Multimedia Appendix 5.

List 1. Sentiment analysis on WhatsApp chat by generating the world cloud, fetching sentiment words from text, counting the sentiment words by category, printing sentiment plot.

Word frequ	uency TOP 20	
will	will	99
i nzone	i nzone	69
can	can	56
thanks	thanks	52
system	system	50
thank	ťhank	47
cells	cells	35
one	one	32
hello	hello	29
well	well	29
really	really	29
question	question	29
kakuma	⁻ kakuma	27
teacher	teacher	27
good	good	24
course	course	23
start	start	23
questi ons	questi ons	23
now	now	22
use	use	22

Sentime	nt count	
1	anger	48
2 anti	cipation	249
3	di sgust	39
4	fear	98
5	joy	149
6	sadness	73
7	surpri se	69
8	trust	344
9	negati ve	146
10	positive	516
Worldcl	oud Whats	sapp Group

Figure 1. Text mining word cloud on WhatsApp chat.





Figure 2. Barplot representation of the total sentiment score in the WhatsApp group.

Text mining graphical representation of sentiment analysis on 10 different sentiments. They are represented on the x-axis and on the y-axis the absolute frequency of each sentiment. The graph shows that the most representative sentiment was positive (n=516), followed by trust (n=344) and the least representative was disgust (n=39).