Rapport d'Évaluation du Modèle

Classification Report:

	precision	recall	f1-score	support
Negative	0.83	0.74	0.78	27
Positive	0.77	0.86	0.81	28
accuracy			0.80	55
macro avg	0.80	0.80	0.80	55
weighted avg	0.80	0.80	0.80	55

Performance Analysis:

Positive Class: Precision = 0.77, Recall = 0.86, F1-Score = 0.81
Negative Class: Precision = 0.83, Recall = 0.74, F1-Score = 0.78

AI-Generated Observations and Recommendations:

The model's overall accuracy is 0.80, indicating that it is generally good at classifying instances correctly. However, the precision, recall and F1-score for each individual class provide a more nuanced picture of its performance.

For the 'Negative' class, the precision is high at 0.83, suggesting that the model is strong at predicting negative outcomes - when it predicts a negative result, it is usually correct. However, its recall for this class is lower (0.74), indicating that it does not identify all actual negatives as such - it misses some. The F1-score, which balances precision and recall, is 0.78.

For the 'Positive' class, recall is higher (0.86) than precision (0.77). This suggests that while the model is good at identifying actual positives, it is somewhat more prone to false positives - predicting a positive outcome when the actual result is negative. The F1-score for this class is 0.81.

Given this performance, one recommendation might be to investigate ways to improve the model's recall for the 'Negative' class. To increase the recall, the model should be tuned to reduce the number of false negatives. On the other hand, if we want to diminish false positive, we may need to refine the model's performance on the 'Positive' class - increasing its precision might be the focus here.

In conclusion, choosing to focus on increasing recall or precision depends on the specific cost associated with false negatives and false positives in context. If a false positive is more costly, focus should be on boosting precision. If a false negative is more costly, focus should be on improving recall. It's a decision that should be guided by the specific requirements of

the task or business.

However, it is important to note that there is often a trade-off between precision and recall, and improving one may decrease the other. As a result, examining the F1-Score, which is a harmonic mean of precision and recall, is necessary while tuning the machine learning model. This is why the model's F1-scores for the 'Negative' and 'Positive' classes (0.78 and 0.81, respectively) are important considerations.

Confusion Matrix