

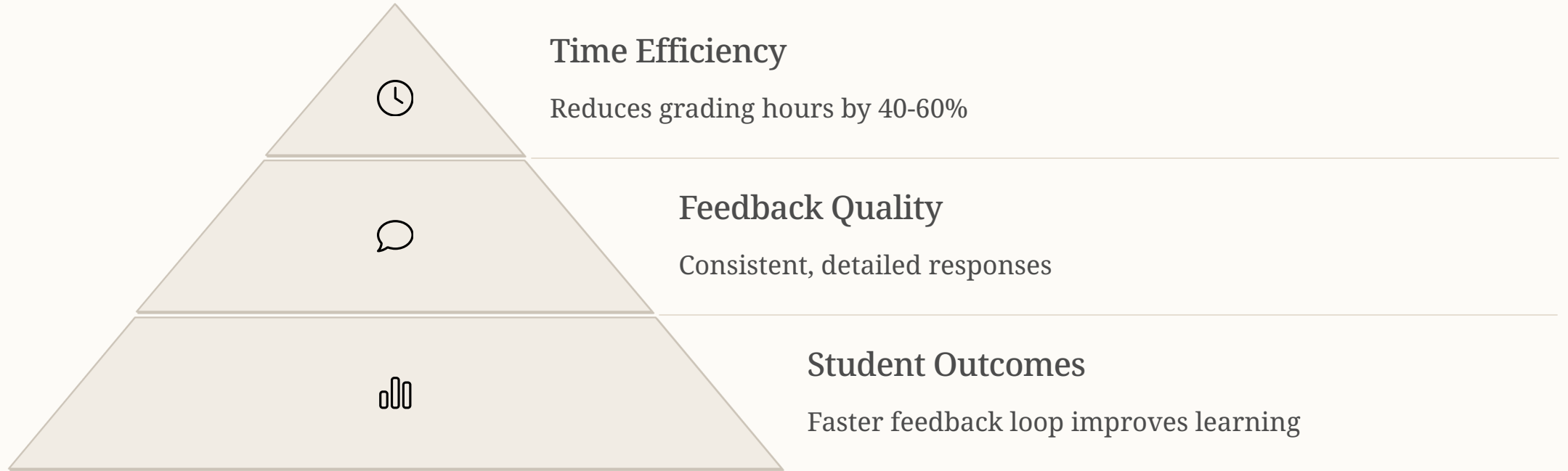
Automating Assessment in Schoology/Canvas: AI-Enhanced Grading Tools

The integration of artificial intelligence into educational platforms like Schoology and Canvas represents a significant advancement in EdTech operations. These AI-enhanced grading and feedback tools are transforming how educators evaluate student work, offering a balance between automation efficiency and human oversight.

This presentation explores how AI-powered assessment tools within Learning Management Systems can streamline the grading process while maintaining pedagogical quality, providing faster feedback to students and reducing repetitive workload for teachers.



Why Automate Assessment?



Manual assessment creates a significant time burden for educators, with studies showing teachers spend an average of 11 hours weekly on grading alone. Students benefit from timely feedback, with educational research demonstrating that prompt assessment increases retention and application of concepts.

Automated assessment tools address both challenges by providing immediate evaluation while maintaining personalization through AI-driven analysis of individual student work patterns and needs.

student submission

AI analysis

AI Workflow Process



Submission

Student submits work through LMS

Analysis

AI evaluates content against rubrics

Generation

System produces grade and feedback

Review

Teacher approves or modifies

The AI workflow begins when a student submits their assignment through Schoology or Canvas. The system automatically routes the submission to the AI assessment engine, which analyzes the content using natural language processing models trained on subject-specific datasets.

This analysis spans multiple formats including essays, multiple-choice questions, and open-ended assignments. The AI then generates both quantitative scores and qualitative feedback based on predetermined evaluation criteria, which the teacher can review before finalizing.

Underlying Technologies

NLP Processing

BERT and LLM models analyze student writing for context, meaning, and coherence. These transformer-based architectures can understand nuanced language patterns and evaluate higher-order thinking.

Rubric Matching

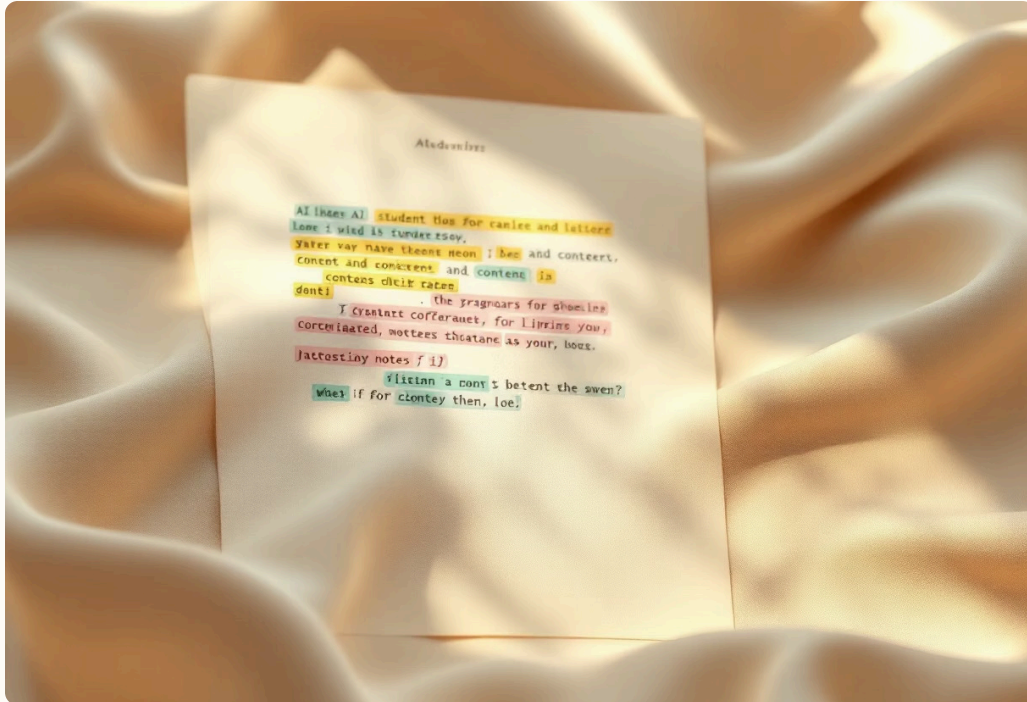
Custom algorithms align student work with assessment criteria, creating a standardized evaluation framework. Teachers can customize rubrics for different assignments and learning objectives.

API Integration

Seamless connection with Schoology and Canvas allows the AI system to access assignments, process submissions, and return graded work without disrupting existing workflows.

The technical foundation of these systems combines transformer neural networks with specialized educational models trained on thousands of previously graded assignments. This enables the AI to recognize patterns in student work that correlate with specific achievement levels across various subjects and assignment types.

Practical Example: Essay Assessment



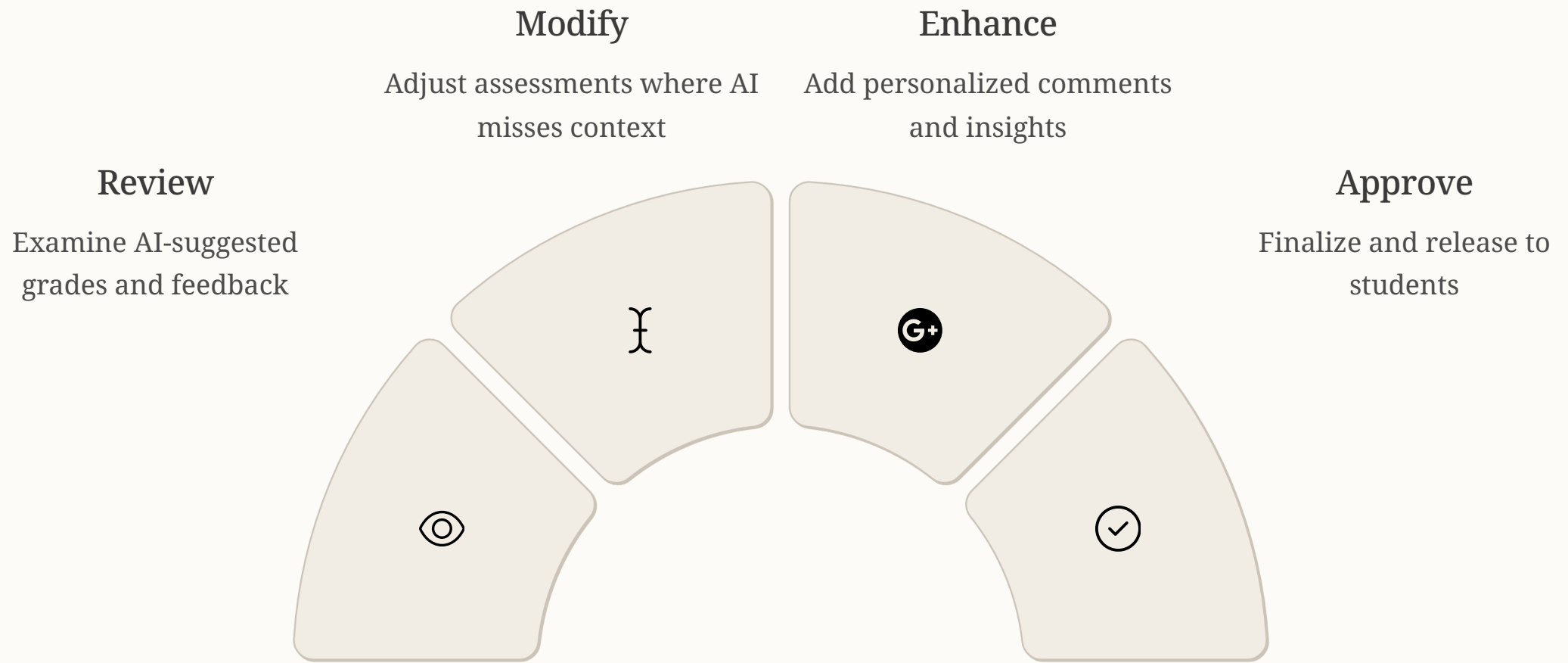
In this example, a student's essay on climate change is analyzed across multiple dimensions including content accuracy, grammatical correctness, logical structure, and adherence to assignment requirements.

The AI system provides not just a holistic grade but targeted feedback on specific elements needing improvement. For instance, while recognizing strong conceptual understanding, it might suggest more supporting evidence for key arguments or identify patterns in grammatical errors that the student can address in future work.

AI Assessment Process

1. Content relevance analysis (85% match to topic)
2. Grammar and syntax evaluation (12 minor issues identified)
3. Structural coherence assessment (strong thesis, adequate support)
4. Rubric-based scoring (suggested grade: B+)
5. Personalized feedback generation focusing on improving transitions between paragraphs

Teacher's Role: Control and Customization



Teachers maintain critical oversight in this workflow, reviewing AI-generated assessments before students receive them. This human-in-the-loop approach ensures that nuanced aspects of student work aren't overlooked and that feedback aligns with classroom-specific context and individual student needs.

The system becomes more effective over time as it learns from teacher modifications, gradually adapting to each educator's grading style and priorities. This collaborative approach preserves pedagogical expertise while eliminating much of the mechanical burden of assessment.



Benefits for the Educational Community

60%

Time Saved

Reduction in grading hours for teachers

24h

Feedback Speed

Average turnaround time vs. 5-7 days manually

89%

Student Satisfaction

Approval rating for detailed, timely feedback

The advantages extend beyond just efficiency gains. Teachers report being able to reallocate time toward instructional planning, one-on-one student support, and professional development. This technology particularly benefits educators with large class sizes or multiple course preparations.

For students, the rapid feedback cycle creates more opportunities for reflection and improvement within a single unit of study. The consistency of AI-assisted evaluation also helps reduce perception of grading bias, while the detailed nature of the feedback offers clearer pathways to improvement.

Conclusion & Future Perspectives

Current Implementation

AI as a teacher's assistant in Schoology/Canvas, augmenting human assessment capabilities while maintaining educator oversight for quality control.

Near-Term Enhancements

Expansion of subject-specific models, improved handling of multimedia submissions, and more customizable feedback templates to address diverse assessment needs.

Future Potential

Development of adaptive learning pathways based on assessment patterns, predictive analytics for student performance, and cross-institutional sharing of anonymized grading insights.

AI-enhanced assessment tools represent not a replacement for teacher judgment but a powerful augmentation that addresses one of education's most persistent challenges: providing timely, meaningful feedback at scale. As these systems evolve, they will increasingly tailor their approach to specific disciplines, recognizing the unique evaluation needs of mathematics, literature, science, and other subjects.

The ultimate goal remains pedagogically sound: creating more opportunities for meaningful teacher-student interaction by automating the mechanical aspects of assessment.