Building Data Capacity in Adult & Continuing Education Toolkit

V.1 - 2024

Background & Acknowledgements

The Building Data Capacity in Adult and Continuing Education Toolkit is a collection of resources developed by CESBA and DARO, a Montréal-based social enterprise that works to improve data and evidence in the social sector. The toolkit is designed to guide practitioners and school board leadership in effectively planning for, collecting, managing, analyzing and utilizing data surrounding their Adult & Continuing Education students and programs.

Throughout 2023 and 2024, the CESBA and DARO team worked closely with a group of CESBA school board members that represented different types of school boards and locations across the province called DIPS - Data Implementation Planning Strategy advisory group. The DIPS members met regularly to identify the unique data needs and challenges faced by Adult and Continuing Education practitioners and advise CESBA on what supports and tools might build capacity in their school boards to do more with data.

Thank you to our DIPS Advisory Group members for their time and expertise in helping us develop this toolkit:

Algonquin & Lakeshore Catholic District School Board	Renfrew County District School Board
Conseil Scolaire Catholique de District des Grandes Rivières	Simcoe County District School Board
Conseils des Ecoles Publique de l'Est de l'Ontario	Sudbury Catholic District School Board
Dufferin Peel Catholic District School Board	Thames Valley District School Board
Durham Catholic District School Board	Upper Grand District School Board
Hamilton-Wentworth Catholic District School Board	Waterloo Catholic District School Board
	York Region District School Board

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Executive Summary

Part 1 of the toolkit focuses on current state assessment. It contains links to resources and templates for school boards who wish to understand their current operations, data maturity, and overall data landscape, as well as project management tools designed for data-related projects.

Part 2 of the toolkit focuses on creating a learning agenda and identifying the data needed to answer questions about your students and programs.

Future versions of this toolkit will include resources for how to collect data and take action with data through storytelling and visualizations.

Part 1 – Current State Assessment & Building Documentation

Introduction

In Part 1, we focus on getting started through understanding what's already happening at your School Board through conducting a current state assessment and building essential documentation. Part 2 builds upon the foundations of Part 1 to define and prioritize learning questions, scope data and analysis needs, and identify where action can be taken. Additional parts of the Toolkit will be published in the coming years.

PART 1	PART 2	PART 3 – *coming soon*
Current State Assessment & Building Documentation	Creating a Learning Agenda & Identifying Data Needs	Making Data Actionable through Sensemaking & Storytelling

Define your data team & manage your data projects

The most well-intentioned projects - no matter how big or small - can fizzle out in the absence of good project management and clarity around roles and responsibilities for the team. Data work often comes secondary to the "day jobs" we have with program delivery and working with students or staff. Building out realistic plans with shared expectations across the team can go a long way toward making real progress on data-related work over time.

Start with identifying who should be a part of your data team. You may want to pull a group together for a short term project or begin meeting more regularly (e.g., bimonthly, quarterly) to discuss what you're seeing in the data, raise data needs, and prioritize upcoming data work as a team. Because A&CE programs are usually administered differently than traditional secondary or postsecondary programs, you may need to include staff that aren't familiar with A&CE. Possible roles to include on your data team or project team:

- School board leadership
- School site leadership
- Program leadership
- Program coordinators or instructors
- IT or research department staff

Once stakeholders agree that a data project is needed, creating north star documentation will maintain focus on objectives, which are easily lost in the research process.

Project charters are useful objects for defining *what* work will be done in a project, as well as *when*, *how*, and *when*. By creating a charter together, a project team will have clearly aligned goals they can communicate to leadership and partners, and have more clarity into how the work should proceed.

Key Questions:	Templates:
• Who will lead this work (e.g., who calls the meeting)? Who do we need to get input from? Who will support the project lead with accomplishing this work? • How will we prioritize and make decisions about what to do next? • When will we engage or inform site or school board leadership?	RACI Project Charter Work Plan Tracker

Assess your program's data maturity

Data maturity assessments are a means of better understanding where your programs are across different aspects of data maturity (e.g., use, tools, culture, skills, etc.). The process of completing a data maturity assessment - particularly if done with multiple members of your staff - is an opportunity to learn more about what different stages of data maturity look like and where to prioritize efforts.

Data maturity assessments should be completed by those who manage, collect, and analyse data at a school board and - if possible - site or school board leadership. Results should be discussed as a group to inform subsequent data project planning and prioritization. Revisit your data assessment at regular intervals (e.g., at the beginning of each school year or every other year) to track your growth over time and update data project work plans and learning agendas.

The table below includes a range of data maturity assessments and frameworks. For instant, shareable results, use the Data Orchard assessment.

Key Questions:	Free Online Assessments:
• How do different parts of our team view our data maturity? • Do all members of our team know about the data-related work we're already doing? Is there a need for more knowledge sharing around data amongst our staff? • Where are the areas where we need to grow and what should we prioritize first?	**Data Orchard Maturity Self Assessment** **Data.org Data Maturity Assessment** **Strive Together Data Maturity Model** **University of Chicago & Carnegie Mellon University Data Maturity Framework**

Map data collection, storage & access along the student journey

Process mapping is a way of visualising a process or system to understand its parts and how they relate to each other. Process maps are perennial management tools that can serve as a shared source of truth across the team, bringing clarity to the various touchpoints with students, staff activities, and what data is being collected at each point of the process and by whom.

Draft your process map with a 1-2 key staff and then circulate it with other members of the team for feedback and input. If you're having difficulty mapping how data are collected along parts of the student journey, that may be a signal that there aren't consistent processes in place and they need to be developed. Use symbols or sticky notes directly on your process map to note where there seem to be inconsistencies or uncertainty in the process that need to be discussed or improved.

There are free and paid software options that can be used to map your student journey - draw.io is a free diagramming tool while software like LucidChart, Microsoft Visio, and Miro have free limited versions or paid subscriptions. Check with your IT administrator to see if any of these tools are available for your usage.

It may be easier to start building your process map on a whiteboard or with sticky notes. If you take this approach, be sure to transfer to a digital format that can be easily updated as your processes evolve over time. Simplified versions of these process maps can be shared with broader teams or even students.

Key Questions:	Templates & Examples:
• Where is there uncertainty or inconsistencies in our process? • How do we make decisions about streamlining or adding new data collection tools to our processes? • Who is responsible for keeping our process maps up to date?	**Process Mapping How-to** **Blank process map example** **Completed process map example** **Drawio.com Template - Template for Google Users**

Inventory documentation for data & technology

Data, tools, and systems inventories are used to document and track key information on the systems, tools, and reports in use for your programs (e.g., data stewards, purpose, business owner, wishlist, bugs, etc.). They are helpful for knowledge management and planning as well as documenting what specific spreadsheets do, which may reveal duplication of efforts. They are also helpful when onboarding new members of your A&CE team.

There are many means of inventorying one's tools and systems, such as the spreadsheet example in this toolkit, or visual maps built in tools like diagrams.net. Other methods can be just as effective and may even better serve the needs of your team at your school board -- it may take some trial and error, but in general we recommend that all users of and contributors to the inventory get a chance to voice what they think would be most helpful to them.

The template below is helpful as a starting point, but we encourage all school boards to personalise it to collect the information they need. Other example columns could include:

- Number of times data is collected a year
- Which reports or dashboards are leveraging this data?
- What key questions remain about this data source?
- Who has access to this data?

It is common for school boards to have informal or non-conventional data that is useful and regularly used, such as a spreadsheet started and maintained by one person. Those data sets should be documented as well to provide a complete picture of your school board's A&CE data landscape.

Key Questions:	**Templates:**
• How are we collecting quantitative data about our students? What tools and systems are we using? • How do we collect qualitative data and impact data about our students? • Who is responsible for the different aspects of our data collection? Who is the expert on various systems we're using?	**Data, systems & tools inventory**

Next Up

Assessing your current state and developing foundational data documentation that can be used as perennial management tools is just the first step and it is never truly complete. Regularly revisit your data maturity assessment with your team and ensure someone is responsible for keeping your documentation up-to-date.

Once you're ready to start planning for what questions you want to answer with your data and how you'll get the data you need, go to ***Part 2: Creating a learning agenda & Identifying Data Needs.***

Part 2 – Creating a Learning Agenda & Identifying Data Needs

Introduction

Part 2 of the Building Data Capacity in A&CE Toolkit and focuses on defining and prioritizing learning questions and scoping data and analysis needs. It builds on the foundations set in ***Part 1: Assessing Current State and Building Documentation.*** Additional parts of the Toolkit will be published in the coming years.

PART 1	PART 2	PART 3 – *coming soon*
Current State Assessment & Building Documentation	Creating a Learning Agenda & Identifying Data Needs	Making Data Actionable through Sensemaking & Storytelling

Develop a learning agenda

Adult and Continuing Education practitioners are often faced with a host of unknowns about their programs and students. Inquiries may range from operational (e.g., How many new classrooms will I need for this cycle of enrollment?) to more strategic questions (e.g., What sort of programs will be needed in our community over the next decade? How has a given intervention impacted student performance?). While we may have myriad aspects of our programs we want to understand better, limited time and resources require us to get aligned as a team about what questions are a priority for our school board.

A learning agenda is a useful tool for documenting and prioritizing across our many questions, serving as a shared source of truth for the team on what areas of inquiry are the priority focus for a given amount of time (e.g., school year, semester, cohort cycle, etc.). Learning agendas can also be a means of identifying the knowledge gaps that prevent analysis or action and help frame learning questions in ways that express their value – or what might be possible – if answered. The template linked below includes both examples of what might be included in a learning agenda and a template for your school board to complete.

During the process of creating a learning agenda, key stakeholders within and outside your A&CE programs should work together to formulate their questions. Bringing the right people in at this phase provides the expertise and perspectives needed, and promotes buy-in for investing in answering questions from the onset.

Importantly, there should be a mix of site or program leadership and student-facing practitioners participating in creating a learning agenda. If school board leadership like a superintendent are not able to participate in the process directly, ensure they have a chance to review and contribute their own prioritized learning questions. The priorities of the broader leadership for your school board should always be reflected as high priority in a learning agenda to ensure they have the information they need to advocate for or allocate resources to your programs.

Once you have a set of learning questions, go through a prioritization process to determine as a team where to get started. There is no one correct way to prioritize - it will depend on your unique context and current conditions. Some dimensions to consider include:

- Potential impact
- Availability of data
- School board or province goals
- Cost
- Time needed to find the answer

Low hanging fruit (items that take little effort to research) may be worth prioritizing first even if potential impact is low as a means of testing your collective ability as a team to answer a learning question.

Key Questions:	**Templates:**
• Are there patterns we're observing within our students or programs? • What do we want to know more about, and is it worth investing into finding the answer? • What questions is the priority for my school board leadership? Site or program leadership? Student-serving staff?	Learning Agenda (with examples)

Collect necessary data

Once you've selected a learning agenda item to move forward on, you will need to determine in more detail what data is necessary to answer that question, if there are limitations to that data, and how to retrieve it from the various systems being used at your school board. Perhaps new data will need to be created to answer your question - your team will need to make a plan for collecting this data now and in the future.

You may collect the data yourself or need to partner with IT, administrative, or research staff in your school board. A Data Request Form can help you to document the information that was collected for the project and from which platforms/data stores. This documentation may be helpful in the future for replicating the analysis and shows what data was accessed and for what purpose.

It is recommended that in this phase, planners keep in mind what data points might resonate the most with decision makers. For example, if a school board wants to make a case for sponsoring students' laptops to increase completion rates, gathering the completion rate of students with and without access to computers may make the most compelling case to decision makers.

Other tips to consider as you plan for data collection:

- **Start with the data you have** - Review your data inventory or data systems to see what you already have before you start collecting new data. You may already have the data you need or something similar that will work with minor tweaks to your learning questions. Ask around! Others on your team may know about reports or data you haven't encountered yet.
- **Be realistic about time & resources** - Plan for both the time it will take to collect the data initially as well as the time it will take to clean and analyse the data. Check that your team has the skills and expertise to develop a data collection tool and complete your analyses. Considering these resourcing needs may help with the prioritization process.
- **Start small** - If new data needs to be collected, start small and avoid one-offs if possible. Try to make your data collection process as simple as possible and don't add too much at one time. Google and Microsoft forms work great and are very user friendly!
- **Build on your existing processes -** If new data needs to be collected, find ways to incorporate data collection into your existing processes or tools. For example, instead of creating a new student survey to answer a specific question, see if you can add a question to your existing student intake form or student satisfaction survey.

- **Plan ahead** - Be strategic about when to introduce a new data collection tool or question into existing data collection. Should you wait until a new semester? Cohort cycle? School year? How often will you collect the data? Are there other initiatives happening at your school board outside of A&CE that you could coordinate with? Don't rush into new data collection as ideally you will develop a consistent, regular process that enables you to track trends over time.

Key Questions:	Templates:
• What information do I need to answer my questions? • Am I able to access the necessary information or do I need to work with other departments within my School Board? • What information gaps exist, and can they be resolved?	Data Request Form

Next Up

Regularly revisit your learning agenda with your data team and keep it up-to-date. Don't forget to celebrate and reflect when you've answered one of your learning questions. Build this review as well as an audit of your data collection processes into your annual planning cycle.

Once you've collected the data you need, it's time to start using that data to gain insights into your students and programs for both continuous improvement and sharing about your success. Stay tuned for ***Part 3: Making Data Actionable Through Sensemaking and Storytelling*** coming soon!

Appendix

School Board Examples

- St Albert Learning Centre LBS Pathways to Success
- Upper Grand ESL infographic
- Simcoe County Building Data Infrastructure
- Waterloo Catholic's learner pathways map

Glossary

Process map: Process maps are visual representation of a process or system used to understand its parts and how they relate to each other. Process maps are perennial management tools that can serve as a shared source of truth across the team.

Qualitative data: information that is descriptive, interpretation-based, and non-numeric, and cannot be easily expressed, counted, or measured using numbers

Quantitative data: data that can be represented numerically, measured, counted, or given a numerical value. It is suitable for statistical analysis.