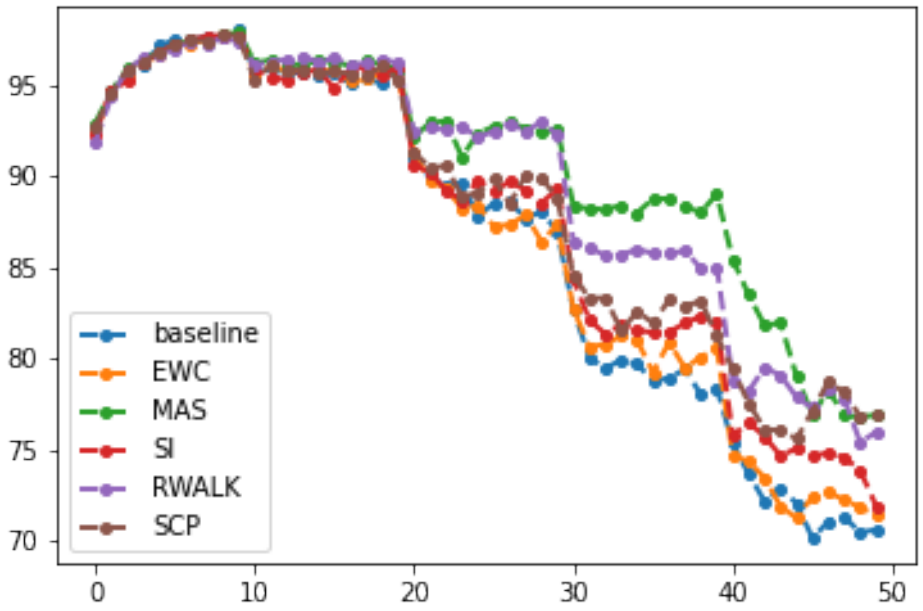
ML HW14 report R10945015 黃資芸

1. Plot the learning curve of the metric with every method.




2. Describe the metric.
   在測試 test accuracy 時用 append 也把之前的 dataset 考慮進來，並且取平均得到 train 在不同 dataset 上整體的 accuracy。
3. Paste the code that you implement Omega Matrix for MAS.

```
    for data in self.dataloader:
      self.model.zero_grad()
      output = self.model(data[0].to(self.device))
      ###############################################################
      #####  TODO: generate Omega(Ω) matrix for MAS.  #####
      ###############################################################

      loss=torch.sum(output**2,dim=1)
      loss=loss.mean()
      loss.backward()

      for n, p in self.model.named_parameters():
        # get the gradient of each parameter and square it, then average it in all validation set.
          precision_matrices[n].data += p.grad.abs() / num_data
      ###############################################################

  precision_matrices = {n: p for n, p in precision_matrices.items()}
  return precision_matrices
```