

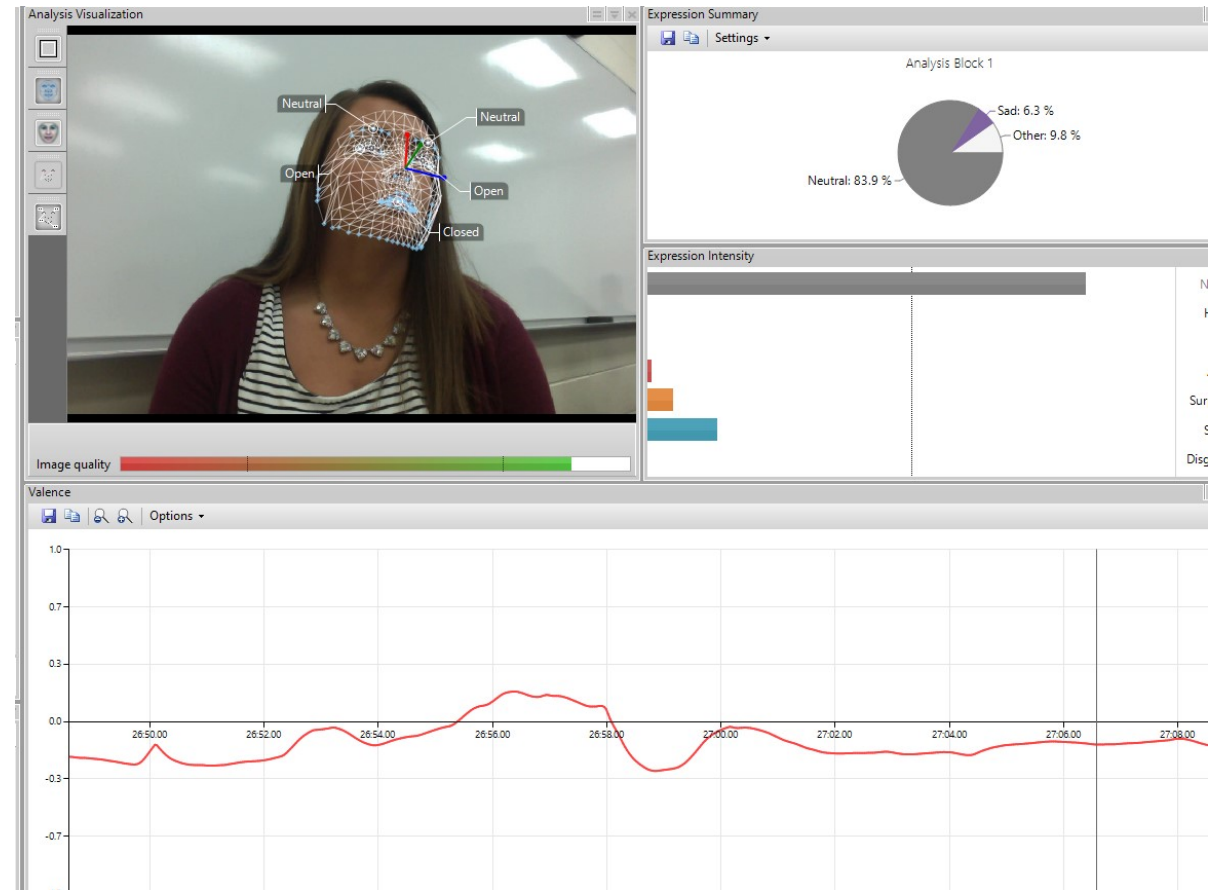
Evaluating Micro Expressions in Agriculture Students Discussing Diversity

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Roadmap

- Intro
- Theory
- Methods
- Results
- Implications
- Future work



Intro & Research Question

Demand for *multicultural & culturally competent* employees is greater today than before

Changing demographics of the population, the *cultural gap* between students in agriculture colleges & the varied environments they may work in must **close**

Guiding Questions

1. Describe the **number of data points** recorded of each agricultural education student participant during a multicultural inclusion lesson.
2. Identify **the total emotions exhibited** by agricultural education students during a multicultural inclusion lesson.
3. Determine the emotions exhibited by the agricultural education students during a **10-minute discussion** that followed the treatment (article).

Theory

Framed in the context of *racial identity development theory*, this work postulates that students in agriculture are in the first phase of their racial identity & need to work on moving their awareness in order to work in a *global society* (Hurtado)

Methods

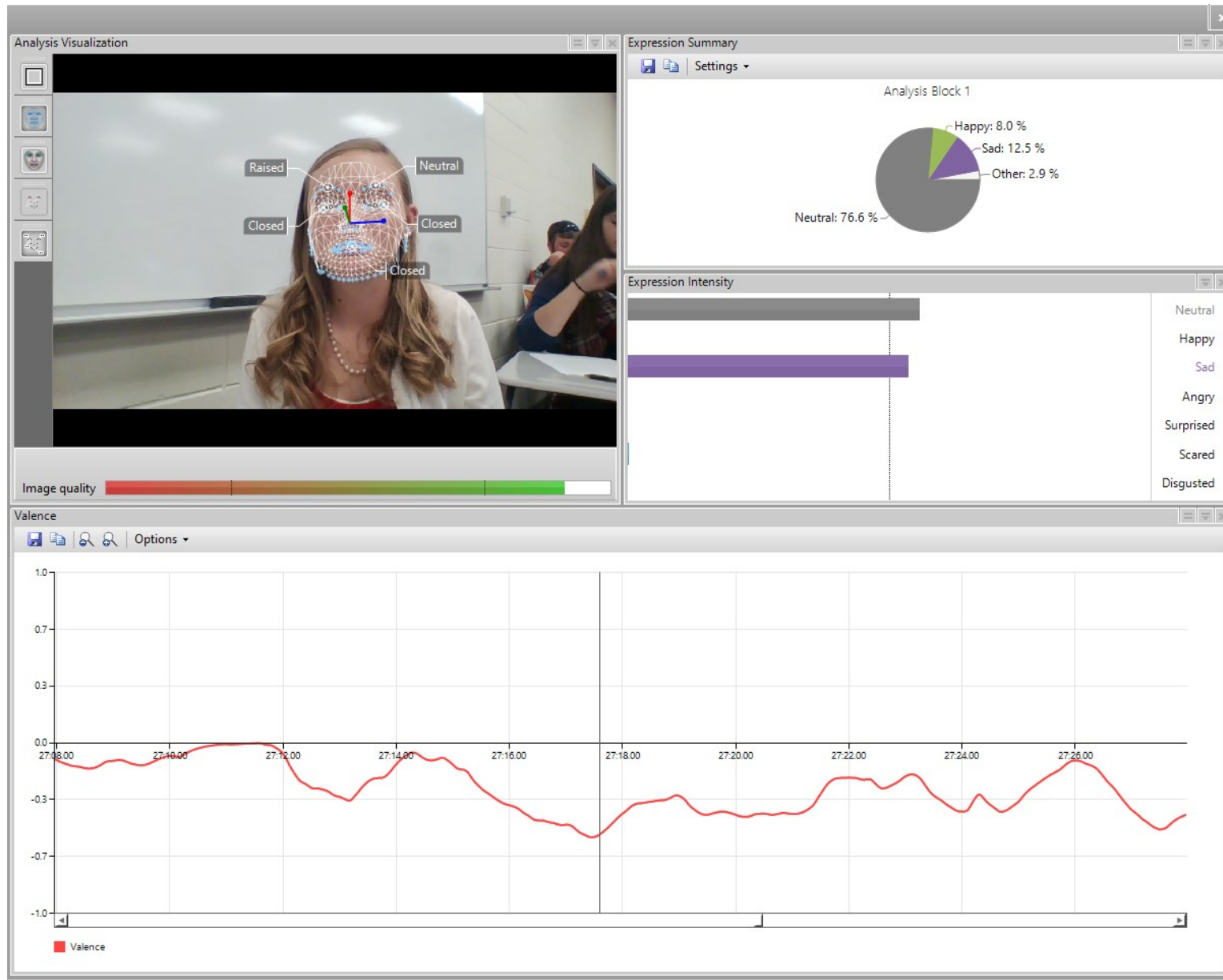
Noldus FaceReader© was used to analyze the facial micro expressions of 14 students in agriculture during a lesson on racism and multicultural education as part of their educational program

FaceReader analyzed student emotions throughout the class and the 10-minute discussion that followed the treatment (89% validity)

FACE

IMAGE
QUALITY

DURATION



STRENGTH

Results

This *innovative approach* revealed that students displayed emotional response to the treatment but were not willing to verbalize or share their thoughts as part of the class discussion

Over 200,000 data points collected, results show that students were alert, attentive, & responding emotionally, even if they were not participating in the discussion

RQ1 & RQ2-Total Seconds of Facial Emotions Data Points Recorded ($n = \underline{276,274.20}$)

Facial Emotion	<i>f</i>	%
Neutral	219,927.24	79.60
Sad	22,072.73	7.99
Happy	14,310.40	5.18
Surprised	7,493.77	2.71
Angry	6,198.42	2.24
Scared	4,335.49	1.57
Disgusted	1,936.13	0.70

RQ3-Facial Emotions Seconds Recorded During 10-minute Discussion (N = 66,995.29)

Facial Emotion	<i>m</i>	<i>SD</i>	Range
Neutral	4063.46	857.80	1928.21 – 5199.91
Sad	446.33	261.76	83.04 – 890.33
Happy	208.22	162.00	31.08 – 521.33
Surprised	200.97	157.10	25.92 – 243.64
Angry	97.26	92.26	23.38 – 371.61
Scared	91.14	81.10	18.19 – 243.64
Disgusted	40.26	54.33	9.71 – 204.00

Recommendations

Interviewing students to gauge their thoughts and knowledge

Working with faculty in colleges of agriculture to measure their comfort teaching about diversity and inclusion

Expanding the sample size in future treatments

- Micro expressions are not identified because they are subconscious & quick
- Preservice teacher educators that they are 1: **paying attention**, 2: **looking for information**, and 3: they are **responding emotionally** in their expressions even if they're not far enough along on the identity development scale
- Thank you, what questions do you have?