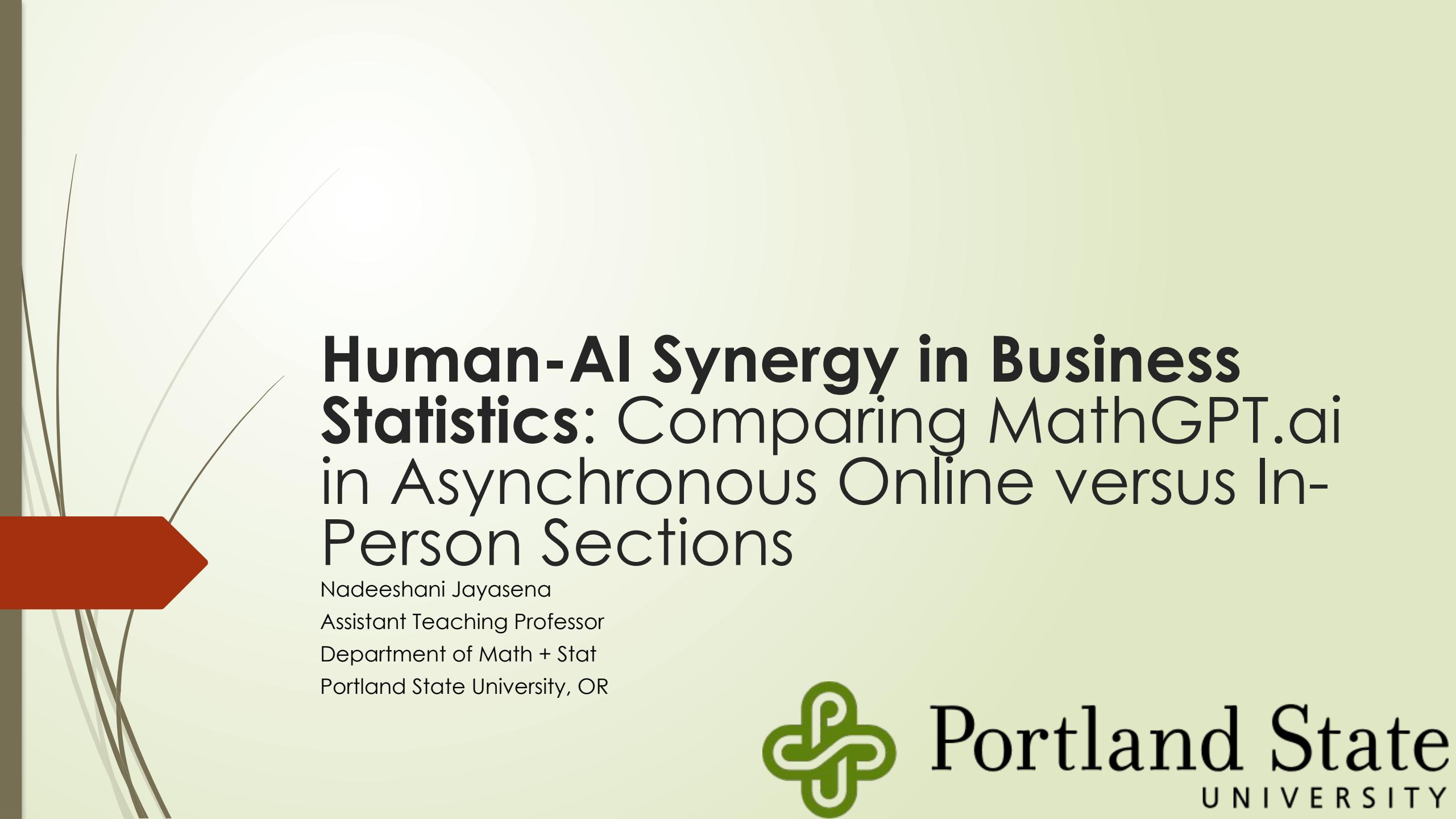




Human-AI Synergy in Business Statistics: Comparing MathGPT.ai in Asynchronous Online versus In-Person Sections

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The PSU Pilot Environment

- ▶ Portland State University in OR is a **large urban research university**.
- ▶ The pilot of MathGPT.ai was conducted within the "**Applied Statistics for Business**" course.
 - ▶ **Target Audience:** Undergraduate Business Majors.
 - ▶ **High Stakes:** Core requirement for upper-division entry.
 - ▶ **Modality Goal:** Evaluate AI effectiveness across physical and virtual boundaries.
- ▶ Each section has a diverse undergraduate cohorts (Approximately 35 per section).

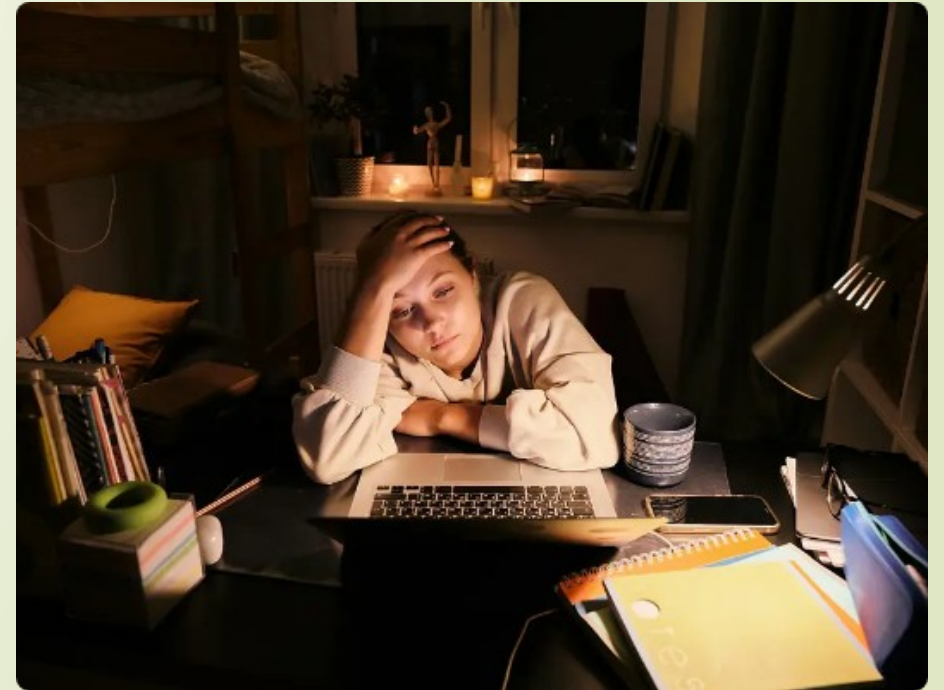


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Addressing Statistics Anxiety

The Homework Barrier

- Independent study is where Statistics Anxiety often peaks. Students frequently encounter cognitive "roadblocks" during asynchronous practice.
- Traditional homework creates a feedback delay. When a student is stuck in the middle of the night, frustration leads to disengagement rather than discovery.



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AI as the Homework Companion

Bridging Theory and Practice

- In this pilot, **MathGPT.ai** was integrated exclusively for homework assignments in both modalities.
- The tool acts as a "Tutor-on-Demand," providing the support structure traditionally found in physical tutoring centers but accessible **24/7 during** independent work.
 - Eliminates late-night "bottlenecks."
 - Encourages persistence through complex business cases.
 - Focuses on the **how** of calculation to enable the **why** of interpretation.



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Modality Implementation Goals

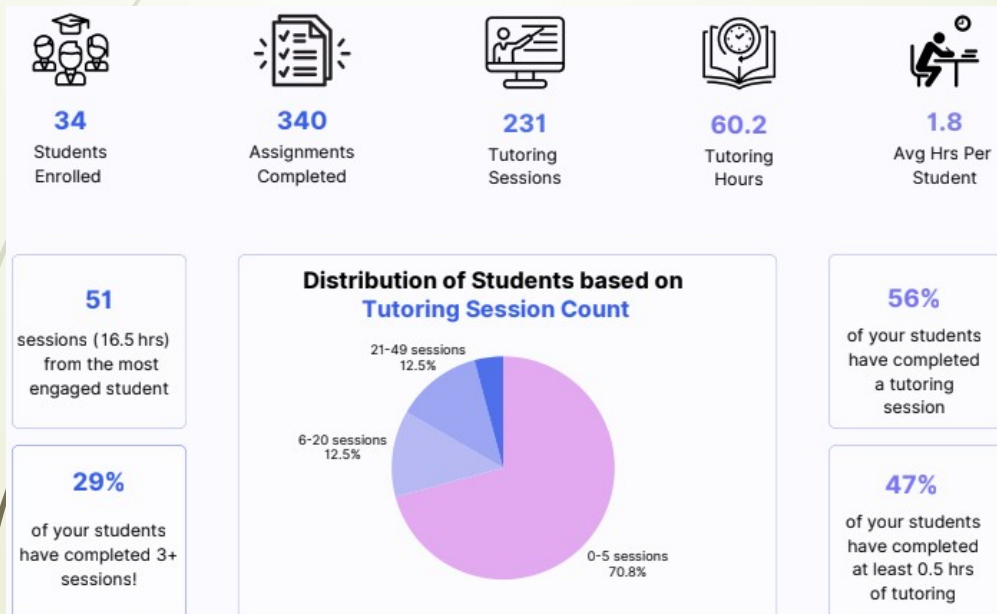
Comparison Factor	In-Person (F2F) Section	Asynchronous Online Section
Primary Contact	Live Lectures & Physical Office Hours	Video Modules & Virtual Discussion
AI Homework Role	Supplemental "After-Hours" Support	Primary "First-Responder" Tutor
Implementation	Homework-only integration	Homework-only integration
Discovery Goal	Reinforce classroom theory	Support self-directed mastery



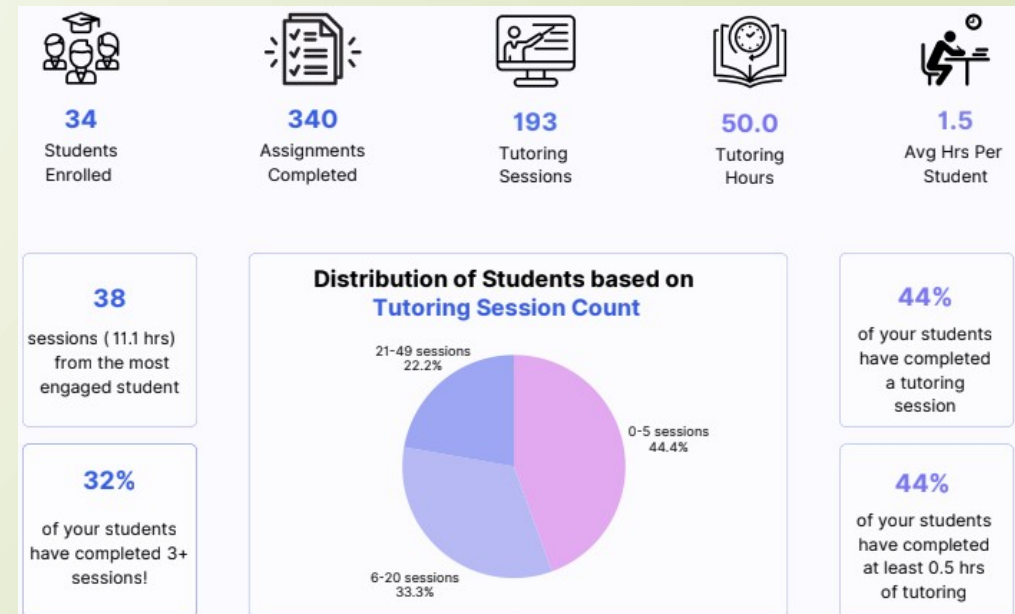
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Comparison of AI Tutor usage

In-Person (F2F) Section



Asynchronous Online Section

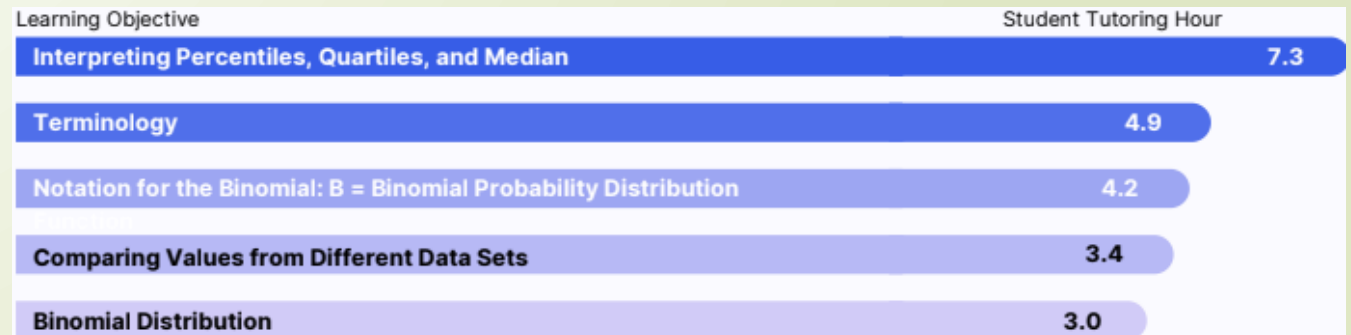
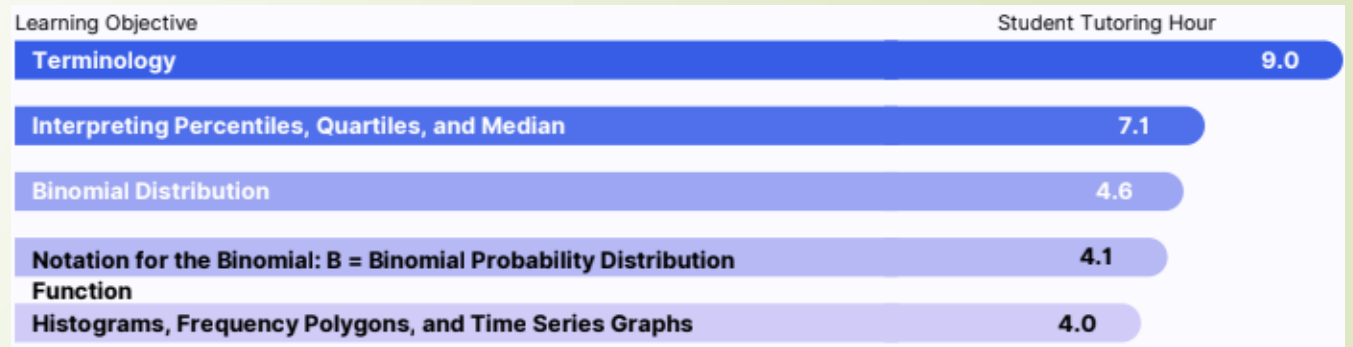


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Comparison of AI Tutor usage by Topics

In-Person (F2F)
Section

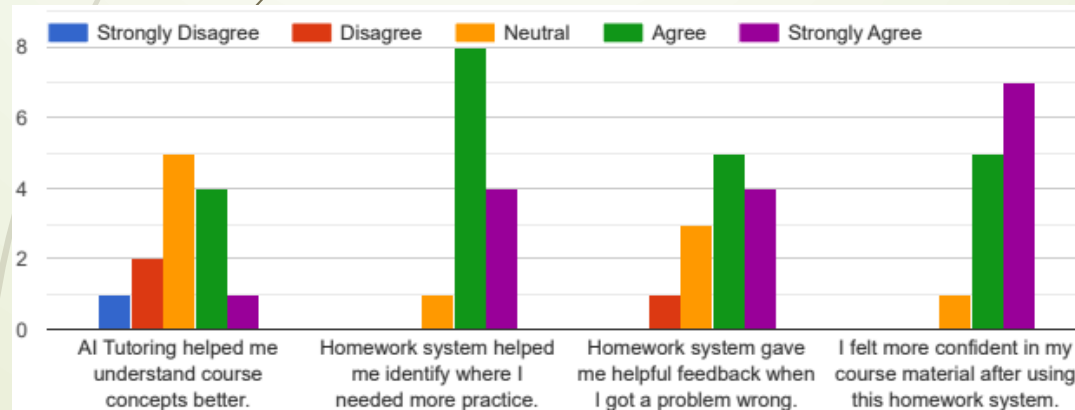
Asynchronous
Online Section



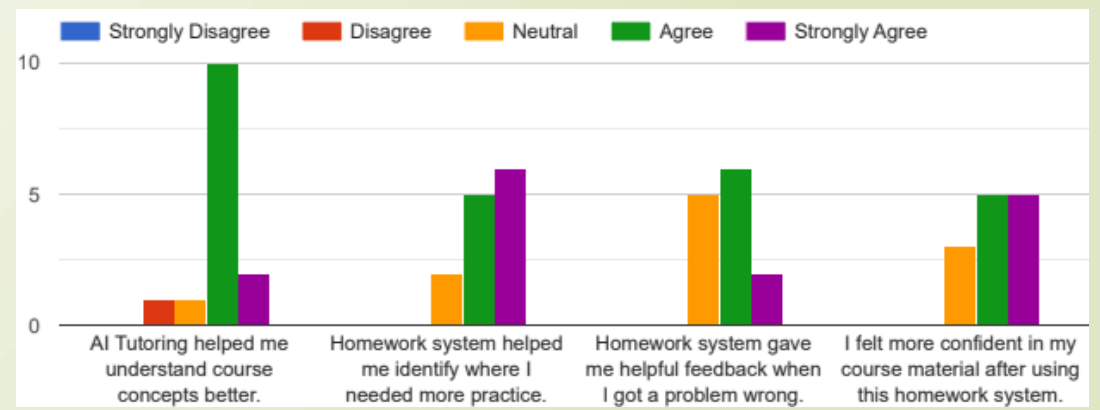
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Feedback from Students

In-Person (F2F) Section



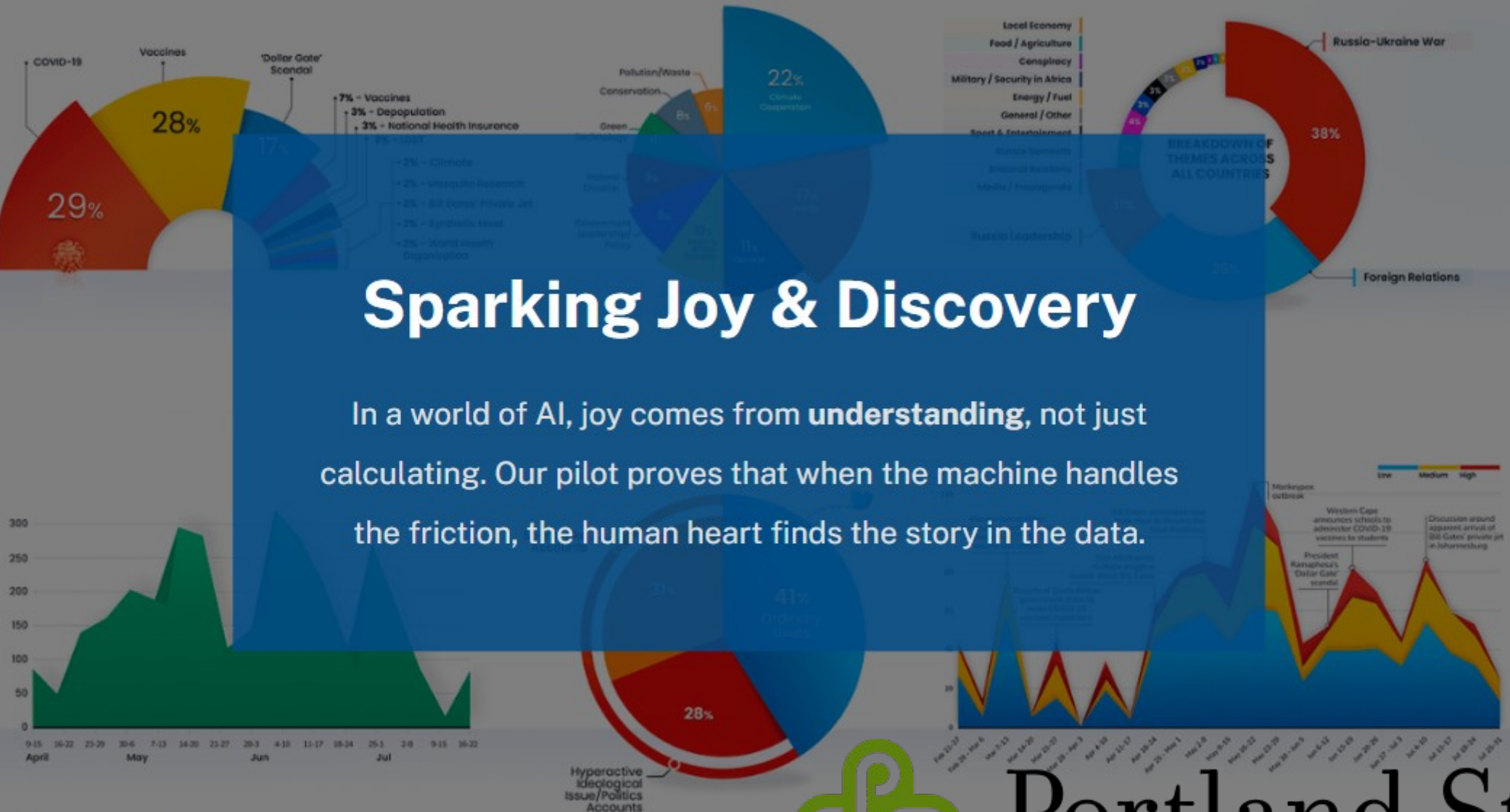
Asynchronous Online Section



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Sparking Joy & Discovery

In a world of AI, joy comes from **understanding**, not just calculating. Our pilot proves that when the machine handles the friction, the human heart finds the story in the data.



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Thank you



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