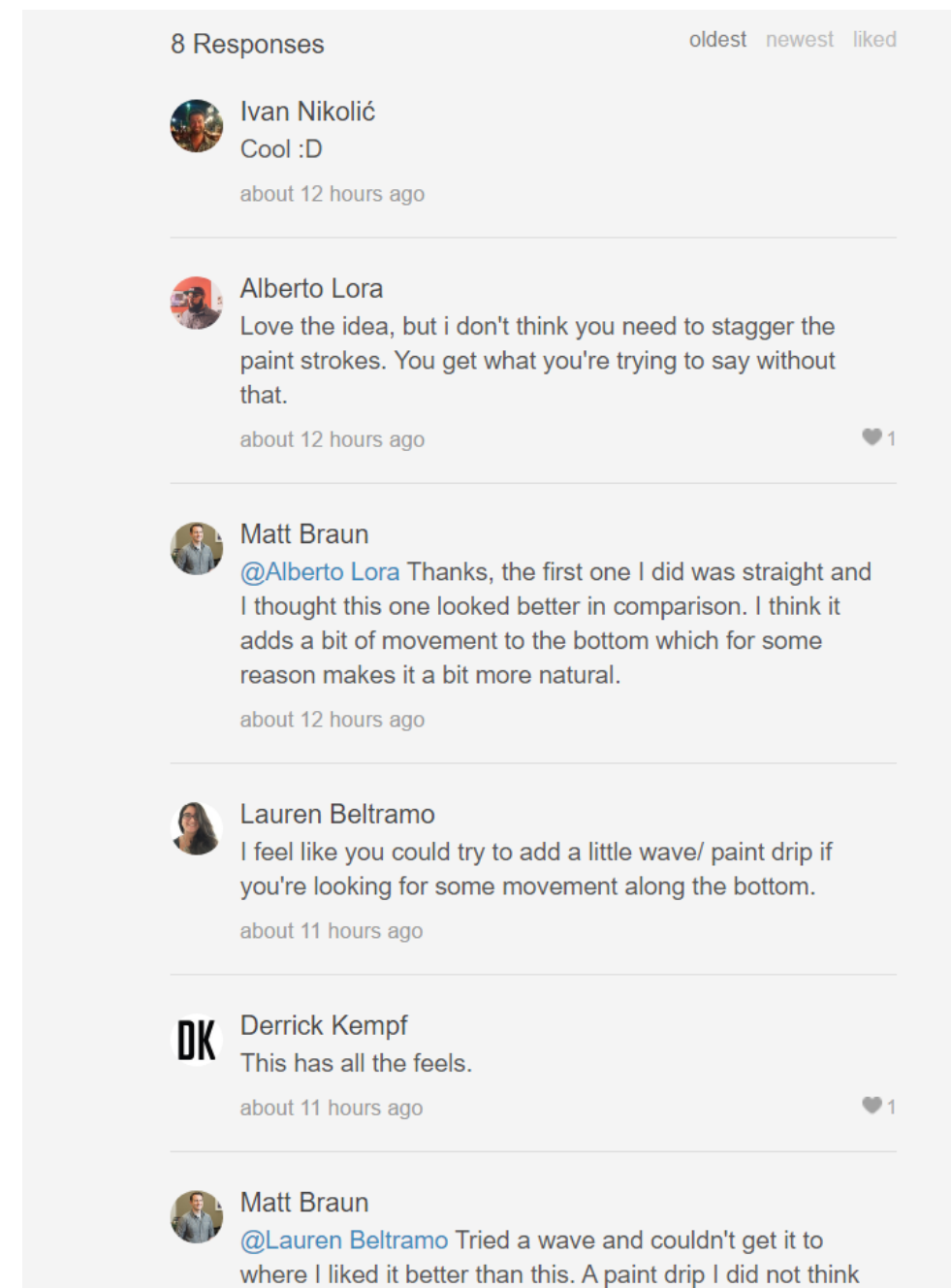# Bitter Sweet or Sweet Bitter? How Valence Order and Source Identity Influence Feedback Acceptance
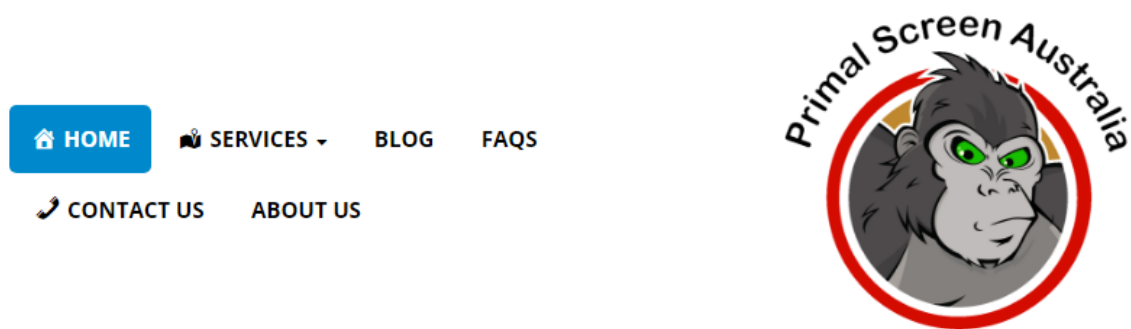
Y. Wayne Wu & Brian P. Bailey
University of Illinois at Urbana-Champaign

Collecting Design Feedback from Online Crowds

- Abundant & Diverse

- Fast Response

- Relatively Low-cost

8 Responses   oldest newest liked

Ivan Nikolić
Cool :D
about 12 hours ago

Alberto Lora
Love the idea, but i don't think you need to stagger the paint strokes. You get what you're trying to say without that.
about 12 hours ago   ♥ 1

Matt Braun
@Alberto Lora Thanks, the first one I did was straight and I thought this one looked better in comparison. I think it adds a bit of movement to the bottom which for some reason makes it a bit more natural.
about 12 hours ago

Lauren Beltramo
I feel like you could try to add a little wave/ paint drip if you're looking for some movement along the bottom.
about 11 hours ago

Derrick Kempf
This has all the feels.
about 11 hours ago   ♥ 1

Matt Braun
@Lauren Beltramo Tried a wave and couldn't get it to where I liked it better than this. A paint drip I did not think

r/design_critique

…but

design is so bad that no one wants to critic

Existing Methods

- Distributed & Centralized community moderation

- Feedback rubrics & Guidelines

- Feedback aggregation

Valence Based Order

- Simple mechanism & Minimal engineering overhead

- Inspired by similar practice in formal education

- Existing orders: post time / popularity / approval

Research Questions

- How does valence order influence content creators and the revisions they performed?

- How does feedback source mediate the effects of valence order?

Related Work

- Feedback scaffolding helps to reduce the negativity
  Luther et al. - CSCW '15; Xu et al. - CSCW '14

- Positive valence enhance performance in creative work

  de Rooij et al. - CC '15; Nguyen et al. - CSCW '17

- Feedback from different sources have different benefits

  Yen et al. - DIS '16; Nguyen et al. - CSCW '17

Writing Task

- Write a children story

- 2h time limit

- 200-2000 word limit

Task Instruction

Please write a short story for children of 8-12 years old based on the illustration. Use your imagination to develop a creative plot. To help you write the story, you may consider answering the following questions:

- What is happening at the moment?
- How come the new student is an elephant?!
- What will happen shortly after?
- How does your story start and end?

Your story should be 200 words minimum and 2000 words maximum. Stories that are too vague or plagiarized from other sources will be rejected.

By writing a story of good quality, you may earn the opportunity to participate the second phase of the study, which offers the same amount of payment and potential bonus.

Stampy was a very smart elephant and they knew that at the local zoo

SUBMIT

Revision Task

- Revise story in a text-box

- Review feedback in order

- Source cues displayed on the page

Essay Revision

Please revise your story to improve its quality in any way you deem appropriate. The feedback you read earlier is listed below. Select the checkbox next to each piece of feedback if you have addressed it in the revision, or indicate that none of it is useful.

A $1 bonus will be awarded if your revision shows significant effort commitment.

☐ **Domain Expert #1**: My daughter may love this story. I would like to read a bit more about the elephant's first day in the classroom - how he sat down, how the other children reacted, how he participated in the classroom work, and how the teacher treated him. I think that those details might add some more color to the story and perhaps even a bit more tension.

☐ **Domain Expert #2**: Great story. You should add more details to make it even better. I would like for the new student to make a special friend. Maybe someone can be nice and introduce themselves. It will be an even happier ending to the story. The new student should speak in front of the class and maybe answer some questions about being so big or about being an elephant. Good job overall!

☐ **Domain Expert #3**: Quite a boring story. Some more details may make the story less plain. I think the new student also needs to introduce himself to the class so they can learn more about him. He can tell them where he is from, about how it is different from his new home area, what he likes to do, etc, so they can get to know him. The teacher can also ask the classmates to speak up if there is anything they like that the new student likes. That may make both the new student and the classmates more comfortable and willing to accept each other.

☐ None of the feedback provided is useful. I didn't address any of it.

It was the first day of class at a new school and Ellie the elephant was very excited and nervous. She had just moved to town and she did not know anyone. Will I fit in? Will the other kids like me? she wondered. Ellie stood quietly outside the classroom door and waited for her teacher, Ms. Crabapple, to call her name. "Come on in Ellie", said the teacher. We're all waiting to meet you. Ellie entered the class and stood in front of all the other kids whose eyes were on her. "Kids, let's give a warm welcome to our new student Ellie." "Hello Ellie" said the children. One little girl named Sally invited Ellie to sit at the empty desk next to her. Ellie walked over to the desk

In your opinion, how much have you improved the quality of your story on a 7-point scale?

Not at all ──────●────── Very Much

SUBMIT

Experimental Conditions

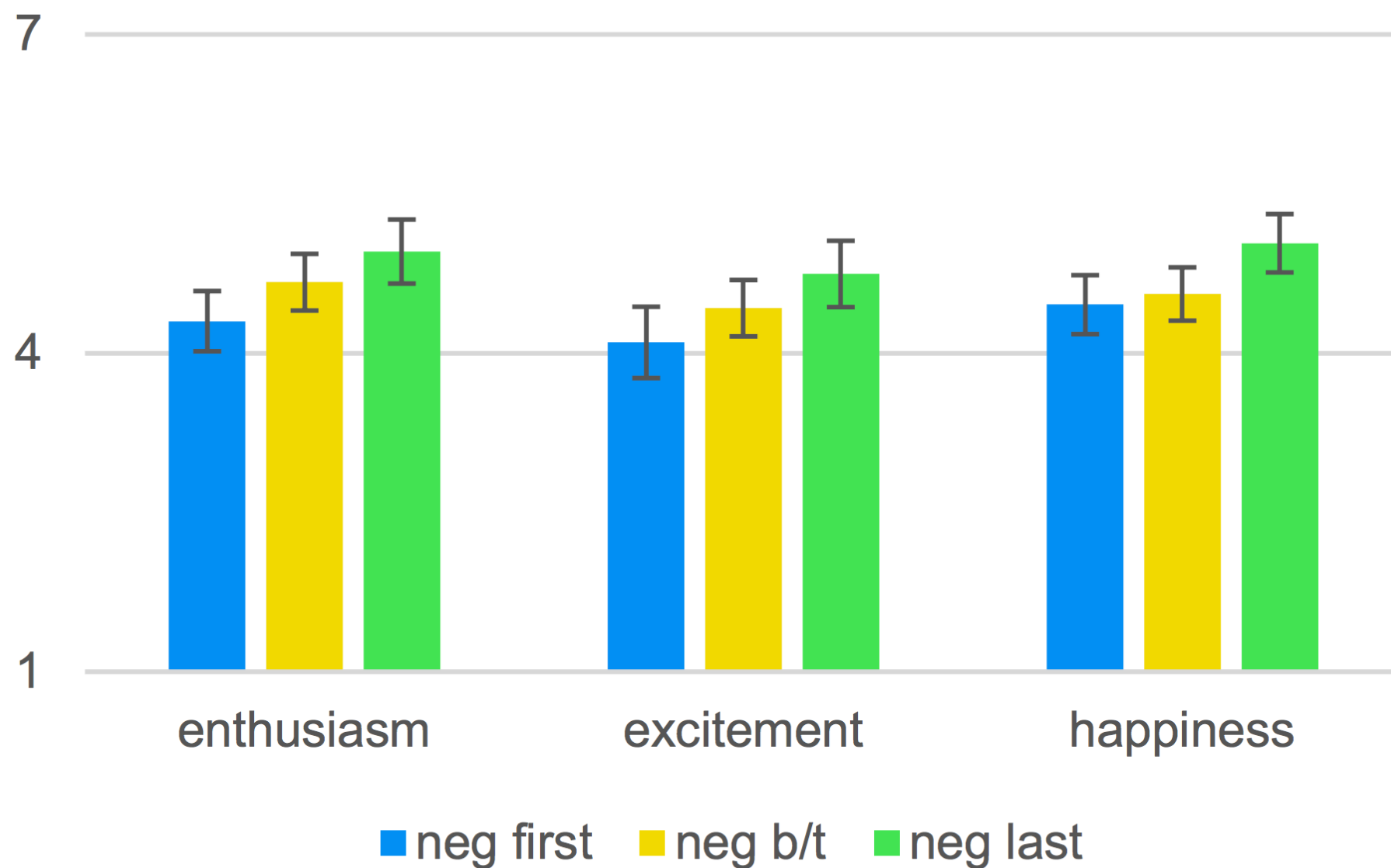*Valence Order*: Neg First, Neg Between, Neg Last
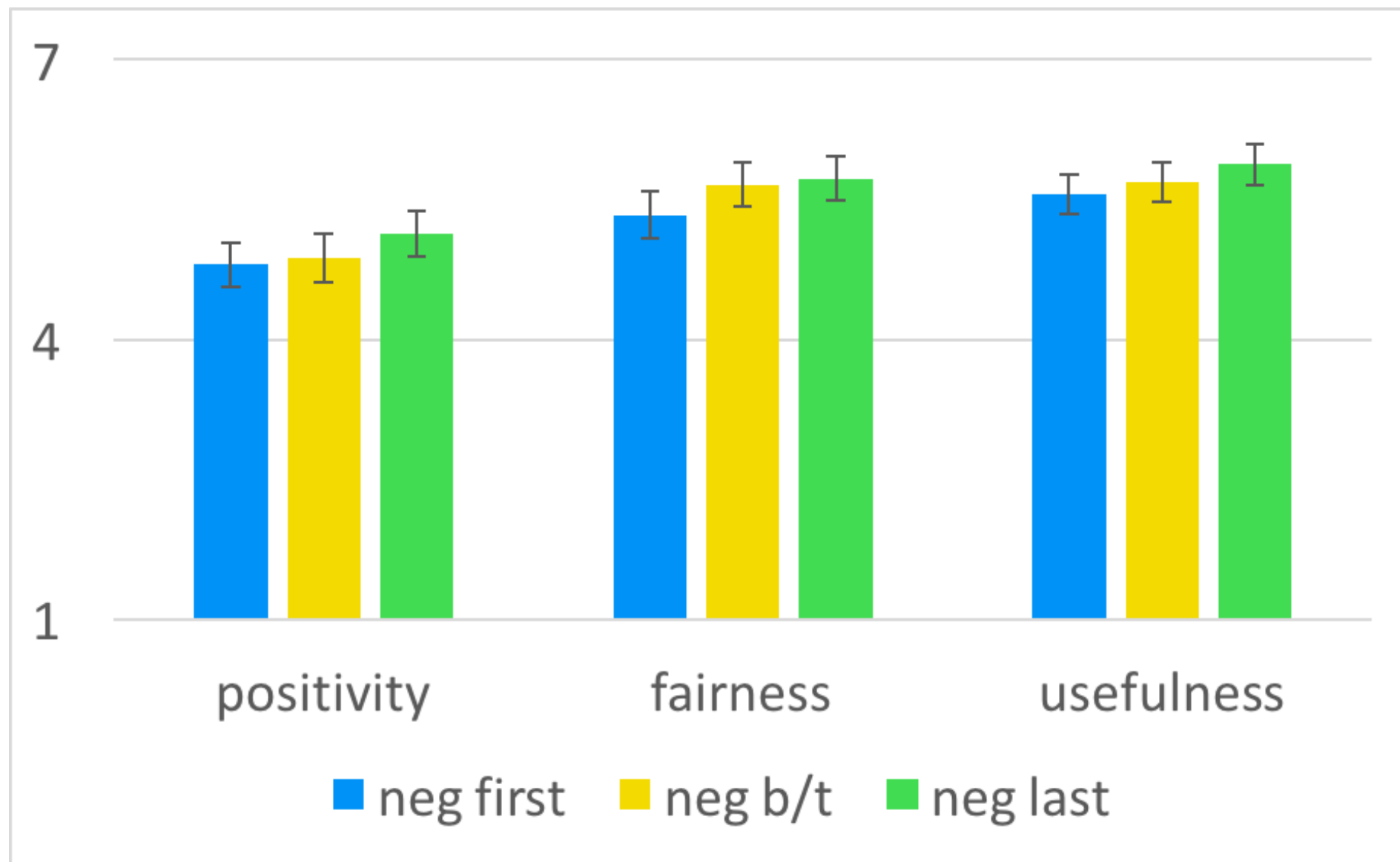
X

Source: Expert, Peer, Anonymous

Measurements

- Content creators' affective states

- Revision extents

- Perception of the feedback and its source

Neg Last Condition Report Most Favorable Feedback Perception

Correlations with Revision Extent

	excited	enthusi.	insipired	fdbk pos.	fdbk use.	fdbk fair
edit distance	0.15	0.14	0.17	0.12	0.18	0.21
accepted count	0.13	0.18	0.18	0.21	0.19	0.24
expert qual. impr.	0.06	0.06	0.07	0.11	0.17	0.27

Correlations with Revision Extent

	excited	enthusi.	insipired	fdbk pos.	fdbk use.	fdbk fair
edit distance	0.15	0.14	0.17	0.12	0.18	0.21
accepted coun	0.13	0.18	0.18	0.21	0.19	0.24
expert qual. impr.	0.06	0.06	0.07	0.11	0.17	0.27

Correlations with Revision Extent

	excited	enthusi.	insipired	fdbk pos.	fdbk use.	fdbk fair
edit distance	0.15	0.14	0.17	0.12	0.18	0.21
accepted count	0.13	0.18	0.18	0.21	0.19	0.24
expert qual. impr.	0.06	0.06	0.07	0.11	0.17	0.27

Gender Difference

	Female	Male
accepted count *	2.23 (.07)	1.94 (.09)
feedback reading time	1.62 (.17) min	1.16 (.15) min
edited char count **	1495.35 (194.7)	1075.87 (147.7)
story editing time *	28.65 (1.93) min	21.77 (2.32) min
distressed **	2.72 (.13)	2.17 (.14)
upset **	2.58 (.12)	2.05 (.13)
happy	4.54 (.11)	4.88 (.15)

Gender Difference

	Female	Male
accepted count *	2.23 (.07)	1.94 (.09)
feedback reading time	1.62 (.17) min	1.16 (.15) min
edited char count **	1495.35 (194.7)	1075.87 (147.7)
story editing time *	28.65 (1.93) min	21.77 (2.32) min
distressed **	2.72 (.13)	2.17 (.14)
upset **	2.58 (.12)	2.05 (.13)
happy	4.54 (.11)	4.88 (.15)

Gender Difference

	Female	Male
accepted count *	2.23 (.07)	1.94 (.09)
feedback reading time	1.62 (.17) min	1.16 (.15) min
edited char count **	1495.35 (194.7)	1075.87 (147.7)
story editing time *	28.65 (1.93) min	21.77 (2.32) min
distressed **	2.72 (.13)	2.17 (.14)
upset **	2.58 (.12)	2.05 (.13)
happy	4.54 (.11)	4.88 (.15)

Gender Difference

	Female	Male
accepted count *	2.23 (.07)	1.94 (.09)
feedback reading time	1.62 (.17) min	1.16 (.15) min
edited char count **	1495.35 (194.7)	1075.87 (147.7)
story editing time *	28.65 (1.93) min	21.77 (2.32) min
distressed **	2.72 (.13)	2.17 (.14)
upset **	2.58 (.12)	2.05 (.13)
happy	4.54 (.11)	4.88 (.15)

Discussion

- Other forms of design

- Rely on different valence indicators

- What other design parameters can we tweak?

Limitations

- Feedback set of different sizes

- Too few or too many pieces of feedback

- Extrinsic motivation

Conclusion

- Provide empirical evidence that valence based order works

- Valence order does not interact with feedback source

- Design guidelines to improve online feedback collection experience