



Let's get **LOUD** with data storytelling

LiRN Conference Nov 7, 2024

Alison Clarke,
Business Performance & Data Analyst
Brampton Library
aclarke@bramptonlibrary.ca

Agenda

- What's the story you want to tell?
- Quick & easy
- Operational data collection
- Key Performance Indicators
- Program data collection
- Typical week data
- Time tracking/heat maps
- Visualization/Board reports
- Qualitative data

What's your story?

- Funding
- Advocacy
- Efficiency

What data do you have?

- Operational data
- Program data
- Qualitative survey data

Start from the end

Data collection goals:

Quick and easy

easy to enter new data, and easy to analyze

Flexible

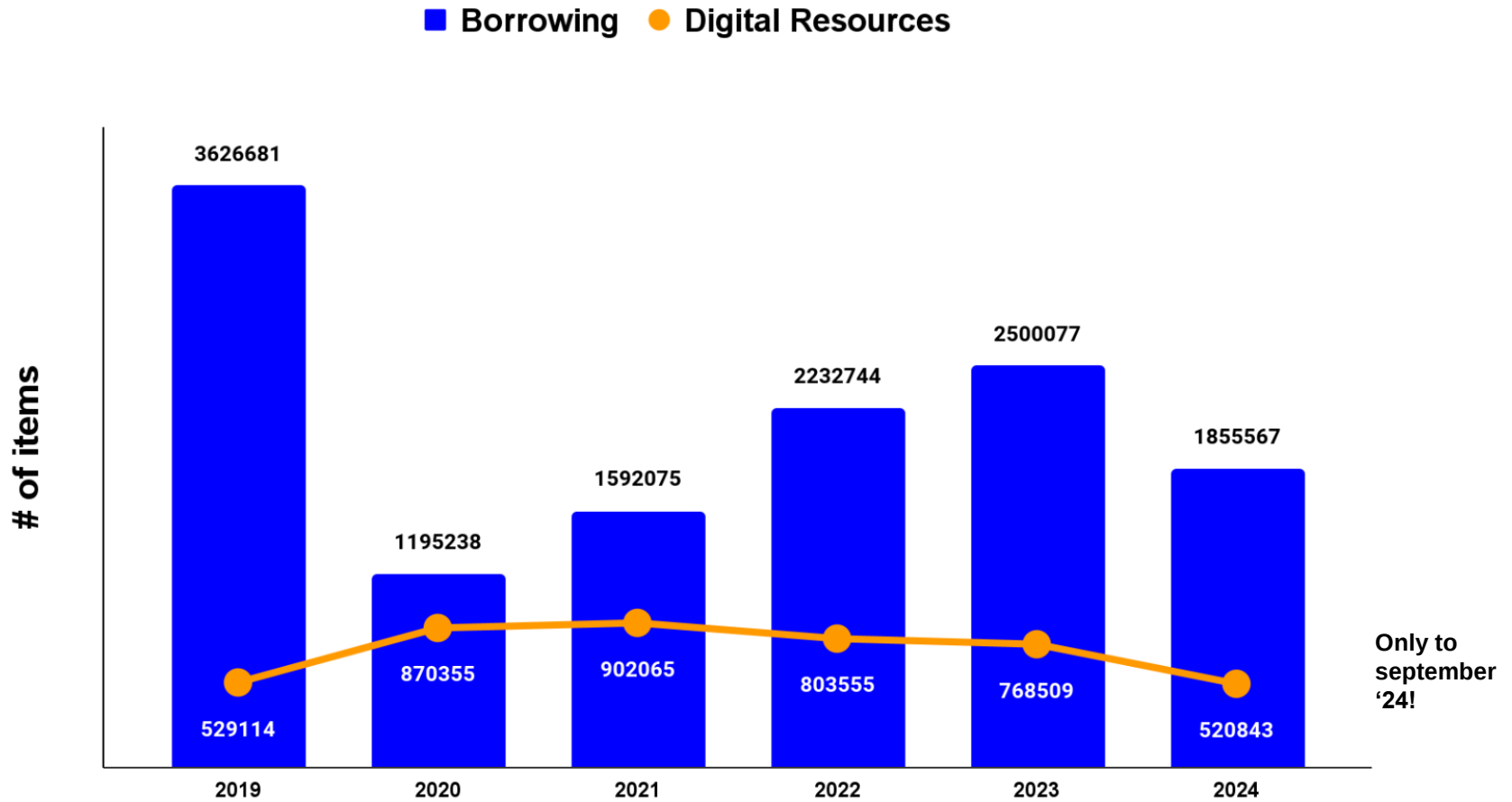
meet the needs of a variety of internal/external people

Long term use

consistent process for the future

What will it look like?
What stories do you want to tell?

What will it look like?



What resources have you got?

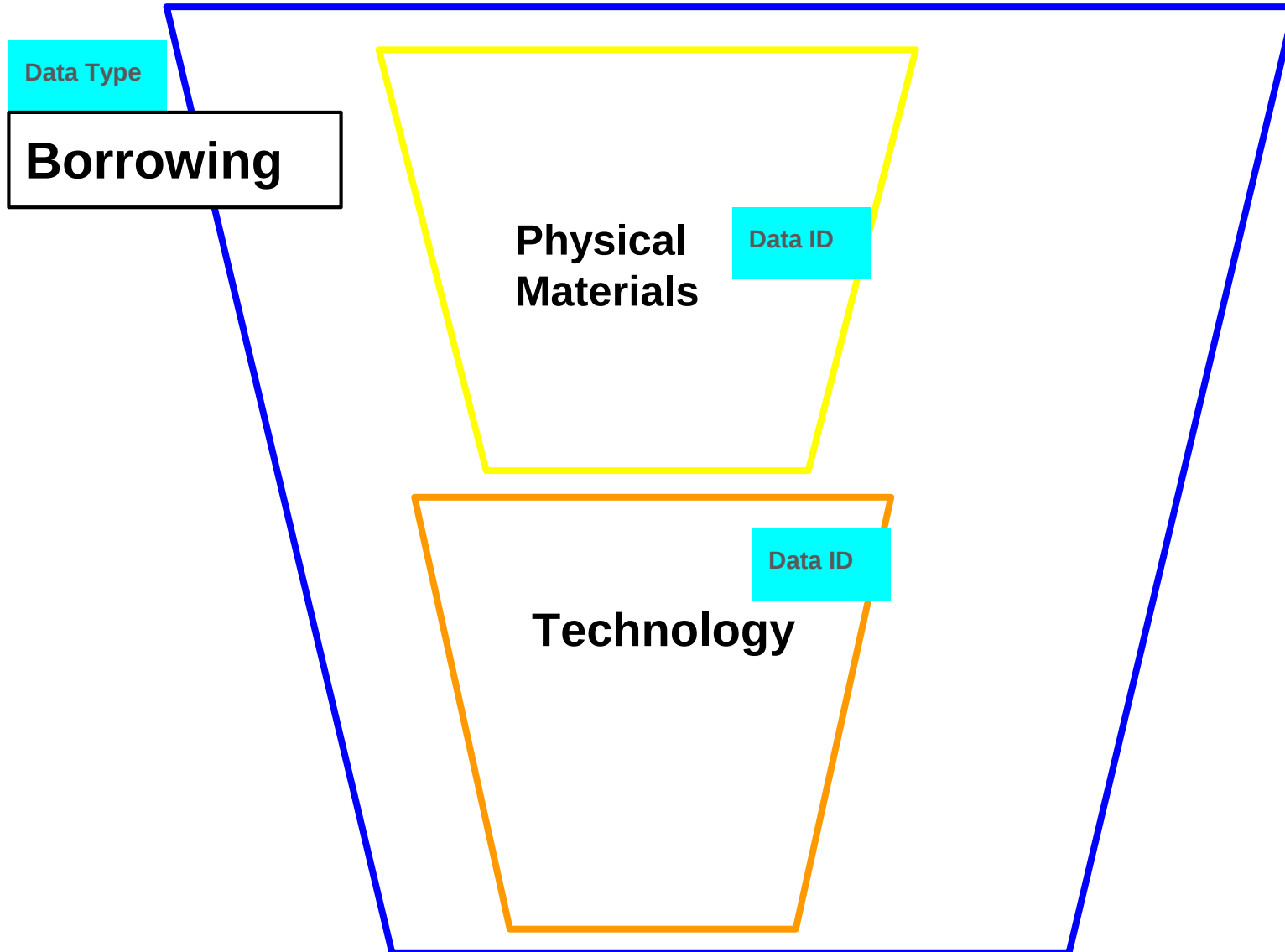
- Google sheets

Operational Data - think vertical

	A	B	C	D	E	F	G	H
1	Branch	Year	Month	Data_Type	Data_ID	Monthly_Total	Quarter	Notes
16605	Brampton Library	2024	08-August	Active Cardhol	Active	123596	3	
16606	Chinguacousy	2024	09-September	Borrowing	Borrow - All Physical Materials	21233	3	
16607	Cyril Clark	2024	09-September	Borrowing	Borrow - All Physical Materials	25312	3	
16608	Four Corners	2024	09-September	Borrowing	Borrow - All Physical Materials	25114	3	
16609	Gore Meadows	2024	09-September	Borrowing	Borrow - All Physical Materials	25024	3	
16610	Mount Pleasant	2024	09-September	Borrowing	Borrow - All Physical Materials	35611	3	
16611	South Fletcher's	2024	09-September	Borrowing	Borrow - All Physical Materials	13943	3	closed for reno & move to shoppers world
16612	South West	2024	09-September	Borrowing	Borrow - All Physical Materials	8541	3	
16613	Springdale	2024	09-September	Borrowing	Borrow - All Physical Materials	22336	3	
16614	Digital Library	2024	09-September	Borrowing	Borrow - All Physical Materials	6485	3	
16615	Brampton Library	2024	09-September	Borrowing	Borrow - All Physical Materials	296	3	
16616	Chinguacousy	2024	09-September	Borrowing	Borrow Technology	970	3	
16617	Cyril Clark	2024	09-September	Borrowing	Borrow Technology	550	3	
16618	Four Corners	2024	09-September	Borrowing	Borrow Technology	787	3	
16619	Gore Meadows	2024	09-September	Borrowing	Borrow Technology	619	3	
16620	Mount Pleasant	2024	09-September	Borrowing	Borrow Technology	678	3	
16621	South Fletcher's	2024	09-September	Borrowing	Borrow Technology	272	3	
16622	South West	2024	09-September	Borrowing	Borrow Technology	106	3	
16623	Springdale	2024	09-September	Borrowing	Borrow Technology	830	3	
16624	Chinguacousy	2024	09-September	Returns	Return - All Physical Materials	8563	3	
16625	Cyril Clark	2024	09-September	Returns	Return - All Physical Materials	12139	3	
16626	Four Corners	2024	09-September	Returns	Return - All Physical Materials	11282	3	
16627	Gore Meadows	2024	09-September	Returns	Return - All Physical Materials	11622	3	
16628	Mount Pleasant	2024	09-September	Returns	Return - All Physical Materials	16410	3	
16629	South Fletcher's	2024	09-September	Returns	Return - All Physical Materials	5914	3	closed for reno & move to shoppers world
16630	South West	2024	09-September	Returns	Return - All Physical Materials	4454	3	
16631	Springdale	2024	09-September	Returns	Return - All Physical Materials	10846	3	
16632	Brampton Library	2024	09-September	Returns	Return - All Physical Materials	256	3	

- Updated monthly:**
- Circulation (e&p)
 - Returns
 - Holds
 - In person visits
 - Digital usage
 - Computer Usage
 - Programs

Operational Data - the buckets!



Operational Data - the buckets!

Data Type	Data_ID
Circulation	P-Adult
	P-Child
Digital Borrowing	e-Adult
	e-Child
Gate Count	GC
Open Hours	OH
Programs	Adult Programs
	Children's Programs
	Adult program attendance
	Children's Programs attendance

Operational Data - pivot tables

Here are the choices for this pivot table:

- Rows: Branch
- Columns: Year
- Values: Monthly_Total
- Filters: Data_ID (GC - Gate Count)

Pivot table editor

Suggested

Rows Add

Branch ×

Order: Ascending Sort by: Branch

☒ Show totals

Columns Add

Year ×

Order: Ascending Sort by: Year

☒ Show totals

Values Add

Monthly_Total ×

Summarize by: SUM Show as: Default

Filters Add

Data_ID ×

Status: Showing 1 item

	A	B	C	D	E	F
1	SUM of Monthly_Total	Year				
2	Branch	2019	2021	2022	2023	Grand Total
3	Chinguacousy	464112	64080	201885	101259	831336
4	Cyril Clark	214254	38809	107008	46465	406536
5	Gore Meadows	388227	44257	190462	106539	729485
6	Mount Pleasant	418731	39737	201398	108609	768475
7	Grand Total	1485324	186883	700753	362872	2735832

Operational Data - pivot tables

All physical materials, including AV & chromebooks

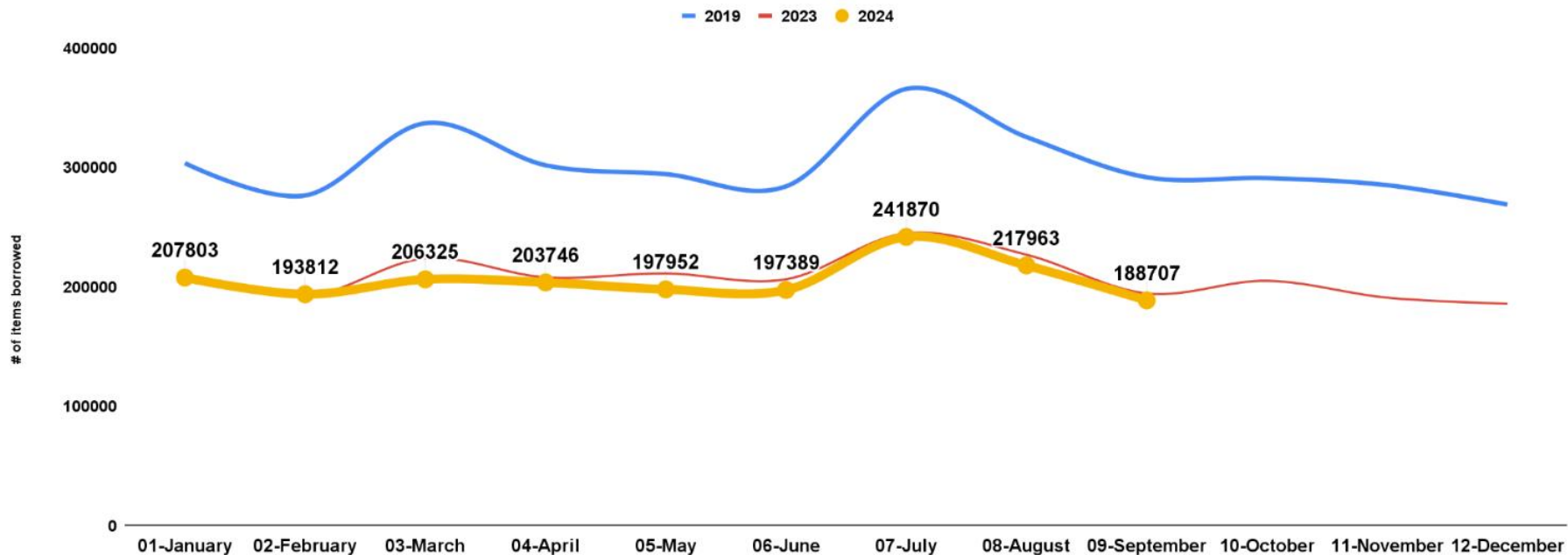
SUM of Monthly Month

Year	01-January	02-February	03-March	04-April	05-May	06-June	07-July	08-August	09-September	10-October	11-November	12-December	Grand Total
2015	383768	337904	412471	369762	372782	377404	449861	436543	367838	362991	347527	330460	4549311
2016	349145	342836	361782	347480	334507	321209	397865	375445	307133	322528	314165	271061	4045156
2017	303123	280661	321275	289907	299126	286991	356693	348791	291800	307401	295818	267530	3649116
2018	291465	283412	344524	313570	302984	296005	370929	348135	300716	313217	293478	289367	3747802
2019	303674	276583	337144	301896	294494	284235	365886	325558	291852	291136	285241	268982	3626681
2020	291828	291394	189425	41343	9632	6414	8951	23723	42256	63896	109683	116693	1195238
2021	115521	98145	112464	108776	109519	106289	131354	147285	151973	174625	169193	166931	1592075
2022	159934	146568	187203	180860	181588	180076	218158	223523	189260	190089	189519	185966	2232744
2023	210211	191824	223908	208021	211330	206392	244964	226958	194515	205,101	190966	185887	2500077
2024	207803	193812	206325	203746	197952	197389	241870	217963	188707				1855567
Grand Total	2616472	2443139	2696521	2365361	2313914	2262404	2786531	2673924	2326050	2230984	2195590	2082877	28993767

- Show all the data
- Share all the data
- Filter for different needs

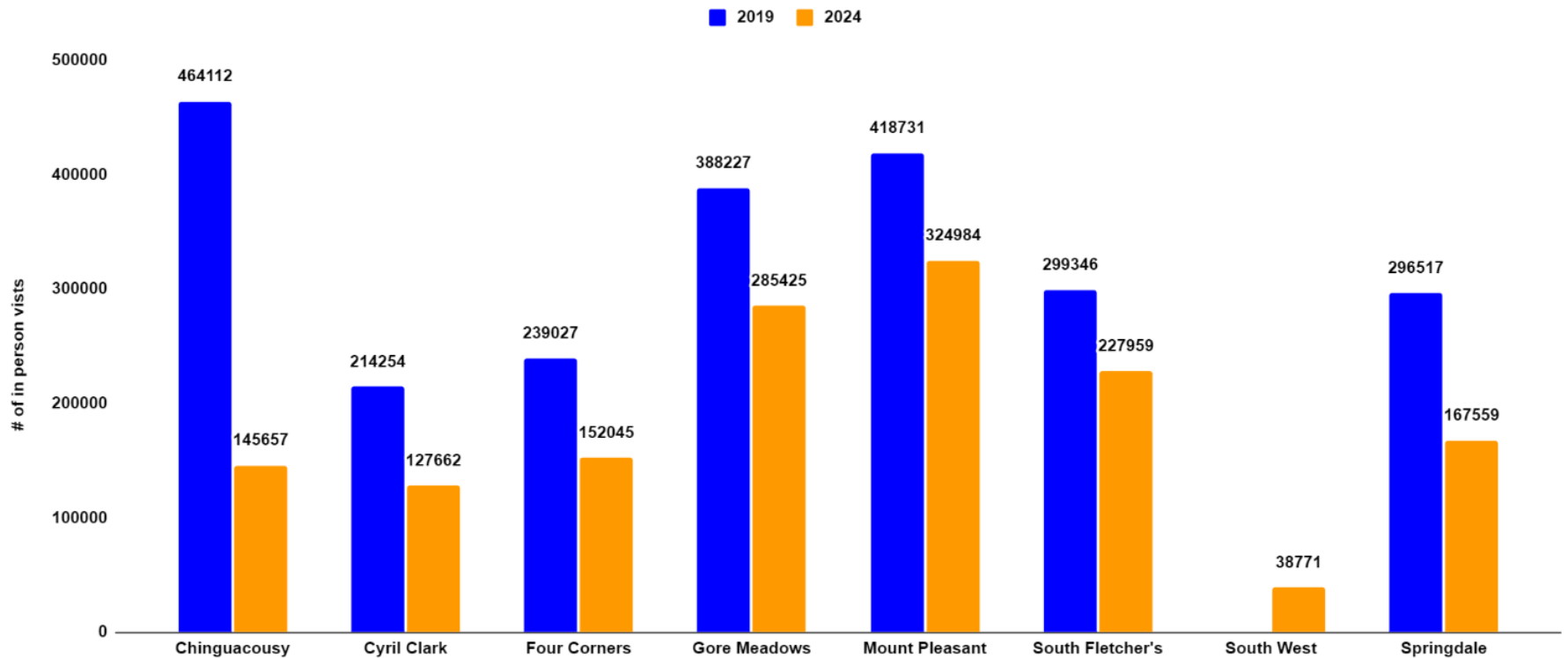
Operational Data

Physical Borrowing is tracking at the same level as 2023



Operational Data

Gore Meadows, Mount Pleasant and South Fletcher's are almost back to 2019 levels of In-Person Visits



Operational Data - Key Performance Indicators

For now or forever?

Who is the audience? Who else is seeing this number?

Method: Will the next team to use this number understand how you got there?

- representative number(economic impact)
- actual number (circulation)

Summarizing: Combinations that make sense - adding together larger buckets

- Physical Borrowing
- In Person Activities (tech usage, gate count, program attendance)
- Digital Borrowing

Active Cardholders: Represents many activities, but not all

Context is key

Program Data Collection Form

In Branch Programs

This segment collects data for programs that happened in the branch, or began at a branch, like Newcomer Bus Tour or a Haunted Walk.

Please choose the branch: *

- ☐ Chinguacousy
- ☐ Cyril Clark
- ☐ Four Corners
- ☐ Gore Meadows
- ☐ Mount Pleasant Village
- ☐ South Fletcher's
- ☐ South West
- ☐ Springdale
- ☐ CE&P for LSP programs

Please choose the name of the program from the drop down list: *

Book Bingo

Back Next Clear form

All staff that give programs/outreach have access to this form. We collect:

- Branch name
- Program name
- Program Date
- Start & End time
- Attendance
- Two open text questions about resources promoted and any key details that staff wish to pass along

Dirty Data

Before

En francais s'il vous plait
En Fraçais Sîl Vous Plaît
En Française Sîl Vous Plaît
En francais s'il vous plait
En Français Sil Vous Plaît
En Francais, S'il Vous Plait
En Francais, S'il vous Plait!
En Française Sîl Vous Plaît

After

Please choose program title from drop down list: *

Choose

After Hours Study Hall
 Baby Storytime
 Book Bingo
 Brampton Writers' Guild
 Bring Your Own Device
 Class Visit in branch
 Coffee 'n' Code
 Computer Basics and Beyond (English)
 Computer Basics and Beyond (HPU)
 Colouring and Conversation
 Cryptocurrency/Bitcoin Meetup (CH Only)
 e-Learning: Educate Yourself for Free
 Excel and Spreadsheets

Program Data

These columns are entered by staff in the original form

These columns are generated by formulas

Please choose the branch:	Please choose the name of the program from the drop down list:	Please enter # of people that attended in person	Which branch or department was responsible for delivering the program?	What was the date of the program?	Please choose the start time of the program:	Please choose the end time of the program:	What collection or resources did you promote during the program?	Please enter any key details about the program or event:	Time of Day	Weekday	Month	Quarter	Ministry
Mount Pleasant	Pride Book Club	5	Mount Pleasant	8/8/2024	7:00:00 PM	8:30:00 PM	Rainbow Road, Affirm	Looking forward to next month!	Evening	Thursday	August	3	Other
Springdale	Family Storytime	3	Springdale	8/3/2024	11:00:00 AM	11:30:00 AM	Summer reading club activities and programs.		Morning	Saturday	August	3	Early Literacy ar
Springdale	LEGO Mania	30	Springdale	8/8/2024	7:00:00 PM	8:00:00 PM			Evening	Thursday	August	3	Early Literacy ar
Springdale	100 Cup Challenge	37	Springdale	8/9/2024	2:00:00 PM	3:00:00 PM			Afternoon	Friday	August	3	Other Children's
Chinguacousy	Family Storytime	23	Chinguacousy	8/9/2024	7:00:00 PM	7:30:00 PM			Evening	Friday	August	3	Early Literacy ar
Four Corners	LEGO Mania	26	Four Corners	8/9/2024	2:00:00 PM	3:00:00 PM			Afternoon	Friday	August	3	Early Literacy ar
Chinguacousy	100 Cup Challenge	26	Chinguacousy	8/9/2024	2:00:00 PM	3:00:00 PM	Summer Activity Kits, Summer Reading Club		Afternoon	Friday	August	3	Other Children's
								Great turnout! Kids and parents had lots of fun (we had about 5 parents). One thing I'll bring up to CEP is that we could use more games for kids 2-4 years old. Several kids also requested that we have chess.					
Mount Pleasant	Game On!	30	Mount Pleasant	8/9/2024	2:20:00 PM	3:30:00 PM	Our internal and circulating board games		Afternoon	Friday	August	3	Other Children's
South Fletcher's	LEGO Mania	51	South Fletcher's	8/8/2024	6:00:00 PM	7:00:00 PM			Evening	Thursday	August	3	Early Literacy ar
Cyril Clark	Teen Meetup: 8-	12	Cyril Clark	8/9/2024	2:00:00 PM	3:00:00 PM	TSRC, other programs	the program ran an hour extra as the teens made some fantastic, but intricate bead designs.	Afternoon	Friday	August	3	Teen
South Fletcher's	Family Storytime	20	South Fletcher's	8/10/2024	10:30:00 AM	11:00:00 AM			Morning	Saturday	August	3	Early Literacy ar
								Very low attendance, program was offered after long-weekend and in the morning. Participants did enjoy the activities and were engaged. Children were able to make connections and recognize letters and sounds.					
Four Corners	Alphabet Bingo	11	Four Corners	8/6/2024	10:30:00 AM	11:30:00 AM	Decodable books, phonics, STEM kits, Launchpads with concepts, SRC, Little Engineers, 1000 Books		Morning	Tuesday	August	3	Early Literacy ar
Cyril Clark	Family Storytime	19	Cyril Clark	8/10/2024	10:30:00 AM	11:00:00 AM			Morning	Saturday	August	3	Early Literacy ar
Springdale	Family Storytime	5	Springdale	8/10/2024	11:00:00 AM	11:30:00 AM			Morning	Saturday	August	3	Early Literacy ar
Mount Pleasant	STEM Station	27	Mount Pleasant	7/13/2024	2:30:00 PM	3:30:00 PM			Afternoon	Saturday	July	3	Other Children's
Chinguacousy	Family Storytime	4	Chinguacousy	8/10/2024	11:00:00 AM	11:30:00 AM			Morning	Saturday	August	3	Early Literacy ar
Springdale	Brampton Coffee	6	Springdale	8/10/2024	11:00:00 AM	1:00:00 PM			Morning	Saturday	August	3	Technology, soc
Cyril Clark	Write it Workshop	13	Cyril Clark	8/10/2024	2:00:00 PM	3:00:00 PM			Afternoon	Saturday	August	3	Other Children's

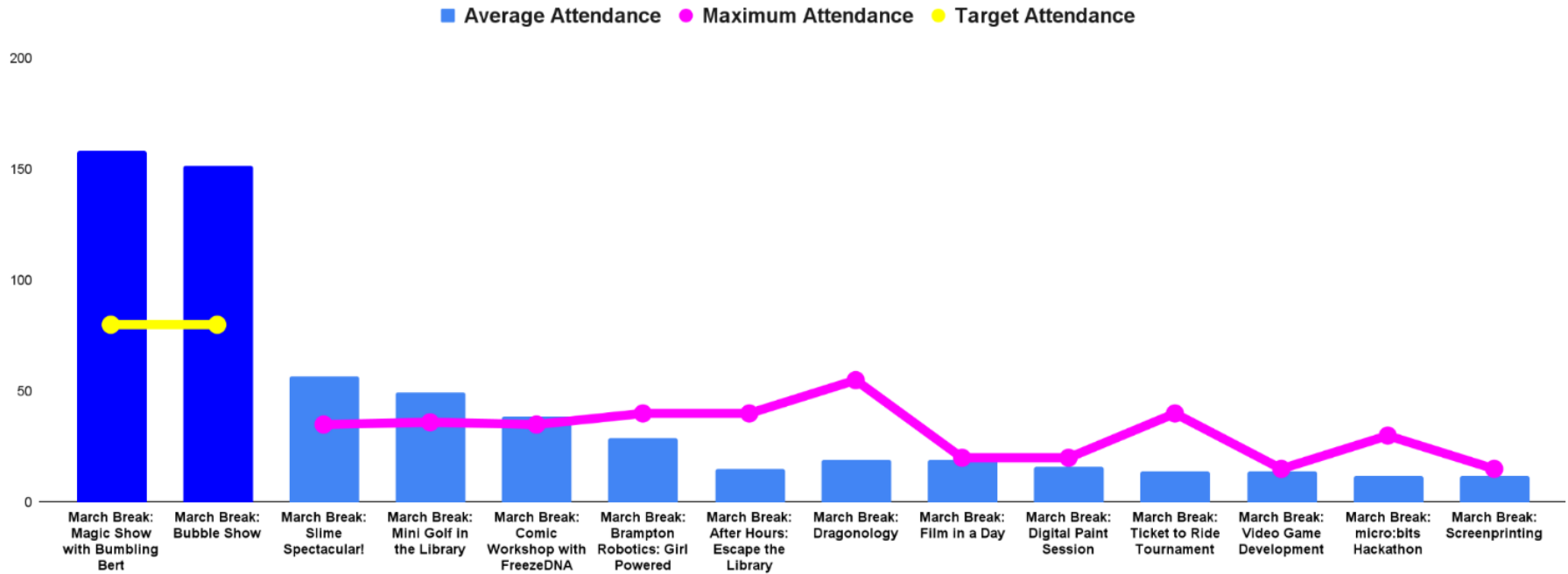
Program Data

<i>Time of Day</i>	<i>Please choose the start time of the program:</i>	<i># of programs</i>	<i>Total Attendance</i>	<i>Avg Attendance</i>
Afternoon	2:00:00 PM	52	1358	26
	2:30:00 PM	52	1049	20
	3:30:00 PM	1	16	16
Afternoon Total		105	2423	23
Evening	6:00:00 PM	14	45	3
	6:30:00 PM	83	934	11
	7:00:00 PM	14	352	25
Evening Total		111	1331	12
Morning	10:00:00 AM	22	295	13
	10:30:00 AM	56	359	6
	11:00:00 AM	69	1058	15
	11:30:00 AM	6	74	12
	12:00:00 PM	1	1	1
Morning Total		154	1787	12
Grand Total		370	5541	15

A quick pivot table allows us to do some analysis - what's the busiest time of day for programs?

Program Data

March Break programs had some fantastic attendance!



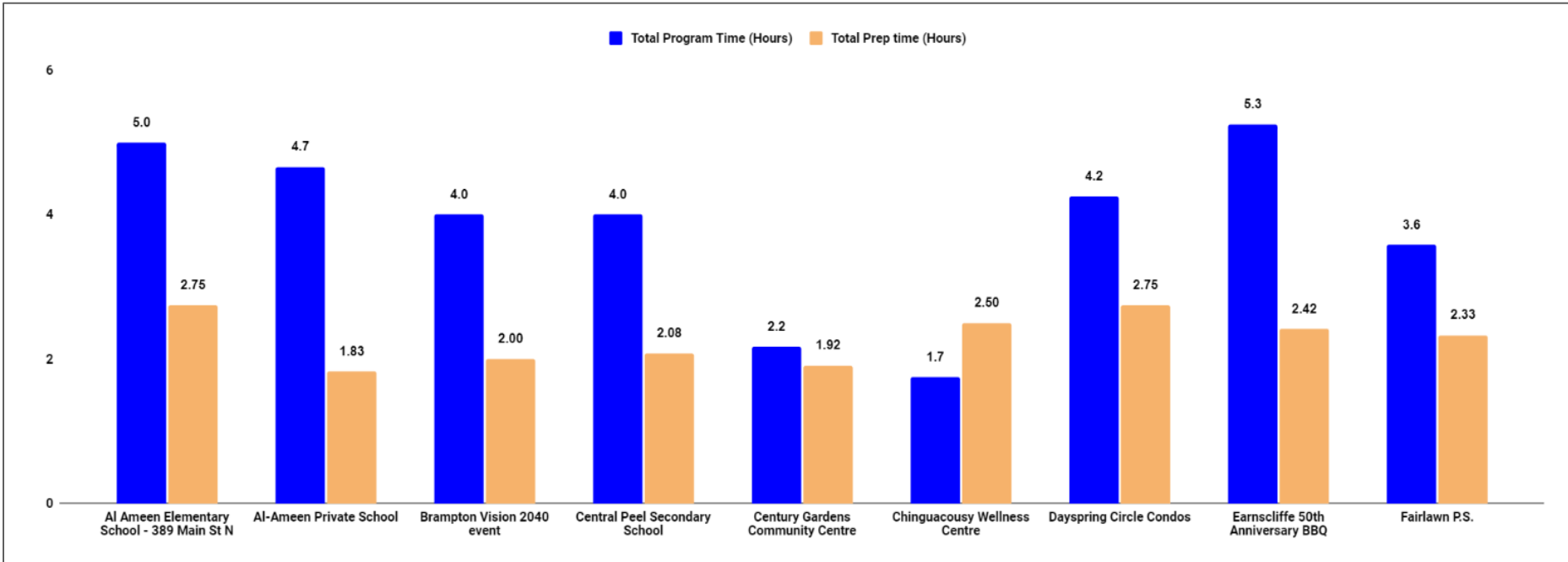
Target attendance is a goal where exceeding the number is possible (except in cases of room size).

Bumbling Bert and the Bubble Show were programs with a target attendance.

Maximum attendance is a restricted goal due to # of kits/resources possible, and partnership limitations.

Some of these programs exceeded the goal despite restrictions! (Slime & Mini-golf)

Tracking time



It doesn't matter how long the program is - average prep time remains around 2 hours.

Heat maps

Branch 1

Started	Day of week	10	11	12	13	14	15	16	17	18	19	20	Grand Tot
1/9/2023	Friday	8	6	1	6	6	7	8	7				49
10/9/2023	Sunday	4	4	4	10	10	7	3	1				43
11/9/2023	Monday	16	8	16	14	8	11	11	13	5	3	2	107
12/9/2023	Tuesday	5	3	10	9	5	6	11	8	12	9	2	80
13/9/2023	Wednesday	10	9	12	9	10	8	10	9	9	5	3	94
14/9/2023	Thursday	6	12	10	10	7	5	7	7	5	6	2	77
15/9/2023	Friday	7	1	12	9	6	14	6	6				61
16/9/2023	Saturday	14	9	5	9	11	10	12	2				72
17/9/2023	Sunday	6	3	4	2	4	8	10	2				39
18/9/2023	Monday	7	7	9	10	7	15	13	7	4	3	2	84
19/9/2023	Tuesday	8	8	8	10	11	15	7	6	10	4	1	88
2/9/2023	Saturday	5	10	11	7	8	4	5	7				57
20/9/2023	Wednesday	12	9	12	10	8	9	7	5	9		4	85
21/9/2023	Thursday	6	10	7	3	14	7	13	10	6	3	1	80
22/9/2023	Friday	3	9	8	9	10	10	8	8				65
23/9/2023	Saturday	4	7	4	10	9	12	3	4				53
24/9/2023	Sunday	8	5	6	8	5	3	1	7				43
25/9/2023	Monday	9	6	12	12	13	10	12	4	10	4	1	93
26/9/2023	Tuesday	9	8	9	9	8	6	7	5	7	6	2	76
27/9/2023	Wednesday	5	19	13	9	10	8	7	8	6	9	3	97
28/9/2023	Thursday	6	10	9	6	3	8	14	6	11	5	3	81
29/9/2023	Friday	6	3	5	9	8	8	13	7				59
5/9/2023	Tuesday	8	11	8	16	12	13	9	8	16	2	3	106
6/9/2023	Wednesday	11	2	17	6	12	4	12	5	6	6	1	82
7/9/2023	Thursday	9	10	7	6	13	9	8	10	10	3	6	91
8/9/2023	Friday	11	8	9	11	11	10	14	7				81
9/9/2023	Saturday	10	5	8	9	8	8	6	9				63

Branch 2

Started	Weekday	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	Grand Tot
09/01/2023	Friday	3	1	7	3	3	2	3	3				25
09/02/2023	Saturday	1	2	3	4	4	5	2	4				25
09/05/2023	Tuesday	6	8	3	5	3	4	5	2	4	2	2	44
09/06/2023	Wednesday	3	4	5	4	6	5	5	1	6		3	42
09/07/2023	Thursday	7	3	2	4	5	2	3	3	8	7	3	47
09/08/2023	Friday	10	7	3			3	8	7				38
09/09/2023	Saturday	1	5	6	4	5	3	7	4				35
09/10/2023	Sunday	3	5	3	1	6	5	2	1				26
09/11/2023	Monday		3	3	1	4	1	3	3	4	3		25
09/12/2023	Tuesday	8	1	1		3	4	4	3	3	3	1	31
9/13/2023	Wednesday	6	1	3	6	3	4	4	3	5	2		37
9/14/2023	Thursday	10	12	4	7	2	5	4	4	3	4	1	56
9/15/2023	Friday	2	3	1		7	2	4	1				20
9/16/2023	Saturday	5	3	2	5	2	6	6	5				34
9/17/2023	Sunday	6	2	1	1	5	4	5	6				30
9/18/2023	Monday	6	6	2	4	3	3	4	5	9	4	2	48
9/19/2023	Tuesday	9	6	3	2	3	1	5	5	3	1	1	39
9/20/2023	Wednesday	1	3	4	7	3	3	4	7	3	3	2	40
9/21/2023	Thursday	3	4	9	4	1	3	4		6	3	2	39
9/22/2023	Friday	3	2	4	4	8	3		4				28
9/23/2023	Saturday	3	6	8	4	3	2	5	1				32
9/24/2023	Sunday	3	4	3		3	4	1	8				26
9/25/2023	Monday	7	5	3	6	6	1	9	6	2	4	5	54
9/26/2023	Tuesday	4	1	1	5	3	4	7	3	4	2	3	37
9/27/2023	Wednesday	6	5	2	5	4	3	2	7	3	1	2	40
9/28/2023	Thursday	1	1	3	3	4	1	5	7	3	3	1	32
9/29/2023	Friday	5	5	6	6	5	5	6	8				46

Use conditional formatting to quickly identify peak usage of computers

Typical Week

Reader's Advisory Questions		Quick Tick Section					
RA	(Readalikes, fiction and non-fiction)	How Long	# of In-Branch Accessible Devices Used (include PC Res for accessibility computer)				
RA	1		# of In-Branch Use of Materials (pick-ups/clean-ups)				
RA	2						
RA	3						
RA	4		Readers Advisory Questions		How Long		
RA	5		7				
RA	6		8				
SR	Standard Reference Questions	How Long	Standard Reference Questions		How Long		
SR	1		7				
SR	2		8				
SR	3		9				
SR	4		10				
SR	5		11				
SR	6		12				
SR	Service						
SR		1 min	2 min	3 min	4 - 7 min	8-10 min	10+min
SR	Cloud/Overdrive						
SR	Zinio/PressReader						
SR	Tumblebooks/Mango						
SR	Library of Things (Starling/Go Pro/Launchpads)						
SR	Gale/Lynda						
SR	eDatabases						
SR	Freegal						
SR	Kanopy						
SR	IELTS (books or online)						
SR	LSP services						
	Programs(what, when, where, how)						
	Makerspace/Audio Studio queries						
T	Technology						
T		1 min	2 min	3 min	4 - 7 min	8-10 min	10+min
T	Print						
T	Copy						
T	Wifi/Login						
	Document/Program Help/email help						
T	Chargers/mice for computers						
Membership/Borrowing							
		1 min	2 min	3 min	4 - 7 min	8-10 min	10+min
M	New/replacement card						
M	Address Checks						
M	Fines (Adult material)						
M	Children's Fines Waived						
B	ILLO						
B	Holds						
B	Self-check (showing how to use)						
B	Returns						
Comments (anything that doesn't fit the categories above)							

Typical week: the extra detail years

- Paper
- Entered into google form for data analysis

Typical Week

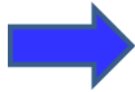
Season	Weekday	Branch	Time (min)	Number of Interactions	Category 1	Category 2
Q4	Monday	MPV	1	14	Tech	Print
Q4	Monday	MPV	2	12	Tech	Print
Q4	Monday	MPV	3	1	Tech	Print
Q4	Monday	MPV	6	1	Tech	Print
Q4	Monday	MPV	1	3	Tech	Copy
Q4	Monday	MPV	2	1	Tech	Copy
Q4	Monday	MPV	1	1	Tech	Wifi
Q4	Monday	MPV	2	2	Tech	Wifi
Q4	Monday	MPV	6	3	Tech	Wifi
Q4	Monday	MPV	2	1	Tech	Doc/Prog help/email help
Q4	Monday	MPV	3	3	Tech	Doc/Prog help/email help
Q4	Monday	MPV	1	1	Member	New/replacement card
Q4	Monday	MPV	2	10	Member	New/replacement card
Q4	Monday	MPV	3	4	Member	New/replacement card
Q4	Monday	MPV	6	5	Member	New/replacement card
Q4	Monday	MPV	1	5	Member	Address Check
Q4	Monday	MPV	2	8	Member	Address Check
Q4	Monday	MPV	3	5	Member	Address Check

Typical Week

		Branch	Values
		CH	
Season	Category 1	# of Interactions	Total Time
Q1	Borrow	3	5
	Find	178	741
	Member	3	4
	Service	83	747
	Space	5	11
	Tech	1	1
Q3	Borrow	14	32
	Find	88	287.8
	Service	63	176
	Space	3	3.16
	Staff Job	1	10
	Tech	7	33
Q4	Find	219	952
	Tech	1	1
Grand Total		669	3003.96

Designing reports - who's your audience?

Lots of text lots of text
lots of text lots of text
lots of text lots of text
lots of text and a few
453897. Lots of text
lots of text lots of text
lots of text lots of text
lots of text lots of text
and a few 453897. Lots
of text lots of text lots
of text lots of text lots
of text lots of text lots
of text and a few
453897.



We asked our customers how they
felt about the library:

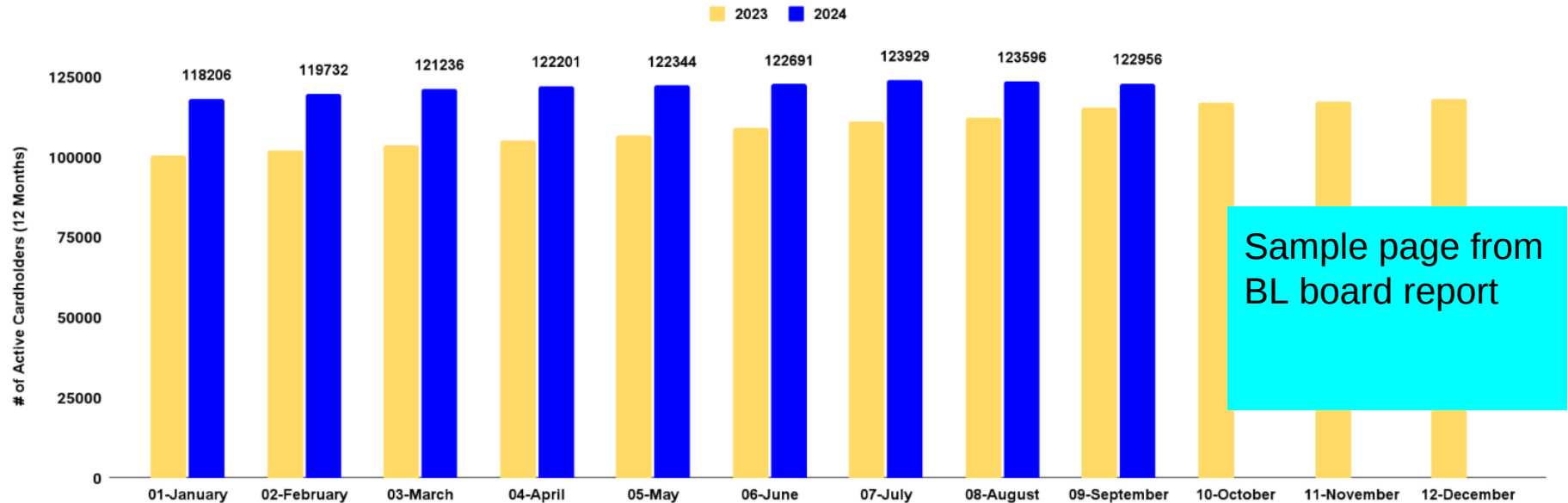


**2 Million
Books
Borrowed**

What kinds of reports or graphics does your organization produce?

Become known as the place for discovery

Active cardholders as of Aug '24 exceed the similar time frame in 2023, but the monthly increase has slowed.

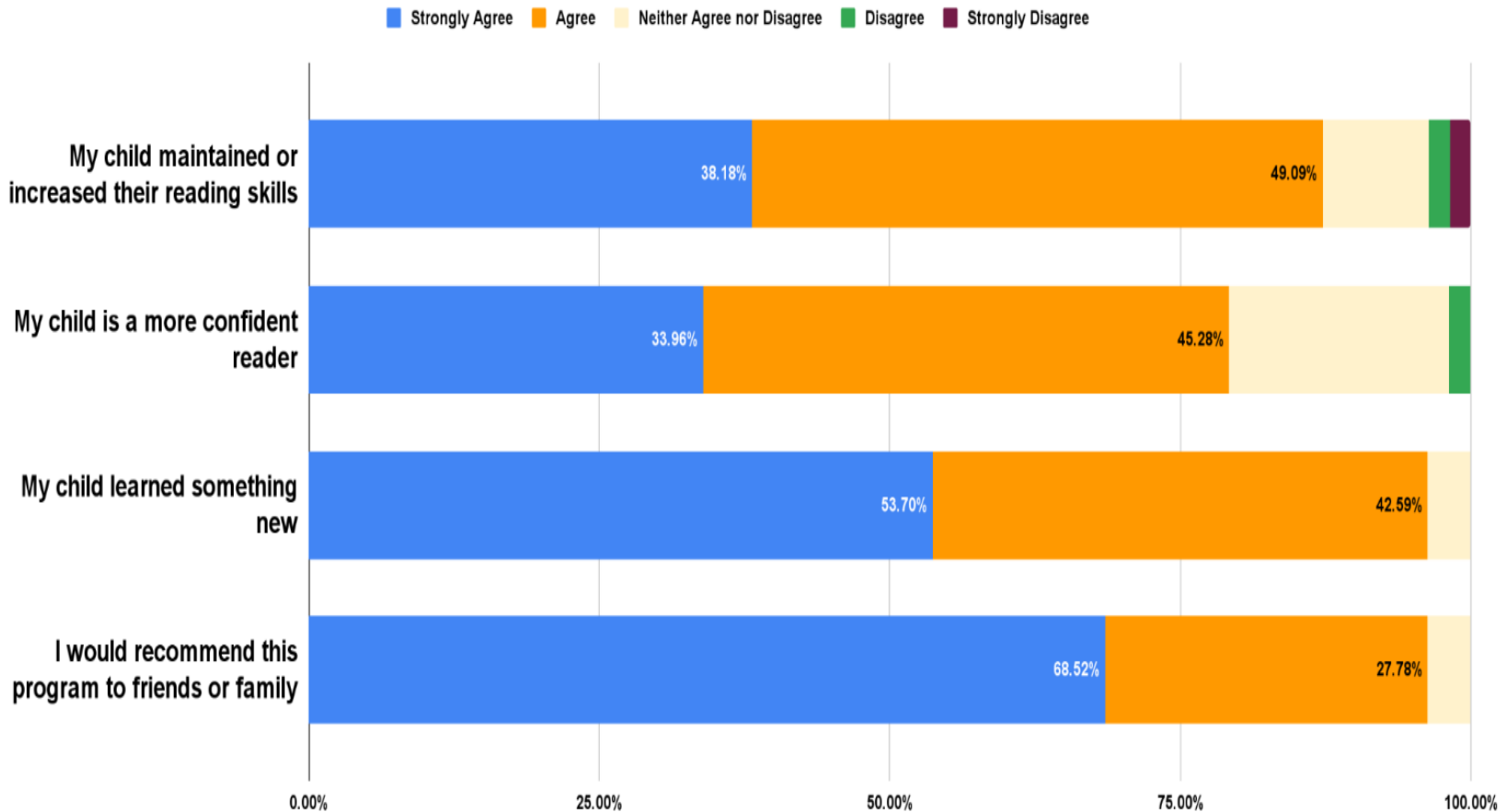


Our current Active User # has grown to 122, 344. However, the rate of growth has slowed in recent months.

Outcome based surveys

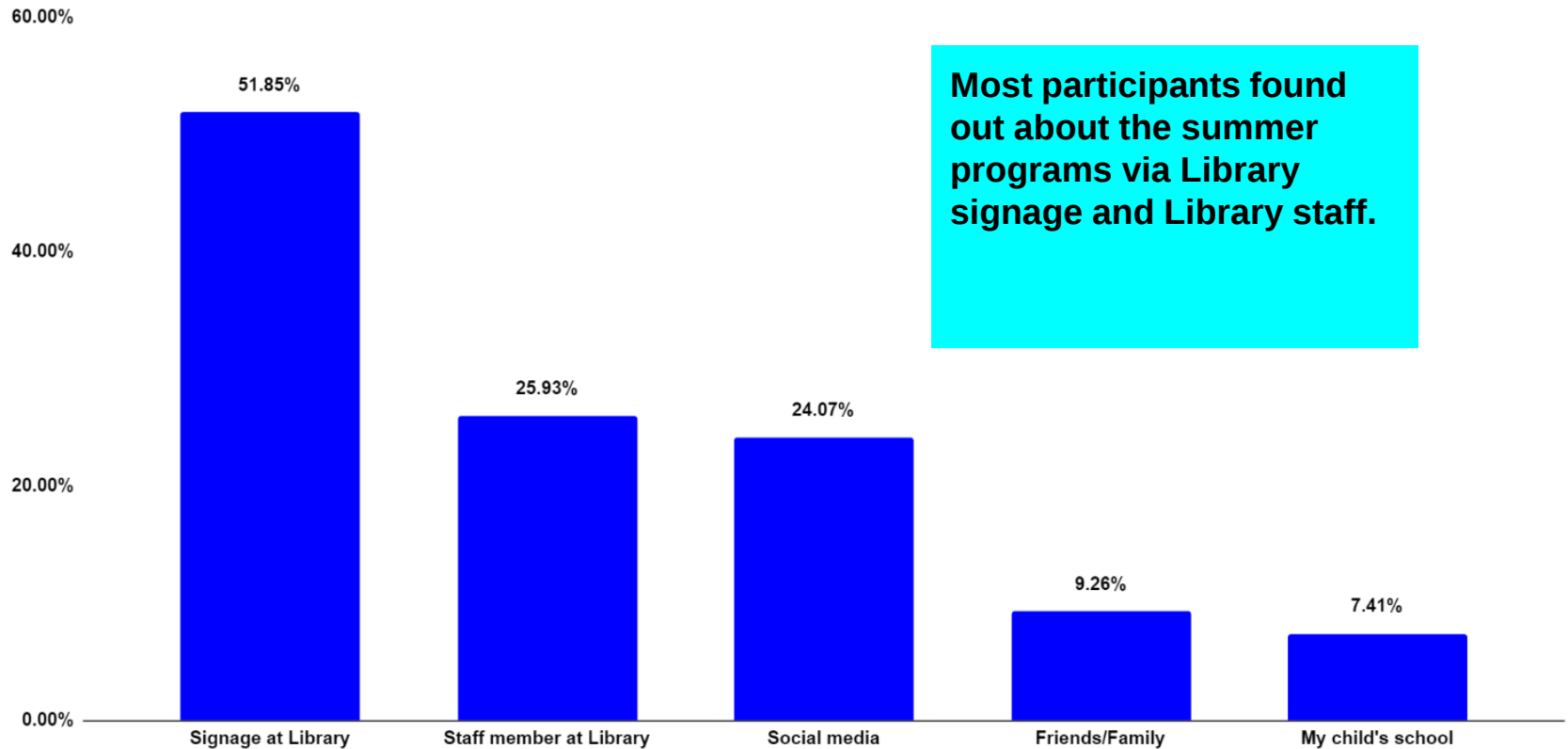
96% of kids learned something new!

87% of parents agreed that their child maintained or increased their reading skills



Fact-finding surveys

How did you find out about the Brampton Brain Game?



Most participants found out about the summer programs via Library signage and Library staff.

Wrap-up

- What's your why?
- Quick & easy
- Start at the end first
- Pivot tables save time
- Who's your audience?
- Tell your story!



Questions?

Alison Clarke,
Business Performance & Data Analyst
Brampton Library
aclarke@bramptonlibrary.ca