

Engineering Instructors' Self-Reported Emotions at the Start of a Forced Change

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BACKGROUND

- COVID-19 pandemic forced universities to quickly transition their Spring 2020 courses to remote-only formats
- Instructors were compelled to use new modes of instructional methods and practices
- The impact the transition has had on instructors' emotions sheds light on instructors' adaptability during this forced change
- Adaptability is regulation of behavior¹ in response to changing and/or uncertain circumstances and situations
- Adaptability enables an individual to efficaciously adjust to unanticipated circumstances
- It is important to examine instructors' emotions and normality of their emotions to know how they adapted and what additional support may be necessary for instructional change

Research Questions:

- How did a sudden change to remote instruction impact engineering instructors' emotions?
 - To what extent do instructors feel these emotions are similar to those felt in a typical week prior to this forced change?

METHODS

- Weekly surveys were sent out to engineering instructors during the last seven weeks of the semester (April-May)
- Survey consisted of multiple choice and open-ended questions
- Survey Questions Analyzed:
 - Which words best describe how you felt about teaching this past week? [Select all that apply]
 - There were 48 emotion choices for instructors
 - Emotions included 8 positive and negative categories
 - Categories included 3 items of varying intensity of emotion

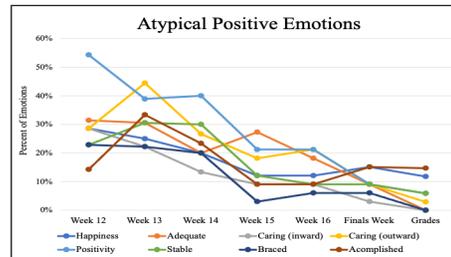
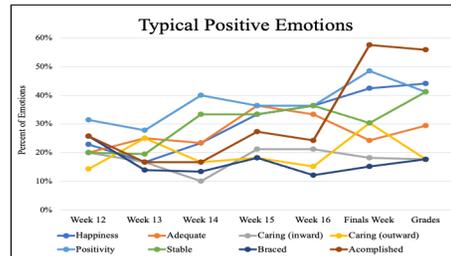
To what degree do you agree with this statement: *In general, the feelings I indicated above are similar to those that I felt in a typical week prior to the COVID-19 mandate for remote instruction.*

- Response options were a four-point scale that ranged from strongly agree (typical feelings) to strongly disagree (atypical feelings)

Number of participants and percent of agreement to normality (typical/atypical) by week

| | Week 12 | Week 13 | Week 14 | Week 15 | Week 16 | Finals Week | Grades |
|--------------|---------|---------|---------|---------|---------|-------------|--------|
| Participants | 35 | 36 | 30 | 33 | 33 | 33 | 34 |
| Typical | 34% | 36% | 43% | 49% | 73% | 67% | 77% |
| Atypical | 66% | 64% | 57% | 52% | 27% | 33% | 24% |

POSITIVE EMOTIONS

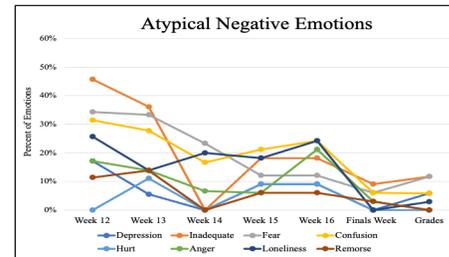
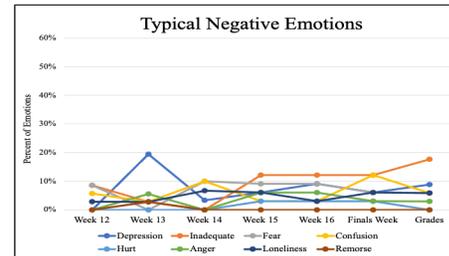


DEMOGRAPHICS

- 39 R1 University Instructors
- 26% Females
- 74% Males

| Departments | % | Positions | % |
|------------------------------|-------|--|-------|
| Architectural & Construction | 10.3% | Assistant Tenure-Track Professor | 30.8% |
| Biological Systems | 17.9% | Associate and Full Professor | 38.4% |
| Civil & Environmental | 25.6% | Assistant Tenure-Track Professor of Practice | 23.1% |
| Computer Science | 17.9% | Associate and Full Professor of Practice | 7.1% |
| Mechanical & Materials | 17.9% | | |
| Other | 10.2% | | |

NEGATIVE EMOTIONS



FINDINGS

- More than 50% of instructors' felt their feelings about teaching were atypical during weeks 12-15 and typical during week 16 - Grades
- Happiness was frequently cited as both a typical and atypical positive emotion in the first three weeks
- During Finals Week and Grades, Instructors felt Accomplished as a typical positive emotion
- Instructors cited feeling Inadequate as an atypical emotion during the first two weeks and as a typical emotion in Week 15 – Finals with a peak during Grades

CONCLUSION

- Overall, emotions changed from atypical to typical as the semester progressed and instructors adapted to teaching remotely.
- Generally, relatively few instructors reported negative emotions as being typical. Negative emotions reported as atypical were more common during the initial transition period.
- Instructors were generally positive about teaching or hesitated to report negative emotions perhaps indicating a higher level of adaptability than expected.

IMPLICATIONS

- Prior research around instructor change often suggests that instructors are reluctant to change. Taking an adaptability perspective allows us to re-frame the discussion about supporting faculty change.
- This research contributes new knowledge on instructors' ability to adapt during a national emergency and can serve to identify emotional supports needed during a forced change.

ACKNOWLEDGEMENTS

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References:

¹ Martin, A. J., Nejad, H. G., Colmar, S., & Liem, G. A. D. (2012). Adaptability: Conceptual and empirical perspectives on responses to change, novelty and uncertainty. *Australian Journal of Guidance and Counselling*, 22(1), 58-81. <http://dx.doi.org/10.1017/jgc.2012.8>