

Artificial Intelligence (AI) Committee December 5, 2024

Welcome!



Essential Question: How do we effectively launch the implementation of Artificial Intelligence this year using district tools to support effective climate, culture, systems, and instruction?

Meeting Agenda:

- Opening & remarks Dr. Saltzman
- Ignite: Unpacking standards using AI
- Learn: Differentiation and UDL with Colleague AI Dr. Min
 Sun
- Engage: Parameters and ethical standards for Everett
- Share: Al Pilot update







Unpacking Standards might include:

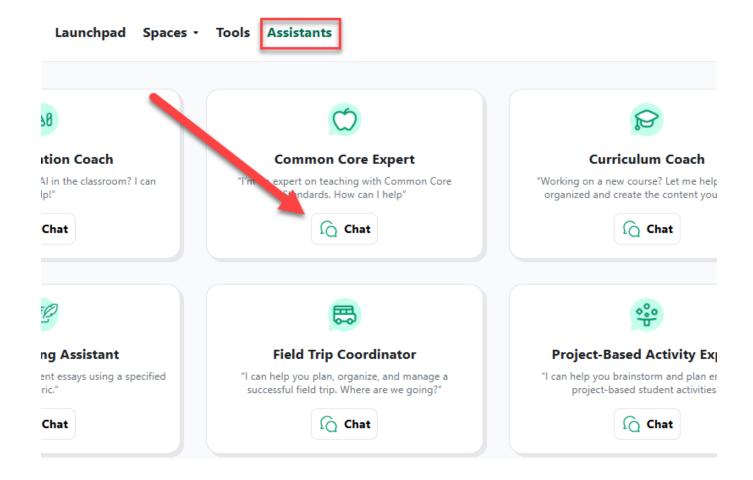
- Identifying the standard
- Breaking down the standard
- Determining learning targets
- Pulling academic vocabulary
- Considering prior knowledge
 - Building pre-assessments
- Planning instruction
- Determining differentiation strategies



ThePhoto by PhotoAuthor is licensed under CCYYSA.



Go to Schoolai.com --> Assistants --> Common Core Expert --> Chat







What are the 5th grade measurement and data standards in WA state?



The 5th-grade measurement and data standards in Washington State are aligned with the Common Core State Standards. Here are the key areas covered:

1. Convert like measurement units within a given measurement system

 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step real-world problems.

2. Represent and interpret data

Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use
operations on fractions for this grade to solve problems involving information presented in line
plots.

3. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition

- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
- . Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
- Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.

These standards aim to develop students' understanding of measurement and data through practical applications and problem-solving. Always verify the standards through official state education resources for any updates or changes.

Identifying the standard:

What are the 5th grade measurement and data standards in WA state?





In standard 2, identify the nouns and verbs to help me understand what my students need to know and be able to do in this standard.



In the standard "Represent and interpret data," the key nouns and verbs are:

Nouns:

- · Line plot
- Data set
- Measurements
- Fractions (1/2, 1/4, 1/8)
- Operations
- Problems
- Information

Verbs:

- Make
- Display
- Use
- Solve

Understanding these elements helps clarify the focus of the standard. Students need to know how to create and interpret line plots, work with fractional measurements, and apply mathematical operations to solve problems using data.

Breaking down the standard:

In standard 2, identify the nouns and verbs to help me understand what my students need to know and be able to do

Try These on Your Own



Identify Learning Targets

Identify 2-3 learning targets I can focus on for standard 2

Common Misconceptions

What are some common misconceptions students have related to standard 2

Academic Language

What academic language do I need to make sure my students can use correctly?

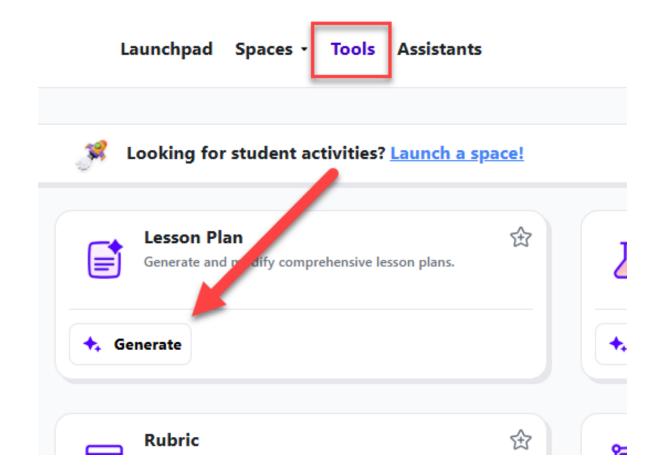
Prior Knowledge

What prerequisite knowledge should they have come in with from 4th grade and what are they going to be doing in 6th grade that I'm preparing them for?

Al for Lesson Planning



At this point, you could stay inside Common Core Expert or... switch to Tools --> Lesson Plan --> Generate



Considerations – where do you want to be able to find it again? You may need to copy your chat history over from Common Core Assistant

Using AI for Lesson Planning



Building Pre-Assessments

Generate 5 questions that will help me determine if my students have the prerequisite knowledge to start learning standard 2

Activities

I am using the Illustrative Math (IM) curriculum. Suggest 3-5 hands-on activities I could use to help engage my students with standard 2.

Differentiation

Help me differentiate for 5 students who don't have the prerequisite skills in standard 2. How can I help catch them up?

Vocabulary

Build a vocabulary list with definitions written at a 5th grade and 3rd grade reading level



Colleague AI is an Educational Platform where our AI assistants act as knowledgeable colleagues for educators and friendly buddies for learners. We aim to foster a dynamic, collaborative, and personalized educational experience for everyone in school or after school.







UNIVERSITY of WASHINGTON

Colleague AI was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305C240012, and by several awards from the National Science Foundation (NSF #2043613, 2300291, 2405110), and a Gates Foundation's grant to the University of Washington and NSF SBIR/STTR award to Hensun Innovation LLC (#2423365). The opinions expressed are those of the authors and do not represent views of the funders.

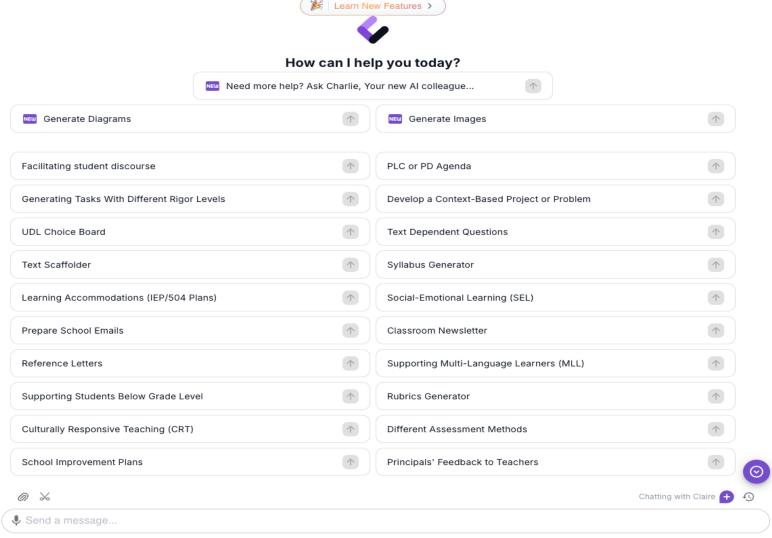
Key Features

<u>Demo</u> <u>Video</u>

- 1. Brainstorm Ideas
- 2. Generate Lessons
- 3. Find/Modify Lessons
- 4. Rubric Generation and
- Al-assisted Grading
- 5. Classroom Beta
- 6. My Document
- 7. Web Extension
- 8. School Dashboard

Brainstorm Ideas





Content generated is for suggestion only: always use professional judgement and comply with school policies before implementation.

Brainstorm Ideas



	Claire AI	Charlie ^{Al}			
Similarity	Trained to know and promote research-based best practices in education				
Differences	An integrated solution with pre-defined AI guides to perform tasks, such as facilitating student discourse, generating tasks with different rigor levels (DOK), facilitating UDL and inclusive practices, generating PLC or PD agenda, or supporting project-based learning, SEL, multi-language learners (MLL), culturally responsive teaching (CRT), and preparing school improvement plans, drafting principal feedback to teachers aligning with CEL 5D and other TPEP evaluation framework.	An experimental solution with new features, maybe slower than Charlie ^{AI} on some tasks.			
	Produce relatively concise responses	Produce longer, more detailed responses			
	Produce text response, generate images and generate diagrams via separate tabs	Generate images and emoji as part of its responses			
	Show chain of thoughts and reflections	Show nudging questions at the end of the response			
	Scrape web URL to allow users to include web links in their prompt	Scrape web URL			
		More advanced math problem solving abilities			
		Perform web searches for content (both text, image, video)			

Brainstorm Ideas: Example for Administrators (Here is the



Prompt with Charlie

You are an experienced school leader and expert communicator, proficient in crafting compelling messages that effectively convey information to school stakeholders. Your task is to write a school update letter for Washington State's AI policy: https://ospi.kl2.wa.us/student-success/resources-subject-area/human-centered-artificial-intelligence-schools.

Include a brief introduction, a section on the Policy, a section for Important Dates, and a final paragraph/summary. Include the following information in your letter:

Introduction: welcome educators back to school, remark on their summer experiences, express excitement for the upcoming school year Policy.

Summary: explain the importance of AI policy, include the OSPI link, and summarize its key points in five sentences.

Actions: school principals organize trainings to prepare educators to implement this policy in classroom instruction.

Important Dates: list upcoming district professional development dates.

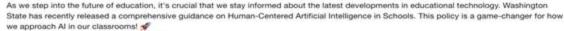
Write the letter in an informative and friendly style.

Charlie's Response

Dear Wonderful Educators.

I hope this letter finds you refreshed and rejuvenated after a fantastic summer break! Whether you spent your time exploring new places, diving into a good book, or simply relaxing with loved ones, I trust you've had some well-deserved rest. As we embark on this exciting new school year. I'm thrilled to share some important updates with you.

Washington State's Al Policy in Education @



Here's a quick summary of the key points:

- 1. All is here to stay, and we need to prepare our students to understand and use these tools effectively.
- 2. The state emphasizes a "Human-Al-Human" approach, putting students and educators at the center of all Al interactions.
- 3. The guidance provides ethical considerations for Al and guidelines for responsible use in the classroom
- 4. Al-assisted learning can include personal tutoring programs, virtual assistants, and quick lesson plan generation
- 5. The policy focuses on improving learning for every student, empowering teachers, and strengthening learning management systems.

You can find the full guidance document here: OSPI Human-Centered Al in Schools

Actions for School Leaders &

To ensure we're all prepared to implement this exciting new policy, I'm asking our wonderful school principals to organize training sessions. These sessions will help us understand how to effectively and ethically integrate AI into our classroom instruction. Keep an eye out for more information from your school leadership team!

Important Dates 177

Mark your calendars for these upcoming district professional development dates:

- September 15, 2023: Introduction to Al in Education Workshop
- · October 6, 2023: Ethical Considerations of Al in the Classroom
- November 3, 2023: Hands-on Al Tools for Educators
- December 1, 2023: Al and Personalized Learning Strategies

(Note: These dates are placeholders. Please adjust according to your actual district schedule.)

In Conclusion...

The integration of AI in education presents an incredible opportunity for us to enhance our teaching methods and prepare our students for the future. By embracing this human-centered approach to AI, we can ensure that technology serves as a tool to augment our expertise, not replace it. As we navigate this exciting new landscape together, remember that your creativity, empathy, and human touch are irreplaceable. All may be able to generate lesson plans in seconds, but it's your passion and dedication that truly inspire our students.

Here's to a fantastic, innovative, and Al-enhanced school year! 77

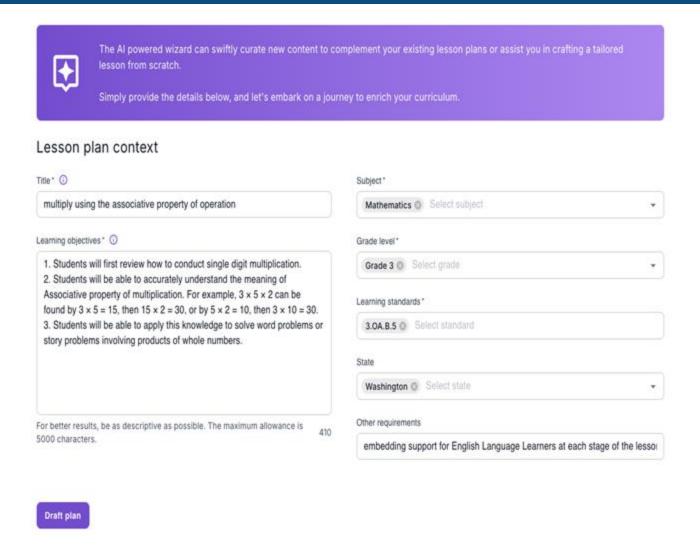
Warmest regards,

[Your Name] District Superintendent

Generate Lessons:



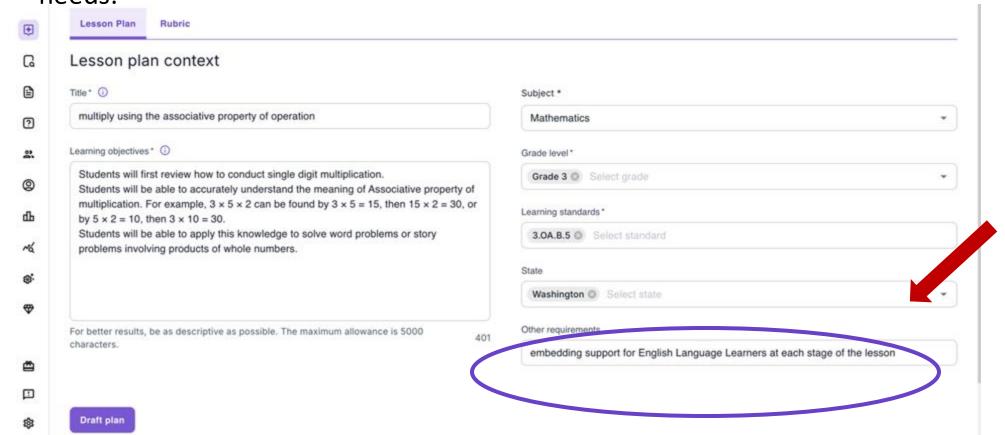
- Uses CCSS, NGSS, state learning standards and research-proven practices of high-quality and inclusive instruction to develop complete lesson plans customized to a teacher's prompt.
- Crosswalk between national standards and individual state standards.
- Full editing functions.
- Special math tools (equation writing and coordinate/diagram drawing and generation).
- Al nudging function to assist teachers to iteratively improve the initial draft lesson.
- Simulation function to offer educators feedback before delivering the lesson.



Generate the Entire Lesson



This function embeds **research-based**, **subject-specific** effective teaching to draft the **entire standard-aligned lesson plan** from scratch, based on your teaching style and your students' needs.



You can ask AI to embed certain type of the support throughout the entire lesson. E.g.,

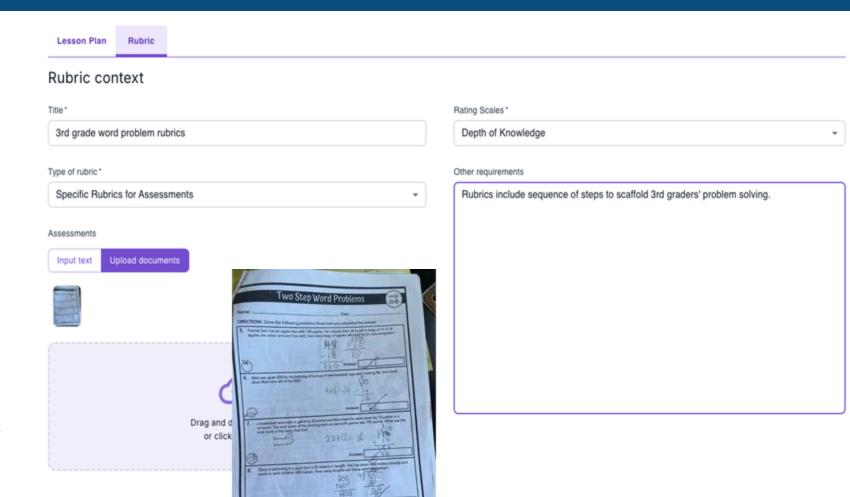
"Embed the support for multilanguage learners at each stage of the lesson"

AI-Assisted Assessment Rubric Generation

Draft rubric



- Offer two types of rubric generations: for a given/several learning standards; for individual assessment items
- For all subjects
- Support input text and upload documents
- Support different types of rating scales: Depth of knowledge, Advancement Level, Approaching Standards, and Educator's Own Scale Framework.
- Allow teachers to specify other requirements, such as scaffolding strategies of problem solving, choices of presentation.



AI-Assisted Assessment Rubric Generation

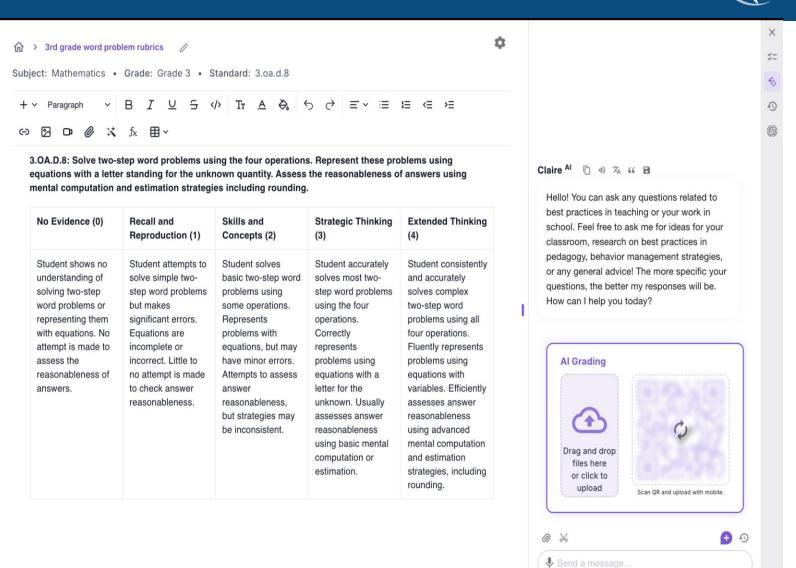
(3)

:

1



- An AI-generated rubrics, which is automatically saved to "My document" folder.
- Educators can use the AI grading function to draft initial SCOring and detailed feedback for students' learning.



Al-assisted assessment grading



e:	Date;
	oblems Show how you calculated the answer.
Farmer Sam has an apple tree with apples are rotten and can't be sold	n 148 apples. He collects them all to sell in bags of 10. If 18 d, how many bags of apples will there be for sale altogether?
	HQ -130
	-18 13
5	12 O Answer 3
) cross-bi-bi-bi-	lay. If he buys 4 new baseball caps each costing \$6, how much
does Matt have left of his \$50?	AIO
	4×6=24 - 24
	26
MACCO STATE OF THE PARTY OF THE	Answer: 25
7. A basketball team won a gam	be by 22 points and then beat the same team by 12 points in a se winning team across both games was 190 points. What was the set?
total score of the team that lo	1 Aven
13	22+12= 36 - 36
A	Answer: 54
D	that is 40 meters in length. She has swum 400 meters already and neters. How many lengths will Elena swim alogether?
 Elena is swimming in a pool to wants to swim another 400 m 	4 4 4 00
	1400 19 300
	800 00
	Answert 12-0

Al Assistant

Based on the image provided, I will grade the student's work on the "Two Step Word Problems" worksheet.

E.	Student i					
	Item	Standard		Justification		Areas for Improvement
l	5. Farmer Sam's apple problem	3.OA.D.8	(Strategic Thinking)	Student correctly solved the two-step problem, showing work for 148-18=130 and 130+10=13. The answer of 13 bags is correct.	work- Correct final	variable for
l	6. Matt's birthday money problem	3.OA.D.8	3 (Strategic Thinking)	the correct answer of	subtraction- Accurate final	- Could represent the problem with an equation using a variable
	7. Basketball team score problem	3.OA.D.8	(Strategic Thinking)		Correct	- Could show the equation representing the problem
ŀ	8. Elena's swimming problem	3.OA.D.8		Student accurately added 400+400=800, then divided 800+40=20, correctly determining Elena will swim 20 lengths.		 Excellent work, no significant areas for improvement

Overall Score: 13 out of 16

Overall Assessment: The student demonstrates a strong ability to solve two-step word problems using various operations. They consistently show their work, perform accurate calculations, and arrive at correct answers. The student exhibits skills in addition, subtraction, multiplication, and division, applying them appropriately to real-world scenarios. Comments: Strengths:

- Excellent problem-solving skills across different types of word problems
- Consistent in showing step-by-step work, which aids in understanding their thought process
- Accurate calculations in all problems
- Correct interpretation of problem requirements and final answers

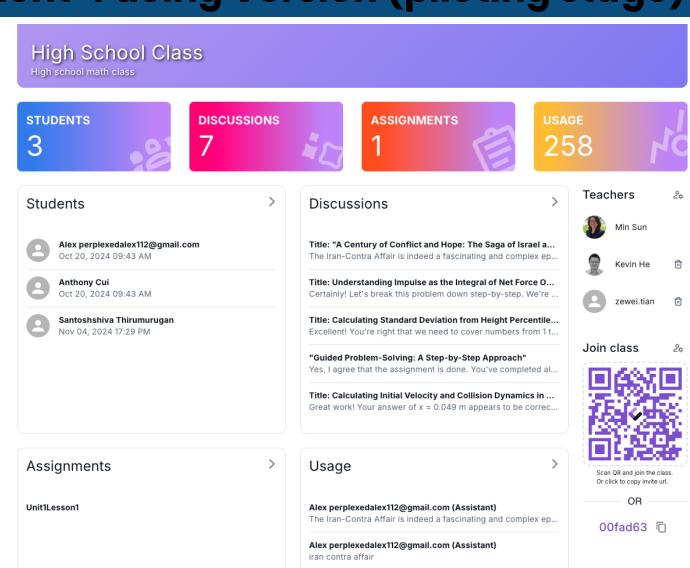
Areas for Improvement:

- Practice representing problems using equations with variables for unknown quantities
- · Consider adding units (e.g., dollars, points) to final answers for clarity
- Continue to develop skills in more complex multi-step problems

Overall, the student shows a very good grasp of solving two-step word problems. To further enhance their skills, they could focus on representing problems algebraically and ensuring they include units in their final answers. Keep up the great work!

Teachers can use to manage their classroom:

- Offer AI tutoring for students;
- Teachers can monitor the chat;
- Formative assessment management and AIassisted grading;
- Dashboard of classroom activities and student learning progression;
- Chat with students directly;
- One click to connect to gradebook



Al Study Companion can:

Answer any questions the student may have;

Review to prepare for exam

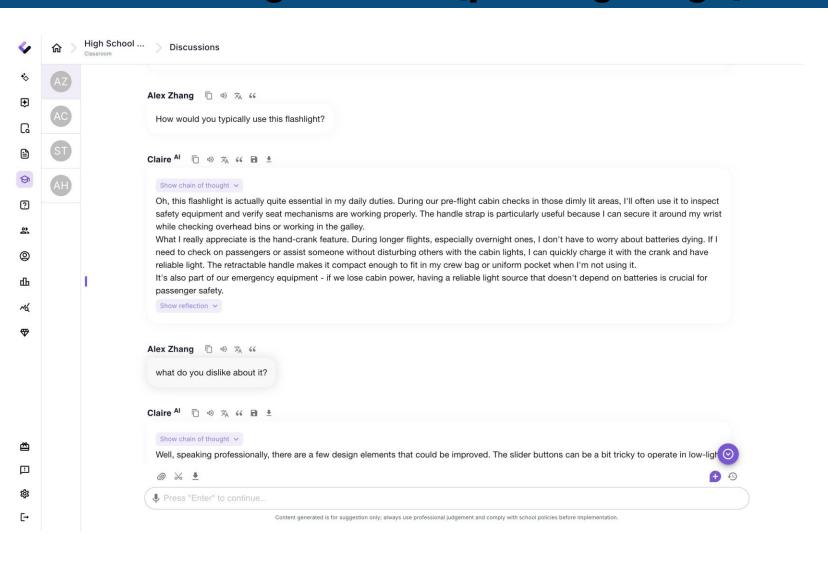
Guidance on project and homework

Scenario-based conversations, mock interviews, role play

Al shows its reflective thinking to support students' critical thinking

Save chat history

Call educator or parent to join the conversation



Assignment Submission can:

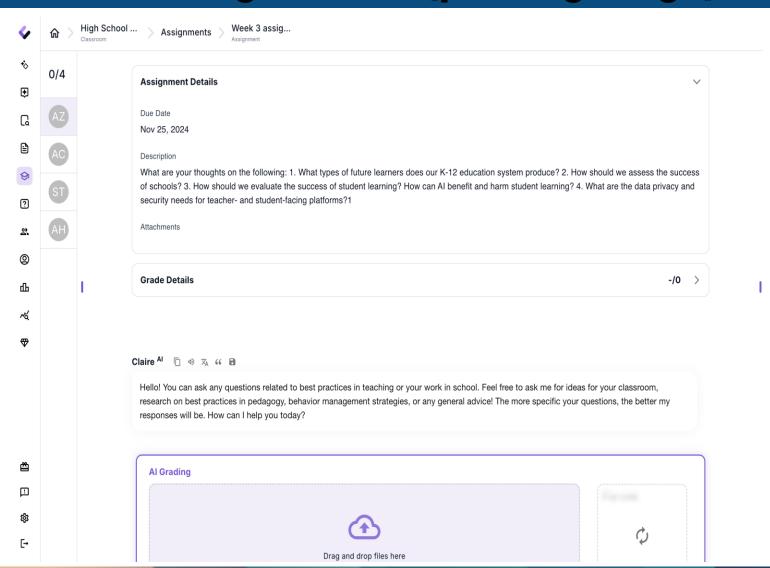
Teachers distribute assignments or other types of study materials;

Create and attach rubrics;

Student assignment submission management

Al-assisted scoring

Al-assisted report writing and student personalized, detailed feedback

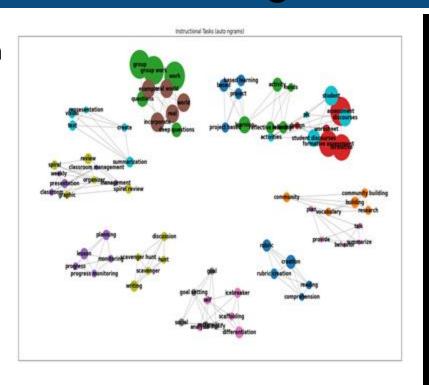


 Class Analytics can (soon will be available):

> Track the overall themes of students' conversation with AI to identify common questions and misconceptions among students:

Track students' learning progression;

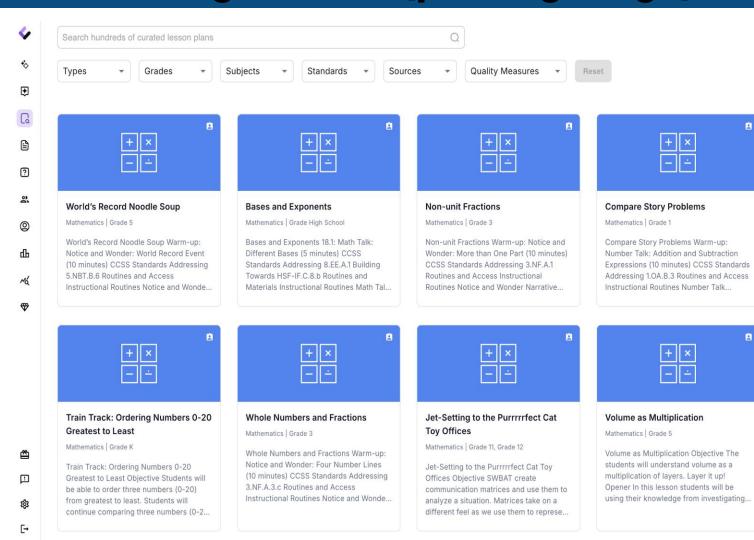
Offer suggestions for additional instructional/learning materials.



(Inspirational Images)

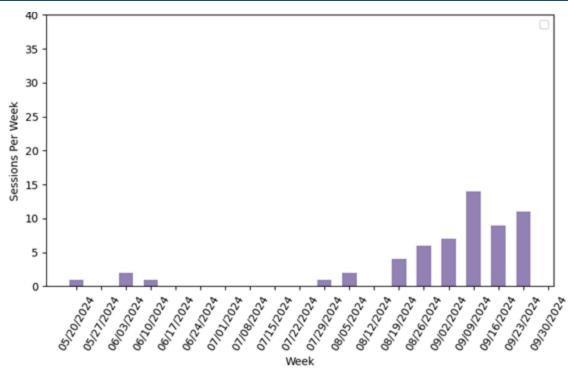
student data tracking SKILL/STANDARD: 6.5A Represent real-world with ratios and rates using scale factors, tables, graphs, and proportions

- Searchable database of lessons freely available through Creative Commons License: Illustrative Mathematics, OpenSciEd, BetterLesson, and Colleague Al's own materials
- Full editing function
- Quality measures
- Nudges and simulations to support educator's iterative refinement



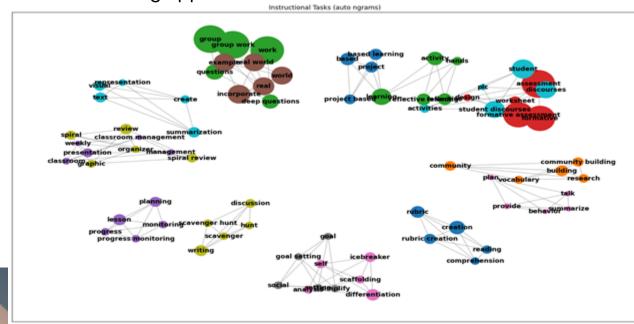






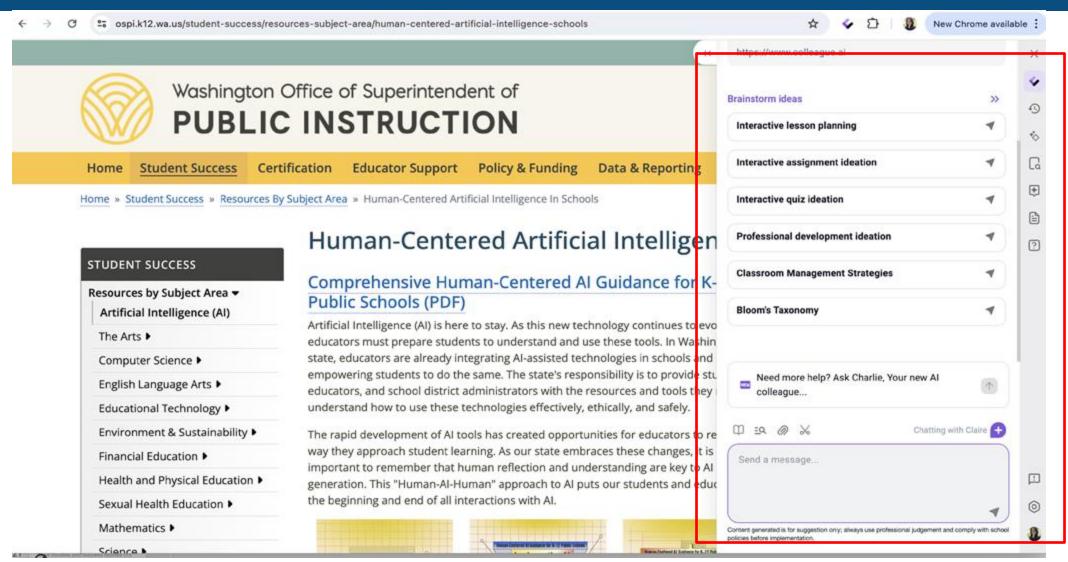
 Average sessions per week: The number of times teachers used (login) Colleague AI in a week. A session is counted if there is no idle time longer than 60 minutes; after 60 minutes, we regard a new session begins. Teachers can switch between platform features within a session. Teachers used Colleague AI for a wide range of **instructional tasks**, including:

- Lesson planning, simplifying language, activity design, progress monitoring, making real-world connections in lessons etc.
- Creating assessments and rubrics
- Establishing collaborative learning environments
- Classroom management and scheduling
- Communication and community
- Differentiation and scaffolding
- Providing opportunities for student discourse



Web Extension

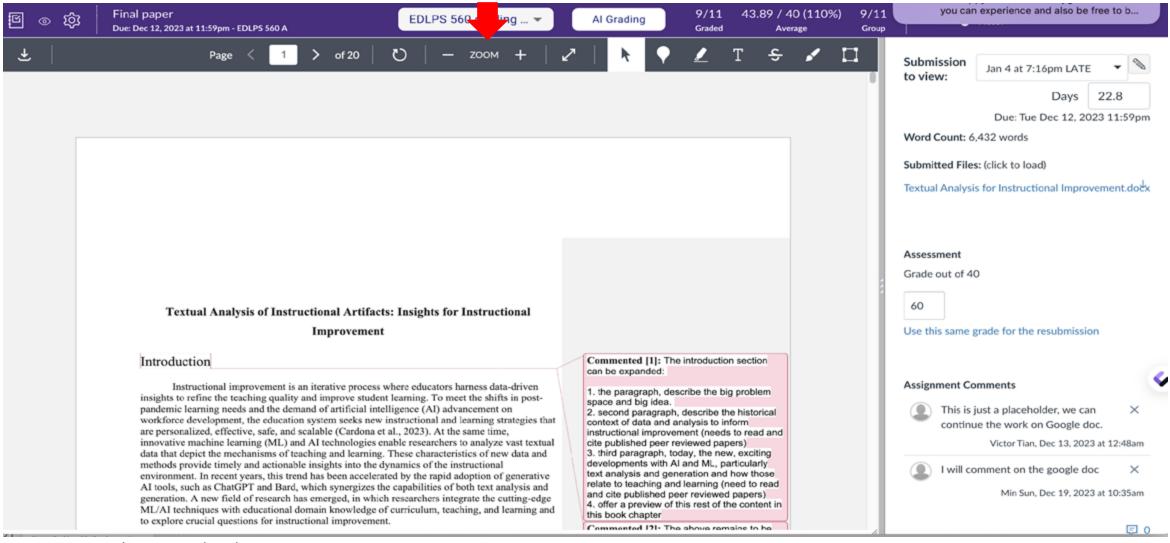




Web Extension







We are working on other learning management systems.



What do we offer to support teachers?

Colleague AI platform for free

- Teacher version is available to every US based educator
- Classroom (student-facing version) BETA version is open and piloting: Teacher and student interaction platform

• Implementation support

- In person and synchronous learning, offered by Colleague AI, Puget Sound Educational Services District (PSESD), and Capital Region ESD.
- Colleague Al offers free monthly webinars
 - How to write effective prompts. The video recording.
 - <u>Al-powered inclusion</u>: UDL and differentiation for diverse learners.
 The <u>video</u> recording.
 - Zoom link for Nov 15's webinar (1-2pm PT). Title: Elevating Every Learner: Mastering Depth of Knowledge (DOK) with Colleague AI

Asynchronous learning

- Colleague Al YouTube
- Online Community
- Canvas courses in partnership with districts



Thank You So Much!

- 1. Register a Free Account at colleague.ai
- 2. Please reach out to us if we can be helpful in anyway:

Min: misun@uw.edu

- 3. Join our monthly webinars
- 4. Schedule Free In-depth Demo and Training sun@colleague.ai info@colleague.ai
- 5. Connect on social media











Break





Modeling AI for Summarizing and



Step 1: We started with your feedback from last time that had been consolidated from the posters into <u>Elementary</u>, <u>Middle</u> and <u>HS</u> documents

Step 2: We uploaded those into CoPilot and asked it a series of questions

- Summarize the three documents
- Find key commonalities and differences
- Explain more about the ethical considerations

Step 3: Use 'Add to Pages' to consolidated it into one document

Al Committee Table Talk Co-Piot Summary.docx

Activity



Step 1: Identify your table number and then open this decommittee Group Feedback.docx

Step 2: Choose the group at the top of the Group Feedback doc that matches your table number and click on it to be taken to your notetaking page.

Al Committe Group Feedback - 12/5/24

Group 1	Group 2	Group 3	Group 4	Group 5
Group 6	Group 7	Group 8	Group 9	Group 10

Step 3: Follow the instructions and have at least one person add notes from your group

Activity



Al Committee Group Feedback.docx

Questions for Contemplation

- 1) How should AI be used to benefit student learning?
- 2) How can we use AI safely and ethically?
- 3) How can we use AI to create efficiencies?
- 4) How should we deal with misuse of AI?

Feedback is a Gift!

Where do we go from here?
Share your "next steps" thoughts with us. We'll use it to inform the work we do between now and our next meeting.

https://forms.office.com/r/YgP0EbFMM 4

EPS Artificial Intelligence Committee-Feedback 2024-25

