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### Building Resilience & Life Skills for At-Risk Military Youth through a Science Mentoring Program

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# Building Resilience and Life Skills for At-Risk Military Youth Through a Science Mentoring Program

Kasey Bozeman, UGA Extension – Liberty County 4-H



## National 4-H/Military Partnership

The 4-H/Military Partnership connects local County Extension/4-H resources with military installations, in order to provide positive resiliency and life skill development for military children and youth. The partnership began in 1995 with the Army and has since expanded to Navy and Air Force. Army Child, Youth and School (CYS) Services is part of the US Army Family and Morale, Welfare, and Recreation Programs. Child, Youth and School (CYS) Services recognizes the challenges of soldiers and their families. By offering quality programs for children, youth and students, CYS supports the Army Family Covenant by reducing the conflict between mission readiness and parental responsibility.

Liberty County is home to Fort Stewart, the largest military installation east of the Mississippi River. The 3rd Infantry Division Headquarters, seven tenant units (including US Army Reserve and Army National Guard units), and the Georgia Garrison Training Center are all located at Fort Stewart. Youth face unique circumstances associated with challenges of having one or both parents serving in the military. Frequent deployment, long-term training missions, etc. can potentially have detrimental impact on a youth's development. According to the US Department of Veteran's Affairs National Center for PTSD, military children's reactions to having a parent deploy vary based on a child's developmental stage, age, and presence of any preexisting behavioral or psychological problems. Emotional distress, separation anxiety, decline in academic performance, anger issues, and apathy are all common issues children and youth may exhibit. In addition to parental deployment, military youth may experience long periods of separation from their parents, possible relocations and transitions, and integration into civilian communities.

## Situation

According to a 2015 report from the National Scientific Council on the Developing Child, there is a growing body of evidence suggests that children who thrive during difficult situations have at least one stable and committed relationship with a supportive adult. "Resilience depends on supportive, responsive relationships and mastering a set of capabilities that can help us respond and adapt to adversity in healthy ways," (Shonkoff, 2015). Resilience derives from supportive relationships, adaptive capacities, and positive experiences.

Releasing that mentorship and educational programming can be beneficial for military youth experiencing challenges, it was decided that the Liberty County Junior/Senior 4-H Club would host a day of activities for the School Age Center youth (1<sup>st</sup>–5<sup>th</sup> grade) during a school holiday. The Liberty County 4-H staff gave the Junior/Senior club ownership of this project, allowing them to plan, implement, and evaluate their day of activities. The club chose a science theme because "we knew that lots of kids don't enjoy science in school. We decided that if we planned fun and educational science activities, hopefully we would be mentors to these children and inspire them to enjoy science," (Sophia Rodriguez, Junior/Senior 4-H Club President).

## References

Shonkoff, J. P., et. al. (2015). *Supportive relationships and active skill-building: Strengthen the foundations of resilience*. National Scientific Council on the Developing Child, Harvard University, Working Paper 13.  
U.S. Department of Veteran's Affairs. Retrieved from: <http://www.ptsd.va.gov/>.

## Program Response

As a way to strengthen the partnership between the Liberty County 4-H program and Fort Stewart's Child, Youth, and School Services (CYSS), a 4-H Science Day was planned, implemented, and evaluated in November 2014. During a school holiday, fourteen Junior and Senior 4-H members (7<sup>th</sup>-12<sup>th</sup> grade) participated in a program planning event. Teens worked individually or in groups of two members to plan and prepare for their 4-H Science Day activity. Teens researched an interactive science activity, learned the science concepts about the lesson, prepared a mini lesson plan, gathered and prepared needed supplies, and tested/redesigned their activity.

On the actual Fort Stewart 4-H Science Day, fourteen Junior/Senior 4-H members, two adult volunteers, and two 4-H staff members traveled to the Fort Stewart School Age Center to implement the activities for 47 participants in grades 1-5. The Junior/Senior 4-H members provided 10 total educational lessons. Participants were divided into groups and each lesson was taught at the same time. Participants rotated every 15 minutes, so they were able to participate in all 10 lessons. The lessons that were taught were:

- elephant toothpaste: teaching about active yeast
- fossil creation: teaching about archeology
- magic milk: teaching about macromolecule lipids
- butter making: teaching about states of matter
- roller coasters: teaching about kinetic and potential energy
- balloon blow-up: teaching about chemical reactions
- strawberry DNA extraction: teaching about genetics
- bottle rockets: teaching about air pressure
- neutral nancy: teaching about buoyancy
- floating ping-pong ball: teaching about Bernoulli's principle

Hinesville Tractor Supply donated funds that were used to purchase any needed supplies and materials.



Junior/Senior 4-H Club Members and Fort Stewart Participants

## Program Impact & Evaluation

Formal evaluations by both youth participants as well as the Junior/Senior 4-H club members were conducted.

Of the 14 Junior/Senior 4-H club youth completing the formal evaluation, all members "agreed" or "strongly agreed" to the following four statements: "As a result of serving as a teen leader at the 4-H Science Day at Forest Stewart School Age Center ..."

- 1 – I know how to plan programming for younger youth
- 2 – I can lead activities for younger youth
- 3 – I can explain simple science concepts to younger youth
- 4 – I am more confident in my ability to be a leader

When asked "the most important thing I learned is ...", one youth commented, "be nice and help them when they don't understand." When asked "my favorite part of this activity was ...", another youth commented, "teaching a concept to children and giving back to the military community."

All 47 of the Fort Stewart participants completed a very simple evaluation after the activity. Participants were asked to "agree" or "disagree" with three statements: "After participating 4-H Science Day ..."

- 1 – I know more about science (93.6% agree)
- 2 – I enjoy science (95.7% agree)
- 3 – I learned something new (100% agree)

When asked "what did you enjoy best about 4-H Science Day?" comments included [sic]:

- I really enjoyed the elephant toothpaste because I got to touch the foamy, colorful toothpaste and I thought that was the most fun out of all of them.
- The butter making because now I can go home and teach it to my mom, dad, and brother.
- I enjoy best about science was that I got to do different things and I learn more about science.
- Meeting new people.
- I in goy science bee kus you're your 4H pepol or gob heprs.
- I had fun with the butter making activity and most of all I enjoy the activitys that where pland for me, and I learnd something new in the activitys and I ate the butter with some bread.
- I enjoyed being able to do everything the best. It was EPIC.
- I like how me and my friend had fun.
- I enjoy best is doing science and doing activitys with four age.
- I had fun with everything. I wanted to circle all of them, but I had to only circle 1. All the big 4-H's were all nice. This is the most fun I ever had!