



Sentiments and challenges of Parents Low Primary students in Singapore

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INTRODUCTION

Orientation day for Primary 1 parents is a lot of excitement. If parents are sending their first child to school, it is particularly beneficial. Most of the Soon parents exchange their contact numbers and join more than one parent chat groups with on WhatsApp. Their intention is to gain knowledge of other parents and join the community. The corpus comprises parents' WhatsApp text conversation during the first year of schooling their children in Primary school. After being a parent of P1 student for a year and actively engaged in school life, I decided to explore parents' feelings and discover hot topics of their discussions using text mining.

DATA EXPLORATION, PREPARATION - TEXT PREPROCESSING

Primary 1 class WhatsApp chat data was downloaded into txt-file using default WhatsApp function Group Info-> Export Chat-> Without Media.

Number of Observations	7197
Number of Columns	1

The SAS EM's File Import node was used to import the data. Data profiling shows that there are 7197 documents, 1 columns in the corpus. Downloaded data is not formatted correctly.

Dataset was cleaned for sensitive data like handphone numbers, users' names.

Text Parsing node was connected downstream from the File Import node. Settings were set as follows:

- Set Stem Terms = YES (Yes means that different terms with same roots to be treated as equivalent)
- Text Filter node added downstream from the Text Parsing node. Settings were set as follows:
 - Spelling changed = "Yes", Frequency Weighting = Log, Term Weighting = Inverse Document Frequency.

After running Text Filter node, I utilized Interactive filter viewer for in-depth exploration. Various terms treated as synonyms. **Emoji** (exported as symbols, for example ðŸ) were labelled as stop words. viewed concept links which show linked terms.

Properties - EMWS1.FIMPORT6_DATA			
Table		Variables	
Columns:	<input checked="" type="checkbox"/> Label	<input type="checkbox"/> Mining	<input type="checkbox"/> Basic
Name	Label	Role	Level
ParentsWhatsappChat	ParentsWhatsappText		Nominal

OBJECTIVES:

Performance of Sentiment analysis, Topic discovery. Interpretation, Recommendation

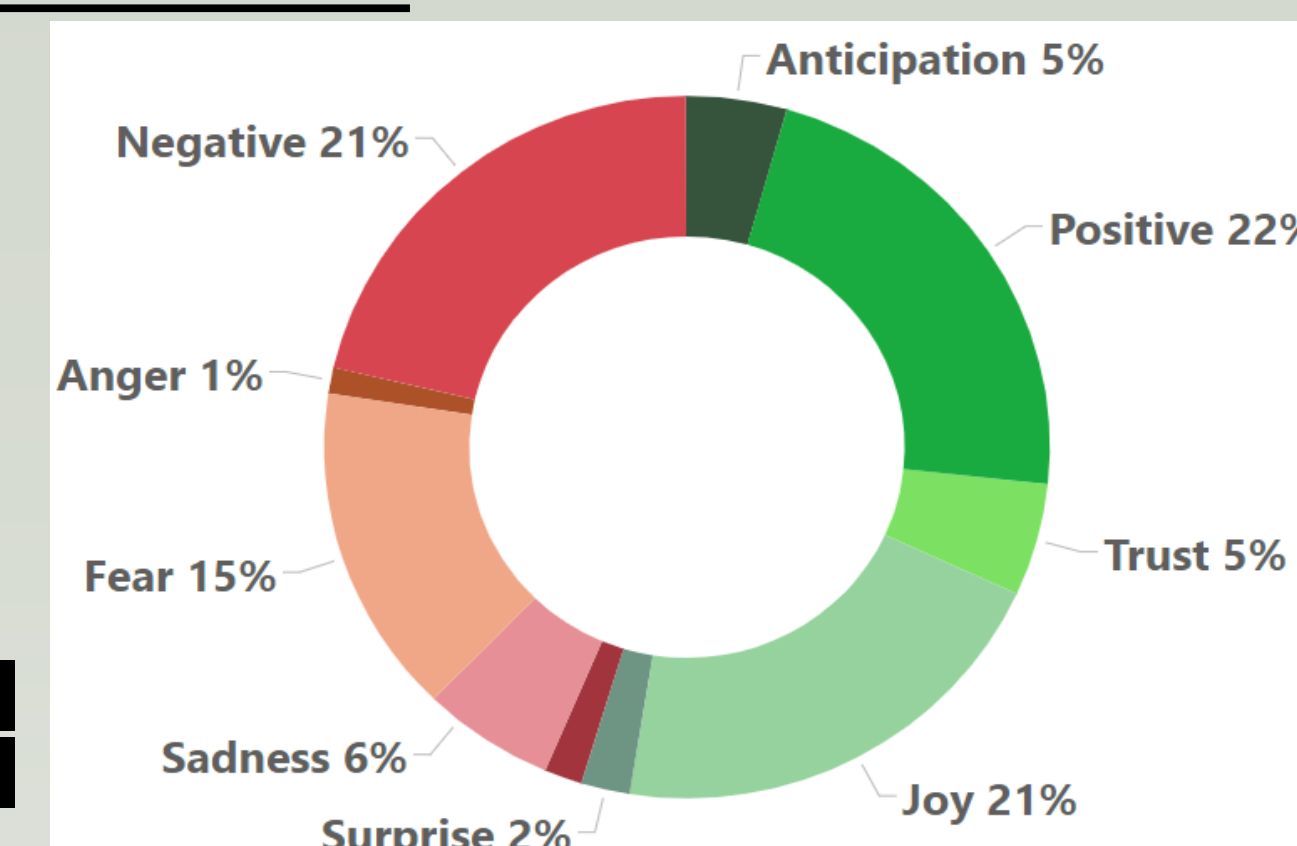
(I) SENTIMENT ANALYSIS

Sentiment analysis was conducted with the use Afinn Sentiment Lexicon (afinn_lexicon_prep.csv).

Following **Singlish words and abbreviation were added into Lexicon**, imported and saved in SAS EM's Library.

topic	term
surprise	wah
surprise	alamak
surprise	aiyo
surprise	aiyah
fear	OMG

Text Topic node "Sentiments" was connected downstream from the Text Filter node. Sentiments of text documents saved into the xls file. **Positive sentiments (coloured in green) 55% have slightly higher proportion then negative (coloured in red) 45%.**



(II) TOPIC DISCOVERY

I performed Topic discovery for all documents in the corpus. Text topic (10) node was connected downstream from the Text Filter node. Number of Multi-term Topic set as 10. Based on associated terms I discovered 10 topics.

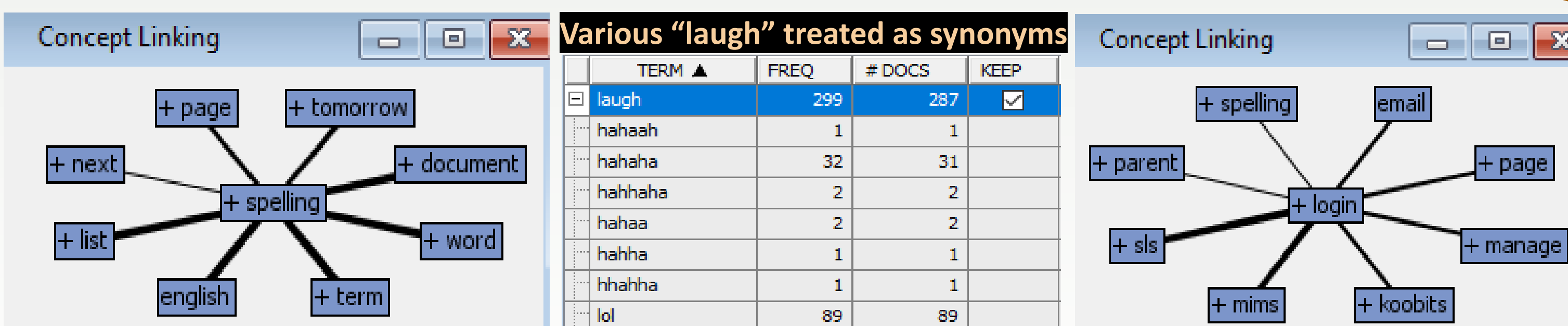
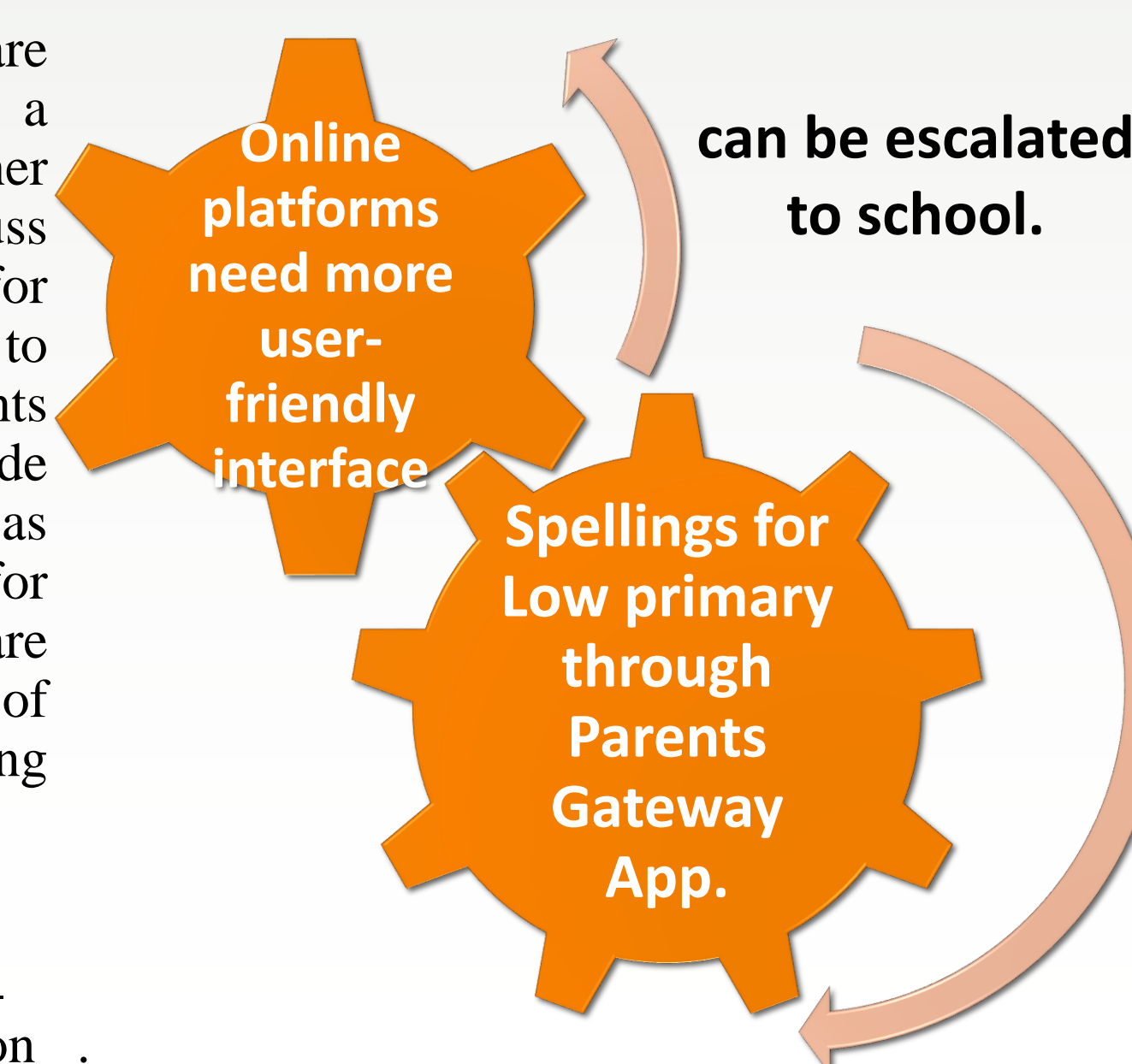
Terms	Number of Terms	#Docs	Topic
+boy,+bday,+friend,+koobits, account, +happy,+learn,+play, fun	9	815	Birthday celebrations, making friends @online platform
+spelling,+list,english,+term,+boy, +document, next, +page,+ parent,+learn,+homework	9	200	English and Chinese spelling
+pe attire,+wear, +uniform,friday,+monday	11	202	School dress code
+teacher,+class,+pass,+boy,+buy	3	193	Communications with teachers
+school,+holiday,+next,friday,+bring	11	300	Dismissal & school reopening
+health,+eye,+stomach,+subside, +infection	6	133	Dealing with children's illnesses
+parent,+boy,+group,+homework	4	132	Homework
+book,+bring,+school bag,+buy,+pack	18	377	Books to buy and read
+tomorrow,+school bag,+pack,+bring,+boy	11	215	School bag for tomorrow
+list,+pv,+class,+game,+interest, +stall, +participate, +sponsor	21	241	Parents volunteers in school events

FINDINGS & RECOMENDATION

I discovered that such class chats like this one on WhatsApp are quite beneficial. During the first year of school, parents have a variety of challenges. Positive sentiments have slightly higher proportion then negative sentiments among parents. They discuss difficulties in parenting with a smile. Parents keep asking for advice on how to pack their children's school bag, what uniform to wear to school. As children begin their learning journey, parents struggle to prepare kids for spellings. Other challenges include using online education platforms such as Koobits and SLS, as children cannot work independently. Parents are searching for advice and techniques for effective parenting when children are naughty or sick. Parents are highly involved in the school life of their children as they demonstrate their interest in volunteering during school activities.

REFERENCES

- Practical 1. SOMA. 01 Sentiment Analysis_Student version_
- Practical 2. SOMA. 02 Text Topic Discovery _Student version_.



WORKFLOW

