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$TA * AI = TA^2I$

Teacher's Assistant + Al Timely. Accurate. Insightful.

The name "Teacher's Assistant + AI" was chosen to reflect our product's aim: <u>assisting teachers in providing high-quality feedback</u> with the support of <u>artificial intelligence</u>. While other apps might offer AI support in education, <u>our emphasis on feedback—both in quality and timing—tailored to the needs of educators and students, makes it uniquely suited to our product.</u>

Problem & Solution Overview

From our interviews, we note that teachers often struggle to provide personalized, timely, and accurate feedback to students due to the demands of classrooms. Le time constraints, as well as marking fatigue.

Primary User

Mostly Teachers who need to give feedback to students

TA²I

Our solution leverages Al to generate timely, accurate, and insightful feedback for student work, helping teachers manage their workload while enhancing student learning through more actionable and personalized input.



Research

Feature	Grammarly	Gradescope	Brisk Teaching	Turnitin
Feedback Focus	Grammar, spelling, punctuation, style, tone, clarity	STEM-heavy, predefined rubrics	Writing inspection, lesson plans, feedback styles	Plagiarism detection, originality, and feedback on writing
Real-Time Feedback	Yes, real-time for grammar/spelling	Limited real-time, more on batch grading	Yes, provides immediate feedback on student work	Limited real-time, mostly plagiarism and originality feedback
Adaptability to Subject Type	Less effective for argument flow, deeper semantic issues	Rigid rubric system, less effective for creative work	Limited flexibility (focus on worksheets and lesson plans)	Focus on written assignments, primarily plagiarism checking, not adaptable for creative subjects
Scalability	Focused on individual users	Highly scalable for large classes, batch grading	Works for all grades K-12 but lacks higher ed focus	Effective at large scale, particularly in higher education, but less personalized feedback
Ease of Use	Easy to use, but limited in deeper feedback	Effective but focused on rigid rubrics for STEM	Easy install, browser extension, simple to use	Interface is more complex, more suited for institutional use
Target Audience	Broad: individual users, professionals, students	Higher education (STEM-heavy)	K-12 teachers	Higher education, academic institutions, focused on plagiarism
Customization of Feedback	Limited, lacks flexibility to tailor feedback styles	Predefined rubrics, not flexible for subjective grading	Selectable feedback styles, but not customizable to teacher's style	Limited customization, mainly focused on originality and academic integrity

STAKEHOLDERS

Direct

- Teachers
- Students
- Schools

ndirect

- Parents
- · EdTech Platforms that may host the app

ETHICAL CONSIDERATIONS

Data Privacy

Collecting and analyzing students' work raises concerns about data security and privacy.

Bias and Fairness:

The app's algorithms must be free from biases that could disadvantage certain groups of students, particularly those from diverse linguistic or cultural backgrounds.

Le International Students

Tasks

- Efficient and organized in-time grading and feedback (Simple Commonly used) See in video @1min
 - This is a <u>basic function</u> of the app. It provides instant feedback based on preset rules and requires <u>little effort from the teacher / user.</u>
- Track Student Engagement and Submission overtime (Simple Commonly used)
 - This feature shows an overview of how often students submit assignments or interact with the platform. It's an <u>easy-to-understand summary, requiring no setup</u> but giving teachers a useful snapshot of student engagement.
- Examine a student's work and determine where they are struggling / correct vs incorrect & make links to past work (Moderate) See in video @1.04min
 - TA'I <u>reviews a student's current work, finds mistakes, and connects them</u> to previous work. This is <u>more detailed than simple</u> <u>grading</u> but doesn't need as much manual input as the complex task.
- Allow teachers to input personalized observations on student performance, then integrate and evaluate these with AIgenerated feedback. (Complex Power users) See in video @1.15min
 - The app <u>allows teachers to add their own comments and combines them with AI feedback,</u> which requires more work from both the teacher and the system to blend the two types of feedback.
- Create Custom Grading Rubrics with Weighting and AI Support (Complex Power users)
 - Teacher can design custom grading rubrics for different types of assignments and integrate AI-generated suggestions for grading.

 This requires a deeper understanding of both the subject and grading mechanisms, as well as advanced rubric customization options.



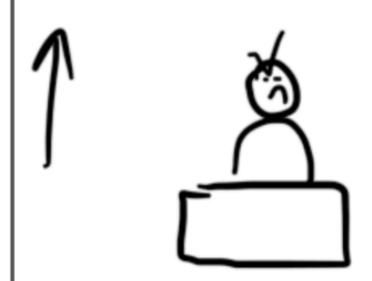
Teacher settles down at desk, eager to grade papers

In this scene, teacher feels eager to get started on the work. Stretches and takes out his pen.



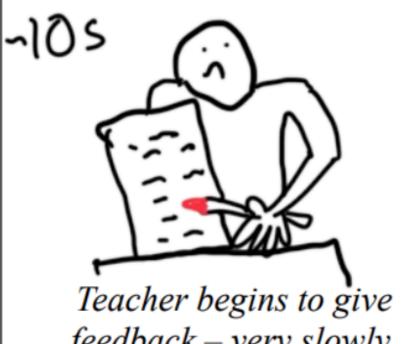
We see the mountain of work he needs to do on his desk...

In this scene, there is a lot of work on the table waiting to be marked. These papers consist mostly of rubrics and essays.



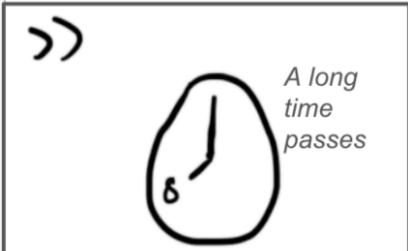
Teacher is very frustrated. Sighs.

In this scene, teacher is not sure where to begin. There is a lot to be done. Teacher expresses a sense of frustration.



feedback – *very slowly*.

In this scene, teacher beings looking at his first essay. But there seems to be some issues with the essay. He is taking too long to start marking.



In this scene, viewers will see the time passing from the clock.



Teacher cannot decide on the grade to give

In this scene, the teacher is having trouble marking according to the rubrics. He is very undecided about the grades to give.



...and only one paper is done. *Teacher gives up & throws* papers everywhere!

In this scene, teacher becomes increasingly frustrated and starts to throw the papers everywhere



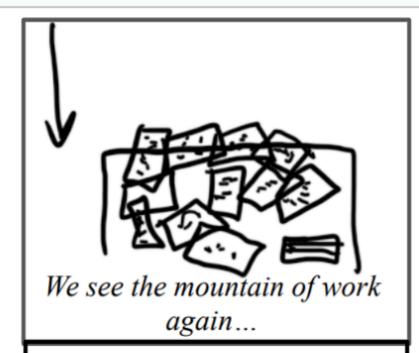
...and only one paper is done. *Teacher gives up & throws* papers everywhere!

In this scene, the video stops & hints at a restart of the whole scenario.

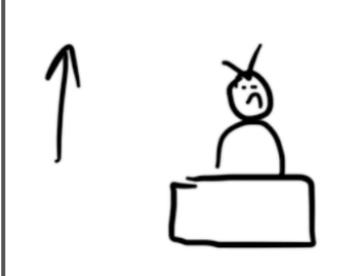


Teacher settles down at desk, same as before

In this scene, once again, teacher feels eager to get started on the work. Stretches and takes out his pen.



In this scene, once again, there is a lot of work on the table waiting to be marked. These papers consist mostly of rubrics and essays.



Teacher is very frustrated.

In this scene, once again, teacher is not sure where to begin. There is a lot to be done. Teacher expresses a sense of frustration.



But he has an idea. snaps his fingers, and the "**TA**²**I**" button appears.

In this scene, the teacher has an idea. He seems very pleased with himself and snaps his finger. TA^2I button appears.



His hand slams the button!

In this scene, the teacher slams the button the moment it appears.



In this scene, the teacher gives AI the rubrics & is able to give it inputs on the feedback. Teacher is happy with how the feedback turns out



Feedback could be insightful

In this scene, the teacher is able to examine the work and feedback at a glance because of TAI. Teacher is happy because he can easily determine areas of weakness



In this scene, the teacher is able to get efficient grading and feedback from the work, saving him time and resources. He is happy with the turn of events





Suddenly, one by one, stacks of organized papers - with feedback already complete! appear on his desk. Amazing!

In this scene, we see how the work is able to be done by Al very effectively and quickly. Feedback just got a lot easier.

Timely. Accurate . Insightful

Outro slide: our logo &

"TA2I"; "Timely.

Accurate. Insightful.'

Concept Video https://youtu.be/LKoAJ28vE2s? si=zRq4EL_ymm0FW4Zf

TAI

TIMELY, ACCURATE, INSIGHTFUL

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