

California Middle School Agriculture Program Enhancement

A Senior Project

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By

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California is known for its progressive movements and highly regarded education system. California education is faced every day with how to improve and innovate its system even more. Hence, the importance of proposed middle school agricultural programs. In this piece, the author provides research to show why California not only needs to adopt middle school agricultural programs, but also develop standardized curriculum to encourage the success of the program, students, and teachers. Using past and current studies, the author explores different emphases on curriculum topics and needs. The author discusses methods, results, and conclusions from the studies analyzed.

### **Introduction and Need for the Study**

For the national high school organization, Future Farmers of America (FFA), most students are enrolled freshman year of high school knowing little to nothing about the organization. Consequently, students know even less regarding the preparation required for the level of interactions they will experience almost immediately upon entering high school.

A prime interest of the FFA is to increase awareness of agriculture and encourage the prominent presence of FFA chapters in their respective communities and states. To further pursue this investment, it should continue to be a goal of the FFA, specifically the California Association of FFA, to establish a pre-high school program encouraging the growth of middle school agriculture and establishment of curriculum. In California, a thriving FFA high school program exists; however, the California education system lacks an established agricultural education program for middle and junior high schools.

The earlier a student is exposed to the vastness of agriculture, the more likely they will participate and engage in the industry and act as an informed consumer (Hughe, n.d.). In their early school years, students begin to use their education to shape personality and interests (Hughe, n.d.). It is important for the future of the agriculture industry to continue and improve capturing the interest and investment of young students.

### **Theoretical Framework and Literature Review**

Through the research, analysis, and compilation of various state and national studies, this paper was able to explore common themes of what participants believed was important for an agricultural middle school program.

From past program evaluation, there is an opportunity to understand how these programs succeeded. It is important to understand the basis for this new curriculum should be focused on agricultural literacy and exploration of agricultural topics (Rosetti, Padilla, & McCaslin, 1992). To build from this broad foundation, one could expand into agriculture's relationship with the environment, agriculture's relationship with natural resources, societal significance of

agriculture, and the global significance of agriculture (Frick, M. J., 1993). In a study of the nationwide enrollment of middle school agriculture, the authors found that “good activities used to teach scientific agricultural concepts and skills will expose students to the type of instruction (hands-on) they will receive in a good high school program” (Rosetti, Padilla, & McCaslin, 1992), which ultimately could prepare them even further for employment opportunities. In this evaluation of previous studies, the importance of middle school agricultural programs was identified as to promote agriculture awareness to the general public, recruit students for high school agriculture classes, provide opportunities to learn about career options in agriculture, and expose students to FFA earlier on (Fritz, S., Moody, L., 1997).

To understand the state of current California middle school agricultural programs the only option is to observe and survey already integrated programs. In this paper, the author surveyed one middle school program in California to explore the success of this theory of understanding. Some important points to flag is the style; alternating course per year, the curriculum that is most important to the program; plant and environmental science, agriculture mechanics, leadership, and animal science, and the lack of resources allocated to middle schools, specifically stemming from deficiency of funding (Van Riper, 2016).

Most important for this process is to pool together studies of currently running national middle school agricultural programs. In this paper, the author reviewed a study performed for all programs in Georgia, a study of a single program in Georgia, and a study in Illinois. In the Georgia survey, recipients were asked if agriculture implemented in an educational setting is important and it was revealed that 90 percent felt that agriculture was important (Gibbs, 2005). In the East Jackson Middle School program article, it was revealed that through the guidelines developed by Georgia Agriculture Department of Education (GADOE), the middle school program has 16 lab modules. Some modules are based on technology such as a robotics program that will plant flowers in a simulated greenhouse, communication skills that are developed by creating an informative video on a current agriculture topic, or mechanical skills that are built by learning how to wire and install light switches (Gibbs, H. J., 2005).

Once these areas are addressed, California, could replicate the most effective methods to evaluate its middle school programs.

### **Methodology and Findings**

To address California’s need for standardized middle school agricultural education curriculum, the author utilized specific steps to reach a final conclusion. The process began with identifying research points to determine middle school agricultural education’s benefits, curriculum needs, and obstacles. After addressing these points, a survey was developed by researching proposed Delphi questions from studies on middle school agricultural education. Once all the information was collected, it was condensed and presented to showcase the major ideas from each of the research articles and from the survey.

1. Identify important topics to look for in order to understand and create standardized middle school agricultural education curriculum.
  - a. Benefits of curriculum
  - b. Curriculum needs and importance
    - i. *A focus in the curriculum to be based off of two premises: agricultural literacy and the exploration of agricultural topics (Rosetti, Padilla, & McCaslin, 1992).*
  - c. Obstacles
    - i. *One of the largest of these problems stems from the lack of funding, and following that is the issue of age (Van Riper, 2016).*
2. Acquire studies from past and present discussing previous points on middle school agricultural education curriculum
3. Pull out important themes and expand on them. Presenting informative, relative information.
  - a. *Educators narrowed down a broad range of literacy and exploratory curriculum to a concise list of main ideas. From these, they were further narrowed down to four subjects: agricultures relationship with the environment, agricultures relationship with natural resources, societal significance of agriculture, and the global significance of agriculture (Frick, M. J., 1993).*
4. Develop a survey for a current California middle school program. Use questions from Delphi studies on middle school agricultural education curriculum to inspire topics to address.
5. Allow teachers from the program to answer thoroughly. Use the responses to help support thesis: California needs standardized middle school agricultural education curriculum.
  - a. Use responses about the organization and build a model program for teachers who desire to start a middle school agricultural program.
  - b. Teachers need to remember there is a need for middle school curriculum that will build up to the current high school curriculum. There is a *challenge of developing two distinctly different, age appropriate programs for the middle school and high school (Van Riper, 2016).*
6. Finally, investigate current successful programs across the country through news articles, studies, and direct contact, if need be. Use this information to portray what factors are allowing these programs to run successfully.
  - a. *The Georgia Agriculture Department of Education identified three components that agriculture education should hinge itself on; classroom and laboratory experience, Supervised Agriculture Experience Program (SAEP), and National FFA Organization involvement (Gibbs, H. J., 2005).*

## Results

Inspiration for this project centered around one primary inquiry: California middle school agricultural curriculum. Through the research performed, a culmination of ideas and program curriculum has been curated for the purpose of starting a platform for California to build their own structured curriculum. However, the author is still in the process of getting these results to standardize agricultural middle school curriculum. In order to get to these results, those involved need to act on the recommendations below.

In order to begin, it would be best to first reach out to the California Agricultural Teachers' Association (CATA) president, currently Dave Gossman, and inquire upon where the proposal (if there has been one at all) stands with the association. For the benefit of understanding, the next step would be to set up an interview with either Mr. Gossman or the best contact for the topic. Create a list of major topics to cover beforehand, such as how long has this been in discussion, has anything, if anything, been accomplished, and what are their short term and long terms goals. Using this information, assess where California stands in the process. Discuss with the contact if a committee has been formed. If so, request permission to sit in on meetings or take a roll in the committee. If not, suggest that a committee be formed and offer time, assistance, and research. After this is accomplished, the final step would be to produce an action plan for California FFA Association to consider adopting middle school agricultural programs statewide. Once complete, it is important to stay an involved constituent in the process.

## **Conclusion**

This project focused on beginning a review of past and present curriculum ideas and needs of agricultural programs. It developed a strong base for understanding what teachers believe is important when developing agricultural middle school curriculum. It reviewed older programs that had success in the past and investigated what made them so successful. The major, and primary purpose of this project is a need for curriculum and a way to fit it into middle school classes. As a testament to the need for this standardized curriculum, a reoccurring theme throughout the research is insistence on how important it is for students to start learning about agriculture at a young age, for an enormous range of vital reasons.

## Citations

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