**Literature Review: Student Performance Prediction Using Machine Learning**

**1. Student Performance Prediction Using Machine Learning Algorithms**

* **Dataset Used:** Student academic records, including teacher performance and student motivation.
* **Algorithms Used:** Sequential Minimal Optimization (SMO) and Logistic Regression.
* **Key Findings:** Support Vector Machine (SVM) outperforms logistic regression, highlighting teacher performance and student motivation as crucial predictors.
* **Dataset Source:** [UCI Student Performance Dataset](https://archive.ics.uci.edu/dataset/320/student%2Bperformance)

**2. Educational Data Mining: Prediction of Students' Academic Performance**

* **Dataset Used:** Features selection for forecasting final grades and identifying at-risk students early in the academic term.
* **Algorithms Used:** Deep Learning model (ASIST - BiLSTM), which captures behavioral patterns and is well-suited for sequential time-series data.
* **Key Findings:** Effective in early identification of at-risk students, requiring large datasets for optimal results.
* **Dataset Source:** [Kaggle Student Performance Dataset](https://www.kaggle.com/datasets/rkiattisak/student-performance-in-mathematics)

**3. Machine Learning Approach to Student Performance Prediction**

* **Dataset Used:** Student academic records focusing on dropout risk.
* **Algorithms Used:** Classification models for predicting student dropouts.
* **Key Findings:** Emphasizes intervention strategies to prevent dropouts and improve graduation rates.
* **Dataset Source:** [Kaggle Student Performance Prediction Dataset](https://www.kaggle.com/datasets/prajwalkanade/student-performance-prediction-dataset)

**4. Machine Learning-Based Predicting Student Academic Success**

* **Dataset Used:** Historical academic performance data from previous education levels.
* **Algorithms Used:** General machine learning models with a focus on high prediction accuracy.
* **Key Findings:** Provides insights into factors influencing educational performance but lacks specific algorithm details.
* **Dataset Source:** [Mendeley Student Academic Dataset](https://data.mendeley.com/datasets/5b82ytz489)

**5. A Novel Deep Learning Model for Student Performance Prediction**

* **Dataset Used:** Academic registry information, Virtual Learning Environment (VLE) clickstream data, and midterm continuous assessment scores.
* **Algorithms Used:** ASIST (Attention-aware Convolutional Stacked BiLSTM Network).
* **Key Findings:** Uses deep learning techniques to capture student behavioral patterns and performance trends effectively.
* **Dataset Source:** [Kaggle Student Performance Dataset](https://www.kaggle.com/datasets/rkiattisak/student-performance-in-mathematics)

**6. Prediction of Student’s Performance by Modeling Small Dataset Size**

* **Dataset Used:** Small datasets focusing on student performance records and engagement in innovative projects.
* **Algorithms Used:** ML models optimized for small dataset predictions.
* **Key Findings:** Demonstrates effective techniques for handling limited student data while ensuring meaningful predictions.
* **Dataset Source:** [UCI Student Performance Dataset](https://archive.ics.uci.edu/ml/datasets/Student+Performance)

**7. Predicting Students' Performance Using Machine Learning Algorithms**

* **Dataset Used:** Grades and socioeconomic factors such as family income and parental education.
* **Algorithms Used:** Machine learning models incorporating socioeconomic features.
* **Key Findings:** Highlights the impact of non-academic factors on student performance, enhancing model accuracy.
* **Dataset Source:** [ACM Digital Library](https://dl.acm.org/doi/fullHtml/10.1145/3564982.3564990)

This refined version ensures better readability and consistency across all sections. Let me know if you'd like any modifications!