New study the effect of pH

Synthetic data has the same size as training data

```
===============Ace==========
task0:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           0.0
Name: 1, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.6
task_ind           0.0
Name: 7, dtype: float64


task1:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           1.0
Name: 25, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   1.0
Additive_label     0.0
pH                 3.7
task_ind           1.0
Name: 38, dtype: float64


task2:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           2.0
Name: 49, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 3.7
task_ind           2.0
Name: 50, dtype: float64


===============His==========
task0:
==Among training data==
Buffer_Type_label  1.0
Sugar_Salt_label   0.0
```

Synthetic data is twice of training data size

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===============Ace==========
task0:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           0.0
Name: 1, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 3.8
task_ind           0.0
Name: 4, dtype: float64


task1:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           1.0
Name: 25, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   1.0
Additive_label     0.0
pH                 3.7
task_ind           1.0
Name: 1, dtype: float64


task2:
==Among training data==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 4.5
task_ind           2.0
Name: 49, dtype: float64
==After simulation==
Buffer_Type_label  0.0
Sugar_Salt_label   0.0
Additive_label     1.0
pH                 3.7
task_ind           2.0
Name: 0, dtype: float64


===============His==========
task0:
==Among training data==
Buffer_Type_label  1.0
Sugar_Salt_label   0.0
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task_ind   2.0
Name: 50, dtype: float64

===============His==========
task0:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   0.0
Name: 8, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   5.9
task_ind   0.0
Name: 8, dtype: float64

task1:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.5
task_ind   1.0
Name: 35, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   5.7
task_ind   1.0
Name: 35, dtype: float64

task2:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   2.0
Name: 56, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   5.3
task_ind   2.0
Name: 66, dtype: float64

===============Cit==========
task0:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   0.0
Name: 14, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0

task_ind   2.0
Name: 0, dtype: float64

===============His==========
task0:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   0.0
Name: 8, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   5.1
task_ind   0.0
Name: 4, dtype: float64

task1:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.5
task_ind   1.0
Name: 35, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   5.0
task_ind   1.0
Name: 1, dtype: float64

task2:
==Among training data==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   2.0
Name: 56, dtype: float64
==After simulation==
Buffer_Type_label 1.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   5.1
task_ind   2.0
Name: 3, dtype: float64

===============Cit==========
task0:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
task_ind   0.0
Name: 14, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0

Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
Name: 14, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   5.0
task_ind   0.0
Name: 14, dtype: float64

task1:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   5.0
task_ind   1.0
Name: 36, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   3.9
task_ind   1.0
Name: 29, dtype: float64

task2:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   5.0
task_ind   2.0
Name: 60, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   4.4
task_ind   2.0
Name: 54, dtype: float64

==============Phos==========
task0:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   7.0
task_ind   0.0
Name: 23, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   8.2
task_ind   0.0
Name: 10, dtype: float64

task1:
==Among training data==
Buffer_Type_label 3.0

Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.0
Name: 14, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   5.6
task_ind   0.0
Name: 108, dtype: float64

task1:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   5.0
task_ind   1.0
Name: 36, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   3.7
task_ind   1.0
Name: 2, dtype: float64

task2:
==Among training data==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   5.0
task_ind   2.0
Name: 60, dtype: float64
==After simulation==
Buffer_Type_label 2.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   4.3
task_ind   2.0
Name: 33, dtype: float64

==============Phos==========
task0:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   7.0
task_ind   0.0
Name: 23, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   8.0
task_ind   0.0
Name: 101, dtype: float64

task1:
==Among training data==
Buffer_Type_label 3.0

Additive_label   0.0
pH   8.2
task_ind   0.0

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task1:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   7.0
task_ind   1.0
Name: 46, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   6.4
task_ind   1.0
Name: 29, dtype: float64

task2:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.5
task_ind   2.0
Name: 69, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.4
task_ind   2.0
Name: 66, dtype: float64

Additive_label   0.0
pH   8.0
task_ind   0.0

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task1:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   0.0
pH   7.0
task_ind   1.0
Name: 46, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   1.0
Additive_label   0.0
pH   6.2
task_ind   1.0
Name: 2, dtype: float64

task2:
==Among training data==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.5
task_ind   2.0
Name: 69, dtype: float64
==After simulation==
Buffer_Type_label 3.0
Sugar_Salt_label   0.0
Additive_label   1.0
pH   6.3
task_ind   2.0
Name: 6, dtype: float64