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Date : 05/07/2021

Today i had tried to fix model training problem in PP-Yolo with following methods .

Method – 1:

Modified Super category in Json files .

```
{
  "categories": [
    {"id": 1, "name": "aeroplane", "supercategory": "vehicle"},
    {"id": 2, "name": "bird", "supercategory": "animal"},
    {"id": 3, "name": "boat", "supercategory": "vehicle"},
    {"id": 4, "name": "cow", "supercategory": "animal"},
    {"id": 5, "name": "motorcycle", "supercategory": "vehicle"},
    {"id": 6, "name": "umbrella", "supercategory": "accessory"}
  ],
  "annotations": [
    {
      "area": 44719.9584,
      "bbox": [232.0000000000003, 169.99991999999997, 260.0, 171.99984],
      "category_id": 4, "id": 6, "image_id": 0, "iscrowd": 0, "segmentation": [
        [[232.0000000000003, 169.99991999999997, 492.0, 169.99991999999997, 492.0, 341.99976, 232.0000000000003, 341.99976]]
      ]
    },
    {
      "area": 4787.994624000001,
      "bbox": [511.99968, 160.99993600000002, 42.0, 113.99987200000001],
      "category_id": 5, "id": 6, "image_id": 1, "iscrowd": 0, "segmentation": [
        [[511.99968, 160.99993600000002, 553.99968, 160.99993600000002, 553.99968, 274.99980800000003, 511.99968, 274.99980800000003]]
      ]
    }
  ]
}
```

Method -2 : (Verifying Json file)

I had verified my json files with online coco conversion tool roboflow. I had taken three images from my annotation(Yolo) and converted with roboflow to coco format and verified with previous json file. Almost bbox coordinates are same.

```
{
  "annotations": [
    {
      "area": 44719.9584,
      "bbox": [232.0000000000003, 169.99991999999997, 260.0, 171.99984],
      "category_id": 4, "id": 6, "image_id": 0, "iscrowd": 0, "segmentation": [
        [[232.0000000000003, 169.99991999999997, 492.0, 169.99991999999997, 492.0, 341.99976, 232.0000000000003, 341.99976]]
      ]
    },
    {
      "area": 4787.994624000001,
      "bbox": [511.99968, 160.99993600000002, 42.0, 113.99987200000001],
      "category_id": 5, "id": 6, "image_id": 1, "iscrowd": 0, "segmentation": [
        [[511.99968, 160.99993600000002, 553.99968, 160.99993600000002, 553.99968, 274.99980800000003, 511.99968, 274.99980800000003]]
      ]
    }
  ]
}
```

```
{
  "annotations": [
    {
      "id": 0,
      "image_id": 0,
      "category_id": 1,
      "bbox": [
        232,
        170,
        260,
        172
      ],
      "area": 44720,
      "segmentation": [],
      "iscrowd": 0
    },
    {
      "id": 1,
      "image_id": 1,
      "category_id": 2,
      "bbox": [
        512,
        161,
        42,
        114
      ]
    }
  ]
}
```

Tried with modified json , but no improvements happen.

Method -3 :

Changed datasets to verify whether configurations are correct or not. But in new dataset also fluctuation of loss happened in between 65 to 80. So , json format of ours is correct. I think we need to increase epochs, that's only gives good result.

Dataset link : <https://public.roboflow.com/object-detection/chess-full>

