Dropout probability: 0.25 Epochs: 4 Learning rate: 0.002 Batch size: 8 model.safetensors: 100% 268M/268M [00:01<00:00, 264MB/s] 47/47 [00:06<00:00, 6.94it/s] Epoch 1 Macro-Averaged F1: 0.3665061728395062 100%| 47/47 [00:05<00:00, 8.33it/s] Epoch 2 Macro-Averaged F1: 0.4569479271028496 100%| 47/47 [00:05<00:00, 8.26it/s] Epoch 3 Macro-Averaged F1: 0.5165236750850443 | 47/47 [00:05<00:00, 8.26it/s] 100%| Epoch 4 Macro-Averaged F1: 0.6441888566240898 Validation Macro-Averaged F1: 0.7964098744301283 _____ Dropout probability: 0.25 Epochs: 4 Learning rate: 0.002 Batch size: 4 94/94 [00:06<00:00, 14.87it/s] Epoch 1 Macro-Averaged F1: 0.385327293720579 100%| 94/94 [00:06<00:00, 15.31it/s] Epoch 2 Macro-Averaged F1: 0.5515580554954608 100%| 94/94 [00:06<00:00, 15.26it/s] Epoch 3 Macro-Averaged F1: 0.6335531660692951 94/94 [00:06<00:00, 15.12it/s] 100%| Epoch 4 Macro-Averaged F1: 0.6410501689157013 Validation Macro-Averaged F1: 0.7911455076089222 _____ Dropout probability: 0.25 Epochs: 4 Learning rate: 0.002 Batch size: 16 100%| 24/24 [00:06<00:00, 3.93it/s] 100%| 24/24 [00:06<00:00, 3.88it/s] Epoch 2 Macro-Averaged F1: 0.44574276937344237 100%| 24/24 [00:06<00:00, 3.89it/s] Epoch 3 Macro-Averaged F1: 0.48677154114273974 | 24/24 [00:06<00:00, 3.81it/s] 100%| Epoch 4 Macro-Averaged F1: 0.5605278884659904 Validation Macro-Averaged F1: 0.7811675452542327 ______ Dropout probability: 0.25 Epochs: 4 Learning rate: 0.001 Batch size: 8 100%| 47/47 [00:06<00:00, 7.56it/s] Epoch 1 Macro-Averaged F1: 0.3899976886989874 100%| 47/47 [00:06<00:00, 7.46it/s] Epoch 2 Macro-Averaged F1: 0.42518328360970425 100%| 47/47 [00:06<00:00, 7.34it/s] Epoch 3 Macro-Averaged F1: 0.4872814409100485 47/47 [00:06<00:00, 7.20it/s] 100%| Epoch 4 Macro-Averaged F1: 0.5631120677189024

Validation Macro-Averaged F1: 0.7655562539283469

```
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:07<00:00, 13.33it/s]
Epoch 1 Macro-Averaged F1: 0.37456423346450646
100%| 94/94 [00:06<00:00, 13.50it/s]
Epoch 2 Macro-Averaged F1: 0.4684474142531609
100%|
       94/94 [00:06<00:00, 13.77it/s]
Epoch 3 Macro-Averaged F1: 0.561389632143401
100%| 94/94 [00:06<00:00, 13.93it/s]
Epoch 4 Macro-Averaged F1: 0.6157519422730885
Validation Macro-Averaged F1: 0.7905954735223029
_____
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.71it/s]
Epoch 1 Macro-Averaged F1: 0.3615950445218738
100%| 24/24 [00:06<00:00, 3.72it/s]
Epoch 2 Macro-Averaged F1: 0.4147038139971002 100%| 24/24 [00:06<00:00, 3.72it/s]
Epoch 3 Macro-Averaged F1: 0.4316854401335002
100%| 24/24 [00:06<00:00, 3.71it/s]
Epoch 4 Macro-Averaged F1: 0.4889553684932646
Validation Macro-Averaged F1: 0.7360210794199559
_____
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.47it/s]
Epoch 1 Macro-Averaged F1: 0.3833067517278044
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 2 Macro-Averaged F1: 0.46073542805100187
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 3 Macro-Averaged F1: 0.5405098316260449
100%| 47/47 [00:06<00:00, 7.37it/s]
Epoch 4 Macro-Averaged F1: 0.6317229517266283
Validation Macro-Averaged F1: 0.7382154882154882
-----
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 1 Macro-Averaged F1: 0.3734384700633025
       94/94 [00:06<00:00, 13.74it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.4843363343691282
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 3 Macro-Averaged F1: 0.6020527607170206
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 4 Macro-Averaged F1: 0.6157753702831423
Validation Macro-Averaged F1: 0.7526550941185087
_____
```

```
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 1 Macro-Averaged F1: 0.392673888244091
100%| 24/24 [00:06<00:00, 3.68it/s]
Epoch 2 Macro-Averaged F1: 0.519159981534227
100%|
        24/24 [00:06<00:00, 3.68it/s]
Epoch 3 Macro-Averaged F1: 0.6146190000435112
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 4 Macro-Averaged F1: 0.6761579539490543
Validation Macro-Averaged F1: 0.7585434173669467
_____
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 1 Macro-Averaged F1: 0.2231781834153652
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 2 Macro-Averaged F1: 0.2191653562768736
100%|
       | 47/47 [00:06<00:00, 7.45it/s]
Epoch 3 Macro-Averaged F1: 0.27708400552893325
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 4 Macro-Averaged F1: 0.33652034142556264
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.89it/s]
Epoch 1 Macro-Averaged F1: 0.24209737827715358
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 2 Macro-Averaged F1: 0.3027595702014307
       94/94 [00:06<00:00, 13.83it/s]
Epoch 3 Macro-Averaged F1: 0.38440450399850223
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 4 Macro-Averaged F1: 0.41418240850059035
Validation Macro-Averaged F1: 0.4014652014652014
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.0001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.21294615849969753
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.21294615849969753 100%| 24/24 [00:06<00:00, 3.63it/s
       24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.26734065478822355
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 4 Macro-Averaged F1: 0.31020811225091377
Validation Macro-Averaged F1: 0.31504231504231506
-----
```

```
Epochs: 4
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.3318486299603382
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.4117193933115521
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 3 Macro-Averaged F1: 0.44264811096494266
100%| 47/47 [00:06<00:00, 7.37it/s]
Epoch 4 Macro-Averaged F1: 0.45197212028895195
Validation Macro-Averaged F1: 0.4396047590239968
_____
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 1 Macro-Averaged F1: 0.3688932835274299
100%| 94/94 [00:06<00:00, 13.72it/s]
Epoch 2 Macro-Averaged F1: 0.44708029197080296
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 3 Macro-Averaged F1: 0.4550256405870967 100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 4 Macro-Averaged F1: 0.5073896863370547
Validation Macro-Averaged F1: 0.7522214070269829
-----
Dropout probability: 0.25
Epochs: 4
Learning rate: 0.0005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 1 Macro-Averaged F1: 0.32980004804917346
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.3882650196518809
       24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.4070670685388027
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.4270427986690531
Validation Macro-Averaged F1: 0.416666666666667
-----
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 1 Macro-Averaged F1: 0.3805807200929152
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.46971221915193223
100%|
         47/47 [00:06<00:00, 7.44it/s]
Epoch 3 Macro-Averaged F1: 0.5384777281678917
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 4 Macro-Averaged F1: 0.6119417896681209
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 5 Macro-Averaged F1: 0.6499303481800993
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 6 Macro-Averaged F1: 0.6669819202093284
```

```
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 7 Macro-Averaged F1: 0.7088088012616315
     47/47 [00:06<00:00, 7.42it/s]
Epoch 8 Macro-Averaged F1: 0.726306073082224
Validation Macro-Averaged F1: 0.8319415390622821
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 1 Macro-Averaged F1: 0.38025960995798586
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 2 Macro-Averaged F1: 0.4517899380378158
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 3 Macro-Averaged F1: 0.5403866866912423
     | 94/94 [00:06<00:00, 13.78it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6700861994730696
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 5 Macro-Averaged F1: 0.7059228137228545
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 6 Macro-Averaged F1: 0.6946560170420076
       94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7152633565580876
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 8 Macro-Averaged F1: 0.7113942733394106
Validation Macro-Averaged F1: 0.7532943469785575
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.002
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.3786609202055191
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.5014574898785424
100%|
       | 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.5639448245899857
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 4 Macro-Averaged F1: 0.6598149109578317
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 5 Macro-Averaged F1: 0.634883476164615
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.663593316907915
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 7 Macro-Averaged F1: 0.6652890960845159
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 8 Macro-Averaged F1: 0.7272666605999939
Validation Macro-Averaged F1: 0.7851817334575956
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.37158534706401253
     47/47 [00:06<00:00, 7.40it/s]
100%|
```

```
Epoch 2 Macro-Averaged F1: 0.4412238325281803
     | 47/47 [00:06<00:00, 7.36it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.48333021608748233
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.5533269905152555
100%| 47/47 [00:06<00:00, 7.36it/s]
Epoch 5 Macro-Averaged F1: 0.6025309154669619
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 6 Macro-Averaged F1: 0.6500418630466891
100%|
       47/47 [00:06<00:00, 7.39it/s]
Epoch 7 Macro-Averaged F1: 0.6688159588159589
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 8 Macro-Averaged F1: 0.6873689727463314
Validation Macro-Averaged F1: 0.7612528937606338
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 1 Macro-Averaged F1: 0.3811730647594025
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 2 Macro-Averaged F1: 0.45017913642285506
       94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.57558863191105
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 4 Macro-Averaged F1: 0.5781927624212916
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 5 Macro-Averaged F1: 0.6198168933863856
     94/94 [00:06<00:00, 13.83it/s]
Epoch 6 Macro-Averaged F1: 0.6777109881123212
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 7 Macro-Averaged F1: 0.7095478482263439
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 8 Macro-Averaged F1: 0.7145541138562646
Validation Macro-Averaged F1: 0.7574167574167575
-----
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.35789173909482325
     24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.4230461784418618
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.4384689257785704
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 4 Macro-Averaged F1: 0.4547767753874625
          24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.4675945576306357
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 6 Macro-Averaged F1: 0.5425965232606794
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 7 Macro-Averaged F1: 0.5804131386608921
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 8 Macro-Averaged F1: 0.6640704154002025
```

```
Validation Macro-Averaged F1: 0.7652589240824536
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 1 Macro-Averaged F1: 0.37198067632850246
       47/47 [00:06<00:00, 7.45it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.4822902677052556
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 3 Macro-Averaged F1: 0.6026517331850824
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 4 Macro-Averaged F1: 0.6703196900941181
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 5 Macro-Averaged F1: 0.6888170227030642
     47/47 [00:06<00:00, 7.43it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.6893462029151681
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 7 Macro-Averaged F1: 0.7569528171758969
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 8 Macro-Averaged F1: 0.7084204135110088
Validation Macro-Averaged F1: 0.7731942468784574
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 1 Macro-Averaged F1: 0.40045417856325377
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 2 Macro-Averaged F1: 0.5403428555597006
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 3 Macro-Averaged F1: 0.5957566219499651
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 4 Macro-Averaged F1: 0.6212875853163623
         94/94 [00:06<00:00, 13.83it/s]
Epoch 5 Macro-Averaged F1: 0.7042618807555288
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 6 Macro-Averaged F1: 0.6949387135802273
100%| 94/94 [00:06<00:00, 13.72it/s]
Epoch 7 Macro-Averaged F1: 0.7129427445984587
100%|
     94/94 [00:06<00:00, 13.74it/s]
Epoch 8 Macro-Averaged F1: 0.7370291604823405
Validation Macro-Averaged F1: 0.7564060463126051
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.64it/s]
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.4864368466287223
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.5768546515663144
100%|
     | 24/24 [00:06<00:00, 3.62it/s]
```

```
Epoch 4 Macro-Averaged F1: 0.6284934420299
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.6531321334870741
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 6 Macro-Averaged F1: 0.7091995308022939
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 7 Macro-Averaged F1: 0.7404805456361098
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 8 Macro-Averaged F1: 0.7002080686603279
Validation Macro-Averaged F1: 0.8091746202082283
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.3741954801488492
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.24716049382716052
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 3 Macro-Averaged F1: 0.35233237229245223
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 4 Macro-Averaged F1: 0.41254704506154 100%| 47/47 [00:06<00:00, 7.37i
       | 47/47 [00:06<00:00, 7.37it/s]
Epoch 5 Macro-Averaged F1: 0.4229431226584926
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 6 Macro-Averaged F1: 0.42071273023547
100%| 47/47 [00:06<00:00, 7.37it/s]
Epoch 7 Macro-Averaged F1: 0.4269112182781248
     47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.42080651128375884
Validation Macro-Averaged F1: 0.4034309375924283
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 1 Macro-Averaged F1: 0.3337759115660854
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 2 Macro-Averaged F1: 0.3407050216162288
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 3 Macro-Averaged F1: 0.3788674441337607
     94/94 [00:06<00:00, 13.73it/s]
Epoch 4 Macro-Averaged F1: 0.42182571215295334
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 5 Macro-Averaged F1: 0.41763343847257545
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 6 Macro-Averaged F1: 0.4367963479102293
         94/94 [00:06<00:00, 13.82it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.445940157865753
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 8 Macro-Averaged F1: 0.42560975609756097
Validation Macro-Averaged F1: 0.4428368794326241
_____
```

```
Learning rate: 0.0001
Batch size: 16
     | 24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.2571190165903174
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.22228504849045608
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.24764974482943866
         | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.3227655936799905
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.3364697513499531
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.3984332925336597
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.4179894670761086
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 8 Macro-Averaged F1: 0.4208247892458419
Validation Macro-Averaged F1: 0.41151515151515144
-----
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 1 Macro-Averaged F1: 0.36809101962827856
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 2 Macro-Averaged F1: 0.4392872385830133
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 3 Macro-Averaged F1: 0.4293935991016283
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 4 Macro-Averaged F1: 0.4925753105304227
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 5 Macro-Averaged F1: 0.553960366490584
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 6 Macro-Averaged F1: 0.5519182951589817
       47/47 [00:06<00:00, 7.45it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6275692549826538
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 8 Macro-Averaged F1: 0.6637999037999038
Validation Macro-Averaged F1: 0.7612528937606338
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.93it/s]
Epoch 1 Macro-Averaged F1: 0.3436666532641765
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 2 Macro-Averaged F1: 0.4354623939767426
        | 94/94 [00:06<00:00, 13.91it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.4449791132959449
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 4 Macro-Averaged F1: 0.4725516847362097
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 5 Macro-Averaged F1: 0.5412214331597942
100%|
     94/94 [00:06<00:00, 13.94it/s]
```

```
Epoch 6 Macro-Averaged F1: 0.6128664725844647
     | 94/94 [00:06<00:00, 13.91it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6363457924073233
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 8 Macro-Averaged F1: 0.6283827470733275
Validation Macro-Averaged F1: 0.7845528455284553
_____
Dropout probability: 0.25
Epochs: 8
Learning rate: 0.0005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.69it/s]
Epoch 1 Macro-Averaged F1: 0.35625960061443934
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 2 Macro-Averaged F1: 0.38044642778087673
     | 24/24 [00:06<00:00, 3.67it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.41771019677996435
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 4 Macro-Averaged F1: 0.42089823287001465
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.43846653671215075
100%|
       24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.4446912059960111
       24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.4694432746799662
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 8 Macro-Averaged F1: 0.5644728153202729
Validation Macro-Averaged F1: 0.7147832360056469
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.367118017018128
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 2 Macro-Averaged F1: 0.5051186683460521
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.5268084905549065
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 4 Macro-Averaged F1: 0.6086159070778724
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 5 Macro-Averaged F1: 0.6924944197393293
     47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.7059328784363017
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 7 Macro-Averaged F1: 0.6825093593034709
100%| 47/47 [00:06<00:00, 7.37it/s]
Epoch 8 Macro-Averaged F1: 0.7040895734444121
         | 47/47 [00:06<00:00, 7.42it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.721170868884415
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 10 Macro-Averaged F1: 0.7158501689379969
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 11 Macro-Averaged F1: 0.734302859766628
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 12 Macro-Averaged F1: 0.7250185388203967
```

```
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 13 Macro-Averaged F1: 0.7537673011357221
     47/47 [00:06<00:00, 7.43it/s]
100%|
Epoch 14 Macro-Averaged F1: 0.7093939024885317
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 15 Macro-Averaged F1: 0.723164039847865
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 16 Macro-Averaged F1: 0.7734958936164494
Validation Macro-Averaged F1: 0.8170961659333752
-----
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 1 Macro-Averaged F1: 0.36976133379011084
     94/94 [00:06<00:00, 13.88it/s]
Epoch 2 Macro-Averaged F1: 0.4246116426883275
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 3 Macro-Averaged F1: 0.518098390251241
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 4 Macro-Averaged F1: 0.6307460265835502
100%|
          | 94/94 [00:06<00:00, 13.91it/s]
Epoch 5 Macro-Averaged F1: 0.6495093197085817
100%| 94/94 [00:06<00:00, 13.94it/s]
Epoch 6 Macro-Averaged F1: 0.6891658518920876
100%| 94/94 [00:06<00:00, 13.96it/s]
Epoch 7 Macro-Averaged F1: 0.7275005775005775
100%| 94/94 [00:06<00:00, 13.92it/s]
Epoch 8 Macro-Averaged F1: 0.7625699913352758
100%| 94/94 [00:06<00:00, 13.88it/s]
Epoch 9 Macro-Averaged F1: 0.7315514637652153
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 10 Macro-Averaged F1: 0.7274479352775716
100%| 94/94 [00:06<00:00, 13.91it/s]
Epoch 11 Macro-Averaged F1: 0.7711943966745273
        | 94/94 [00:06<00:00, 13.91it/s]
100%|
Epoch 12 Macro-Averaged F1: 0.7744511042261194
100%| 94/94 [00:06<00:00, 13.89it/s]
Epoch 13 Macro-Averaged F1: 0.7678818486031882
100%| 94/94 [00:06<00:00, 13.94it/s]
Epoch 14 Macro-Averaged F1: 0.7443011250286351
     | 94/94 [00:06<00:00, 13.92it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7692554847394879
100%| 94/94 [00:06<00:00, 13.92it/s]
Epoch 16 Macro-Averaged F1: 0.7710217926093228
Validation Macro-Averaged F1: 0.7746411483253589
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.002
Batch size: 16
100%| 24/24 [00:06<00:00, 3.68it/s]
Epoch 1 Macro-Averaged F1: 0.37739413659814547
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 2 Macro-Averaged F1: 0.46060560231067144
100%|
      | 24/24 [00:06<00:00, 3.66it/s]
```

```
Epoch 3 Macro-Averaged F1: 0.5117309243923601
      24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.5811352045883025
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.6431829304985751
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 6 Macro-Averaged F1: 0.6579777990991711
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 7 Macro-Averaged F1: 0.6834725089221001
         | 24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.7116363720137304
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 9 Macro-Averaged F1: 0.7340044912841255
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 10 Macro-Averaged F1: 0.7467219325221731
     | 24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.6846673193796845
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 12 Macro-Averaged F1: 0.7553674269627043
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 13 Macro-Averaged F1: 0.76900063747379
100%|
        | 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.7454974759811105
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 15 Macro-Averaged F1: 0.7405355218424473
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 16 Macro-Averaged F1: 0.7649052873511076
Validation Macro-Averaged F1: 0.81216457960644
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.3502484864913708
       47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.44006492656335544
       | 47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.5562877610477799
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 4 Macro-Averaged F1: 0.6027911739839723
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 5 Macro-Averaged F1: 0.6355651783161077
     47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.687610355898275
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 7 Macro-Averaged F1: 0.6844505360519199
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 8 Macro-Averaged F1: 0.7067988593054557
          | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.7142729855198048
100%|
       | 47/47 [00:06<00:00, 7.39it/s]
Epoch 10 Macro-Averaged F1: 0.712243164946587
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 11 Macro-Averaged F1: 0.7485685094753448
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 12 Macro-Averaged F1: 0.7330909880697302
```

```
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 13 Macro-Averaged F1: 0.7631660318800751
     | 47/47 [00:06<00:00, 7.42it/s]
Epoch 14 Macro-Averaged F1: 0.7433587594926164
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 15 Macro-Averaged F1: 0.7592644525270815
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 16 Macro-Averaged F1: 0.7313782842509395
Validation Macro-Averaged F1: 0.7779765454184059
-----
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 1 Macro-Averaged F1: 0.37077798418094937
     94/94 [00:06<00:00, 13.79it/s]
Epoch 2 Macro-Averaged F1: 0.46311186022448
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 3 Macro-Averaged F1: 0.5219253572002024
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 4 Macro-Averaged F1: 0.582087377458813
100%|
          | 94/94 [00:06<00:00, 13.84it/s]
Epoch 5 Macro-Averaged F1: 0.6448045211247416
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 6 Macro-Averaged F1: 0.7017712476203042
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 7 Macro-Averaged F1: 0.6639987244500749
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 8 Macro-Averaged F1: 0.6911273281242322
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 9 Macro-Averaged F1: 0.6889972679446363
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 10 Macro-Averaged F1: 0.7185086649071559
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 11 Macro-Averaged F1: 0.7308141245551983
        | 94/94 [00:06<00:00, 13.83it/s]
100%|
Epoch 12 Macro-Averaged F1: 0.7047386583276657
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 13 Macro-Averaged F1: 0.7413250050098062
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 14 Macro-Averaged F1: 0.7339470471049419
     | 94/94 [00:06<00:00, 13.83it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7352350999487585
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 16 Macro-Averaged F1: 0.7502863268740162
Validation Macro-Averaged F1: 0.7778300039169604
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.68it/s]
Epoch 1 Macro-Averaged F1: 0.3766081871345029
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.4005790579842852
100%|
      24/24 [00:06<00:00, 3.66it/s]
```

```
Epoch 3 Macro-Averaged F1: 0.41665129434913606
     24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.4412642736484638
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.4985720000571486
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 6 Macro-Averaged F1: 0.541653095864149
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 7 Macro-Averaged F1: 0.5640799853237938
         24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.6723589643931898
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 9 Macro-Averaged F1: 0.6598011118941352
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 10 Macro-Averaged F1: 0.7056177410812241
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.7078467557835073
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 12 Macro-Averaged F1: 0.7002290389840148
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.6968096874424424
100%|
        | 24/24 [00:06<00:00, 3.64it/s]
Epoch 14 Macro-Averaged F1: 0.7494616299975071
        | 24/24 [00:06<00:00, 3.63it/s]
100%
Epoch 15 Macro-Averaged F1: 0.756128313923746
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 16 Macro-Averaged F1: 0.7339829981339415
Validation Macro-Averaged F1: 0.7646589736373018
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 1 Macro-Averaged F1: 0.3826371826371826
       | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.5131825532780034
       | 47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.6453368882064224
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 4 Macro-Averaged F1: 0.6767863232872441
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 5 Macro-Averaged F1: 0.6730865849126718
     47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.6864566584411053
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 7 Macro-Averaged F1: 0.7462547976341307
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 8 Macro-Averaged F1: 0.7086280183643267
          | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.6956178517407738
100%|
       | 47/47 [00:06<00:00, 7.39it/s]
Epoch 10 Macro-Averaged F1: 0.7299862333443103
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 11 Macro-Averaged F1: 0.7430312436829102
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 12 Macro-Averaged F1: 0.7477971933840557
```

```
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 13 Macro-Averaged F1: 0.7305464709993013
     47/47 [00:06<00:00, 7.41it/s]
Epoch 14 Macro-Averaged F1: 0.7409135319980459
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 15 Macro-Averaged F1: 0.7531276628610465
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 16 Macro-Averaged F1: 0.7644159533863556
Validation Macro-Averaged F1: 0.7655562539283469
-----
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 1 Macro-Averaged F1: 0.38096574957888824
     94/94 [00:06<00:00, 13.85it/s]
Epoch 2 Macro-Averaged F1: 0.4535851547947467
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 3 Macro-Averaged F1: 0.5047478058580946
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 4 Macro-Averaged F1: 0.6056401238930934
100%|
          | 94/94 [00:06<00:00, 13.87it/s]
Epoch 5 Macro-Averaged F1: 0.6856054470228526
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 6 Macro-Averaged F1: 0.6822484017530458
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 7 Macro-Averaged F1: 0.6781474025074831
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 8 Macro-Averaged F1: 0.702573270909434
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 9 Macro-Averaged F1: 0.729926075240809
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 10 Macro-Averaged F1: 0.7283674510089604
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 11 Macro-Averaged F1: 0.7253115589110374
        | 94/94 [00:06<00:00, 13.83it/s]
100%|
Epoch 12 Macro-Averaged F1: 0.7276314118680826
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 13 Macro-Averaged F1: 0.7277200656096227
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 14 Macro-Averaged F1: 0.7424096188318275
     | 94/94 [00:06<00:00, 13.87it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7534404740885705
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 16 Macro-Averaged F1: 0.7685742310254456
Validation Macro-Averaged F1: 0.7778300039169604
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 1 Macro-Averaged F1: 0.3876156816351573
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.5092525369859476
100%|
      24/24 [00:06<00:00, 3.65it/s]
```

```
Epoch 3 Macro-Averaged F1: 0.5557919621749409
      24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6342632061493272
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 5 Macro-Averaged F1: 0.6733344545718128
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 6 Macro-Averaged F1: 0.6967116263777325
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 7 Macro-Averaged F1: 0.7246317161427518
         | 24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.715685075974228
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 9 Macro-Averaged F1: 0.711605427568848
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 10 Macro-Averaged F1: 0.7554685892851895
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.7481238613841089
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 12 Macro-Averaged F1: 0.7021820401048617
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.7538241693402662
100%|
        | 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.7797250159828573 100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 15 Macro-Averaged F1: 0.6976151027556264
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 16 Macro-Averaged F1: 0.7733824539635226
Validation Macro-Averaged F1: 0.7859668741324937
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.2699862840707911
       | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.23705578403458824
       | 47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.2870995670995671
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.370225013082156
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 5 Macro-Averaged F1: 0.3965591397849462
     47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.4300816870185635
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 7 Macro-Averaged F1: 0.4237178073464187
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 8 Macro-Averaged F1: 0.4182752664361536
          | 47/47 [00:06<00:00, 7.43it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.42919178517258677
100%|
       | 47/47 [00:06<00:00, 7.44it/s]
Epoch 10 Macro-Averaged F1: 0.4484276898070001
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 11 Macro-Averaged F1: 0.44260540771919815
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 12 Macro-Averaged F1: 0.4441952393987291
```

```
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 13 Macro-Averaged F1: 0.44964467986050716
     47/47 [00:06<00:00, 7.45it/s]
Epoch 14 Macro-Averaged F1: 0.456577666527604
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 15 Macro-Averaged F1: 0.46610599659134794
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 16 Macro-Averaged F1: 0.46029889538661467
Validation Macro-Averaged F1: 0.42716049382716054
-----
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 1 Macro-Averaged F1: 0.32925649530127143
     | 94/94 [00:06<00:00, 13.88it/s]
Epoch 2 Macro-Averaged F1: 0.34707482993197275
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 3 Macro-Averaged F1: 0.3946608946608947
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 4 Macro-Averaged F1: 0.4179960302874366
100%|
          | 94/94 [00:06<00:00, 13.76it/s]
Epoch 5 Macro-Averaged F1: 0.4277619968115389
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 6 Macro-Averaged F1: 0.43276359600443953
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 7 Macro-Averaged F1: 0.4453475708555794
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 8 Macro-Averaged F1: 0.4344010843975173
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 9 Macro-Averaged F1: 0.4399802983394315
100%| 94/94 [00:06<00:00, 13.74it/s]
Epoch 10 Macro-Averaged F1: 0.4559699602163088
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 11 Macro-Averaged F1: 0.46448620181918043
        | 94/94 [00:06<00:00, 13.76it/s]
Epoch 12 Macro-Averaged F1: 0.4653043442121359
100%| 94/94 [00:06<00:00, 13.70it/s]
Epoch 13 Macro-Averaged F1: 0.4928774928774929
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 14 Macro-Averaged F1: 0.5339833152465957
     | 94/94 [00:06<00:00, 13.75it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.5167528048972984
100%| 94/94 [00:06<00:00, 13.74it/s]
Epoch 16 Macro-Averaged F1: 0.6286614865387667
Validation Macro-Averaged F1: 0.7268939393939394
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.24037527195177535
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.2231781834153652
100%|
      24/24 [00:06<00:00, 3.63it/s]
```

```
Epoch 3 Macro-Averaged F1: 0.29373348389425036
     24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.34540877282812765
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 5 Macro-Averaged F1: 0.37953609250446063
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 6 Macro-Averaged F1: 0.4112783751493429
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.40971490237414043
         | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.4326419384833504
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 9 Macro-Averaged F1: 0.42030303030303034
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 10 Macro-Averaged F1: 0.4352798579109063
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.4354293441514536
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 12 Macro-Averaged F1: 0.4441498176997017
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 13 Macro-Averaged F1: 0.45564397288535224
100%|
        | 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.45492914574049187
        | 24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.4449676896109673
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 16 Macro-Averaged F1: 0.43865978166041836
Validation Macro-Averaged F1: 0.43456790123456795
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.3246097582731246
       | 47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.4253579449747333
       | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.4343786295005807
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.46739404786489525
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 5 Macro-Averaged F1: 0.4944575246082783
     47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.5417102095778807
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 7 Macro-Averaged F1: 0.6242453470510484
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 8 Macro-Averaged F1: 0.6313526914049107
          47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.6762815042384934
100%|
       | 47/47 [00:06<00:00, 7.36it/s]
Epoch 10 Macro-Averaged F1: 0.6814516129032256
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 11 Macro-Averaged F1: 0.7057705899353036
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 12 Macro-Averaged F1: 0.6916964140627866
```

```
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 13 Macro-Averaged F1: 0.7004751113138816
     47/47 [00:06<00:00, 7.43it/s]
Epoch 14 Macro-Averaged F1: 0.7081431703179213
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 15 Macro-Averaged F1: 0.7132724932724933
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 16 Macro-Averaged F1: 0.7560697560697561
Validation Macro-Averaged F1: 0.7612528937606338
-----
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 1 Macro-Averaged F1: 0.36755308183879615
     94/94 [00:06<00:00, 13.73it/s]
Epoch 2 Macro-Averaged F1: 0.44410692909246174
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 3 Macro-Averaged F1: 0.4965705649848872
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 4 Macro-Averaged F1: 0.5499477596945951
100%|
          | 94/94 [00:06<00:00, 13.81it/s]
Epoch 5 Macro-Averaged F1: 0.6085484956900089
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 6 Macro-Averaged F1: 0.6559175390031156
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 7 Macro-Averaged F1: 0.645830943847073
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 8 Macro-Averaged F1: 0.6891384432560903
100%| 94/94 [00:06<00:00, 13.69it/s]
Epoch 9 Macro-Averaged F1: 0.7108102209819268
100%| 94/94 [00:06<00:00, 13.72it/s]
Epoch 10 Macro-Averaged F1: 0.6900915390079477
100%| 94/94 [00:06<00:00, 13.68it/s]
Epoch 11 Macro-Averaged F1: 0.6912525509290752
        | 94/94 [00:06<00:00, 13.78it/s]
Epoch 12 Macro-Averaged F1: 0.7139870961077158
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 13 Macro-Averaged F1: 0.7341566987584688
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 14 Macro-Averaged F1: 0.7317537556185066
     | 94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7492644159310825
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 16 Macro-Averaged F1: 0.757229548968206
Validation Macro-Averaged F1: 0.8172067487222846
_____
Dropout probability: 0.25
Epochs: 16
Learning rate: 0.0005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.339838569534001
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.3849060412047384
100%|
      24/24 [00:06<00:00, 3.65it/s]
```

```
Epoch 3 Macro-Averaged F1: 0.40568690348897074
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.4207053049050777
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.4219001610305959
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 6 Macro-Averaged F1: 0.45829520897215964
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.5000725844444688
100%|
        24/24 [00:06<00:00, 3.66it/s]
Epoch 8 Macro-Averaged F1: 0.57176767676768
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 9 Macro-Averaged F1: 0.5838568791653832
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 10 Macro-Averaged F1: 0.5661272043156987
     | 24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.6028460298457421
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 12 Macro-Averaged F1: 0.6512729201099768
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 13 Macro-Averaged F1: 0.6706607464231862
100%|
        24/24 [00:06<00:00, 3.65it/s]
Epoch 14 Macro-Averaged F1: 0.6463633678902642 100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 15 Macro-Averaged F1: 0.7036396308094423
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 16 Macro-Averaged F1: 0.6814940468483632
Validation Macro-Averaged F1: 0.781413303373376
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 1 Macro-Averaged F1: 0.36905875860745213
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 2 Macro-Averaged F1: 0.5008796556241811
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 3 Macro-Averaged F1: 0.5657783046166249
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 4 Macro-Averaged F1: 0.6626697119654866
Validation Macro-Averaged F1: 0.7561258737729326
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 1 Macro-Averaged F1: 0.3695652173913044
       94/94 [00:06<00:00, 13.90it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.492713817801689
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 3 Macro-Averaged F1: 0.5858447338239249
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 4 Macro-Averaged F1: 0.6776328416873797
Validation Macro-Averaged F1: 0.762990884454299
_____
```

```
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.002
Batch size: 16
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 1 Macro-Averaged F1: 0.37972942575275553
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.4443578081004982
100%|
       24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.5177500553486
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.559103606224025
Validation Macro-Averaged F1: 0.784733893557423
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 1 Macro-Averaged F1: 0.36443757057985965
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 2 Macro-Averaged F1: 0.4248954210081001
100%|
       | 47/47 [00:06<00:00, 7.39it/s]
Epoch 3 Macro-Averaged F1: 0.4721695871867974
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 4 Macro-Averaged F1: 0.5528250403307118
Validation Macro-Averaged F1: 0.7535795713634291
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 1 Macro-Averaged F1: 0.371680188613827
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 2 Macro-Averaged F1: 0.4423596205774423
       94/94 [00:06<00:00, 13.79it/s]
Epoch 3 Macro-Averaged F1: 0.5279105804872465
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 4 Macro-Averaged F1: 0.6132619774555671
Validation Macro-Averaged F1: 0.8137242874084979
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.34785502539829194
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.3804803115147943 100%| 24/24 [00:06<00:00, 3.64it/s
       24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.41644752569925886
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 4 Macro-Averaged F1: 0.4209625569509008
Validation Macro-Averaged F1: 0.44835164835164837
_____
```

```
Epochs: 4
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 1 Macro-Averaged F1: 0.4050710878496923
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.5774991260596388
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.6375046845343876
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 4 Macro-Averaged F1: 0.6850703300965081
Validation Macro-Averaged F1: 0.7799802536644642
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 1 Macro-Averaged F1: 0.3862778519985873
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 2 Macro-Averaged F1: 0.4459109730848862
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 3 Macro-Averaged F1: 0.5500724350288088 100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 4 Macro-Averaged F1: 0.6312808123511234
-----
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.39277663934426227
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.5179606900430699
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 3 Macro-Averaged F1: 0.6196917711947033
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.6728698438594872
Validation Macro-Averaged F1: 0.7903459014570126
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.26147077309868005
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 2 Macro-Averaged F1: 0.292468461756363
       | 47/47 [00:06<00:00, 7.38it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.35890225260304004
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.3899810104576212
Validation Macro-Averaged F1: 0.35912075363973733
_____
Dropout probability: 0.2
Epochs: 4
```

```
Learning rate: 0.0001
Batch size: 4
     94/94 [00:06<00:00, 13.77it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3373063799540154
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 2 Macro-Averaged F1: 0.3199351425157877
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 3 Macro-Averaged F1: 0.38213110807991657
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 4 Macro-Averaged F1: 0.40702072074621093
Validation Macro-Averaged F1: 0.4031777557100298
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.0001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.27458590936675015
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.338373406042579
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.2847108191935778
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.39154232783347803
Validation Macro-Averaged F1: 0.39532163742690063
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 1 Macro-Averaged F1: 0.3554758584047287
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.4076000277373275
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 3 Macro-Averaged F1: 0.45088566827697263
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 4 Macro-Averaged F1: 0.4531094613658966
Validation Macro-Averaged F1: 0.46951871657754013
_____
Dropout probability: 0.2
Epochs: 4
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 1 Macro-Averaged F1: 0.36383146955834184
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 2 Macro-Averaged F1: 0.43719806763285024
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 3 Macro-Averaged F1: 0.47939536160016916
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 4 Macro-Averaged F1: 0.515686864913965
Validation Macro-Averaged F1: 0.6405870552212015
_____
Dropout probability: 0.2
Epochs: 4
```

Learning rate: 0.0005

```
Batch size: 16
     24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.29576860549132944
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.40298784815833644
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 3 Macro-Averaged F1: 0.4340053039467604
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 4 Macro-Averaged F1: 0.43361326949742307
Validation Macro-Averaged F1: 0.42950513538748836
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.3961055874401602
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 2 Macro-Averaged F1: 0.5283222348596738
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 3 Macro-Averaged F1: 0.6377192619274349
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 4 Macro-Averaged F1: 0.6486369067014229
      47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.6728707363489971
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 6 Macro-Averaged F1: 0.7051607902516404
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 7 Macro-Averaged F1: 0.7260569561056901
     47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.7027396799784859
Validation Macro-Averaged F1: 0.8354770433083686
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.74it/s]
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 2 Macro-Averaged F1: 0.5042531745153717
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 3 Macro-Averaged F1: 0.5916965915494792
     94/94 [00:06<00:00, 13.81it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6700032717115919
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 5 Macro-Averaged F1: 0.7033566360012896
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 6 Macro-Averaged F1: 0.7330923866628237
       94/94 [00:06<00:00, 13.84it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7099967394771282
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.7440396107249768
Validation Macro-Averaged F1: 0.7605666783748974
_____
Dropout probability: 0.2
```

```
Learning rate: 0.002
Batch size: 16
     24/24 [00:06<00:00, 3.67it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3775476110925493
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.4634778434066528
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.5034886944434683
         | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.5856644153299895
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.6548283615085748
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.7033302209772797
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 7 Macro-Averaged F1: 0.700336235711001
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 8 Macro-Averaged F1: 0.7252302106485864
Validation Macro-Averaged F1: 0.7620509607351713
-----
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.3816146189027545
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 2 Macro-Averaged F1: 0.4321420836040719
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 3 Macro-Averaged F1: 0.5122290914063757
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 4 Macro-Averaged F1: 0.5993559756783938
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 5 Macro-Averaged F1: 0.6382439459589295
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 6 Macro-Averaged F1: 0.668260110213069
       47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6557045701466002
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 8 Macro-Averaged F1: 0.6946783178126462
Validation Macro-Averaged F1: 0.7514619883040936
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 1 Macro-Averaged F1: 0.38414019715224534
100%| 94/94 [00:06<00:00, 13.74it/s]
Epoch 2 Macro-Averaged F1: 0.5037214885954382
        94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.6072765058529087
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 4 Macro-Averaged F1: 0.6885240173387549
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 5 Macro-Averaged F1: 0.6876259815799823
100%|
     94/94 [00:06<00:00, 13.79it/s]
```

```
Epoch 6 Macro-Averaged F1: 0.7313705568365746
     | 94/94 [00:06<00:00, 13.78it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6826748285452463
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 8 Macro-Averaged F1: 0.7460610068975089
Validation Macro-Averaged F1: 0.7733153090295947
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 1 Macro-Averaged F1: 0.38240975152367557
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.4260021404519312
     | 24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.45622560059365985
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.5390875844542242
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 5 Macro-Averaged F1: 0.6245544915836482
100%|
       24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.6438224420463629
100%| 24/24 [00:06<00:00, 3.63it/s
       24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.6873246220296556
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 8 Macro-Averaged F1: 0.6725057403546337
Validation Macro-Averaged F1: 0.7646589736373018
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 1 Macro-Averaged F1: 0.39987008637137866
       47/47 [00:06<00:00, 7.41it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.5450924608819346
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 3 Macro-Averaged F1: 0.618032828043543
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.6791327053308898
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 5 Macro-Averaged F1: 0.7264322369965734
     47/47 [00:06<00:00, 7.38it/s]
Epoch 6 Macro-Averaged F1: 0.6781073898367422
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 7 Macro-Averaged F1: 0.7384127664232252
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 8 Macro-Averaged F1: 0.7301096851339666
Validation Macro-Averaged F1: 0.7271255060728744
______
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 1 Macro-Averaged F1: 0.4789416211649546
```

```
| 94/94 [00:06<00:00, 13.79it/s]
Epoch 2 Macro-Averaged F1: 0.5385620915032681
      | 94/94 [00:06<00:00, 13.75it/s]
Epoch 3 Macro-Averaged F1: 0.651271244771536
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 4 Macro-Averaged F1: 0.6930794238423442
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 5 Macro-Averaged F1: 0.6938252738252738
         | 94/94 [00:06<00:00, 13.73it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.6964039393292848
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 7 Macro-Averaged F1: 0.6994966563232868
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.7469677248019432
Validation Macro-Averaged F1: 0.8086898267776821
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 1 Macro-Averaged F1: 0.4347010753179709
100%|
         24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.5350986260043739
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.6018293919856895
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.6754581776308187
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.7075679946376433
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.6895298122001119
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.7106448878803269
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 8 Macro-Averaged F1: 0.7654050589414281
Validation Macro-Averaged F1: 0.7999549549549548
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0001
Batch size: 8
        47/47 [00:06<00:00, 7.41it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.2980788079424807
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 2 Macro-Averaged F1: 0.3636175008724028
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.34901542341643227
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 4 Macro-Averaged F1: 0.3852344584051901
100%|
        | 47/47 [00:06<00:00, 7.41it/s]
Epoch 5 Macro-Averaged F1: 0.4209577295479945
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 6 Macro-Averaged F1: 0.4262433939261934
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 7 Macro-Averaged F1: 0.4313360579963996
100%|
     47/47 [00:06<00:00, 7.42it/s]
```

```
Epoch 8 Macro-Averaged F1: 0.4321407274895647
Validation Macro-Averaged F1: 0.4166666666666667
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 1 Macro-Averaged F1: 0.34165553001598054
       94/94 [00:06<00:00, 13.78it/s]
Epoch 2 Macro-Averaged F1: 0.3309412686093776
100%| 94/94 [00:06<00:00, 13.71it/s]
Epoch 3 Macro-Averaged F1: 0.415232332074227
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 4 Macro-Averaged F1: 0.4211596142881932
     94/94 [00:06<00:00, 13.75it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.4286938579281967
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 6 Macro-Averaged F1: 0.43352539479300045
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 7 Macro-Averaged F1: 0.4470483005366726
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.45028542017593104
Validation Macro-Averaged F1: 0.4428368794326241
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0001
Batch size: 16
      24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.2398553235899826
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.23705578403458824
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.2525182008576842
       24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.34445180127864194
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.37513344830417994
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.40463484292125657
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.4159420289855073
     24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.42522140100111755
Validation Macro-Averaged F1: 0.41502881048227963
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 1 Macro-Averaged F1: 0.35398460069381493
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.4028897849462367
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 3 Macro-Averaged F1: 0.4423596205774423
```

```
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 4 Macro-Averaged F1: 0.4828964461238299
     47/47 [00:06<00:00, 7.39it/s]
Epoch 5 Macro-Averaged F1: 0.5594897643049498
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 6 Macro-Averaged F1: 0.6174376852646248
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 7 Macro-Averaged F1: 0.654382304738013
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 8 Macro-Averaged F1: 0.6840052152586065
Validation Macro-Averaged F1: 0.7449567070130105
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.90it/s]
Epoch 1 Macro-Averaged F1: 0.3457653457653458
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 2 Macro-Averaged F1: 0.4243846919903258
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 3 Macro-Averaged F1: 0.4843543018795787
100%|
         | 94/94 [00:06<00:00, 13.78it/s]
Epoch 4 Macro-Averaged F1: 0.5424932210646497
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 5 Macro-Averaged F1: 0.6403055211237815
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 6 Macro-Averaged F1: 0.6581276489653453
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 7 Macro-Averaged F1: 0.681992217691426
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 8 Macro-Averaged F1: 0.6945571479750218
Validation Macro-Averaged F1: 0.7762370306100842
_____
Dropout probability: 0.2
Epochs: 8
Learning rate: 0.0005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 1 Macro-Averaged F1: 0.35244050266418997
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.3940718841921859
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.43202769782672173
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.4336007130124777
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 5 Macro-Averaged F1: 0.4795051230553565
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.5287470757861723
       24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.590290800337587
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.6227855728505457
Validation Macro-Averaged F1: 0.7498615601722013
_____
```

Epochs: 16 Learning rate: 0.002 Batch size: 8 100%| 47/47 [00:06<00:00, 7.46it/s] Epoch 1 Macro-Averaged F1: 0.37905985890898936 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 2 Macro-Averaged F1: 0.46181830841267907 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 3 Macro-Averaged F1: 0.5729645101480391 47/47 [00:06<00:00, 7.42it/s] 100%| Epoch 4 Macro-Averaged F1: 0.6617681753274973 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 5 Macro-Averaged F1: 0.6876762746488411 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 6 Macro-Averaged F1: 0.7232635219201846 | 47/47 [00:06<00:00, 7.41it/s] 100%| Epoch 7 Macro-Averaged F1: 0.7412435933583819 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 8 Macro-Averaged F1: 0.72124822814478 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 9 Macro-Averaged F1: 0.7209550741149254 100%| | 47/47 [00:06<00:00, 7.42it/s] Epoch 10 Macro-Averaged F1: 0.7446996572471858 | 47/47 [00:06<00:00, 7.42it/s] 100%| Epoch 11 Macro-Averaged F1: 0.7342578083315079 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 12 Macro-Averaged F1: 0.7747281678966541 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 13 Macro-Averaged F1: 0.7917505442288336 47/47 [00:06<00:00, 7.42it/s] Epoch 14 Macro-Averaged F1: 0.8045149922133294 100%| 47/47 [00:06<00:00, 7.39it/s] Epoch 15 Macro-Averaged F1: 0.8018371731281498 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 16 Macro-Averaged F1: 0.7750695520575629 Validation Macro-Averaged F1: 0.7712271635160253 -----Dropout probability: 0.2 Epochs: 16 Learning rate: 0.002 Batch size: 4 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 1 Macro-Averaged F1: 0.3694407902328694 94/94 [00:06<00:00, 13.80it/s] Epoch 2 Macro-Averaged F1: 0.4714242233864327 100%| 94/94 [00:06<00:00, 13.78it/s] Epoch 3 Macro-Averaged F1: 0.6142591403984214 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 4 Macro-Averaged F1: 0.6651636739384545 94/94 [00:06<00:00, 13.80it/s] 100%| Epoch 5 Macro-Averaged F1: 0.7131646131646132 100%| | 94/94 [00:06<00:00, 13.77it/s] Epoch 6 Macro-Averaged F1: 0.7181648756406398 100%| 94/94 [00:06<00:00, 13.74it/s] Epoch 7 Macro-Averaged F1: 0.7502444268316908 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 8 Macro-Averaged F1: 0.7394096546597521

```
| 94/94 [00:06<00:00, 13.75it/s]
Epoch 9 Macro-Averaged F1: 0.7265446838617571
       | 94/94 [00:06<00:00, 13.82it/s]
Epoch 10 Macro-Averaged F1: 0.7562730355300014
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 11 Macro-Averaged F1: 0.7332015937279096
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 12 Macro-Averaged F1: 0.7592914034215698
          94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.764999320605826
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 14 Macro-Averaged F1: 0.7725926439966774
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 15 Macro-Averaged F1: 0.7475748194014447
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 16 Macro-Averaged F1: 0.8028730462148488
Validation Macro-Averaged F1: 0.7556314747544638
_____
Dropout probability: 0.2
Epochs: 16
Learning rate: 0.002
Batch size: 16
           24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3850947070277925
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.45700526598871755
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.5312486516359166
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.6276103034217779
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.6787075581594545
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.6630802565027957
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 7 Macro-Averaged F1: 0.6827743138645274
100%|
         24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.7416316003933692
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 9 Macro-Averaged F1: 0.7207385820488933
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 10 Macro-Averaged F1: 0.7508128118461291
     | 24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.731813419663887
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 12 Macro-Averaged F1: 0.7684921526162402
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.7574769433465086
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.7595248330257856
        | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7813346184832554
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 16 Macro-Averaged F1: 0.774465246782856
Validation Macro-Averaged F1: 0.7658692185007974
______
```

Learning rate: 0.001 Batch size: 8 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 1 Macro-Averaged F1: 0.3387730065856409 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 2 Macro-Averaged F1: 0.42135961560421986 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 3 Macro-Averaged F1: 0.44706896551724135 47/47 [00:06<00:00, 7.40it/s] 100%| Epoch 4 Macro-Averaged F1: 0.4845356264002611 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 5 Macro-Averaged F1: 0.564906399836884 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 6 Macro-Averaged F1: 0.6440696649029981 | 47/47 [00:06<00:00, 7.39it/s] 100%| Epoch 7 Macro-Averaged F1: 0.6790360430587512 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 8 Macro-Averaged F1: 0.7124427879159473 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 9 Macro-Averaged F1: 0.722081735258206 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 10 Macro-Averaged F1: 0.7120608177642399 | 47/47 [00:06<00:00, 7.42it/s] 100%| Epoch 11 Macro-Averaged F1: 0.7430683648074953 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 12 Macro-Averaged F1: 0.7304745358079224 100%| 47/47 [00:06<00:00, 7.43it/s] Epoch 13 Macro-Averaged F1: 0.7335152816863069 47/47 [00:06<00:00, 7.42it/s] Epoch 14 Macro-Averaged F1: 0.7447762232451227 100%| 47/47 [00:06<00:00, 7.43it/s] Epoch 15 Macro-Averaged F1: 0.744449254684428 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 16 Macro-Averaged F1: 0.7569892893404321 Validation Macro-Averaged F1: 0.781921266581087 -----Dropout probability: 0.2 Epochs: 16 Learning rate: 0.001 Batch size: 4 100%| 94/94 [00:06<00:00, 13.83it/s] Epoch 1 Macro-Averaged F1: 0.38623707239459026 94/94 [00:06<00:00, 13.77it/s] Epoch 2 Macro-Averaged F1: 0.45701199110420104 100%| 94/94 [00:06<00:00, 13.85it/s] Epoch 3 Macro-Averaged F1: 0.5476238040755049 100%| 94/94 [00:06<00:00, 13.82it/s] Epoch 4 Macro-Averaged F1: 0.5843127663638051 94/94 [00:06<00:00, 13.83it/s] 100%| Epoch 5 Macro-Averaged F1: 0.6461042332510214 100%| | 94/94 [00:06<00:00, 13.82it/s] Epoch 6 Macro-Averaged F1: 0.7027961567575337 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 7 Macro-Averaged F1: 0.694204139663877 100%| 94/94 [00:06<00:00, 13.78it/s] Epoch 8 Macro-Averaged F1: 0.7350890455014284

```
| 94/94 [00:06<00:00, 13.88it/s]
Epoch 9 Macro-Averaged F1: 0.7376843703276633
       | 94/94 [00:06<00:00, 13.79it/s]
Epoch 10 Macro-Averaged F1: 0.7152904529727181
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 11 Macro-Averaged F1: 0.7362325914367821
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 12 Macro-Averaged F1: 0.7587201858626349
          94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.781023077128666
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 14 Macro-Averaged F1: 0.7722121139881599
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 15 Macro-Averaged F1: 0.7656925595932238
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 16 Macro-Averaged F1: 0.7743392535730268
Validation Macro-Averaged F1: 0.7697697697697
_____
Dropout probability: 0.2
Epochs: 16
Learning rate: 0.001
Batch size: 16
           | 24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.37595582661757093
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.4295005807200929
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.4334845049130764
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.48103009797189816
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 5 Macro-Averaged F1: 0.520766519522294
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.5847643780513713
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.6286417624521072
100%|
         24/24 [00:06<00:00, 3.64it/s]
Epoch 8 Macro-Averaged F1: 0.6761617687283886
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 9 Macro-Averaged F1: 0.6676445964765755
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 10 Macro-Averaged F1: 0.7152113119855055
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.7131181097813424
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 12 Macro-Averaged F1: 0.7296825047302148
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.7281899812658379
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.7270362764479238
        | 24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7473590922134224
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 16 Macro-Averaged F1: 0.7219406757116255
Validation Macro-Averaged F1: 0.781413303373376
______
```

Epochs: 16 Learning rate: 0.005 Batch size: 8 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 1 Macro-Averaged F1: 0.4163676795737555 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 2 Macro-Averaged F1: 0.5120348289057733 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 3 Macro-Averaged F1: 0.6304455665684455 47/47 [00:06<00:00, 7.40it/s] 100%| Epoch 4 Macro-Averaged F1: 0.6919794042435551 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 5 Macro-Averaged F1: 0.6731399406813153 100%| 47/47 [00:06<00:00, 7.43it/s] Epoch 6 Macro-Averaged F1: 0.7128862741972822 | 47/47 [00:06<00:00, 7.40it/s] 100%| Epoch 7 Macro-Averaged F1: 0.7263550163178417 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 8 Macro-Averaged F1: 0.7453720858057471 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 9 Macro-Averaged F1: 0.7461827606795852 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 10 Macro-Averaged F1: 0.7647718619661341 | 47/47 [00:06<00:00, 7.39it/s] 100%| Epoch 11 Macro-Averaged F1: 0.7434748403632795 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 12 Macro-Averaged F1: 0.7600486914730733 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 13 Macro-Averaged F1: 0.7645630984987396 47/47 [00:06<00:00, 7.41it/s] 100%| Epoch 14 Macro-Averaged F1: 0.8011297118657906 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 15 Macro-Averaged F1: 0.7520964360587001 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 16 Macro-Averaged F1: 0.7675278905611352 Validation Macro-Averaged F1: 0.8585753000387147 -----Dropout probability: 0.2 Epochs: 16 Learning rate: 0.005 Batch size: 4 100%| 94/94 [00:06<00:00, 13.80it/s] Epoch 1 Macro-Averaged F1: 0.41435106984623893 94/94 [00:06<00:00, 13.79it/s] Epoch 2 Macro-Averaged F1: 0.525049878645769 100%| 94/94 [00:06<00:00, 13.76it/s] Epoch 3 Macro-Averaged F1: 0.6858258118062039 100%| 94/94 [00:06<00:00, 13.77it/s] Epoch 4 Macro-Averaged F1: 0.6823026331254639 94/94 [00:06<00:00, 13.80it/s] 100%| Epoch 5 Macro-Averaged F1: 0.6789787666740001 100%| | 94/94 [00:06<00:00, 13.83it/s] Epoch 6 Macro-Averaged F1: 0.736414439159465 100%| 94/94 [00:06<00:00, 13.78it/s] Epoch 7 Macro-Averaged F1: 0.7225135421856734 100%| 94/94 [00:06<00:00, 13.78it/s] Epoch 8 Macro-Averaged F1: 0.7382119465053555

```
| 94/94 [00:06<00:00, 13.78it/s]
Epoch 9 Macro-Averaged F1: 0.7203086316338118
       94/94 [00:06<00:00, 13.73it/s]
Epoch 10 Macro-Averaged F1: 0.7363446569676584
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 11 Macro-Averaged F1: 0.7634856371698479
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 12 Macro-Averaged F1: 0.7533114457149326
          94/94 [00:06<00:00, 13.82it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.7578648314454025
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 14 Macro-Averaged F1: 0.762515670990402
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 15 Macro-Averaged F1: 0.7457580679018484
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 16 Macro-Averaged F1: 0.7522210536791621
Validation Macro-Averaged F1: 0.8065665665665666
_____
Dropout probability: 0.2
Epochs: 16
Learning rate: 0.005
Batch size: 16
           24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.37890377671680614
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.5144096654536505
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 3 Macro-Averaged F1: 0.593196126081125
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 4 Macro-Averaged F1: 0.6470395820287754
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.7040827210358644
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 6 Macro-Averaged F1: 0.7203401058687438
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 7 Macro-Averaged F1: 0.7621403247204807
100%|
        24/24 [00:06<00:00, 3.66it/s]
Epoch 8 Macro-Averaged F1: 0.7692103920240801
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 9 Macro-Averaged F1: 0.7546955848726675
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 10 Macro-Averaged F1: 0.7941141050730091
     | 24/24 [00:06<00:00, 3.67it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.7514656354412947
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 12 Macro-Averaged F1: 0.784015221466745
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 13 Macro-Averaged F1: 0.770244107632136
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 14 Macro-Averaged F1: 0.791997364657047
       | 24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7830383075414821
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 16 Macro-Averaged F1: 0.8144603278927959
Validation Macro-Averaged F1: 0.7921009244538656
______
```

Learning rate: 0.0001 Batch size: 8 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 1 Macro-Averaged F1: 0.3266276803118909 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 2 Macro-Averaged F1: 0.212121212121213 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 3 Macro-Averaged F1: 0.3326685371102773 47/47 [00:06<00:00, 7.42it/s] 100%| Epoch 4 Macro-Averaged F1: 0.3926530612244898 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 5 Macro-Averaged F1: 0.42873308920760866 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 6 Macro-Averaged F1: 0.41884057971014493 | 47/47 [00:06<00:00, 7.39it/s] 100%| Epoch 7 Macro-Averaged F1: 0.42909090909090913 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 8 Macro-Averaged F1: 0.42668469686725263 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 9 Macro-Averaged F1: 0.44192009540846744 100%| | 47/47 [00:06<00:00, 7.39it/s] Epoch 10 Macro-Averaged F1: 0.4498228341775463 47/47 [00:06<00:00, 7.41it/s] 100%| Epoch 11 Macro-Averaged F1: 0.43983950963877966 100%| 47/47 [00:06<00:00, 7.37it/s] Epoch 12 Macro-Averaged F1: 0.4466030817826078 100%| 47/47 [00:06<00:00, 7.39it/s] Epoch 13 Macro-Averaged F1: 0.44937971347485295 47/47 [00:06<00:00, 7.40it/s] Epoch 14 Macro-Averaged F1: 0.4684619946075897 100%| 47/47 [00:06<00:00, 7.40it/s] Epoch 15 Macro-Averaged F1: 0.5033177414363589 100%| 47/47 [00:06<00:00, 7.39it/s] Epoch 16 Macro-Averaged F1: 0.48570083687116794 Validation Macro-Averaged F1: 0.509009338502426 -----Dropout probability: 0.2 Epochs: 16 Learning rate: 0.0001 Batch size: 4 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 1 Macro-Averaged F1: 0.33904894460897683 94/94 [00:06<00:00, 13.81it/s] Epoch 2 Macro-Averaged F1: 0.3471728772480653 100%| 94/94 [00:06<00:00, 13.78it/s] Epoch 3 Macro-Averaged F1: 0.4089458079549868 100%| 94/94 [00:06<00:00, 13.81it/s] Epoch 4 Macro-Averaged F1: 0.4243261405211678 94/94 [00:06<00:00, 13.79it/s] 100%| Epoch 5 Macro-Averaged F1: 0.4361573277235928 100%| | 94/94 [00:06<00:00, 13.78it/s] Epoch 6 Macro-Averaged F1: 0.4318165001849797 100%| 94/94 [00:06<00:00, 13.75it/s] Epoch 7 Macro-Averaged F1: 0.43089754827741916 100%| 94/94 [00:06<00:00, 13.82it/s] Epoch 8 Macro-Averaged F1: 0.4435042817224792

```
| 94/94 [00:06<00:00, 13.81it/s]
Epoch 9 Macro-Averaged F1: 0.4367905056759545
       | 94/94 [00:06<00:00, 13.76it/s]
Epoch 10 Macro-Averaged F1: 0.5203976882808999
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 11 Macro-Averaged F1: 0.48940041884448204
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 12 Macro-Averaged F1: 0.5106499012381366
          94/94 [00:06<00:00, 13.87it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.5493431671209449
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 14 Macro-Averaged F1: 0.5784010333264065
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 15 Macro-Averaged F1: 0.5875800218069545
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 16 Macro-Averaged F1: 0.5965382330505943
Validation Macro-Averaged F1: 0.7586903517938001
_____
Dropout probability: 0.2
Epochs: 16
Learning rate: 0.0001
Batch size: 16
           24/24 [00:06<00:00, 3.68it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.2674775825682763
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 2 Macro-Averaged F1: 0.29557109557109557
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.2665544332210999
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 4 Macro-Averaged F1: 0.35389998293224095
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 5 Macro-Averaged F1: 0.3909518646360752
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 6 Macro-Averaged F1: 0.4163818637502848
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 7 Macro-Averaged F1: 0.4297117076919263
100%|
         | 24/24 [00:06<00:00, 3.65it/s]
Epoch 8 Macro-Averaged F1: 0.435532525665353
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 9 Macro-Averaged F1: 0.44274558458619184
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 10 Macro-Averaged F1: 0.43323811616494545
     | 24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.43788402457757303
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 12 Macro-Averaged F1: 0.4475849731663685
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 13 Macro-Averaged F1: 0.434869075240305
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 14 Macro-Averaged F1: 0.4358227739141533
        | 24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.44598480634118914
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 16 Macro-Averaged F1: 0.45848717471954387
Validation Macro-Averaged F1: 0.4275362318840579
______
```

Dropout probability: 0.2

Learning rate: 0.0005 Batch size: 8 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 1 Macro-Averaged F1: 0.31486818682715945 100%| 47/47 [00:06<00:00, 7.45it/s] Epoch 2 Macro-Averaged F1: 0.4111911726237188 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 3 Macro-Averaged F1: 0.4554277392547464 47/47 [00:06<00:00, 7.44it/s] 100%| Epoch 4 Macro-Averaged F1: 0.5095932559071988 100%| 47/47 [00:06<00:00, 7.42it/s] Epoch 5 Macro-Averaged F1: 0.5774973818452079 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 6 Macro-Averaged F1: 0.610832657936271 | 47/47 [00:06<00:00, 7.42it/s] 100%| Epoch 7 Macro-Averaged F1: 0.6584995425282867 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 8 Macro-Averaged F1: 0.6519426898714498 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 9 Macro-Averaged F1: 0.6828998617916824 100%| | 47/47 [00:06<00:00, 7.42it/s] Epoch 10 Macro-Averaged F1: 0.7221996429717081 100%| | 47/47 [00:06<00:00, 7.42it/s] Epoch 11 Macro-Averaged F1: 0.7224984956153103 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 12 Macro-Averaged F1: 0.7311165368368019 100%| 47/47 [00:06<00:00, 7.41it/s] Epoch 13 Macro-Averaged F1: 0.7209064844271631 47/47 [00:06<00:00, 7.40it/s] 100%| Epoch 14 Macro-Averaged F1: 0.7313587291033117 100%| 47/47 [00:06<00:00, 7.43it/s] Epoch 15 Macro-Averaged F1: 0.7290584952948409 100%| 47/47 [00:06<00:00, 7.44it/s] Epoch 16 Macro-Averaged F1: 0.7586094224403724 Validation Macro-Averaged F1: 0.781413303373376 -----Dropout probability: 0.2 Epochs: 16 Learning rate: 0.0005 Batch size: 4 100%| 94/94 [00:06<00:00, 13.82it/s] Epoch 1 Macro-Averaged F1: 0.3685364281108962 94/94 [00:06<00:00, 13.81it/s] Epoch 2 Macro-Averaged F1: 0.43889556954563674 100%| 94/94 [00:06<00:00, 13.75it/s] Epoch 3 Macro-Averaged F1: 0.4683267665387503 100%| 94/94 [00:06<00:00, 13.82it/s] Epoch 4 Macro-Averaged F1: 0.5234540551615835 94/94 [00:06<00:00, 13.83it/s] 100%| Epoch 5 Macro-Averaged F1: 0.5894595131106419 100%| | 94/94 [00:06<00:00, 13.78it/s] Epoch 6 Macro-Averaged F1: 0.6523265387193197 100%| 94/94 [00:06<00:00, 13.74it/s] Epoch 7 Macro-Averaged F1: 0.6853314307479236 100%| 94/94 [00:06<00:00, 13.79it/s] Epoch 8 Macro-Averaged F1: 0.6992423158159525

Epochs: 16

```
94/94 [00:06<00:00, 13.77it/s]
Epoch 9 Macro-Averaged F1: 0.7149224440872123
       94/94 [00:06<00:00, 13.76it/s]
Epoch 10 Macro-Averaged F1: 0.7310160026905738
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 11 Macro-Averaged F1: 0.7226804274630361
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 12 Macro-Averaged F1: 0.7291900051432719
          94/94 [00:06<00:00, 13.77it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.7380490912089425
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 14 Macro-Averaged F1: 0.7415687152571477
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 15 Macro-Averaged F1: 0.7427911507181264
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 16 Macro-Averaged F1: 0.7836674022841695
Validation Macro-Averaged F1: 0.7640628105744384
_____
Dropout probability: 0.2
Epochs: 16
Learning rate: 0.0005
Batch size: 16
           24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3547461994478293
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.3885959209227287
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.41527960511792594
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 4 Macro-Averaged F1: 0.4408689358065388
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 5 Macro-Averaged F1: 0.42802096932702755
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.47159134377631035
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.5116407399621611
100%|
         | 24/24 [00:06<00:00, 3.62it/s]
Epoch 8 Macro-Averaged F1: 0.5462696587586441
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 9 Macro-Averaged F1: 0.5975474077030786
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 10 Macro-Averaged F1: 0.6262734328915261
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.6427448786595273
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 12 Macro-Averaged F1: 0.658667436307686
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.6673498660749596
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 14 Macro-Averaged F1: 0.6975338220054571
        | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.6550183186420414
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 16 Macro-Averaged F1: 0.6974651681911634
Validation Macro-Averaged F1: 0.747164130960701
______
```

Dropout probability: 0.15

```
Epochs: 4
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.3911084724453447
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 2 Macro-Averaged F1: 0.5245827244971905
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 3 Macro-Averaged F1: 0.5865059351470111
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 4 Macro-Averaged F1: 0.6794246202518747
Validation Macro-Averaged F1: 0.8067180145485665
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 1 Macro-Averaged F1: 0.3739231485269443
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 2 Macro-Averaged F1: 0.5452505682254362
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 3 Macro-Averaged F1: 0.6529087546560391
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 4 Macro-Averaged F1: 0.6445631732252047
Validation Macro-Averaged F1: 0.7607772072888354
-----
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.002
Batch size: 16
100%| 24/24 [00:06<00:00, 3.68it/s]
Epoch 1 Macro-Averaged F1: 0.38846067162497183
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 2 Macro-Averaged F1: 0.46056577554932704
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 3 Macro-Averaged F1: 0.520848322256773
100%| 24/24 [00:06<00:00, 3.67it/s]
Epoch 4 Macro-Averaged F1: 0.642480765427612
Validation Macro-Averaged F1: 0.7490196078431373
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 1 Macro-Averaged F1: 0.35380352194511483
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 2 Macro-Averaged F1: 0.4541814305879642
100%|
       47/47 [00:06<00:00, 7.46it/s]
Epoch 3 Macro-Averaged F1: 0.5237143466848585
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 4 Macro-Averaged F1: 0.6225923356743122
Validation Macro-Averaged F1: 0.7655562539283469
_____
Dropout probability: 0.15
Epochs: 4
```

```
Learning rate: 0.001
Batch size: 4
     94/94 [00:06<00:00, 13.91it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3913572521207065
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 2 Macro-Averaged F1: 0.45701199110420104
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 3 Macro-Averaged F1: 0.5483261639434013
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 4 Macro-Averaged F1: 0.6620552364302363
Validation Macro-Averaged F1: 0.7474286438770821
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 1 Macro-Averaged F1: 0.3855378169471935
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.43719806763285024
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.4521728069566826
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.47402101505666744
Validation Macro-Averaged F1: 0.49372405020759835
-----
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.39311490496581775
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.5477092352092353
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.6594417909007575
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 4 Macro-Averaged F1: 0.7101601034455188
Validation Macro-Averaged F1: 0.7746411483253589
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 1 Macro-Averaged F1: 0.40209347616421837
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 2 Macro-Averaged F1: 0.5818089608419404
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 3 Macro-Averaged F1: 0.6640912665823698
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 4 Macro-Averaged F1: 0.6709069303361573
Validation Macro-Averaged F1: 0.712069047280315
_____
Dropout probability: 0.15
Epochs: 4
```

Learning rate: 0.005

```
Batch size: 16
     24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.42229145216635255
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.5395971888118486
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.623773018261858
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.6866746476674259
Validation Macro-Averaged F1: 0.784733893557423
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.3976362179487179
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 2 Macro-Averaged F1: 0.29937580689099713
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.36512717536813927
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.4142647713290924
Validation Macro-Averaged F1: 0.4031777557100298
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0001
Batch size: 4
     94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3178224825283648
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 2 Macro-Averaged F1: 0.3195654125886684
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 3 Macro-Averaged F1: 0.3970473137764961
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 4 Macro-Averaged F1: 0.42661312312535643
Validation Macro-Averaged F1: 0.4031777557100298
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.64it/s]
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 2 Macro-Averaged F1: 0.21809523809523804
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.29366320242803273
       24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.36940897501809905
Validation Macro-Averaged F1: 0.4031777557100298
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0005
Batch size: 8
```

```
| 47/47 [00:06<00:00, 7.44it/s]
Epoch 1 Macro-Averaged F1: 0.3698992534608973
      | 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.40422667719403327
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 3 Macro-Averaged F1: 0.4342012914093207
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 4 Macro-Averaged F1: 0.49331294480651344
Validation Macro-Averaged F1: 0.6525689042542976
-----
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.94it/s]
Epoch 1 Macro-Averaged F1: 0.3578423332593657
     | 94/94 [00:06<00:00, 13.86it/s]
Epoch 2 Macro-Averaged F1: 0.4289453207894178
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 3 Macro-Averaged F1: 0.49444941023888395
100%| 94/94 [00:06<00:00, 13.93it/s]
Epoch 4 Macro-Averaged F1: 0.5743703101548231
Validation Macro-Averaged F1: 0.774044045770801
_____
Dropout probability: 0.15
Epochs: 4
Learning rate: 0.0005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.69it/s]
Epoch 1 Macro-Averaged F1: 0.3319783197831978
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 2 Macro-Averaged F1: 0.39923499880468566
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.4216137302168967
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 4 Macro-Averaged F1: 0.4343786295005807
Validation Macro-Averaged F1: 0.4279683782331722
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.002
Batch size: 8
       47/47 [00:06<00:00, 7.48it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3698181818181818
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 2 Macro-Averaged F1: 0.5036361002462697
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 3 Macro-Averaged F1: 0.6032541984883468
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 4 Macro-Averaged F1: 0.6708258371284002
100%|
        | 47/47 [00:06<00:00, 7.45it/s]
Epoch 5 Macro-Averaged F1: 0.6909334772160229
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 6 Macro-Averaged F1: 0.7391438482170177
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 7 Macro-Averaged F1: 0.7337261856754878
100%|
     47/47 [00:06<00:00, 7.41it/s]
```

```
Epoch 8 Macro-Averaged F1: 0.7418852342126
Validation Macro-Averaged F1: 0.7942554799697658
______
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 1 Macro-Averaged F1: 0.39350655398011686
       94/94 [00:06<00:00, 13.84it/s]
Epoch 2 Macro-Averaged F1: 0.5386525359551552
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 3 Macro-Averaged F1: 0.69453373827813
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 4 Macro-Averaged F1: 0.6666355485943275
     94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.717118811371685
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 6 Macro-Averaged F1: 0.7162522033412396
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 7 Macro-Averaged F1: 0.7508184876605929
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 8 Macro-Averaged F1: 0.7380064258241098
Validation Macro-Averaged F1: 0.7707248983844729
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.002
Batch size: 16
      24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.38221589410958184
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.46096085479812005
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 3 Macro-Averaged F1: 0.5275027706490522
       24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6281905594405595
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 5 Macro-Averaged F1: 0.68491251573093
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.6753492895172489
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 7 Macro-Averaged F1: 0.7446514262789781
     24/24 [00:06<00:00, 3.62it/s]
100%|
Epoch 8 Macro-Averaged F1: 0.7320233214542157
Validation Macro-Averaged F1: 0.802422723475355
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 1 Macro-Averaged F1: 0.38991346290253937
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.4595669631130624
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 3 Macro-Averaged F1: 0.5164769870652224
```

```
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.5975279041676883
     47/47 [00:06<00:00, 7.41it/s]
Epoch 5 Macro-Averaged F1: 0.7038553334886156
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 6 Macro-Averaged F1: 0.714488120146929
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 7 Macro-Averaged F1: 0.7480988908919048
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 8 Macro-Averaged F1: 0.7615474306575436
Validation Macro-Averaged F1: 0.7612528937606338
______
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 1 Macro-Averaged F1: 0.37882531387570584
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 2 Macro-Averaged F1: 0.46915966508496215
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 3 Macro-Averaged F1: 0.5426750167620727
100%|
         | 94/94 [00:06<00:00, 13.80it/s]
Epoch 4 Macro-Averaged F1: 0.6333211973514096
100%| 94/94 [00:06<00:00, 13.72it/s]
Epoch 5 Macro-Averaged F1: 0.6989590730190184
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 6 Macro-Averaged F1: 0.7008789854739711
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 7 Macro-Averaged F1: 0.7056965089751975
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.751870675427245
Validation Macro-Averaged F1: 0.8031339031339032
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.001
Batch size: 16
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 1 Macro-Averaged F1: 0.38195200331726537
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.44858156028368795
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.46369218828470987
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 4 Macro-Averaged F1: 0.5006377551020408
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.5564428956326735
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.6255392646358993
       24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6787928390671597
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.7071669677916695
Validation Macro-Averaged F1: 0.7719192591536052
_____
```

Dropout probability: 0.15

```
Epochs: 8
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 1 Macro-Averaged F1: 0.37271004893845144
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.47272853161620887
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 3 Macro-Averaged F1: 0.6264586774028159
        47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.706251100643624
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 5 Macro-Averaged F1: 0.70157051866141
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 6 Macro-Averaged F1: 0.7313668507216894
     | 47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7169151994061366
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 8 Macro-Averaged F1: 0.7666358410052861
Validation Macro-Averaged F1: 0.8176323619361594
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 1 Macro-Averaged F1: 0.44062771361934033
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 2 Macro-Averaged F1: 0.5894087431301411
     94/94 [00:06<00:00, 13.78it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.6772358704247249
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 4 Macro-Averaged F1: 0.6514404317144044
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 5 Macro-Averaged F1: 0.7128622496500396
       94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.7279244888066279
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 7 Macro-Averaged F1: 0.7365640981515659
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 8 Macro-Averaged F1: 0.7251561426134482
Validation Macro-Averaged F1: 0.8004834102395079
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.005
Batch size: 16
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 1 Macro-Averaged F1: 0.41270117278338087
         24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 2 Macro-Averaged F1: 0.5181238557164742
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.6169977569571891
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 4 Macro-Averaged F1: 0.6460098638253463
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 5 Macro-Averaged F1: 0.7038110052742655
```

```
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 6 Macro-Averaged F1: 0.7098009294599521
     24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.7540373679181394
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.7565069561116992
Validation Macro-Averaged F1: 0.791326209930861
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.3233170671199781
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 2 Macro-Averaged F1: 0.3169614797521774
     | 47/47 [00:06<00:00, 7.41it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.395221027479092
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 4 Macro-Averaged F1: 0.4227233352893509
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 5 Macro-Averaged F1: 0.4193950047608584
         | 47/47 [00:06<00:00, 7.41it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.4455148078587839
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 7 Macro-Averaged F1: 0.4321407274895647
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 8 Macro-Averaged F1: 0.4531808858929722
Validation Macro-Averaged F1: 0.41792369121561673
-----
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 1 Macro-Averaged F1: 0.33085736236996743
       94/94 [00:06<00:00, 13.83it/s]
Epoch 2 Macro-Averaged F1: 0.379464791342758
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 3 Macro-Averaged F1: 0.3983751493428913
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 4 Macro-Averaged F1: 0.4133889987548524
     | 94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.4441233836596114
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 6 Macro-Averaged F1: 0.4319945699256043
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 7 Macro-Averaged F1: 0.4338624338624338
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.44296458561518803
Validation Macro-Averaged F1: 0.4386926957666155
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0001
Batch size: 16
       | 24/24 [00:06<00:00, 3.64it/s]
100%|
```

```
Epoch 1 Macro-Averaged F1: 0.2272705965576167
     | 24/24 [00:06<00:00, 3.64it/s]
100%|
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.2331513702628876
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.25715077307331274
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 5 Macro-Averaged F1: 0.33913621561933094
        24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 6 Macro-Averaged F1: 0.4004066496774436
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 7 Macro-Averaged F1: 0.3974375054269699
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.41575618706979256
Validation Macro-Averaged F1: 0.41151515151515144
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0005
Batch size: 8
100%|
          | 47/47 [00:06<00:00, 7.41it/s]
Epoch 1 Macro-Averaged F1: 0.35247208931419455
100%|
      | 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.4253495555398364
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 3 Macro-Averaged F1: 0.4457351158552006
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 4 Macro-Averaged F1: 0.44704701743395203
     47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.4866469656728887
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 6 Macro-Averaged F1: 0.5793608277406258
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 7 Macro-Averaged F1: 0.5899160936187218
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 8 Macro-Averaged F1: 0.6616953879453878
Validation Macro-Averaged F1: 0.7296463884699179
_____
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 1 Macro-Averaged F1: 0.374173090591001
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 2 Macro-Averaged F1: 0.44293381037567087
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 3 Macro-Averaged F1: 0.4434355428278736
          94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.4656717344465188
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 5 Macro-Averaged F1: 0.567371461922909
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 6 Macro-Averaged F1: 0.6397965064597294
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 7 Macro-Averaged F1: 0.6765302596623629
```

```
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 8 Macro-Averaged F1: 0.6994343434343434
Validation Macro-Averaged F1: 0.7612528937606338
Dropout probability: 0.15
Epochs: 8
Learning rate: 0.0005
Batch size: 16
             | 24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3822035025219024
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 2 Macro-Averaged F1: 0.4087394443512378
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 3 Macro-Averaged F1: 0.42459324155193984
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.4621138668008135
     | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 5 Macro-Averaged F1: 0.4562387753790582
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 6 Macro-Averaged F1: 0.5194933779092196
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.5485038235765755
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 8 Macro-Averaged F1: 0.5971269699681301
Validation Macro-Averaged F1: 0.7412422093273157
-----
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.002
Batch size: 8
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 1 Macro-Averaged F1: 0.39472978529417024
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 2 Macro-Averaged F1: 0.5408408336841882
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 3 Macro-Averaged F1: 0.6517595604314828
        47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6999743024271327
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 5 Macro-Averaged F1: 0.7160112909832416
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 6 Macro-Averaged F1: 0.7563343991971916
     | 47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7553242570633875
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 8 Macro-Averaged F1: 0.7495030837567507
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 9 Macro-Averaged F1: 0.7630651726346743
100%| 47/47 [00:06<00:00, 7.37it/s]
Epoch 10 Macro-Averaged F1: 0.7443887720913889
        | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 11 Macro-Averaged F1: 0.7678601738431113
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 12 Macro-Averaged F1: 0.7634550501415927
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 13 Macro-Averaged F1: 0.7636057466225065
     47/47 [00:06<00:00, 7.38it/s]
100%|
```

```
Epoch 14 Macro-Averaged F1: 0.7921957309460734
     | 47/47 [00:06<00:00, 7.38it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7773308089255423
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 16 Macro-Averaged F1: 0.7691066998928444
Validation Macro-Averaged F1: 0.8016982499741121
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.002
Batch size: 4
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 1 Macro-Averaged F1: 0.3910452024331028
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 2 Macro-Averaged F1: 0.45926506646018833
     94/94 [00:06<00:00, 13.82it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.6016638195159456
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 4 Macro-Averaged F1: 0.6537248924264843
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 5 Macro-Averaged F1: 0.7363465220137654
100%|
       94/94 [00:06<00:00, 13.82it/s]
Epoch 6 Macro-Averaged F1: 0.7210590349879068
       94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7230368198110133
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 8 Macro-Averaged F1: 0.7438580802725939
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 9 Macro-Averaged F1: 0.7705691327268696
      94/94 [00:06<00:00, 13.86it/s]
Epoch 10 Macro-Averaged F1: 0.7690728505618352
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 11 Macro-Averaged F1: 0.7657632863805391
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 12 Macro-Averaged F1: 0.7819744880995044
        | 94/94 [00:06<00:00, 13.89it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.8083536332864464
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 14 Macro-Averaged F1: 0.7944603035243949
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 15 Macro-Averaged F1: 0.7759655549129233
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 16 Macro-Averaged F1: 0.7959409315774358
Validation Macro-Averaged F1: 0.7577802314644421
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.002
Batch size: 16
            24/24 [00:06<00:00, 3.67it/s]
Epoch 1 Macro-Averaged F1: 0.3873401520158786
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.4417293233082707
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.5506267107030675
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.6653317485434274
```

```
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.684099055066797
      24/24 [00:06<00:00, 3.65it/s]
Epoch 6 Macro-Averaged F1: 0.7404615248683779
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.7539791599068968
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 8 Macro-Averaged F1: 0.7511093506883327
          | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.7465413134111195
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 10 Macro-Averaged F1: 0.7692864205875359
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 11 Macro-Averaged F1: 0.7759589069933898
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 12 Macro-Averaged F1: 0.7968665928153188
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 13 Macro-Averaged F1: 0.8112434612718219
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 14 Macro-Averaged F1: 0.7944796220876219
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 15 Macro-Averaged F1: 0.799540569148708
100%|
       24/24 [00:06<00:00, 3.62it/s]
Epoch 16 Macro-Averaged F1: 0.8241886792474583
Validation Macro-Averaged F1: 0.8041797611565054
-----
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 1 Macro-Averaged F1: 0.3793741541690833
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 2 Macro-Averaged F1: 0.46489792293149607
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 3 Macro-Averaged F1: 0.5286369712040517
        | 47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.6600894090766558
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 5 Macro-Averaged F1: 0.6726519653333943
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 6 Macro-Averaged F1: 0.6973161389738601
     | 47/47 [00:06<00:00, 7.41it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7296793061472618
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 8 Macro-Averaged F1: 0.7385927505330491
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 9 Macro-Averaged F1: 0.7555343961848027
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 10 Macro-Averaged F1: 0.7133353690309624
        | 47/47 [00:06<00:00, 7.42it/s]
100%
Epoch 11 Macro-Averaged F1: 0.75072435306306
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 12 Macro-Averaged F1: 0.7671276816258229
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 13 Macro-Averaged F1: 0.7990473495566874
     47/47 [00:06<00:00, 7.44it/s]
100%|
```

```
Epoch 14 Macro-Averaged F1: 0.7987951497722651
     | 47/47 [00:06<00:00, 7.42it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7791585679647173
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 16 Macro-Averaged F1: 0.7675202192911036
Validation Macro-Averaged F1: 0.8004834102395079
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 1 Macro-Averaged F1: 0.3842268842268843
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 2 Macro-Averaged F1: 0.5071332220831596
     94/94 [00:06<00:00, 13.79it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.6189470149072358
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 4 Macro-Averaged F1: 0.6919955802240724
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 5 Macro-Averaged F1: 0.6925026612361947
100%|
       94/94 [00:06<00:00, 13.79it/s]
Epoch 6 Macro-Averaged F1: 0.7067160493827161
100%|
       | 94/94 [00:06<00:00, 13.75it/s]
Epoch 7 Macro-Averaged F1: 0.7080793402520907
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 8 Macro-Averaged F1: 0.7455130520749336
100%| 94/94 [00:06<00:00, 13.74it/s]
Epoch 9 Macro-Averaged F1: 0.7412622448413945
       94/94 [00:06<00:00, 13.76it/s]
Epoch 10 Macro-Averaged F1: 0.7537914409244427
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 11 Macro-Averaged F1: 0.7660303675741069
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 12 Macro-Averaged F1: 0.7601750101750101
        94/94 [00:06<00:00, 13.76it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.7941196471889812
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 14 Macro-Averaged F1: 0.7791495386863981
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 15 Macro-Averaged F1: 0.7689949702417954
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 16 Macro-Averaged F1: 0.7916113839349816
Validation Macro-Averaged F1: 0.7309690622366679
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.001
Batch size: 16
            24/24 [00:06<00:00, 3.67it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3785403381348717
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 2 Macro-Averaged F1: 0.44415729552280503
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.4422051692805898
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 4 Macro-Averaged F1: 0.44692103071332023
```

```
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 5 Macro-Averaged F1: 0.4701462831155101
      24/24 [00:06<00:00, 3.65it/s]
Epoch 6 Macro-Averaged F1: 0.5188660571674947
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.5734820101100209
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 8 Macro-Averaged F1: 0.6547506256914558
          | 24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.6801597442117413
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 10 Macro-Averaged F1: 0.7201147169293272
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 11 Macro-Averaged F1: 0.7063235379086995
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 12 Macro-Averaged F1: 0.7398413546075872
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 13 Macro-Averaged F1: 0.7610751189384791
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 14 Macro-Averaged F1: 0.7602661945986197
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 15 Macro-Averaged F1: 0.7642547644404267
100%|
       24/24 [00:06<00:00, 3.65it/s]
Epoch 16 Macro-Averaged F1: 0.7638137062511857
Validation Macro-Averaged F1: 0.781413303373376
-----
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.47it/s]
Epoch 1 Macro-Averaged F1: 0.39619406170426724
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 2 Macro-Averaged F1: 0.5436986432582321
100%| 47/47 [00:06<00:00, 7.47it/s]
Epoch 3 Macro-Averaged F1: 0.6843737695675808
100%|
        47/47 [00:06<00:00, 7.44it/s]
Epoch 4 Macro-Averaged F1: 0.674363222497551
100%| 47/47 [00:06<00:00, 7.47it/s]
Epoch 5 Macro-Averaged F1: 0.6967216657482145
100%| 47/47 [00:06<00:00, 7.45it/s]
Epoch 6 Macro-Averaged F1: 0.7178933130905687
     | 47/47 [00:06<00:00, 7.45it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.7562230335214073
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 8 Macro-Averaged F1: 0.7582629683316328
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 9 Macro-Averaged F1: 0.7624452485240907
100%| 47/47 [00:06<00:00, 7.47it/s]
Epoch 10 Macro-Averaged F1: 0.7602989342050087
        | 47/47 [00:06<00:00, 7.44it/s]
100%
Epoch 11 Macro-Averaged F1: 0.7831485718667377
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 12 Macro-Averaged F1: 0.7596222738757885
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 13 Macro-Averaged F1: 0.7871533281849098
     47/47 [00:06<00:00, 7.44it/s]
100%|
```

```
Epoch 14 Macro-Averaged F1: 0.8092046361156201
     47/47 [00:06<00:00, 7.44it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7994676369984672
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 16 Macro-Averaged F1: 0.8124198503231993
Validation Macro-Averaged F1: 0.7571245186136072
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.89it/s]
Epoch 1 Macro-Averaged F1: 0.3815524649975317
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 2 Macro-Averaged F1: 0.44907802151426685
     94/94 [00:06<00:00, 13.83it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.47462775353114334
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 4 Macro-Averaged F1: 0.560692271218587
100%| 94/94 [00:06<00:00, 13.81it/s]
Epoch 5 Macro-Averaged F1: 0.630459718043488
100%|
       94/94 [00:06<00:00, 13.78it/s]
Epoch 6 Macro-Averaged F1: 0.6997754495147612
100%|
       | 94/94 [00:06<00:00, 13.76it/s]
Epoch 7 Macro-Averaged F1: 0.7140059940059941
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 8 Macro-Averaged F1: 0.7184923063981281
100%| 94/94 [00:06<00:00, 13.74it/s]
Epoch 9 Macro-Averaged F1: 0.7528118092012616
       94/94 [00:06<00:00, 13.71it/s]
Epoch 10 Macro-Averaged F1: 0.7170918945256775
100%| 94/94 [00:06<00:00, 13.77it/s]
Epoch 11 Macro-Averaged F1: 0.75660577722303
100%| 94/94 [00:06<00:00, 13.75it/s]
Epoch 12 Macro-Averaged F1: 0.7783887840928765
        | 94/94 [00:06<00:00, 13.75it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.7537577898394646
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 14 Macro-Averaged F1: 0.755537934126275
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 15 Macro-Averaged F1: 0.7919565939939455
100%| 94/94 [00:06<00:00, 13.80it/s]
Epoch 16 Macro-Averaged F1: 0.781464078022354
Validation Macro-Averaged F1: 0.762990884454299
______
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.005
Batch size: 16
            24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.3929760190109887
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.5092652852046001
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 3 Macro-Averaged F1: 0.597187125426328
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.6666690663739024
```

```
24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.7395120602667773
      24/24 [00:06<00:00, 3.64it/s]
Epoch 6 Macro-Averaged F1: 0.7364862675867462
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 7 Macro-Averaged F1: 0.7503840739808522
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 8 Macro-Averaged F1: 0.7678682169219514
          | 24/24 [00:06<00:00, 3.64it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.7866723386276457
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 10 Macro-Averaged F1: 0.8040520906374565
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 11 Macro-Averaged F1: 0.8211626757081302
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 12 Macro-Averaged F1: 0.7902903325730056
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 13 Macro-Averaged F1: 0.7905810944464767
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 14 Macro-Averaged F1: 0.7806125422394447
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 15 Macro-Averaged F1: 0.7993582084979934
100%|
       24/24 [00:06<00:00, 3.64it/s]
Epoch 16 Macro-Averaged F1: 0.8217211122211121
Validation Macro-Averaged F1: 0.7871684674596208
-----
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0001
Batch size: 8
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 1 Macro-Averaged F1: 0.3761484742516965
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 2 Macro-Averaged F1: 0.32471341773667356
100%| 47/47 [00:06<00:00, 7.46it/s]
Epoch 3 Macro-Averaged F1: 0.3654593401494915
        | 47/47 [00:06<00:00, 7.43it/s]
Epoch 4 Macro-Averaged F1: 0.40208265666676507
100%| 47/47 [00:06<00:00, 7.44it/s]
Epoch 5 Macro-Averaged F1: 0.43887377784312287
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 6 Macro-Averaged F1: 0.437818181818183
     | 47/47 [00:06<00:00, 7.43it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.44633761550597245
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 8 Macro-Averaged F1: 0.4454887218045114
100%| 47/47 [00:06<00:00, 7.43it/s]
Epoch 9 Macro-Averaged F1: 0.4501898092476009
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 10 Macro-Averaged F1: 0.4501788974078131
        | 47/47 [00:06<00:00, 7.41it/s]
100%
Epoch 11 Macro-Averaged F1: 0.44906987031733836
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 12 Macro-Averaged F1: 0.45710227934157527
100%| 47/47 [00:06<00:00, 7.41it/s]
Epoch 13 Macro-Averaged F1: 0.4457351158552006
     47/47 [00:06<00:00, 7.41it/s]
100%|
```

```
Epoch 14 Macro-Averaged F1: 0.4675886427359432
     47/47 [00:06<00:00, 7.40it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.4654218862087953
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 16 Macro-Averaged F1: 0.5290538638215899
Validation Macro-Averaged F1: 0.5848484848484848
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0001
Batch size: 4
100%| 94/94 [00:06<00:00, 13.76it/s]
Epoch 1 Macro-Averaged F1: 0.23341473341473343
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 2 Macro-Averaged F1: 0.37097911638900993
     94/94 [00:06<00:00, 13.78it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.40594962598784345
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 4 Macro-Averaged F1: 0.42965908986291784
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 5 Macro-Averaged F1: 0.4270161569932737
100%|
       94/94 [00:06<00:00, 13.80it/s]
Epoch 6 Macro-Averaged F1: 0.44311631736924584
100%|
       | 94/94 [00:06<00:00, 13.77it/s]
Epoch 7 Macro-Averaged F1: 0.4472026774185047
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 8 Macro-Averaged F1: 0.45584519897772907
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 9 Macro-Averaged F1: 0.4657730548535966
       | 94/94 [00:06<00:00, 13.80it/s]
Epoch 10 Macro-Averaged F1: 0.4576655052264808
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 11 Macro-Averaged F1: 0.4616850768897553
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 12 Macro-Averaged F1: 0.47084822357100986
        94/94 [00:06<00:00, 13.81it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.4803823178016726
100%| 94/94 [00:06<00:00, 13.78it/s]
Epoch 14 Macro-Averaged F1: 0.5308923036015423
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 15 Macro-Averaged F1: 0.5666504074954779
100%| 94/94 [00:06<00:00, 13.82it/s]
Epoch 16 Macro-Averaged F1: 0.6008017784649436
Validation Macro-Averaged F1: 0.7770856404577335
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0001
Batch size: 16
            24/24 [00:06<00:00, 3.66it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.2269339242546334
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 2 Macro-Averaged F1: 0.27599243856332706
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 3 Macro-Averaged F1: 0.3455960382030421
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 4 Macro-Averaged F1: 0.36095334972168064
```

```
24/24 [00:06<00:00, 3.64it/s]
Epoch 5 Macro-Averaged F1: 0.400585733771965
      24/24 [00:06<00:00, 3.63it/s]
Epoch 6 Macro-Averaged F1: 0.4202270501895316
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 7 Macro-Averaged F1: 0.42247286683383267
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 8 Macro-Averaged F1: 0.4248148148148148
          | 24/24 [00:06<00:00, 3.63it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.438015098944531
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 10 Macro-Averaged F1: 0.43478787878788
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 11 Macro-Averaged F1: 0.44448419797257005
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 12 Macro-Averaged F1: 0.44033942904573103
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 13 Macro-Averaged F1: 0.4449886169016007
100%| 24/24 [00:06<00:00, 3.62it/s]
Epoch 14 Macro-Averaged F1: 0.4559236384053902
100%| 24/24 [00:06<00:00, 3.63it/s]
Epoch 15 Macro-Averaged F1: 0.44243127873158833
100%|
       24/24 [00:06<00:00, 3.63it/s]
Epoch 16 Macro-Averaged F1: 0.46215780998389694
Validation Macro-Averaged F1: 0.44760312151616494
-----
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0005
Batch size: 8
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 1 Macro-Averaged F1: 0.3417053013505342
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 2 Macro-Averaged F1: 0.4216931216931217
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 3 Macro-Averaged F1: 0.45169082125603865
        47/47 [00:06<00:00, 7.39it/s]
100%|
Epoch 4 Macro-Averaged F1: 0.4871058765795608
100%| 47/47 [00:06<00:00, 7.39it/s]
Epoch 5 Macro-Averaged F1: 0.5828783915426515
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 6 Macro-Averaged F1: 0.6302405214675234
     | 47/47 [00:06<00:00, 7.37it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6589875822808363
100%| 47/47 [00:06<00:00, 7.36it/s]
Epoch 8 Macro-Averaged F1: 0.6894649566751015
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 9 Macro-Averaged F1: 0.6710734175966028
100%| 47/47 [00:06<00:00, 7.38it/s]
Epoch 10 Macro-Averaged F1: 0.7268381123058543
        | 47/47 [00:06<00:00, 7.38it/s]
100%
Epoch 11 Macro-Averaged F1: 0.7123155031337101
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 12 Macro-Averaged F1: 0.7130299888790455
100%| 47/47 [00:06<00:00, 7.40it/s]
Epoch 13 Macro-Averaged F1: 0.7418080058656314
     47/47 [00:06<00:00, 7.40it/s]
100%|
```

```
Epoch 14 Macro-Averaged F1: 0.743881626724764
     47/47 [00:06<00:00, 7.38it/s]
100%|
Epoch 15 Macro-Averaged F1: 0.7549245571763575
100%| 47/47 [00:06<00:00, 7.42it/s]
Epoch 16 Macro-Averaged F1: 0.7784950233368232
Validation Macro-Averaged F1: 0.781413303373376
_____
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0005
Batch size: 4
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 1 Macro-Averaged F1: 0.3695652173913044
100%| 94/94 [00:06<00:00, 13.87it/s]
Epoch 2 Macro-Averaged F1: 0.45040011946486763
     94/94 [00:06<00:00, 13.80it/s]
100%|
Epoch 3 Macro-Averaged F1: 0.5303950017971658
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 4 Macro-Averaged F1: 0.5715214841282731
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 5 Macro-Averaged F1: 0.6405819313701948
100%|
       94/94 [00:06<00:00, 13.83it/s]
Epoch 6 Macro-Averaged F1: 0.6734057365636312
       94/94 [00:06<00:00, 13.84it/s]
100%|
Epoch 7 Macro-Averaged F1: 0.6900173354931652
100%| 94/94 [00:06<00:00, 13.79it/s]
Epoch 8 Macro-Averaged F1: 0.7061425848672047
100%| 94/94 [00:06<00:00, 13.84it/s]
Epoch 9 Macro-Averaged F1: 0.7105006105006105
       | 94/94 [00:06<00:00, 13.84it/s]
Epoch 10 Macro-Averaged F1: 0.7559152925970073
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 11 Macro-Averaged F1: 0.7411189519967895
100%| 94/94 [00:06<00:00, 13.83it/s]
Epoch 12 Macro-Averaged F1: 0.7389077418796174
        | 94/94 [00:06<00:00, 13.85it/s]
100%|
Epoch 13 Macro-Averaged F1: 0.7724413334002375
100%| 94/94 [00:06<00:00, 13.86it/s]
Epoch 14 Macro-Averaged F1: 0.7496377253644111
100%| 94/94 [00:06<00:00, 13.93it/s]
Epoch 15 Macro-Averaged F1: 0.7753785212093905
100%| 94/94 [00:06<00:00, 13.85it/s]
Epoch 16 Macro-Averaged F1: 0.754087777684556
Validation Macro-Averaged F1: 0.7840147840147841
______
Dropout probability: 0.15
Epochs: 16
Learning rate: 0.0005
Batch size: 16
            24/24 [00:06<00:00, 3.67it/s]
100%|
Epoch 1 Macro-Averaged F1: 0.35327305046757856
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 2 Macro-Averaged F1: 0.39412583315022337
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 3 Macro-Averaged F1: 0.4320956440078018
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 4 Macro-Averaged F1: 0.4359237884417741
```

```
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 5 Macro-Averaged F1: 0.4479326966247092
     24/24 [00:06<00:00, 3.66it/s]
Epoch 6 Macro-Averaged F1: 0.4909094283445549
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 7 Macro-Averaged F1: 0.5270567832563314
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 8 Macro-Averaged F1: 0.6140485877463701
       24/24 [00:06<00:00, 3.65it/s]
100%|
Epoch 9 Macro-Averaged F1: 0.6473548202958604
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 10 Macro-Averaged F1: 0.6539738214266516
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 11 Macro-Averaged F1: 0.6793515892538086
100%| 24/24 [00:06<00:00, 3.66it/s]
Epoch 12 Macro-Averaged F1: 0.6827016944442302
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 13 Macro-Averaged F1: 0.7049425456070594
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 14 Macro-Averaged F1: 0.7096413041508455
100%| 24/24 [00:06<00:00, 3.64it/s]
Epoch 15 Macro-Averaged F1: 0.7256449383182634
100%| 24/24 [00:06<00:00, 3.65it/s]
Epoch 16 Macro-Averaged F1: 0.7291712037565835
Validation Macro-Averaged F1: 0.7748567878668412
-----
```

Best f1: 0.8585753000387147

Best dropout: 0.2
Best num epochs: 16

Best learning rate: 0.005

Best batch size: 8

	precision	recall	f1-score	support
0.0 1.0 2.0	0.92 0.53 0.73	0.73 0.82 0.57	0.81 0.64 0.64	45 22 14
	0.75	0.07		
accuracy			0.73	81
macro avg	0.72	0.71	0.70	81
weighted avg	0.78	0.73	0.74	81

[[33 10 2] [3 18 1] [0 6 8]]