Tutor Feedback for Literature Review Outline

1. Focus and Aim

The focus on automation, generalisability, and interpretability in sentiment analysis aligns well with current research challenges. The aim is technically relevant and the intended audience is appropriate.

Suggestion:

Consider slightly narrowing the scope to a specific use case or domain (e.g., financial sentiment, healthcare, customer feedback), unless you intend to include a comparative cross-domain synthesis.

2. Significance

Well articulated. You identify a real gap—dependence on subjective human judgment—and frame your review within an applied and impactful context.

Suggestion:

To strengthen this further, refer to specific examples of failed or misinterpreted sentiment analyses in real-world systems (e.g., financial forecasting errors, social media misclassification) to illustrate the practical consequences.

3. Context and Perspective

The context captures the historical evolution of sentiment analysis methods, and the applied perspective adds value. The thematic framework is clearly laid out.

Suggestion:

You might consider positioning your review to also evaluate trade-offs between accuracy, interpretability, and deployment cost as a unifying lens throughout the themes.

4. Search and Selection

You have chosen appropriate, credible academic databases and effective keywords. Inclusion and exclusion criteria are clearly justified.

Suggestion:

Consider including specific benchmark datasets (e.g., SST, IMDB, Amazon Reviews, SemEval) as part of your search criteria or discussion, as they’re commonly referenced in ML-based sentiment research.

5. Structure

The proposed structure is logically ordered. It provides a balanced integration of theoretical, methodological, and applied elements.

Suggestion:

Add a section or subsection on evaluation metrics and benchmarking to strengthen the methodological critique of the reviewed studies.

6. Main Findings

Your summary of main findings is concise and aligned with current literature, although the latter should be demonstrated. The recognition of the interpretability and adaptability gap is particularly important.

Suggestion:

It would be helpful to provide a few examples of which transformer models or toolkits are most adaptable or promising based on the current state of the literature.

7. Strengths and Limitations

Good critical insight into strengths and trade-offs (especially computational costs and domain dependency).

Suggestion:

Include a reflection on data annotation quality and bias, as this remains a key limitation in sentiment model performance and generalisability.

8. Discrepancies

You identified two central issues well: dataset variation and complexity-feasibility trade-offs.

Suggestion:

Expand this by comparing how models perform cross-linguistically or culturally, if that’s within the scope, as discrepancies are often amplified in multilingual or multicultural datasets.

9. Conclusions and Next Steps

Valuable future directions such as hybrid models and explainable AI are identified.

Suggestion:

Consider tying this more explicitly to research design—e.g., suggesting a methodology for how such a hybrid or explainable system could be tested or benchmarked in future work.

**Research Proposal Outline Feedback**

This is a well-structured and technically sound project with a clear development focus that aligns well with MSc-level expectations in applied machine learning.

Your introduction and problem definition present a good rationale for the work, especially the limitations of current sentiment analysis systems in terms of domain adaptability, efficiency, and dependence on human judgment. The research questions are precise and cover critical aspects—scalability, interpretability, and optimisation—each of which is well-suited for empirical exploration.

The literature review summary outlines relevant themes, though for the final version, be sure to go beyond description to critically engage with methodological choices and evidence gaps. Your methodology seems robust, integrating classic and deep learning models with modern transformers like BERT and RoBERTa. Including deployment tools like Hugging Face and TensorFlow adds practical value.

To improve further, consider elaborating on how interpretability will be achieved or measured, particularly when using deep models. Additionally, discuss how domain adaptation will be tested (e.g., transfer learning, cross-domain validation). Your timeline is ambitious but should be feasible.