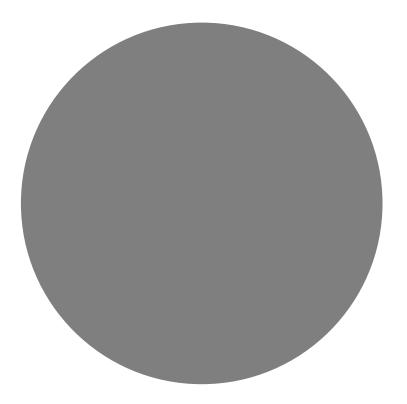# Evaluating the UX of Instructor Feedback: An Exploratory Analysis

Andrea L. Beaudin

Texas Tech University

30th May, 2018

Overview

Will Hochman

- Mentor
- Friend
- Instigator

Initial curiosity

Why Feedback?

THE REIGN OF RED INK

WALTER BARNES
Glenville State Normal School, Glenville, West Virginia

...en this paper on theme-correcting in the grades a... "The Reign of Red Ink," in order to characterize, or ... if I may coin a word—the present period of composi-...

As accurately as I can judge from a rather brief ...d limited observation, I believe that the children in ...e, so far as composition work is concerned, in an ...archy, in which they are the subjects, the teacher ...re often, the queen), and the red-ink pen the royal ...—"not to crack the wind of the poor phrase, running ... believe that in the elementary school we correct ...s too rigidly.

...ho has studied the history of the teaching of English ...t the children of today are receiving better training ...an public-school children have hitherto received. ...themselves have generally been subjected to thorough ...drill; the psychology and pedagogy of the subject ...ously studied and suggestively written; and compo-...along with other phases of English, is accorded an ...ce in the curriculum. But despite all this, them ...n unintelligent process.

...spite all this"; perhaps "because of this" woul... ...curate and more suggestive. For I beli... ...the blame can be charged to our nat... ...eagerness to justify the prom... ...the school...

A COMPOSITION ON RED INK

ALFRED M. HITCHCOCK
Public High School, Hartford, Conn.

Red ink is to our profession as drugs are to the medical pro-fession. We cannot, or think we cannot, get along without it. But these are well-nigh drugless days. The medicine cabinet is smaller than it used to be; the few bottles it still contains are smaller. I do not look to see red-inkless days; yet the time may come, and soon, when shallower ink-bottles will be the mode. I hope such a time will come soon, for this I have noticed: whereas doctors, wisely or unwisely, may administer drops and pills unnum-bered without feeling personal discomfort, teachers who administer large quantities of red ink all too frequently grow thin and pale and ...im of eye. I would gladly hasten the coming of such a time, an... ...h this laudable purpose in mind I shall jot down all of the w... ...think of in which red-ink economy may be practiced. A... ...ys will be found nothing novel, certainly nothin... ...r scrip contains but simples long known t...

CORRECTING AND GRADING THEMES

HILDA JANE HOLLEY

Doubtless the last word has been said on the subject of c... and grading themes. But in most cases this word has d... for the overburdened English teacher except to fix in... conscious, if not conscious, mind the thought, "How I hate... Students hate themes just as much as the teachers, bu... themes is a necessary evil if the child is to be taught to... his thoughts and put them in a form which will convey... to other people. Recognizing that themes and the resulta... of correcting papers were inevitable as long as I followed... fession which I had chosen with care and forethought, I a... to devise some scheme which would take the drudgery o... correcting of never less than two hundred themes a... do not believe my scheme is original. It may have been t... ...r superior form in many schools. I really do not know... ...the ideas incorporated in the grade sheet which I u... ...stem has proved very satisfactory both to me and the... ...first aim was to find some system by which I cou... ...ly. I found it difficult to decide whether a giv... ...er cent or only 83. I also discovere... ...papers my judgment va...

Over a century of literature…
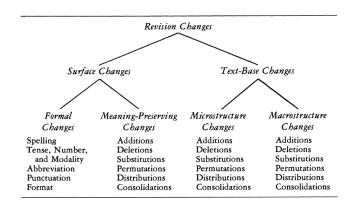
Scholarship

Red Ink

A COMPOSITION ON RED INK[1]

ALFRED M. HITCHCOCK
Public High School, Hartford, Conn.

Red ink is to our profession as drugs are to the medical profession. We cannot, or think we cannot, get along without it. But these are well-nigh drugless days. The medicine cabinet is smaller than it used to be; the few bottles it still contains are smaller. I do not look to see red-inkless days; yet the time may come, and soon, when shallower ink-bottles will be the mode. I hope such a time will come soon, for this I have noticed: whereas doctors, wisely or unwisely, may administer drops and pills unnumbered without feeling personal discomfort, teachers who administer large quantities of red ink all too frequently grow thin and pale and dim of eye. I would gladly hasten the coming of such a time, and with this laudable purpose in mind I shall jot down all of the ways I can think of in which red-ink economy may be practiced.
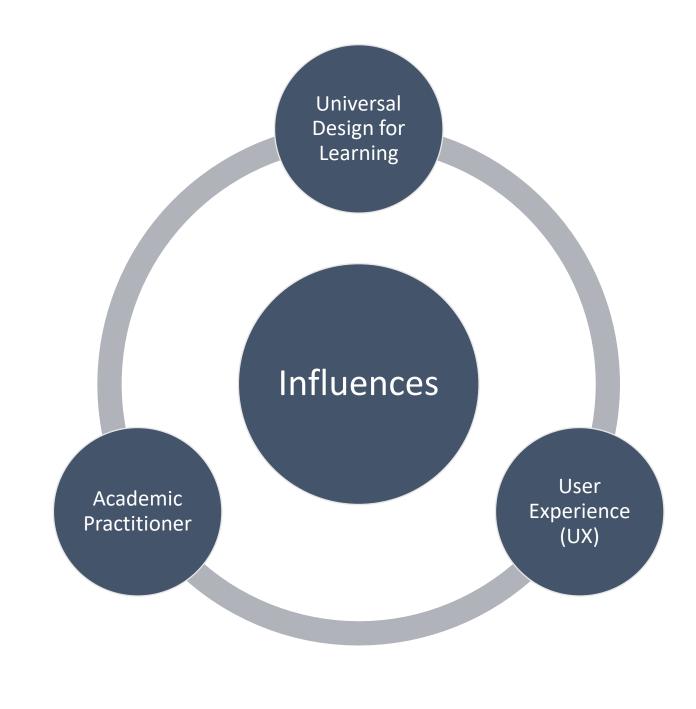
The Can(n)on

Faigley and Witte (1981)	"Analyzing Response"
Sommers (1982)	"Responding to Student Writing"
Haswell (1983)	"Minimal Marking"
Connors and Lunsford (1988)	"Frequency of Formal Errors in College Writing, or Ma and Pa Kettle Do Research"
White (2007)	*Assigning, Responding, Evaluating: A Writing Teacher's Guide* (4 ed.)
Lunsford and Lunsford (2008)	"'Mistakes Are a Fact of Life': A National Comparative Study"

Influences

Influences

- Universal Design for Learning
- Academic Practitioner
- User Experience (UX)

How can I/we do feedback better?

Research Questions

How are instructors currently providing feedback to students (what media, content, and style)?

What experiences with and expectations for feedback do students have?

How do students typically interact with feedback?

How might the medium of the feedback impact its usability, and why?

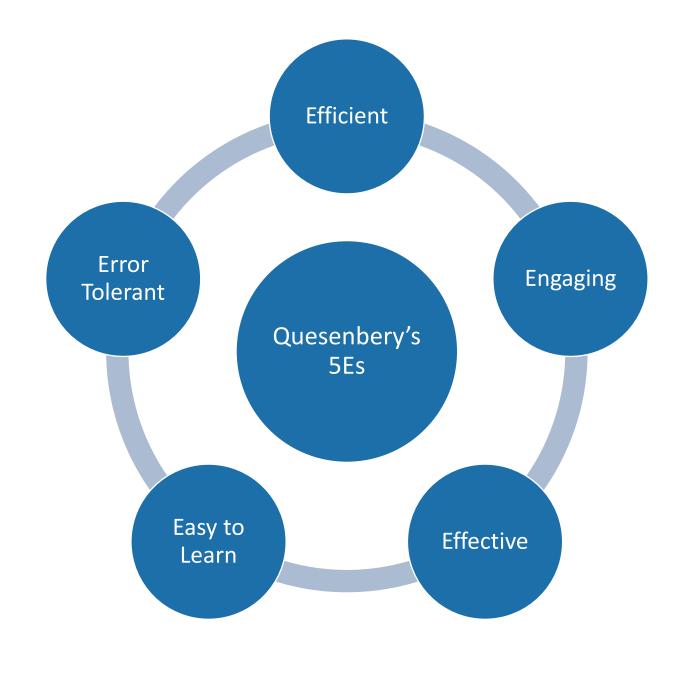Theories about and strategies for answering questions

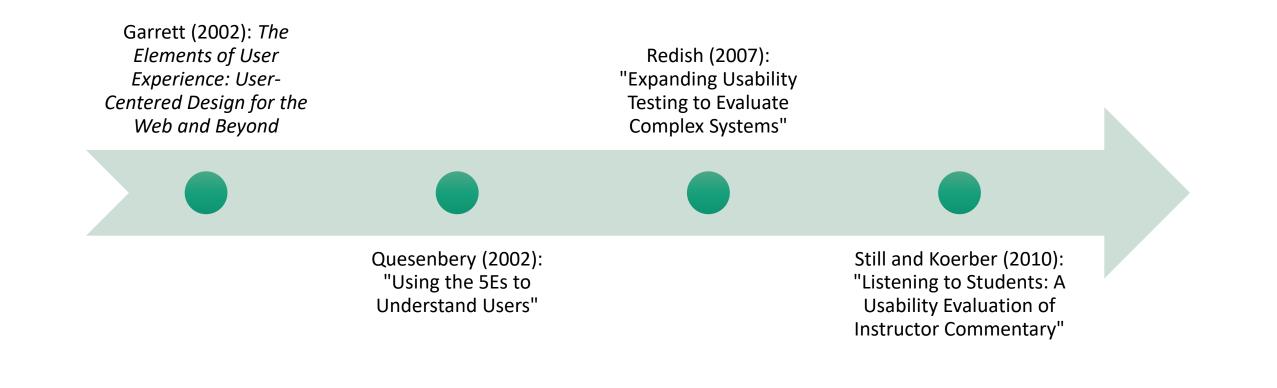# Methodology and Methods

Composing as UX Research and Evaluation

"The basic tenet of technical communication is user analysis. Everything starts with the end user."

Redish and Barnum (2011),
"Overlap, Influence, Intertwining: The Interplay of UX and Technical Communication"

User Experience

Methods: Basis

- Still and Koerber (2010)
  - User-centered
  - Complexity
  - Further Research

Listening to Students: A Usability Evaluation of Instructor Commentary

Brian Still[1] and Amy Koerber[1]

Abstract

Many students see instructor commentary as not constructive but prescriptive directions that must be followed so that their grade, not necessarily their writing, can be improved. Research offering heuristics for improving such commentary is available for guidance, but the methods employed to comment on writing still have not changed significantly, primarily because of insufficient understanding of how students use feedback. Usability testing is ideally equipped for assessing how students use commentary so that instructors might adapt their comments to make them more usable. This article reports on usability testing of commentary provided to students in an introductory technical writing course.

writing feedback, grading, writing

Instructors	Students

• Nationwide
  • Survey
• TTU ENGL 2311
  • Survey
	• TTU ENGL 2311
	  • Survey
	• User Testing Participants
	  • Survey
	    • Learning Styles Inventory
	  • User Testing:
	    • Observation
	    • TAP
	    • Artifacts
	  • Interview

Methods: Research Design

Research Questions and Methods

Q1: How are instructors currently providing feedback to students?

Q2: What experiences with and expectations for feedback do students have?

Q3: How do students typically interact with feedback?

Q4: How might the medium of the feedback impact its usability, and why?

2311 Instructor Survey

2311 Student Survey

Learning Styles Assessment

National Instructor Survey

Usability Graded Artifacts

Usability Observation

Usability Post-Test Interview

Usability Pre-Test Survey
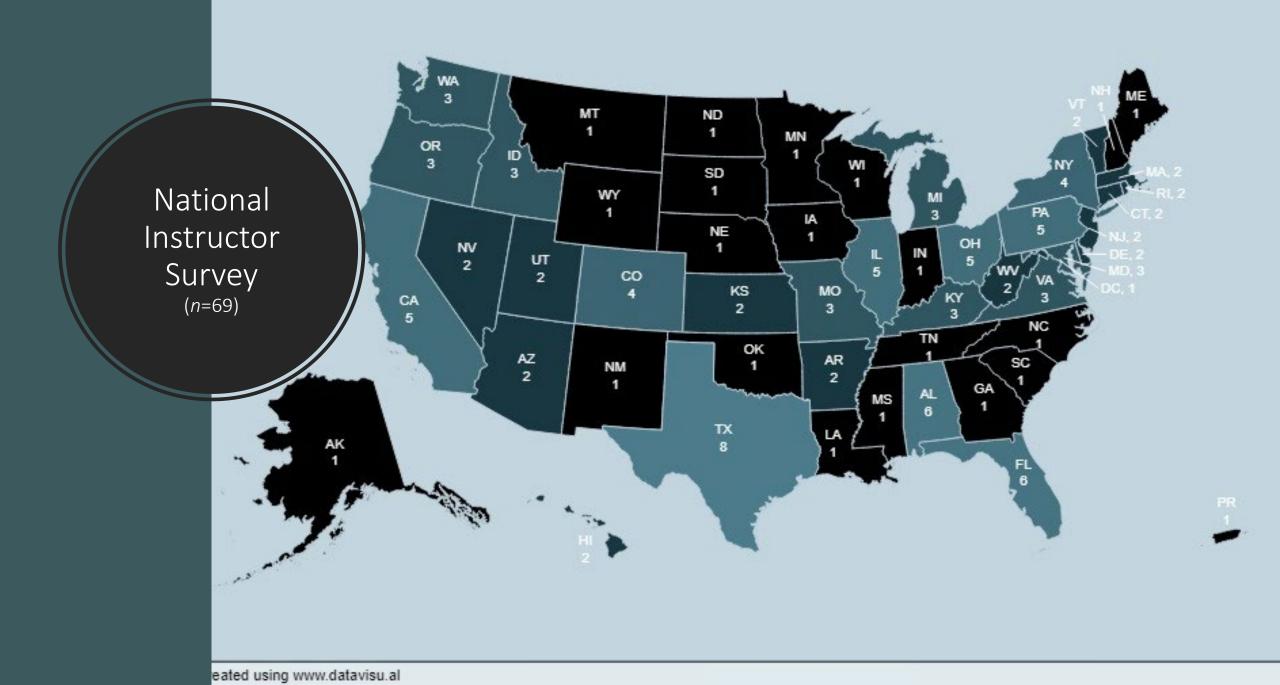
Usability Revision Lists

Usability Talk-Aloud Protocol

Lots of data. Now what?

Results and Analysis

Instructors

National Instructor Survey and TTU ENGL 2311 Instructor Survey

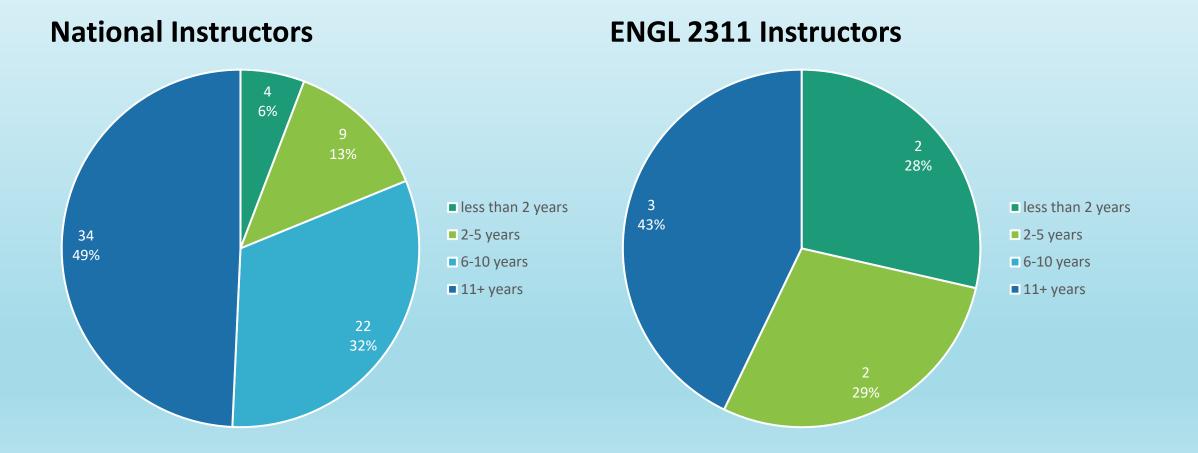National Instructor Survey (*n*=69)

Experience Teaching Comp/Tech Writing/WID

National Instructors

ENGL 2311 Instructors

National Instructors:
- 4 — 6%
- 9 — 13%
- 22 — 32%
- 34 — 49%

Legend:
- less than 2 years
- 2-5 years
- 6-10 years
- 11+ years

ENGL 2311 Instructors:
- 2 — 28%
- 2 — 29%
- 3 — 43%

Legend:
- less than 2 years
- 2-5 years
- 6-10 years
- 11+ years
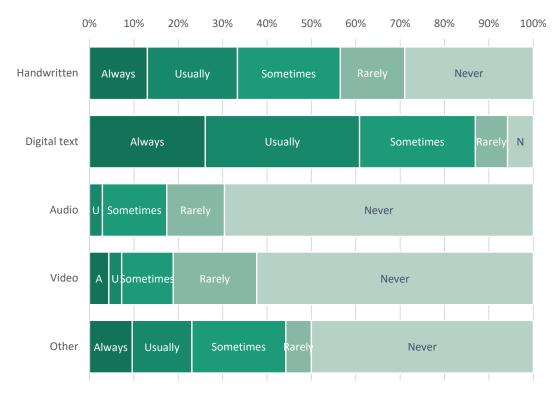
Frequency of Media

National Instructors
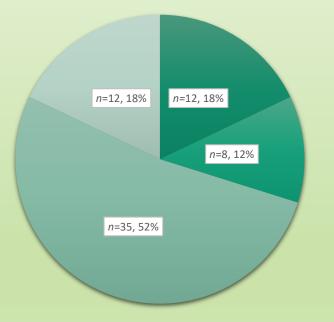
ENGL 2311 Instructors

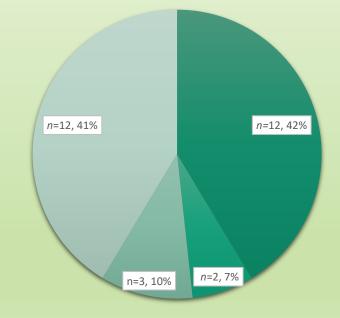# "I spend a manageable and appropriate amount of time commenting and evaluating each assignment"

National Instructors

ENGL 2311 Instructors

National Instructors pie chart:
- n=12, 18%
- n=12, 18%
- n=8, 12%
- n=35, 52%

ENGL 2311 Instructors pie chart:
- n=12, 41%
- n=12, 42%
- n=3, 10%
- n=2, 7%

Legend: ■ Strongly Disagree ■ Disagree ■ Neither Agree nor Disagree ■ Agree ■ Strongly Agree

Manageable and Appropriate?

"It takes forever and a day for me to give feedback that I think is useful and useable — and that addresses higher order concerns. Noting grammar errors is easy; pointing out that paragraphs are out of order, explaining why the order doesn't work, and **suggesting an alternative without telling a student what to do** is not easy. Not at all."

NIS Respondent #62

"I believe my students are able to apply the feedback to revision and/or subsequent assignments"

National Instructors

ENGL 2311 Instructors

National Instructors:
- Disagree, *n*=2, 3%
- Neither Agree nor Disagree, *n*= 7, 11%
- Strongly Agree, *n*=11,
- Agree, *n*=47, 70%

ENGL 2311 Instructors:
- Neither Agree nor Disagree, *n*= 1, 14%
- Agree, *n*=6, 86%

Understand and Apply?

"The previous question asking if I think students *understand* and *use* feedback, it is hard to tell. I hope so and I know some students come to my office hours to ask for clarification. My assumption is that if students do not ask for help, they understand."
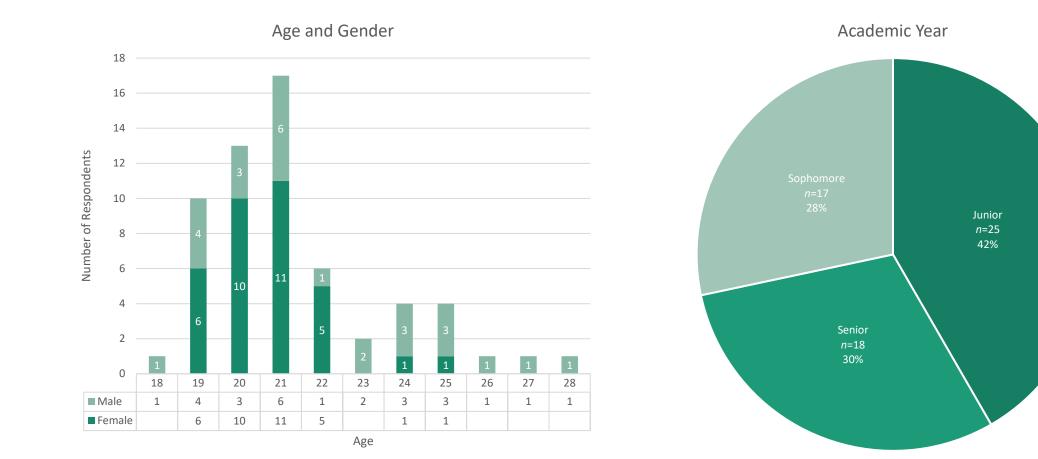
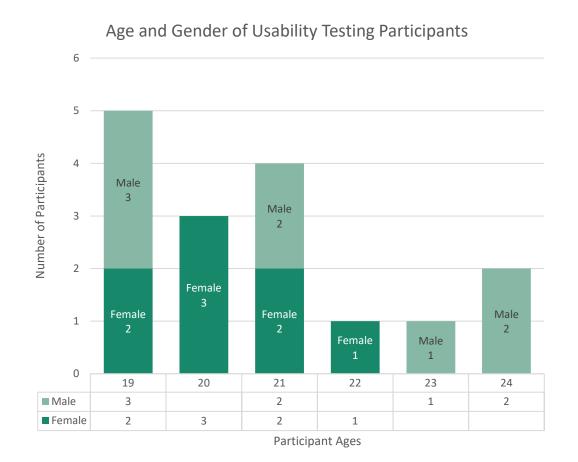TTU ENGL 2311 Instructor Survey Respondent #2

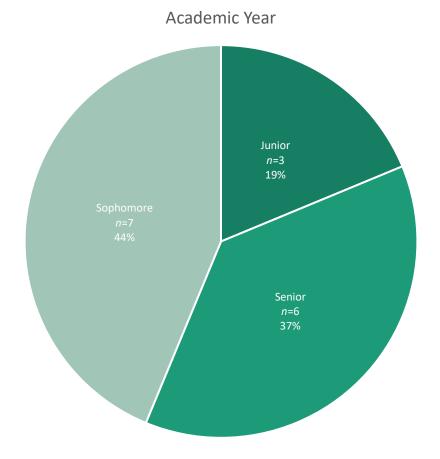# Students

ENGL 2311 Student Survey and User Testing
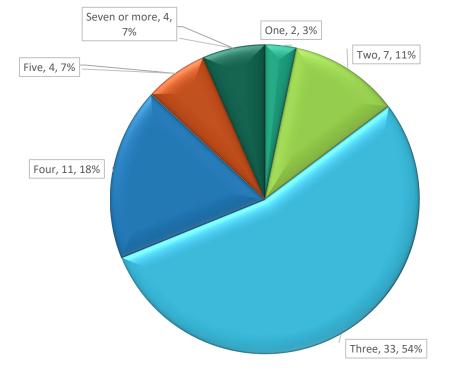
ENGL 2311 Student Survey Demographics

Age and Gender

Academic Year

	18	19	20	21	22	23	24	25	26	27	28
Male	1	4	3	6	1	2	3	3	1	1	1
Female		6	10	11	5		1	1			

Sophomore
n=17
28%

Junior
n=25
42%

Senior
n=18
30%

User Testing Participant Demographics

Age and Gender of Usability Testing Participants

	19	20	21	22	23	24
Male	3		2		1	2
Female	2	3	2	1		

Academic Year

Sophomore n=7 44%
Junior n=3 19%
Senior n=6 37%
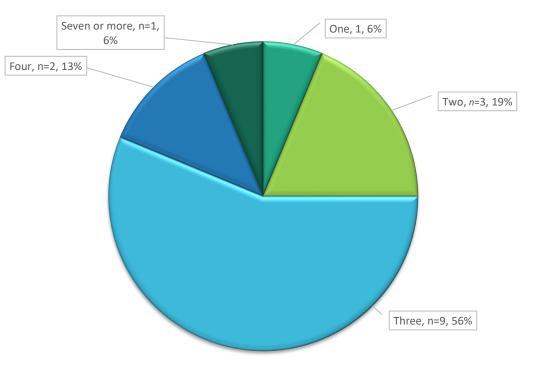
How many college-level writing courses have you taken (including those currently enrolled)?
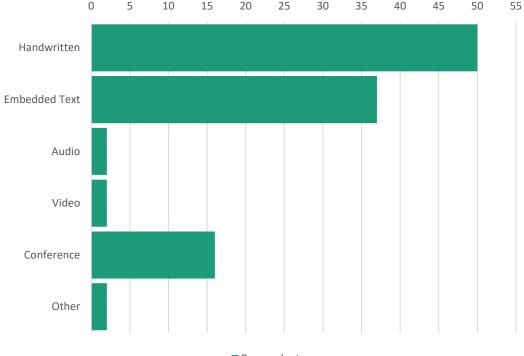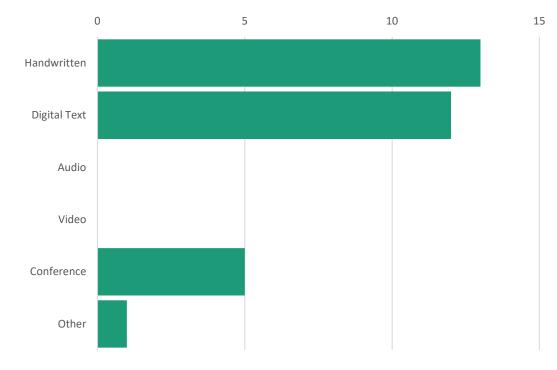

ENGL 2311 Student Survey

- Seven or more, 4, 7%
- One, 2, 3%
- Two, 7, 11%
- Five, 4, 7%
- Four, 11, 18%
- Three, 33, 54%

User Testing Participants

- Seven or more, n=1, 6%
- One, 1, 6%
- Four, n=2, 13%
- Two, *n*=3, 19%
- Three, n=9, 56%

Media for Receiving Feedback
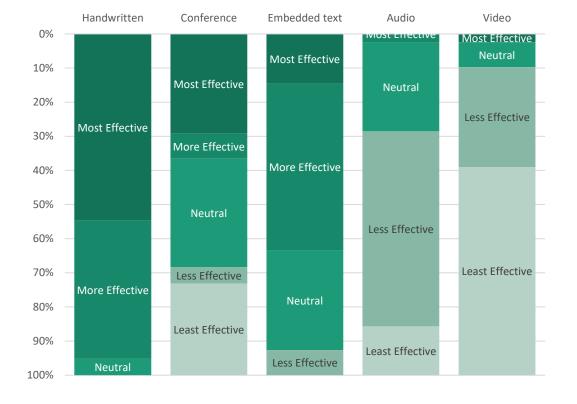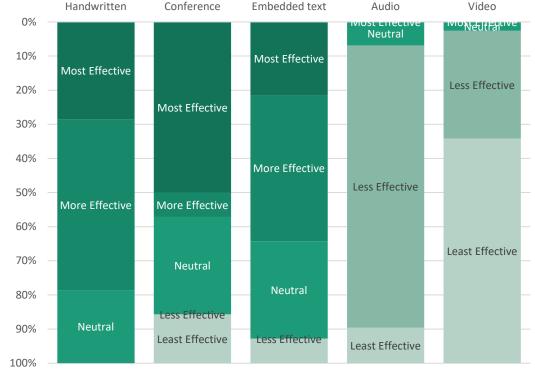
Of the types of feedback listed, whether you have received feedback in this form or not, which do you think would be most effective for you as a writer?
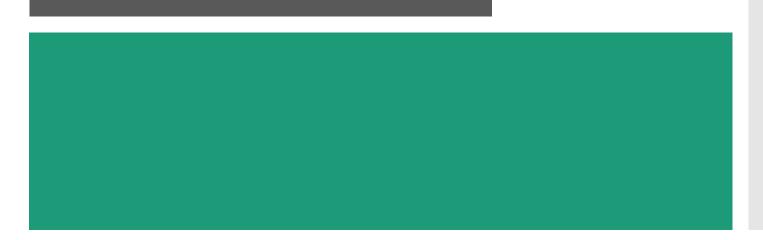
ENGL 2311 Student Survey
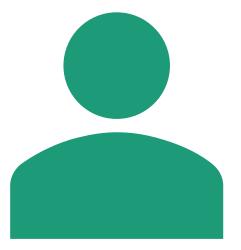

User Testing Participants

Errors and Directions?

"I find that when an instructor states directly what I did wrong and how I could improve that is the easiest way for me to improve my writing skills."

ENGL 2311 Student Survey Participant #52

User Testing

English 2311 Students at Texas Tech University

Scenario

As a student in English 2311, you have recently completed an assignment and your instructor has provided feedback. Various tasks will show up on the screen before you; please complete the tasks requested, explaining what you're doing out loud while you're doing it. If at any time you need the task repeated, let me know and I will repeat the task description for you.

Data Collected

- Time on Task
- Talk Aloud Statements [transcribed/coded]
- Video/Screen Capture [coded]
- Artifacts
  - Graded Submission [coded]
  - Rubric
  - Initial Revision Plan [coded]
  - Prioritized Revision Plan [coded]
- Interview [transcribed/coded]

Task 1: Time on Task

	User 01	User 02	User 03	User 04	User 05	User 06	User 07	User 08	User 09	User 10	User 11	User 12	User 13	User 14	User 15	User 16
Time	2.35	1.99	0.99	1.29	0.68	1.15	0.65	1.71	1.09	1.84	1	0.9	1.42	1.14	1.4	0.89

Task 1: Access

404: Feedback Not Found

Not Graded
Users 1 & 2

+

Not Visible
Users 8 & 13

=

No Feedback

"If [Instructor 1] could have elaborated more."
—User 6

Links to graded assignment with comments

Opens "Feedback to Learner" box only

Task 2: Time on Task

◆ Time	User 03	User 04	User 05	User 06	User 07	User 09	User 10	User 11	User 12	User 14	User 15	User 16
Time	9.617	5.157	2.364	13.357	2.569	4.66	20.709	9.094	8.514	1.068	8.682	3.66

Task 2: Review

RE: Chemistry/Chemical Engineering Internship #115066S

To Whom This May Concern:

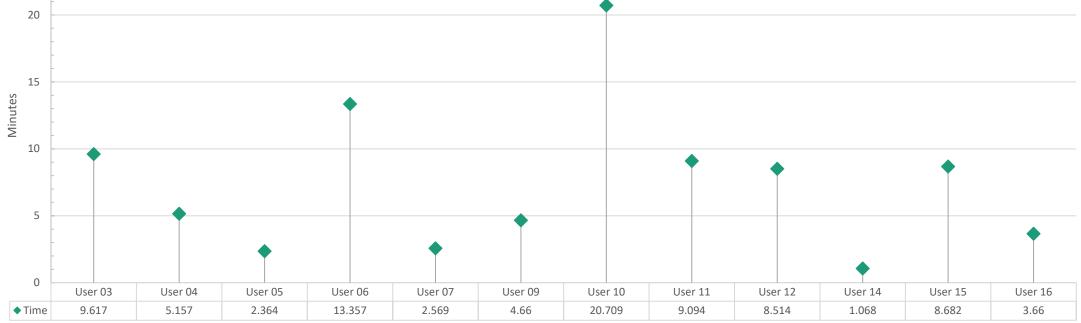I am responding to the summer internship position posted on Indeed.com. I am interested in working at the Lord Corporation because I have a passion for chemistry and experimentation. I enjoy long hours of lab work and research as well as interacting with my peers. The position offered by the Lord Corporation strongly appeals to my interests.

I am a chemical engineering student at Texas Tech University. As shown on my resume I have taken multiple statistics courses and am minoring in mathematics. I am literate in Microsoft Office. I have previous experience working in the chemistry labs at Texas A&M Commerce. During my ten week summer research position, I quickly learned how to operate many pieces of equipment including GC, TPR, dTGA and AA. I collaborated with a graduate student to develop a new catalyst for the selective hydrogenation of acetylene. My work is currently awaiting peer review for *ACS Catalyst*. The research position required me to give many presentations. I have communicated my research to professional chemists as well as to those whom are not fluent in chemistry at two regional and a national conference.

Commented [RH4]: Header Organization (Subject Line)

Commented [RH5]: Header Organization (Salutation)

Commented [RH6]: Opening Paragraph (Subject)

Commented [RH7]: Opening Paragraph (Location of Ad)

Commented [RH8]: Opening Paragraph (Stress Importance)

Commented [RH9]: Key Word

Commented [RH10]: Background Information/Qualification

Commented [RH11]: Key Word/Education

Commented [RH12]: State technical skills

Commented [RH13]: Previous Experience

Commented [RH14]: Key Word

Commented [RH15]: State technical skills

Commented [RH16]: Key Word

Commented [RH17]: Key Word

Less than a Minute?

Instructor Notation Types Per User Submission

	User 16	User 15	User 14	User 12	User 11	User 10	User 09	User 07	User 06	User 05	User 04	User 03
content		1	1	6	5	1	11	3	3	2	1	7
design	1	9	2	6	9	3	5	2	6	4	7	3
genre				2	2	6	2	1	1		6	4
grammar		1		1		15	6	4	3	4	5	2
structure		4		6	2	3	2	2		1	6	2
style		3	1	1	5	7	1	7	7	2	6	3

content · design · genre · grammar · structure · style

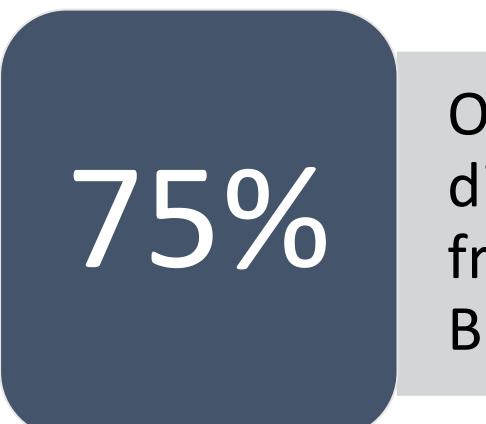# Instructor Notations: Complexity

"I literally hate the layout of this page."

"I don't know what part of the assignment [Instructor 1 is] talking about" (User 10)

"So right now I'm trying to figure out what comments go with what page. . . I'm just a little bit confused because I can't see exactly what [Instructor 1 is] pointing to on this" (User 3)

"I tried to access before but I couldn't easily figure out how to look at my comments and stuff, but [Instructor 1] told us to push that aside [referencing grading panel] to look at it." (User 11)

Clicking on comment has no obvious effect, but page may scroll

Indicates comment with line to comment box (currently off screen; user must scroll)
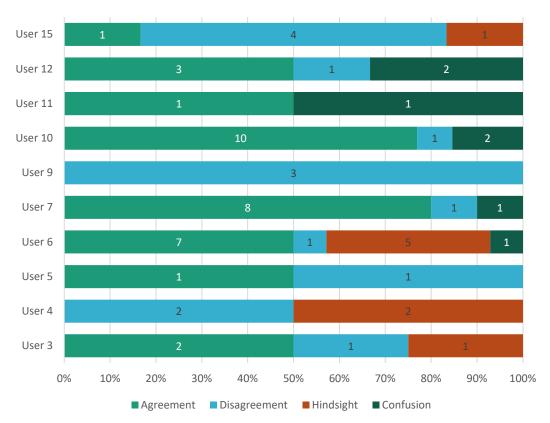
Horizontal scroll bar

75%

Of users expressed difficulty and frustration due to Blackboard interface

Task 2: Interface

Responses to Response

Category	Description	Example
Agreement	User stated instructor comment was valid and/or useful.	"Well that's a good suggestion. Page numbers." (User 15)
Disagreement	User stated instructor comment was incorrect or did not take all factors into consideration.	"[Instructor 1] said to put it in one column, but if i did it would be too long." (User 4)
Hindsight	User either recognized issue after submitting the assignment, or made what they considered a "thoughtless" error because of inadequate proofreading.	"Where it says to include Mr.—I think I could have automatically have done that." (User 6)
Confusion	User did not understand the issue the instructor noted.	"I don't know what that means." (User 11)

Codes as Percentage of User Response in Task 2

Legend: Agreement, Disagreement, Hindsight, Confusion

Responses to Response (Examples)

Agreement

Instructor Comment	User 10 Response
"Put the specific number of years you've worked with these organizations."	"adding specific years helps with credibility"
"I think this is a good point to make, but let's make it about the employer rather than you."	"have to say how they will benefit... so makes sense to me"
"I'm not sure I understand the word 'manually' in this context. Did you do the work manually?"	"I agree. The phrasing is unclear."

Disagreement

Instructor Comment	User 9 Response
"Perhaps you can break up your last paragraph and provide more evidence."	"I don't like to gloat for myself, even when trying to get a job."
"I think we need to work on design to make the resume more readable."	"Doesn't really matter, because design's not necessary to the job."
"Also, make sure each item you have on the resume is important to the position you are applying for."	"[Instructor 1]'s saying a lot of stuff I have in my thing isn't relevant to my job, but it is."

University Athletics, Lubbock, TX
...ining Student
...ked Division I Football
...ntained a clean training room
...eived education of how to work treatments and rel...

s Bar-B-Que, San Antonio, TX

Volunteering

- R...fuge Leadership Team – Val...
- Mission Trips to McAllen TX, ...
- International Church Planting ...
- Chi Omega's Make-A-Wish Foundation-

Confusion

Task 3: Time on Task

◆ Minutes	User 03	User 04	User 05	User 06	User 07	User 09	User 10	User 11	User 12	User 14	User 15	User 16
Minutes	4.09	3.87	1.79	10.19	4	3.04	1.84	9.04	14.23	1.61	5.8	4.135

Task 3: Create

Global	Sequential

User 10
 	
1. I am going to take care of the grammar in my sentences
2. I am going to organize the resume in a more chronological order.
3. I am going to read it loud to myself that way I will make sure the sentence are still good after the revision
	User 15
	
	• Checklist for Resume Revisions:
	  • Refer to Feedback
	  • Fix Name
	  • Possibly use a different font for my resume
	  • Add page #'s
	  • Fix Dollar Signs
	• Checklist for Cover Letter:
	  • Spacing- 1.5
	  • Font
	  • Change Intro Paragraph
	  • Try and break up 1st paragraph

Revision Lists

Task 4: Time on Task

	User 03	User 04	User 05	User 06	User 07	User 09	User 10	User 11	User 12	User 14	User 15	User 16
◆ Minutes	2.24	2.48	1	6.43	2.4	1.79	1.4	6.53	5.15	0.51	6.09	0.53

Task 4: Prioritize

Grammar	• Top for 5 users
Design	• Top for 3 users
Content	• Top for 2 users
Style	• Top for 1 user
Structure	• Top for 1 user

What Was Most Important?

Rationale

Grammar

"fix punctuation errors" because punctuation errors made his job application appear "unprofessional." (User 15)
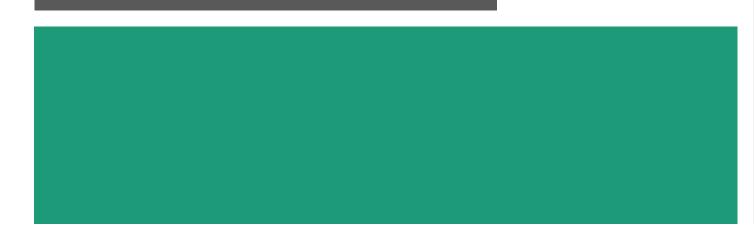
Structure

"create clear and concise claims for all paragraphs…because that was, I think, the biggest issue [Instructor 1] had." "The job letter is the first thing they [employers] see, so that makes the good impression." (User 7)

Design

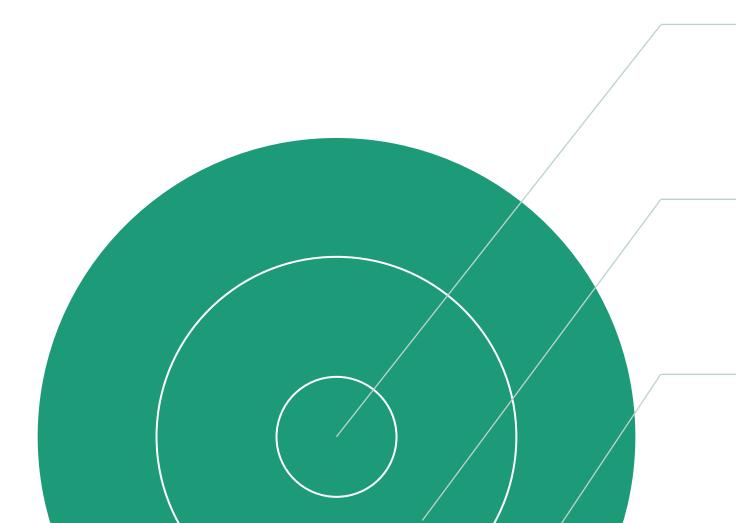"Design, more unique." "Design can make it stand out or be like everyone else's." (User 9)

Interviews

- What makes instructor comments useful or usable?

- What specifically did this instructor do that made the comments useful or usable?

- What makes instructor comments not useful or unusable?

- What specifically did this instructor do that made the comments not useful or unusable?

- Is there such a thing as too many comments?

- What is the best way for an instructor to comment on your writing?

Usable Commentary Is…

Specific

- Explicit directives
- Modeling
- Pointing to resources

Positive

- Moves that matter
- Encouraging, even if error

Meaningful/ Meaning-full

- Context
- Plain language

Unclear

- Vague/ one word
- Jargon

Not situated

- Why?

Broad

- CBA

Negative

- Condescending
- Condemning

Unusable Commentary Is…

Many comments → Anxiety

But…

- If detailed and productive, "then you can't have too many, as long as they're healthy" (User 5).

Quality, Not Quantity

3 Digital
- Connection
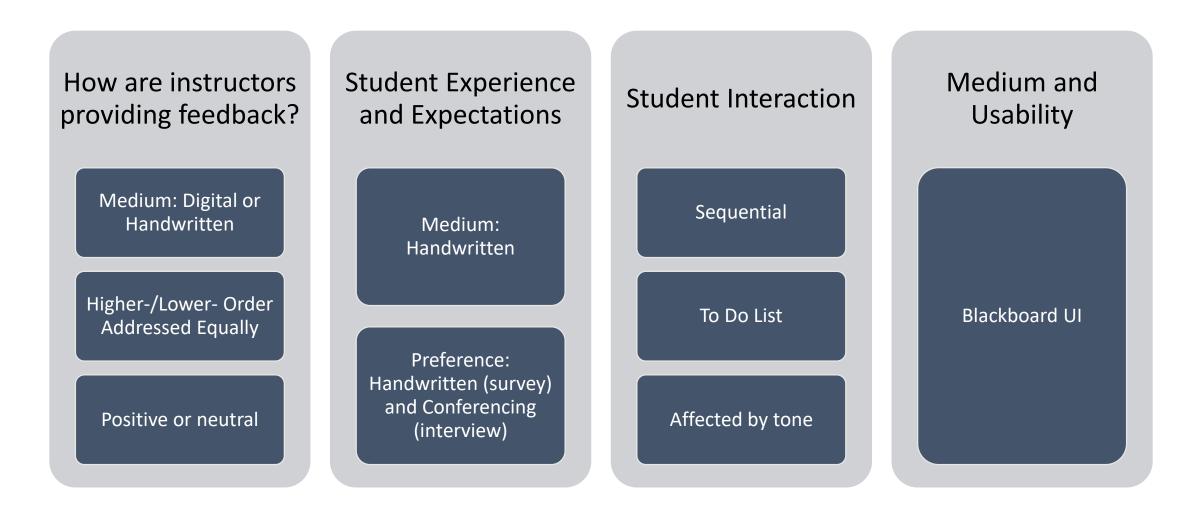- Ease of reading

4 Handwritten
- Visual
- Tangible

7 Conferencing
- Immediacy
- Clarification
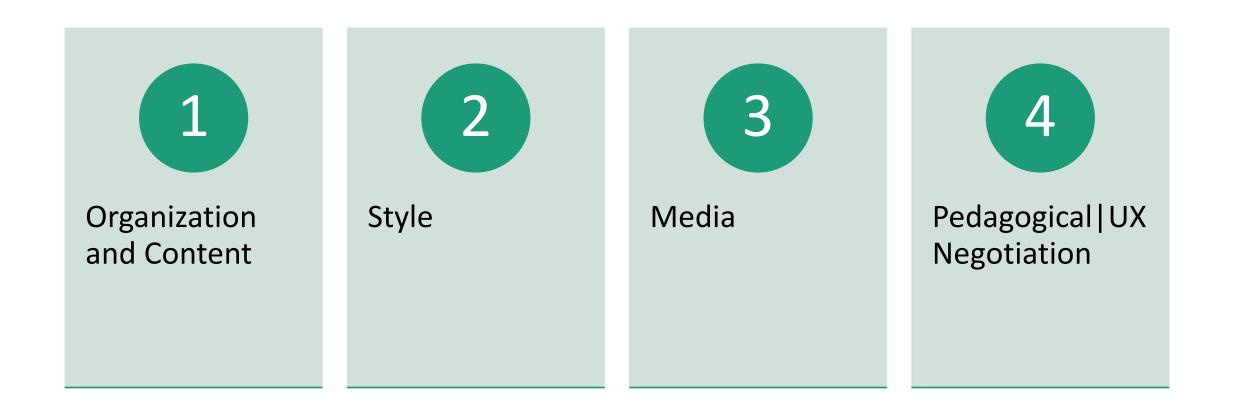- Follow up

Medium Matters

Questions Answered

How are instructors providing feedback?	Student Experience and Expectations	Student Interaction	Medium and Usability
Medium: Digital or Handwritten	Medium: Handwritten	Sequential	Blackboard UI
Higher-/Lower- Order Addressed Equally	Preference: Handwritten (survey) and Conferencing (interview)	To Do List	
Positive or neutral		Affected by tone	

So what?

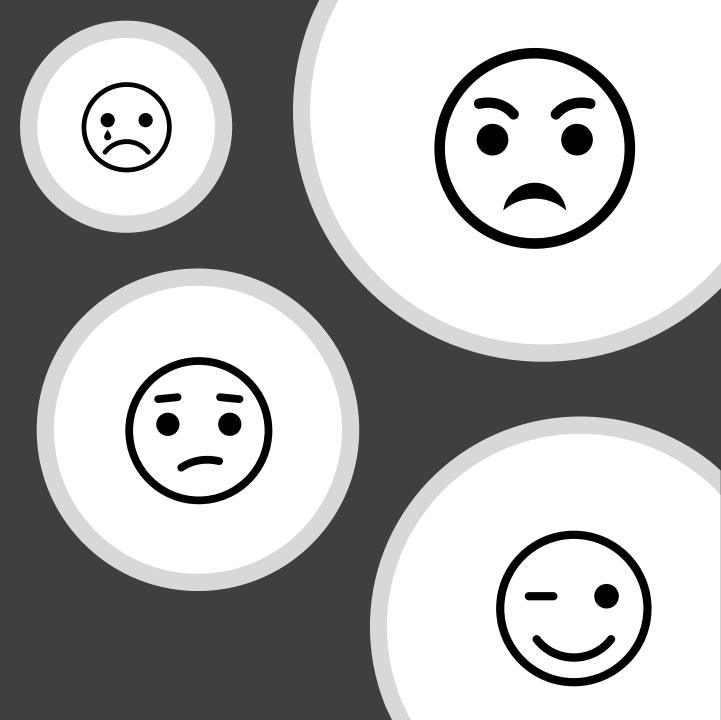# Implications and Applications

Organization and Content

- Toulmin Method (claim, evidence, warrant)
  - Context
  - Rationale
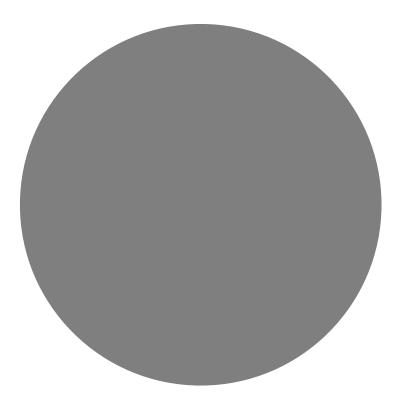- *Critique*, not criticism
- Honor author's autonomy

Style

- Humor doesn't translate well
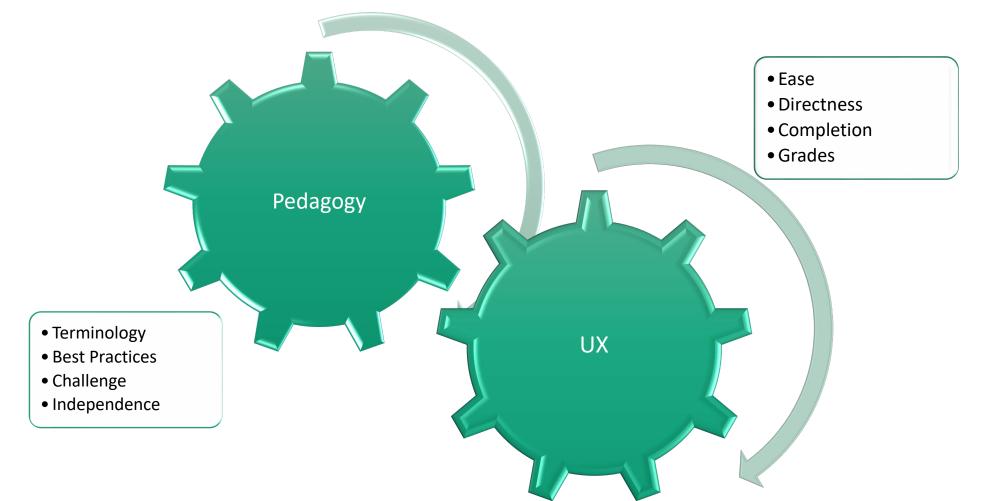- Perceptions as to negativity
- Perceptions as to judgment

- UDL (Reception, Expression, Engagement)
- Possibilities:
  - Mini-conferences
  - Comprehensive Screencast

Media

Pedagogical|UX Negotiation

Questions lead to some answers and even more questions

Further Research

Bigger, Better, Faster, More

- Limitations = Opportunities
  - Diverse populations
    - Regional and institutional cultures
  - Different classes
  - Multiple modes

New Questions

- Conferencing
  - Retention (Memorability)
- UX and Learning Styles
- Adjunctification
  - Workload
  - Innovation

WARNING

- FINDINGS AND RECOMMENDATIONS MAY CHANGE

- NEW DATA, NEW TECHNOLOGIES= NEW OPPORTUNITIES, NEW PROBLEMS

Students As Users = Students Can Teach Us

... if we invite them to

Questions?