Using the Study Cycle to Study for FFA Career Development Events

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Introduction & Need for Innovation

One important aspect of agriculture education includes participation in FFA. Academically, FFA consists of both Leadership Development Events (LDEs) and Career Development Events (CDEs) designed to provide students with skills that build off of subjects learned through their agriculture education classroom instruction, as well as skills that will help them in the working world. Croom et al. (2009) studied both teacher and student thoughts as to why students participate in CDEs. They found that while teachers thought students participated in CDEs for the competition, female students participated because they felt CDEs related to their career choices, and male students participated because CDEs allowed them to develop leadership skills and potentially earn scholarships. Ball et al. (2016) completed a case study to observe and describe potential patterns that demonstrate strategies for improving student CDE team success. The study consisted of a mixed methods design which included both an observational instrument (Career Development Event Coaching Assessment) and interviews of participants. The results indicated that practice design, knowledge level of coaches, and goal setting for both teams and coaches are key to CDE team success.

We observed through our own experience that CDEs provide valuable experiences for students, and that practice design is an integral part of coaching a CDE team. We wanted to know how using Louisiana State University's Study Cycle methods (2021) would influence the success of Agronomy CDE teams. Because CDEs are an integral part of FFA and can often include several components, it is crucial that educators are able to adequately prepare students when possible so that students can succeed both in competition and beyond.

How it Works

The Study Cycle Method involves five distinct phases. The first phase is the "Preview" phase, where you preview the main ideas that will be discussed during a practice session through various methods. After previewing the material, it is vital that you attend the practice session in order to learn more concrete details about the material and make connections with previously viewed material (Louisiana State University, 2021). When the practice session is complete, students will then review materials learned in class in order to evaluate notes, close any gaps in learning, and form questions if there are concepts that they are still struggling to understand. When those phases are complete, it is then time to move into a productive study session involving setting a goal for the session, studying the material, taking a break, recapping material, and then deciding whether or not to continue the study session. When studying is complete, it is then time to do a final check for understanding by asking yourself questions such as "Can I teach this material to someone else?" For our work, we followed this sequence with our experimental groups using agronomy concepts.

Results to Date/Implications

In order to test the Study Cycle method, students from 2 schools in Illinois who volunteered to participate in an Agronomy contest were randomly assigned to two groups. One group was given direct instruction on study methods (Study Cycle Group) and the other group was not instructed on how to study and prepare (Non-Study Cycle Group). The students who were assigned to the Study Methods group were led through two virtual resources. Students were instructed to preview and plan the information that they would be practicing for five to ten minutes, be active participants in each practice, and then review what they practiced when it was over. After these scheduled practices, students were instructed to study for a thirty-minute to

fifty-minute time period, and then check their learning individually. These students were then reminded at the beginning of every Agronomy CDE practice of these study methods introduced. This group of students was only to study and prepare for the CDE with the other members of this group. The non-study method group was not given additional instruction on preparing or studying, but they were given the same access to the CDE practice materials.

Practices for the Agronomy CDE were held every weekday for nine days, with practice times varying between each chapter. The day after the practice cycle ended, a chapter Agronomy CDE was held at each FFA Chapter. The majority of materials that were used for the CDE were gathered from the [state] FFA 2020 Virtual Agronomy CDE. The following practicum materials from this CDE were used: General Knowledge Exam, Crop Identification, Weed Identification, and Equipment/Machinery Identification. Because Illinois rotates practicums on odd/even years, the Soil Practicum from 2020 was substituted for the Insect ID Practicum from the 2019 Agronomy CDE. Time limits from the Illinois FFA State Agronomy CDE were followed. Students filled out their answers on Judging Card scantrons. After students were finished with the CDE, the scantrons were hand-scored. There were 340 points possible in this CDE.

Looking at the data from the chapter CDE, it is clear that students who were taught the study cycle had higher scores than those who were not taught the study cycle. Students from Chapter A who were in the study cycle group averaged 45.28 more points in the chapter contest than the students in the non-study cycle group. Students from Chapter B who were in the study cycle group averaged 44.5 more points in the chapter contest than the students in the non-study cycle group. Qualitative data collection also showed that students across both study cycle groups felt better prepared for participation in the CDE contest through the utilization of study cycle methods. Specific responses include that breaking their study sessions into mini sessions with breaks included had a positive effect on the effectiveness of their overall study sessions.

Future Plans/Advice to Others

Our hope with this research is that Study Cycle Methods will become a tool that other chapters are able to utilize to promote success among their CDE teams. We would like to continue this research by using the same methods with other CDEs and LDEs to determine effectiveness across a variety of contests. As we were relatively limited in our scope of participants, we feel it is important that as this research expands, more schools are able to join in evaluating these methods. It would also be beneficial to someday create a nationwide study around these methods and CDE or LDE success. Our advice to others wishing to implement this is to spend a great deal of time prior to utilizing this method to verify if it will work with their chosen CDE or LDE. As with any other study method, students must be dedicated to preparing for the CDE or LDE for this method to be effective. By having students be more effective in their study methods for CDEs and LDEs, students will have the opportunity to advance their skills and knowledge in each area, which will ideally lead to better future career choices.

Cost/Resources

This project can be completed at little to no cost. We were able to complete this project without expenses through the use of accessible CDE contest materials.

References

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