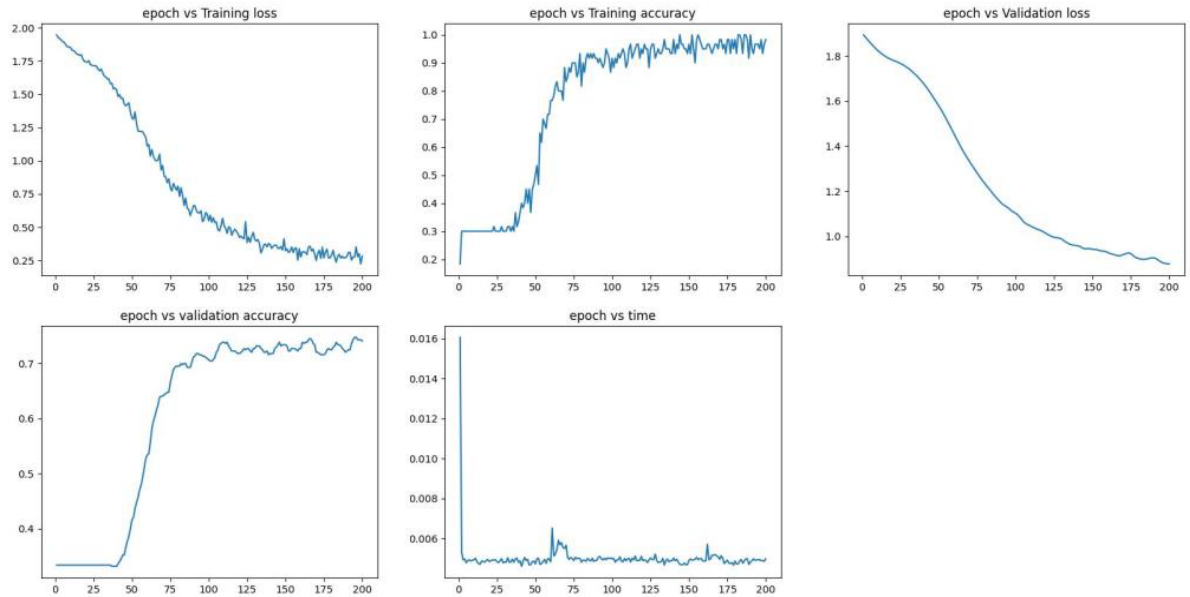


Solution 4

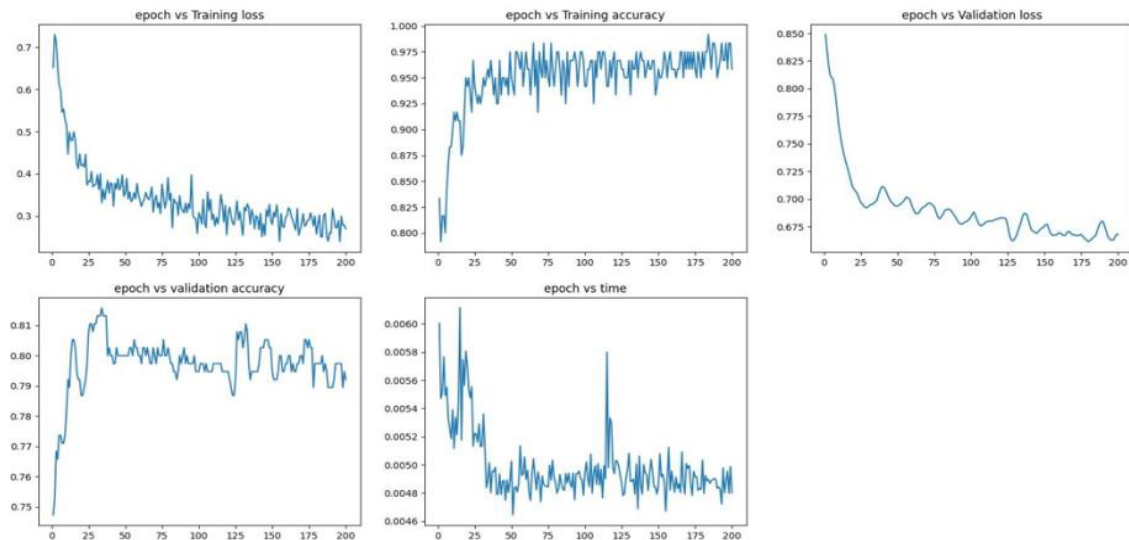
Labelled data of 60:

Results for training data in range of 60 and validation data in range of 60 to 500



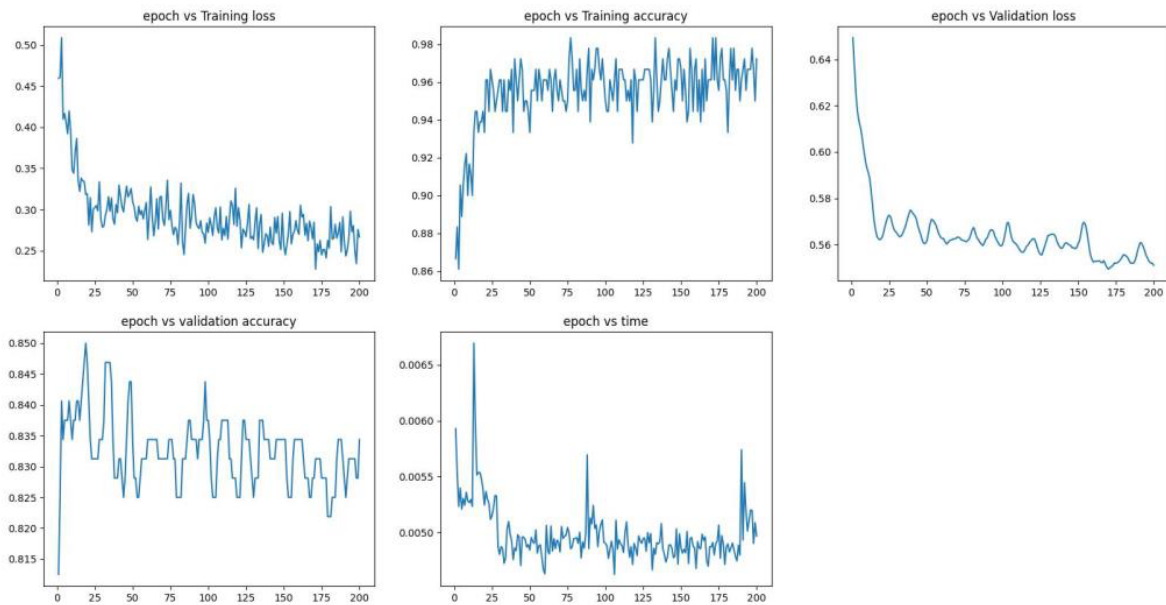
Labeled data of 120:

Results for training data in range of 120 and validation data in range of 120 to 500



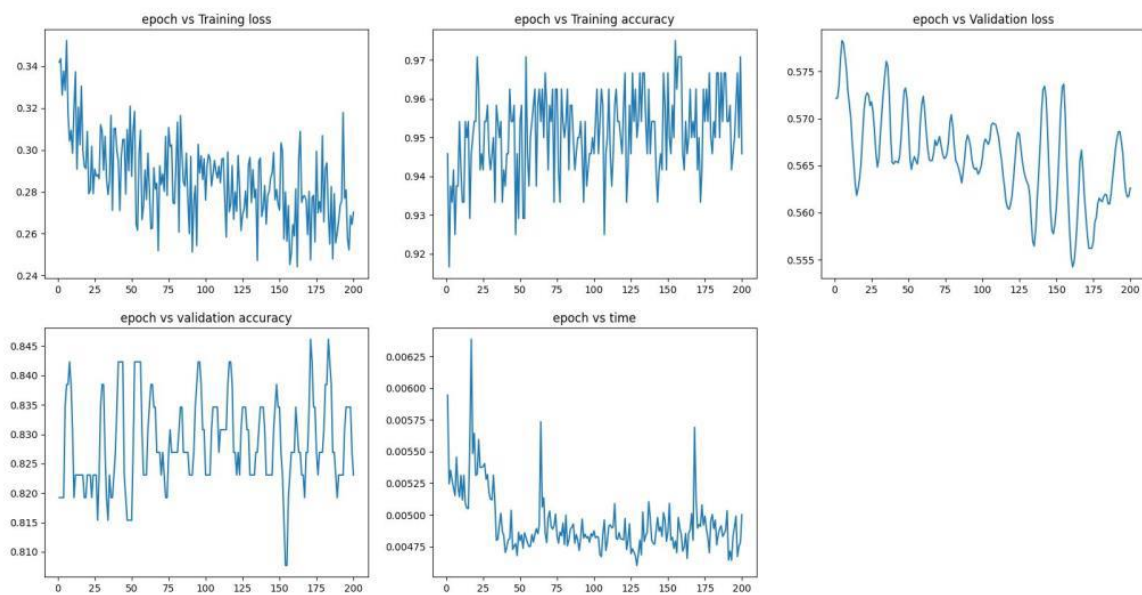
Labeled data of 180:

Results for training data in range of 180 and validation data in range of 180 to 500



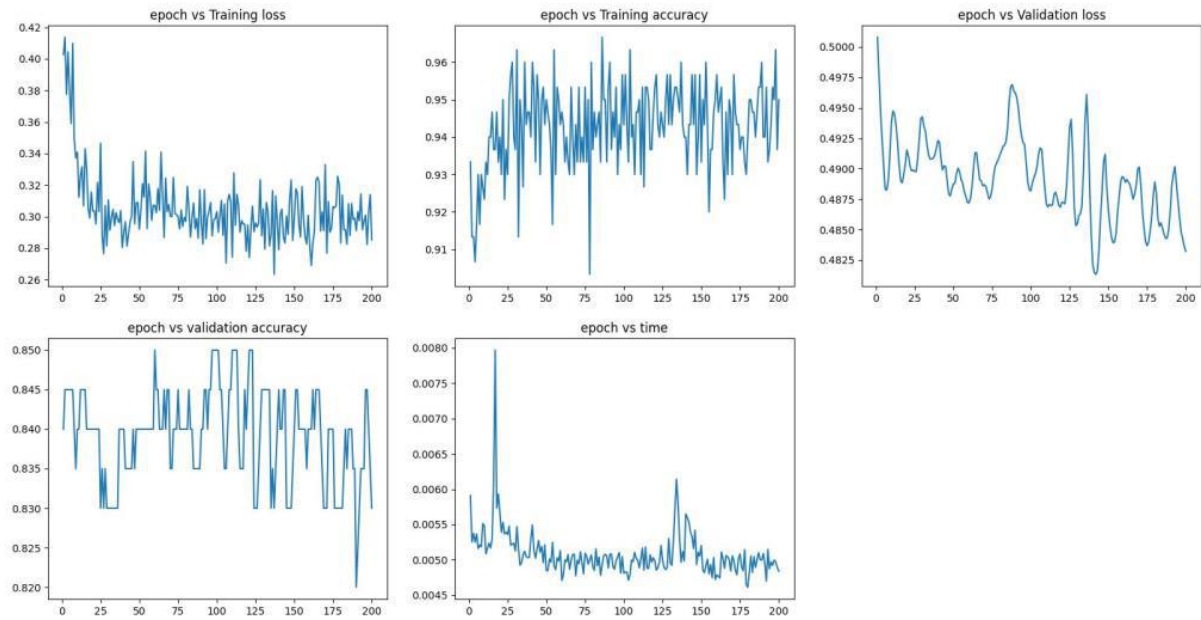
Labeled data of 240:

Results for training data in range of 240 and validation data in range of 240 to 500



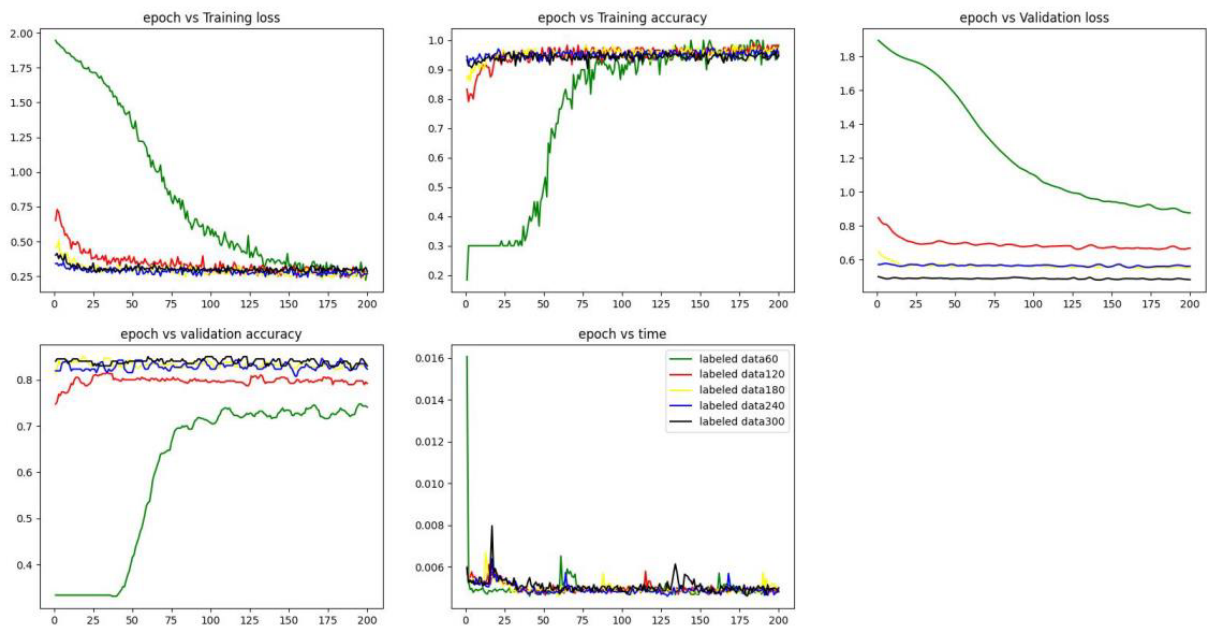
Labeled data of 300:

Results for training data in range of 300 and validation data in range of 300 to 500



Combined Results:

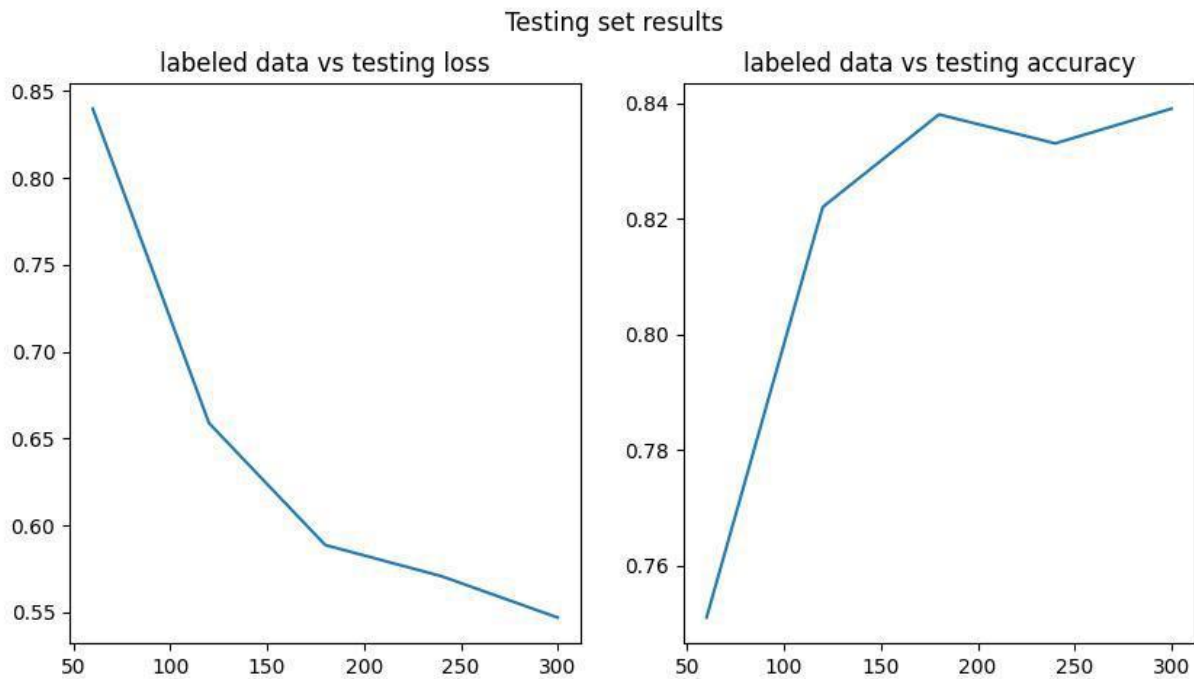
Training and validation set results



Conclusion:

The above results indicate a positive correlation between the validation accuracy and the quantity of labeled data. Following a certain number of iterations, all models have achieved a commendable level of training accuracy.

Testing set results:



The testing accuracy exhibits an upward trend with an increasing volume of labeled data, reaching approximately 83% as the labeled data expands.

The test outcomes for labeled data corresponding to the numbers [60, 120, 180, 240, 300] are presented below.

Loading cora dataset...

Test set results: loss= 0.8398 accuracy= 0.7510

Test set results: loss= 0.6588 accuracy= 0.8220

Test set results: loss= 0.5886 accuracy= 0.8380

Test set results: loss= 0.5707 accuracy= 0.8330

Test set results: loss= 0.5469 accuracy= 0.8390

