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**Teaching Leadership Through SAEs**

**By Kendra Linnebur, Agriculture Educator,  
Fredonia High School, Fredonia, Kan.**



I began using LK four years ago, starting with e-Moments and then integrating bits and pieces of the LK lessons and leadership examples to help students make stronger connections to the agriculture content. I quickly discovered that when I used LK, my students were excited about what they were learning and students could relate to the examples better than ever before.

Why was LK so effective? It was effective because students began to see the big picture and understand the relevancy of what they were learning in class. The digestive system was more than just a group of organs they read about in their animal science book; it was an effective team, working together to achieve a common goal. It only makes sense then to apply this same strategy of LK integration to the component of our programs that provides students with the opportunity to apply what they have learned in class to the real world – SAE.

S – Success: We live in a society where oftentimes student success is measured by the number of plaques hanging on the wall. While awards do provide motivation for students, quality SAE programs provide opportunities for students to acquire much more than proficiency awards, plaques and medals. SAE programs teach students technical skills in agriculture as well as LK skills such as goal setting, decision making, responsibility and persistence. As we measure the success of our students' SAE programs, it is important that we take time to recognize and emphasize ALL of the leadership lessons learned throughout the entire project with our students. Winning

grand champion at the county fair is one measure of success, but so is the personal growth that takes place when a student develops a strong work ethic leading up to the fair. While evaluating SAEs with our students, part of that conversation should include a discussion about the leadership lessons they have learned and highlight the significant growth that has taken place.

A – Action: SAE programs put students into action with the opportunity to learn through real-world experiences. Many of today's employers desire their employees not only to have technical skills, but also to have leadership skills. Through integrating LK into SAE programs, we can teach our students the importance of professionalism, showing up to work on time and doing the job right the first time. We can also encourage students to take action out into their community by conducting a service project that relates to a part of their SAE program.

One of my students has a nontraditional SAE of snake care and production. His program has grown to nearly 85 snakes of various sizes and breeds. Last spring, he was asked to present an education station at our FFA Barnyard Days, teaching elementary students about some of his snakes. At the end of the day, his station was one of the favorites. Since that time, he has set a goal to obtain his presenter's license and continue conducting educational workshops in the community and area schools on his own time. He has even begun to explore career options related to reptiles and zoology.

E – Every Student: An SAE program is one of the three essential components of a quality agricultural education program. Since SAE programs are individualized to meet the needs and interests of students and their personal situations, they provide the ideal opportunity to teach individualized leadership concepts to each and every student enrolled in our program. By integrating LK principles, we can turn those unexpected events that students sometimes encounter into an individualized leadership lesson, which results in student growth and development in LK precepts.

I have a student with a grain production SAE program. In 2007, the student was on schedule to harvest his first wheat crop and had planted his first corn crop. The corn crop failed due to a late freeze in the spring, and a second planting of corn later failed due to the severe flooding in the summer. He was also unable to harvest his wheat due to the flooding. Finally, in the fall, he was able to harvest a successful crop of soybeans. In that year alone, he learned valuable lessons about persistence, problem solving, decision making and adaptability as well as taking and managing risks.

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## SAEs: The Perfect Canvas for Personal Growth and Career Success



**By Sheila Fowler, Agriculture Teacher, Chicago High School for Agricultural Sciences (CHSAS)**

I instruct "Agricultural Careers and Leadership" and "Introduction to Agriculture." Since our freshmen are required to take two agriculture classes, I introduce leadership and agriculture to most of the freshmen at CHSAS.

I was exposed to LifeKnowledge five years ago when I started teaching and the first LK CD was available. Many of the teachers used the program and it was boasted about by my department head, Lucille Shaw.

I use the lessons in a lot of different ways, depending on the unit. Sometimes I teach the whole lesson, like MS.15- *Setting Goals* and HS.45- *Goal Setting Strategies*. For things like introducing FFA and opportunities in FFA, I use the LifeKnowledge PowerPoint provided to help teach history and facts, merging the LK slides with my own.

The great thing about LifeKnowledge is that it just flows; it flows into what I am doing and the lessons I have prepared on a weekly basis. It is not an obvious transition between regular class content and LK material. I use the handouts so the students see the LK logo, but I've never made a point of telling them, "OK, now we are going to develop LifeKnowledge skills" or anything like that. It just works in with everything else to make the total program.

Since SAE is a new concept to most of our students, I first introduce the students to the idea of SAEs; provide lots of examples, options and types; and then begin the process of setting up their individual SAEs. At this level, to help launch record keeping, we do a mock SAE where we lay out a plan and a practice problem for a record book as an example.

Through an online record-keeping system provided by our state, it is easy for the students to record and save their work. They work on it during the summer of their freshman year with the intention of carrying on that SAE or developing a new one later in their high school career. The students who complete four years of record books feel very accomplished when they can look back over the four years of high school and see their progress.

SAEs in urban areas vary in some ways. With our students being in Chicago, they have many internship and placement options that others may not. Students are placed in opportunities such as working for city parks or job shadowing at The Eli's Cheesecake Company. We also have students involved in the responsibilities of caring for the animals here on campus. A Project such as raising the chickens and marketing their eggs as free-range is just one of several SAEs available at school. We run a farm stand as an urban farmers market and many students are heavily involved in that project.

Here are two great examples of urban SAEs: one student who is interested in turf grass received the opportunity to work as an intern at Soldier Field, and a former student who raised coral and specialty fish at home was able to sell them to local pet stores. We try to emphasize to our students that the possibilities are endless and that they should pursue a passion.

No matter what SAE a student selects, many life skills are infused purposefully and by happenstance while we are teaching skills related to SAE management. Just by having the experience, they learn about being responsible, keeping accurate records, organizational skills and money management, and they start to think about all the different areas of their finances.

In the classroom, I can see the light bulbs going on when we begin to talk about finances. They begin to feel a sense of ownership. The students do not usually think about net worth, about their savings accounts or what they do with that baby-sitting money. Taking charge of something like running the farm stand allows them to have a vested interest in something bigger than their individual interests.

Lessons like HS.127- Choosing My Vehicle may relate career planning to a car, but they also help students understand that the door is wide open; even if they don't go into the career emphasized in their SAE, they can use the valuable life skills learned, such as responsibility and presenting yourself and a product or company well. Learning to market and advertise yourself is a great asset no matter where you end up.

If we don't connect these classroom and technical skills with life skills and continue to do so, we would be doing a disservice to the students. It is important for them to see that what they do in one area not only connects with many other areas of their life but also affects their future.

My advice to a teacher who was just exposed to LK is to give it a try, even if parts of it seem unorthodox or scary. There were a few activities that I thought wouldn't work or might get out of hand. In most cases, once I tried them, I found the students were very responsive. We must continue to try new things, then keep what works and discard what doesn't.

*"They begin to feel a sense of ownership. Taking charge of something like running the farm stand allows them to have a vested interest in something bigger than their individual interests."*

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## Featured Technical Lesson: Common Animal Diseases

By [Loren Sell](#)

Loren Sell takes a common animal science topic, animal diseases, and makes the lesson interactive while touching on personal and physical growth.

[Lesson Here](#)

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## Getting Started with SAEs

By **Katy Wuthrick, Education Specialist, LifeKnowledge Center for Agricultural Education**

*Sally Shomo is the current NAAE president and an agricultural education instructor at Beverley Manor Middle School in Staunton, Va. In this article, she shares her experience and best practices for facilitating middle school SAEs.*

"For those who have never taught middle school-age students, imagine the youngest student in your program, imagine how excited they can get over the least thing and then multiply that by 20," Sally Shomo said as she described the differences in middle school students. "Middle

school students are unique in their thinking, acting and doing. Middle school students are curious and want to know why, even if there is not a question."

Shomo has worked with middle school students for many years and has an immense understanding of their needs and ability levels. "Facilitation of SAEs on the middle school level is very different than working with students who are mature and may need less guidance," Shomo said. "Middle school students are willing to try the exploratory route, and that is where our facilitation can be very different than what is traditionally done on the high school level."

Shomo feels that beginning the record-keeping process at this age is very beneficial, especially when it comes to developing lifelong skills. "Any time a student has to write something down in an organized manner, that starts the framework for record keeping, organizing finances and thinking about 'adult life' and making ends meet. They don't always enjoy it, but again, this is a life skill that is necessary for them to understand," she said.

"Record keeping is very basic – a type of journaling of the project that they choose," she continued. "This includes a description of their project, hours worked, and any income or expenses that they may incur. Then they have more of an opportunity to share what they learned, specific skills, any problems they encounter, likes/dislikes, career opportunities, etc." At Beverley Manor Middle School, record keeping is a short written paper that the students submit at the end of their project.

Using LifeKnowledge Lesson MS.66- *Researching Careers* can help your students brainstorm the many career opportunities available to them and develop an understanding that they cannot predict the future but they can help create it based on what they do now to prepare. Purposefully educating students in premier leadership, personal growth and career success cannot start too early.

An exploratory SAE gives a student the opportunity to explore an area of interest that relates to agriculture. It should allow students to think creatively and gain experience in an agricultural enterprise. The door is opened very wide for the students to step through for exploratory SAEs, which may allow them many opportunities to delve into areas that they may not find otherwise, Shomo explained. Another key aspect of exploratory SAEs is that they can be very short projects, but ones that may turn into an entrepreneurship or placement SAE in later years in their agricultural education and FFA career.

Research tells us that experiential learning is important at all ages, and for middle school students, it is imperative. "Middle school students love hands-on activities, and the more they are involved with activities, the easier learning is for them," Shomo said. "Effective teachers do not try to teach middle school students out of a book, but they have them actively participate – the idea of *'Learning to Do and Doing to Learn.'*"

Tying together experiential learning and exploratory SAEs, Shomo explained the benefits of one of her favorite SAEs – shadowing an agriculture producer. "To be able to follow in the footsteps of a farmer for a day really shows a student exactly what goes into the production of the food they consume," Shomo said. "It has proven to be very beneficial for my students who do not come from an agricultural background."

"One unique way Shomo has facilitated SAEs is through a community service SAE - something that she continues to promote. She has made participation in the SAE mandatory for everyone, and record keeping is done by journaling their experience.

"They must make a difference in the lives of others - in five different settings - and then journal about what they did, how they felt about it and what a difference it makes for someone else. Good deeds are done anonymously by the student and then shared in class," Shomo explained. "I give a week for this special type of community service SAE, and hopefully this will continue in all that they do. "

"I have found that this sort of project creates self-confidence and human relations skills. In my opinion, this is a very important part to having a well-rounded type of SAE," Shomo said as she continued to explain her idea that could be implemented at any age. "

"Shomo is not ashamed to say that all of her classroom, SAE and FFA ideas are not uniquely hers; she practices what she encourages in the classroom - networking and self-improvement. "One of the things that has been the biggest help to me is to network with other teachers and find out what has worked for them."

*"Effective teachers do not try to teach middle school students out of a book, but they have them actively participate – the idea of 'Learning to Do and Doing to Learn'"*

"Another area that has helped Shomo and continues to help many teachers is the work that Nina Crutchfield, Local Program Success specialist, has done with the SAE Community on the NAAE Communities of Practice, Shomo said "

"Not only can you go to the website and download information on SAEs, but you can also post questions that will be answered by others who may have been in the same boat as you and can offer assistance, " Shomo said. "This has been a tremendous benefit to me - and why try to reinvent the wheel when there are those who are willing to share? "

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## Teaching Tips

### SAE Info Galore

Under the "Educators" tab at [ffa.org](http://ffa.org), there are lots of resources to discover. This issue of the LifeKnowledge AT WORK newsletter has focused on SAEs, and the following links are especially helpful in this area. [SAE information for educators.](#)

Are you looking to share new SAE ideas with your students to spark their own innovative ideas? Check out [SAE Best Practices](#) and look over this .pdf for yourself or assign it to your students to help their creative juices flow. This document has great tips on managing a variety of SAEs and indulging in the endless possibilities.

Get your students excited about SAEs by allowing them to [view this](#) short video clip on [ffa.org](http://ffa.org) where you can hear firsthand from students about their SAE experiences.

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## Sponsor Remarks

**Mike Eades of Merial, LK Supporting Partner, shares some insight.**

**LK- Q:** What individual qualities do you and/or your human resources department look for in new hires? How do these characteristics apply to LifeKnowledge precepts?

**Merial- A:** Of course Merial looks for candidates with superior academic backgrounds, but it is equally important that this be complemented by demonstrated leadership skills, well-rounded extracurricular activities, strong character and communication skills. This is why we believe LifeKnowledge is such an important part of a comprehensive education.

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## What's New?

### Free Webinar for LifeKnowledge Online Subscribers

LifeKnowledge Connections: LifeKnowledge Online is in your toolbox; now what?

Wednesday, Feb. 11, 2009, 6-7 p.m. EST – Free, live webinar exclusively for LifeKnowledge Online Subscribers.

With so much to discover in LifeKnowledge Online, it's hard to know where to begin. You purchased LifeKnowledge Online because you know it is a great resource; however, you haven't had the time to figure out all the amazing tools located inside. Please join our live webinar where we will discover all the tools available and some very easy and applicable utilization techniques for whatever the occasion.

Sign up to attend the live webinar by e-mailing your name, e-mail address and chapter ID to [lkonline@ffa.org](mailto:lkonline@ffa.org).

Hurry – limited space is available. Once you register, you will receive login information for the webinar via the e-mail address you provide.

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**Author Information:**

**Name:** Loren Sell

**Occupation/location:** Agriculture Science Teacher, Perrin, Texas

**How long have you been in agricultural education?** I am currently in my fifth year at Perrin.

**Why did you want to become an agriculture educator?**

From the day I entered college, I knew what I wanted to be when I got out. I found that the agriculture classroom is one that develops young men and women into productive citizens, and I wanted to be a part of that. My students are my life and their success is truly a blessing.

**College:** Tarleton State University, Stephenville, Texas

**Family:** Raised in a small town in central Texas and grew up in a farm family that made its living in production agriculture. I am the oldest of eight siblings. My parents still own and operate the family farm, producing many different crops such as corn, cotton, maize, wheat and beef cattle.

**Since you started teaching, what is one way you have improved yourself?**

Well, there is no doubt that attending the Delta Conference was the most influential, mind-shaping experience for me. Delta breaks you out of the rut that a lot of teachers are in and creates a person and teacher that has the ability to open all students' minds in a way that is conducive to a positive learning environment.

**Favorite e-Moment? Why?**

My favorite e-Moment would have to be the \$10,000 Pyramid. My students have utilized that activity in a way that has made learning fun for all the students. It works excellent for technical information and aids in memory retention.

**Favorite teaching memory:**

My favorite teaching moment would have to be after I came back from Delta. My FFA officers were scheduled to go on our annual planning retreat. When we got in the school Suburban to leave, I could sense that my officers were wondering what in the heck is wrong with Mr. Sell. From that point, they thought that I had fallen off the deep end. As the week progressed, it became more evident that something new was up with me, but they could not figure it out. Finally, I guess they could not stand it anymore and had to ask. After I explained my experience at Delta and the thoughts I had for the upcoming school year, my students were satisfied that I was truly nuts. It took them a little while to get accustomed to my new style and approach, but from that point on, I have never seen students more fired up about school and FFA. They have used some of the same techniques with other students as I did with them. It has been an amazing experience.

**Common Animal Diseases**  
**By Loren Sell**  
**Perrin High School, Texas**

- **Logistical Information -**
  - Time – 50 Minutes
  - Resources –
    - Stockman’s Handbook
    - Paper
    - Laptop
    - Projector
    - Scissors
    - Tape
  - Printouts of TM.1, TM.2, TM.3 and TM.4
  - LK Precepts:
    - G. Physical Growth:
      - G2. Respect one’s body
      - G4. Set goals for long-term health
  
- **Objective –**
  - The students will visualize the relationship between human and animal diseases.
  - The students will identify major causes of various diseases.

*Before class begins, write the following on the board:*

*Today we will be concentrating on the topic of common animal diseases. By the conclusion of the lesson, you will be able to:*

**Interest Approach –**

To begin our unit on livestock management, we are going to focus on one of the most costly and quite possibly the biggest detrimental aspect of the livestock industry. What do you think that is?

*Elicit responses*

Yes, diseases.

When I say the word “Think,” What’s the word? ...*(Think)*..... Correct, you need to reflect on the following questions. After one minute of reflection, we will discuss some of your ideas. Are there any questions? ..... “Think.”

- What is a disease?
  - *A disease prevents or impairs an animal’s daily function and is harmful to development.*
- What causes a disease?
  - *Physiological Defects*
  - *Nutritional Defects*

*Loren Sell*



- *Morphological Defects*
- *Pathogenic Organisms*

Thanks for that steady reflection!

Now, who wants to be the first to share your ideas?

*Allow several students to share. After several students have shared, discuss the above answers as well if they were not brought up.*

Great ideas. As we know, diseases can affect all living things: plants, animals and people.

Here are a few questions that you need to answer to yourself. Please close your eyes and think of a time and place when you knew a person who had a disease that could not be cured. OK, now: What happened to that person? Whom did they affect? How did they become sick? What could they have done to prevent or fix the problem? When you have captured those thoughts, put your right hand on your head.

OK, now that I see everyone's hand on their head, open your eyes and remain quiet. Are there any volunteers who would like to share what they have captured with the rest of the class?

OK, thanks. Now, using the examples that you have just heard and using your journals to make a few notes, how do you think you could apply that to your life?

Great comments, thank you all. Now, focusing on what our lesson is about today, we are going to discover how we can apply that same knowledge to understanding the common diseases of animals.

**Summary of Content** – *The following information will be printed on a handout and given to the students. The students will be divided into four groups and assigned a specific defect. They will then present the assigned defect to the entire class.*

Let's work together. When I say "Group," you will have 15 seconds to divide into four groups and focus your attention back to the front of the room.

"Group."

When I say the word "Go," What's the word ...(*Go*).....Correct, each group will have two minutes to use the handouts being passed out to review different defects. Please take each bulleted item and put the information in your own words. After the two minutes, you will switch handouts with another group and they will then also have two minutes. That group will add comments to the previous group's written explanation. After all groups have had the opportunity to add their comments, each group will present their original handouts to the rest of the class only using the added comments. What can they use?

*Response: The added comments.*





You may use any of the following presentation techniques: for example, draw on the board, use a poster, create a song or dance. Make sure when you are not presenting that you are paying close attention to the other groups as you will need to recall the information later in the class.

What questions are there?

“Go.”

*Pass out TM.1, TM.2, TM.3 and TM.4.*

*The worksheets have the following bullet points:*

- Physiological Defects
  - Physiological defects do not allow glands, organs or systems to function properly.
  - Diet and body function are directly related.
  - If a gland is not performing its function, the body cannot operate normally, which starts a domino effect.
- Nutritional Defects
  - Animals need to receive adequate amounts of nutrients to function properly.
    - Vitamins
    - Fats
    - Carbohydrates
    - Protein
    - Minerals
  - If rations are unbalanced, the animal’s resistance to disease is lowered.
- Morphological Defects
  - Also known as physical defects.
  - Caused by an accident or negligence.
  - Examples include:
    - Cuts & Bruises
    - Scrapes
    - Scratches
    - Broken Bones
  - Physical defects can cause temporary or permanent reduction in animal efficiency.
- Pathogenic Organisms
  - Produce a toxin or poison that causes a disease and affects normal animal activity.
  - Microscopic in size and multiply rapidly in ideal environments.
  - Examples of disease-carrying pathogens:
    - Viruses
    - Bacteria



- Protozoa
- Fungi

*Once all of the groups have had each paper, allow each group to make their presentation. Allow them to do it semi-impromptu just going from the added comments on their paper.*

Great presentations! Thank you for summing up all of the information for a review.

e-Moment – Go Get It Moment - *After the group presentation, each group will cut apart the assigned handout in strategic phrases. All groups will be asked to walk outside while one group at a time will hide the cutouts throughout the room. After each group has had the opportunity to hide all the cutouts and return to the classroom, the following instructions will be given:*

When I say the word “Match,” What’s the word? ... (*Match*) ... Good, every person walks around the room collecting all the pieces that have been hidden. You must not collect any of the pieces that you or your group hid. Once you collect the pieces, you then must, as a group, piece together and create the original document as a whole by placing the cutouts on the center table. Does anyone need clarification? ..... “Match.”

*Once all the pieces have been placed on the center table, each group that had one of the original four parts of the handout will check for accuracy.*

## **Review**

e-Moment – Show What You Know – When I say the word “Disease,” you will have 30 seconds to turn your paper over and write a definition of one of the following four terms: nutritional defects, physiological defects, pathogenic defects or morphological defects. What questions do you have? .....”Disease!”

Are there any volunteers who would like to share what they have written on the back of their paper?

*Go around the room until all students have shared what they have written.*

Evaluation – Students will complete verbal/written quiz.

- 1. \_\_\_\_\_ and body function are directly related.
- 2. Name three of the five nutrients required by an animal to remain in proper health.
- 3. What happens if an animal’s diet is not properly balanced?



- 4. Morphological defects are also known as \_\_\_\_\_.
- 5. What are some examples of morphological defects?
- 6. List three disease-carrying pathogens.

#### Evaluation Answer Key

1. Diet
2. Three of the five below:
  - a. Vitamins
  - b. Fats
  - c. Carbohydrates
  - d. Proteins
  - e. Minerals
3. The animal's resistance to disease is lowered.
4. Physical defects
5. Cuts & Bruises, Scrapes, Scratches, Broken Bones
6. Three of the following:
  - Viruses
  - Bacteria
  - Protozoa
  - Fungi



Evaluation –

Name \_\_\_\_\_

Please answer the following questions to the best of your ability.

1. \_\_\_\_\_ and body function are directly related.
2. Name three of the five nutrients required by an animal to remain in proper health.
3. What happens if an animal's diet is not properly balanced?
4. Morphological defects are also known as \_\_\_\_\_.
5. What are some examples of morphological defects?
6. List three disease-carrying pathogens.



TM.1

○ Physiological Defects

- Physiological defects do not allow glands, organs or systems to function properly.
- Diet and body function are directly related.
- If a gland is not performing its function, the body cannot operate normally, which starts a domino effect.



## TM.2

- Nutritional Defects
  - Animals need to receive adequate amounts of nutrients to function properly.
    - Vitamins
    - Fats
    - Carbohydrates
    - Proteins
    - Minerals
  - If rations are unbalanced, the animal's resistance to disease is lowered.



### TM.3

- Morphological Defects
  - Also known as physical defects.
  - Caused by an accident or negligence.
  - Examples include:
    - Cuts & Bruises
    - Scrapes
    - Scratches
    - Broken Bones
  - Physical defects can cause temporary or permanent reduction in animal efficiency.



## TM.4

- Pathogenic Organisms
  - Produce a toxin or poison that causes a disease and affects normal animal activity.
  - Microscopic in size and multiply rapidly in ideal environments.
  - Examples of disease-carrying pathogens:
    - Viruses
    - Bacteria
    - Protozoa
    - Fungi

