Evaluating the Effectiveness of an Agricultural Literacy Elementary Preservice Teacher Workshop
Preservice Teacher Perceptions and Plans

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INTRODUCTION
Annually, the Utah Agriculture in the Classroom (AIC) program conducts elementary preservice teacher workshop for nearly 700 preservice teachers. This research examines the perceived increases in agricultural literacy among preservice teachers.

THEORETICAL FRAMEWORK
The theory of change, as outlined in the Agricultural Literacy Logic Model, was the overarching theoretical construct for this agricultural literacy intervention.

METHODOLOGY
1) Do preservice teachers who attended an Utah AIC workshop, experience a perceived increase in their level of understanding related to the National Agricultural Literacy Outcomes?
2) Did participants find the workshop efficacious and valuable in terms of organization, pacing, engagement, and relevance of content to elementary education?

Post-workshop data was collected for three semesters (fall 2015 through spring of 2017). The population was 642 preservice teachers. A 15 question survey was used to determine perceptions and plans. 13 questions were developed based on the content of the workshop and the corresponding National Agricultural Literacy Outcomes (Spielmaker & Letzing, 2013).

RESULTS
Out of the 642 preservice teachers participating in the targeted workshop:
- 240 completed the survey, yielding a response rate of 37%.
- 100% of the participants reported an increased understanding of agricultural literacy themes.

The highest mean averages occurred in:
- gaining a deeper appreciation for agriculture ($M = 4.66, SD = .63$);
- increasing understanding in the resources that produce food, clothing, and shelter ($M = 4.55, SD = .67$); and
- the value of agriculture in daily life ($M = 4.56, SD = .69$).

The lowest mean averages occurred in:
- topics related to understanding the costs associated with producing and purchasing food ($M = 3.77, SD = .93$); and
- describing the technologies farmers use to increase yields and improve product quality ($M = 3.79, SD = .96$).

4.86 Presentation effectiveness scores had a mean score of $M = 4.86$ on a five point scale.
- Participants reported the topic was very relevant ($M = 4.87, SD = .42$) to elementary education;
- Participants stated they were slightly more likely to explore the website than commit to using specific resources in the future, and
- 24% percent stated that they would be willing to be part of a follow-up study.

CONCLUSIONS
- These evaluation results indicate that participants perceived an increase in their understanding related to the NALOs.
- Participants reported that they were likely or very likely to integrate agriculture into their instruction and planned to use the Utah AIC website and related curriculum resources.

RECOMMENDATIONS
- An attempt should be made to follow-up with non-responders to determine if similar results would be obtained on the measures.
- The self-reported levels of “increased in understanding,” need to be assessed with actual content-based assessments.
- A follow-up survey about the usefulness of the workshop and resources should be conducted.

REFERENCES