

Analysis and Recommendations for Coral Academy

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Executive Summary

This report evaluates data from Coral Academy's beta testing of live online classes. It identifies key strategies for optimizing class schedules, improving teacher and topic curation, and enhancing engagement and satisfaction among children aged 8-13 years.

Key Findings and Recommendations:

1. **Optimal Timings:** Most enrollments occur in the evenings and near weekends. Classes should be scheduled after school hours and on weekdays to maximize attendance.
 2. **Timezone Prioritization:** High engagement was observed in U.S. time zones (EST, PST, MST, CST). Expansion efforts should include potential markets like India (IST), the UK (GMT), Australia (AEDT), and Japan (JST).
 3. **Teacher and Topic Performance:** Top-performing teachers and popular topics include Writing, Life Skills, and Science. Underperforming classes, like Music, Chess, and Art, need adjustments in timing and incentivization strategies.
 4. **Parent Outreach:** Effective strategies involve leveraging Facebook groups and word-of-mouth referrals. Expanding outreach through WhatsApp could significantly boost enrollment.
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5. **Underutilized Classes:** Attendance challenges were linked to inconvenient scheduling. Introducing discounts or promotional campaigns is recommended to attract more participation.

This data-driven approach ensures an actionable roadmap to align Coral Academy's operations with parent and child preferences, driving growth and satisfaction.

Introduction

Coral Academy launched beta testing of live online classes targeting children aged 8-13 years. The objective is to gather insights into scheduling, engagement, and participation trends to inform full-scale implementation. The analysis encompassed enrollment patterns, attendance records, and feedback, offering comprehensive strategies for market expansion and program improvement.

Insights & Observations

1. Optimal timings and time zones

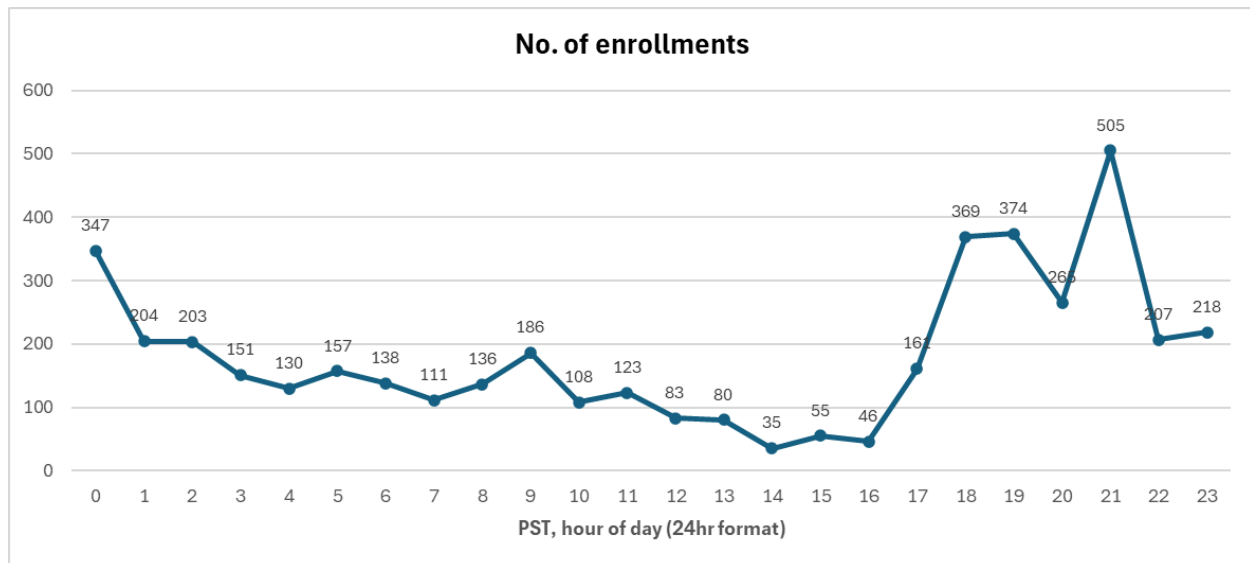
Peak activity

Context: The *timestamp* column records the exact date and time when the parent enrolled their child for the class. It reflects the moment the data entry was logged into the system. While the *date* column is the actual date the classes are scheduled to take place.

In order to find no. of enrollments during a particular hour of the day and day of the week, I did the following steps (worksheet *11peak_activity*) -

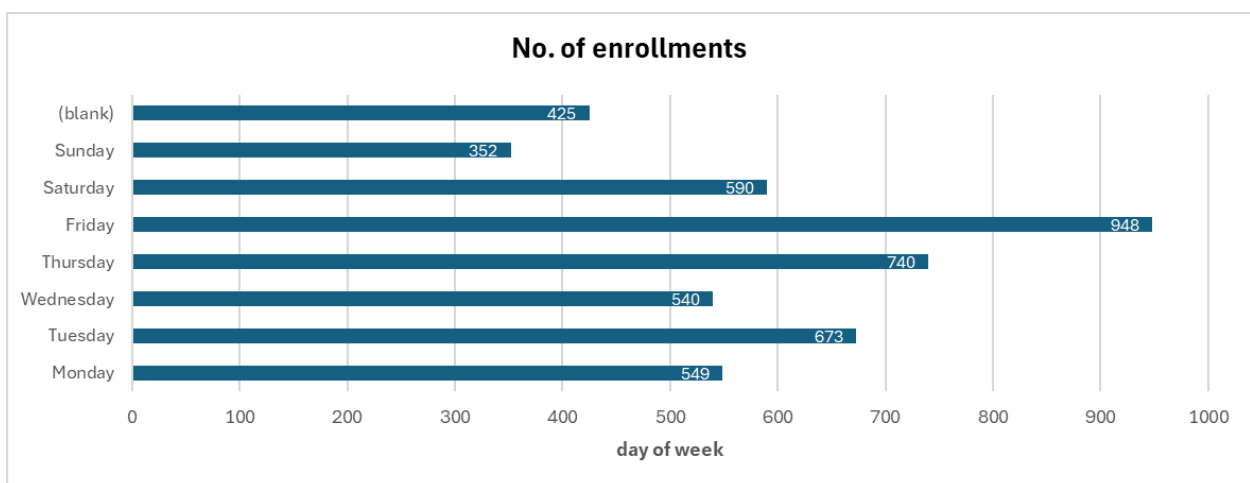
- Used pivot table to find count of *child name* against enrollment *timestamp*
- In order to extract hour and day from the *timestamp* column, used TEXT excel function

- But the hours and days needed to be grouped, hence used SUMIF excel function to find the no. enrollments (count of *child name*) by hour of the day (PST) and day of the week.



Observation: Most enrollments occur during evenings

Insight: Parents are most likely available to make decisions at evenings (after-office hours)



Observation: Most enrollments occur during approaching weekends

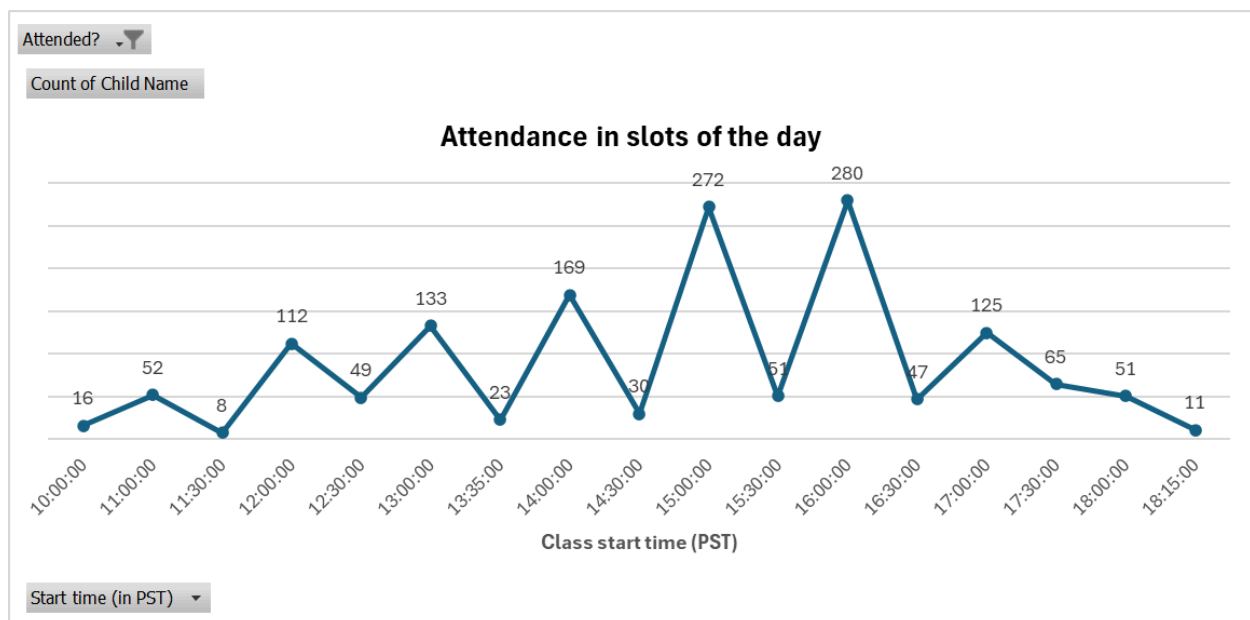
Insight: Follows the fact that parents are more likely available at weekends/approaching weekends

Class scheduling

Context: class *start time* (PST) and attendance of children (*attended?*) in that slot can be used to get attendance in slot of the day. *Day* column can be used to find attendance on days of the week.

Steps:

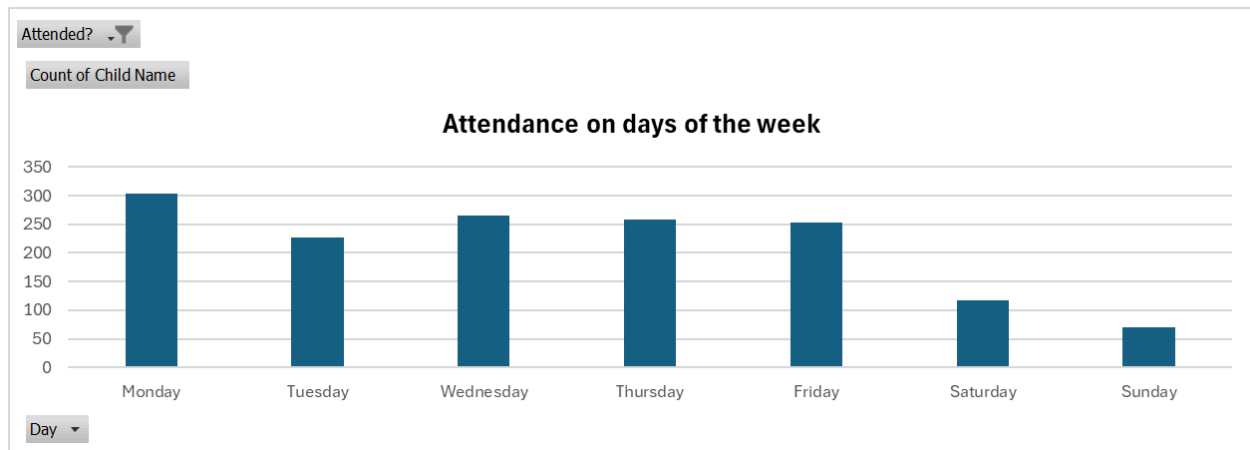
- Used pivot tables having *start time* and Day against count of child name
- Put a filter in pivot table of *Attended?* column as 'Yes' to get Attendance



Observation: After-school hours (PST) show the peak attendance

Insight: Children are most likely available to attend lectures at this time

- Also, in the graph above, peak attendance hours fall in 1:00pm to 5:00pm PST bracket. This may seem abstract but considering from Timezone weightage observation (EST's highest weightage) and knowing the fact that EST runs ahead PST by 4 hours; 1:00pm PST equals 5:00pm EST. This follows the above inference of evening time peak.



Observation: Weekends lack attendance

Insight: Children are more likely to attend classes on weekdays and relax on weekends

Timezone preferences

Steps:

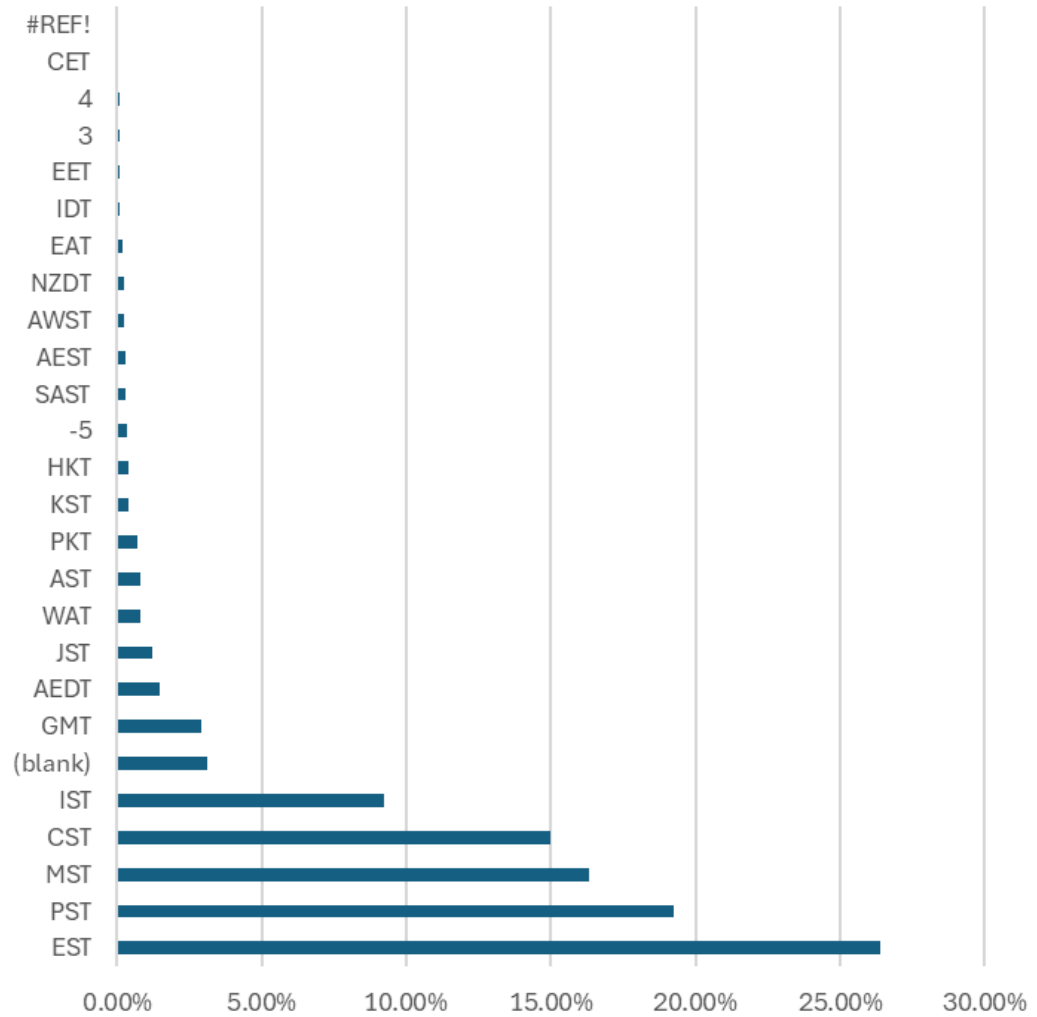
- Pivot table with *Timezone* column against count of child as % of total
- Put *attended?* filter as 'Yes'

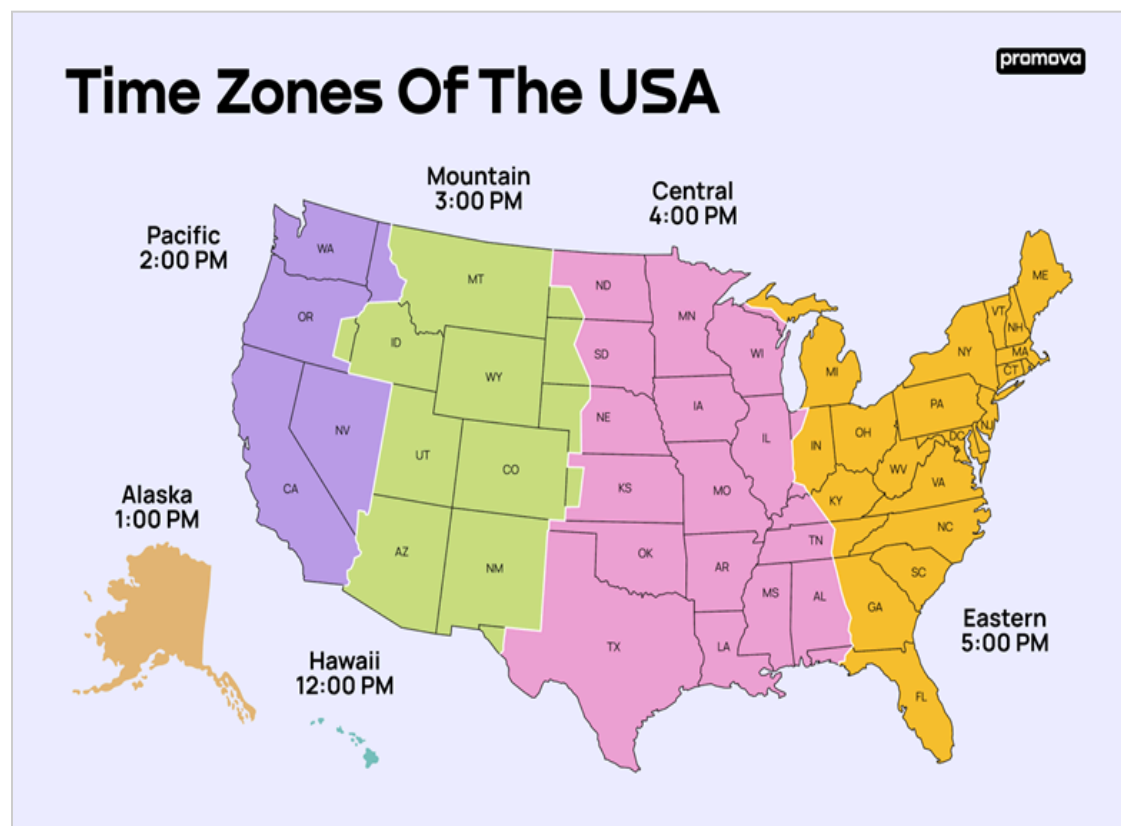
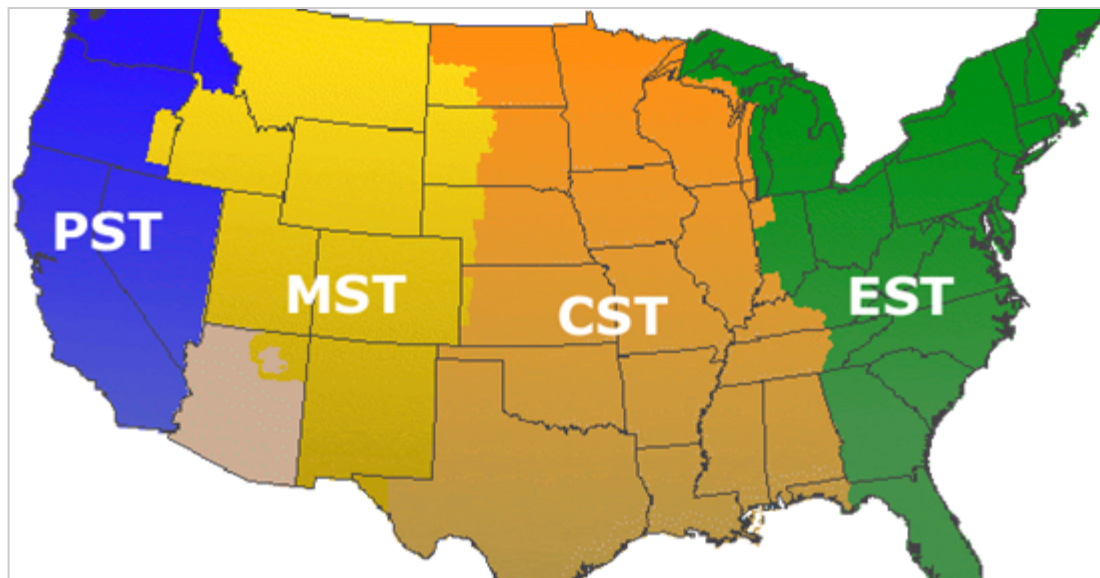
Timezones	count as % of total
EST	26.41%
PST	19.27%
MST	16.32%
CST	14.99%
IST	9.22%
(blank)	3.11%
GMT	2.91%
AEDT	1.49%
JST	1.22%

count as % of total

Timezone weightage

Timezone ▼





Observation: Top 4 are US timezones namely EST, PST, MST and CST.

Insight: US engagement is high but shouldn't ignore next 4-5 timezones

Recommendations:

1. Expecting enrollment peaks at evenings and weekends, focus on advertising and outreach should be done at these times.
2. Classes should be scheduled just after school hours and in weekdays.
3. India (IST), UK(GMT), Australia (AEDT), Japan (JST) are potential customers.

2. Class curation

(MySQL Workbench)

My approach to getting the MySQL workbench environment ready for this dataset: Initial thought was to use CSV to SQL converter online, downloading the sql file, opening in workbench, copying the file code in my current server on the workbench, running the table generation code. But error showed up because some columns had entries containing entire sentences on feedback. Hence, I went back to converter and uploaded a CSV file by deleting the columns that were wordy, then uploaded the CSV file. This worked for me.

Teacher performance

Context: In the given dataset, *'Attended'*, *'Interesting'* and *'Another class'* feedback scores are given Score out of 3 where 3 is a perfect score as 'Yes'. *'Final score'* column for each entry is a sum of these three segments where the perfect score is a 9.

Steps:

Hence, I am using **MySql** query to find Top 5 teachers based on number of perfect scores they got : -

1. Annalisa Ard
2. Dana Lorelle
3. Nicole Pauling
4. Cara Bailey
5. Amalia Fernand


```
10 • Select `Teacher Name`, count(`Teacher Name`) as perfect_scores
11   from v5coral
12   where `Final score` = 9
13   group by `Teacher Name` order by perfect_scores desc;
14
```

< **Result Grid** Filter Rows: | Export: | Wrap Cell Content:

	Teacher Name	perfect_scores
	Annalisa Ard	74
	Dana Lorelle	60
	Nicole Pauling	51
	Cara Bailey	51
▶	Amalia Fernand	43
	Aaron Potsick	43
	Ms. Courtney	42
	Misses Dee	39
	Erin Coley	34
	Rae Wilson	29
	Clark Vandeventer	24
	Paige Howell	22
	Kevin Lee	20
	Tia Speece	17
	Ashton Khan	17
	Lianne Brunt	15

Result 40 x

Popular Topics

Using a similar mySQL query with teacher replaced by topic:





1. Writing
2. Life skills
3. Science
4. History
5. Math
6. Art
7. Speaking

```

14
15 • Select `Topics`, count(`Topics`) as perfect_scores
16   from v5coral
17   where `Final score` = 9
18   group by `Topics` order by perfect_scores desc;
19
20

```

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Result Grid   Filter Rows: Export:  Wrap Cell Content: 

	Topics	perfect_scores
	Writing	108
	Life skills	104
	Science	82
	History	78
▶	Math	58
	Art	51
	Speaking	48
	Financial Literacy	40
	Logic	35
	Reading	29
	English	28
	Coding	20
	Chess	20
	Social studies	8

Result 41 ×

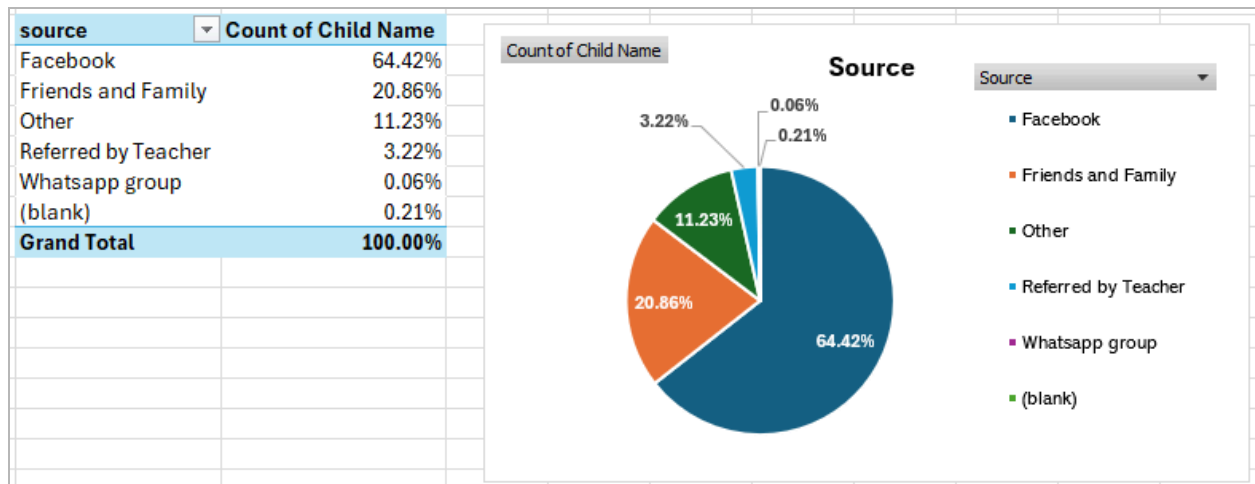
3. General observations

Parents outreach strategy

(worksheet 31parent_outreach_strategy, 32underutilized_slots)

By using Pivot table, I found that outreach strategy can be tailored by focusing on facebook groups and word of mouth (friends & family). (used *source* column)

I would **recommend working on Whatsapp Group** outreach as I think Whatsapp is the most used mobile app on a daily basis.



Under-utilized courses

By using pivot table and conditional formatting (*topic* and *start time* columns) , I have highlighted classes with attendance rates below a certain threshold (below average filter in conditional formatting).

Please refer to excel file for more understanding to my approach.

I would recommend incentivizing such classes with discounts or promotional campaigns.

Count of Attendee Column Labels												
topic	Class cancelled	Duplicate Extra list No			No data	Not App		Unenrolled	Yes	(blank)	Grand	No/(Yes+No)
Life skills		57		325		2	46	28	207	665	39%	
Writing	4	29	33	267			55	17	169	574	39%	
Science		19		240			10	23	204	496	46%	
Math	5	38		228		3	17	26	155	472	40%	
Speaking		48		179			24	18	126	395	41%	
Chess		19	22	159		1	2	13	53	269	25%	
Logic	16	14		157			19	7	107	320	41%	
Financial Literacy		21	2	156			22	13	80	294	34%	
History		39		140			26	9	125	339	47%	
Art	33	14		105			13	13	78	256	43%	
Reading		20		68			9	6	69	172	50%	
Coding				44				2	38	84	46%	
English	24	10		37				1	51	123	58%	
Music				12				1	9	22	43%	
Social studies		2		8					23	33	74%	
(blank)	119	1				1	13			134		
Grand Total	201	331	57	2125		7	256	177	1494	4648		

Building on above pivot table, reason for class topics with low attendance is analyzed. One possible reason could be inconvenient time for the child.

From pivot table below, we discover that **Music** classes happen during school time (13:00 PST). This might be why the music classes have low attendance. Similar sense can be made from **Chess, Writing and Art** classes:

[illegible]