

Creating Advocates through Innovative Ag Literacy Programming Badging

Jenny Bennett

Colorado State University

Jennifer.bennett@colostate.edu

(720) 281.5905

Kellie Enns

Colorado State University

Sarah Appel

Colorado State University

Agricultural Education, Colorado State University

112 CoBank Center for Ag Ed, ARDEC

Fort Collins, Colorado 80524

(970) 491.0678

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Introduction

CAM's Agriculture Academy, organized and maintained by Colorado State University's Program in Agricultural Education, uses a badging program to reward elementary-aged students for engaging in an agricultural literacy activity called "Ag Adventure" at the National Western Stock Show (NWSS) in Denver, CO each January. Agricultural literacy is not new; however, students may receive knowledge without fully engaging with agricultural programming. Badging, or rewarding students with badges at the end of an activity, attempts to increase that engagement. This rests on three theories: Expectancy-Value theory, Cognitive Evaluation theory (CET) and self-determination theory. These demonstrate the importance of an individual's likelihood to participate in activities at NWSS based on the individual's "positive relationship" with the activity and their corresponding expectations (Abramovich et al., 2014, p. 4). They also emphasize learner autonomy, competence, and relatedness to others (Abramovich et al., 2014 and Anderman & Midgley, 1998). The idea of badging can motivate students at NWSS to engage in ag literacy activities and earn their Junior Ag Ambassador badge.

The NWSS Junior Ag Ambassador badge that participants receive for completing the Ag Adventure Book at NWSS is an example of a badging program which emphasizes an exposure to agriculture concepts and participation in agricultural activities. Participants are motivated to complete the Ag Adventure Book to become Junior Ag Ambassadors. Just as Ag Ambassadors at CSU are called to be leaders and advocates for the industry, once a student is inducted as a Junior Ag Ambassador, they too are tasked with the role to serve as young leaders and advocates for the agricultural industry. The badging program offered at the NWSS gives students an opportunity to earn the Junior Ag Ambassador title and badge.

This innovative idea takes the theories of student engagement and motivation and delivers them in an agricultural literacy program where a unique badge is offered upon completion.

How it works

Deriving inspiration from the National Parks system, Junior Ranger Program to encourage visitors to explore and learn about the National Parks (National Park Foundation, n.d.) and the theories discussed above, a similar badging program has been developed through CAM's Ag Academy to facilitate the Ag Adventure Ag literacy event at the NWSS. This badging program contains two parts: the development of the educational medium, the activity book, and the development of the badging reward system. To develop this badging program the following steps are necessary.

1. Industry representatives, students and program organizers co-create educational goals for the ag literacy event.
2. Industry representatives, students and program organizers co-create pages for the activity book.
3. Activity books are published and printed for circulation at the event.
4. Badges, certificates, and an oath are produced with the CSU Ag Ambassadors.
5. Participants are given activity books at the ag literacy event.

6. Participants complete required number of pages within the activity book and pass a verbal “test” with the review committee of Ag Adventure staff and volunteers.
7. Participants recite the oath to CSU Ag Ambassadors to continue learning about and sharing the importance of agriculture and natural resources to their friends and family.
8. Participants receive their NWSS Junior Ag Ambassadors badge and are officially recognized as Junior Ag Ambassadors.

Results to date

There were over 25,000 visitors to the Ag Adventure exhibit during the 2020 NWSS. Of those 25,000 visitors, around 5,000 received Ag Adventure activity books. 1,000 of those who received the books completed the activities, submitted them to the review committee, recited the Junior Ag Ambassador oath and received their Junior Ag Ambassador badges.

The Ag Adventure Book for 2021 was a virtual activity book, due to COVID 19 restrictions on events. Over 350 virtual views were documented and three FFA programs in Colorado used the book in conjunction with their FFA week to engage with elementary students. At the end of the virtual NWSS, 27 individuals submitted their work and became Junior Ag Ambassadors.

The NWSS Ag Adventure Book badging system demonstrates the program’s ability to use the theories mentioned above. Completing the Ag Adventure Book with the hope of receiving a badge gave learners the opportunity to own their learning and participation with the Ag Adventure exhibit. They then autonomously demonstrated the levels of learning through their work in the Ag Adventure Book activities. Based on these theories and the NWSS Ag Adventure Book, it may be beneficial to use badging as motivation to increase student engagement and learning.

Future plans

The literature demonstrates an opportunity for CAM’s Ag Academy to utilize badging to encourage learners to actively participate in agricultural literacy events, such as NWSS. Future plans include using badges for other agriculture literacy events offered throughout Colorado by CAM’s Ag Academy. This will include implementing various evaluation techniques to analyze how learners are directly impacted by the opportunity to receive a badge during those events through participation.

Costs/Resources needed

There are two main costs associated with implementing a badging program into agriculture-based curriculum. The first is the cost of creating an activity book such as the Ag Adventure Book. This may require high amounts of time and money depending how the book is designed and produced. In our example, the cost of book development was done through coursework, and printing costs \$3,700 for printing and delivery. The second main cost is the price of the badges themselves. This can be very flexible depending on the quality or type of

badge, which would be decided by the evaluators, educators, or others involved in the activity. For our example, the cost of badges for participants was \$.48/badge (ordered in large quantities).

References

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