

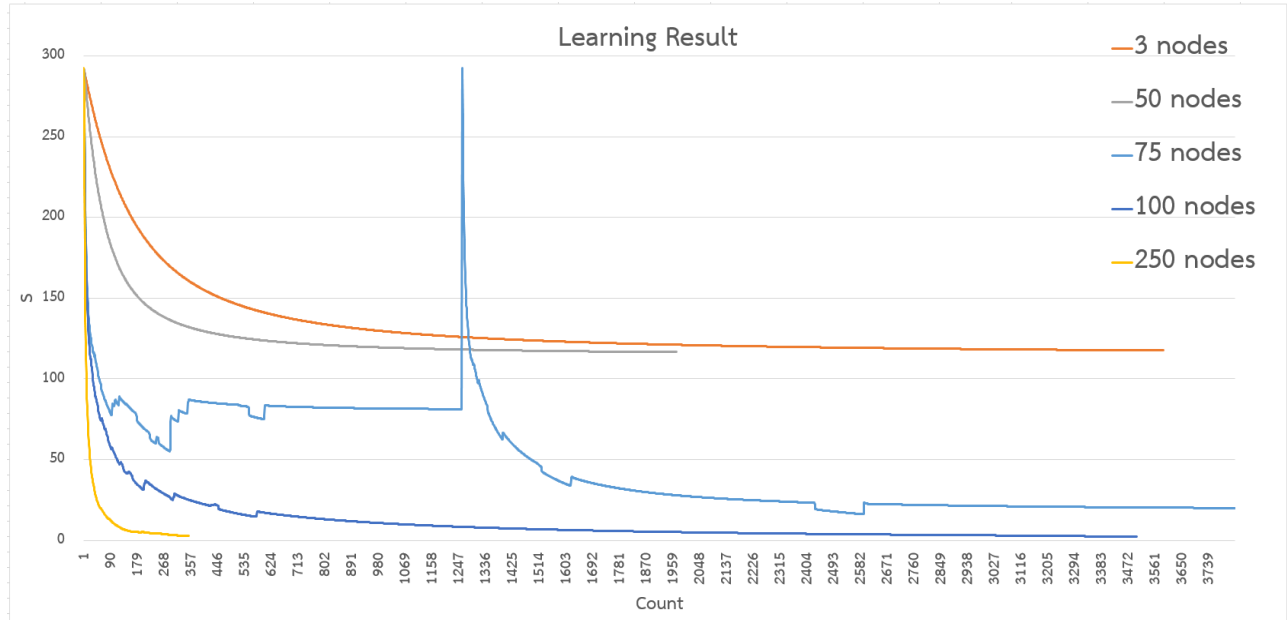
専攻研究中間報告書

3. Result

(1) Classification Problem

After we try 250, 100, 75, 50 and 3 middle nodes, 100 nodes for 4 characters is the most optimize.

The graph shown the error measure, that nearly 0 will get more perfect output.



We encode for getting smaller middle node and decode them, but it needs extremely fine learning and take a long time for processing.

(2) Identification Problem

For number of pattern and teacher signal we found the formula are

$$\begin{aligned} \text{pattern} &= 2^{(\text{teacher signal})} \\ \text{teacher signal} &= \log_2(\text{pattern}) \end{aligned}$$

So, 44 pattern have 6 teacher signal, represented by 0 0 0 0 0 0 (0) to 1 0 1 1 0 0 (10).

4. Conclusion

I have only C Programming Language skill. Another knowledge, such as Neural network, Sigmoid function, etc. All of them are my new things that interesting to learn.

I have success to do this project, such as

- (1) Understand the theory and formula

- (2) Understand the graduated senior program

- (3) Write 44 Thai characters in the array

- (4) Apply the program

- (5) Run the program for solving the problem

- (6) Get the result and optimize

5. Future work

We can get the middle node more complex and compress the data into each node.

We can use this model for Big data and Machine learning for industry.

6. Cultural Experience

It is my first class in the Japan that learns Japanese Language & Culture Class. I have gained a lot experience and learn a lot of Japanese character such as Hiragana, Katakana, some Kanji, Japanese traditional games with new Japanese friends. I have learned flower arrangement and Japanese tea ceremony too.

I have been around Tohoku Region such as Matsushima, Yamadera, Sendai City, Sakunami Onsen and Tohoku University. The place that I like the most is Sakunami Onsen. It is my first time in Onsen and get wonderful relax. I like Japanese food such as Otoro sushi, Gyu tongue and Sashimi. But not something like Natto.