Rerouting Aviation English: Strategies for Teaching Online
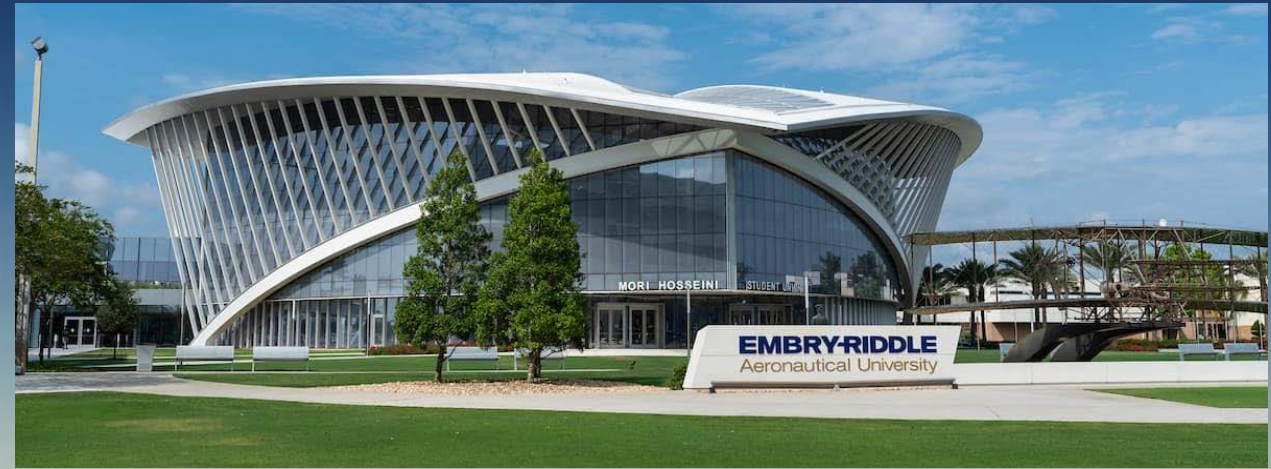
Jena Lynch, Alan Orr, and Jennifer Roberts

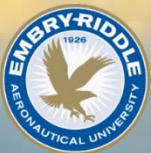Embry-Riddle Aeronautical University

ICAEA Webinar, June 30, 2020

Introduction

- Aviation English Specialists

- MAs Applied Linguistics & TESL

- Develop programs, courses, and assessment tools for

  - Ab-Initio Flight Training

  - Licensed Air Traffic Controllers

  - Commercial Airline Pilots

  - Aviation English Instructors

- Classroom and Online

Webinar Outline

1. "Flipping" the Classroom – Jennifer Roberts
2. Platforms, Materials, and Tools for the "Flip" - Alan Orr
3. Putting Ideas Into Practice – Jena Lynch
4. Breakout Rooms
5. Wrap-up

"Flipping" the Classroom

- "Blended learning"
- Uses a combination of **synchronous** and **asynchronous** sessions

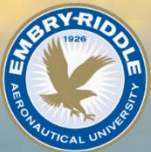| Synchronous	Asynchronous
• Teacher-led sessions • Same place (classroom or online) • Same time	• Independent learning • Different places (student's home or online) • Different times

ICAEA

"Flipping" the Classroom

- Communicative Method: **P**resent **P**ractice **P**roduce (**PPP**)
  - **P**resent: asynchronous
  - **P**ractice: asynchronous or synchronous session
  - **P**roduce: synchronous or recorded asynchronous
- Consider the differences in presenting/practicing *without* a teacher
  - The learning environment is online or in the student's home, not in a classroom
  - Teacher cannot monitor participation or progress
  - No opportunity for spontaneous interaction or questions
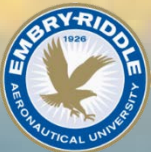 - **Learning materials must "teach" on their own**

Benefits of **Asynchronous** Learning

- Flexibility for instructors and for the students
  - Pacing, learning styles
  - Could be better for working professionals (no mandated time to be in class)
- Larger geographical reach
- Many materials can be recycled/used in other modalities (e.g. face-to-face)
- Builds autonomous language learners

Challenges of **Asynchronous** Learning

- Teacher workload
  - Setting up a central platform to host materials, communicate with students, etc.
  - Potential increase in grading
- Students workload
  - Must be accountable, self-motivated, self-disciplined, and effective time managers
- Materials and tools
  - Materials will "teach" for you
  - Tools will build the infrastructure of the online or home "classroom"

Using Technology for the "Flip"

- Platforms / Learning management systems
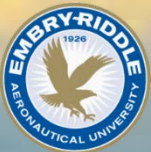- Materials
- Tools
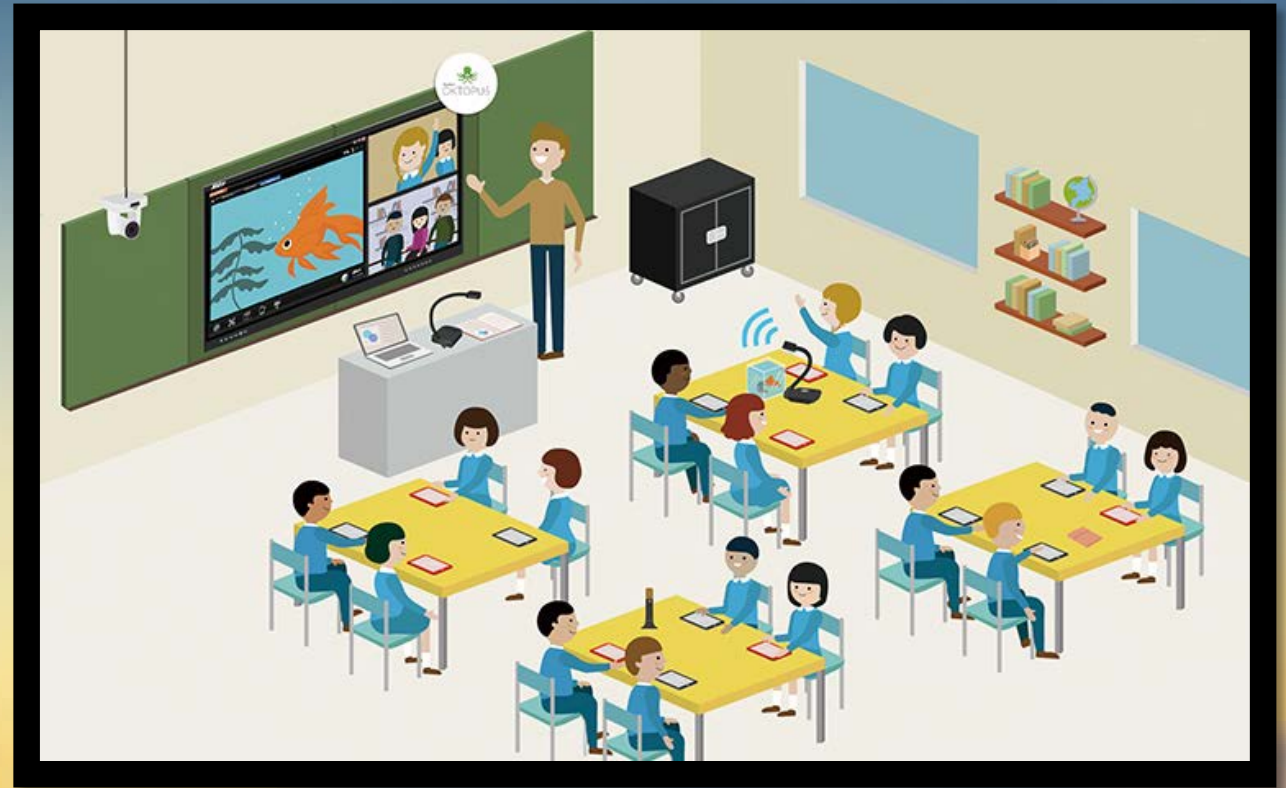
Platforms / Learning Management Systems

- Virtual "space" or "location"
- For-purchase platforms
  - Canvas
  - Blackboard
  - Moodle
  - Google Classroom
- Free platforms
  - Facebook groups
  - Google sites
 - Blog
  - Wix site

- Considerations
  - Availability
  - Stability
  - Flexibility
  - Security
  - Grade book transparency

Platforms / Learning Management Systems

- Benefits
  - Intentional Curricular Progression
    - Framework for targeted skills practice
    - Topical sequence
  - Stability
- Challenges
  - Pre-planning course and lessons
  - Keeping platform up-to-date as the course evolves
  - Resolving tech issues
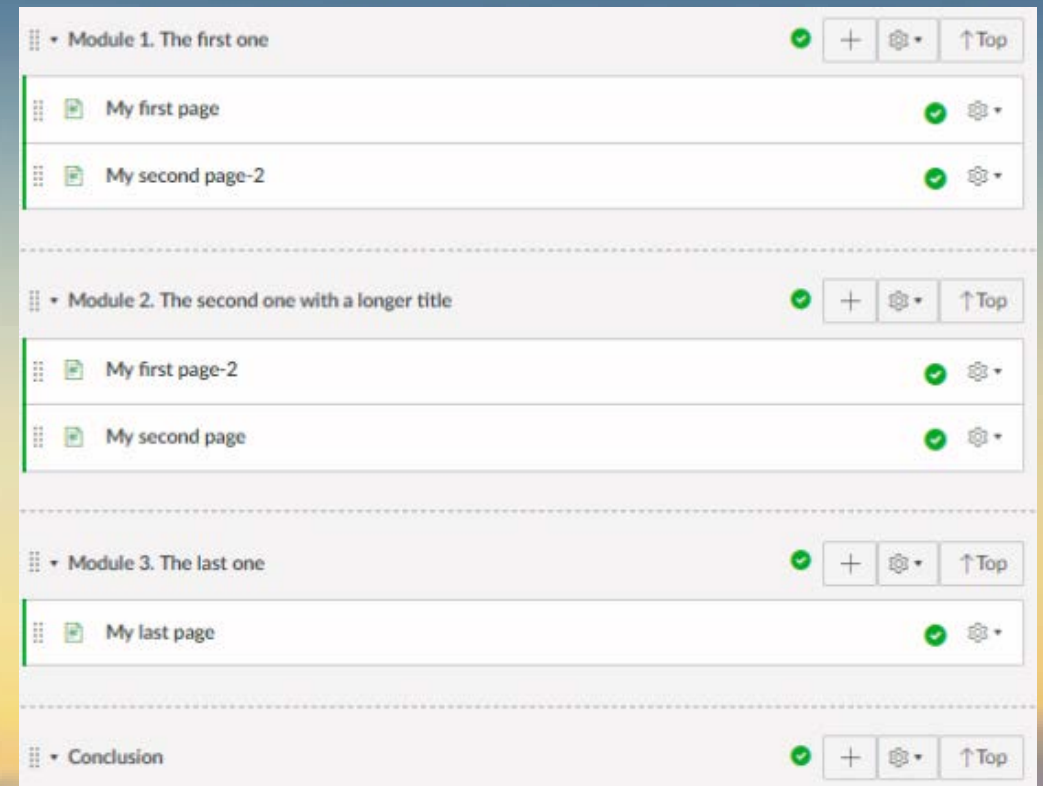
Materials and Tools

- Use your **platform** to:
  - Organize your curricular plan
  - Provide access to **materials** and **tools**

Materials	Tools
• Forms of input: videos, listening passages • Facilitative: worksheets, project instructions, rubrics, etc.	• Web-based technologies or resources to target specific skills

Materials

- Input-Based
  - YouTube or teacher-created videos and recordings

- Facilitative
  - Worksheets, guides, activity instructions (items that encourage **active learning**)

- Mainly, use your platform to host materials that direct students to complete aspects of **P**resentation, **P**ractice, and **P**roduction steps on their own.

Tools

- **P**resent / Receptive Skills
  - Comprehension questions – Vizia.co
  - Pronunciation noticing – YouGlish.com

- **P**ractice / Productive Skills
  - Pronunciation accuracy – PlaneEnglish app, Speechnotes.co
  - Speaking recordings – Vocaroo.com

- **P**roduction Skills
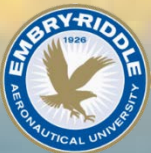 - Video recordings – Cam-recorder.com
  - Voiced over presentations – Google Slides

Using Technology for the "Flip"

- Choose a **platform** that enables yourself be deliberate with your course structure to achieve your course goals.

- Assemble **materials** and **tools** on the platform to promote effective self-study on their own.
  - Design your course to promote **active learning.**

- Be creative and adapt!

Putting Ideas into Practice

The Magic Red Carpet

TAM

BRASIL

JFK TWR: it appears that your nose gear is sideways, not fully down.

6:43 / 16:13

TAM Linhas Aereas A330 Pan Pan at JFK (ATC Recording)
159,966 views • Jan 12, 2013   552   25   SHARE   SAVE   ...

Image from http://mbsphotography.smugmug.com

Components of the Effective In-person Lesson	Online Asynchronously
Interactive, teacher-guided discussion	**X**
Adaptive visual aid on whiteboard	**X**
Monitor non-verbal cues of comprehension	**X**
Think, pair, share opportunities	**X**
Start, stop, rewind video	Yes!
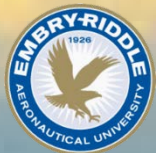
Effective In-person Lesson	Effective Online Lesson
Interactive, teacher-guided discussion	**Graphic organizers; guided note-taking; directions**
Adaptive visual aid on whiteboard	**Student-created visual aid; diagrams**
Monitor non-verbal cues of comp.	**Build comprehension through different question types**
Think, pair, share opportunities	**Video discussion posts**
Start, stop, rewind video	**Timestamps, purposeful re-watching**

Structure and Guidance

- T provides major events
- Ss organize events to check comprehension

Landing Gear Problems – Listening Guide

TAM 8078 interacted with JFK Tower, NY Departure, and NY Approach. Below is a bank of 16 key events from the incident. Write the Key Events into the space next to the controller involved in the communication, in the table below. The first one is done for you. Some events match with more than one controller.

Key Events	
ATCO says the gear appears to be in the wrong position	~~First go-around~~
TAM 8078 says they have a nose wheel steering issue (2)	Second go-around
TAM 8078 makes a PAN call	ATCO says that the gear is sideways (2)
TAM 8078 is not declaring an emergency	Nosewheel straightens
ATCO relays a message from maintenance	Touch-down
TAM 8078 recycles the landing gear	ATCO offers a longer runway
ATCO asks about time to fuel exhaustion	ATCO asks for people on board
TAM 8078 requests to "maintain" runway (2)	TAM 8078 requests towing (2)

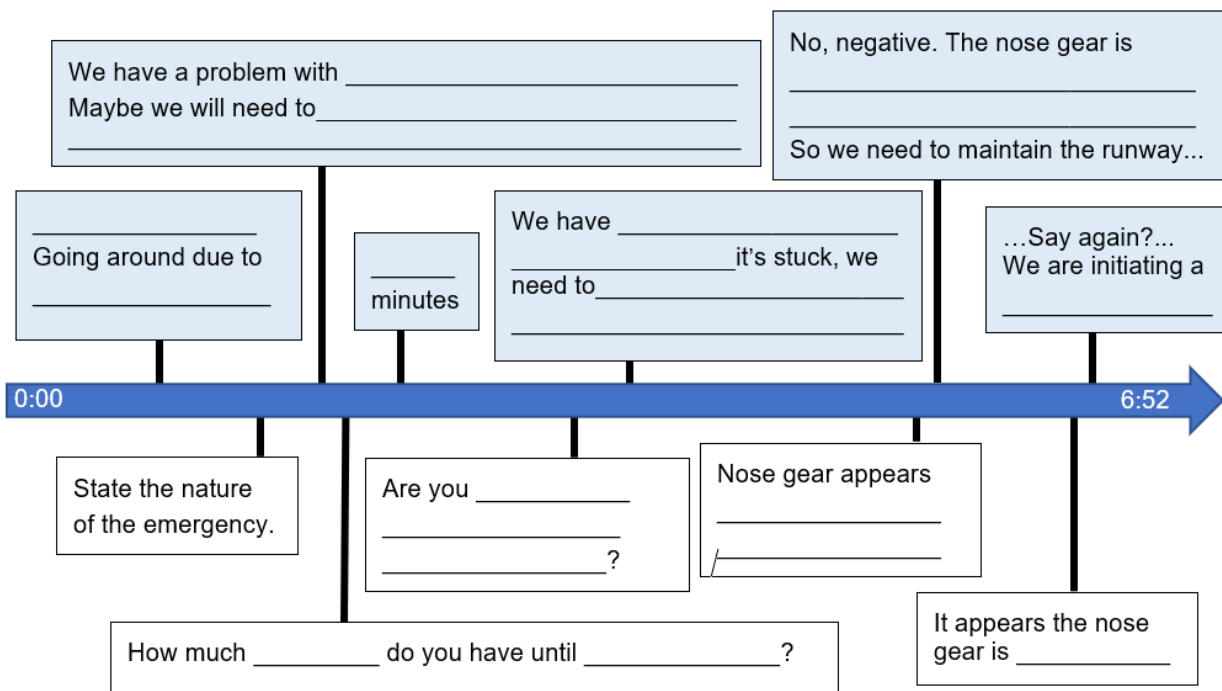| Controller	Write key events here
JFK TWR (8 Events)	• First go-around
NY DEP (10 Events)	
NY APP (2 Events)	
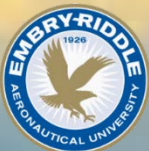
Graphic Organizer Timeline

- T provides timeline for guided instruction
  - Pilot top
  - Controller bottom
  - Timestamps
- Ss fill in R/T comms
  - Events
  - Language

Next, there is a timeline that extends for three pages: Part 1, Part 2, and Part 3. TAM8078 communication is above the timeline. ATCO communication is below the timeline.

Timeline Part 1: 0:00-6:52

We have a problem with _____
Maybe we will need to _____
_____

No, negative. The nose gear is _____
_____
So we need to maintain the runway...

_____
Going around due to _____

_____
minutes

We have _____
_____ it's stuck, we need to _____
_____

...Say again?...
We are initiating a _____

0:00 ➝ 6:52

State the nature of the emergency.

Are you _____
_____
_____ ?

Nose gear appears _____
/_____

It appears the nose gear is _____

How much _____ do you have until _____ ?

Visual Aids

- T provides visual aids and opportunities for Ss to create their own
- Ss check comprehension in another way
  - Sketch.io

Before continuing to Part 3, draw two pictures based on what you heard.

Normal A330 nose gear	TAM8078's nose gear

Question Types

- T writes a mixture of lower- and higher-order thinking questions
  - Basic comprehension
  - Inference and analysis

- Ss build deeper understanding of the event

Who explains the landing gear issue with these phrases? Write TAM or ATCO next to each.

_____malfunction   _____fault with the nosewheel steering

_____stuck   _____not in the right position

_____appears to be in the wrong position   _____cocked at 90 degrees

_____sideways   _____straightened out

_____little bit out of track   _____does not appear to be normal

Answer these questions after completing the matching and timeline activities. You may want to discuss the questions with your classmates.

The ATCO asks about TAM8078's fuel endurance. Why does he double check that the time is to complete exhaustion? (Note: TAM told him the time until they would go to the alternate)

Why did TAM8078 request to "**maintain** runway after landing"? Note that this is an unusual use of the word "maintain" and the ATCO re-states it as "stay on the runway."

What is different about what TAM8078 thought was the problem and what ATC visually observed was the problem?

25-Minute Breakout Room Task

- Sent to breakout rooms in a small group.

- Open link to a Google Form with instructions to complete this activity.

- Choose one person to share their screen and type in the form.
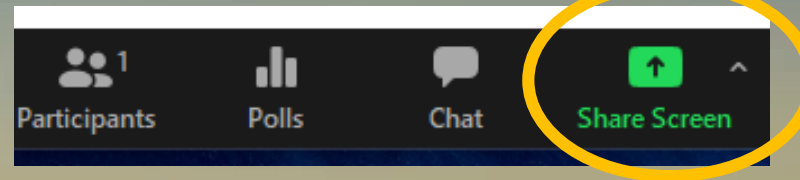
- Your group will fill out **one** Google Form with a lesson plan for 5 hours of instruction.

Copy the link from the Zoom chat

We will send the link in Zoom chat here.

Click or Copy the link and open in a new tab.

If you can't see the chat box, open it here.

Breakout Room Debrief

- Report back
  - What did you plan for the <u>asynchronous</u> time?

- Link to responses in chat box

- Sample
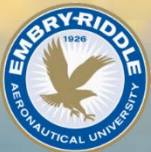
Sample

Content Focus – Comprehension

1st hour asynchronous:
- Vocabulary worksheet
- Listening Guide + video at home

2nd hour synch:
- Jigsaw sections of the event
- Summarize
- Answer questions from LG

Language Focus -- Paraphrasing

3rd hour asynch:
- Identify instances of paraphrasing
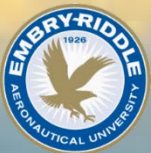 - Describing the nose gear
- Strategies for paraphrasing

4th hour synch:
- Breakout rooms to compare answers from "HW"
- Teacher-led recap of strategies
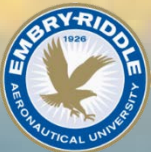- Game with paraphrasing vocab

Bringing it Together

5th hour asynch: Graded assignment and submit recording
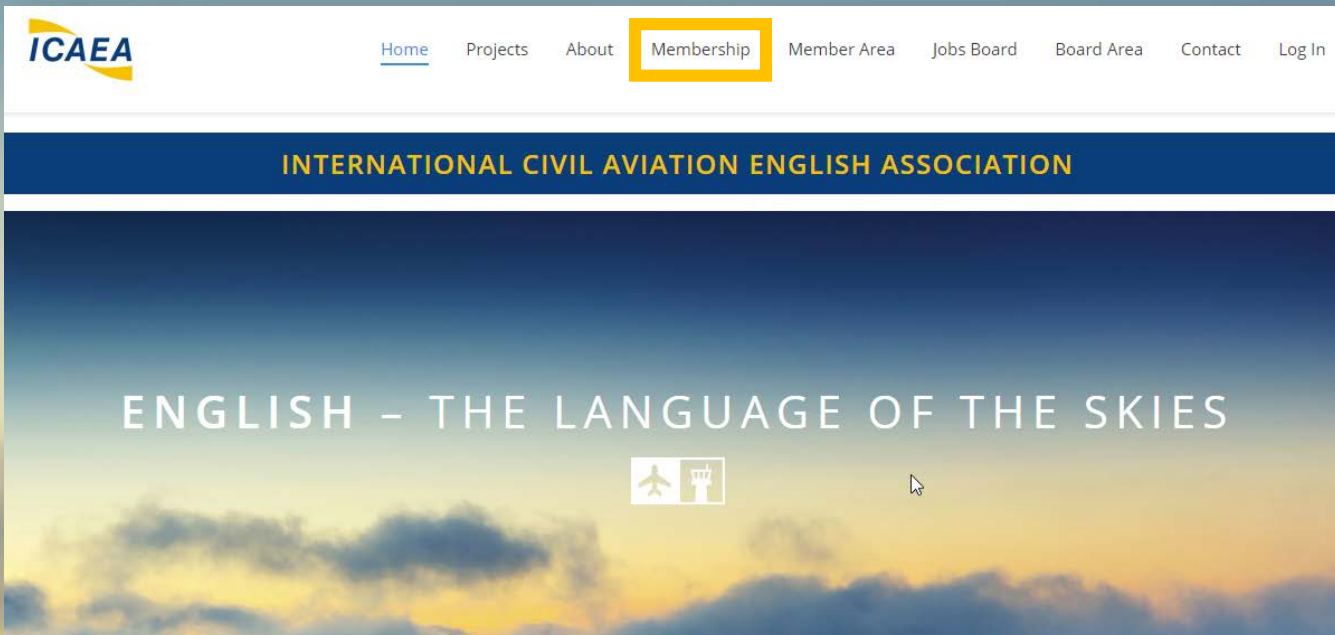- Describe pictures that have landing gear issues illustrated

Questions or Comments

- Before we go, can we answer any questions?
  - Flipping the Classroom
  - Platform, Materials, and Tools
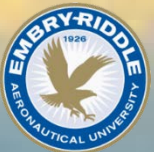 - Converting In-Person to Online Activities

Future Plans

Join ICAEA: **https://www.icaea.aero/**

- More webinars in the future!
- Poll: **What are you interested in learning more about?**

Next webinar is planned for

August 4, 2020

Thank you!
See you again soon.

If you have any questions or would like to learn more about Embry-Riddle's Aviation English courses, please contact us.

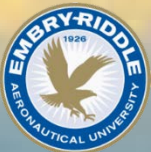Jena Lynch: Jena.Lynch@erau.edu

Alan Orr: Alan.Orr@erau.edu

Jennifer Roberts: Jennifer.Roberts2@erau.edu

See the responses from the Breakout Room Discussions:

https://docs.google.com/spreadsheets/d/1YCYXxpohL_rpiCHLVGYtoL9PsbJoVNfr3z2cc_30gPI/edit#gid=1238944245
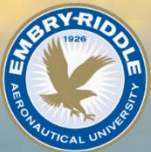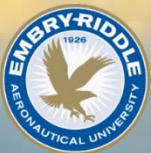
Questions from the Chat

Question: Any free gradebook suggestions? / Have you heard of any independent gradebooks?

- **Answer:** The free gradebook I (Alan) used to use was called Engrade, which was secure and had good customer service. It seems like that company has since been acquired, so I'll have to point you to a list of recommended gradebooks that I have not personally used: Top 13 Online Gradebooks or The 5 Best Gradebook Tools for Teachers. Maybe check out iGradePlus, which seems to assure users that it's free.

Question: In your experience, how is YouGlish for Aviation English?

- **Answer:** Like many tools, YouGlish doesn't focus on aviation English, specifically. It might not be great for all terms (and phraselogy), but it can certainly be used for more general aviation English terms. As another of our ERAU aviation English colleagues has pointed out, it might be best for having students notice the sounds of vowels and consonants (segmental) or stress patterns in common aviation terms. For instance, here at ERAU, we recently taught a group of students who had trouble with final /l/ sounds. We then assembled a collection of aviation English minimal pairs from our content topics to help draw attention to the contrast between sounds. Along these lines, you could ask students to practice listening to the differences between two words such as "radio" and "radial" on YouGlish. This would be a helpful noticing exercise; additionally, students could use a website such as Sounds of Speech to help students understand how the /l/ sound is formed in the mouth.

Question: Given the teacher workload to prepare the asynchronous sessions should they be charged at a much lower rate than a teacher-led session?

- **Answer:** I (Jena) would <u>not</u> suggest they be paid at a lower rate. Asynchronous teaching shifts the workload away from being in class to much more time spent behind the scenes planning and giving feedback on submitted work. In our webinar we did not go into giving feedback as part of an asynchronous course, but this is indeed the other critical component.

- The teacher is not doing less, in fact, they might be doing more because they may address individual student work more frequently.

- Regardless of the modality, well-qualified aviation English teachers are hard to find. Compensating your teachers well helps you retain talent.
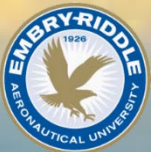
Question: What tool did you use for the poll?

- **Answer:** The poll was done within Zoom. But if you want to create asynchronous polls, we'd recommend using [Google Forms](). [Survey Monkey]() and [Poll Everywhere]() are popular polling tools as well.

ICAEA