credit opportunity expands. The partnerships forged with industry have played a significant role to ensure the program provides both engaging and relevant learning experience for students within their local region. Industry partnerships ensure the continuing relevance of program goals and competencies to labour market needs. The summer internships extend the student's learning environment into the community, thus supporting school authority initiatives in off-campus programming.</p> <p>Dual credit requires that schools develop capacity for shared program delivery with post-secondary and industry partners. CAREERS has assumed a leadership role in facilitating collaboration and communication among delivery partners, and in developing a common understanding of respective roles and responsibilities in shared program delivery. Cooperation and collaboration among partners have been key contributing factors to the successful launch of the WWO program.</p>			<p>With business/industry support – With multiple partners</p>
<p>Our division has requested one more year of additional funding (\$37500.00) to support the continuation of the project as many of the students have just started their positions and will continue them into the 2016/17 school year. The student and community activities in the budget need to be supported for one more year as the school moves to adopt the project into its budgeting processes.</p> <p>The Project is fully sustainable provided schools are allowed to maintain a three year average of 43 credits (funded across 4 tiers). Should the province decide to block fund all high school at an average</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	Sustainable with CEU \$ and x students – With multiple partners

<p>of 37 credits (for Example) cuts would affect the program and its sustainability.</p> <p>It is important to note that this community learning initiative is built upon a supportive individualized career counselling program (starting at grade 7) and a career internship and work experience program involving 170 business and industry partners. We have now completed 10 years of building these relationships and the project has enabled many new directions. Parents are very supportive and business and industry is now connecting with high school students to meet part of their labour market and human resources needs.</p>			
<p>The dual credit initiative is sustainable given a funding model that will allow for a partnership between the institutions to continue. This requires the development of a structure that allows students to be recognized for public funding through both institutions. The desire to make dual credit work in Lethbridge has been exceptional. The level of collaboration between school, board, and the university is a strong model for other schools to follow. As we move into our second year of classes, student interest in the courses remains strong. A clear expansion plan will be key given the financial structures put in place to support the funding of involved students. Continuing to ensure a strong fit between dual credit university courses and high school curricula will be important to maintaining broad support for the program and student success.</p> <p>A crucial aspect of ongoing participation of qualified high school students is the funding model that allows all students, regardless of their socio economic status to become inspired and continue on with their post-secondary learning. To meet the goals of the DC strategy as outlined for all students tuition fees must be funded. Should tuition not be waived, the goals of the strategy will be compromised, as only some students will be able to access the opportunity, and the gap between have and have-not students will continue to grow. Also key to sustainability is a simplified funding model. One option is to create a new Dual Credit Strategy CEU funding band for 8 credits, which would automate the funding distribution to offset tuition and instructional costs of approved University courses. University courses are</p>	51	Liberal Education 1000	Sustainable with provincial DC framework – With multiple partners –

approved via the Post-Secondary Learning Act and do not need to be re-stated as locally developed courses which will substantially streamline delivery.			
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10. Appendix D – Necessary Conditions for Sustainability Content Analysis

Question 72-1 Input	Op. #	Opportunity Name	Category
In spite of the willingness of both partners, this dual credit opportunity is not sustainable over the long term without the Strategy funding and increased student uptake. Unfortunately, due to our school size, student programming can often be a challenge. This has resulted in smaller-than-anticipated class sizes. Although student and parent interest is high, students have full course schedules and when they absolutely need a course that is programmed at the same time as the dual credit opportunity, the required course is selected over the dual credit course. These conflicts seem to be largely unavoidable. With continued Strategy funding at current levels, the opportunity could be sustainable.	4	Natural Resources Management and Environmental Science	Strategy funding continued Optimal enrollment numbers
We are unable to generate a strong level of interest in this program due to the current downturn in the economy.	7	Oil and Gas Foundations Pathway	Labour demand (currently weak)
Partnership is sustainable if additional funds are added as supervisory costs are high and tuition costs are high.	10	Community Knowledge Campus Science and Technology Centre	Strategy funding continued
Sustainability is dependent on filling the program to capacity. We believe that our demographic profile is the main reason why we are unable to maintain capacity.	11	Cosmetology – Advanced Placement	Optimal enrollment numbers
We are currently looking into partnering with another post-secondary institution to provide programming for our students. If availability is viable the program would be sustainable.	14	Health Care Aide Program	PSI support
The main barrier to a sustainable model is financial. The college is limited to tuition as its primary revenue source for program delivery and even though tuition represents less than half of the cost of program delivery, the school divisions feel they cannot afford to pay that amount (although agreement on what they could afford varied by school division). Costs for customized program delivery such as is typical for a college with a corporate client or third party (e.g. First Nation band) are generally higher than the standard "public" delivery, and are charged out on a cost-recovery basis. Public post-secondary students are expected to contribute to the cost through their tuition and lower income students can access financial	20	Dual Credit Health Care Aide Program	Strategy funding continued Business/industry support Staffing efficiencies

<p>aid sources. In the case of dual credit, tuition cannot be charged to the student directly, which means the full cost of that student's education must be paid through public funds. We have explored, though discussion only at this point, the possibility of industry sponsorships or fundraising specifically for these types of programs. In another model of dual credit that we are delivering (not grant-funded), the partners have invested in professional development of specific teachers to eliminate the extra cost of both a secondary and post-secondary instructor. This model is more challenging for some programs than others, depending on the post-secondary instructor qualification required.</p>			
<p>The largest barrier in our DC program is the discrepancy between CEU funding for the 3400 series of courses and the costs of instructing these courses at a college campus. In rural AB, we rarely have shop space in our schools, never mind a dual ticketed journeyman/ B.Ed. Therefore, offering the 3400 series of courses is best accomplished via a college partnership. Utilizing college instructors and shop space ensure quality of instruction and safe learning spaces for students; however, it also comes at a cost. With current CEU funding, it takes approximately 15 students per cohort to break-even with instructor costs (using the AIT mandated 360 minimum course hours of instruction); on a per student basis, the shortfall is approximately \$1000.00. Additional surcharges, materials costs, campus/ student fees, video conference infrastructure, program coordination etc. are not included in this calculation. In smaller school divisions, finding 15 students per cohort, per intake is highly improbable. During our pilot, we ran cohorts with a minimum of 8 students, meaning that there was a substantial deficit with each intake. Attempts were made to partner with neighbouring school divisions to no avail. The expectation that industry provides funding for such offset shortfalls in dual credit programs is also unrealistic. When the trades sector is prosperous, funding of this sort may be available. However, with the downturn in the oil and gas sector the past two years, there has been little to no industry support. Relying on industry to provide funding for secondary programming is not fair or realistic. If we truly believe that dual credit opportunities benefit secondary students, then sustainable and long-term funding structures need to be put in place.</p>	21	Pre-Employment Dual Credit	<p>Optimal enrollment Multiple partners Labour demand Strategy funding continued Blended programs</p>

<p>We are running our dual credit trades programs this, 2016-2017 school year, with one time funding from our Board of Trustees covering the CEU shortfall. The board made this financial commitment because they see the success of, and need for, this type of program in our rural context. They are unable to provide this level of support past this year however, and remain hopeful that by the 2017-2018 school year sustainable funding and dual credit program model will emerge provincially. Meanwhile, in an attempt to improve the sustainability of our program, our 2016 - 2017 dual credit trades programs are condensed delivery, meaning our program meets only the minimum recommended hours of instruction, not the additional hours the pilot included to support student learning. We have also eliminated all of the safety certifications as our attempts to have these industry funded were not substantiated. We continue to explore partnerships with neighbouring boards, but the 100% CEU recovery model is not selling feature when trying to bring other rural boards into the fold. We have also explored mobile shop ideas, although these are very expensive and do not reduce instructor costs per hour, so do not seem to be a viable option.</p> <p>The stakeholders in this partnership have spent many hours discussing how to expand this program to more trades areas, and make it viable. It is our opinion that proper funding would be the best solution. In absence of this, special considerations by AIT and the ATA to accommodate high school students into regular AIT intake groups should be a consideration. This model, while complicated under the current structure of professional duty of care, off campus provisions, assessment etc., would allow students to pursue first period training in their grade 12 year, with secondary funding, in any certified trade, without the expectation of filling an entire high school cohort group. Another model we have considered is video conference delivery of theory components, followed by an intensive summer institute placement on the college campus. Secondary students could utilize post-secondary student housing on campus under this model. College instructors however, worry that this model disconnects theoretical and practical learning and may make comprehension and retention of the material more difficult for students.</p> <p>In summary, we feel that our blended model of video conferencing and on-campus instruction is the best model for secondary students. Unless funding</p>			
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structures change however, we are unsure how to create sustainability moving forward.			
<p>This model is very costly because of the need for a NorQuest Instructor / Lab Instructors and an over-seeing certified teacher. This type of dual credit is dependent of the advertising and promotion of the program, so that the enrollment of the program is large enough to cover the costs. There are additional costs for supplies, materials, scrubs, textbooks and resources. We were very fortunate to have already had an established lab set up at St. Joe's, so we did not have to use funds to assist with the setup of the infrastructure and furniture. It is beneficial to have the certificate program mapped out to Alberta Education curriculum. Covenant Health are a valuable partner, by providing our students placement in their practicum. Both of our partnerships will continue to grow as we continue to meet the needs of our students. Students are becoming more resilient in their capacity to explore their passions and interests beyond the typical high school courses and explore areas that will begin their pathway to a future career. There is a need in the labour market for employees to support the aging population and students exploring the area of health fields allows them to have a wide variety of choice and selection.</p>	22	Reaching Beyond the Classroom	<p>Staffing efficiencies Optimal enrollment Facilities available Curriculum mapped Labour demand</p>
<p>The school cannot afford to supplement the cost of college technical instruction, certified teacher supervision, supplies and program costs for this type of program. There is also the challenge of facility space for program delivery.</p>	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	<p>Strategy funding continued Facilities available</p>
<p>Sustainability of the courses mentioned in this project differs. The 4th Class Power Engineering opportunity through Lakeland College was a wonderful opportunity for the two cohorts, but Lakeland College cannot be expected to provide full programming to high school students without some compensation. Many of the MOU's that Lakeland College has with jurisdictions involve a partial CEU compensation that helps cover the cost of the Instructors. These agreements are at a financial loss but are considered an investment in future registrants after high school graduating. Again NLSD appreciates the generosity of the arrangement we had with Lakeland College. If a partial CEU arrangement is put in place it becomes more palatable for the college and certainly has dollar implications at the school level. CEU generation at the high school is essential for</p>	24	Trades Exposure Dual Credit Program	<p>PSI support Strategy funding continued Multiple partners Blended programs Business/industry support</p>

<p>internal programs. When CEU dollars must be spent outside the organization it has financial impact. Energy Education 35-5 is sustainable. The course is accessible across the province with the standard ADLC CEU sharing. The knowledge and skills contained in the course are beneficial to any student interested in the oil industry. The course also helps students meet the 30 level graduation requirements.</p> <p>Class V Driver Training 35-5 is sustainable. The course is accessible across the province with the standard ADLC CEU sharing. The content and practical component is beneficial, and the course also helps students meet the 30 level graduation requirements. The sustainability of the Service Rig Safety and Floor Hand Experience Special Project is going to be more challenging. Due to the nature of the equipment and specialized instruction, the course costs are high. NLSD greatly appreciates the generosity of its partners and the continuation of the programming will be dependent on further partnerships and the use of the facility by other schools, school jurisdictions, Industry, and other professional users. The revenue from the non-school users will be essential to subsidize or eliminate the access costs to high school students.</p>			
<p>For the Dual Credit Program to be sustainable several factors must be in place. 1. An experienced instructor/teacher who is able to plan and deliver lessons that provide the students with real successes and leaves them with a sense of accomplishment. 2. Committed students who have a strong desire to achieve a goal. 3. Adequate facilities and equipment to house the program....</p>	25	Atikameg School / NLC Dual Credit Partnership	Optimal enrollment Facilities available Student supports
<p>Block and/or CEU funding for high school students doesn't take into consideration the structure of School Within A College. For a program such as this to work financially, we need to take into account the cost of IA labs at the post-secondary institution, the cost of hiring additional industry-based instructors along with a qualified teacher, and the cost of necessary student materials (PPE, shop materials, work manuals, etc.). The only way that this partnership worked financially was due to the seed money RDC received to initiate dual credit programming.</p>	27	School within a College (SWAC)	Strategy funding continued
<p>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</p>	32	Health Care Aide Program - FrancoSud	Multiple partners Labour demand Strategy funding continued

-are resilient -address resourcing costs			
I think it could be sustainable if I could find enough online courses to accommodate the interests of about 20 of our students during a high school block. The number of CEU's generated would have to cover the cost of tuition and adult supervision or the students won't be successful.	35	East Wheatland Agriculture Studies	Blended programs Optimal enrollment
Block funding at one of our schools provides a challenge for sustainability. By having a certified teacher within the school instruct the courses during the regular timetabled day allows for greater sustainability. With 2 of the courses, we had to employ a NorQuest instructor to teach the course because we did not have a teacher with the necessary qualifications. This model was more costly and made this type of dual credit opportunity more difficult to sustain. Our partnership with NorQuest does have fees attached to the course offerings, so this is a piece that a school would need to pick up that would not exist with other school offerings. We have collaborated with Covenant Health and they are willing to offer us support through man hour time to work with our students in supplement to this course and discuss labour market needs. Both of our partnerships will continue to grow as we continue to meet the needs of our students. Students are becoming more resilient in their capacity to explore their passions and interests beyond the typical high school courses and explore areas that will begin their pathway to a future career. There is a need in the labour market for employees to support the aging population and students exploring the area of health fields allows them to have a wide variety of choice and selection.	36	Allied Health Pathways - Edmonton Catholic Schools	Staffing efficiencies Strategy funding continued Labour demand
The block funding model is not a sustainable funding model for dual credit. Although, by having a certified teacher within the school instruct the courses during the regular timetabled day allows for greater sustainability. Our partnership with NorQuest allows for the mentorship with the certified teacher to occur, which allows for a very transparent and collaborative approach to having schools meet the needs of their students. This mentoring fee is a piece that will need to be further examined because this becomes an extra cost to the school. We have collaborated with CPA and they are willing to offer us support through man	38	Accounting Technician Certificate - Edmonton Catholic Schools	Staffing efficiencies Strategy funding continued Labour demand

<p>hour time to work with our students in supplement to this course and discuss labour market needs. Both of our partnerships will continue to grow as we continue to meet the needs of our students. Students are becoming more resilient in their capacity to explore their passions and interests beyond the typical high school courses and explore areas that will begin their pathway to a future career. There is a need in the labour market for employees to have an understanding of business and entrepreneurship and this is one way that high schools can allow students to begin exploring these areas.</p>			
<p>Principals would be reluctant to take out of their block funding budgets to pay for tuition. Based on the example of a Block Based funded school receiving \$5909.70 per student for a 33 credit average. Schools are being asked to use approximately 15% of their budget to pay for tuition, counselling time,/support for the student/promotion and coordination of the program and not generating monies to replenish their budget. Instead of receiving monies for a program that has 10 CTS credits and would therefore normally generate approximately \$1772.91, they are being asked to wait for the funding model to catch up and reflect the increase in average CEUs. This ratio is not doable, as the \$5909.70 is being spread too thin to sustain other programming also. This is especially true once the program numbers for dual credit courses begin to climb, or students want to take more than one dual credit course in a year. It would require that the funding model continuously move up each year as the 3 year rolling average changes. It could not be frozen in place for multiple years at one time.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Strategy funding continued
<p>While the answer to the question of a sustainable dual credit partnership in this case is "no", the relationship between the school and the business that resulted from this opportunity will be sustained. None of the students who have engaged in this project were interested in the business aspect; the Blue Seal certification. These students wanted to be welders. Therefore the post-secondary half of 'dual' was a bust. However, the availability of an off-site facility where students could get instruction from a journeyman teacher, emerged from an otherwise failed project. In fact, the enthusiasm to sustain a relationship between Wabash and the High School is evidenced by the registration of students for next year. Students are</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Labour demand Staffing efficiencies Business/industry support

<p>choosing to take fabrication courses, off-site at Wabash Industries, and will continue to be instructed by a Pembina Hills Teacher. Where this school had no fabrication program before, there is one now.</p>			
<p>Of the attributes listed, it is difficult to assume that resourcing the HCA program will be sustainable for the long term. Some key elements include: cohort based, a fixed post-secondary tuition and needs of students are variable. So long as there is a critical mass of students wanting the program, it can be operated in a cost-recovery method. However, this presumes a CEU funding system. Schools that have moved to Block Funding in order to access the flexibility needs of the rest of the student population, are simply not well resourced to support a program with less than a critical mass. In addition, because this program was developed and initiated after the switch to Block Funding, the CEU average count has not included these credits. We offer broader programming through this Dual Credit opportunity, but have no additional support to fund it. The risk is entirely in the High School. The post-Secondary takes no risk, and gets funded whether or not the student cohort meets the critical mass, and whether or not the students are successful.</p> <p>Because of the large, and fixed post-secondary tuition costs involved, the only way this program can be sustainable would be if Dual Credit could remain CEU funded, which MFWHSR has made challenging. A small rural high school could not draw a large enough cohort each year on its own and the project would probably end. Our solution has been to open the program to other high schools in the jurisdiction and to neighbors within and surrounding our jurisdiction (Catholic schools, and Private schools) This requires a liaison role, centrally supported, to connect high schools, their students and families, the post-secondary and the off-campus placements. Creating an opportunity for students from multiple schools and school districts is an incredible privilege, yet also challenging and time consuming. There needs to be provisions/incentives made for rural communities that work hard to make it work.</p>	42	Health Care Aide Dual Credit - Pembina Hills RSD	Optimal enrollment Strategy funding continued Multiple partners
<p>- Cost of Post-Secondary tuition is prohibitive due to block funding vs. CEU funding. CEU Funding would allow schools to pay tuition where Block Funding does not at this time.</p>	43	Northern Gateway Administrative Professional	Strategy funding continued – enhanced CEU \$

<p>Student initial application costs are on-going, tuition costs are ongoing, although the tuition amount has decrease due to the fact that our certified teachers are now accredited college instructors for the two dual courses being offered at Kainai High School; Transportation costs - due to our rural location and low SES our students require bussing to and from the college for initial visit and observations and for their weekly practicum to the various Early Childhood Facilities.</p>	44	<p><u>Early Childhood Education - Kainai Board of Education</u></p>	<p>Staffing efficiencies Strategy funding continued</p>
<p>Stable funding model, for example a continuation of the Strategy grant; Unwavering agreements in place with the post-secondary institutions, allowing schools to participate with greater ease; Thoughtful partnering of schools and institutions, considering the demographic and makeup of participating schools; well defined processes regarding student registration, credits earned, feedback loop, student monitoring, and curriculum mapping. To help support dual-credit programs, SAIT does not charge for costs related to program administration or overhead. All costs charged are direct program costs, such as the program delivery fee. The tuition fee that would have been waived per student, had this not been under the Strategy, would have been approximately \$500 per student. That was not levied nor recovered in any way in this dual credit partnership as per SAIT's philosophical approach to this opportunity.</p>	46	<p>Career Academic Pathway - Business Academy and Entrepreneurship</p>	<p>Strategy funding continued Provincial DC framework</p>
<p>Lack of funding</p>	48	<p>Technology Credentialing - FVSD</p>	<p>Strategy funding continued</p>

11. Appendix E – Dual Credit Successes Content Analysis

Question 73 Input	Op. #	Opportunity Name	Category
High school students are capable of and willing to accept the rigor of post-secondary courses while still in high school. All students who have registered have been successful in achieving credits both at the high school level and at the university level.	1	Greater St Albert Catholic International School of Business	Students –DC course completion
Enhanced understanding of post-secondary system- we were able to bring this knowledge to our school-based Career Connections teams (Career Practitioners, Guidance Counselors, School Administrators), and it influenced our career pathways strategy.	2	Tourism and Hospitality	Administration – enhanced inter-org understanding
<p>The key successes include:</p> <ul style="list-style-type: none"> -Excellent onsite orientation to Bow Valley College and face-to-face with instructor -Strong connection with Bow Valley College in terms of course mapping and articulation -Great relationships with BVC instructors including communication of progress and grades -Incredible student engagement in the program and inspiration to pursue careers in business, hospitality or the medical field -Exceptional connections with industry partners willing to guide and mentor our students, resulting in lasting relationships -Great opportunities to share information with schools offering Dual Credit (conferences, ACAT) -Students receiving a Bow Valley College Dual Credit Business Certificate 	3	Bow Valley Learning Pathway	Administration – enhanced inter-org understanding Students – enhanced engagement Administration – enhanced connections with business/industry Administration – networking with school authorities Students – DC courses completed
Key successes have included 26 students to completing one university course while still in high school, and one student completing two courses. Other successes have included the highly collaborative nature of the partnership between Springbank and Mount Royal University. Working together has provided the opportunity for both parties to gain insight into one another’s unique situations. This will benefit many future Springbank and MRU students.	4	Natural Resources Management and Environmental Science	Students – DC courses completed Administration – enhanced inter-org understanding Students – enhanced career pathways

<p>For many students, this was an important opportunity to develop confidence in their academic abilities and possible career pathways. Much has been learned by our school-based staff about how Mount Royal University selects students and operates as an institution. This will be helpful guiding students in the future. From the university perspective, there has been an increased understanding of the high school context and curriculum.</p>			
<p>17 students have tried a university course. 5 of our students have successfully completed courses which means that they now have a course completed toward their University career. 12 students were able to dabble in university courses and perhaps are now able to make an informed decision about whether or not the University route was something that they wanted to pursue.</p> <p>Overall, the Dual Credit has been very successful in our division. Although we only requested funding for one partnership, we do have partnerships with three other post-secondary institutions: Portage College (3 programs offered and 3 courses offered), Lakeland College (4 programs offered) and Northern Lakes College (7 programs offered). These partnerships have been very successful.</p>	5	<p>Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214</p>	<p>Students – DC courses completed Students – enhanced career/PSI pathways Administration – networking with other PSIs</p>
<p>We have built a sustainable model that allows all school divisions - large but especially small ones....to partake in and experience this dual credit opportunity.</p>	6	<p>Esthetics Pathway</p>	<p>Administration – networking with school authorities</p>
<p>This dual credit opportunity used engaging curriculum designed to meet the career and/or post-secondary aspirations of students as well as the needs of the business community, and higher education institutions. The partnership that we established with post-secondary and business is vital to providing powerful experiential learning opportunities for our students.</p> <p>Another success that grew out of this program was the development and implementation of a successful Summer Off-Campus program.</p> <p>Students were able to complete credits for the 4th Class Power Engineering and Mentorship Pathway steam time (LCSD, Careers and NAIT), Work Experience and the Registered Apprenticeship Program (RAP).</p> <p>We had thirty students completing these courses in the first summer (2014), forty students in the second summer (2015) and sixty students in the third summer (2016).</p>	7	<p>Oil and Gas Foundations Pathway</p>	<p>Students – enhanced career/PSI pathways Administration – connections with business/industry Students – experiential learning Students – flexible programs Students – enhanced career/PSI pathways</p>

<p>These opportunities allowed our students the flexibility to complete these courses during the summer if they could not schedule them into the regular school year.</p> <p>The hands-on aspect of the Oil and Gas Foundations Pathway and the Summer Program is vital to learner engagement and retention.</p> <p>The teacher and CTS Coordinator planned for students to engage in a wide variety of field trips, hands-on demonstrations, and guest lectures with Subject Matter Experts (SME's) from the field.</p> <p>The CTS Coordinator worked closely with teachers to develop the Locally Developed Course, Oil and Exploration (LDC 1016).</p> <p>These innovative learning structures provided students with a range of learning options that engage and challenge them to reach their individual potential.</p> <p>Opportunities to link the classroom to post-secondary and the field of work were central to this program. We believe that this highly engaging program will lead to increased completion of high school and post-secondary education and/or training.</p>			
<p>We have built a sustainable model that allows all school divisions - large but especially small ones...to partake in and experience this dual credit opportunity.</p>	8	Agricultural Studies	Administration – networking with school authorities
<p>3 Students received a tuition credit (scholarship) towards post-secondary programming at Portage College. One of the successful students has registered in the Business program at Portage.</p> <p>Students responded very favorably to the content in the course. They also really liked the variety of assignments in this course.</p>	9	Business and Entrepreneurship Dual Credit Pathways	Students – enhanced career/PSI pathways
<p>Students had an opportunity to take courses at a level that were higher and more difficult than secondary. WE had a lot of options and narrowing them down provided us with more success. Each of the students at the high school level have a unique program so opportunities were tailored to each student.</p>	10	Community Knowledge Campus Science and Technology Centre	Students – enhanced insight into PSE Students – flexible programs
<p>This opportunity has provided a strong foundation for an ongoing cosmetology advanced placement program and we now have one of the most well-equipped training facilities of its kind in our region.</p>	11	Cosmetology – Advanced Placement	Facilities upgraded DC growth anticipated

Should we have an appropriate number of students to run a cohort, we are now well-equipped and prepared to offer advanced cosmetology programs.			
Enhanced understanding of post-secondary system- we were able to bring this knowledge to our school-based Career Connections teams (Career Practitioners, Guidance Counselors, School Administrators), and it influenced our career pathways strategy. As well, there is improved trades training that became accessible to students through post-secondary trades training.	12	A Regional Approach to Pre-Employment Trades Training	Administration – enhanced inter-org understanding Students – enhanced career/PSI pathways
Many of our students have been awarded certification that has allowed them to work in their home community and potentially work to put themselves through other post-secondary programs.	13	Dual Credit Opportunities and Health Care Aide Program	Students – enhanced career/PSI pathways
Students received a dual credit accreditation	14	Health Care Aide Program	Students – DC courses completed
<ul style="list-style-type: none"> - Students benefitted from this course offering as it presented them with another career choice. - Relationships were developed between the district and post-secondary institution. - District awareness and overall understanding has increased. - Students were able to share their personal stories of success at the CCSD Dual Credit Celebration. - There was continued support from CCSD Senior Administration and the Board of Trustees. -There was continued support from SAIT senior leadership for these types of programs. - The ability to develop additional programs based on student needs and passions. - A stronger partnership was developed with CBE because of the joint offerings of the program. 	15	Production Field Operator: Dual Credit Opportunity	Students – enhanced career/PSI pathways Administration – enhanced inter-org understanding Administration – enhanced intra-org understanding Students – enhanced engagement Administration – networking with school authorities DC growth anticipated
<ul style="list-style-type: none"> - Students benefitted from this course offering as it presented them with another career choice. - Relationships were developed between the district and post-secondary institution. - District awareness and overall understanding has increased. - Students were able to share their personal stories of success at the CCSD Dual Credit Celebration. 	16	Pre-Employment Carpenter Dual Credit Program	Students – enhanced career/psi pathways Administration – enhanced inter-org understanding Administration – enhanced intra-org understanding

<ul style="list-style-type: none"> - There was continued support from CCSD Senior Administration and the Board of Trustees. - There was continued support from SAIT and senior leadership within the organization. - The ability to develop additional programs based on student needs and passions. - A stronger partnership was developed with CBE because of the joint offerings of the program. 			<p>Students – enhanced engagement Administration – networking with school authorities DC growth anticipated</p>
<p>As yet, no CBE students have completed the program. We are looking forward to determining these successes going forward.</p>	17	Production Field Operator: Dual Credit Opportunity	Students – incomplete to date
<p>Positioning the program at a post-secondary institution was critical to its success and acceptance among secondary schools as a viable option.</p> <p>As a result of this program, the CBE developed and nurtured a strong relationship with SAIT that led to other dual credit opportunities.</p> <p>We found that there was greater interest from students and parents when the program was delivered during the regular school day, rather than outside of the timetable.</p> <p>The development of this dual credit opportunity provided a catalyst for other dual credit programs to be established.</p>	18	Pre-Employment Carpenter Dual Credit Program	<p>Administration – enhanced inter-org understanding Administration – networking with other PSIs DC growth anticipated</p>
<p>Success in Dual Credit opportunities may be measured by the number of students who are, after completing their courses, working in the field and have returned to their small communities to provide services, and support the needs of the community, by choosing to stay and live in the community.</p>	19	Health Care Aide	Students – enhanced career/psi pathways
<p>A benefit experienced by all partners is a greater awareness of each other’s systems and operating environments. Initial planning discussions for the first dual credit opportunity focused extensively on understanding the resources and challenges of working collaboratively between the secondary and post-secondary system. Planning and development time in this regard was significantly reduced for subsequent dual credit opportunities. Students who participate in the dual credit opportunities benefit from tuition-free post-secondary education and the opportunity to achieve post-secondary credit more quickly than if they first finished high school. In many cases it allowed students to be exposed to curriculum and content areas that</p>	20	Dual Credit Health Care Aide Program	<p>Administration – enhanced inter-org understanding Students – enhanced insight into PSE Students – enhanced career/psi pathways Students – enhanced engagement Students – DC courses completed</p>

<p>would otherwise not be available to them through their regular high school program. In general, students who participated in dual credit opportunities could expect the same benefits from their post-secondary education as students who participate in post-secondary education after they finish high school. Many of the students completing the HCA dual credit were offered employment upon completion of their program, and other students indicated they were intending to pursue further post-secondary education in the health care field.</p> <p>A number of students found success in a dual credit program who were at a higher risk of not completing high school and unlikely to pursue post-secondary education at all. One such group of students were the... Low German speaking Mennonite students.... This particular student sub-group typically has a low high school completion rate, but were recognized and commended by their college instructors for their dedication and commitment in the Health Care Aide program. 12 of 13 students in this sub-group subsequently completed the program and therefore received not only their high school diploma but also a post-secondary credential leading to strong employment potential.</p>			
<p>Our key dual credit successes lie in the fact that we could offer relevant programming to rural high school students interested in a trade. Many of the students who participated in the dual credit pilot were students who were not interested in taking full academic course loads in high school. Student exit interviews revealed that many of these students had taken what they deemed to be "enough high school courses", and without dual credit would have had a hard time "filling up" their grade 12 year. In some cases, students described a disconnect between school and the career path they wanted to pursue, and saw dual credit as enabling them to acquire "real world skills". Some students admitted that they would have likely left high school had dual credit not been an option. In another case, a student told us that no one in his family had ever attended post-secondary, and he didn't think he could either. His dual credit experience however, showed him that college was attainable, and he plans on completing his full journeyman program. These dual credit trades students, generally speaking, were students who wanted to work with their hands, not sit in a desk. Many were farm kids, who were also making direct</p>	21	Pre-Employment Dual Credit	<p>Students – enhanced career/psi pathways Students – enhanced engagement Students – enhanced insight into PSE Students – experiential learning</p>

<p>use of their newly acquired skills on their family farming operation. Whether the specific trade offered via our dual credit program was the trade of their choice, students overwhelmingly appreciated, and we believe benefitted, from exposure to college level instruction, the development of safety and hand skills, and exposure to a teacher-student relationship that was outside a traditional classroom setting. Students were engaged, attended class, and were exposed to a positive post-secondary experience while developing meaningful relationships and skills. These are all successes of our program.</p>			
<p>“I feel as though a class with just high school students allowed me to feel more comfortable. It was easier to adapt and I felt that I could be successful in the class. I think it is great to be able to take post-secondary courses while I am in high school because I can get a feeling if this is something that I am interested in”. (Student)</p> <p>One of the main successes of the dual credit opportunity in the area of Health Care Aide is the student success. Students feel more confident and comfortable to take a post-secondary class in high school. Students are very motivated to take this program because they see it as a direct opportunity towards future employment. The opportunity to form strong partnerships with NorQuest and Covenant Health will benefit students and meet their needs. Collaboration and sharing through the ACAT committee has been very valuable because of the level of sharing and desire to support dual credit within Alberta. We are developing engaging and relevant learning experiences for students, so they can reach their full potential in becoming ethical citizens and engaged thinkers with an entrepreneurial spirit. In support of the goals of the Strategy, we have found that, we are</p> <ul style="list-style-type: none"> • Increasing learner retention and completion rates of high school programs. • Increasing participation of young adults in post-secondary programs. • Assisting young adults in making meaningful connections to current and emerging labour market. • Expanding local partnerships to offer dual credit programming <p>After completing a post-secondary course, we surveyed the students and 49% within all the dual credit courses indicated that they would be pursuing a career in the health fields.</p>	22	Reaching Beyond the Classroom	<p>Students – enhanced insight into PSE Students – enhanced career/psi pathways Administration – enhanced inter-org understanding Students – enhanced engagement DC growth anticipated</p>

<p>7 out of 8 students successfully passed the AIT 1st Period Technical training exam. One student is currently indentured as an electrician apprentice full time. All participants have or will be graduating with their high school diploma. 7 out of 8 are actively planning to continue their career in the electrical field.</p> <p>Students received an increased amount of instructional hours for this training (360 hours in the high school versus 250 in the college)</p>	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	Students – DC courses completed Students – enhanced career/psi pathways
<p>Strong partnerships are essential to the Dual Credit strategy. These arrangements must be beneficial to both parties without costing either partner too much financially.</p> <p>Students must be truly interested in the dual credit opportunity, and recruitment must be stringent and specific.</p>	24	Trades Exposure Dual Credit Program	Administration – enhanced inter org understanding
<p>X student(s) did achieve some credits.</p>	25	Atikameg School / NLC Dual Credit Partnership	Students – DC courses completed
<p>During the 2015-2016 school year, first- and second-semester student intakes included a total of 10 students from schools within the three strategy-funded school authorities. Qualitative data received to date regarding student progress affirms all students are meeting or exceeding both pacing expectations and post-secondary academic standards established for the two-year program.</p> <p>The engagement and support of NAIT in establishing dual credit curriculum alignment, in student enrolment processes, in providing flexible high school programming, in providing regular updates on student progress, and in assisting other process-oriented tasks has been instrumental in paving the way for the successful journey of students through the pathway courses.</p> <p>Students were able to participate in a six-week summer 2016 internship sponsored by CNRL, with worksite placements established according to home location within the Grande Prairie region. The internships enabled students to gain valuable on-the-job industry experience, apply their theoretical learnings in a practical work environment, and further determine if the OGPO pathway was suitable to their career interests and aspirations. To date, all OGPO students have affirmed this to be the case.</p> <p>Anecdotal feedback received from students, parents and schools has been similarly positive, with frequent reference to the value of the summer internship in helping students connect theory with practice.</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	Students – DC courses completed Administration – enhanced inter org understanding Students – enhanced career/psi pathways Administration – networking with school authorities Administration – connections with business/industry DC growth anticipated

<p>Overall, a spirit of collaboration, collegiality and commitment has prevailed among pilot partners in resolving minor technical and communication issues that have surfaced in program delivery. The approved carry forward funding for 2016-2017 will be used to support a continuation of program delivery to both existing and new student cohorts within the strategy-funded school authorities.</p> <p>Despite challenges in the current economic climate, interest prevails in the OGPO program as a viable strategy for learner retention, career training and workforce development. Over the past year, program access has been expanded beyond the Grande Prairie region to include seven students from four non-funded school authorities in other central and northern communities. It is anticipated that interest among stakeholders for program expansion will continue.</p>			
<ul style="list-style-type: none"> -Positive experience to work collaboratively with secondary, post-secondary, and industry. -Positive experience to see success of students. 	27	School within a College (SWAC)	Administration – networking with school authorities, PSIs, business/industry Students – DC courses completed
<p>Providing opportunities to students who may not have completed high school otherwise. This opportunity has given students a new level of confidence with post-secondary.</p> <p>Many students learned that they are capable of academic success if they put their mind to it.</p>	28	Health Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Students – enhanced insight into PSE Students – enhanced engagement
<ul style="list-style-type: none"> - Students benefitted from this course offering as it presented them with another career choice. - Relationships were developed between industry, the district and post-secondary institution. - District awareness and overall understanding has increased. - Students were able to share their personal stories of success at the CCSD Dual Credit Celebration. - There was continued support from CCSD Senior Administration and the Board of Trustees. - The ability to develop additional programs based on student needs and passions. 	29	Veterinary Technical Assistant	Students – enhanced career/psi pathways Administration – networking with PSIs, business/industry Administration – enhanced intra org understanding DC growth anticipated
<ul style="list-style-type: none"> - Students benefitted from this course offering as it presented them with another career choice. - Relationships were developed between industry, the district and post-secondary institution. - District awareness and overall understanding has increased. 	30	Health Care Aide CCSD and BVC	Students – enhanced career/psi pathways Administration – networking with PSIs, business/industry

<ul style="list-style-type: none"> - Students were able to share their personal stories of success at the CCSD Dual Credit Celebration. - There was continued support from CCSD Senior Administration and the Board of Trustees. - The ability to develop additional programs based on student needs and passions. 			Administration – enhanced intra org understanding DC growth anticipated
<ul style="list-style-type: none"> - Students benefitted from this course offering as it presented them with another career choice. - Relationships were developed between the district and post-secondary institution. - District awareness and overall understanding has increased. - Students were able to share their personal stories of success at the CCSD Dual Credit Celebration. - There was continued support from CCSD Senior Administration and the Board of Trustees. - The ability to develop additional programs based on student needs and passions. 	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Students – enhanced career/psi pathways Administration – networking with PSIs, business/industry Administration – enhanced intra org understanding DC growth anticipated
(No answer provided)	32	Health Care Aide Program - FrancoSud	nil
<p>Students benefit from this course offering as it presented them with another career choice. Relationships were developed between the district and post-secondary institution. District awareness and overall understanding has increased. The ability to develop additional programs based on student needs and passions. Ease the transition to post-secondary</p>	33	ACAD Design Fundamentals	Students – enhanced career/psi pathways Administration – networking with PSIs Administration – enhanced intra org understanding DC growth anticipated Students – enhanced insight into PSE
<p>Development of relationships with post-secondary partners has led to other dual credit opportunities.</p> <p>The collaboration of the Fashion Studies teachers within the CBE has increased due to their involvement in the program with Olds College.</p> <p>Offering students the opportunity to participate in Fashion Marketing programs not available in their home high school.</p> <p>Supporting students in the transition to post-secondary.</p>	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Administration – networking with PSIs DC growth anticipated Students – DC courses completed Students – enhanced insight into PSE
Over a period of two years 37 of our high school students took a course under our PDCS which is approximately 30% of our high school population. The students earned 174 credits in total which is an	35	East Wheatland Agriculture Studies	Students – DC courses completed Students – enhanced career/psi pathways

<p>average of 4.7 credits / student. It gave our students a much broader selection of courses to take. Taking courses not normally available to them allowed them to explore other potential career areas. The students acquired the skills and confidence to be successful at the post-secondary level.</p>			<p>Students – enhanced insight into PSE</p>
<p>“I feel as though a class with just high school students allowed me to feel more comfortable. It was easier to adapt and I felt that I could be successful in the class. I think it is great to be able to take post-secondary courses while I am in high school because I can get a feeling if this is something that I am interested in”. (Student)</p> <p>One of the main successes of the dual credit opportunity in the area of Health Fields is the student success. Students feel more confident and comfortable to take a post-secondary class in high school. By having a teacher within the school teach the courses, they are able to build excitement and momentum about the program. The opportunity to form strong partnerships with NorQuest and Covenant Health will benefit students and meet their needs. Collaboration and sharing through the ACAT committee has been very valuable because of the level of sharing and desire to support dual credit within Alberta. We are developing engaging and relevant learning experiences for students, so they can reach their full potential in becoming ethical citizens and engaged thinkers with an entrepreneurial spirit. In support of the goals of the Strategy, we have found that, we are</p> <ul style="list-style-type: none"> • Increasing learner retention and completion rates of high school programs. • Increasing participation of young adults in post-secondary programs. • Assisting young adults in making meaningful connections to current and emerging labour market. • Expanding local partnerships to offer dual credit programming <p>After completing a post-secondary course, we surveyed the students and in one course, 46 % of the students indicated that they were more likely to enter into a post-secondary program because of the success</p>	<p>36</p>	<p>Allied Health Pathways - Edmonton Catholic Schools</p>	<p>Students – enhanced insight into PSE Students – enhanced career/psi pathways Administration – networking PSIs, business/industry Students – enhanced engagement DC growth anticipated</p>

<p>that they experienced as a result of their dual credit experience in school.</p>			
<p>Enhanced understanding of post-secondary system- we were able to bring this knowledge to our school-based Career Connections teams (Career Practitioners, Guidance Counselors, School Administrators), and it influenced our career pathways strategy.</p>	37	Aviation Management	Administration – networking with PSIs
<p>“Taking a dual credit course has really been eye-opening for me. Currently, I’m registered in Accounting-1 and it’s been a great experience. As a high school student, this program has allowed me to explore different options available out there in the real world. Also, I’ve discovered new interests that I never even imagined that I might take a liking to.” (Student) One of the main successes of the dual credit opportunity in the area of Accounting / Business is the student success. Students feel more confident and comfortable to take a post-secondary class in high school. By having a teacher within the school teach the courses, they are able to build excitement and momentum about the program. The opportunity to form strong partnerships with NorQuest and CPA will benefit students and meet their needs. Collaboration and sharing through the ACAT committee has been very valuable because of the level of sharing and desire to support dual credit within Alberta. We are developing engaging and relevant learning experiences for students, so they can reach their full potential in becoming ethical citizens and engaged thinkers with an entrepreneurial spirit. In support of the goals of the Strategy, we have found that, we are</p> <ul style="list-style-type: none"> • Increasing learner retention and completion rates of high school programs. • Increasing participation of young adults in post-secondary programs. • Assisting young adults in making meaningful connections to current and emerging labour market. • Expanding local partnerships to offer dual credit programming <p>After completing a post-secondary course, we surveyed the students and in one course, 46 % of the</p>	38	Accounting Technician Certificate - Edmonton Catholic Schools	<p>Students – enhanced career/psi pathways Students – enhanced insight into PSE Administration – networking with PSIs, business/industry Students – enhanced engagement DC growth anticipated</p>

<p>students indicated that they were more likely to enter into a post-secondary program because of the success that they experienced as a result of their dual credit experience in school.</p>			
<p>The collaboration with colleges around the province, ACAT committee members, CASS, etc. has been a phenomenal experience. This is a massive initiative that is great for students. Schools are just beginning to take advantage of this opportunity. Parents are excited to have challenging work provided for their child. This is a growing program for many rural school divisions. It levels the playing field for rural students compared to their urban counterparts. Schools can now challenge students who are ready to transition to post-secondary. It will increase our HS completion rate and decrease our dropout rates. It is very encouraging to see the numbers of dual credit students increase. We have created a Locally Developed Course, Foundations in Industry Workplace Safety as a result of this initiative. It took long hours to create it with many partners at the table, but it is a successful part of this initiative also.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Administration – networking with PSIs DC growth anticipated Students – enhanced engagement (rural) Students – enhanced insight into PSE
<p>It is important to note that the dual credit initiative between LCI and the University of Lethbridge was open to all qualified grade 11 and 12 students, thereby offering an opportunity for all students to benefit from the program. The key successes rest in the experiences of students. The initiative has given students the ability to experience a new phase of learning in a supportive environment. The scaffolding that the program offers ensures a great degree of student success. Students identified that the level of independence and personal responsibility were two distinctive features of the dual credit class. Students were supported in the program through access to specified workshops in research and study skills to give them the tools to lay a foundation for post-secondary pursuits. It should be noted that most students did exceptionally well academically in the classes. From a collaborative perspective, the dual credit program has been a success in bringing the university and high school to a greater level of mutual understanding. This partnership has encouraged greater discussion regarding the mutual aims of both institutions to improve the quality of education for students as we move into the final year of our pilot.</p>	40	Management 1070 - Systems and Supply Chains Management	Students – enhanced engagement Students – enhanced insight into PSE Students – DC courses completed Administration – enhanced inter org understanding Administration – networking with business/industry

<p>Another success has been the connection to our business partner (Haul-All) and the "real-world" application of what students were learning in class. The personal connection with a locally based executive of the company contributed substantially to the partner's involvement and the students' experience.</p> <p>The goal to open pathways for secondary students into post-secondary institutions was met by allowing any qualified secondary student to participate in University courses without cost to the student regardless of their socio-economic status.</p>			
<p>The development of a sustainable school - industry relationship. Planning together toward a common purpose has helped participants develop opportunities for our young people.</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Administration – networking with business/industry
<p>The success of this dual credit opportunities are the stories of the students.</p> <p>One student had struggled with typical high school for many years and ended up as a part-time student at Outreach⁶.... During the summer, our dual-credit coordinator suggested the HCA opportunity. Because their recent experiences had been tenuous, their Outreach teacher was cautious about success. Initially X was very quiet, but as X achieved success, X has gained both confidence and skill....X's future is definitely brighter now that X has gained confidence, social skills, friends, and a certificate that will provide... meaningful employment and a better than entry-level wage.</p> <p>Another student is a very bright... with social skill challenges... The cohort delivery model has helped X gain social skills in the safe, close-knit environment. Another student has learning challenges and has been able to achieve success through oral examinations. Another student needed to upgrade academics and chose the HCA program to help with long-term goals. Another student who is a new Canadian, had been accepted into the nursing program....X didn't want to put the family's finances at risk if X changed... career.... X is now...going on in the nursing field. Whether it be gaining the confidence (through the support of new friends) to let go of unhealthy relationships, or to take care of yourself through a pregnancy, or to gain confidence as a newer Canadian,</p>	42	Health Care Aide Dual Credit - Pembina Hills RSD	Students – enhanced career/psi pathways Students – enhanced engagement Students – enhanced insight into PSE Administration – networking with school authorities

⁶ Student gender references have been masked with "X" and text edited here and throughout the survey comments to eliminate potential for unique identifiers.

<p>or to have the support of a safe environment to try out post-secondary, this dual credit opportunity has been extremely successful on so many levels for each of our students. They are the success of the program. They are why this program needs to be viable. From a facilitation perspective: It is amazing how well the video conference aspect of this program went as well as working with other school districts. With multiple VC sites for next year, we are hoping to replicate this year's success.</p>			
<p>Great success was achieved as we thought we would only be able to work with 12 students when in fact we were able to work with 57 students by seeking permission from the Provincial Dual Credit Steering Committee to work in other programming areas. This enabled us to offer programming in the following:</p> <ul style="list-style-type: none"> -Health Care Aide -Administrative Office Professional - Post Secondary Psychology courses - Post Secondary Educational Assistant -Harley Davidson Certificate -Veterinary Technician 	43	Northern Gateway Administrative Professional	DC growth reported
<p>We had 45 students complete our program and we have 41 post-secondary credits. 2 of our 2016-2017 graduates have entered the Early Childhood Education program at the Lethbridge College. Our 2 certified teaching staff are now accredited post-secondary instructors.</p>	44	<u>Early Childhood Education - Kainai Board of Education</u>	Students – DC courses completed Students – enhanced career/psi pathways Administration – networking with PSI
<p>We have been able to help small high school program to retain students in the Francophone system because of this opportunity and help student gather credits to help them graduate.</p>	45	Early Learning and Child Care program for High school students	Students – enhanced engagement
<p>The business partnership with ATB; students feeling like an 'adult'; free post-secondary course with credit; added a special excitement to the course, knowing they were getting post-secondary credit; Revealed more to the students about their post-secondary path; Opportunity for authentic, real world learning. This was a great opportunity for SAIT and RVSD to work together as it was the first time the two partners had worked together.</p>	46	Career Academic Pathway - Business Academy and Entrepreneurship	Administration – networking with business/industry Students – enhanced engagement Students – enhanced insight into PSE Students – enhanced career/psi pathways

			Administration – networking with PSI
Working with a PS partner who saw the merit in having informed students enter the program, and thus, contributed by giving permissions, instead of setting up red-tape and obstacles. Students who had no sense of what kind of skills and attitudes were needed to pursue a career working with vulnerable populations - in our case, special needs learners - had the opportunity to learn about the work, and themselves without the pressure of dual enrollment - which can be overwhelming and daunting for many students who struggle as they become quickly aware of the long term negative impact of having a poor PS transcript.	47	Special Needs Educational Assistant - Edmonton Public Schools	Administration – networking with PSI Students – enhanced career/psi pathways Students – enhanced insight into PSE
Student Training in an area of need for the region	48	Technology Credentialing - FVSD	Students – enhanced career/psi pathways
WVO Qualitative data received indicates that the high school students are meeting or exceeding both pacing expectations and post-secondary academic standards. Collaboration amongst the partners (NAIT, CAREERS: The Next Generation and the three school districts) has provided students with an opportunity to excel at the high school and post-secondary level. The services rendered by NAIT in course enrolment processes, in providing program flexibility to meet student learning needs, and in assisting other process-related tasks have been critical and contributing factors in the success experienced by students through their coursework. The summer work experience placements has allowed students to connect theory to practice. The industry experience has allowed students to gain valuable on the job industry experience to apply their theoretical learnings in a practical environment. This competent assists students in determining if this is a career pathway that is suitable to their interests. Anecdotal feedback received from students, parents and schools has been similarly positive, with frequent reference to the value of the summer internship in helping students connect theory with practice. Overall, a spirit of collaboration, collegiality and commitment has prevailed among pilot partners in resolving minor technical and communication issues that have surfaced in program delivery. The approved carry forward funding for 2016-2017 will be used to support a continuation of program delivery to both	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Students – DC courses completed Administration – networking with PSIs, school authorities Administration – enhanced inter org understanding Students – enhanced career/psi pathways DC growth anticipated

<p>existing and new student cohorts within the pilot-funded school authorities.</p> <p>Over the past year, program access has been expanded beyond the Grande Prairie region to include seven students from four non-funded school authorities in other central and northern communities. It is anticipated that interest among stakeholders for program expansion will continue.</p>			
<p>Key successes include increased student engagement, high completion rates, win-win learning experiences and community partnerships that provide meaningful employment where student earn and learn.</p> <p>Through the project we maintained many of our learning positions and expanded others. Students are required to be in "good standing" in all core courses and on track to graduate. Attendance at the work site is only allowed if the student remains in good standing as employers insist that graduation is a requirement for being in the program.</p> <p>Work place certification (hours recognized by the apprenticeship board or steam hours for power engineers) and preferred placement with post-secondary's give students the chance they need to launch their career pathways. Connecting our employers with local youth has been a huge success and this has been strongly supported by the Town of Whitecourt and Woodlands County. This support has also benefited students through career focused activities such as our Career & Education Expo and Job Fair.</p> <p>It is important to acknowledge the over 60 student experiences on five field trips to NAIT our Post-Secondary partner. We expect up to twenty or more students will be enrolling with NAIT as a result of this project. Their assistance in connecting students to appropriate post-secondary pathways has been exceptional and the funds provided by the grant helped to make this possible.</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	<p>Students – enhanced engagement</p> <p>Students – enhanced career/psi pathways</p> <p>Administration – networking with PSI</p> <p>DC growth anticipated</p>
<p>It is important to note that the dual credit initiative between LCI and the University of Lethbridge was open to all grade 11 and 12 students, thereby offering an opportunity for all students to benefit from the program. The key successes rest in the experiences of students. The initiative has given students the ability to experience a new phase of learning in a supportive environment. The scaffolding that the program offers</p>	51	Liberal Education 1000	<p>Students – enhanced engagement</p> <p>Students – enhanced insight into PSE</p> <p>Students – DC courses completed</p>

<p>ensures a great degree of student success. Students identified that the level of independence and personal responsibility were two distinctive features of the dual credit class. Students were supported in the program through access to specified workshops in research and study skills to give them the tools to lay a foundation for post-secondary pursuits. LBED 1000 was a clear fit for student because it appeals to and builds on current high school courses such as social studies, math, science, fine arts and the humanities. It should be noted that most students did exceptionally well academically in the classes.</p> <p>Alberta Education focuses on authentic learning, cross-curricular competencies and critical thinking. The U of L's founding principles of liberal education and the integration of those principles in our courses ensure excellent fit with that focus.</p> <p>From a collaborative perspective, the dual credit program has been a success in bringing the university and high school to a greater level of mutual understanding. This partnership has encouraged greater discussion regarding the mutual aims of both institutions to improve the quality of education for students.</p> <p>The goal to open pathways for secondary students into post-secondary institutions was met by allowing any qualified secondary student to participate in University courses without cost to the student regardless of their socio-economic status.</p>			<p>Administration – enhanced inter org understanding Administration – networking with business/industry</p>
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12. Appendix F – Dual Credit Challenges Content Analysis

Question 74 Input	Op. #	Opportunity Name	Category
<p>We will need to solve the 2 teacher issue to make dual credit truly sustainable in future. A professor should not have to be supervised by a high school teacher because this doubles the cost of instruction for these programs. The irony in year 1 of our project was that the professor was a former teacher at the school and now had to be supervised by a former colleague to be able to teach in our school but if we transported the students to Grant MacEwan he would not have to be supervised, this has to change ASAP.</p>	1	Greater St Albert Catholic International School of Business	Staffing - inefficiencies
<p>Scheduling-the new accelerated diploma in block formatting did not align well with high school students schedules.</p> <p>Travel/transportation: Some students who were interested in one or more courses lived at too far a distance to be able to make it to classes.</p> <p>Curriculum articulation: We made it work so that we could at least offer courses as dual credit, however it is certainly not a perfect alignment, nor does it really make sense in the big picture to award introductory level CTS courses for college level curriculum. While we were able to make 9 courses in the diploma program work, there were many that we couldn't make work that might have been appealing to students.</p>	2	Tourism and Hospitality	Student access – scheduling Student access – transportation Program – curriculum mapping
<ul style="list-style-type: none"> -Time involved in establishing partnerships, attending site visits and coordinating student practicum and their evaluation -Sustainability of student retention -Time involved in establishing an awareness of the program -Challenge for students in an online environment, especially the asynchronous mode of delivery -Generating interest in multi-campus -Cost of the tuition is a challenge/leaving no money to cover the cost of the coordinator -We have built an expectation for this program and may not be able to deliver on the promise 	3	Bow Valley Learning Pathway	Administration – time required Students – asynchronous difficult Financial cost - coordinator
<p>Despite the many successes, one of the key challenges of this partnership has been incredible staff turnover. The initial lead teacher, X, the program liaison, X and principal, X, left the project in the planning stages due</p>	4	Natural Resources Management and Environmental Science	Staffing – turnover Student access – scheduling

<p>to other career and personal life circumstances. On the Mount Royal University side, the university liaison, X and program chair, X, also changed portfolio assignments.</p> <p>In addition to this, our industry partner, X ... sold the nursery immediately prior to the beginning of the first cohort commencement, and his successor was not interested in participating in the project. New partners from Springbank and Mount Royal University have successfully completed the project, but doing so has been a challenge at times due to the changeover. We have also discovered that our timetabling has been a significant challenge at Springbank Community High School, with the relatively small size of our school often limiting students' options in terms of course choices in specific blocks. The scheduling conflicts between the environmental science courses and other academic courses forced students to make choices, leaving the environmental science courses with lower enrollment.</p>			
<ol style="list-style-type: none"> 1. Cost. 2. Incomplete courses. Some courses are harder than what our students had anticipated, so they drop them. Student's maturity levels may be a factor affecting this. 3. Setting up processes with the University that allow us to track and monitor students success. 4. Communication with the University needs to be improved. 5. Motivating students. 6. Students are not studying in cohorts and have commented that they feel they are studying in isolation. These courses are hard and they have stated that peer support would be welcomed. 7. Making staff, students and parents are not aware of opportunities that are available, and if they are aware, some do not understand the benefits of Dual Credit. Principals and career counsellors need to be well versed in what is offered and how the courses will benefit students. 8. Roles. University staff, division office staff, school admin and teachers need to understand what their role is in a student's success of a Dual Credit opportunity. 9. Time involved in mapping. 10. Scheduling problems. Some students can't fit courses into their program. 11. Maintaining the partnership with industry. 	5	<p>Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214As</p>	<p>Financial cost – Student access – difficulty level Administration – PSI liaison Student access – motivating students Student access – scheduling Administration - awareness Staffing – role awareness/clarity Program – curriculum mapping Administration – business/industry liaison</p>
<p>East Central and LLC have an amazing working relationship. We have used our funding to build a sustainable program.</p>	6	<p>Esthetics Pathway</p>	<p>No challenges – sustainable program</p>

<p>The CTS Coordinator began with the Lakeland College course, HL 119 (Oil and Exploration) and reviewed CTS courses to see if there was an alignment between the content of this course and existing CTS courses. X was unable to establish a clear fit between existing CTS courses and the course content for HL 119. The CTS Coordinator and a senior high school Chemistry teacher then began working on developing a Locally Developed Course (Locally Developed Course, Oil and Exploration - LDC 1016) that aligned with the course content of HL 119. As they developed the course, they engaged with the partners, Imperial Oil and Lakeland College for feedback. This process was worthwhile but very time intensive.</p>	7	Oil and Gas Foundations Pathway	Program – curriculum mapping
<p>East Central and LLC have an amazing working relationship. We have used our funding to build a sustainable program.</p>	8	Agricultural Studies	No challenges – sustainable program
<p>In the future IF the CEU generation is not enough to cover the instruction, the course offering may not be viable. Some students found it very difficult to stay on top of the weekly assignments. The most successful students were those who attended a study hall during their school day and worked on this course within that time.</p>	9	Business and Entrepreneurship Dual Credit Pathways	Financial costs – Student access – difficulty level
<p>Students were registered without a lot of screening and that posed challenges to get students to both sign up and complete their course work. I would be more targeted in the future.</p>	10	Community Knowledge Campus Science and Technology Centre	Student access – difficulty level
<p>The demographic reality was that we did not have enough students to make the program financially viable. The program limited what the school could provide for its regular CTS student programs.</p>	11	Cosmetology – Advanced Placement	Student access - scheduling
<p>Scheduling: the new accelerated diploma in block formatting did not align well with high school students schedules.</p> <p>Travel/transportation: Some students who were interested in one or more courses lived too far away to be able to make it to set scheduled classes.</p> <p>Curriculum articulation: We made it work so that we could at least offer courses as dual credit, however it is certainly not a perfect alignment, nor does it really make sense in the big picture to award introductory level CTS courses for college level or industry curriculum. This articulation takes a considerable amount of time by persons involved in the coordination and implementation work.</p>	12	A Regional Approach to Pre-Employment Trades Training	Student access – scheduling Student access – transportation Program – curriculum mapping

The key challenge was reporting and documenting for funding.	13	Dual Credit Opportunities and Health Care Aide Program	Administration – time required – reporting
The program cost, from the post-secondary level, was excessive and then Red Deer College decided not to offer the dual credit partnership	14	Health Care Aide Program	Financial – cost Administration – PSI liaison
<ul style="list-style-type: none"> - There was very little time to share the courses with parents and schools because of the start-up. - The courses require work experience at a work site and the Calgary area has very few of these. - The total on-line delivery of the courses has been a struggle for some students who do not do well with this type of delivery. - Sustainability of the program is inconsistent. - Identifying potential future programs to best meet student needs. - Developing awareness of the protocols and procedures of post-secondary institutions 	15	Production Field Operator: Dual Credit Opportunity	Administration – awareness Administration – business/industry liaison Student access – on-line difficult Financial cost – Administration – time required - planning Administration – PSI liaison
<ul style="list-style-type: none"> - Most students already had a full day by the time the course began at 3:00 pm, so the travel time during the afternoon was difficult. - Sustainability of the program is inconsistent. - Student commitment and follow-through has been a challenge. - Identifying potential future programs to best meet student needs. - Developing awareness of the protocols and procedures of post-secondary institutions. 	16	Pre-Employment Carpenter Dual Credit Program	Student access – scheduling Financial – cost Student access – difficulty level Administration – PSI liaison
We were waiting for a provincial pathway to be developed. Once we found that this was not being developed, we began the work of writing LDC's to align with the post-secondary content. There were also some challenges in maintaining the relationship with the industry partner... as there has been a lot of change in personnel.	17	Production Field Operator: Dual Credit Opportunity	Program – curriculum mapping Staffing - turnover
The program was set to run for three semesters. This limited participation to grade 10 and 11 students, as well as grade 12 students willing to return after graduation to complete the program. In addition, some students did not return to the program after the summer break. Subsequent dual credit opportunities of similar design have been condensed to two semesters to encourage the enrollment of grade 12 students and	18	Pre-Employment Carpenter Dual Credit Program	Student access – scheduling Student access – transportation Financial costs -

<p>reduce the likelihood of students withdrawing after the long break in the summer.</p> <p>Geographical challenges were encountered in regard to students' ability to access the SAIT facility and return to their school in time for afternoon classes.</p> <p>There was no direct CEU funding available for credits earned in this program.</p>			
<p>Our biggest challenge is the financial instability and inconsistency that exists due to CEU funding. Multiple funding structures and lack of clarity make future planning more difficult.</p>	19	Health Care Aide	Financial costs –
<p>Financial sustainability was and remains the most challenging aspect of dual credit, as indicated in previous questions. Post-secondary instructors encountered challenges related to the management of student progress and their conflicts with other commitments and activities such as sports, clubs and school functions. Instructors also reported challenges with some students failing to realize the increased responsibilities and self-directed learning required for success in a post-secondary course. Student support and guidance was provided by participating schools but varied in the methods and effectiveness among schools. One of the most challenging aspects of dual credit programming has been the coordination of administrative systems. Student support; applications and registration; data collection and records; grading and assessments; teaching and instructional staffing; codes of student behaviour and disciplinary processes; and funding and financial processes all presented challenges to coordination between secondary and post-secondary systems. Many of these challenges remain and require on-going attention and manual intervention processes to operate the dual credit programs effectively.</p>	20	Dual Credit Health Care Aide Program	Financial costs – Student access – difficulty level Administration – PSI liaison
<p>1. Funding - see question 72 please for a more complete discussion of this factor.</p> <p>2. Distance between schools and the college campus. There were families that could not commit to participating in this program because of the required travel distances. We made accommodations to support student attendance in every case possible. For example, students at one of our southern schools had an extra day of video conference delivery, and as a result, missed a day of shop time each week. To make up shop time, our college instructors volunteered their</p>	21	Pre-Employment Dual Credit	Financial costs – staffing Student access – transportation Student access – difficulty level Administration – business/industry liaison Administration – time required

<p>mornings off for students to come and receive extra, or make-up, time. The dedication of the instructors involved in this program was exceptional, and they did everything possible to ensure student success. This passion and dedication to our program however, is not a sustainability factor, as it cannot be expected that every instructor involved moving forward will also volunteer above and beyond their contractual obligations.</p> <p>3. Focus of students and retention of material in the 10 month delivery model.</p> <p>4. Industry support is fickle. When times are good, there is support. When industry suffers, education outreach programs/ scholarships etc. are the first pieces to be cut.</p> <p>5. High school students, when at a "college" course do not want always accept the accommodations that they are entitled to. Communication around student accommodations was the first hurdle, and after we addressed this issue from a program coordination point of view, we discovered that students were still denying their accommodations in front of their peers. The issue of accommodations was also problematic with students writing of the AIT provincial exam. On a related note, there was coaching and teaching required from the secondary to the post-secondary perspective on education. For example, missed assignments, rewrites, and other assessment for learning conversations were at times difficult with the post-secondary team as they expected high school students to be act like adult students. These issues were rectified, but required more time and intervention than was expected or planned for. In VC, or online delivered courses especially, the ability of the post-secondary instructor to teach to high school aged students in a responsive and pedagogically sound manner is essential to student intellectual engagement and enjoyment of the course.</p>			Student access – on line difficult
<p>Even though dual credit has been very successful within our school district, we need to continue to work through some of our current and future challenges with implementation.</p> <ul style="list-style-type: none"> • Continue to educate administrators, teachers, students and parents about dual credit • Continue to explore new dual credit opportunities in partnership with post-secondary institutions and business / industry that will support learner pathways for students 	22	Reaching Beyond the Classroom	Administration – awareness Administration PSI liaison Administration business/industry liaison Financial costs – Program – curriculum mapping Staffing – PD

<ul style="list-style-type: none"> • Address cost barriers that exist as a result of block funding in the high schools • Address cost barriers that exist when collaborating with post-secondary institutions • Mapping of high school courses to post-secondary courses and the complexities involved in the alignment process. • Continue to encourage teachers to pursue their education to support dual credit opportunities <p>Having to pay post-secondary fees within 3 weeks of start of the course and if some students drop the course / program, then the funds paid out to the post-secondary are lost and no ceu dollars can be earned to recuperate the costs from the initial post-secondary contract.</p>			
<p>-Purchase of equipment and building of items needed were done by the instructor. All done after school and weekends. A great deal of time was required for set up and first delivery of the program</p> <p>-Storage of equipment so that it would not be tampered with</p> <p>-Instructors needed to be trained on High School software for assessment and record keeping</p> <p>-Amount of time to coordinate between the two districts and Post-Secondary</p> <p>-Sharing a classroom with another teacher was challenging.</p>	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	Administration – time required Administration – PSI liaison
<p>Requirements for minimum cohorts are difficult to meet.</p> <p>Overall long term costs must be considered.</p>	24	Trades Exposure Dual Credit Program	Financial costs – Student access – scheduling
<p>Too much staff turnover and ineffective strategies employed in the initial stages of the program.</p>	25	Atikameg School / NLC Dual Credit Partnership	Staffing – turnover
<p>The key dual credit challenge is one of sustainable funding for all program delivery partners.</p> <p>At the secondary level. CEU revenue has the potential to cover the cost of post-secondary tuition with a small surplus. However, when certified teacher costs for in-school student counselling and supervision are factored into the equation, there is a significant shortfall in funding that needs to be addressed to ensure the program is financially sustainable at the school system level. Block funding leaves a significantly greater gap in funding, as it does not accommodate the generation of additional CEU's to be potentially deployed in</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	Financial costs – staffing Program – curriculum mapping Staffing - turnover

<p>addressing the extra costs associated with dual credit delivery.</p> <p>CAREERS, in addition to acting as a clearinghouse for general administration and process requirements relative to program delivery, has assumed a lead role in working with partners to develop a career pathway model in OGPO with supporting handbook, in providing community and school promotional materials, in conducting career awareness/information sessions for students, parents and industry members, in securing summer internship placements with industry, in conducting with schools student screening and selection processes for program entry and internship placement, and in providing program in service and ongoing support for schools. To date, the time/personnel, travel and material costs incurred by the CAREERS team in providing these services far exceed dual credit funding allocated to these initiatives. Moving forward, it can be expected that both high school CTS and post-secondary OGPO curricula will be periodically updated and revised so as to maintain relevance to changing industry and workforce needs. Resources will be required for monitoring these curriculum changes and updating dual credit mapping and support documents accordingly.</p> <p>Mobility among school personnel (both certified and non-certified) will require that resources are in place to support ongoing program in service.</p>			
<p>-Sustainable funding for post-secondary to continue to waive tuition.</p> <p>-Curriculum mapping - very time consuming and question value in the subjectivity of the exercise.</p>	27	School within a College (SWAC)	Financial costs – Program – curriculum mapping
<p>The challenge we face is space. We need space for a lab now that NorQuest in Stony Plain shut down. The space is more storage for the most part of the year which causes a wasted space issue 9/12 months of the year.</p>	28	Health Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Financial costs - labs
<ul style="list-style-type: none"> - There was very little time to share the courses with parents and schools because of the start-up - The course requires students to handle animals and there was very short notice that all students needed three vaccinations spread over three weeks. - Sustainability of the program is inconsistent. - Student commitment and follow-through has been a challenge. - Identifying potential future programs to best meet student needs. 	29	Veterinary Technical Assistant	<ul style="list-style-type: none"> Administration – awareness Financial costs – Student access – difficulty level Administration – time required – planning Administration – PSI liaison

- Developing awareness of the protocols and procedures of post-secondary institutions			
<ul style="list-style-type: none"> - There was very little time to share the courses with parents and schools because of the start-up - The post-secondary teacher has developed some understanding of the students' motivation because they travel to the program at the end of their school day - Sustainability of the program is inconsistent. - Student commitment and follow-through has been a challenge. - Identifying potential future programs to best meet student needs. - Developing awareness of the protocols and procedures of post-secondary institutions 	30	Health Care Aide CCSD and BVC	<ul style="list-style-type: none"> Administration – awareness Financial costs – Student access – difficulty levels Administration – time required – planning Administration – PSI liaison
<ul style="list-style-type: none"> - Sustainability of the program is inconsistent. - Student commitment and follow through has been a challenge. - Identifying potential future programs to best meet student needs. - Becoming aware of post-secondary institutions protocols and procedures. 	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	<ul style="list-style-type: none"> Financial costs – Student access – difficulty levels Administration – time required – planning Administration – PSI liaison
<p>Block funding will not allow us to run additional cohorts because we do not receive CEU funding an example 8 * 5500 = \$44 000 The cost for tuition was 32 000 + books + scrubs + materials</p> <p>If we would have received CEU funding, we could continue.</p>	32	Health Care Aide Program - FrancoSud	Financial costs -
<p>CTS outcomes of this program are offered through other CTS courses. Students can only access a CTS credit once.</p> <p>Teachers who have participated in the training sessions have been assigned to other curricular areas within the CBE.</p> <p>Losing teachers who have been trained due to attrition CBE administration not supportive of the dual credit model</p> <p>Keeping up with the current practice and professional development</p>	33	ACAD Design Fundamentals	<ul style="list-style-type: none"> Financial costs - Staffing – turnover Administration – awareness Staffing – inefficiencies
<p>High turnover in the program at the CBE and Olds College has led to some inconsistencies and stability in the delivery of the program.</p> <p>Discrepancies in the course expectations has led to some conflict between secondary and post-secondary instructors.</p> <p>Developing partnerships takes time and the application process didn't allow for the necessary time for this to occur.</p>	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	<ul style="list-style-type: none"> Staffing – turnover Administration – PSI liaison Administration – time required – planning Student access – difficulty levels

<p>Student commitment and follow through has been a challenge. Identifying potential future programs to best meet student needs. Becoming aware of post-secondary institutions protocols and procedures</p>			
<p>When doing online courses with high school students you have to provide them with supervision and support. It's challenging to blend the College semester's start and end dates with high school semesters.</p> <p>I had to use the nine students who took courses through Olds College so the tuition charges weren't skewed but those numbers don't show the real story.</p>	35	East Wheatland Agriculture Studies	Financial costs – coordinator Administration – PSI liaison
<p>Even though dual credit has been very successful within our school district, we need to continue to work through some of our current and future challenges with implementation.</p> <ul style="list-style-type: none"> • Continue to educate administrators, teachers, students and parents about dual credit • Continue to explore new dual credit opportunities in partnership with post-secondary institutions and business / industry that will support learner pathways for students • Address cost barriers that exist as a result of block funding in the high schools • Address cost barriers that exist when collaborating with post-secondary institutions • Mapping of high school courses to post-secondary courses and the complexities involved in the alignment process. • Continue to encourage teachers to pursue their education to support dual credit opportunities 	36	Allied Health Pathways - Edmonton Catholic Schools	Administration – awareness Administration – time required – planning Financial costs – Program – curriculum mapping Staffing - PD
<p>Scheduling: the new accelerated diploma in block formatting did not align well with high school students schedules.</p> <p>Travel/transportation: Some students who were interested in one or more courses lived too far away to be able to make it to set scheduled classes.</p> <p>Curriculum articulation: We made it work so that we could at least offer courses as dual credit, however it is certainly not a perfect alignment, nor does it really make sense in the big picture to award introductory level CTS courses for college level or industry curriculum. This articulation takes a considerable amount of time by persons involved in the coordination and implementation work.</p>	37	Aviation Management	Student access – scheduling Student access – transportation Program – curriculum mapping

<p>Even though dual credit has been very successful within our school district, we need to continue to work through some of our current and future challenges with implementation.</p> <ul style="list-style-type: none"> • Continue to educate administrators, teachers, students and parents about dual credit • Continue to explore new dual credit opportunities in partnership with post-secondary institutions and business / industry that will support learner pathways for students • Address cost barriers that exist as a result of block funding in the high schools • Address cost barriers that exist when collaborating with post-secondary institutions • Mapping of high school courses to post-secondary courses and the complexities involved in the alignment process. • Continue to encourage teachers to pursue their education to support dual credit opportunities 	38	Accounting Technician Certificate - Edmonton Catholic Schools	Administration – awareness Administration – time required – planning Financial costs – Program – curriculum mapping Staffing - PD
<p>Our school division switching over some of its schools to High School Redesign really set our dual credit program back. It became the most challenging as we did not have CEU funding dollars from 4/6 of our schools. Principals were reluctant to sign kids up for dual credit if they would not generate credits once the grant was no longer in place. Other challenges came from not having a uniformed policy regarding accessing pathways around the province. The off -campus handbook needs to address the issues around dual credit as many students are taking their courses in the evening after doing a 6 hour day in school. Policies, guidelines, funding, access to pathways must all be regulated so there is only one way to do things. Everyone invented their own wheel under this program and now it is a nightmare to fix.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Financial costs – Student access – scheduling Program – lack of provincial model
<p>Some of the key challenges in the program deal with the coordination of the various registration and administrative structures within the two institutions. As a collaborative effort we have been involved in frequent meetings to identify and provide solutions that allow for each institution to operate effectively. An example of this is the process of getting high school students to understand the significance of an add/drop period at the university, or how to navigate the different calendars in regard to the school year. We have benefited from an incredibly flexible team that has worked proactively to make the program work seamlessly for students.</p>	40	Management 1070 - Systems and Supply Chains Management	Administration – PSI Liaison Administration – time required – reporting Program – curriculum mapping

<p>It is obvious the dual credit strategy was developed for the CCI sector not the CARI sector and therefore the process required significant time and effort in meeting the DC strategy funding requirements. The delivery of approved university courses in the secondary environment is actually quite straight forward. The process involved in accessing current dual credit strategy funding caused an inordinate administrative layer in both institutions. Converting approved university courses into locally developed course language for high school delivery is superfluous.</p>			
<p>In this case, aligning to a dual-credit model was difficult. The curriculum mapping revealed a disconnect between what was expected of high school students and what would be expected by post-secondary and apprenticeship levels. Basically, the Gap was too large. Also, the idea of enticing students to explore the business side of Trades was perhaps a misinterpretation of the student's wishes. This group, and likely other students who have an interest in fabrication, really just want to focus on the skills; at least at their age and stage of development. The good thing about initiatives though, is that we can try and see what happens. We tried, and although we didn't connect well with what post-secondary offers, we did connect students to a broader offering of high school programming.</p> <p>Though difficult to attribute to a single strategy, we suspect that we have retained and students longer because of the availability of programs like this. Students whose friends take these courses may be staying in school longer because their friends are still in school, even though they themselves haven't been directly involved. Reaching out to their interests, and expressing a desire regarding success for all students through action, sends the message that we do indeed care, and maybe it might be worth sticking around. We wonder if the number of credits achieved by students; whether or not they graduate; is going up, and if so, is it attributable to the package of strategies that are associated with high school redesign?</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Program – curriculum mapping Student access – difficulty levels
<p>The challenges of administering the HCA dual-credit opportunity in this rural setting would include: the limitations of block funding, recruiting from and communicating with numerous schools and school divisions, promotion of the program, clarifying perceptions of the program, continual communication between parties, arranging for academic support, time and distance between sites.</p>	42	Health Care Aide Dual Credit - Pembina Hills RSD	Funding costs – Administration – awareness Administration – time required – planning

<p>Most of the above are probably self-explanatory however we should comment on the notion of clarifications of perceptions. Because the rural high schools are so deeply affected by the business model that supports programming in their schools, and because they are continuously challenged to provide the breadth and depth the programming to meet the diversity of student needs and interests, each new or so-called 'extra' program is scrutinized for its financial viability and the impact it will have on other programs. It is a challenge for the school administrators to support the program in the context of limited resources for all programs.</p> <p>This may also be the place to describe the challenges of a rural school to build a cohort based program. The concept is strong and valued because of its support for students, but it is a challenge for a smaller school to draw the critical mass each year. Our solution to extend to other schools and communities works to sustain the program, but has additional costs associated with coordination, logistics, recruitment, communications and so on. We are caught between wanting to provide a program we know is of great value for our students and the community, and the costs and risks of running it.</p>			
<p>Ongoing funding. Working with individual Principals to get them on board with offering Dual Credit Programming. Working within a rural school division, where do you offer them.</p>	43	Northern Gateway Administrative Professional	Funding costs – Administration – awareness
<p>Rural location. Low SES, Transportation, Understanding and awareness of our total population of the need for ECE in our community, the limitation of the Alberta Education Courses for ECE are limited and therefore we have had to use the KAE curriculum which may limit our students in scholarship eligibility for Lethbridge College, which is currently being investigated with X.</p>	44	<u>Early Childhood Education - Kainai Board of Education</u>	Student access – transportation Administration – awareness Program – curriculum mapping
<p>We have out of province partners who would be interested in this dual credit opportunity, but current restrictions are not allowing NWT students to participate.</p>	45	Early Learning and Child Care program for High school students	Program – lack of inter-provincial DC model
<p>Communication and expectations - the process lacked clarity for all partners and this was likely due to the transition of staff at the school and jurisdictional levels. As this was such a new and unique opportunity, we did not have a 'road map' per se, to navigate the new terrain. Having the 'pieces' for the dual credit in place</p>	46	Career Academic Pathway - Business Academy and Entrepreneurship	Staffing – turnover Program – lack of provincial model Administration – time required – planning

<p>in a more timely fashion we believe would have allowed us to potentially recruit more students into this opportunity. Again, because it was a new relationship getting the details ironed out took a little longer than would occur now. All partners (RVSD, SAIT and ATB) were new to working with each other and establishing the necessary trust and collaboration that is needed to make a dual-credit partnership successful took time.</p>			
<p>Prior to the PDCS funds, we had similar partnerships with other post-secondary providers; unfortunately, the influx of cash altered many perspectives about the value of providing spaces for young adults to explore, and too much of the strategy funding went to pay tuition, rather than building sustainable partnerships.</p>	47	Special Needs Educational Assistant - Edmonton Public Schools	Program – lack of provincial DC model
<p>Funding wanted from the post-secondary,</p>	48	Technology Credentialing - FVSD	Financial costs -
<p>The key dual credit challenge is one of sustainable funding for all program delivery partners. At the secondary level. CEU revenue has the potential to cover the cost of post-secondary tuition with a small surplus. However, when certified teacher costs for in-school student counselling and supervision are factored into the equation, there is a significant shortfall in funding that needs to be addressed to ensure the program is financially sustainable at the school system level. Block funding leaves a significantly greater gap in funding, as it does not accommodate the generation of additional CEU's to be potentially deployed in addressing the extra costs associated with dual credit delivery.</p> <p>CAREERS, in addition to acting as a clearinghouse for general administration and process requirements relative to program delivery, has assumed a lead role in working with partners to develop a career pathway model in WWO with supporting handbook, in providing community and school promotional materials, in conducting career awareness/information sessions for students, parents and industry members, in securing summer internship placements with industry, in conducting with schools student screening and selection processes for program entry and internship placements, and in providing program in-service and ongoing support for schools. To date, the time/personnel, travel and material costs incurred by the CAREERS team in providing these services far exceed dual credit funding allocated to these initiatives.</p> <p>Moving forward, it can be expected that both high school CTS and post-secondary WWO curricula will be</p>	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Financial costs – staffing – coordinator Program – curriculum mapping Staffing - turnover

<p>periodically updated and revised so as to maintain relevance to changing industry and workforce needs. Resources will be required for monitoring these curriculum changes and updating dual credit mapping and support documents accordingly.</p> <p>Mobility among school personnel (both certified and non-certified) will require that resources are in place to support ongoing program in-service.</p>			
<p>Building Community partnerships means getting out of the school and meeting with business and industry. Staff need designated time for this to occur and administration must support these initiatives. Evidence based tracking must inform decision making. Monitoring insures that program growth is matched with increased funding and human resources. Complementary to the success of this initiative is the need to support career counselling 7-12 and post-secondary counselling. Administration at both the school based and central office levels need to be involved and supportive. Bridge funding to begin program must also be provided as it takes time to build partnerships. Program growth (and its successes) need to be tracked so that all costs can be monitored and recovered by the school and administration. Also, best practices can be identified so that next steps and investments can move the project to sustainability.</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	<p>Administration – business/industry liaison</p> <p>Administration – time required – planning</p> <p>Financial costs – staffing</p>
<p>Some of the key challenges in the program deal with the coordination of the various registration and administrative structures within the two institutions. As a collaborative effort we have been involved in frequent meetings to identify and provide solutions that allow for each institution to operate effectively. An example of this would be the process of getting high school students to understand the significance of an add/drop period at the university, or how to navigate the different calendars in regard to the school year. We have been benefited by an incredibly flexible team that worked proactively to make the program work seamlessly for students.</p> <p>While the students' experience with the industry partner was very positive, there were logistical challenges in working with a partner that did not have a local connection. In future, industry partners that are based in Southern Alberta will be the preferred partners.</p> <p>It is obvious the dual credit strategy was developed for the CCI sector not the CARI sector and therefore the process required significant time and effort in meeting</p>	51	Liberal Education 1000	<p>Administration – PSI liaison</p> <p>Student access – scheduling</p> <p>Administration – business/industry liaison</p> <p>Administration – time required – reporting</p> <p>Program – curriculum mapping</p>

<p>the DC strategy funding requirements. The delivery of approved university courses in the secondary environment is actually quite straightforward. The process involved in accessing current dual credit strategy funding caused an inordinate administrative layer in both institutions. Converting approved university courses into locally developed course language for high school delivery is superfluous.</p>			
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13. Appendix G–Dual Credit Key Learnings Content Analysis

Question 75 Input	NO.	Opportunity Number and Name	Category
<p>The revised CTS program has a broad array of courses that fit well with many of the curriculum offered at the post-secondary level. Our choice to offer Business 201 made it possible to incorporate the outcomes from existing CTS programs at a higher level that would normally have been studied at the high school level.</p> <p>In the case of English 1011 we were able to develop a locally developed course that allowed students to go well beyond the expectations of the current high school English Language Arts program.</p>	1	Greater St Albert Catholic International School of Business	Curriculum – CTS-PS courses align well Curriculum – LDC effective
<p>Curriculum mapping is an administrative exercise that occurs mainly on paper to be able to award credit in two systems. It has little to no value in any other aspect of dual credit. Students and parents find it confusing that they are awarded a wide variety of CTS credits on their high school transcript as opposed to receiving credit for what they really achieved. Additionally, every district can offer whatever they deem appropriate for high school credit, which really takes away any form of credibility for the process. It should be much easier than this, and much more consistent. Find a way to recognized post-secondary credit in the K-12 system.</p>	2	Tourism and Hospitality	Curriculum – local mapping inefficient Curriculum – local mapping inconsistent Program – provincial model needed
<p>There is no lack of data or feedback on dual credit implementation successes and challenges. There are a number of key recommendations that have been put forth on almost all of these items, and to date, very few have been addressed.</p>	3	Bow Valley Learning Pathway	Program – provincial model needed
<p>With respect to successful completion of the courses, student selection and prerequisite choice are key to effective programming. All students successfully completed the courses because they had demonstrated their academic preparedness and profile suitability for the university course work. Face to face meetings between the university and school personnel throughout the process were essential to the partnership's success. Building relationships between the secondary and post-secondary institution created an excellent foundation for this ground-breaking work.</p>	4	Natural Resources Management and Environmental Science	Students – selection, counselling key Staffing- inter-org relationships key
<p>The mapping experience was interesting, but very time consuming and complicated. The articulation process took up the majority of the funding from this grant. The mapping for many CTS programs has been done by the Dual Credit committee, but this committee has not provided mapping for University level courses. This would be helpful in identifying courses that would be best suited for students across the province.</p>	5	Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	Curriculum – local mapping inefficient Program – provincial model needed

<p>It would be nice if each post-secondary institution had a person responsible for Dual Credit. In our research with other academic institutions in the province, we have found that it is difficult to find someone to have a Dual Credit conversation with.</p>			
<p>Curriculum mapping is an onerous task. It would be wonderful if AB ED could/would just look at the post-secondary courses and code them accordingly.</p>	6	Esthetics Pathway	Curriculum – local mapping inefficient Program – provincial model needed
<p>This dual credit opportunity used engaging curriculum designed to meet the career and/or post-secondary aspirations of students as well as the needs of the business community, and higher education institutions. The partnership that we established with post-secondary and business is vital to providing powerful experiential learning opportunities for our students.</p> <p>Another success that grew out of this program was the development and implementation of a successful Summer Off-Campus program. Students were able to complete credits for the 4th Class Power Engineering and Mentorship Pathway steam time (LCSD, Careers and NAIT), Work Experience and the Registered Apprenticeship Program (RAP). We had thirty students completing these courses in the first summer (2014), forty students in the second summer (2015) and sixty students in the third summer (2016). These opportunities allowed our students the flexibility to complete these courses during the summer if they could not schedule them into the regular school year.</p> <p>The hands-on aspect of the Oil and Gas Foundations Pathway and the Summer Program is vital to learner engagement and retention.</p> <p>The teacher and CTS Coordinator planned for students to engage in a wide variety of field trips, hands-on demonstrations, and guest lectures with Subject Matter Experts (SME's) from the field.</p> <p>The CTS Coordinator worked closely with teachers to develop the Locally Developed Course, Oil and Exploration (LDC 1016).</p> <p>These innovative learning structures provided students with a range of learning options that engage and challenge them to reach their individual potential.</p>	7	Oil and Gas Foundations Pathway	Staffing – inter org relationships key Students – experiential learning key Students – flexible programs key

Opportunities to link the classroom to post-secondary and the field of work were central to this program. We believe that this highly engaging program will lead to increased completion of high school and post-secondary education and/or training.			
Curriculum mapping is an onerous task. It would be wonderful if AB ED could/would just look at the post-secondary courses and code them accordingly.	8	Agricultural Studies	Curriculum – local mapping inefficient Program – provincial model needed
Constant contact between the college instructor and the high school students is needed. Students also need to have a direct contact at their high school who is responsible to monitor the progress of this student. Selection of students must be rigorous enough to ensure serious applications. Students must have the personal interest and fortitude to complete to keep the course offering viable.	9	Business and Entrepreneurship Dual Credit Pathways	Staffing – inter org relationships key Students – selection, counselling key
We continue to learn and experience success when students are provided with unique learning opportunities. The more we personalize learning the more success students receive.	10	Community Knowledge Campus Science and Technology Centre	Students – personalized learning key
This was a very valuable cooperative endeavor. We now know that we have the capacity to offer joint school-based and college level programs and has strengthened the collaboration between our school division and our regional college.	11	Cosmetology – Advanced Placement	Staffing – inter org relationships key
Curriculum mapping is an administrative exercise that occurs mainly on paper to be able to award credit in two systems. It has little to no value in any other aspect of dual credit. Students and parents find it confusing that they are awarded a wide variety of CTS credits on their high school transcript as opposed to receiving credit for what they really achieved. Additionally, every district can offer whatever they deem appropriate for high school credit, which really takes away any form of credibility for the process. It should be much easier than this, and much more consistent across the province. Finding a way to recognized post-secondary credit in the K-12 system without articulation to CTS programming is required to reduce the amount of personnel energy put into this work with it having no direct benefit to the goal of students accessing pathway opportunities through dual credit.	12	A Regional Approach to Pre-Employment Trades Training	Curriculum – local mapping inefficient Curriculum – local mapping inconsistent Program – provincial model needed
No answer provided	13	Dual Credit Opportunities and Health Care Aide Program	Nil
Mapping was successful through high school CTS courses (3400 level) and post-secondary courses	14	Health Care Aide Program	Curriculum – CTS – PS courses align well

A very worthwhile curriculum was developed that met the needs of both institutions when the LDC writer worked directly with the SAIT instructor.	15	Production Field Operator: Dual Credit Opportunity	Curriculum – LDC effective Staffing – inter org relationships key
It was a good experience for the SAIT instructor and CCSD teacher to work together.	16	Pre-Employment Carpenter Dual Credit Program	Staffing – inter org relationships key
To Be Determined	17	Production Field Operator: Dual Credit Opportunity	Nil
Already established carpentry provincial pathway, so this is not applicable.	18	Pre-Employment Carpenter Dual Credit Program	Nil
While our students are imminently capable of completing College level courses, finances limit the possibilities provided to them. Through the Dual Credit partnerships, our students are “winners” as they are able to acquire the competencies, knowledge, skills, and attitudes necessary to succeed in post-secondary studies, as well as the ability to utilize those skills within their home communities.	19	Health Care Aide	Students – flexible programs key
Curriculum mapping and partnership development represented a significant cost and amount of administrative time, with only a small portion of the costs being allocated directly to the delivery budget. Given the hundreds of hours accumulated by senior administrators, managers and support staff to plan, design, coordinate and maintain dual credit programming, this represents a significant expense to operating budgets during periods of deep fiscal restraint. It is not yet clear as to why curriculum that has already been through government approval at a post-secondary level then also needs to go through a similar process at the secondary level. It seems to be for the purpose of meeting requirements for the student's secondary transcript, however, the official post-secondary transcript would serve this purpose. If secondary students could have the credit appear on their transcript in a general fashion, without the need for detail that is available on the post-secondary transcript, then it would seem that outcome-by-outcome curriculum mapping would not be needed.	20	Dual Credit Health Care Aide Program	Curriculum – local mapping inefficient Program – provincial model needed
<ol style="list-style-type: none"> 1. There should be provincial standards regulating curriculum mapping of dual credit courses. 2. All CTS apprenticeship pathways should be mapped to the same number of 3400 series courses, regardless of the trade. 3. A provincial repertoire of provincially authorized dual credit courses would ensure that everyone receives the same credits, for the same price. This would also aid in the ACAT articulation 	21	Pre-Employment Dual Credit	Program – provincial model needed Curriculum – local mapping inconsistent

<p>process if there were standardized dual credit courses. Similarly, a provincial framework could also include developed program agreements that could simply be signed off on by districts. This would further support equitable access for all Alberta students as many districts cannot afford and/or do not have the expertise to build and maintain dual credit programs. If the big pieces, such as mapping and partnership agreements were already in place, more students, in more locations, could access the benefits of dual credit programs.</p>			<p>Curriculum – local mapping inefficient</p>
<p>It is critical to have someone at the school district level and the post-secondary level collaborating together in the process of the partnership development.</p> <p>It is very time-consuming to collaborate together to develop pathways, curriculum mapping and set up a support system that honors the individual needs of each high school and high school student. Working together with the post-secondary in the curriculum mapping is very important because each individual / party are experts within their own institutional curriculum. It takes time to do the curriculum alignment and mapping of the courses. There needs to be some flexibility in the ability to map outpost-secondary courses to the high school course.</p> <p>Collaborating with the business / industry partner has been very beneficial to both the high school students and the employees with the organizations. There is an educational component that is a critical piece to the learning that occurs within a dual credit opportunity. Students can learn from employees that are currently employed in a variety of areas and the employees get the opportunity to share their experiences and open the eyes of the students. We have heard that this gives them a new look on their career.</p>	22	Reaching Beyond the Classroom	<p>Staffing – inter org relationships key</p> <p>Curriculum – local mapping inefficient</p> <p>Students – experiential learning key</p>
<p>Dual credit programming provides an opportunity for hands-on experience that links learning to satisfying career pathways in the workplace but does not interrupt high school programming. It allows for the acquisition of theory and practical experience.</p> <p>-Instruction time in the 1st period training is approximately 120 more hours compared to the existing Pre-Employment Training Schedule presently offered at Keyano College (this was an advantage)</p>	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	<p>Students – experiential learning key</p>
<p>Strong partnerships are essential to the Dual Credit strategy. These arrangements must be beneficial to both parties without costing either partner too much financially.</p> <p>Dual credit opportunities must align with the School’s and the Jurisdiction’s goals, the needs of the communities, and the student’s interests.</p>	24	Trades Exposure Dual Credit Program	<p>Staffing – inter org relationships key</p> <p>Students – selection, counselling key</p>

Do not rush into a program without first ensuring there is a strong and sustainable foundation for the program.	25	Atikameg School / NLC Dual Credit Partnership	Program – provincial model needed
<p>There were many factors and variables taken into consideration throughout the partnership development and curriculum mapping processes. Secondary and post-secondary have different structures (e.g., program delivery timeframes, funding frameworks, systems for granting credit, assessment expectations) that needed to be clearly understood by all partners. Program development required clear communication among all partners and asking the right questions along the way.</p> <p>The work done by CAREERS in curriculum mapping and developing support documents for schools has been essential to program implementation. However, cost savings in program development could be accrued through adoption of dual credit policy and practice similar to that used in British Columbia where post-secondary programs of study are adopted for use in secondary learning environments and approved as leading to high school credit. This practice eliminates the duplication of resources currently deployed in our dual credit system to develop two parallel curricula.</p> <p>Throughout the first year of program pilot, students on occasion encountered technical difficulties in accessing components of the online coursework, also in accessing the support of post-secondary course facilitators through the online course management system. These issues were quickly and effectively addressed by NAIT when brought to their attention. However, these early experiences in the pilot have reinforced the importance of user-tested technology/web design and the availability of instructor assistance in online program delivery. The post-secondary learning environment is new to most students. Also, most schools and post-secondary institutions have limited experience in offering post-secondary programs in a high school learning environment. Steps need to be taken at early stages of program planning and in service to establish a clear understanding by students/schools of post-secondary expectations, and likewise an understanding by post-secondary of the needs and realistic expectations of students/schools in program delivery.</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	<p>Staffing – inter org relationships key</p> <p>Curriculum – local mapping inefficient</p> <p>Program – provincial model needed</p> <p>Students – selection, counselling key</p>
<ul style="list-style-type: none"> - Colleges and secondary institutions can work together in creating successful learning opportunities for students - Students are ready and willing to take part in dual credit opportunities. Maturity level is a big factor in student success and therefore correct/accurate student selection is vitally important for successful dual credit programming - Gauging community need is a crucial factor in the success of dual credit programs. For example, welding was a big draw last 	27	School within a College (SWAC)	<p>Staffing – inter org relationships key</p> <p>Students – selection, counselling key</p>

year and this year there are very few placements or RAP opportunities.			Curriculum – fit with labour demand key
I feel there needs to be more opportunities for Alberta students as this has been an amazing program for students. We need more provincial curriculum mapping on other programs. The teacher assistant would be a fabulous program to do. You definitely need an Alberta teacher overseeing everything as a lot of mentoring and communication goes on between students, parents and post-secondary. Marketing is very important to help draw students into programs to make sustainability quotas.	28	Heath Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Program – provincial model needed Staffing – inter org relationships key Students – selection, counselling key
We had our LDC writer work directly with Olds College and both developed an excellent program. The CCSD LDC writer and Olds College collaborated to develop an excellent program.	29	Veterinary Technical Assistant	Staffing – inter org relationships key Curriculum – LDC effective
This was done by nurses working with the Department of Education.	30	Health Care Aide CCSD and BVC	Curriculum – LDC effective
The District hired an LDC writer that work directly with the University instructor to develop a program that met the students' needs.	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Curriculum – LDC effective
Translating the French to English is a challenge	32	Health Care Aide Program - FrancoSud	Curriculum – local mapping inefficient
There is a need to develop an LDC for this program as the course outcomes are being met in curricular areas outside the Design and Communication Studies field.	33	ACAD Design Fundamentals	Curriculum – local mapping inconsistent
Mapping was difficult due to the curricular overlap and outcomes with the secondary courses. Fashion teachers tried to align CTS courses which were not already covered in the high school program. It was a time consuming process to map the secondary and post-secondary curriculum.	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Curriculum – local mapping inefficient
The ideal and most efficient process is when there is a career pathway developed at the Alberta Ed level, such as the Health Care Aide.	35	East Wheatland Agriculture Studies	Program – provincial model needed
It is critical to have someone at the school district level and the post-secondary level collaborating together in the process of the partnership development. It is very time-consuming to collaborate together to develop pathways, curriculum mapping and set up a support system that honors the individual needs of each high school and high school student. Working together with the post-secondary in the curriculum mapping is very	36	Allied Health Pathways - Edmonton Catholic Schools	Staffing – inter org relationships key Curriculum – local mapping inefficient

<p>important because each individual / party are experts within their own institutional curriculum. It takes time to do the curriculum alignment and mapping of the courses. There needs to be some flexibility in the ability to map outpost-secondary courses to the high school course. Collaborating with the business / industry partner has been very beneficial to both the high school students and the employees with the organizations. There is an educational component that is a critical piece to the learning that occurs within a dual credit opportunity. Students can learn from employees that are currently employed in a variety of areas and the employees get the opportunity to share their experiences and open the eyes of the students. We have heard that this gives them a new look on their career.</p>			<p>Students – experiential learning key</p>
<p>Curriculum mapping is an administrative exercise that occurs mainly on paper to be able to award credit in two systems. It has little to no value in any other aspect of dual credit. Students and parents find it confusing that they are awarded a wide variety of CTS credits on their high school transcript as opposed to receiving credit for what they really achieved. Additionally, every district can offer whatever they deem appropriate for high school credit, which really takes away any form of credibility for the process. It should be much easier than this, and much more consistent across the province. Finding a way to recognized post-secondary credit in the K-12 system without articulation to CTS programming is required to reduce the amount of personnel energy put into this work with it having no direct benefit to the goal of students accessing pathway opportunities through dual credit.</p>	<p>37</p>	<p>Aviation Management</p>	<p>Curriculum – local mapping inefficient Curriculum – local mapping inconsistent Program – provincial model needed</p>
<p>It is critical to have someone at the school district level and the post-secondary level collaborating together in the process of the partnership development. It is very time-consuming to collaborate together to develop pathways, curriculum mapping and set up a support system that honors the individual needs of each high school and high school student. Working together with the post-secondary in the curriculum mapping is very important because each individual / party are experts within their own institutional curriculum. It takes time to do the curriculum alignment and mapping of the courses. There needs to be some flexibility in the ability to map outpost-secondary courses to the high school course. Collaborating with the business / industry partner has been very beneficial to both the high school students and the employees with the organizations. There is an educational component that is a critical piece to the learning that occurs within a dual credit opportunity. Students can learn from employees that are currently employed in a variety of areas and the employees get the opportunity to share their experiences and open the eyes of the students. We have heard that this gives them a new look on their career.</p>	<p>38</p>	<p>Accounting Technician Certificate - Edmonton Catholic Schools</p>	<p>Staffing – inter org relationships key Curriculum – local mapping inefficient Students – experiential learning key</p>

<p>Curriculum mapping was a huge amount of time at the beginning of this venture, and continues to be as we go along. That is something the province should be doing as the man hours to do with each college and school division, for each course is too costly. Streamlining the mapping by sharing between post-secondary schools or leaving it up to the province to handle so it is mapped the same way between all jurisdictions and post-secondary's is necessary. Everyone has invented their own wheel and some wheels are better than others.</p> <p>Our partnership development went very smoothly with Grande Prairie Regional College and our business partner(s). It is the part that is working extremely well. I know of other jurisdictions whose partnerships with their college did not go as well. Having strong guidelines in place for post-secondary institutions to follow is important so that all dual credit experiences are enjoyable.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Curriculum – local mapping inefficient Program - provincial model needed Curriculum – local mapping inconsistent Staffing – inter org relationships key
<p>In terms of curriculum mapping, we chose courses for dual credit that complement the Alberta Education curriculum and add new and advanced experiences for students. The dual credit initiative is one that can provide a greater familiarity with post-secondary processes and experiences, and encourage students to excel in a supportive environment.</p> <p>Further, the connection with the business world is a strong addition to the program as it provides a practical connection for students. It is clear that the key to success of the dual credit experience for students rests in the collaborative nature of the whole program. Structurally, all stakeholders need to be at the table and have an authentic voice in making the program work. High school teachers and professors must collaborate to ensure student success within the course. Finally, policies must be collaboratively developed (and refined) to make the program straightforward to administer. As we enter the third year of our 3 year pilot, we will continue to build on our strong partnerships.</p> <p>Alberta Education focuses on authentic learning, cross-curricular competencies and critical thinking. The U of L's founding principles of liberal education and the integration of those principles in our courses ensure excellent fit with that focus. In the Systems and Supply Chains course students learned basics of management fundamentals and developed skills in integrated planning by exploring the supply chains of various organizations to discover economic, environmental, and social landscapes through case studies and real-life examples.</p>	40	Management 1070 - Systems and Supply Chains Management	Curriculum – CTS PS courses align well Students – experiential learning key Staffing – inter org relationships key
<p>I think the issues we had with curriculum development mapping have been referenced above. On the notion of a partnership development we have this to say. The opportunities of this program has inspired us, or perhaps gave us the nudge, to try</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Staffing – inter org relationships key

something that was ripe for trying. It created new alliances and partnerships and strengthened connections between the school and the community and the post-secondary. So the learning it really is about having the courage to talk through and try an idea that is intended to help young people move toward success.			
The curriculum mapping was completed and in place, but the challenge was not knowing the college course numbers that correspond with the high school credits. That has now been taken care of! Also knowing what the college timelines are for things like finding practicum placements would be beneficial when one of our partner schools wants to make a specific request. Having this established and available to reference was very useful. The information assists in the promotional activities (student recruitment). What have we learned? Have this in place, and standardized provincially, so that students can make informed decisions.	42	Health Care Aide Dual Credit - Pembina Hills RSD	Staffing – inter org relationships key Program – provincial model needed
No answer provided	43	Northern Gateway Administrative Professional	Nil
This process was very cumbersome and potentially very costly and time consuming, therefore we choose the route of the KAE 3589 Child Care 30-4.	44	<u>Early Childhood Education - Kainai Board of Education</u>	Curriculum – local mapping inefficient
At this time I am working with the Francophone College to help develop mapping for three more opportunities.	45	Early Learning and Child Care program for High school students	Staffing – inter org relationships key
It is critical to have coherent connections between secondary course offerings and their connections to post-secondary courses. Knowing students' completed courses in the CTS strand offered is critical in the process. It is important to have consistency in personnel participating in the dual-credit programs at the secondary, post-secondary and industry levels. There was some turnover in personnel throughout the opportunity which made ensuring continuity difficult.	46	Career Academic Pathway - Business Academy and Entrepreneurship	Curriculum – CTS PS courses align well Staffing – inter org relationships key
LDCs and getting permissions is key.	47	Special Needs Educational Assistant - Edmonton Public Schools	Curriculum – LDC effective
Self-delivery of courses is key for success in the north	48	Technology Credentialing - FVSD	Students – flexible programs key
There were many factors and variables taken into consideration throughout the partnership development and curriculum mapping processes. Secondary and post-secondary have different structures (e.g., program delivery timeframes, funding frameworks, systems for granting credit, assessment expectations) that needed to be clearly understood by all partners. Program development required clear communication	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Staffing – inter org relationships key Curriculum – local mapping inefficient

<p>among all partners and asking the right questions along the way.</p> <p>The work done by CAREERS in curriculum mapping and developing support documents for schools has been essential to program implementation. However, cost savings in program development could be accrued through adoption of dual credit policy and practice similar to that used in British Columbia where post-secondary programs of study are adopted for use in secondary learning environments and approved as leading to high school credit. This practice eliminates the duplication of resources currently deployed in our dual credit system to develop two parallel curricula.</p> <p>Throughout the first year of program pilot, students on occasion encountered technical difficulties in accessing components of the online coursework, also in accessing the support of post-secondary course facilitators through the online course management system. These issues were quickly and effectively addressed by NAIT when brought to their attention. However, these early experiences in the pilot have reinforced the importance of user-tested technology/web design and the availability of instructor assistance in online program delivery.</p> <p>The post-secondary learning environment is new to most students. Also, most schools and post-secondary institutions have limited experience in offering post-secondary programs in a high school learning environment. Steps need to be taken at early stages of program planning and in service to establish a clear understanding by students/schools of post-secondary expectations, and likewise an understanding by post-secondary of the needs and realistic expectations of students/schools in program delivery.</p>			<p>Program – provincial model needed</p> <p>Students – selection, counselling</p>
<p>Students and parents want dual credit programs. Getting a start on an identified career pathway is a powerful experience for students. Schools need to continue to offer these types of opportunities as part of future directions under the High School Redesign program. Beginning a post-secondary transcript in high school can focus students learning and boost achievement on many levels. While not all students may be ready to commit to a specific pathway (and this is OK), for those that do, they can have an extraordinary high school experience.</p> <p>Curriculum mapping has been very important as students and parents need to see their way forward to success. Combining the work of Alberta Ed., Advanced Ed. and many other Post-secondary institutions and support organizations such as Careers Next Generation has prevented duplication (lost dollars) and formed partnerships. These relationships have resulted in improved courses and transfer-ability. Small schools and divisions rely on work done in this way as rural boards do</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	<p>Students – flexible programs key</p> <p>Students – selection, counselling key</p> <p>Program – provincial model needed</p>

<p>not have the resources to handle all of these demands. Where ever possible, this should be encouraged.</p>			
<p>In terms of curriculum mapping, we chose courses for dual credit that complement the Alberta Education curriculum and add new and advanced experiences for students. The dual credit initiative is one that can provide a greater familiarity with post-secondary processes and experiences, and encourage students to excel in a supportive environment. Further, the connection with the business world is a strong addition to the program as it provides a practical connection for students. It is clear that the key to success of the dual credit experience for students rests in the collaborative nature of the whole program. Structurally, all stakeholders need to be at the table and have an authentic voice in making the program work. High school teachers and professors must collaborate to ensure student success within the course. Finally, policies must be collaboratively developed (and refined) to make the program straightforward to administer. As we enter the third year of our 3 year pilot, we will continue to build on our strong partnerships.</p> <p>From the University’s perspective, this collaboration has a number of positive outcomes. It was a source of sound professional development for the teacher and it broadened the professors’ understandings of the challenges associated with teaching in a high school context. It also helps both the teacher and the professors understand the hybrid nature of a dual credit course. It was clear that the grade 11 and 12 students at LCI were not university students but high school students enrolled in a university course taught by professors. This forced the professors to be very context-sensitive when thinking about the best pedagogy in the daily delivery of Liberal Education 1000.</p>	51	Liberal Education 1000	<p>Curriculum – CTS PS courses align well Students – experiential learning key Staffing – inter org relationships key Students – selection, counselling key</p>

14. Appendix H – Financial Sustainability Content Analysis

Question 76 Input (Responses provided by “no” answers only)	Op. #	Opportunity Name	Category
	1	Greater St Albert Catholic International School of Business	
We will be able to keep going for a few years, however as budgets tighten and as the full impact of the move to block funding is felt in our district, I believe our Board of Trustees may determine that they can no longer carve off a pot of money to keep things going. Without any provincial framework, it will be difficult to roll out these opportunities beyond our partnership due to the funding implications. For districts on block funding and/or new to dual credit, it will be challenging to find the funds to initiate the opportunities. Additionally, the current curriculum alignment will need ever-greening. Post-secondary curriculum responds much more quickly to changes in industry, and as such, the course competency profiles change. This is yet another reason why the archaic and cumbersome system of matching high school curricular outcomes to post-secondary must change to ensure that sustainability is possible.	2	Tourism and Hospitality	Program – block funding short fall Curriculum mapping costs
To cover the cost of the Coordinator.	3	Bow Valley Learning Pathway	Staffing – coordinator costs
The costs required to run the program exceed the available resources.	4	Natural Resources Management and Environmental Science	Program – overall costs
We need to always consider the fact that CEU funds become directed to the University, and not to the division. If we are to map our remaining 11 courses, we would need additional funding sources.	5	Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	Program – overall costs Curriculum – mapping costs
	6	Esthetics Pathway	
At this time, with the current downturn in the economy, it is becoming increasingly difficult to attract students to learning opportunities related to the oil and gas sector.	7	Oil and Gas Foundations Pathway	Students – declining interest
	8	Agricultural Studies	
	9	Business and Entrepreneurship Dual Credit Pathways	

	10	Community Knowledge Campus Science and Technology Centre	
The small number of students do not provide sufficient Credit Equivalent Unit funding to support this program.	11	Cosmetology – Advanced Placement	Students – low interest
It is necessary to have the personnel in place to coordinate, plan, recruit, monitor for these opportunities. Many of these positions exist because of the grant monies in place at this time. As well, the costs of tuition for students is only sustainable on a small level by school divisions already facing considerable challenges to appropriately fund high school programming. Some degree of added funding to school divisions will be required to both support student tuition costs for dual credit, as well as the costs of division personnel to coordinate these opportunities. We will be able to keep going for a few years, however as budgets tighten and as the full impact of the move to block funding is felt in our district, I believe our Board of Trustees may determine that they can no longer carve off a pot of money to keep things going. Without any provincial framework, it will be difficult to roll out these opportunities beyond our partnership due to the funding implications. For districts on block funding and/or new to dual credit, it will be challenging to find the funds to initiate the opportunities. Additionally, the current curriculum alignment will need evergreening. Post-secondary curriculum responds much more quickly to changes in industry, and as such, the course competency profiles change. This is yet another reason why the archaic and cumbersome system of matching high school curricular outcomes to post-secondary must change to ensure that sustainability is possible.	12	A Regional Approach to Pre-Employment Trades Training	Program – overall costs Program – block funding short fall Curriculum – mapping costs
The CEU funding does not cover the cost of tuition from the post-secondary institution.	13	Dual Credit Opportunities and Health Care Aide Program	Program - overall costs
Under the previous model the expenses were higher than the grant, therefore not sustainable.	14	Health Care Aide Program	Program - overall costs
Our District has moved to Block funding for all our schools this school year and therefore we require sustainable funding as we move forward.	15	Production Field Operator: Dual Credit Opportunity	Program – block funding short fall
	16	Pre-Employment Carpenter Dual Credit Program	
Unknown	17	Production Field Operator: Dual Credit Opportunity	“Unknown” Response

CEU funding is necessary to cover the costs associated with this program. There is a net deficit between the funding models used through high school redesign and the previously used CEU funding.	18	Pre-Employment Carpenter Dual Credit Program	Program – block funding short fall
Uncertainty of the number of students per year, combined with the low number of students who register in the courses cannot provide enough CEU revenue to independently support the cost of the program.	19	Health Care Aide	Students – low interest
As indicated in previous questions... “Curriculum mapping and partnership development represented a significant cost and amount of administrative time, with only a small portion of the costs being allocated directly to the delivery budget. Given the hundreds of hours accumulated by senior administrators, managers and support staff to plan, design, coordinate and maintain dual credit programming, this represents a significant expense to operating budgets during periods of deep fiscal restraint. It is not yet clear as to why curriculum that has already been through government approval at a post-secondary level then also needs to go through a similar process at the secondary level. It seems to be for the purpose of meeting requirements for the student's secondary transcript, however, the official post-secondary transcript would serve this purpose. If secondary students could have the credit appear on their transcript in a general fashion, without the need for detail that is available on the post-secondary transcript, then it would seem that outcome-by-outcome curriculum mapping would not be needed.”	20	Dual Credit Health Care Aide Program	Program – overall costs
CEU generated funds do not cover the cost of materials, textbooks, and instructor costs at the postsecondary level. Please see question 72 for the detailed answer to this question.	21	Pre-Employment Dual Credit	Program – overall costs
The costs of having to pay for post-secondary student tuition / instructor costs / supplies and materials / counselling / certified teacher are costly to maintain this type of program. It is essential to have a class of over 22 students to generate the funds for covering the costs to the post-secondary and the costs that exist within the high school to offer the program.	22	Reaching Beyond the Classroom	Program – overall costs Students – greater than 22 required
Keyano College cannot release an instructor unless we pay for him/her. It is not financially viable.	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	Staffing – PSI instructor costs
CEU generation at the high school is essential for internal programs. When CEU dollars must be spent outside the organization it has financial impact. The students participating in dual credit offerings did not eliminate the	24	Trades Exposure Dual Credit Program	Program – overall costs

<p>need or cost of staff and programs at the school level, so there were not any cost savings.</p> <p>Due to the nature of the equipment and specialized instruction, the course costs are high for the Service Rig opportunity. NLSD greatly appreciates the generosity of its partners and the continuation of the programming will be dependent on further partnerships and the use of the facility by other schools, school jurisdictions, Industry, and other professional users. The revenue from the non-school users will be essential to subsidize or eliminate the access costs to high school students.</p>			
	25	Atikameg School / NLC Dual Credit Partnership	
<p>Within the current high school funding framework, neither of the two existing high school funding models (i.e., CEU funding, block funding) were designed to specifically accommodate and support the delivery of dual credit programs and opportunities. CEU funding by itself does not provide sufficient funding to cover the costs of both post-secondary tuition and the time required of school district personnel (certified teachers, administrative and support staff) to coordinate, supervise and support program delivery. As previously noted, block funding leaves even a greater gap in the funding available for dual credit. Over time, the current enthusiasm and support for dual credit may diminish if school authorities deem the continuing burden of its extra costs outweigh its educational merits.</p> <p>The services provided by CAREERS as noted in the response to question 74 are essential to the coordination of partner roles and responsibilities and in facilitating shared program delivery. CAREERS will likely not be able to continue to maintain this level of support for program delivery beyond the 2016-2017 school without funding to support the rendering of same.</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	<p>Program – overall costs</p> <p>Program – block funding short fall</p>
	27	School within a College (SWAC)	
	28	Health Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	
	29	Veterinary Technical Assistant	
<p>We have moved to block funding in all our schools, therefore we need sustainable funding to insure the success of this program.</p>	30	Health Care Aide CCSD and BVC	<p>Program – block funding short fall</p>
	31	Advanced English Critical Reading and	

		Writing - Calgary Catholic and Mount Royal University	
Block funding will not allow us to run additional cohorts because we do not receive CEU funding an example 8 * 5500 = \$44 000 The cost for tuition was 32 000 + books + scrubs + materials If we would have received CEU funding, we could continue.	32	Health Care Aide Program - FrancoSud	Program – block funding short fall
	33	ACAD Design Fundamentals	
Specific funding, is necessary to cover the costs associated with this program. There is a net deficit between the funding models used through high school redesign and the previously used CEU funding.	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Program – overall costs Program – block funding short fall
Our on-line model might be able to sustain its self if we remain CEU funded, but if we are switched to base funding there isn't any way to recover the costs of the dual credit courses.	35	East Wheatland Agriculture Studies	Program – block funding short fall
The block funding model makes it difficult for sustainability in one of our schools. Our dual credit opportunity needs a minimal amount of support with this type of implementation because it is being delivered by our own certified staff within the high school. I believe that the mentorship fee needs to be explored further after a teacher has taught the course for two years. This \$3500.00 fee puts an additional strain onto the school budget that does not have funds to support. If schools, only had to pay the per student fee for registration, then I believe that this dual credit opportunity would be financially sustainable. It would be beneficial if there could be a provincial strategy that supported dual credit implementation at the high schools. For 2 of the courses, we need not have qualified certified teachers to support instruction of the courses, so the additional instructor fee from NorQuest made the dual credit opportunity difficult to sustain. We would like to have teachers be able to receive support to further their education to support instruction in dual credit. The cost of the instructor for the course - HEED /COMM because we did not have a teacher with the necessary qualifications.	36	Allied Health Pathways - Edmonton Catholic Schools	Program – block funding short fall Staffing – PSI instructor costs
It is necessary to have the personnel in place to coordinate, plan, recruit, monitor for these opportunities. Many of these positions exist because of the grant monies in place at this time. As well, the costs of tuition for students is only sustainable on a small level by school divisions already facing considerable challenges to appropriately fund high school	37	Aviation Management	Program – overall costs Program – block funding short fall

<p>programming. Some degree of added funding to school divisions will be required to both support student tuition costs for dual credit, as well as the costs of division personnel to coordinate these opportunities. We will be able to keep going for a few years, however as budgets tighten and as the full impact of the move to block funding is felt in our district, I believe our Board of Trustees may determine that they can no longer carve off a pot of money to keep things going. Without any provincial framework, it will be difficult to roll out these opportunities beyond our partnership due to the funding implications. For districts on block funding and/or new to dual credit, it will be challenging to find the funds to initiate the opportunities. Additionally, the current curriculum alignment will need evergreening. Post-secondary curriculum responds much more quickly to changes in industry, and as such, the course competency profiles change. This is yet another reason why the archaic and cumbersome system of matching high school curricular outcomes to post-secondary must change to ensure that sustainability is possible.</p>			Curriculum – mapping costs
<p>Our dual credit opportunity needs a minimal amount of support with this type of implementation because it is being delivered by our own certified staff within the high school. I believe that the mentorship fee needs to be explored further after a teacher has taught the course for two years. This \$3500.00 fee puts an additional strain onto the school budget that does not have funds to support. If schools, only had to pay the per student fee for registration, then I believe that this dual credit opportunity would be financially sustainable. It would be beneficial if there could be a provincial strategy that supported dual credit implementation at the high schools especially with the block funding model. If we were to implement this opportunity in another high school, we would not have the qualified staff to support the instruction of this course. We would like to have teachers be able to receive support to further their education to support instruction in dual credit. If we had to hire an instructor for these courses, then the sustainability of the dual credit opportunity would be much more unrealistic.</p>	38	Accounting Technician Certificate - Edmonton Catholic Schools	Program – overall costs Staffing – PSI instructor costs
<p>As additional students wish to access dual credit opportunities, it will tie up a larger percentage of the working budgets for school principals. They will be reluctant to do so. This may limit the number of students who are able to access dual credit courses. The issue of how to fund dual credit for High School Redesign models must be addressed.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Program – overall costs

	40	Management 1070 - Systems and Supply Chains Management	
We will not continue this model for this program. We will use a new model. It will not be dual credit. It will be an off-site fabrication class. So it will basically be a high school program/course set that students can choose. It will be something that sustains connections with the community and will be the right thing to do. But it does not seem possible as a cost recovery program. The spaces available for participation are limited and the number of credits generated are less predictable than in other settings or courses. The cost of the teacher exceeds the CEU's generated, but that hardly matters when the school is now on MFWHSR and is block funded. Actually, block funding inhibits this program and were it not for the community motivation, we would likely not choose to run it. In this case, the business model that provides funding for programs does not mesh with the philosophical desire to help ALL students become successful in their community.	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	Program – overall costs Program – block funding short fall
The work associated with cross-school, and cross-division coordination of recruitment, facilitation, monitoring, reporting and communication required for a small school to host the program to benefit the students in multiple communities is currently going to be funded centrally. As mentioned earlier, a block funding business model, as it stands, makes these programs unattractive from a school - business perspective. Funded by a CEU structure may work but a school would be unlikely to give up the flexibility that block funding offers for most of the other programs in high school.	42	Health Care Aide Dual Credit - Pembina Hills RSD	Program – block funding short fall
Because of Post-Secondary tuition costs.	43	Northern Gateway Administrative Professional	Program – overall costs
As stated above, “This process was very cumbersome and potentially very costly and time consuming, therefore we choose the route of the KAE 3589 Child Care 30-4.”	44	<u>Early Childhood Education - Kainai Board of Education</u>	Program – overall costs
	45	Early Learning and Child Care program for High school students	
We do not have a critical mass of students who have recognized the value in this opportunity which does not allow us to create the sustainability of offering the program. We would have to subsidize the program at the school level without outside funding. Specifically, teacher time is costly to supervise and augment the program.	46	Career Academic Pathway - Business Academy and Entrepreneurship	Students – low interest Program – overall costs
	47	Special Needs Educational Assistant -	

		Edmonton Public Schools	
School funds are too limited to pay post-secondary	48	Technology Credentialing - FVSD	Program – overall costs
<p>Within the current high school funding framework, neither of the two existing high school funding models (i.e., CEU funding, block funding) were designed to specifically accommodate and support the delivery of dual credit programs and opportunities. CEU funding by itself does not provide sufficient funding to cover the costs of both post-secondary tuition and the time required of school district personnel (certified teachers, administrative and support staff) to coordinate, supervise and support program delivery. As previously noted, block funding leaves even a greater gap in the funding available for dual credit. Over time, the current enthusiasm and support for dual credit may diminish if school authorities deem the continuing burden of its extra costs outweigh its educational merits.</p> <p>The services provided by CAREERS as noted in the response to question 74 are essential to the coordination of partner roles and responsibilities and in facilitating shared program delivery. CAREERS will likely not be able to continue to maintain this level of support for program delivery beyond the 2016-2017 school without funding to support the rendering of same.</p>	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	<p>Program – overall costs</p> <p>Program – block funding short fall</p>
	50	Inspiring Futures - Living Waters' Registered Apprentice Program	
	51	Liberal Education 1000	

15. Appendix I – Key Factors for a Successful Dual Credit Model Content Analysis

Question 78 Input	Op. #	Opportunity Name	Category
<p>The revised CTS program has a broad array of courses that fit well with many of the curriculum offered at the post-secondary level. Our choice to offer Business 201 made it possible to incorporate the outcomes from existing CTS programs at a higher level that would normally have been studied at the high school level. In the case of English 1011 we were able to develop a locally developed course that allowed students to go well beyond the expectations of the current high school English Language Arts program.</p>	1	Greater St Albert Catholic International School of Business	Curriculum – CTS – PS courses align well
<p>1. COLLABORATIVELY establish guiding principles to govern dual credit based on the feedback gathered to date, and from successful models in BC and Ontario. 2. Stop articulating high school curriculum to post-secondary curriculum. Instead, establish a system for approving post-secondary courses as available in the K-12 system. This is done relatively seamlessly in other provinces and across much of the United States. As long as we continue to pretend that the K-12 curriculum can meet all of our students needs as is, we will be limited to what we can do for Alberta students, both in scope and in cost. Locally Developed Courses and provincial "pathways" are not the answer. These are still simply trying to push a square peg in a round hole, and in some ways is even worse because it is requiring us to create a whole new third layer of curriculum that will need evergreening and upgrading every time things change in the post-secondary world.</p>	2	Tourism and Hospitality	Program – provincial model needed Curriculum – local mapping inefficient
<p>Provincial articulation of CTS courses that align with post-secondary courses Provide funding for coordinator's position Increasing the CEU value per Dual Credit course to cover the costs</p>	3	Bow Valley Learning Pathway	Program – provincial model needed Finance – fund coordinators Finance – increase CEU grants
<p>We believe that consistent reliable funding is essential in establishing a successful dual credit model. Templates and guidelines for institutions will be extremely valuable so resources are not replicated but used more effectively. Flexibility in the model is also important to accommodate varying interests and needs of partners across the</p>	4	Natural Resources Management and Environmental Science	Program – provincial model needed – with flexibility

province. In certain dual credit partnerships, the inclusion of a community partner is not necessary.			
<p>1. Cost consideration. Can a formula be implemented where Alberta Education and Advanced Education work together to make Dual Credit opportunities more viable. CEU generated do not cover all costs associated with these courses.</p> <p>2. Mapping consideration. Why are we spending so much time mapping at the division level? Can this not be done by a committee at the provincial level, perhaps through secondments from school divisions?</p> <p>3. Awareness campaigns. Could there be a provincial solution for informing Albertans about the opportunity that Dual Credit will allow students?</p> <p>4. Cohort creations. How can school divisions work together so that cohorts of high school students are enrolled in the University level courses? This will alleviate the problems students encounter from professors who teach to adults and not to teenagers.</p> <p>5. Data collection. We need to know if we are succeeding in our Dual Credit strategies. Do we know that the opportunities that we are giving our students are helping students make career decisions? What post-secondary choices are students making after their success, or lack of success, in taking the Dual Credit courses?</p>	5	Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	<p>Finance – increase CEU grants</p> <p>Curriculum – local mapping inefficient</p> <p>Program – provincial model needed</p> <p>Program – provincial communications plan needed</p> <p>Program – ensure pedagogy appropriate to students’ age</p> <p>Program – student outcomes data needed</p>
Articulation, curriculum mapping, relationship between secondary and post-secondary.	6	Esthetics Pathway	Program – provincial model needed
It would be great to see more collaboration between Alberta Education (K-12) and Advanced Education.	7	Oil and Gas Foundations Pathway	Program – provincial model needed
Articulation, curriculum mapping, relationship between secondary and post-secondary.	8	Agricultural Studies	Program – provincial model needed
The mapping that is taking place between other colleges and high schools should be shared.	9	Business and Entrepreneurship Dual Credit Pathways	Program – provincial model needed – share best practices
I believe there should be a common framework for all jurisdictions. It was complex forming partnership and that costed a lot of money.	10	Community Knowledge Campus Science and Technology Centre	Program – provincial model needed
<p>1. Funding beyond basic grants</p> <p>2. Breaking down the barriers to develop more secondary and post-secondary partnerships</p> <p>3. There is a need to develop common administrative practices to ease collaboration (e.g., developing common</p>	11	Cosmetology – Advanced Placement	Finance – increase DC grants

<p>funding models for secondary and post-secondary programs.</p> <p>4. There needs to be a recognition that student developmental can be different in secondary than in post-secondary and instructional delivery needs accommodate accordingly.</p>			<p>Program – provincial model needed</p> <p>Program – ensure pedagogy appropriate to students’ age</p>
<p>1. COLLABORATIVELY establish guiding principles to govern dual credit based on the feedback gathered to date, and from successful models in BC and Ontario.</p> <p>2. Stop articulating high school curriculum to post-secondary curriculum. Instead, establish a system for approving post-secondary courses as available in the K-12 system. This is done relatively seamlessly in other provinces and across much of the United States. As long as we continue to pretend that the K-12 curriculum can meet all of our students needs as is, we will be limited to what we can do for Alberta students, both in scope and in cost. Locally Developed Courses and provincial "pathways" are not the answer. These are still simply trying to push a square peg in a round hole, and in some ways is even worse because it is requiring us to create a whole new third layer of curriculum that will need evergreening and upgrading every time things change in the post-secondary world.</p>	12	A Regional Approach to Pre-Employment Trades Training	<p>Program – provincial model needed</p> <p>Curriculum – local mapping inefficient</p>
<p>Funding. The dual credit program must be sustainable or schools will not be able to support it.</p>	13	Dual Credit Opportunities and Health Care Aide Program	Finance – increase DC grants
<p>More funding to all parties, sustainability, and research data to support implementation, universal curriculum mapping and clearly identified motivation from each of the stakeholders.</p>	14	Health Care Aide Program	<p>Finance – increase DC grants</p> <p>Program – student outcomes data needed</p> <p>Program – provincial model needed</p>
<ul style="list-style-type: none"> -must be flexible in development and delivery of courses. -must have sustainable funding. -must be developed to be taking student interests and their feedback into consideration. -strong and trusting relationship between secondary and post-secondary partners (as well as industry partner, if applicable). -dedicated support personnel at both secondary and post-secondary level to ensure consistency in 	15	Production Field Operator: Dual Credit Opportunity	<p>Program – provincial model needed with flexibility</p> <p>Finance – increase DC grants</p> <p>Program – student data needed</p>

programming, planning and to serve as key point of contact if challenges arise.			Finance –fund coordinators
The issue of funding must be addressed to accommodate all districts. It is critical to have a consistent and dedicated person at both the secondary and post-secondary level to participate in program planning, implementation and to assist with resolving challenges with the program as they may arise. All partners involved in dual-credit programs must have a trusting, collaborative and supportive relationship in order to ensure success for the program and students.	16	Pre-Employment Carpenter Dual Credit Program	Finance – increase DC grants Finance – fund coordinators Staffing – inter-organizational relationships key
To Be Determined	17	Production Field Operator: Dual Credit Opportunity	“To be determined”
Sustainability of these programs is contingent upon predictable and consistent funding. If districts can draw upon CEU funding to pay the post-secondary tuition portion of the costs. The question of secondary teacher involvement in assessment and instruction still remains to be addressed.	18	Pre-Employment Carpenter Dual Credit Program	Finance – increase DC/CEU grants Staffing – address secondary/psi certification
Sustainable funding based on programs, rather than CEU funding. A new funding framework that focuses on providing programs, regardless of the number of students wanting to explore their options, should be developed. Rural students frequently feel disadvantaged because of the lack of specialty courses they may access due to low numbers.	19	Health Care Aide	Finance – increase DC grants Program – provincial model needed
Curriculum mapping and student transcripts/records needs to be reviewed and streamlined within the context of dual credit. Whether students and their families should bear some of the costs of their dual credit program (as is the case with other post-secondary students) merits serious consideration. Access to the financial aid system for this group must also be considered in this context in order not to restrict access to lower income families.	20	Dual Credit Health Care Aide Program	Curriculum – local mapping inefficient Finance – consider student charges/aides
General Notes on this data tool: 1. The financial section of this report does not adequately allow us to account for of our grant dollars. Full, detailed accounting records are available from both Lakeland College and BTPS if required. Also, there was a change in CEU funding from year two to year three that cannot accurately be documented, and in addition, the number of CTS courses mapped to our chosen trades also changed between year two and three and this also	21	Pre-Employment Dual Credit	Survey tool inadequate to capture financial data

cannot be adequately documented within the confines of this tool. Another example of a discrepancy is that our 10 month agreement with the college for instructors meant that we paid an entire instructor's salary for the year. Based on the number of students, this dollar figure fluctuated on a per student basis. When asked to apply one dollar amount for tuition for three intakes, this is impossible to accurately complete.

2. Here is the financial breakdown according to BTPS' Secretary/ Treasurer and the associated dual credit grant GL codes. Complete documentation available upon request as we cannot attach anything here. These numbers only account for grant dollars, not CEU dollars earned as part of the dual credit opportunity.

Expenses	2013-214	2014-
2015	2015-2016	2015
received	Total Funds Spent	Total Grant
Dollars still owing		
certified benefits		1057.00
965.80	0	\$2,022.80
\$108,000.00		\$108,071.85
\$12,000.00		
certified salaries		8780.00
8780.00	0	\$17,560.00
*already earmarked for supporting dual credit students		
equipment		0
1711.76	0	\$1,711.76
currently registered in the 2016 -2 017 school year.		
Lakeland college invoices		0
22981.05	59490.54	\$82,471.59
*offset instructor costs, materials, ILMs		
meetings		211.79
0	0	\$211.79
public relations		31.54
0	0	\$31.54
supplies		138.85
1585.71	0	\$1,724.56
travel		64.78
1617.62	0	\$2,337.81

3. We have video interviews, exit surveys, media releases, and presentations that were made about this project. We also find the inability to attach this type of documentation to this final report frustrating in that we are not able to provide the full spectrum of learning that occurred as a result of this process. If there is a need/

purpose for this type of evidence, we would be happy to provide it to you.			
<p>The Alberta government needs to create a Learner Pathways Model that allows students to explore their passions, talents and interests. Dual Credit is an important component to the future high school experience for students. A funding structure needs to be established at a provincial level to ensure sustainability and equal access to funding for every school jurisdiction. Through recognition of a sustainable funding structure that supports multiple opportunities for learner pathways, the province will encourage a seamless learning system that facilitates learning environments for all learners.</p> <p>The government of Alberta needs to raise the profile of dual credit at a provincial level with students, parents, teachers, administrators, post-secondary institutions and business / industry. This can be achieved at the provincial level, the school district level and at the post-secondary. Student testimonials should continue to be part of the Alberta Dual Credit website and a provincial dual credit video needs to be created, so all stakeholders can have a better understanding about dual credit. Currently, videos exist from Ontario, British Columbia and the Unites States, but one needs to be created specific to Alberta.</p> <p>Alberta Education needs to create a database of what currently exists across the province in dual credit, so school jurisdictions / post-secondary institutions are aware of what options currently exit with dual credit opportunities.</p> <p>Post-Secondary Institutions need to continue to support dual credit and promote it within their own institution. We need to focus on the learner and their needs to explore learner pathways!</p>	22	Reaching Beyond the Classroom	<p>Program – provincial model needed</p> <p>Finance – increase DC grants</p> <p>Program – provincial communications plan needed</p> <p>Program – student outcomes data needed</p>
<ul style="list-style-type: none"> -Ongoing funding and support -Sharing of Best practices (more than an invite is needed as we need to have funding to travel to participate) -Professional development with all similar opportunities in the province with travel funding support (out of all AB initiatives, we do not know who else is offering Electrical Dual Credit) 	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	<p>Finance – increase DC funding</p> <p>Program – provincial model needed to share best practices</p>
<p>Equitable access</p> <p>Sustainable funding</p> <p>Accurate post-secondary credit mapping, allocations and tracking for high school students</p>	24	Trades Exposure Dual Credit Program	<p>Program – provincial model needed</p> <p>Finance – increase DC funding</p>

I think it is a great program to help students get a head start in achieving a trade occupation. However, it is not for everyone and students recruited for the program need to meet basic criteria.	25	Atikameg School / NLC Dual Credit Partnership	Students – selection/counseling key
Our current dual credit framework neither recognizes nor addresses the extra costs incurred by all partners in dual credit programming. A targeted funding model is required that addresses all areas of ongoing cost, including program coordination within schools and communities, post-secondary tuition, and system-level monitoring, supervision and administration. At the school level, a targeted and sustainable funding framework needs to address the cost differential between delivering a dual credit program versus that of delivering a regular high school program. For example, if a school has two students in a dual credit opportunity, this does not free up a teacher FTE to supervise and support the students. In a school, there may be 10 – 15 students working on various dual credit programs, at various times, that need to be supervised. In most cases these students don't all come from a single class; therefore, a teacher FTE is not available as another class section cannot be collapsed to gain the teacher FTE.	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	Finance – increase DC Funding
Develop a sustainable model.	27	School within a College (SWAC)	Program – provincial model needed
Have a leader in dual crediting and representatives in each district. Funding needs to be established for curricular mapping, coordinating positions and the Alberta teacher responsible in the schools.	28	Health Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Finance – increase DC funding
The funding issue must be solved before we can provide this program to any student in our province.	29	Veterinary Technical Assistant	Finance – increase DC funding
The funding model must be in place to serve all students across the province.	30	Health Care Aide CCSD and BVC	Finance – increase DC funding
The funding framework must be addressed to allow CEU or similar funding to take place.	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Finance – increase CEU/DC funding
A governance structure and a funding framework that is supported by both Alberta Education and Advanced Education	32	Health Care Aide Program - FrancoSud	Program – provincial model needed Finance – increase DC funding

<p>Sustainability of these programs is contingent upon predictable and consistent funding. Without disrupting the tenets of High School Redesign, if districts could draw upon specific funding to pay the post-secondary costs associated with the programs, then the programs can be successful.</p>	33	ACAD Design Fundamentals	Finance – increase DC funding
<p>Sustainability of these programs is contingent upon predictable and consistent funding. If districts can draw upon CEU funding to pay the post-secondary tuition portion of the costs. The question of secondary teacher involvement in assessment and instruction still remains to be addressed.</p>	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	Finance – increase DC funding Staffing – address secondary/psi certification
<p>Creating more pathways, consistency amongst post-secondary institutions in charging tuition, a funding model that can be sustained.</p>	35	East Wheatland Agriculture Studies	Program – provincial model needed Finance – increase DC funding
<p>The Alberta government needs to create a Learner Pathways Model that allows students to explore their passions, talents and interests. Dual Credit is an important component to the future high school experience for students. A funding structure needs to be established at a provincial level to ensure sustainability and equal access to funding for every school jurisdiction. Through recognition of a sustainable funding structure that supports multiple opportunities for learner pathways, the province will encourage a seamless learning system that facilitates learning environments for all learners.</p> <p>The government of Alberta needs to raise the profile of dual credit at a provincial level with students, parents, teachers, administrators, post-secondary institutions and business / industry. This can be achieved at the provincial level, the school district level and at the post-secondary. Student testimonials should continue to be part of the Alberta Dual Credit website and a provincial dual credit video needs to be created, so all stakeholders can have a better understanding about dual credit. Currently, videos exist from Ontario, British Columbia and the Unites States, but one needs to be created specific to Alberta.</p> <p>Alberta Education needs to create a database of what currently exists across the province in dual credit, so school jurisdictions / post-secondary institutions are aware of what options currently exit with dual credit opportunities.</p>	36	Allied Health Pathways - Edmonton Catholic Schools	Program – provincial model needed Finance – increase DC grants Program – provincial communications plan needed Program – student outcomes data needed

<p>Post-Secondary Institutions need to continue to support dual credit and promote it within their own institution. We need to focus on the learner and their needs to explore learner pathways!</p>			
<p>1. COLLABORATIVELY establish guiding principles to govern dual credit based on the feedback gathered to date, and from successful models in BC and Ontario. 2. Stop articulating high school curriculum to post-secondary curriculum. Instead, establish a system for approving post-secondary courses as available in the K-12 system. This is done relatively seamlessly in other provinces and across much of the United States. As long as we continue to pretend that the K-12 curriculum can meet all of our students needs as is, we will be limited to what we can do for Alberta students, both in scope and in cost. Locally Developed Courses and provincial "pathways" are not the answer. These are still simply trying to push a square peg in a round hole, and in some ways is even worse because it is requiring us to create a whole new third layer of curriculum that will need evergreening and upgrading every time things change in the post-secondary world.</p>	37	Aviation Management	Program – provincial model needed Curriculum – local mapping inefficient
<p>The Alberta government needs to create a Learner Pathways Model that allows students to explore their passions, talents and interests. Dual Credit is an important component to the future high school experience for students. A funding structure needs to be established at a provincial level to ensure sustainability and equal access to funding for every school jurisdiction. Through recognition of a sustainable funding structure that supports multiple opportunities for learner pathways, the province will encourage a seamless learning system that facilitates learning environments for all learners.</p> <p>The government of Alberta needs to raise the profile of dual credit at a provincial level with students, parents, teachers, administrators, post-secondary institutions and business / industry. This can be achieved at the provincial level, the school district level and at the post-secondary. Student testimonials should continue to be part of the Alberta Dual Credit website and a provincial dual credit video needs to be created, so all stakeholders can have a better understanding about dual credit. Currently, videos exist from Ontario, British Columbia and the Unites States, but one needs to be created specific to Alberta.</p> <p>Alberta Education needs to create a database of what currently exists across the province in dual credit, so school jurisdictions / post-secondary institutions are</p>	38	Accounting Technician Certificate - Edmonton Catholic Schools	Program – provincial model needed Finance – increase DC grants Program – provincial communications plan needed Program – student outcomes data needed

<p>aware of what options currently exist with dual credit opportunities.</p> <p>Post-Secondary Institutions need to continue to support dual credit and promote it within their own institution.</p> <p>We need to focus on the learner and their needs to explore learner pathways!</p>			
<p>Policies need to be created that streamline access, funding, liability, tuition costs, mapping, etc. The issue of how the proposed block funding model is able to support dual credit needs to be made clear as many school jurisdictions cannot wrap their minds around it. A variable funding model that incorporates dual credit programming, but still caps the amount of funding generated from CEU's should be examined. (The best of both worlds). If High Schools went onto block funding with a dual credit loop hole that would work. Then it would be on the Dual Credit Steering Committee to put in place guidelines for what CEUs would be able to be generated and for what purpose. (i.e. funds go back into paying costs solely for dual credit. Just like positive energy creates positive energy, dual credit CEUs can only be generated to create more dual credit opportunities for students). A self-generating GL code that can only be used for dual credit work.</p>	39	Office Administration Development - Grande Yellowhead Public SD	Program – provincial model needed Finance – increase CEU/DC grants
<p>The collaboration of all stakeholders involved in the program is essential for success moving forward. Universities should not see dual credit as a way to recruit students, nor high schools see dual credit as merely another option for students to take. Dual credit is a program that allows for an easier transition of students from secondary to post-secondary education, therefore, the focus must be on developing a program that facilitates that pedagogical goal. To accomplish this, all of the partners must evaluate their own roles in light of that intention. If the program is focused on the facilitation of student success, then it will be beneficial. In Lethbridge we have been fortunate to have great discussions about dual credit and student success and have all been in agreement on keeping the student's success central to all the necessary processes. It is one of the strongest aspects of the whole initiative.</p> <p>It is essential that dual credit opportunities remain accessible by all qualified students. Also, to facilitate expanding the program to more courses and other schools, the funding model and strategy application processes must be streamlined. Any future evaluation procedures should also be simpler and streamlined. Using</p>	40	Management 1070 - Systems and Supply Chains Management	Program – ensure pedagogy appropriate to student goals Program – provincial model needed – streamlined processes

<p>a budget template for reporting expenditures would be more efficient.</p>			
<p>Do the curriculum mapping provincially. Do not expect it to be done by the people who are providing the programming directly with students. It is time-consuming and often beyond the skillset of the teachers involved. If curriculum mapping were completed by others, and the parallels are obvious, then it would be more efficient.</p> <p>Post-secondary tuition rates need to be lowered to become more accessible for students, and less of a risk to high schools on block funding.</p> <p>Cohort based programs are also quite difficult to manage. They demand a commitment which can be difficult to sustain with high school students. That said, they do motivate active recruitment.</p> <p>Individual post-secondary dual credit course offerings should be increased. There must be dozens if not scores of high school courses that could be aligned with post-secondary courses. Any steps a high school student can take into a post-secondary experience increases the likelihood of them taking further steps. And if they don't they are nevertheless more skilled and enjoyable having gained the experience.</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	<p>Curriculum – local mapping inefficient</p> <p>Finance – increased DC funding</p> <p>Program – ensure pedagogy appropriate to students’ age</p> <p>Curriculum – CTS-PS courses align well</p>
<p>In our district, student need drives the Dual Credit opportunities. We are continually looking at opportunities and trying to communicate those to students and parents. The challenge is to match needs, while balancing high school diploma requirements and post-secondary entrance requirements. Many students have the perception that they don't have the time within their timetable. Many teachers have the perception that dual credit means we are paying the post-secondary instead of using funding for those students going toward paying for existing programs within the school. There is some merit to that perception since the post-secondary charges a fee and does not have any accountability, and is not responsible for a facility and the technology. The school provides academic support, supervision, technology, physical space, promotion, recruitment, pays for the equipment to be moved, is accountable for all of the equipment, registration, ongoing technology issues and student issues, etc. With CEU funding, the bulk of the money would go to the college. With block funding it seems like a very large bill for the HCA program, with no extra funding coming in. There is low risk taken by the college and a high risk borne by the high school because</p>	42	Health Care Aide Dual Credit - Pembina Hills RSD	<p>Program – ensure pedagogy appropriate to students needs</p> <p>Finance – increase DC grants</p>

if the student drops out, the school will be billed by the college regardless. Dual-credit responsibilities and risk, should be equally shared between the high schools and colleges.			
A funding structure needs to be created for dual credit that is shared by the ministry partners.	43	Northern Gateway Administrative Professional	Program – provincial model needed Finance – increase DC grants
Developing a sustainable funding partnership model between Secondary and Post-Secondary Departments. Implementation Strategy and supports for Secondary Schools to access The cost for Post-Secondary Program were prohibitive and funding should be equitable in distribution.	44	<u>Early Childhood Education - Kainai Board of Education</u>	Program – provincial model needed Finance – increase DC grants
Have a blend or asynchronous model to help students from different schools to enter and have success in the program.	45	Early Learning and Child Care program for High school students	Program – provincial model needed
Curriculum mapping and alignment provided for all dual credit programs should be available. Local autonomy and flexibility in creating locally developed courses with a range of credits that can easily facilitate the dual credit program would also assist in this, although we understand the bundling of CTS courses is the desired pathway for this.	46	Career Academic Pathway - Business Academy and Entrepreneurship	Program – provincial model needed with flexibility
There are mechanisms that exist whereby advanced educational institutions can allow secondary schools to offer intro courses or programs. Designations can be short-term and contextual - i.e. if in fact a program curriculum is matched in high school and first year college, why not use the 'associate' or 'visiting' or 'master instructor' option? Don't have different courses names for the same learner outcomes.	47	Special Needs Educational Assistant - Edmonton Public Schools	Program – provincial model needed Staffing – address secondary/psi certification
Funding	48	Technology Credentialing - FVSD	Finance – increase DC grants
A sustainable provincial dual credit framework needs to recognize and address the extra costs associated with dual credit programming that are over and above the cost of delivering regular high school programs. For example, if a school has 2 students in a dual credit opportunity it does not free up teacher FTE to supervise and support the students. In a school, you could have 10-15 students working on various dual credit programs, at various times, that need to be supervised. In most cases these students don't all come from a single class;	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	Finance – increase DC Funding

<p>therefore, teacher FTE is not available as another class section cannot be collapsed to gain the teacher FTE. Our current high school funding framework neither recognizes nor addresses the extra costs of dual credit programming. A funding model is required that addresses all areas of ongoing cost, including program coordination within schools and communities, post-secondary tuition, and system-level monitoring, supervision and administration.</p>			
<p>Dual Credit programs need identified funding processes that enable secondary and post-secondary partnerships. Policies and procedures (clear) need to be developed so that program delivery can be sustainable. Secondary administrators need help in adding dual credit programs to their timetables and professional development highlighting best practices is necessary as we move forward. Other programs will also need a defining of roles and responsibilities so that duty of care requirements are insured.</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	Finance – increase DC Funding Program – provincial model needed Staffing – address secondary/psi certification
<p>The collaboration of all stakeholders involved in the program is essential for success moving forward. Universities should not see dual credit as a way to recruit students, nor should high schools see dual credit as merely another option for students to take. Dual credit is a program that allows for an easier transition of students from secondary to post-secondary education, therefore, the focus must be on developing a program that facilitates that pedagogical goal. To accomplish this, all of the partners must evaluate their own roles in light of that intention. If the program is focused on the facilitation of student success, then it will be beneficial. In Lethbridge we have been fortunate to have great discussions about dual credit and the student experience and have all been in agreement on keeping the students' success central to all the necessary processes. It is one of the strongest aspects of the whole initiative.</p> <p>It is essential that dual credit opportunities remain accessible by all qualified students. Also, to facilitate expanding the program to more courses and other schools, the funding model and strategy application processes must be streamlined. Any future evaluation procedures should also be simpler and streamlined. Using a budget template for reporting expenditures would be more efficient.</p>	51	Liberal Education 1000	Program – ensure pedagogy appropriate to student goals Program – provincial model needed – streamlined processes

16. Appendix J – Necessary Factors for a Long Term Dual Credit Framework Content Analysis

Question 79 Input	NO.	Opportunity Number and Name	Category
<p>The revised CTS program has a broad array of courses that fit well with many of the curriculum offered at the post-secondary level. Our choice to offer Business 201 made it possible to incorporate the outcomes from existing CTS programs at a higher level that would normally have been studied at the high school level.</p> <p>In the case of English 1011 we were able to develop a locally developed course that allowed students to go well beyond the expectations of the current high school English Language Arts program.</p>	1	Greater St Albert Catholic International School of Business	Curriculum – CTS – PS courses align well
<p>There is no lack of data or feedback on dual credit implementation successes and challenges. There are a number of key recommendations that have been put forth on almost all of these items, and to date, very few have been addressed.</p>	2	Tourism and Hospitality	Program – provincial model needed
<p>All factors should be considered with emphasis on the funding model and impact on high school completion rate and post-secondary transition. Provincial strategy regarding course articulation and information sharing.</p>	3	Bow Valley Learning Pathway	Program – provincial model needed - To provide sustainable funding - To streamline curriculum Program – student outcomes data needed
<p>Sustainability factors; provincial process/governance/policy/funding model - see comments above.</p> <p>Post-secondary to secondary provincial structures for seamless curriculum mapping would be valuable for schools and institutions to utilize as a start point for their own dual credit initiatives. For some schools and post-secondary institutions, high school to post-secondary transition rates would be very relevant to the partnership. Equitable student access to opportunities is important; students need to meet the prerequisite requirements for the dual credit initiative to participate.</p>	4	Natural Resources Management and Environmental Science	Program – provincial model needed - To streamline curriculum

<p>In regards to provincial access to and sharing of information:</p> <ol style="list-style-type: none"> 1. Mapping consideration. Why are we spending so much time mapping at the division level? Can this not be done by a committee at the provincial level, perhaps through secondments from school divisions? 2. Cohort creations. How can school divisions work together so that cohorts of high school students are enrolled in the University level courses? This will alleviate the problems students encounter from professors who teach to adults and not to teenagers. <p>In regards to sustainability factors; provincial process/governance/policy/funding model:</p> <ol style="list-style-type: none"> 1. Cost consideration. Can a formula be implemented where Alberta Education and Advanced Education work together to make Dual Credit opportunities more viable. CEU generated do not cover all costs associated with these courses. 	5	Twenty-first century Learning: An Introduction to Information Systems, Computer Applications, and online learning COMP 210; Comp 214	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To streamline curriculum - To provide sustainable funding <p>Program – ensure pedagogy appropriate to students’ age</p>
They should all be included in a long-term plan/dual credit framework for Alberta	6	Esthetics Pathway	Program – provincial model needed
No answer provided	7	Oil and Gas Foundations Pathway	No answer provided
They should all be included in a long-term plan/dual credit framework for Alberta	8	Agricultural Studies	Program – provincial model needed
Sustainability factors; provincial process/governance/policy/funding model; Provincial access to and sharing of information; Post-secondary to secondary provincial structures for seamless curriculum mapping;	9	Business and Entrepreneurship Dual Credit Pathways	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To share best practices - To streamline curriculum
Develop a common framework and school jurisdictions can apply through the framework. Partnership development was complex and post-secondary partner was a challenge at times.	10	Community Knowledge Campus Science and Technology Centre	<p>Program – provincial model needed</p> <p>To enhance partnerships</p>
<ol style="list-style-type: none"> 1. Equitable student access to opportunities: It is important to consider dual credit opportunities to students in rural areas such as ours, particularly in the north, in spite of the possibility that the project/opportunity may never become self-sustaining. We do not have the population to guarantee sustainability, yet we have a population that is disadvantaged geographically. In order to make access to education opportunities equitable, it will be an expense that may not be recouped by the government in the short run. In the long run, through employment opportunities, the up-front expenses 	11	Cosmetology – Advanced Placement	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance student access

will yield financial benefit in employment of those who participate.			
There is no lack of data or feedback on dual credit implementation successes and challenges. There are a number of key recommendations that have been put forth on almost all of these items, and to date, very few have been addressed.	12	A Regional Approach to Pre-Employment Trades Training	Program – provincial model needed
Funding is essential	13	Dual Credit Opportunities and Health Care Aide Program	Finance – provincial DC grants needed
Both post-secondary and secondary institutions need to receive adequate funding in order to offer these experiences to students	14	Health Care Aide Program	Finance – provincial DC grants needed
- Sustainability factors: provincial process/governance/policy/funding model - because of the move to block funding and because our High Schools will all be involved in renewal, we need sustainable funding for these courses.	15	Production Field Operator: Dual Credit Opportunity	Program – provincial model needed - To provide sustainable funding
Sustainability factors; provincial process/governance/policy/funding model - because the district has moved to block funding, and because our High Schools will all be involved in renewal, sustainable funding is needed for these courses.	16	Pre-Employment Carpenter Dual Credit Program	Program – provincial model needed - To provide sustainable funding
Sustainability factors; provincial process/governance/policy/funding model; Post-secondary to secondary provincial structures for seamless curriculum mapping; Equitable student access to opportunities; Supports for partnerships and clarity regarding duty of care; High school completion rates; Ease of transferability between post-secondary to post-secondary needs to be considered when looking at the entire framework of dual-credit long term. Dual-credit courses needed to be recognized as dual-credit courses by all post-secondary institutions and there needs to be consideration that the students are not "post-secondary" students but really high school students who happened to take a dual-credit courses with a post-secondary while still in high school.	17	Production Field Operator: Dual Credit Opportunity	Program – provincial model needed - To streamline curriculum - to enhance student access Program – student outcomes data needed Program – ensure pedagogy appropriate to students age
The factors identified below are ones that need to be addressed in order of importance: Sustainability factors; provincial process/governance/policy/funding model	18	Pre-Employment Carpenter Dual Credit Program	Program – provincial model needed - To streamline curriculum

<p>Post-secondary to secondary provincial structures for seamless curriculum mapping High school completion rates High school to post-secondary transition rates Provincial access to and sharing of information Transferability and recognition of dual-credit programs amongst the various post-secondary institutions to allow ease of access for students.</p>			<ul style="list-style-type: none"> - To enhance student access - To share best practices, data etc.
<p>Sustainability factors; provincial process/governance/policy/funding model: Small rural school divisions are challenged by the number of programs and types of courses we can offer, based on the current funding framework. We would like to offer our students a broader base education that focuses on core courses and the arts equally – our current funding model focusing on per pupil funding, pushes small rural schools to focus on providing direct instruction for core courses only. By providing a broader framework of courses (fine arts as well as core courses) our students would not need to leave our school division to access these programs. We will need to communicate with secondary and post-secondary institutions to investigate the variety of Dual Credit options that are currently available as well as those that are being developed in order to provide those options to our students. We will also need legislation that guides Post-Secondary institutions in their operation of Dual Credit programming – limits on tuition charged should equal the funding available upon completion of the courses. Equitable student access to opportunities: Our rural students have greater difficulty accessing a broad range of opportunities which are limited by the CEU funding framework. The Dual Credit opportunities have provided access to programs that our rural students would not otherwise have access to, because of the distance between schools, major industrial centers, and post-secondary institutions.</p>	19	Health Care Aide	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To enhance student access - To share best practices - To enhance partnerships
<p>Re: high school completion and transition to post-secondary rates - be clear about what may or may not affect these; dual credit programming is only one tool of many that could assist with improving these rates and providing opportunities for students to engage more fully in their education.</p>	20	Dual Credit Health Care Aide Program	Dual credit only one tool
<p>We are running our dual credit trades programs this, 2016-2017 school year, with one time funding from our Board of Trustees covering the CEU shortfall. The board made this financial commitment because they see the success of, and need for, this type of program in our rural context. They are unable to provide this level of support past this year however,</p>	21	Pre-Employment Dual Credit	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding

<p>and remain hopeful that by the 2017-2018 school year sustainable funding and dual credit program model will emerge provincially. Meanwhile, in an attempt to improve the sustainability of our program, our 2016 - 2017 dual credit trades programs are condensed delivery, meaning our program meets only the minimum recommended hours of instruction, not the additional hours the pilot included to support student learning. We have also eliminated all of the safety certifications as our attempts to have these industry funded were not substantiated. We continue to explore partnerships with neighbouring boards, but the 100% CEU recovery model is not selling feature when trying to bring other rural boards into the fold. We have also explored mobile shop ideas, although these are very expensive and do not reduce instructor costs per hour, so do not seem to be a viable option.</p> <p>The stakeholders in this partnership have spent many hours discussing how to expand this program to more trades areas, and make it viable. It is our opinion that proper funding would be the best solution. In absence of this, special considerations by AIT and the ATA to accommodate high school students into regular AIT intake groups should be a consideration. This model, while complicated under the current structure of professional duty of care, off campus provisions, assessment etc., would allow students to pursue first period training in their grade 12 year, with secondary funding, in any certified trade, without the expectation of filling an entire high school cohort group. Another model we have considered is video conference delivery of theory components, followed by an intensive summer institute placement on the college campus. Secondary students could utilize post-secondary student housing on campus under this model. College instructors however, worry that this model disconnects theoretical and practical learning and may make comprehension and retention of the material more difficult for students.</p> <p>In summary, we feel that our blended model of video conferencing and on-campus instruction is the best model for secondary students. Unless funding structures change however, we are unsure how to create sustainability moving forward.</p>			<ul style="list-style-type: none"> - To enhance student access <p>Program - blended models viable</p>
<p>When exploring a long term plan / framework for dual credit in Alberta, a sustainable model needs to be developed that is fair and equitable to all students in the province. A provincial sharing data site needs to be established, so all opportunities can be shared throughout the province. We need to minimize the duplication of work that is currently occurring throughout Alberta in the area of dual credit. One jurisdiction does not</p>	22	Reaching Beyond the Classroom”	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance student access

<p>have knowledge of what another jurisdiction is implementing in dual credit. Collaboration is a key and the ACAT meetings have been very beneficial in providing an opportunity to network and sharing best practices. The Community Learning Consortium Dual Credit Symposium Report was another prime example of school districts, post-secondary and business / industry working together for the needs of our students in Alberta. These types of collaboration opportunities are critical for knowledge mobilization, but to share commonalities / differences among our work.</p>			<ul style="list-style-type: none"> - To share best practices - To streamline curriculum
<p>I am not sure</p>	23	Dual Credit Apprenticeship Program (DCAP) - Electrical	<p>"I am not sure"</p>
<p>Sustainability factors; provincial process/governance/policy/funding model; Provincial access to and sharing of information; Provincial-level data; Post-secondary to secondary provincial structures for seamless curriculum mapping; Equitable student access to opportunities</p>	24	Trades Exposure Dual Credit Program	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To share best practices - To streamline curriculum - To enhance student access
<p>The reason the program was not successful at Atikameg School seems to be mainly because students were recruited for the program that were not academically prepared....</p>	25	Atikameg School / NLC Dual Credit Partnership	<p>Students – selection/counselling key</p>
<p>The following are constructive comments/suggestions for a long-term dual credit framework: Sustainable funding model: Future consideration must be given to a funding framework that provides targeted funding for dual credit program offerings. See response to question 76 and 78 regarding recommendations for a dual credit funding framework. Post-secondary to secondary provincial structures for seamless curriculum mapping: See response to question 75 regarding adoption of dual credit policy/practice similar to that used in British Columbia to avoid duplication of resources in curriculum mapping. High School Completion Rates: The OGPO program offers potential to capture the interest and participation of non-engaged high school students who are thinking about leaving school for industry. Theoretical coursework is transparent in its link to future career pursuits and the requisite skills required in the workplace. The summer internship with industry is a paid learning experience, and offers the student</p>	26	Oil and Gas Production Operator (OGPO) Dual Credit Certificate Program	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To streamline curriculum - To share best practices

<p>opportunity to build positive relationships with a potential future employer.</p> <p>ACAT Dual Credit Articulation Committee meeting and minutes: The committee plays a valuable role in bringing grass root partners together with ministry representatives and should continue to be part of a plan for long-term dual credit. A recommendation moving forward would be to improve the efficiency and effectiveness of future meeting processes in addressing the needs of all stakeholder groups.</p>			
Continue to provide funding for dual credit programming.	27	School within a College (SWAC)	Finance – provincial DC grants needed
The most important is the sustainability factors and post-secondary to secondary provincial structures for seamless curriculum mapping. Sustainability needs to come from Government funds and seamless curricular mapping needs to come from having a director or council in place to work on curriculum mapping.	28	Health Care Aide Dual Credit Opportunity - Parkland County & Evergreen Catholic Schools	Program – provincial model needed - To streamline curriculum - To provide sustainable funding
Sustainability factors; provincial process/governance/policy/funding model - because of our move to block funding, and because our High Schools will all be involved in renewal, we need sustainable funding for these courses.	29	Veterinary Technical Assistant	Program – provincial model needed - To provide sustainable funding
Sustainability factors; provincial process/governance/policy/funding model - because of our move to block funding and because our High Schools will all be involved in renewal, we need sustainable funding for these courses.	30	Health Care Aide CCSD and BVC	Program – provincial model needed - To provide sustainable funding
Sustainability factors; provincial process/governance/policy/funding model - because of our move to block funding, as our High Schools will all be involved in renewal, we need sustainable funding for these courses.	31	Advanced English Critical Reading and Writing - Calgary Catholic and Mount Royal University	Program – provincial model needed - To provide sustainable funding
All of these factors are important to the development of a permanent dual-credit strategy for Alberta: - Provincial process/governance/policy/funding model; - Provincial director or council as a bridge/steward for stakeholders and ministries; - Provincial access to and sharing of information;	32	Health Care Aide Program - FrancoSud	Program – provincial model needed - To enhance student access

<ul style="list-style-type: none"> - Provincial-level data; - Post-secondary to secondary provincial structures for seamless curriculum mapping; - Equitable student access to opportunities; - Supports for partnerships and clarity regarding duty of care; - High school completion rates; - High school to post-secondary transition rates - Documented 2014 and 2015 Information Sources: - Strategy-funded partnership meetings' notes, - ACAT Dual Credit Articulation Committee meeting minutes, - ACAT Learner Pathways Modernization Initiative Phase 1 Business Assessment Report, - Community Learning Consortium Dual Credit Symposium Report) 			<ul style="list-style-type: none"> - To share best practices, data etc. - To streamline curriculum
<p>The factors identified below are ones that need to be addressed in order of importance:</p> <p>Sustainability factors; provincial process/governance/policy/funding model</p> <p>Post-secondary to secondary provincial structures for seamless curriculum mapping</p> <p>High school completion rates</p> <p>High school to post-secondary transition rates</p> <p>Provincial access to and sharing of information</p>	33	ACAD Design Fundamentals	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To streamline curriculum - To share best practices, data etc.
<p>The factors identified below are ones that need to be addressed in order of importance:</p> <p>Sustainability factors; provincial process/governance/policy/funding model</p> <p>Post-secondary to secondary provincial structures for seamless curriculum mapping</p> <p>High school completion rates</p> <p>High school to post-secondary transition rates</p> <p>Provincial access to and sharing of information</p>	34	Fashion Marketing - Calgary Board of Education and Calgary Catholic School District	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To streamline curriculum - To share best practices, data etc.
<p>Coming from a rural area I think that it is crucial that our rural students be provided with equitable access to dual credit opportunities, whether it be on-line courses or blended programs.</p>	35	East Wheatland Agriculture Studies	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance student access

<p>When exploring a long term plan / framework for dual credit in Alberta, a sustainable model needs to be developed that is fair and equitable to all students in the province. A provincial sharing data site needs to be established, so all opportunities can be shared throughout the province. We need to minimize the duplication of work that is currently occurring throughout Alberta in the area of dual credit. One jurisdiction does not have knowledge of what another jurisdiction is implementing in dual credit. Collaboration is a key and the ACAT meetings have been very beneficial in providing an opportunity to network and sharing best practices. The Community Learning Consortium Dual Credit Symposium Report was another prime example of school districts, post-secondary and business / industry working together for the needs of our students in Alberta. These types of collaboration opportunities are critical for knowledge mobilization, but to share commonalities / differences among our work.</p>	36	Allied Health Pathways - Edmonton Catholic Schools	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance student access - To share best practices, data etc.
<p>There is no lack of data or feedback on dual credit implementation successes and challenges. There are a number of key recommendations that have been put forth on almost all of these items, and to date, very few have been addressed.</p>	37	Aviation Management	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To share best practices, data etc.
<p>When exploring a long term plan / framework for dual credit in Alberta, a sustainable model needs to be developed that is fair and equitable to all students in the province. A provincial sharing data site needs to be established, so all opportunities can be shared throughout the province. We need to minimize the duplication of work that is currently occurring throughout Alberta in the area of dual credit. One jurisdiction does not have knowledge of what another jurisdiction is implementing in dual credit. Collaboration is a key and the ACAT meetings have been very beneficial in providing an opportunity to network and sharing best practices. The Community Learning Consortium Dual Credit Symposium Report was another prime example of school districts, post-secondary and business / industry working together for the needs of our students in Alberta. These types of collaboration opportunities are critical for knowledge mobilization, but to share commonalities / differences among our work.</p>	38	Accounting Technician Certificate - Edmonton Catholic Schools	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance student access - To share best practices, data etc.
<p>It is all necessary. The main purpose of dual credit is to create a strong transitional base for students as they leave high school and enter into post-secondary. It sets them up for success. There must be accountability in this process and tying it to provincial data, and the accountability pillar with Alberta Education is key. Process is essential. Everyone must follow the same process to be fair to our students. Equitable accessibility ensures rural students have the same access as</p>	39	Office Administration Development - Grande Yellowhead Public SD	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance equitable student access

<p>urban students. Curriculum mapping must be the same for a course at NAIT, or GPRC, or RDC, Olds, etc. If the feedback listed below is addressed, then we have a strong, viable, sustainable program moving forward.</p>			<ul style="list-style-type: none"> - To share best practices, data etc. - To streamline curriculum
<p>Dual credit programs that offer equitable student access and transition rates between high school and post-secondary institutions should be key areas of focus for the program. The post-secondary institutions offer different areas of focus and different expectations that stretch students' capabilities and open them to new opportunities. Statistical information that relates to the transition between secondary and post-secondary schools incorporating a dual credit approach could be quite useful in promoting the program to students, parents, and other schools, and to refining the supports provided.</p>	40	Management 1070 - Systems and Supply Chains Management	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To enhance equitable student access - To share best practices, data etc.
<p>Provincial level data and post-secondary to secondary provincial structures for seamless curriculum mapping; having a resource that correlates High School courses and programs to post-secondary would be valuable.</p> <p>Sustainability factors; provincial process / government / policy / funding model; high schools need a business model that enables even small rural high schools to provide a breadth of personalized programming for students in the community. This probably cannot be a one-size-fits-all model. The challenges faced by a small school are to provide students with programming to develop university readiness, programming for trades experience while developing connections to the community and the preparation for participation in the global society. Dual-credit is a step in the right direction but unless it is funded correctly, it cannot be maintained and as well as a great experience and connections to the community and the preparation for participation in the global Society. Dual-credit is a step in the right direction but unless it is funded correctly, it cannot be maintained and rural students will be at a disadvantage.</p>	41	Fabrication (Welding) & Business Fundamentals - Pembina Hills RSD	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To streamline curriculum - To provide sustainable funding - To enhance student access
<p>Sustainability factors; provincial process/governance/policy/funding model: Our district is planning to bring in the dual-credit coordinator from our partner colleges for a PD day in the fall. This will give all staff an opportunity to learn about dual-credit and correct some of the misconceptions. If staff are aware of the opportunity, we are more likely to have more who will promote opportunities to students. Teachers need to understand dual credit.</p>	42	Health Care Aide Dual Credit - Pembina Hills RSD	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To streamline curriculum

<p>Post-secondary to secondary provincial structures for seamless curriculum mapping: our most recent experience and HCA is much much better than previous. A large barrier was the curriculum mapping process. It was very difficult to do when this was done during the delivery of the course. It also made recruitment difficult because we were recruiting students to accept an idea of a course and program before it was fully developed. This mapping needs to be done collaboratively with high school and post-secondary teachers before the course is implemented.</p> <p>High School completion rates: Though difficult to attribute to a single strategy, we suspect that we have retained and students longer because of the availability of programs like this. Students whose friends take these courses may be staying in school longer because their friends are still in school, even though they themselves haven't been directly involved. Reaching out to their interests, and expressing a desire regarding success for all students through action, sends the message that we do indeed care, and maybe it might be worth sticking around. We wonder if the number of credits achieved by students; whether or not they graduate; is going up, and if so, is it attributable to the package of strategies that are associated with high school redesign?</p>			<p>To share best practices, data etc.</p> <ul style="list-style-type: none"> - To enhance student access
<p>No answer provided</p>	<p>43</p>	<p>Northern Gateway Administrative Professional</p>	<p>No answer provided</p>
<p>As stated above, Provincial director or council as a bridge/steward for stakeholders and ministries; Provincial access to and sharing of information; Provincial-level data; Post-secondary to secondary provincial structures for seamless curriculum mapping; Equitable student access to opportunities; Supports for partnerships and clarity regarding duty of care</p>	<p>44</p>	<p><u>Early Childhood Education - Kainai Board of Education</u></p>	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To share best practices, data etc. - To streamline curriculum - To enhance equitable student access - To enhance partnerships
<p>Develop a sustainable shared funding model that would reassign and adjust current funding formulas for postsecondary and secondary funding.</p>	<p>45</p>	<p>Early Learning and Child Care program for High school students</p>	<p>Finance – provincial DC grants needed</p>
<p>Provincial access to and sharing of information so we are not engaging in 'parallel play'. We can see what has worked in other contexts and extend it to ours. Published curriculum</p>	<p>46</p>	<p>Career Academic Pathway - Business</p>	<p>Program – provincial model needed</p>

mapping for the dual-credit opportunities. More capacity built for dual-credit utilizing the Alberta Learning Consortia to support the work in every jurisdiction.		Academy and Entrepreneurship	<ul style="list-style-type: none"> - To share best practices, data etc. - To streamline curriculum
All of the points have merit IF the notion is to continue on this road, However, how experience has shown us that 'more money' is not the solution. What we need are permissions between the two institutions (or other industry partners) to access and share learner outcomes. A third space is needed - ACAT already has the mechanisms in place - where articulation agreements and contract personnel, or certifications can be housed and accessed. Look at the PLAR/Challenge exam model. If a student can demonstrate the outcomes in a controlled examination, created by the receiving institution, then what is the concern?	47	Special Needs Educational Assistant - Edmonton Public Schools	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To share best practices, data etc. - Based on PLAR, Challenge exam model
Adequate funding and recognize the university course as a dual credit course on a student transcript	48	Technology Credentialing - FVSD	<p>Finance – provincial DC grants needed</p> <p>Recognize dual credit course on a student transcript</p>
<p>The following are constructive comments/suggestions for a long-term dual credit framework:</p> <p>Sustainable funding model: Future consideration should be given to a funding framework that provides targeted funding for dual credit program offerings. See response to question 78 regarding recommendations for a dual credit funding framework.</p> <p>Post-secondary to secondary provincial structures for seamless curriculum mapping: See response to question 75 regarding adoption of dual credit policy/practice similar to that used in British Columbia to avoid duplication of resources in curriculum mapping.</p> <p>High School Completion Rates: The OGPO program offers potential to capture the interest and participation of non-engaged high school students who are thinking about leaving school for industry. Theoretical coursework is transparent in its link to future career pursuits and the requisite skills required in the workplace. The summer internship with industry is a paid learning experience, and offers the student opportunity to build positive relationships with a potential future employer.</p>	49	Water and Wastewater Technician (WWT) Dual Credit Certificate Program	<p>Program – provincial model needed</p> <ul style="list-style-type: none"> - To provide sustainable funding - To streamline curriculum To share best practices, data etc. - To enhance student access

<p>ACAT Dual Credit Articulation Committee meeting and minutes: The committee plays a valuable role in bringing grass root partners together with ministry representatives and should continue to be part of a plan for long-term dual credit. A recommendation moving forward would be to improve the efficiency and effectiveness of future meeting processes in addressing the needs of all stakeholder groups.</p>			
<p>Moving forward means addressing most of these factors. From the list provided, here are key recommendations that should be included: Provincial council as a bridge/steward for stakeholders and ministries; Provincial access to and sharing of information; Provincial-level data; Post-secondary to secondary provincial structures for seamless curriculum mapping; Equitable student access to opportunities; Supports for partnerships and clarity regarding duty of care; High school completion rates; High school to post-secondary transition rates Documented 2014 and 2015 Information Sources: with a focus on best practices from the 51 projects. Strategy-funded partnership meetings' notes, ACAT Dual Credit Articulation Committee meeting minutes, ACAT Learner Pathways Modernization Initiative Phase 1 Business Assessment Report, Community Learning Consortium Dual Credit Symposium Report)</p>	50	Inspiring Futures - Living Waters' Registered Apprentice Program	<p>Program – provincial model needed To share best practices, data etc. - To streamline curriculum - To enhance equitable student access</p>
<p>Dual credit programs that offer equitable student access and transition rates between high school and post-secondary institutions should be key areas of focus for the program. The post-secondary institutions offer different areas of focus and different expectations that stretch students' capabilities and open them to new opportunities. Statistical information that relates to the transition between secondary and post-secondary schools incorporating a dual credit approach could be quite useful in promoting the program to students, parents, and other schools, and to refining the supports provided.</p>	51	Liberal Education 1000	<p>Program – provincial model needed - To enhance equitable student access - To share best practices, data etc.</p>

17. Appendix K – Complete Literature Review

Introduction

The purpose of this literature review is to provide a broader context to inform the long term planning of dual credit programs in Alberta. Examining best practices and the challenges identified by dual credit providers serve to further strengthen collaborative relationships for curriculum development, policy, legislation, and sustainable funding.

In Alberta, four ministries (Advanced Education, Education, Indigenous Relations, and Labour) are working together with school divisions, post-secondary institutions, and business and industry partners to provide dual credit opportunities where high school students can earn credits toward their grade 12 diploma and post-secondary program. Programs are designed to assist students in making meaningful career orientated decisions which enable them to successfully complete high school and transition to post-secondary education. Encouraging students to explore career pathways that complement their own unique talents and abilities builds student engagement. By offering dual credit opportunities as learning experiences and pathways, students can get a head start on their careers and join a skilled and educated work force.

Dual Credit in Alberta

The Provincial Dual Credit Strategy:

Call to action (1) recognized the need for Alberta to be responsive to labour market demands for well-educated and skilled citizens. Competition and high demand for many occupations in a growing economy were key drivers for developing dual credit programs. The Alberta government, along with partners in education, advanced education, and business and industry, combined efforts to “develop engaging and relevant learning experiences for all Alberta students so they can reach their full potential in becoming ethical citizen and engaged thinkers with an entrepreneurial spirit”.

There are four goals to the strategy:

- Increase learner retention and completion rate of high school programs
- Increase participation of young adults in post-secondary programs
- Assist young adults in making meaningful connections to current and emerging labour markets
- Expand local partnerships to offer dual credit programming.

The strategy recognizes the diversity of learning pathways and the need for students to have personalized and seamless experiences. As they move through secondary and post-secondary learning systems to pursue career pathways and the world of work, different educational models and methods are needed. These models include university degree courses, college diploma and certificate courses, as well as apprenticeship, trades, and technical programs.

The strategy also specifically includes models that offer students with preferred placement and workplace certification. These models are defined as:

Preferred Placement: post-secondary institutions exempt students from courses (often at the first-year level) in recognition of course work completed in high school (e.g. first period apprenticeship, child development assistant).

Workplace Certification: provincial high school curricula, particularly career and technology studies, provide students with opportunities to achieve work place certification through pathways (e.g. medical first responder, adobe certified expert).

As a “call to action”, the strategy asks stakeholders to adopt three key actions:

- **Engage more high school students in dual credit programming**
By encouraging the development of community partnerships, enrolment in dual credit programs would be supported as collaborative partnerships develop, promote and support implementation.
- **Invest in student success in dual credit programming**
That a provincial investment of a minimum of five million (over three years) be established with an arm’s length body to approve dual credit funding requests.
- **Expand pathways for high school students**
Whereby twenty new pathways are developed for high school curriculum and two teacher-bridging programs continue to be implemented.

In addition to the above key actions, partnerships are expected to adopt five guiding principles as they develop dual credit programs.

- **Student Centered:** Students are at the centre of all decisions and discussions related to dual credit programming.
- **Flexibility:** Students have increased choices which enable them to become ethical citizens and engaged thinkers with an entrepreneurial spirit.
- **Accountability:** Student success is accurately captured to inform and improve dual credit programming opportunities.
- **Sustainability:** Students are assured choice and mobility throughout their lifelong learning.
- **Excellence:** Students benefit from the integrity of secondary and post-secondary systems.

Dual Credit Symposium 2015

In October of 2015, Alberta held its first provincial dual credit symposium (2). Dual credit practitioners and representatives from stakeholder groups (seventy-five) “came together to share experiences and to provide input and direction for the future of dual credit in Alberta”. Participants were involved in presentations and facilitated small group conversations that focused on: what is working well, the identification of current challenges, and possible solutions. Raw data was included in the report and presented to Alberta Education, Advanced Education, and the Provincial Dual Credit Steering Committee.

This report draws two important conclusions:

- Dual credit is a positive initiative in Alberta, supporting students to find relevant, meaningful learning opportunities.

- That there is room for improvement, particularly in establishing a truly provincial framework along with a structure to support implementation, including streamlined processes, particularly around curriculum, and a sustainable funding model.

In a third part to the symposium, the group was also asked to generate short term (within two years), and long term recommended actions.

Short term actions focused on:

- Funding: By identifying sources, ministry models, cost analysis, roles and responsibilities, and the need for coordinators across multiple levels.
- Curriculum Alignment: The sharing of programs, credit structures, and coding, and the roles of secondary and post-secondary instructors.
- The creation of a data base: To bring together a collection of current programs and make them accessible using a digital portal.
- Build awareness of dual credit by developing: A communication plan with roles and responsibilities, policy coordination, student engagement, duty of care, and professional development for teachers.
- Building: Collective responsibility, partnerships across all levels including business and industry, dual credit as a permanent program accessible to all students, administrative models, transition teams, and flexible policy.

Long term actions focused on:

- Dual credit courses that: are easily accessible with multiple delivery modes, support students in identifying seamless pathways, create equal opportunities and growth.
- Partnerships: for improved relationships between stakeholders, continued development, and the sharing of information.
- A data base for: searching, sharing, and listing of opportunities, gap analysis, and the collection of other relevant data.
- That ministries: create a provincial dual credit strategy, develop a provincial MOU, develop partnerships and improve relationship between stakeholders, provide sustainable funding, policy and legislation, and continue to discuss high school diploma requirements and the meaning of successful high school completion.

The Alberta Council on Admissions and Transfer (ACAT) 2015

Learner Pathways Modernization Initiative (LPMI).

The Alberta Council on Admissions and Transfer (ACAT) in July 2015 (3), reported on the first phase of a Learner Pathways Modernization Initiative (LPMI). The goals for this initiative “are to provide a seamless student experience in navigating the post-secondary system” by improving learner pathways administration processes. There are three main components:

- Students will have access to information about pathways, including a focus on transfer and interprovincial mobility in Alberta, western Canada, and across Canada.
- Students will be able to make connections to related Government of Alberta and agency/organization programming information, including:

- Learning clicks, admissions, high school transitions and adult upgrading, occupations, dual credit, prior learning assessment, and recognition (PLAR), online learning, labour market information, etc.
- Students will be able to make connections to student-relevant information about: institution admission, application, transcript, student aid, and scholarship information.

Dual credit programs are one of six identified focus areas within this initiative with implementations that are complex and interwoven to the other areas of: administration of transfer credit, admissions, prior learning assessment and recognition (PLAR), high school transitions and interprovincial mobility. A gap analysis was conducted for each area and actions to close these gaps are recommended.

Three of the gaps identified stand out as they relate to dual credit programs, pathway and pathway information for students. These include:

- PLAR and dual credit gaps that need:
 - A best practice framework for administration
 - Learning information resources to support implementation
 - A central repository for post-secondary institutions to keep agreement records
 - A new record type for dual credit that could be accessed by students and post-secondary institution users from a transfer catalog.
- High school to post-secondary pathway gaps with suggestion that at the high school level:
 - CALM be introduced at grade 9
 - Reinforcement for pathways by introducing an annual career path/ post-secondary path workshop for students
 - Professional development at teachers' conferences and the introduction of a teacher/council workshop
 - Expand e-portfolio and pathway discussions into teachers' responsibilities
 - Improve relationships between education systems for students late in completing high school
 - Develop a digital planning tool to help students visualize pathway options
 - Link pathway information so it is easier to access and navigate.
- Post-secondary student pathway information gaps where ACAT's partnerships could contribute to:
 - Service delivery integration
 - Student interface design
 - Learner pathway navigation.

The report acknowledges that dual credit is new to Alberta and an important high school to post-secondary pathway that needs to be integrated in the ACAT Transfer Alberta System. Consistent processes need to be developed that: improve visibility, strengthen credentialed pathway and agreements, and provide guidelines for curriculum alignment, administration and duty of care, sustainable funding and transferability between educational institutions with transcripts at both the high school and post-secondary levels.

High School Completion, Dual Credit and Post-Secondary Success

The Alberta School Boards' Association

The Alberta School Boards' Association (ASBA) paper on how to improve high school completion rates (4) and the Alberta High School Completion Strategic Framework (5) are both complementary to dual credit programs and success at the post-secondary level. Dual credit program implementation improves high school completion rates and contributes to post-secondary achievement.

The ASBA identifies eight factors on improving high school completion rates, four of which have implications for dual credit programs. These include:

- Alberta Education ensure there is additional funding to support guidance counselling services and to coordinate the delivery of multi-agency and school-based services including exit interviews of students leaving school. This factor emphasizes the importance of early intervention and the need to help students (as early as grade 7) to “identify their interests and their individual profiles with a view to charting a future course”.
- Alberta Education improve relevancy of provincial curricula and sequencing of high school courses to ensure that the learning needs, aspirations, and interest on non-university bound students can be addressed in school programs, and advocate that post-secondary institutions review and modify, if necessary, their entry requirements (especially in mathematics) to fit the level actually needed for success in the area of further study. This factor advocates for a comprehensive curriculum that provides opportunities for all students with choices that recognize uniqueness and diversity.
- Cross-ministry cooperation aimed at increasing high school completion. This factor addresses the need for ‘key ministries’ to work together with school boards and combine their efforts.
- Alberta Education ensure that curriculum and funding are available for schools to work with students to assist them in knowing their interests and abilities and engage in meaningful and timely career development planning with trained career counsellors (not necessarily certificated teachers). Emphasized is the need to help students picture their desired futures with specialist career counsellors for them to identify pathways and focus on goals.

Alberta’s High School Completion Strategic Framework has five core strategies that can contribute to enrollment in dual credit programs and post-secondary success.

- Tracking Progress: where data is monitored, and analyzed to identify students at risk for not graduating, and they can be assisted by informed decisions and early interventions.
- Student Engagement: where a culture of learning increases student achievement, inclusive of social, academic, and intellectual engagement.
- Successful Transitions: students are supported in making personalized transitions through careful and deliberate planning and collaborative relationships with parents/caregivers, employers, community agencies, and post-secondary institutions.
- Collaborative Partnerships: students are supported by education partners so that they may overcome barriers to high school completion.

- Positive Connections: where students can experience success, connected to their school and values. Positive connections may be supported through access to mentorship and teacher advisory programs, access to career counsellors, graduation coaches, school liaison workers, and resource officers.

As these factors and core strategies develop within high school settings, dual credit processes can be supported and student successes made at the post-secondary level.

Research from Canada and the United States

As dual credit programs are relatively new to Alberta and Canada, research from the United States indicates the positive relationship between earning college credit in high school and college success (6). Dual credit students have:

- Improved college readiness and enrolment rates and are more likely to graduate from high school and enroll in college.
- Improved performance as college students with higher grade point averages, college credits, and more timely completion of a bachelor's degree.
- Increased rates of post-secondary persistence, retention and graduation. Students are more likely to complete an associate degree or higher and "gain momentum that helps them complete bachelor's and advanced degrees."

The education commission of these states (7) further identifies the benefits of student participation in dual credit (enrolment) and describes them as having the following seven characteristics:

- More likely to meet college readiness benchmarks
- More likely to enter college and enter shortly after high school graduation
- Less likely to place into remedial English or math
- High first year GPA
- Higher second year retention rates
- Higher four year and six year completion rates
- Shorter average time to bachelor's degree completion for those completing in six years or less.

In addition, students who experience success in college-level work and explore career and technical education pathways are more likely to see themselves at the college level.

British Columbia

The British Columbia Ministry of Education (MOE) has been supporting dual credit programs since 2005 (8). Policy is set by the MOE and a registry of all dual credit programs is maintained. Identified goals for dual credit program include:

- Preparation for transition to post-secondary education: Assisting the student in smooth transitions to higher education.
- Career paths: Providing pathways for career orientated students.
- Educational acceleration/challenge: Offering a more challenging experience to high school students.

- Cost savings: Students stay in their community and begin post-secondary study.
- Recruitment strategy/enrolment mechanism: Attracting high school students to higher education.
- Goodwill/community outreach: Building partnerships with local schools and districts.
- Education choice: Increasing course choices for students.
- Engagement: Early engagement for students particularly in their grade 12 year.

The MOE provides funding to school districts for dual credit programs provided: they have agreements with a post-secondary partner, the school division pays the tuition costs, students have an annual plan, and courses are reported to the Ministry Transcript System. A significant part of dual credit offerings is the Accelerated Credit Enrollment in Industry Training (ACE IT) Program. Students begin their first-year apprenticeship training while earning high school credits in a technical program supported by post-secondary education (9). School districts pay for tuition from an Industry Training Authority (ITA) allotment fund and instruction is provided by the post-secondary or a teacher with a Red Seal qualification.

Program delivery is also faced with many issues and challenges. These include:

- Communication: awareness of dual credit programs and their benefits, the need for knowledgeable staff and understanding of policy
- Operational issues: misalignment due to timetabling problems, different finishing times, overlap and reporting timelines
- Funding: at the secondary and post-secondary levels and variations in student costs
- Research: due to tracking and reporting difficulties.
- Students: maturity, commitment, and post-secondary preparedness
- Organizational capacity: due to high enrolment and oversubscribed programs
- Purpose and program: school districts and post-secondary institutions need to agree on goals and expectations
- Quality: high school teachers delivering post-secondary courses and post-secondary instructors teaching high school students.

The Northern Opportunities Partnership (NOP) (10), is a collaboration of partners that offer dual credit programs with personalized learning. Regional aboriginal organizations work together with business, industry, and educational (both secondary and post-secondary) partners under the guidance of an NOP director. A learning council with representatives from the above, supports students (and parents) in pursuing academic, vocational, trades, and apprenticeship careers. The council is also supported by a work group that helps students make career choices, is involved in career events and works with employers in providing practicums, work experience, apprenticeship, and jobs for students. The NOP provides funding to each of the three school districts to encourage participation in dual credit programs and support career coordinators in high schools.

Building relationships with aboriginal organizations and First Nations schools is a major focus for the NOP. The involvement of representatives in the learning council and working group contribute to the success of First Nations students. The importance of community and family supports is respected, and the need to maintain and build trusting relationships is essential.

The NOP makes ten recommendations that are related to a successful program. These are:

- Act in the best interest of the students (and) the region
- Be responsive to employer input
- Develop a sustainable funding strategy
- Leverage partner networks
- Provide a broad range of responsive programming
- Recognize different partner needs and opportunities
- Design an evaluation and data tracking system
- Improve long-term career prospects
- Encourage strong communication between students, parents, and partners
- Recognize and celebrate success and achievement.

Ontario

Dual credit programs are part of a full K-12 career and life planning program in Ontario (11). As a core program in the province, the focus is on three areas of learning: student development, interpersonal development, and career development. Students are engaged in comprehensive career planning that assists them in transitions to post-secondary education. A four-step inquiry process used throughout the grades included: knowing yourself, exploring opportunities, making decisions, and setting goals, and achieving goals and making transitions. As a requirement of the programs, all grade 7-12 students must have an Individual Pathway Plan (IPP) that documents evidence in ongoing career development and is used in the course selection process for high school.

Dual credit programs were introduced in 2005 and specific policy and program requirements were updated in 2013 (12). This policy document contains specific requirements for: program development, granting of credits, teacher qualifications, roles and responsibilities, program delivery information for students, and assessments, evaluation, and reporting of student achievement in dual credit courses.

Program development must adhere to seven guiding principles:

- Dual credit programs are based on the principles of collaboration and accountability in partnerships between school boards and public post-secondary institutions.
- Dual credit course instruction is provided by a college professor or instructor and/or a secondary school dual credit teacher. A secondary teacher must always be involved in some capacity (instruction, remediation, support, and supervision).
- All dual credit courses must be approved for Ontario Secondary School Diploma (OSSD) credit and delivered by public institutions and qualified educators.
- Colleges that offer apprenticeship programs as part of dual credit programs must be training delivery agents approved by the Ministry of Training Colleges and Universities.
- In all dual credit programs, OSSD credits are awarded by the secondary school principal, and college credits by the college.
- Boards/schools and their post-secondary partners will ensure the planning and delivery of supports and other services needed to foster student success in dual credit learning environments.
- Boards/schools and colleges will coordinate the exchange of information related to academic progress (e.g. marks, attendance) between colleges and secondary schools.

Program delivery can occur in both secondary and post-secondary settings and course curriculum can be blended or at the college level. Apprenticeship training (Level 1) is usually offered at post-secondary institutions; however, it may be provided in a high school as long as there is college oversight. Also, facility and teacher qualification requirements must meet and be approved by a training delivery agent.

Ontario also offers a school within a college (SWAC) program as a dual credit program (13). At risk or disengaged students can take high school courses and receive college credit at the same time. Coursework occurs on a college campus and consists of mostly high school and one dual credit course on college readiness in the first semester and one or more dual credit courses along with secondary courses in the second semester. As a pathway to post-secondary study, SWAC programs assist students in completing their high school diploma, making successful transitions to college and apprenticeship programs and improve academic performance. SWAC programs are also part of a provincial School College Work Initiative Strategy (14) that offers dual credit programs through a partnership of secondary schools and colleges.

United States: Policy and Funding

Dual credit (dual enrollment or concurrent enrolment) programs have been in place in the U.S. for three decades and these pathways are part of the core delivery methods for education. They systematically connect high school and post-secondary education bringing them closer together in a seamless middle ground. Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy (15).

Collaboration and coordination between secondary and post-secondary providers are a matter of practice and policy in most states. Programs have changed how education is structured, the nature of relationships between institutions and how institutions are organized. As a recognized pathway for students, dual credit has the potential to address post-secondary completion goals; and as a result, it requires changes to policy and funding.

Research conducted by the Education Commission of the States identifies thirteen model state-level policy components with the goals of increasing student access and success in dual enrollment programs (16). Policy developers can be guided by these components and they are organized into four categories: access, finance, ensuring course quality, and transferability of credit.

Four Key Categories of Sound Dual Credit Policy

Access

Component 1: All eligible students are able to participate

Policy should and/or must allow access to dual credit programs where student qualify and space exists.

Component 2: Student eligibility requirements are based on demonstration of ability to access college-level content (e.g. college placement exams).

Eligibility requirements and criteria should be based on quantifiable and demonstrated academic abilities.

Component 3: Caps on the maximum number of courses students may complete are not overly restrictive.

Program costs should not limit access and online learning should enable a wider audience of students.

Component 4: Students earn both secondary and post-secondary credit for successful completion of approved post-secondary courses.

Awarding both levels of credit allows students to participate early in college while completing a high school diploma.

Component 5: All students and parents are provided with program information.

All high schools should provide information including admission criteria and costs.

Component 6: Counselling is made available to students and parents before and during programs participation.

Policy should promote the availability of counselling and information on programs should include:

- Who may enroll
- What institution and sources are available
- The process for granting academic credits
- Financial arrangements for tuition, books, and materials
- Eligibility criteria for transportation
- Availability of support services
- Scheduling and registration arrangements
- Consequences for failing or not completing
- The effect of enrolling in the program with regard to requirements for high school graduation
- The academic and social responsibilities that must be assumed by the student and parents.

Finance

Component 7: Responsibility for tuition payments does not fall to parents.

Upfront tuition with reimbursement later may prevent low and even middle income families from participating. Consider having the district or state cover costs or use tuition scholarships.

Component 8: Districts and post-secondary institutions are fully funded or reimbursed for participating students.

Funding should cover 1.0 FTE and be shared by the secondary and post-secondary as costs for program delivery, data collection and reporting, approving teacher qualifications, and course materials, may or may not be shared.

Ensuring Course Quality

Component 9: Courses have the same content and rigor regardless of where and to whom they are taught.

Dual credit courses must meet the same standards and same learning outcomes as post-secondary programs. Some states ensure course rigor by having them accredited by the National Alliance of Concurrent Enrollment Partnerships (NACED). This organization's standards include: curriculum, assessment, instruction, and evaluation requirements.

Component 10: Instructors meet the same expectations as instructors of similar traditional post-secondary courses, and receive appropriate support and evaluation.

Teachers and instructors must meet the requirements of the post-secondary institution and they should be provided with: an orientation, professional development, supervision and evaluation.

Component 11: Districts and institutions publicly report on student participation and outcomes.

This data would include:

- Student characteristics
- Course/high school completion
- Post-secondary enrolment and readiness
- Transferability of credit
- Persistence and success.

Component 12: Programs undergo evaluation based on available data.

An evaluation process (internal and or external) be in place for dual credit courses.

Transferability of Credit

Component 13: Post-secondary institutions should accept and apply credit earned through dual enrollment as standard transfer credit.

Transfer policy should have credits earned by the student treated in the same manner as the receiving post-secondary.

Dual credit courses are both shared and constrained by the policies and requirements placed upon them. Policy review methodology can use an "input, process, output" model as a framework (17). In this model, policies are in place and reviewed for:

Inputs: Student eligibility, faculty credentials, funding and curriculum standards;

Processes: General oversight, faculty orientation and training, institutional and state review and monitoring;

Outputs: Learning outcomes, transferability and programs and course outcomes.

Policy design and development should also follow six design principles (18) to support dual credit programs. These include:

- Provide equal access and eligibility

- Offer high quality course options
- Coordinate academic and social support systems
- Ensure adequate funding
- Establish transparent data systems to monitor quality and outcomes
- Build a system for accountability.

Funding

The need for sustainable funding frameworks for dual credit programs is pervasive and program providers and policy makers need predictable funding sources. The Education Commission of States (19) suggests that answers to the following questions be considered:

- What will it cost to start up and operate dual credit programs?
- What are the different sources of funding for dual credit programs as opposed to traditional general education programs?
- Is there a predictable stream of funding for this program to continue in the future?

Funding issues become more complex as dual credit programs cross traditional boundaries and encompass both secondary and post-secondary levels. High school funding (federal, state, and local) makes up the vast majority of costs; however, programs do receive significant funds from institutions. Should parents and students be required to pay (tuition, fees, books, and transportation); at risk, low, and even middle income students may not be able to participate.

In 2015, an examination of dual credit policies with respect to funding by the Education Commission of States (20) found that in:

- Nine states the student or parents are responsible for covering tuition costs
- Eleven states, differing entities are responsible for covering tuition costs depending upon program. In nine of these states, the parent/student is responsible for some or all tuition costs.
- Fourteen states and the District of Columbia, determinations are done locally- by the high school or post-secondary partner.

In practice, tuition costs to students vary considerably across districts and may be influenced by a district, post-secondary, a foundation or a business industry partner coming forward. Dual credit providers should also consider the use of tuition scholarships and bursaries to offset student costs and ensure access for all. Dual credit providers and stakeholders must collaboratively partner and build relationships to address the need for sustainable program funding.

Conclusions

Dual credit programs allow students to earn both high school and post-secondary credits for the same coursework. By participating, students explore career pathways that complement their own unique talents and abilities so that they may join a skilled and educated work force.

Research supports that dual credit students are more likely to:

- Complete high school, and enter college shortly after high school and less likely to be placed in remedial English or math.

- Be prepared for college and have higher first year grade point averages.
- Have higher second year retention rates and four and six year completion rates.
- Have shorter time for completion of a bachelor's degree.
- Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy.

Dual credit can provide a seamless student experience in navigating between secondary and post-secondary systems. Students can have better access to pathway information, better connections to program information and more student-relevant information about admission, application, transcript and scholarships.

Successful dual credit programs come from building trust and collaborative relationships with all stakeholders. Partnerships are essential and groups must work together to develop curriculum, implement programs and find funding that works for students.

Key Findings

Research supports dual credit being expanded for all students as a permanent program.

A provincial framework for dual credit would be a positive initiative for students providing enhanced relevant learning opportunities, and should apply to implementation, curriculum, sustainable funding, policy and awareness of programs.

Collaboration and partnerships are essential for success and should be further developed on curriculum, policy and a sustainable funding framework.

Early intervention (grade 7) is needed to help students identify their interests and career pathways for future course selection and participation in dual credit programs.

Dual credit programs systematically connect high school and post-secondary education bringing them together in a seamless middle ground. Increasingly, dual credit can be described as an educational structural reform and powerful post-secondary completion strategy.

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