**Recommended Results Based On The   
Experiment Report For Learning-Based**

**Design Tradeoff Selection**

Experiment 1 – Sampling Distribution | Original

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.88 | 0.90 | 0.89 | 80 |
| 1 (P) | 0.65 | 0.60 | 0.63 | 25 |
| Accuracy |  | | 0.83 | 105 |
| Macro avg | 0.77 | 0.75 | 0.76 | 105 |
| Weighted avg | 0.82 | 0.83 | 0.83 | 105 |

Experiment 5 – Sampling Distribution | P (30%) – NP (70%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 1.00 | 0.24 | 0.38 | 21 |
| 1 (P) | 0.38 | 1.00 | 0.56 | 10 |
| Accuracy |  | | 0.48 | 31 |
| Macro avg | 0.69 | 0.62 | 0.47 | 31 |
| Weighted avg | 0.80 | 0.48 | 0.44 | 31 |

Experiment 8 – Sampling Distribution | P (50%) – NP (50%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.82 | 0.67 | 0.74 | 21 |
| 1 (P) | 0.50 | 0.70 | 0.58 | 10 |
| Accuracy |  | | 0.68 | 31 |
| Macro avg | 0.66 | 0.68 | 0.66 | 31 |
| Weighted avg | 0.72 | 0.68 | 0.69 | 31 |

Experiment 10 – Sampling Distribution | P (50%) – NP (50%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.84 | 0.89 | 0.87 | 95 |
| 1 (P) | 0.62 | 0.50 | 0.55 | 32 |
| Accuracy |  | | 0.80 | 127 |
| Macro avg | 0.73 | 0.70 | 0.71 | 127 |
| Weighted avg | 0.78 | 0.80 | 0.79 | 127 |

Experiment 13 – Sampling Distribution | P (60%) – NP (40%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.84 | 0.83 | 0.84 | 95 |
| 1 (P) | 0.52 | 0.53 | 0.52 | 32 |
| Accuracy |  | | 0.76 | 127 |
| Macro avg | 0.68 | 0.68 | 0.68 | 127 |
| Weighted avg | 0.76 | 0.76 | 0.76 | 127 |

Experiment 14 – Sampling Distribution | P (70%) – NP (30%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.83 | 0.71 | 0.77 | 21 |
| 1 (P) | 0.54 | 0.70 | 0.61 | 10 |
| Accuracy |  | | 0.71 | 31 |
| Macro avg | 0.69 | 0.71 | 0.69 | 31 |
| Weighted avg | 0.74 | 0.71 | 0.72 | 31 |

Experiment 21 – Sampling Distribution | P (50%) – NP (50%)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Precision | Recall | F1 | Support |
| 0 (NP) | 0.98 | 0.84 | 0.91 | 2688 |
| 1 (P) | 0.04 | 0.31 | 0.06 | 51 |
| Accuracy |  | | 0.83 | 2739 |
| Macro avg | 0.51 | 0.58 | 0.48 | 2739 |
| Weighted avg | 0.97 | 0.83 | 0.89 | 2739 |