Acknowledgements

The SAR Pilot Report is the official report of pilot efforts of the Student Air Rifle Program (SAR), a program owned and operated by the Student Air Rifle Program, Inc. a nonprofit organization. We operate solely on the generosity of individuals, corporations and organizations concerned about the future of target shooting and youth.

On behalf of SAR, we wish to thank our sponsors, donors, educators, organization and industry partners, and all those who offered their talent and expertise to the pilot of SAR. In particular, we thank the Missouri Youth Sport Shooting Alliance (MYSSA™) for operational support during the development and pilot phase and the National Archery in the Schools Program (NASP®) after which SAR is modeled.
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Student Air Rifle Program (SAR) Organizational Profile

**Mission:** Facilitate an introduction to the lifetime sport of target shooting to school-aged youth in grades 4 through 12.

**Purpose:** Increase involvement in the shooting sports, enhance educational performance, and promote positive youth development through firearms safety and target shooting education.

**Vision:** Everyone will have the opportunity to participate in the shooting sports and target shooting will be universally regarded as a safe, relevant and educational activity.

**Goal 1:** Teach shooting sports safety.

**Goal 2:** Promote positive youth development.

**Goal 3:** Offer a comprehensive and accountable instructor training program.

**Goal 4:** Increase participation in the shooting sports.

**Goal 5:** Provide next steps, linkages, and extensions from air riflery target shooting where possible.

**SAR Guiding Principles**

1. Safety will be practiced and promoted ensuring target shooting remains a safe activity.
2. Primary curriculum focus will be basic air rifle target shooting methods.
3. Standardized training and equipment will be used to deliver a safe, structured, educational and fun curriculum.
4. SAR will be taught in-school using curriculum aligned with national physical education standards and delivered by certified school teachers in grades 4 through 12.
5. SAR will be coordinated through fish and wildlife agencies around the country.
6. Regional, State, and National tournaments will be promoted and encouraged to foster student development, educational performance, and teamwork.
Executive Summary

If you are an active recreational target shooter or hunter, odds are you first started with a BB gun or an air rifle. Used properly, air rifles are safe, universal, and fun, making them the go-to tool to introduce youth and adults to the sport of target shooting. In 2013, after several years of discussion, feasibility, and planning, the Missouri Youth Sport Shooting Alliance (MYSSA™) began development of the Student Air Rifle Program (SAR). SAR uses school aligned units of study, teacher training, universal whistle commands, positive language, and standardized equipment to facilitate an introduction to the lifetime sport of target shooting to school-aged youth in grades 4 through 12.

As with any significant effort, a pilot was planned to determine feasibility, success, and allow for facilitation of positive and appropriate change in the program for sustainability.

Below are a few quick highlights of the pilot. **We are elated with the results; we hope you are too.** If you have any questions regarding this report, or would like to learn more, please reach out to us.

- Over 3,000 students participated in the pilot; over 2,400 students filled out evaluations.
- 95% of schools who participated in the pilot plan to officially implement the curriculum when it is available in fall 2016.
- Prior to SAR, 16% of students had never shot a BB gun or air rifle.
- After SAR, 68% of students would be highly likely or likely to target shoot again.
- 21% of participating students had not previously shot a firearm.
- **95% of instructors noted an increase in student attentiveness, over 50% of instructors reported a decrease in behavioral problems, and 97% of instructors noted an increase in student confidence during SAR.**
- Confidence in target shooting increased for 48% of students.
- 72% of participating students strongly liked or liked SAR.
- 100% of instructors agreed the BARI training prepared them to teach SAR.
Pilot Methodology

Selection

- To determine feasibility, a survey was sent to all active Missouri National Archery in the Schools Program (MoNASP) teachers. Selection was based on extensive criteria (grade level, geographical location, student number, and others).

Instructor/School Preparation

- Before implementing SAR curriculum, schools were required to obtain permission from their appropriate authority (usually school board or school administration).
- Instructors attended an 8 hour Basic Air Riflery Instructor (BARI) training and passed a practical and a 100 question exam to earn certification; participating pilot schools/organizations were provided with SAR equipment.
- Over 45 individuals were certified as BARI.

Student Surveys

- During 2015, instructors were given paper surveys to use for students (8 schools participated during spring 2015).
- During 2016, instructors were given scantron surveys to use for students (19 total schools participated and all 8 from 2015 returned during the second pilot).

Instructor Surveys

- All instructors were sent 4 web-based surveys to complete (10 questions each).

Data Comments

- Not all students who participated in the pilot filled out and sent in a survey; only received surveys are included in this report.
- In most cases, questions were the same from 2015 and 2016 for student and instructor surveys. For questions with significantly different outcomes between the two years (marked throughout graphs), the data has been separated; all others are combined.
Student Survey Results

Question 1. What grade are you in?

n= 2,448

- 51% (1,260) (11th & 12th)
- 19% (510)
- 16% (9th & 10th)
- 12% (305)
- 10% (248)
Question 2. Have you participated in any target shooting programs other than NASP® and SAR?

- Yes: 27% (659)
- No: 73% (1,764)
Question 3. Did you shoot any type of rifle or firearm before participating in SAR?

n= 1,083

Spring 2015 Only Question & Data

- Yes: 75% (816)
- No: 25% (267)
Question 4. Before your participation in SAR, had you shot an air rifle or BB gun?

n = 1,338

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<tr>
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<th>Yes</th>
<th>No</th>
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<tr>
<td></td>
<td>84%</td>
<td>16%</td>
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Question 5. Excluding BB guns and air rifles, have you shot any type of firearm?

n = 1,333

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<th>Yes</th>
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<tr>
<td></td>
<td>79%</td>
<td>21%</td>
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Spring 2016 Only Question & Data
Question 6. Since you have participated in SAR, your interest in target shooting has:

n= 2,439

- 53% (1,304) Increased
- 41% Stayed the same
- 5% Decreased
Question 7. If you had an opportunity to participate in target shooting again in the future, how likely would you?
Question 8. Since you have participated in SAR, your confidence in target shooting has:

n= 2,422

- Increased: 47%
- (Increased): 48%
- Decreased: 4%
Question 9. How would you rate the air rifle you used during SAR?

n= 1,083

- Excellent: 41%
- Acceptable: 47%
- Needs Improvement: 12%
Question 10. How much did you like participating in the Student Air Rifle Program (SAR)?

n= 2,427
Question 11. What is the number one rule of air riflery safety?

n= 2,427

85% (Answered Correctly)

15% (Answered Incorrectly)
Question 12. How important are air rifle color options to you?
n= 1,044
Question 13. If there were tournaments in air riflery offered, how interested would you be in participating?

n= 2,437
Question 14. Overall, how would you rate the Student Air Rifle Program (SAR)?

n= 2,498
Instructor Survey Results (Survey 1: Overall Program)

Survey 1: (Overall Program) Question 1. Overall, how would you rate the Student Air Rifle Program as an in-curriculum target shooting program?
Survey 1: (Overall Program) Question 2. Overall, I would consider the pilot of the Student Air Rifle Program at my school a success.
Survey 1: (Overall Program) Question 3. Everyone participating in SAR had a safe experience.

- Strongly agree: 84% (27)
- Agree: 16% (5)
- Neither agree nor disagree: 0% (0)
- Disagree: 0% (0)
- Strongly disagree: 0% (0)
Survey 1: (Overall Program) Question 4. SAR provides a safe and effective introduction to air riflery.
Survey 1: (Overall Program) Question 5. The majority of my students that participated in SAR really enjoyed the program.
Survey 1: (Overall Program) Question 6. In your opinion, what is the most important and significant outcome of the Student Air Rifle Program?

Comments: Blue: Spring 2015 Black: Spring 2016

a. It teaches students not to be afraid of rifles and it also teaches them that target shooting is something they can do as a lifelong sport.
b. Ability for all skill levels to have success.
c. It is another lifetime activity that students can use for the rest of their lives.
d. Makes students look forward to coming to class every day.
e. Students introduced to a sport that all can successfully participate.
f. Provides an opportunity for students to learn a lifelong activity that they can participate in and enjoy safely.
g. A couple of my students that are not very athletic excelled in this unit.
h. Students who might not be good at the ‘typical or popular’ sports participated in P.E. have the opportunity to be successful in SAR.
i. Success in riflery
j. The introduction of the air rifle and overcoming the fear of an air rifle.
k. I think an important outcome is that the students learned how to handle rifles safely and that it will help the students be safe outside of the classroom setting.
l. The students had the opportunity to actually learn the correct way to handle and use the rifle with safety as the main emphasis.
m. For the students to have a SAFE, simple introduction to target shooting.
n. Provide students with a lifetime activity that they participate in throughout their lives.
o. Learning how to handle the air rifle safely which will transfer over to firearms of any kind.
p. The students having a positive experience with it. A few students after taking the program have inquired about joining the trap shooting team.
q. Students that had not used air rifles before were able to have a fun and safe introduction to the sport. Many said that they would never have tried air rifle if the class had not been offered.
r. Introducing students to firearm safety.
s. Students learning to be safe around firearms, no matter what type of firearm it is.
t. Students gained knowledge and experience to hopefully encourage them to continue in shooting sports.
u. My students now know the safety rules of using a firearm.
v. Importance on safe handling of firearms. Expose those without experience to shooting.
w. Students were given the opportunity to learn about rifle safety and how to handle a rifle properly, since many of the students had never held a rifle of any type.
x. A safe introduction to shooting.
y. Students are forced to show responsible and safe handling of the rifles.
z. Students who had never shot a firearm were surprised at how much they liked it.
aa. Students thriving that don’t usually stand out in PE.
bb. Students realize rifles can be used safely and without fear if precautions are taken.
c. 100% participation in the program. The students enjoyed getting the opportunity to shoot.
dd. Students were able to become accustomed to air rifles and improved their knowledge and shooting abilities.
ee. Students finding success....some students need that success so they can talk to the teachers and administrators about something positive they have done.
Survey 1: (Overall Program) Question 7. Once SAR is officially launched, my school would be interested in adding the program to our curriculum.

Comments:

a. My school board is not approving of this at this time.
Survey 1: (Overall Program) Question 8. Did you receive any feedback from parents or school administration regarding SAR?

- Yes: 69% (22)
- No: 31% (10)
Survey 1: (Overall Program) Question 9. If you received feedback from parents or administration, would you classify it as positive or negative?

Comments: **Blue: Spring 2015** Black: Spring 2016

a. They loved it!
b. Administration liked the safety & organization of program
c. Principal watched a couple of classes and he noticed how serious students were taking it and how they enjoyed it.
d. Community donation.
e. Several administrators stopped by to watch the classes and were impressed with the organization and order of the classes.
f. Many thanked me for offering the class because they wanted their children to learn to shoot, but did not know how to do it themselves.
g. Colleagues commented on how they wish this activity was offered when they were in school. Several asked if they could shoot with the kids because it looked like a lot of fun.
h. I would think it would have been positive but I didn't get any feedback.
i. Most parents wanted to know more about the program.
j. They believe it is a good idea to introduce it.
k. Received positive feedback when we piloted last year.
l. The administrators thought the program was great and was pleased to see it being taught at our district.
Survey 1: (Overall Program) Question 10. Thank you for participating in this survey. Do you have any other comments, questions, or concerns, particularly regarding the Student Air Rifle Program?

Comments: Blue: Spring 2015 Black: Spring 2016

a. This was a great program, but with our size of classes and especially since we combine classes, we need about 20 targets in order to provide students the opportunity to shoot more.

b. Would love to keep this in the curriculum! So many benefits to the students.

c. The rifles did not seem to hold up as well as I anticipated. Each day, multiple times per day, we had to tighten screws on the stock. The sight alignments and adjusters kept falling off.

d. I believe with the introduction of this program, students will be much safer when placed in a situation with any type of firearm.

e. There were a number of students who asked to shoot in the prone position during the unit.

f. One administrator asked if we cleaned the safety glasses in between uses. I looked for a way to clean them with a wipe but couldn't find anything that wasn't an eye irritant. It would be nice if we could get a cleaning wipe that didn't irritate people's eyes.

g. I enjoyed teaching the program. The set up time is somewhat longer than the NASP but it went well for us.

h. I enjoyed being a part of the pilot program and really hope it becomes a full program.

i. It is a good program for kids.

j. SAR is a positive way to reinforce our 2nd Amendment right.

k. I look forward to teaching this program every semester in my classes.

l. I have received a lot of feedback from other teachers how much the students have enjoyed participating in the program...I have not seen many parents in the building and the administrator has been very positive but I have successful students take their target to show her.
Instructor Survey Results (Survey 2: BARI Manual and Curriculum)

Survey 2: (BARI Manual and Curriculum) Question 1. The SAR BARI training adequately prepared me to teach the Student Air Rifle Program.

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>Percentage</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Strongly agree</td>
<td>84%</td>
<td>27</td>
</tr>
<tr>
<td>Agree</td>
<td>16%</td>
<td>5</td>
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<tr>
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<tr>
<td>Disagree</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0%</td>
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</table>
Survey 2: (BARI Manual and Curriculum) Question 2. Overall, how would you rate the content of the Pilot Edition Student Air Rifle Program BARI manual?

Comments: **Blue: Spring 2015**

a. The manual would be more helpful if it had all of the Figures that say they will be added later.
Survey 2: (BARI Manual and Curriculum) Question 3. While teaching the BARI curriculum to your students, was it required to change the curriculum presented in any way to suit it to your classroom?

Comments:

a. I moved one class that was really having difficulty up a bit....as soon as they got a little closer and could really see how to aim accurately I move them back the next class period.
Survey 2: (BARI Manual and Curriculum) Question 4. How many 50 minute class periods did you devote to the air riflery unit?
Survey 2: (BARI Manual and Curriculum) Question 5. How well did the BARI curriculum align and transition from the NASP archery unit?
Survey 2: (BARI Manual and Curriculum) Question 6. Students understood and followed the curriculum well.
Survey 2: (BARI Manual and Curriculum) Question 7. What improvements, if any, should be made to the SAR BARI curriculum and manual?

Comments: Blue: Spring 2015 Black: Spring 2016

a. I think a lot of students were having a hard time remembering not to sit down, but to stand with rifle on the ground at the start. I think it would speed up the process if when 2 whistle blasts are blown to "get rifle," that they go ahead and set rifle on the floor and then sit down and put rifle n lap and wait for one whistle blast.
b. A smaller teacher manual would be nice.
c. We need to create a smaller manual that we can use in the classroom similar to NASP.
d. Add a written safety test for students and some other activities.
e. None.
f. None.
g. Some examples of bad sight pictures.
h. I don't think any improvements need to be made to the SAR curriculum.
i. None.
j. None as of right now.
k. It is a great aligned curriculum.
l. If we could develop a tool, that didn't fire anything that had sights to show the kids how to line up the shot before firing the air rifles it would be helpful. We wouldn't need many. Just one to show people that still struggled to get the sight picture lined up.
m. None
n. None

o. It would be nice to have a CD which explains the steps and proper procedures on the SAR that we could have the students watch.
p. Maybe changing the order of when to turn off the safety.
q. None.
r. The 11 steps may need to be changed a little in their order.
s. None.
t. Instructional DVD.
u. No improvements.
w. Seems to work well.
x. I can't think of any.
y. None.
z. None, worked well

aa. None
bb. None that I can think of.
c. The only improvement would be adding the pictures that the manual already states that will be added later.
d. I think we should include other shooting positions other than just standing.
e. I'm not sure if you're going to make a little pocket manual like NASP ...I really like the little manual ...stick in the band of my pants
Survey 2: (BARI Manual and Curriculum) Question 8. How well do you feel the BARI manual and curriculum align with required grade level expectations?

- **Excellent**: 72% (23)
- **Acceptable**: 28% (9)
- **Neutral**: 0% (0)
- **Needs Significant Improvement**: 0% (0)
- **Unacceptable**: 0% (0)
Survey 2: (BARI Manual and Curriculum) Question 9. If more alignment is needed, please explain, in the text box below, suggestions for making the BARI curriculum and manual more aligned with grade level expectations.

Comments: **Blue: Spring 2015** **Black: Spring 2016**

b. None.
c. None.
d. None.
e. I would like to see a test developed that I can administer to my students

Survey 2: (BARI Manual and Curriculum) Question 10. Thank you for participating in this survey. Do you have any other comments, questions, or concerns, particularly relating to the SAR BARI manual and curriculum?

Comments: **Blue: Spring 2015** **Black: Spring 2016**

a. No.
b. No.
c. No.
d. I enjoyed teaching this unit.
e. None.
f. Thank you for letting our school be a part of this program. The kids really enjoyed it, and I enjoyed teaching it.
g. I liked the email you just sent out yesterday....kinda like a AT- A- Glance...this is how your program should run....i have copied that and added it to my manual....really good reminders ....I emphasized and emphasized the safety rules...whistle commands...making sure to keep track of the pellets that I forgot about starting on the left...just my opinion.
Instructor Survey Results (Survey 3: Student Participation)

Survey 3: (Student Participation) Question 1. How many students participated in the Student Air Rifle Program at your school?

Comments: **Blue: Spring 2015** Black: Spring 2016

a. 350ish.
b. 600.
c. Approximately 60.
d. 70.
e. 83.
f. 83.
g. 125.
h. Approximately 200 students. I am not the only physical education teacher; therefore I cannot guarantee an exact number. 92 of my 129 students participated in the sar unit.
i. About 270.
j. Not positive since I assisted the PE teacher.
k. 273.
l. 85.
m. 99 students.
n. 73.
o. Around 192.
p. About 100.
q. 35.
r. 100.
s. 70-75 students approx.
t. I taught 50 students.
u. 19 in my class.
v. 125.
w. 50.
x. Approximately 250 or 300.
y. 150.
z. Around 100.
aa. 320.
bb. 31.
cc. 50-55 students.
dd. 75.
e. 65.
Survey 3: (Student Participation) Question 2. Did you send a parent letter home before delivering SAR curriculum to your students?

Comments: **Blue: Spring 2015** Black: Spring 2016

a. Not sure if she sent this before or after the first session.
b. Students had to sign up with parents present.
**Survey 3: (Student Participation) Question 3. Did you allow students or parents to "opt out" of participating in SAR during school?**

- **Comments:** *Blue: Spring 2015* *Black: Spring 2016*
  
a. We did not have any students "opt out" of the program.
b. 4, 3 parents didn't want them to participate and 1 didn't want to participate.
c. 2 because they did not want to do it.
d. I had 1 student opt out. The parents didn't want him shooting a rifle.
e. Not many students did not participate, maybe 5 all together. Most were because they did not return the letter to the school or a parent did not want them to participate.
f. 4 their parents didn't want the school letting them shoot air rifles. They wanted to teach them gun safety.
g. 5 physical limitations, behavioral issues.
h. Approximately 15.
i. 6-8, didn't provide a reason.
j. None.
Survey 3: (Student Participation) Question 4. Was the pellet curtain hit by pellets during shooting lessons by students?

Comments: Blue: Spring 2015  Black: Spring 2016

a. 40+.  
b. I would imagine we probably had at least 20 pellets hit the curtain.  
c. 6.  
d. 12.  
e. 10-15.  
f. 20+.  
g. 100 or more.  
h. Over 50.  
i. Several.  
j. At least 10-15 per class period at first then by the end 0-5 per class period.  
k. 15.  
l. 3-4 times a class. I have one student who has an underdeveloped right arm and he struggled to maintain steadiness.  
m. Less than 10.  
n. 40 the entire unit.  
o. Many times.  
p. Several times, had some bounce back to firing line.  
q. Probably around 100.  
r. 100+.  
s. 150 or more.  
t. 20 – 30.  
u. Too many to count.  
v. Not sure, maybe 20 or more.  
w. 20-30 times.  
x. 20.  
y. Maybe 20-30 out of 5 days shooting...
Survey 3: (Student Participation) Question 5. Please rate the following statements regarding student involvement with the Student Air Rifle Program.

31 Responses
Survey 3: (Student Participation) Question 6. Because of NASP, I felt students transitioned easily from archery to air riflery.
Survey 3: (Student Participation) Question 7. During the unit, all students followed instruction, particularly safety protocols, well.
Survey 3: (Student Participation) Question 8. Students worked hard to always point muzzles in a safe direction during the unit.
Survey 3: (Student Participation) Question 9. SAR tournaments will be important to the success and sustainability of SAR.

Comments: Blue: Spring 2015 Black: Spring 2016
a. I think the students will enjoy the unit whether they have tourneys to go to or not. They enjoyed the shooting aspect of the unit.
b. I believe SAR will be successful without tournaments.
Survey 3: (Student Participation) Question 10. Thank you for participating in this survey. Do you have any other comments, questions, or concerns, particularly about student participation in SAR?

Comments: **Blue: Spring 2015** Black: Spring 2016

a. No.
b. I think it will be costly, due to the price of the pellets and the desire of the students to shoot.
c. The curtain that was sent to us did not have grommets to hang it or any way of hanging it. Basically it was a piece of material that was sent to us in a bag. It also has several holes in it and the pellets were stuck in the net by the skirts. Two pellets that I know of went all the way through as I heard them hit the bleachers behind it. I was not too satisfied with the curtain that was sent to us. We started at 21 feet and when we moved to 33 feet not as many got stuck in the net but there were still some that did. I'm not sure if it was just a faulty net or if they were all like that. This concerns me because of the damage it can cause to whatever is behind the curtain. It's also a safety concern.
d. Students enjoyed the program and wanted to spend more time shooting.
e. Students suggested that the front sight of the rifle have a white dot on it because it was hard to see with the black targets.
Instructor Survey Results (Survey 4: SAR Equipment)

Survey 4: (SAR Equipment) Question 1. Overall, I would rate SAR equipment the following way.

Spring 2015 Data

- Excellent: 15% (2)
- Acceptable: 77% (10)
- Neutral: 0%
- Needs significant Improvement: 8% (1)
- Unacceptable: 0%

Spring 2016 Data

- Excellent: 63% (12)
- Acceptable: 37% (7)
- Neutral: 0%
- Needs significant Improvement: 0%
- Unacceptable: 0%
Survey 4: (SAR Equipment) Question 2. Did you encounter any problems with SAR equipment?

- Yes: 66% (21) problems reported
- No: 34% (11) problems reported
Comments: **Blue: Spring 2015** **Black: Spring 2016**

a. Three screws in rifles kept falling out.
b. We had a couple of screws fall out on the forearm as we were shooting. Just needed to tighten them back up, but probably a good idea to make sure everyone double checks those.
c. Ball bearing in rifle fell out.
d. Ball bearing came out of one of the rifles and curtains started to tear from the eyelets we had to attach to the curtain.
e. Multiple screws came loose and the sight screw fell out at times.
f. The screws on the stock of the rifles needed to be tightened every day, sometimes multiple times per day.
g. Screws fell out of forearm and stock.
h. Screws came loose, O-ring came out of one rifle completely, failure to fire a few times. Overall equipment seemed flimsy after a few sessions.
i. The curtain that was sent to us did not have grommets to hang it up and the edges were frayed. It also did not stop all of the pellets that were shot at it from 21 feet. Two went through the net completely and there were several that got caught in the net by the skirt of the pellet leaving holes in the curtain. I also had a rifle break during use on the second day. The ball at the end of the stock that holds the barrel in place popped out including the spring. The screws in the stock also fell out numerous times until I started carrying a screwdriver with me.
j. The net did not have an easy way to hang it. I had 2 rifles that the forearm screws came out of. I also had a rifle that the ball bearing and spring came out of and was no longer able to use because of it.
k. Sight on one of the rifles was broken out of the box.
l. Pellet bounced back to firing line after hitting curtain, more skipped along the floor to firing line.
m. The net had a few small holes in it from pellets hitting it.
n. A couple of rifles fired squib loads.
o. The target boxes didn’t stay together and had to be taped on the sides. The curtain bag was not very strong and ripped upon lifting it.
p. One instance with a student, but it was handled. The student did not finish shooting air rifle.
q. I never received 2 of my rifles. One rifle squib fires roughly 20% of the time and has been fired somewhere around 400 - 500 times. The sights are DEFINITELY better than last year’s rifles.
r. I had one problem with one of the air rifles. The trigger was catching and not firing correctly. Other than that all of the equipment worked well.
s. We had several air rifles that would have to be charged multiple times to shoot the pellet.
t. As stated above, the barrel length made it difficult for the students to break the barrel and charge the rifle. The rear sight also seemed a bit flimsy.
u. I had one rifle with the rear sight that was loose. I contact Jake and the rifle was replaced within 4 school days.
Survey 4: (SAR Equipment) Question 3. Please rate the following SAR equipment items.
Survey 4: (SAR Equipment) Question 4. I appreciate the similarity between NASP® equipment and SAR equipment.
Survey 4: (SAR Equipment) Question 5. The BARI training appropriately prepared me to teach using the SAR equipment.

88% (28) Strongly agree
13% (4) Agree
0% Neither agree nor disagree
0% Disagree
0% Strongly disagree
Survey 4: (SAR Equipment) Question 6. The reactive targets used during first shots are important to the success of SAR.

Comments: **Blue: Spring 2015** **Black: Spring 2016**

a. Students thoroughly enjoyed being able to easily tell where they hit the target.
b. The kids liked to use those later on in the shooting after they became accustomed to the feel of the rifle.
c. The students are able to easily see where they hit their target.
d. They gave immediate feedback.
Survey 4: (SAR Equipment) Question 7. The pens used for trigger squeeze are important to the success of SAR.

Comments: **Blue: Spring 2015**

a. Many pens were left on the floor of the gym and around the school.
b. Some thought it was silly while others did use them.
Survey 4: (SAR Equipment) Question 8. The rifle storage container and pellet storage container satisfy my needs for safe and secure storage.

Comments: **Blue: Spring 2015  Black: Spring 2016**

- a. I would like a rifle storage container that had racks in it so we don't have to store them in the boxes.
- b. The pellet storage is great. My rifle storage container was very hard to close and lock. The case sides many times would not line up correctly and it was a struggle to get the latches to catch. The locks themselves were very hard to turn and I was worried I would break off the key because to the force needed to turn the lock.
- c. I am unable to get all 10 rifles into the two storage container with the soft cases on.
- d. The storage container is very difficult to close and lock at times. Five guns in the soft cases will not fit in the storage container.
Survey 4: (SAR Equipment) Question 9. Please explain any changes you would make to improve the SAR equipment listed below.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>2015 Comments</th>
</tr>
</thead>
</table>
| **Ruger Explorer Air Rifle**        | 1. Just have to make sure they are all tightened up before use.  
2. None.  
3. Color on stock.  
4. Better sights (especially rear sight) ... Multiple screws came out of multiple rifles (a locking washer would be better than the basic washer used).  
5. Screws, color of the stock, sights.  
6. Different color, better sites.  
7. Wood Grain, Preferably real wood.  
8. Better quality of a rifle: screws came loose seems like after three class periods.  
9. Make sure all parts will stay together. Lost screws in the forearms and ball bearings.  
10. Smaller fiber optics for more precise targeting. |

<table>
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<tr>
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| **Umarex Embark Prototype Air Rifle** | 1. Glow sights.  
2. NA.  
3. Seem to be working very well.  
4. None.  
5. The rear sights seemed loose and easily moved, very heavy for 4th grade students, safety could be longer.  
6. The forearm has some sharp edges under barrel.  
7. The sites were not as easy for the students to use. Also, during the last couple days of shooting, 3 of the 10 air rifles were misfiring on every shot.  
8. None.  
9. The stock needs to be shorter for the younger grade levels.  
10. Adjustable stock, shorter barrel, lighter weight.  
11. Shorter barrel. |
<table>
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<tr>
<th>Equipment Type</th>
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</tr>
</thead>
</table>
| **H & N Match Green Pellet** | 1. I doubt there are any that are bigger, but the students had a lot of trouble being able to pick up the pellets to shoot.  
2. None.  
3. They have to get cheaper to stay in most schools curriculum.  
4. None.  
5. None.  
7. None.  
8. Good.  
9. They are good -- just expensive. |

<table>
<thead>
<tr>
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</thead>
</table>
| **H & N Match Green Pellet** | 1. NA.  
2. Possibly softer pellet, might eliminate bounce back.  
3. Worked very good, only one jam.  
4. None.  
5. None.  
6. Need to find them cheaper for students to be able to shoot more.  
7. None.  
8. No change. |
<table>
<thead>
<tr>
<th>Equipment Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Rifle Rack</td>
<td></td>
</tr>
<tr>
<td>1. None.</td>
<td></td>
</tr>
<tr>
<td>2. None.</td>
<td></td>
</tr>
<tr>
<td>3. None.</td>
<td></td>
</tr>
<tr>
<td>5. Wheels: I added wheels to mine so I could easily put them away at lunch or during my planning period.</td>
<td></td>
</tr>
<tr>
<td>6. Good.</td>
<td></td>
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</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>Rifle Rack</td>
<td></td>
</tr>
<tr>
<td>1. NA.</td>
<td></td>
</tr>
<tr>
<td>2. Worked very well.</td>
<td></td>
</tr>
<tr>
<td>3. None</td>
<td></td>
</tr>
<tr>
<td>4. None.</td>
<td></td>
</tr>
<tr>
<td>5. None.</td>
<td></td>
</tr>
<tr>
<td>6. None.</td>
<td></td>
</tr>
<tr>
<td>7. No change.</td>
<td></td>
</tr>
<tr>
<td>Equipment Type</td>
<td>2015 Comments</td>
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</tbody>
</table>
| Pellet Curtain | 1. Grommets and cable or rope to hang.  
2. Grommets to hang easier.  
3. Factory eyelets installed.  
4. Add eyelets from manufacture.  
5. Tighter weave? After being hit several times in one spot, I worry what would happen to that spot in the curtain.  
7. Tighter weave.  
8. Better quality in my case since it is full of holes from the caught pellets.  
10. I had the original archery curtain and had some troubles with it. But Jake sent me a new one. |

<table>
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<tr>
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</tr>
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</table>
| Pellet Curtain | 1. NA.  
2. Worked good. Not sure if it was hit very many times with the pellets if it would stand up.  
3. Maybe a little thicker.  
4. Lighter weight, easier to hang.  
5. None.  
6. None.  
7. None.  
8. No change. |
<table>
<thead>
<tr>
<th>Equipment Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Rifle Storage Container</strong></td>
<td>1. Locks don't seem very durable (cheap).</td>
</tr>
<tr>
<td></td>
<td>2. None.</td>
</tr>
<tr>
<td></td>
<td>3. Clasps are hard to close; no change.</td>
</tr>
<tr>
<td></td>
<td>4. None.</td>
</tr>
<tr>
<td></td>
<td>5. None.</td>
</tr>
<tr>
<td></td>
<td>6. Needs racks in it made of foam or something.</td>
</tr>
<tr>
<td></td>
<td>7. Better locks, hard to keep case closed.</td>
</tr>
<tr>
<td></td>
<td>8. It'd be nice to have a foam cutout to place the rifles in so we can do away with them boxes.</td>
</tr>
</tbody>
</table>

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<th>Equipment Type</th>
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</tr>
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<tbody>
<tr>
<td><strong>Plano Rifle Storage Container</strong></td>
<td>1. Bigger.</td>
</tr>
<tr>
<td></td>
<td>2. NA.</td>
</tr>
<tr>
<td></td>
<td>3. Fitting 5 rifles into one container is a little impossible.</td>
</tr>
<tr>
<td></td>
<td>4. None.</td>
</tr>
<tr>
<td></td>
<td>5. Larger.</td>
</tr>
<tr>
<td></td>
<td>6. None.</td>
</tr>
<tr>
<td></td>
<td>7. None.</td>
</tr>
<tr>
<td></td>
<td>8. None.</td>
</tr>
<tr>
<td></td>
<td>9. Not large enough for 5 guns / lock is difficult to work at times.</td>
</tr>
<tr>
<td>Equipment Type</td>
<td>2015 Comments</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Pellet Storage Container** | 1. None.  
2. None.  
3. None.  
4. None.  
5. None.  
6. Good.  
7. Good. |

<table>
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<tr>
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</tr>
</thead>
</table>
| **Pellet Storage Container** | 1. NA.  
2. Not sure what this is?  
3. None.  
4. None.  
5. None.  
6. None.  
7. No change. |

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Trigger Squeeze Pen Tool** | 1. None.  
2. None.  
3. Not sure if this is necessary.  
4. None.  
5. None.  
6. Good.  
7. Good. |
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Safety Glasses** | 1. Anti-fog glasses.  
                     2. None.  
                     3. A lot of students complained about glare and/or fog (maybe a tinted lens should be used).  
                     4. None.  
                     5. None.  
                     6. None.  
                     7. None.  
                     8. Good.  
                     9. Great. We need a way to clean them though. |

<table>
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<tr>
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</table>
| **Safety Glasses** | 1. NA.  
                     2. The curve of the glasses distort the view and several students had trouble with them fogging up.  
                     3. Worked well.  
                     4. None.  
                     5. None.  
                     6. None.  
                     7. None.  
                     8. No change.  
                     9. The safety glasses need to be adjustable. They were too close to the face and fogged up with some shooters. Adjustable ear piece would allow for space between the face and glasses.  
                     10. maybe a bag to store all the safety glasses. |
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Reactive Targets** | 1. Awesome!  
2. None.  
3. Add more to shoot with.  
4. More!  
5. None.  
7. None.  
8. Good.  
9. Great. |

<table>
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<tr>
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</tr>
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</table>
| **Reactive Targets** | 1. NA.  
2. Really liked this target.  
3. None.  
4. None.  
5. None.  
6. The only problem with the reactive targets was that it was difficult to see the target through the sight being that the sights and the target were both black.  
7. None.  
8. No change.  
9. The reactive targets allowed the shooter to see where they were hitting on the target. |
<table>
<thead>
<tr>
<th>Equipment Type</th>
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</tr>
</thead>
</table>
| **Paper Targets** | 1. None.  
2. None.  
3. Print on colored paper.  
4. None.  
5. None.  
6. maybe different colored paper.  
7. Hard to see shots. |

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Paper Targets** | 1. NA.  
2. Did not use this target yet.  
3. None.  
4. None.  
5. None.  
6. Hard to tell whether you hit the target or not.  
7. Print on colored paper.  
8. No change.  
9. Paper targets are fine...kids really liked the reactive targets. |
<table>
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</table>
| **Target Holders (with soft plastic)** | 1. It doesn’t look these are going to last as long as I thought they would. Maybe we could figure out a way to just slide another piece of cardboard in front of the styrofoam so we don’t have to purchase new ones so quick.  
2. None.  
3. I don’t think they will hold up for that many years (I could be wrong).  
4. None.  
5. I think these will only last a year or two.  
6. None.  
7. They will not last long.  
8. Good.  
9. Great. Maybe a little bigger though? |
| **Target Holders (with cardboard)**  | 1. NA.  
2. Cardboard box outside does not seem like it will hold up very well.  
3. None.  
4. Handle grips could be reinforced, and bottom folds could have work done on them.  
5. None.  
6. Handles broke easily.  
7. The cardboard handle is already broken.  
8. The target holders need a handle that will not break and some way to make them easier to carry. The handles broke just carrying them to the gym on the first day of shooting. |
<table>
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<tr>
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</tr>
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</table>
| **Pellet Cups** | 1. We just used paper cups and it worked great!  
2. Had to provide our own bowls.  
3. None.  
4. Not provided.  
5. Did not receive....used plastic tubs we had.  
6. We did not receive any pellet cups so used cool whip containers  
7. Need to find a better way to contain.  
8. Good. |

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</table>
| **Pellet Cups** (include any ideas for pellet cups in the comments field) | 1. Didn’t receive any but used cool whip containers.  
2. NA.  
3. Just used our floor quivers from NASP with a little changes.  
4. We just used bowls.  
5. None.  
6. I duct taped disposable coffee cups to the cones I use for NASP (put the cups upside down). The ring around the bottom of the cup kept the pellets in and we didn’t have a single pellet fall on the ground due to the pellet holders.  
7. None.  
8. PVC adapter with a flat piece of plastic put inside to close off.  
9. Didn’t receive any.  
10. I taped Glad containers on the top of cones and they worked great.  
11. I need to get this figured out so I can use the quivers as pellet holders. |
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| Rifle Cleaning/ Maintenance Kit | 1. More swabs.  
2. None.  
3. None.  
4. None.  
5. Ended up using a bore snake furnished by our local gun shop. Worked much better.  
6. I would like to have a bore snake to clean the rifles as it's much faster and easier.  
7. Good-need more patches.  
8. Good.                                                                                           |
<table>
<thead>
<tr>
<th>Equipment Type</th>
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</tr>
</thead>
</table>
| Rifle Cleaning/ Maintenance Kit | 1. NA.  
2. Worked good.  
3. None.  
4. No cleaning solution only oil and lubricant.  
5. None.  
6. None.  
7. None.  
8. No change.                                                                                     |
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Ten Steps to Riflery Success Banner** | 1. None.  
2. None.  
3. None.  
4. None.  
5. None.  
6. Good.  
7. Good. |

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **Eleven Steps to Air Riflery Success Banner** | 1. NA.  
2. Worked well, may want to change the order of some of the steps.  
3. None.  
4. None.  
5. None.  
6. None.  
7. No change. |
<table>
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</table>
2. A bigger one because i couldn't get it to fit.  
3. NA.  
4. Too small.  
5. Did not use it much. The curtain is hung and will probably stay up.  
6. None.  
7. Larger.  
8. Made with stronger material.  
9. The bag is too small for the curtain.  
10. None.  
11. Too small and it is already falling apart.  
12. Increase size, can't get my curtain to fit in it.  
13. Curtain cannot be folded to fit in the bag.  
14. The curtain is heavy the bag needs to be designed with this in mind and a way to close the bag once the curtain is stored.  
15. Needs to be bigger.  
16. I'm not sure it's going to fit in the bag. |
| Soft Rifle Case | 1. NA.  
2. Worked well.  
3. None.  
4. None.  
5. None.  
6. None.  
7. No change. |
Survey 4: (SAR Equipment) Question 10. Thank you for participating in this survey. Do you have any other comments, questions, or concerns, particularly about SAR equipment?

Comments:

a. No.
b. I helped the physical education teacher with this unit and definitely want to keep up my certification. Enjoyed it immensely.
c. My biggest concern was the pellet curtain not doing its job 100%.
d. Thanks for having this program - I think it'll be a great tool to help students learn how to safely handle and fire air rifles which will transition to firearms well.
e. It is a great program.
f. I am not sure how long the target holders will last.
g. Overall the classes were very excited about getting to shoot.
SAR Pilot Sponsors/Partners

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Midway Foundation, Inc.

MISSOURI YOUTH SPORT SHOOTING ALLIANCE

THE NRA FOUNDATION

THE NRA FOUNDATION

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NWTF


PHEASANTS FOREVER

The Habitat Organization

QUAIL FOREVER

The Habitat Organization

PLANO

WHITETAILS UNLIMITED

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USA Shooting