```
============================================================
Experimento_XCEPTION-Dropout_4
experimento = Experimento_XCEPTION-Dropout_4
model = <keras.engine.training.Model object at 0x7f4500fa5e48>
samples_per_class = 100
number_of_classes = 102
optimizador = Adam
clasificador = XCEPTION-5
dropout = 0.4
batch_size = 128
epochs = 20
run_experiment = True
------------------------------------------------------------
Creando sub-conjunto de datos con  102  clases y  100 muestras por clase
number_of_classes: 102
Sub-conjunto con 102 clases creado.
Cantidad de muestras: 6398
Creando datos de train, validate y test ...
Datos de train, validate y test creados.

Split de Entrenamiento, Validación y prueba: 4478, 960, 960
Número de clases: 102
Número de muestras: 100
Usando Adam
Train on 4478 samples, validate on 960 samples
Epoch 1/20
4478/4478 [==============================] - 12s 3ms/step - loss: 4.3604 - acc: 0.0942 - val_loss: 3.7806 - val_acc: 0.219
Epoch 2/20
4478/4478 [==============================] - 5s 1ms/step - loss: 3.7490 - acc: 0.3321 - val_loss: 2.9954 - val_acc: 0.4000
Epoch 3/20
4478/4478 [==============================] - 5s 1ms/step - loss: 3.2265 - acc: 0.4888 - val_loss: 2.4005 - val_acc: 0.5281
Epoch 4/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.7927 - acc: 0.5904 - val_loss: 2.0149 - val_acc: 0.5802
Epoch 5/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.4391 - acc: 0.6521 - val_loss: 1.7805 - val_acc: 0.6052
Epoch 6/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.1712 - acc: 0.7063 - val_loss: 1.6219 - val_acc: 0.6375
Epoch 7/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.9529 - acc: 0.7309 - val_loss: 1.5293 - val_acc: 0.6552
Epoch 8/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.7964 - acc: 0.7490 - val_loss: 1.5027 - val_acc: 0.6531
Epoch 9/20
4478/4478 [==============================] - 6s 1ms/step - loss: 1.6588 - acc: 0.7689 - val_loss: 1.4244 - val_acc: 0.6625
Epoch 10/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.5595 - acc: 0.7829 - val_loss: 1.4012 - val_acc: 0.6729
Epoch 11/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.4398 - acc: 0.8055 - val_loss: 1.3970 - val_acc: 0.6646
Epoch 12/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.3691 - acc: 0.8030 - val_loss: 1.3997 - val_acc: 0.6677
Epoch 13/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.2934 - acc: 0.8146 - val_loss: 1.3978 - val_acc: 0.6729
Epoch 14/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.2169 - acc: 0.8343 - val_loss: 1.4112 - val_acc: 0.6844
Epoch 15/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.1501 - acc: 0.8363 - val_loss: 1.3722 - val_acc: 0.6823
Epoch 16/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.1013 - acc: 0.8419 - val_loss: 1.4022 - val_acc: 0.6781
Epoch 17/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.0508 - acc: 0.8504 - val_loss: 1.4056 - val_acc: 0.6750
Epoch 18/20
4478/4478 [==============================] - 5s 1ms/step - loss: 0.9966 - acc: 0.8622 - val_loss: 1.4097 - val_acc: 0.6823
Epoch 19/20
4478/4478 [==============================] - 5s 1ms/step - loss: 0.9622 - acc: 0.8633 - val_loss: 1.4375 - val_acc: 0.6781
Epoch 20/20
4478/4478 [==============================] - 5s 1ms/step - loss: 0.9233 - acc: 0.8711 - val_loss: 1.4515 - val_acc: 0.6719
```
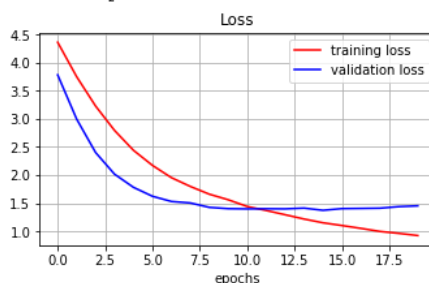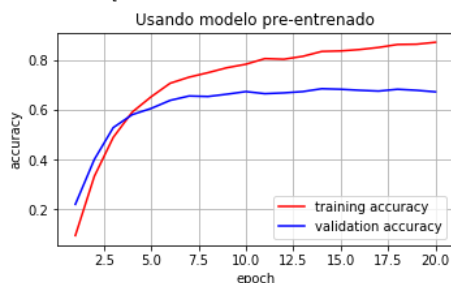


```
Exactitud en subconjunto de test:
Predict loss: 1.2535922427972157
Predict accuracy: 0.7166666666666667

Exactitud en todo el dataset:
Predict loss: 1.298010258696209
Predict accuracy: 0.712192454939085
============================================================
Experimento_XCEPTION-Dropout_5
experimento = Experimento_XCEPTION-Dropout_5
model = <keras.engine.training.Model object at 0x7f4500fa5e48>
samples_per_class = 100
number_of_classes = 102
optimizador = Adam
clasificador = XCEPTION-5
dropout = 0.5
```
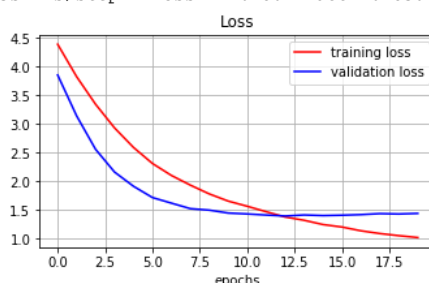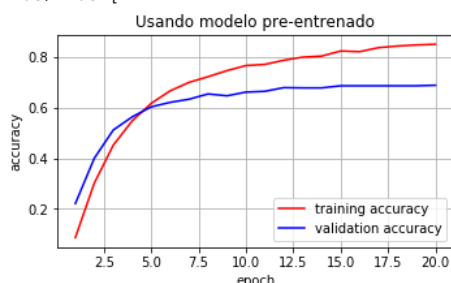
```
batch_size = 128
epochs = 20
run_experiment = True
-------------------------------------------------------
Número de clases: 102
Número de muestras: 100
Usando Adam
Train on 4478 samples, validate on 960 samples
Epoch 1/20
4478/4478 [==============================] - 13s 3ms/step - loss: 4.3856 - acc: 0.0864 - val_loss: 3.8502 - val_acc: 0.2200
Epoch 2/20
4478/4478 [==============================] - 5s 1ms/step - loss: 3.8213 - acc: 0.3015 - val_loss: 3.1380 - val_acc: 0.4000
Epoch 3/20
4478/4478 [==============================] - 5s 1ms/step - loss: 3.3403 - acc: 0.4515 - val_loss: 2.5554 - val_acc: 0.5115
Epoch 4/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.9286 - acc: 0.5478 - val_loss: 2.1594 - val_acc: 0.5635
Epoch 5/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.5882 - acc: 0.6168 - val_loss: 1.9117 - val_acc: 0.6031
Epoch 6/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.3086 - acc: 0.6664 - val_loss: 1.7150 - val_acc: 0.6208
Epoch 7/20
4478/4478 [==============================] - 5s 1ms/step - loss: 2.1002 - acc: 0.6999 - val_loss: 1.6176 - val_acc: 0.6333
Epoch 8/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.9314 - acc: 0.7224 - val_loss: 1.5216 - val_acc: 0.6542
Epoch 9/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.7782 - acc: 0.7463 - val_loss: 1.4952 - val_acc: 0.6469
Epoch 10/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.6529 - acc: 0.7664 - val_loss: 1.4448 - val_acc: 0.6615
Epoch 11/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.5634 - acc: 0.7711 - val_loss: 1.4291 - val_acc: 0.6646
Epoch 12/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.4678 - acc: 0.7874 - val_loss: 1.4104 - val_acc: 0.6792
Epoch 13/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.3762 - acc: 0.7997 - val_loss: 1.3931 - val_acc: 0.6781
Epoch 14/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.3190 - acc: 0.8039 - val_loss: 1.4114 - val_acc: 0.6781
Epoch 15/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.2444 - acc: 0.8240 - val_loss: 1.4010 - val_acc: 0.6865
Epoch 16/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.2013 - acc: 0.8213 - val_loss: 1.4072 - val_acc: 0.6865
Epoch 17/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.1355 - acc: 0.8372 - val_loss: 1.4174 - val_acc: 0.6865
Epoch 18/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.0877 - acc: 0.8437 - val_loss: 1.4346 - val_acc: 0.6865
Epoch 19/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.0506 - acc: 0.8479 - val_loss: 1.4284 - val_acc: 0.6865
Epoch 20/20
4478/4478 [==============================] - 5s 1ms/step - loss: 1.0180 - acc: 0.8506 - val_loss: 1.4385 - val_acc: 0.6885
```



```
Exactitud en subconjunto de test:
Predict loss: 1.2713550368944804
Predict accuracy: 0.7135416666666666

Exactitud en todo el dataset:
Predict loss: 1.291616126607025
Predict accuracy: 0.7137233461363841
============================================================
Experimento Xception 12c
Experimento saltado
============================================================
Experimento Xception 13a
Experimento saltado
============================================================
Experimento Xception 13b
Experimento saltado
============================================================
Experimento Xception 13c
Experimento saltado
```

Resultados XCEPTION

Lote 1

[Ver PDF con el output de pruebas del lote 1](#)