2020 Virtual State 4-H Field Day Evaluation Report

Steven M. Worker, Yu Meng, and Nicole Marshall-Wheeler | Revised August 28, 2020

The State 4-H Field Day, begun in 2002, is the largest and most comprehensive educational event offered by UC 4-H. The event provides culminating experience for 4-H members (aged 9 to 19) in their year-long 4-H educational experiences. In May 18-31, 2020, the event was implemented virtually with six contests focusing on public speaking, interview skills, photography skills, robotics and coding, film production, and plant science. Nearly 500 youth participated in one or more contests.

KEY EVALUATION FINDINGS

- Youth reported that primary benefits were improving competence (communication skills) and confidence (self-worth).
- Youth who have successful public speaking experiences are more confident in their public speaking abilities.
- Youth report very strong feelings of belonging and acceptance in 4-H.

Evaluation Methods

We gathered data in three ways.

- Registration survey (n=440).
- Post-event survey (n=183).
- Standardized 4-H member's presentation score (averaged over multiple evaluators; n=292).

We integrated these data sources and analyzed for internal reliability, statistical relationships, and identified themes in the open-ended questions.

PERCENTAGE SATISFIED WITH 2020 VIRTUAL STATE 4-H FIELD DAY



92% want to attend again | 94% will recommend to others

"One of my sparks is public speaking. My motivation for attending the State Field Day is that I greatly enjoy public speaking and participating brings me lots of joy."

Who participated?

Age (years old)

9-10	11-13	14-19
24%	42%	32%

Years as a 4-H member

1	2	3	4	5	6	7	8	9+
9%	11%	16%	16%	12%	12%	9%	7%	9%

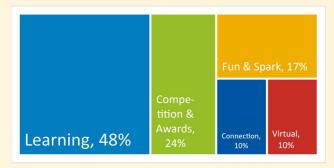
Years attended State 4-H Field Day

1 (First)	2	3	4	5+
55%	14%	11%	8%	12%

Reasons for Attending

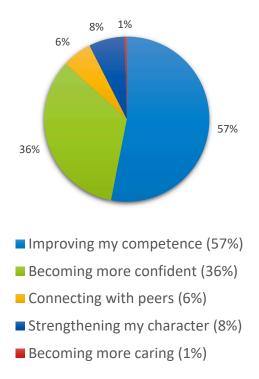
Prompt: Explain your motivation for attending the 2020 State 4-H Field Day.

We analyzed open-ended responses and identified five themes (n=334).



- For learning (48%): Self-improvement, building confidence, improving leadership and public speaking skills, challenge and personal growth.
- For competition and awards (24%): earning a gold, opportunity to participate at a prestigious state event.
- For fun and spark (17%): to share my passion/spark, enjoy the event, and because it is a favorite event.
- For connections (10%): meeting people and sharing their knowledge with others.
- Because it is virtual (10%): Able to attend now because it is virtual; when the event is in-person I cannot attend. Also, fairs were canceled so I was looking other activities.

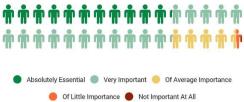
"I want to present to an audience and help spread knowledge about livestock and agriculture. This is a stepping stone to be able to become an embryologist in the future." What do you anticipate as the primary benefit for yourself in participating in the 2020 State 4-H Field Day? (n=385)



Belonging

How important is the State 4-H Field Day in helping you feel connected to 4-H?

85% say very important or absolutely essential (n=383)



Sense of Belonging in 4-H

94% of youth report feeling accepted, safe, committed, and comfortable in 4-H (n=177)

"[I enjoy] the camaraderie that occurs at State Field Day when you get to see friends from all across the state and finally have a chance to talk to them again in person!"

Virtual Experience

Prompt: Share the benefits and drawbacks you experienced with virtual 4-H Field Day.

We analyzed 308 responses to the two prompts and identified eight themes (n=159).



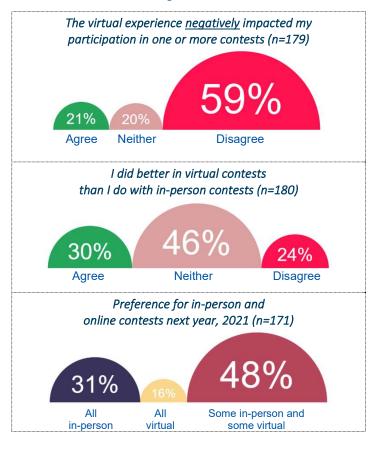
Advantages

- **Easier Virtually** (23%): easier registration, more time to prepare, improved comfort.
- Reduced Cost & Travel (20%)
- Boosted Participation (11%), able to participate in more contests.
- **Not Cancelled** (6%): Virtual technology allowed the event to take place.
- Learning new technology (2%): learning how to use virtual technologies.

Disadvantages

- Constraints of Technology (22%): Not able to make eye contact, shake hands, struggled to express oneself, and perception of not doing as well on screen.
- Connectivity Issues (14%): Internet bandwidth or Zoom problems.
- Anxiety-Inducing (7%)
- Only 1 person shared Zoom fatigue.

Virtual Delivery



Recommendations for State 4-H Field Day

State 4-H Field Day should offer **contests both inperson and virtually**, given that youth spoke about how virtual contests boosted participation, improved comfort, and reduced expenses.

Provide additional resources, support, and training to presenters and evaluators on effective uses of virtual technologies. Help youth understand what they need to adapt in their presentations to make effective use of the affordances and constraints of technology.

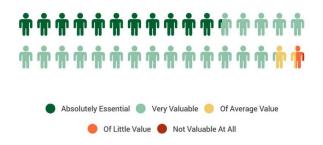
"When I went to State Field Day last year ... it cost my family money for gas and a hotel plus food. There were other members of my club that would have wanted to go but couldn't because it was too expensive."

Communication Skills

California 4-H offers a robust public speaking program for youth to practice, learn, and grow their competence and comfort to communicate and speak in front of people. Youth may participate in formal presentation events at the county, regional, and state levels and receive feedback from evaluators on standard criteria.

How valuable is the State 4-H Field Day in improving your communication skills?

95% say very valuable or absolutely essential (n=380)



What did youth report as their communication confidence?

Communication confidence (self-efficacy) is the belief in one's abilities to communicate in a speech, writing, or through other media with effective content, structure, and delivery.

4-H members are highly confident, on average in their communication abilities (n=175)



Communication Confidence (percent of maximum possible score on 10 questions)

What do youth report as the sources of their communication confidence?

We tested four theory-based influences on communication confidenceⁱ.

- (a) successful experiences (mastery experiences);
- (b) observing others (vicarious experiences);
- (c) positive feedback (social persuasions); and
- (d) experiencing stress and anxiety while public speaking (affective states).

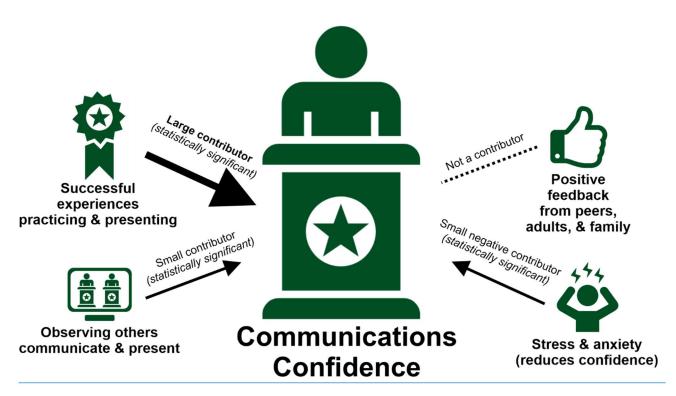
Finding: Successful experiences communicating had the greatest influence on young people's communication confidence; as did observing others presenting, although to a smaller degree.

(n=173, see diagram next page)

Three sources had a statistically significant relationship: successful experiences (large influence), observing others (small influence), and experiencing stress and anxiety had a small negative relationship (the negative relationship is a beneficial indicator). Receiving positive feedback from others did not have a strong influence.

Communication theory predicts that successful presentation experiences increase communication self-efficacy beliefs, while failure experiences lower them. Individuals with high communication self-efficacy will seek out opportunities to present and will continue to develop their skills, while those with low presentation self-efficacy will avoid giving presentations and are therefore less likely to build their presentation skillsⁱⁱ.



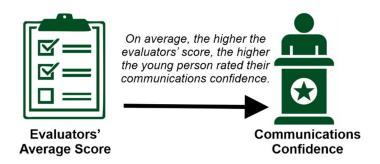


Technical Details: General linear regression model (n=173, adjusted R-Square=0.43) with mastery experiences ($\beta=0.485$, p<0.001); vicarious experiences ($\beta=0.129$, p=0.039); social persuasions ($\beta=0.095$, p=0.275); and affective states ($\beta=-0.149$, p=0.015).

What relationship was there between young people's communication self efficacy and external evaluators' average scores?

There was a small, although statistically significant, relationship between youth who reported higher levels of communication self-efficacy and who also scored higher on their presentation by a panel of evaluators (n=126, β =0.178; p=0.045).

Finding: Youth who are highly confident in their communication abilities are, on average, scored higher on their public speaking by evaluators.



Recommendations for 4-H public speaking

Given that successful (mastery) experiences influences communication confidence, and a relationship between communication confidence and evaluators' scoring, we recommend broadening opportunities for youth to present and participate in 4-H presentation events, including **removing seal requirements** (i.e., remove requirement that youth must earn a gold to advance).

Explore what it is about mastery experiences that influences communication self-efficacy to inform the 4-H presentation program.

"Our family greatly appreciated the efforts and the support of the evaluators and the state ambassadors to make this event possible. Thank you for the inspiration." It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at http://ucanr.edu/sites/anrstaff/files/215244.pdf)

Inquiries regarding ANR's nondiscrimination policies may be directed to UCANR, Affirmative Action Compliance & Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1343.

The University of California, Division of Agriculture and Natural Resources (UC ANR) prohibits discrimination against or harassment of any person in any of its programs or activities on the basis of race, color, national origin, religion, sex, gender, gender expression, gender identity, pregnancy (which includes pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), ancestry, marital status, age, sexual orientation, citizenship, status as a U.S. veteran.

UC ANR policy prohibits retaliation against any employee or person in any of its programs or activities for bringing a complaint of discrimination or harassment. UC ANR policy also prohibits retaliation against a person who assists someone with a complaint of discrimination or harassment, or participates in any manner in an investigation or resolution of a complaint of discrimination or harassment. Retaliation includes threats, intimidation, reprisals, and/or adverse actions related to any of its programs or activities.

UC ANR is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment and/or participation in any of its programs or activities without regard to race, color, religion, sex, national origin, disability, age or protected veteran status

University policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's equal employment opportunity policies may be directed to: UCANR, Affirmative Action Compliance and Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1343. Website: http://ucanr.edu/sites/anrstaff/Diversity/Affirmative_Action/.

¹ Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.

La División de Agricultura y Recursos Naturales (ANR) de Universidad de California prohíbe la discriminación o el hostigamiento de cualquier persona en cualquiera de sus programas o actividades. (Se puede leer la versión completa de la declaración de política antidiscriminatoria en http://ucanr.edu/sites/anrstaff/files/215246.pdf)

Las preguntas sobre la política antidiscriminatoria de ANR pueden dirigirse a: UCANR, Affirmative Action Compliance Officer/Title IX Officer, University of California, Davis, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1343.

La División de Agricultura y Recursos Naturales de la Universidad de California (UC ANR) prohíbe la discriminación u hostigamiento de cualquier persona empleada por o en busca de empleo con la Universidad por razones de raza, color, origen nacional, religión, sexo, género, expresión de género, identidad en función del género, embarazo (inclusive parto y condiciones médicas relacionadas con el embarazo o el parto), incapacidad física o mental, estado de salud (casos de cáncer o de características genéticas), información genética (inclusive historial médico familiar), ascendencia, estado civil, edad, preferencia sexual, ciudadanía, condición de veterano protegido o por haber prestado servicio militar (según lo define la Ley de Derechos a Contratación y Recontratación de los Servicios Uniformados de 1994 USERRA), así como servicio en el ejército estatal o en la Fuerzas Navales.

La política de la Universidad prohíbe represalias contra cualquier empleado o persona en cualquiera de sus programas o actividades por presentar una queja por discriminación o acoso sexual en conformidad con esta política. Esta política también prohíbe contra una persona que ayude a alguien con una queja por discriminación o acoso sexual, o participe de cualquier manera en la investigación o resolución de una queja por discriminación o acoso sexual. La represalia incluye: amenazas, intimidación y/o acciones adversas relacionadas con el empleo o con cualquiera de sus programas o actividades.

UC ANR es un empleador que ofrece igualdad de oportunidades y acción afirmativa. Todos los solicitantes calificados serán considerados para empleo, sin importar la raza, color, religión, sexo, origen nacional, discapacidad, edad o condición de veterano protegido.

La política de la Universidad se propone concordar con las disposiciones de las leyes estatales y federales procedentes. Las preguntas sobre las políticas de igualdad de oportunidades de empleo de UC ANR pueden dirigirse a: UCANR, Affirmative Action Compliance Officer and Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618. Website: http://ucanr.edu/sites/anrstaff/Diversity/Affirmative Action/.

ⁱⁱ Tucker, M. L. & McCarthy, A. M. (2001). Presentation self-efficacy: Increasing communication skills through service-learning. *Journal of Managerial Issues*, *13*(2), 227-244.