Pretty Eagle

A Case Study

Project History

Funding – USDA-NIFA

What is CYFAR?

When is funding available?

Project History

Interested Communities

Community Partners – schools, Extension agents, 4-H, Volunteers (parents)

Schools and after-school programs - Links and Pretty Eagle

Pretty Eagle Site

Goals

Teach:

Geospatial technologies (GPS)	Computer-aided design software	Bridge design and engineering	Drone construction
Aerial photography	Plant identification and link to technology	Critical thinking	Problem-solving
Communication	Increase community capacity:	Prepare students for local jobs	Link youth to place and culture

Steps

- Videography
- Robotics
- Water Quality
- Aerial Photography
- GPS, Drones
- CAD

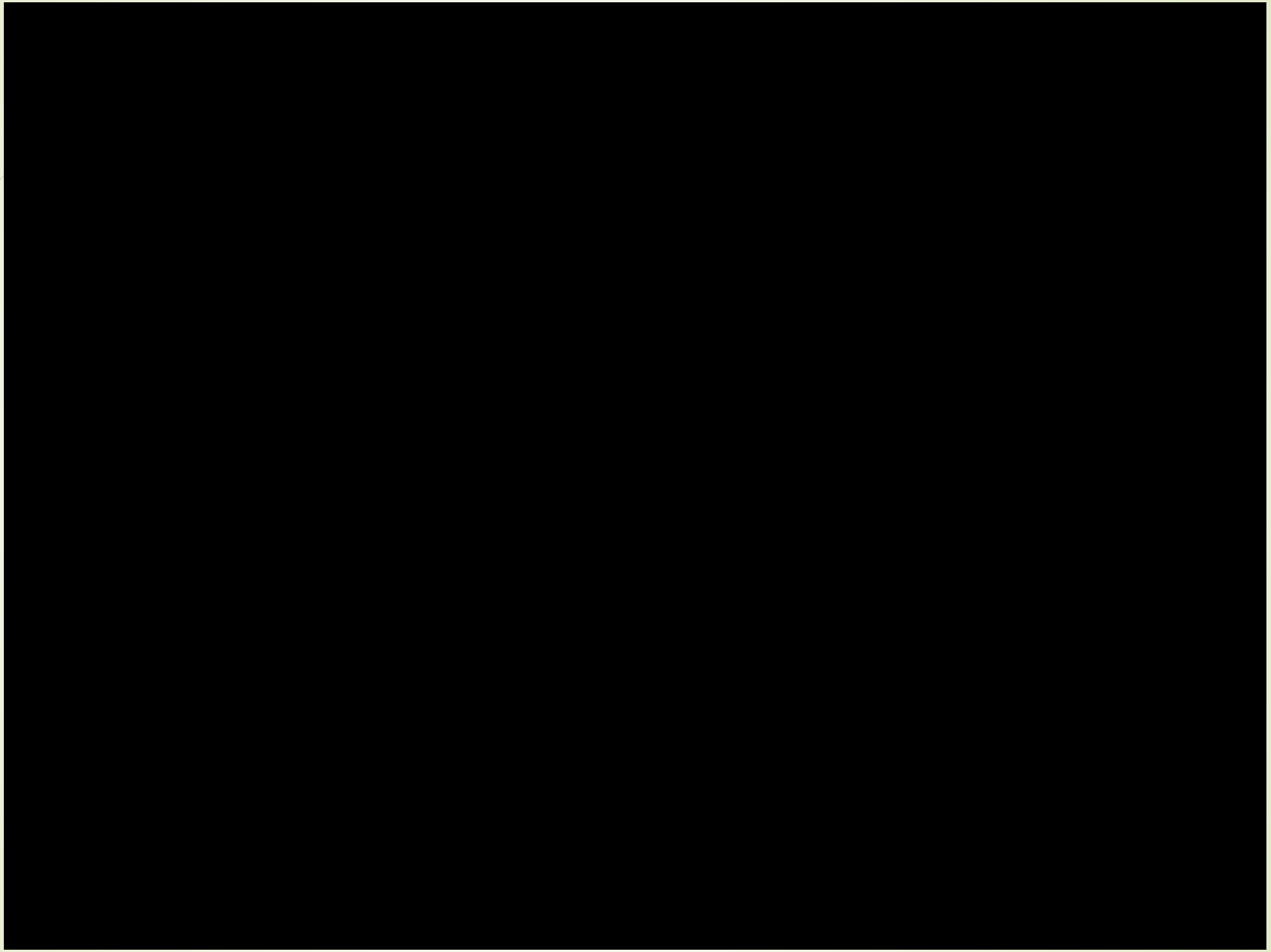
Videography – What They Learned

- Use of video cameras, tripods, microphones
- Interviewing techniques
- Script-writing
- Planning and storyboards
- Shot types
- Use video editing software


ANTLERS VS HORNS

Robotics – What They Learned

- To read build plans
- Part types and what they do
- Robot-building
- Programming using software
- To work together
- Friendly competition



Water Quality – What They Learned

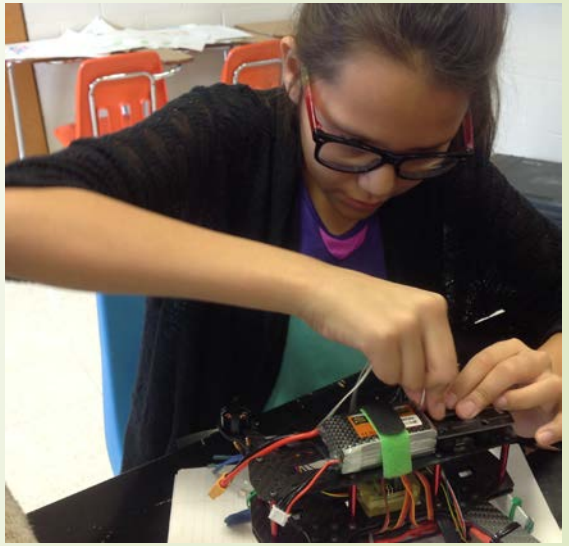
- How to test water using strips and other instruments
- Why water quality is important
- To record data
- To instruct others

Aerial Photography – What They Learned

- Kite-building and flying
- How cameras work (still photos)
- How to fly balloons and take photos/videos
- How to use video footage to locate things in a landscape
- Photo-stitching

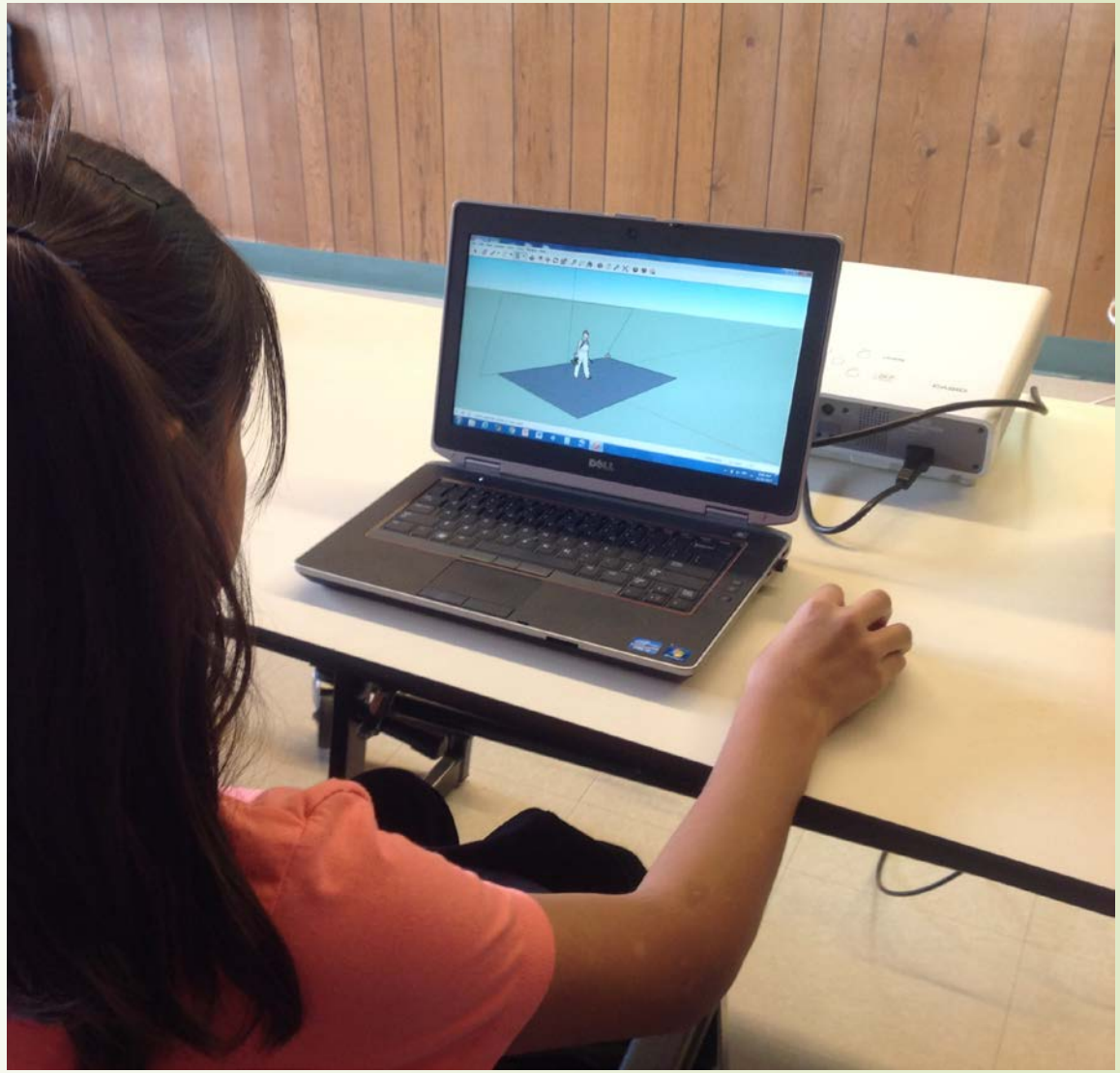
GPS/Drones – What They Are Learning

- To locate caches using GPS units
- Lat/Long
- How to locate points in a landscape
- Engineering skills
- How to use software like Adobe Photoshop to locate specific plants
- To fly drones



Computer Aided Design (CAD) – What They Are Learning

- Engineering
- Design
- Integration



Life Skills

- Communication
- Critical Thinking
- Problem-solving
- Decision-making

Lessons Learned

- Flexibility/Adaptability
- Key People/Partnerships
- Sustainability
- Evaluation/Monitoring

Flexibility/Adaptability

Creativity

Trust

Change

Key People/Partnerships

Think broadly

School?

Parent?

Sustainability (the “buzz” word)

Plan

Integrate

Train

Evaluation

Formative

Summative

Evaluation - Interviews

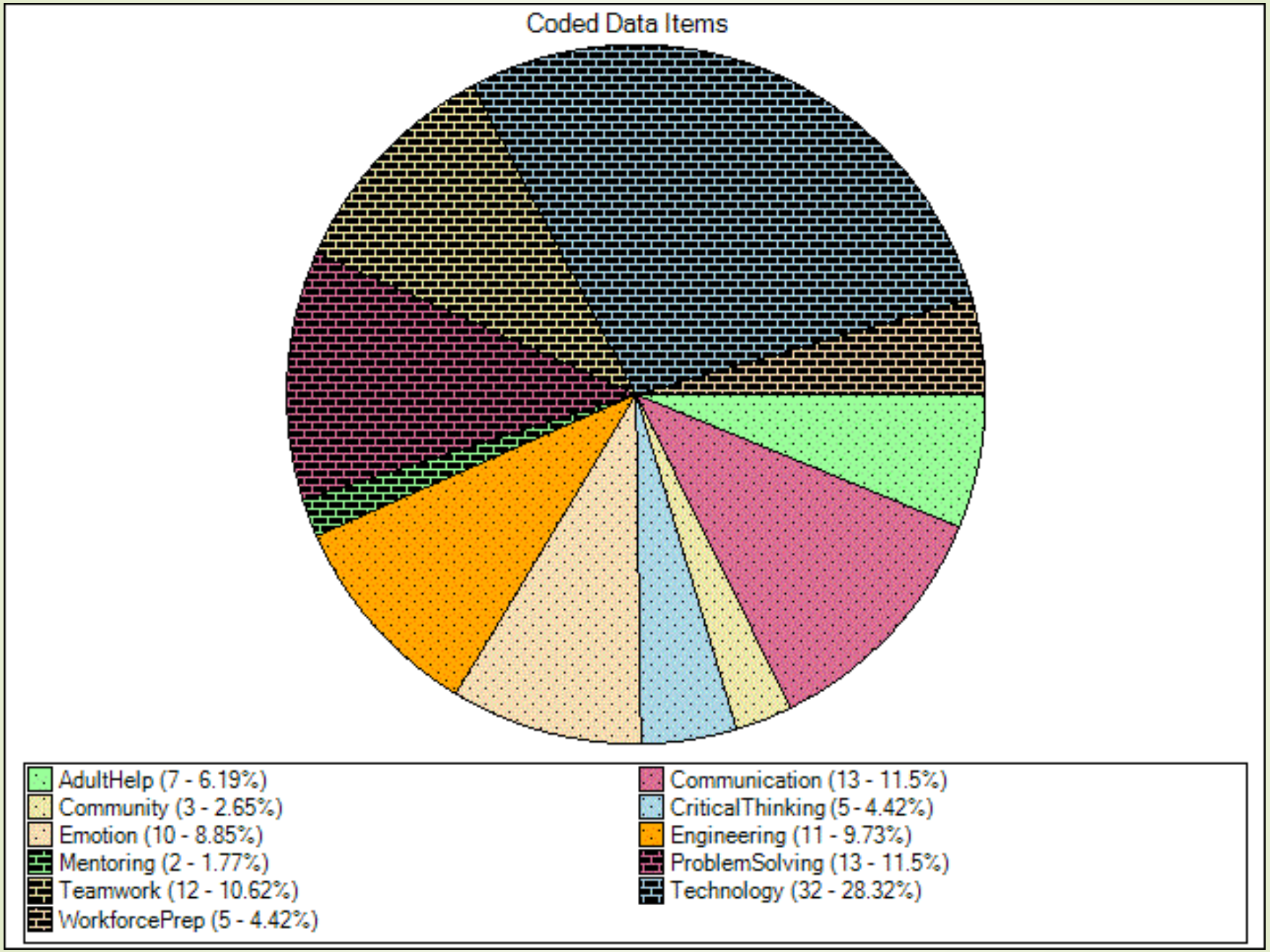
Results to-date [n=11]

What will you tell others about what you have learned?:

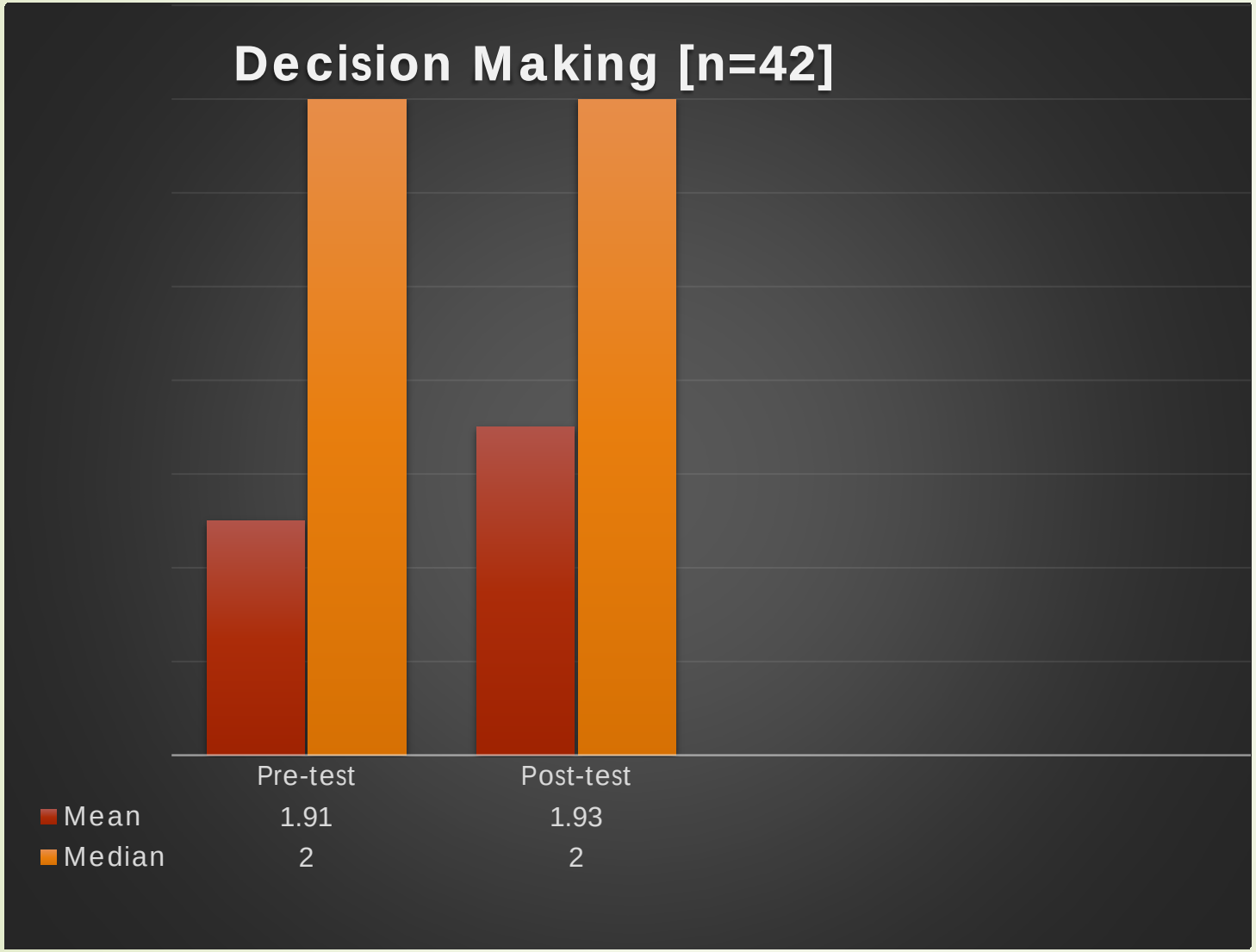
"It's fun, and we get to work with drones, we get to make 'em."

"It's a great way to get to know peers and to learn to have teamwork."

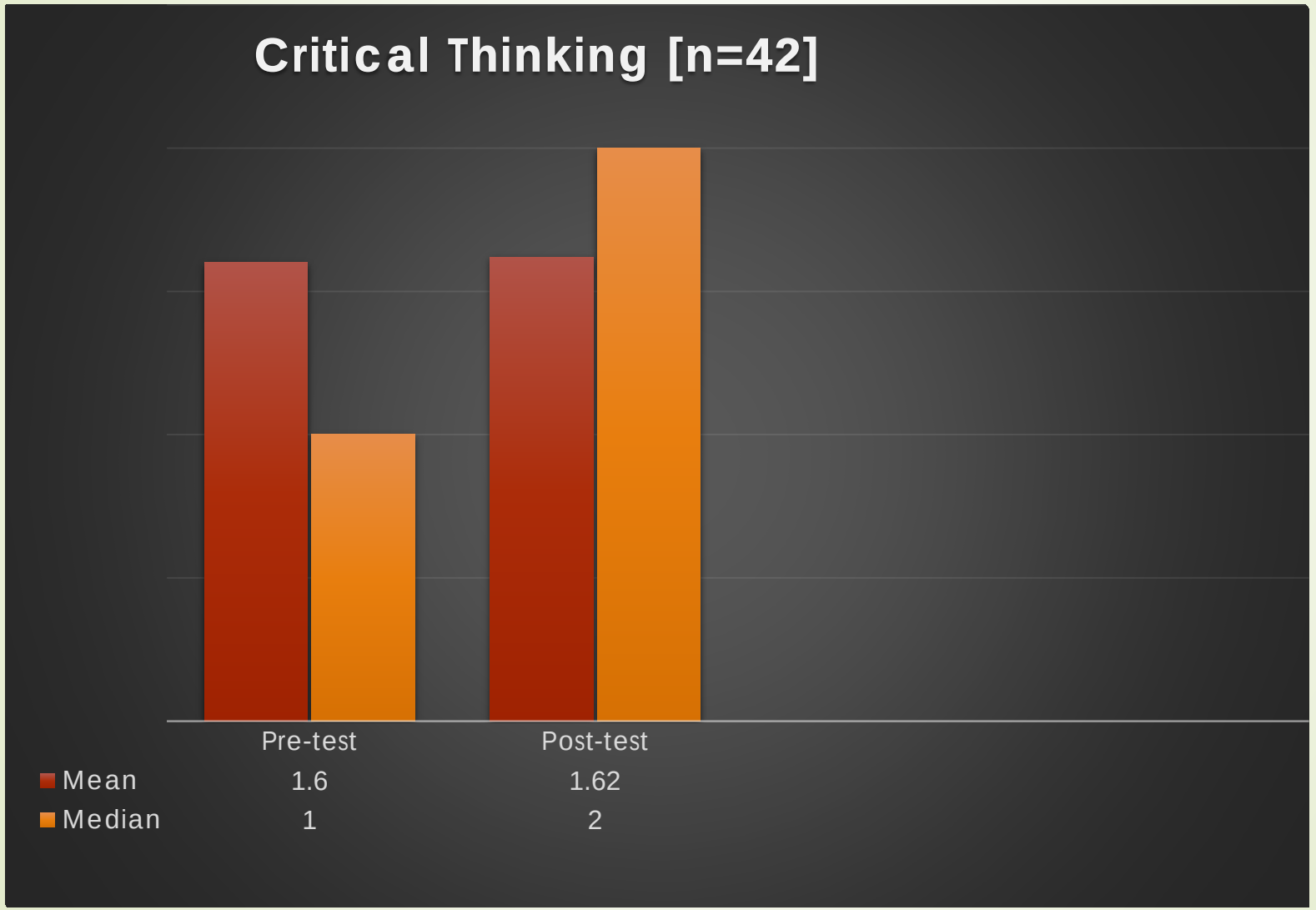
Photo by J. Ballard. Students learn to make characters using WeDo Legos.


Coded Data Items
AdultHelp (7 - 6.19%)
Community (3 - 2.65%)
Emotion (10 - 8.85%)
Mentoring (2 - 1.77%)
Teamwork (12 - 10.62%)
WorkforcePrep (5 - 4.42%)
Communication (13 - 11.5%)
CriticalThinking (5 - 4.42%)
Engineering (11 - 9.73%)
ProblemSolving (13 - 11.5%)
Technology (32 - 28.32%)

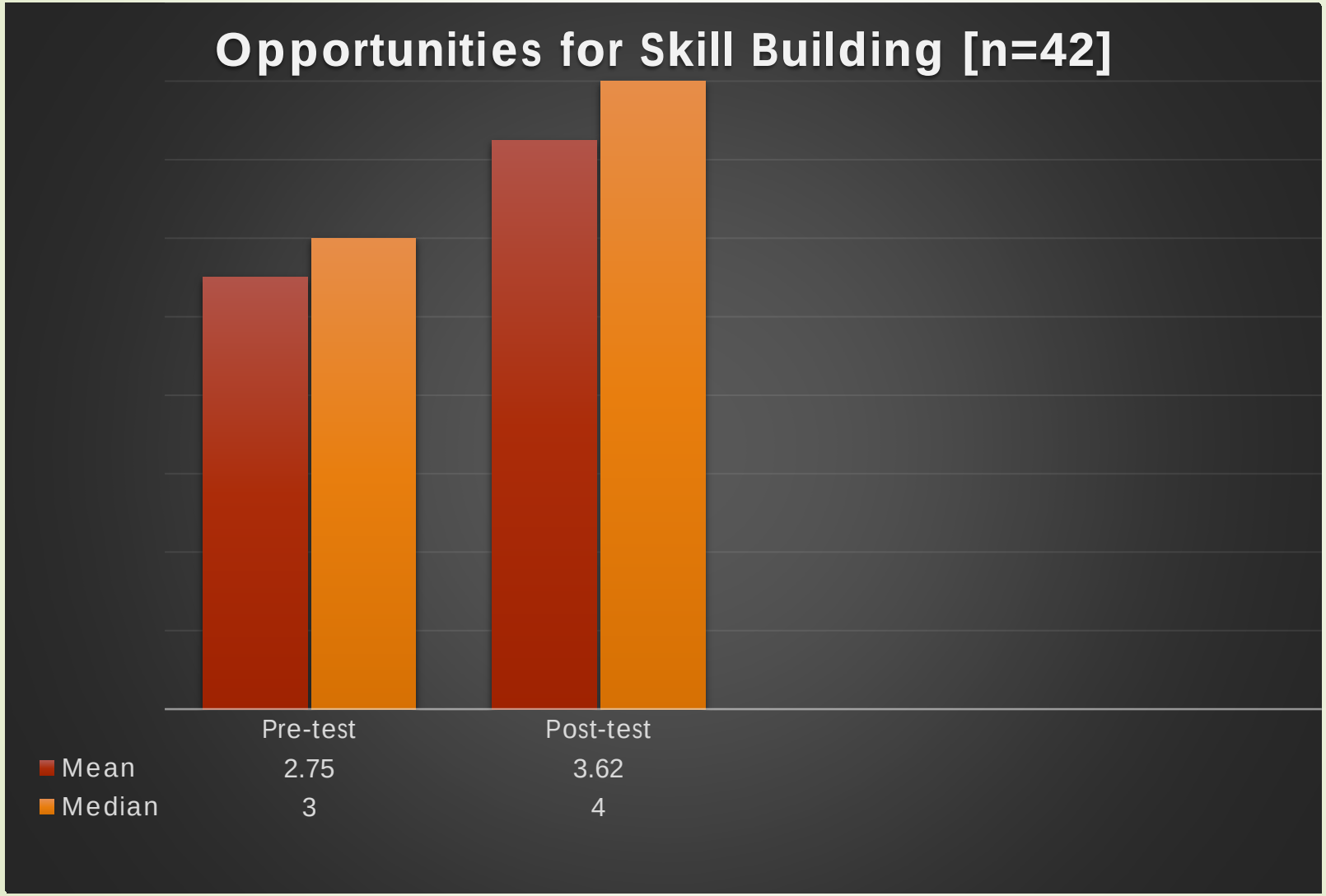
Pre/post test results GY3



Pre/post test results GY3



Pre/post test results GY3



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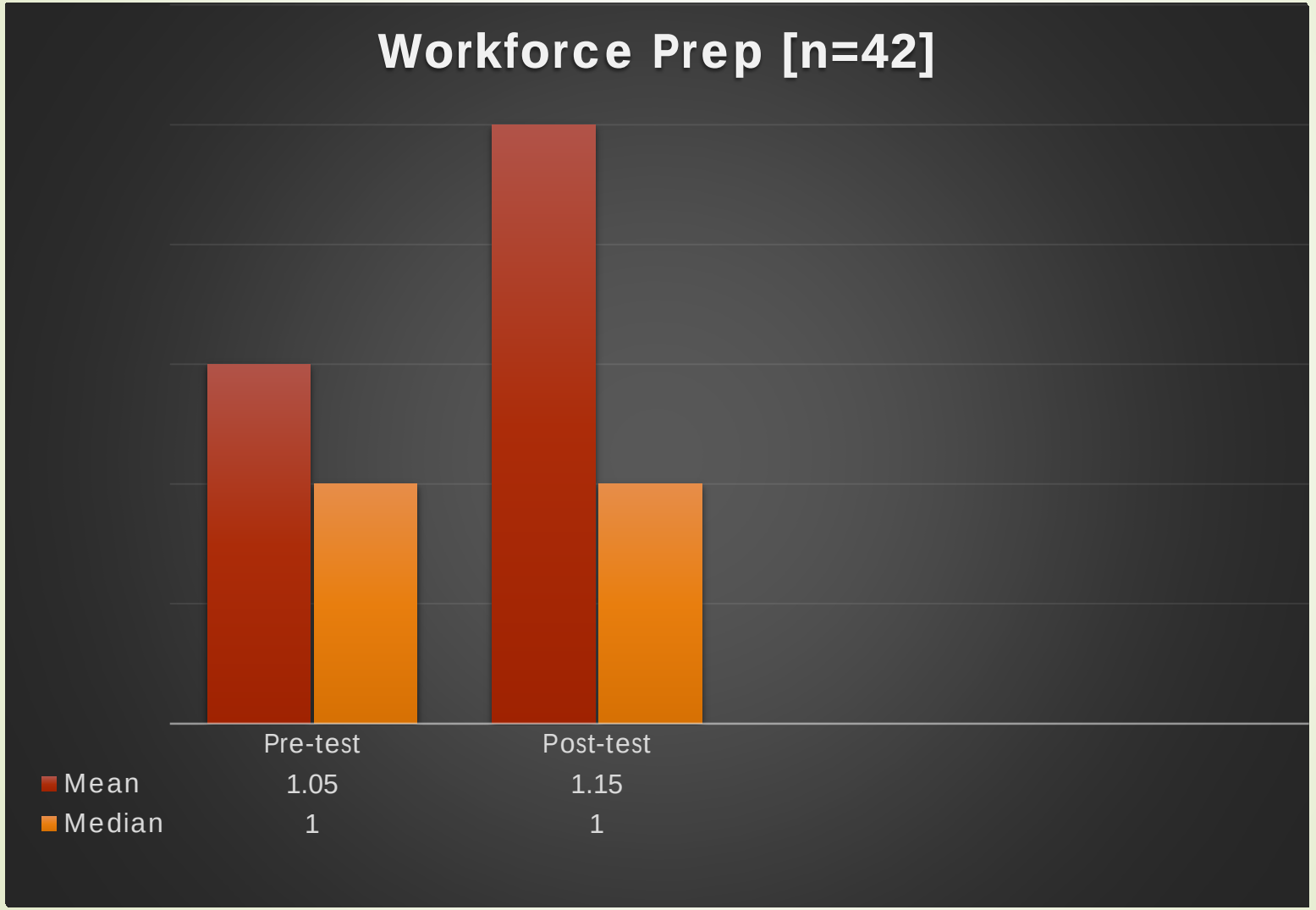


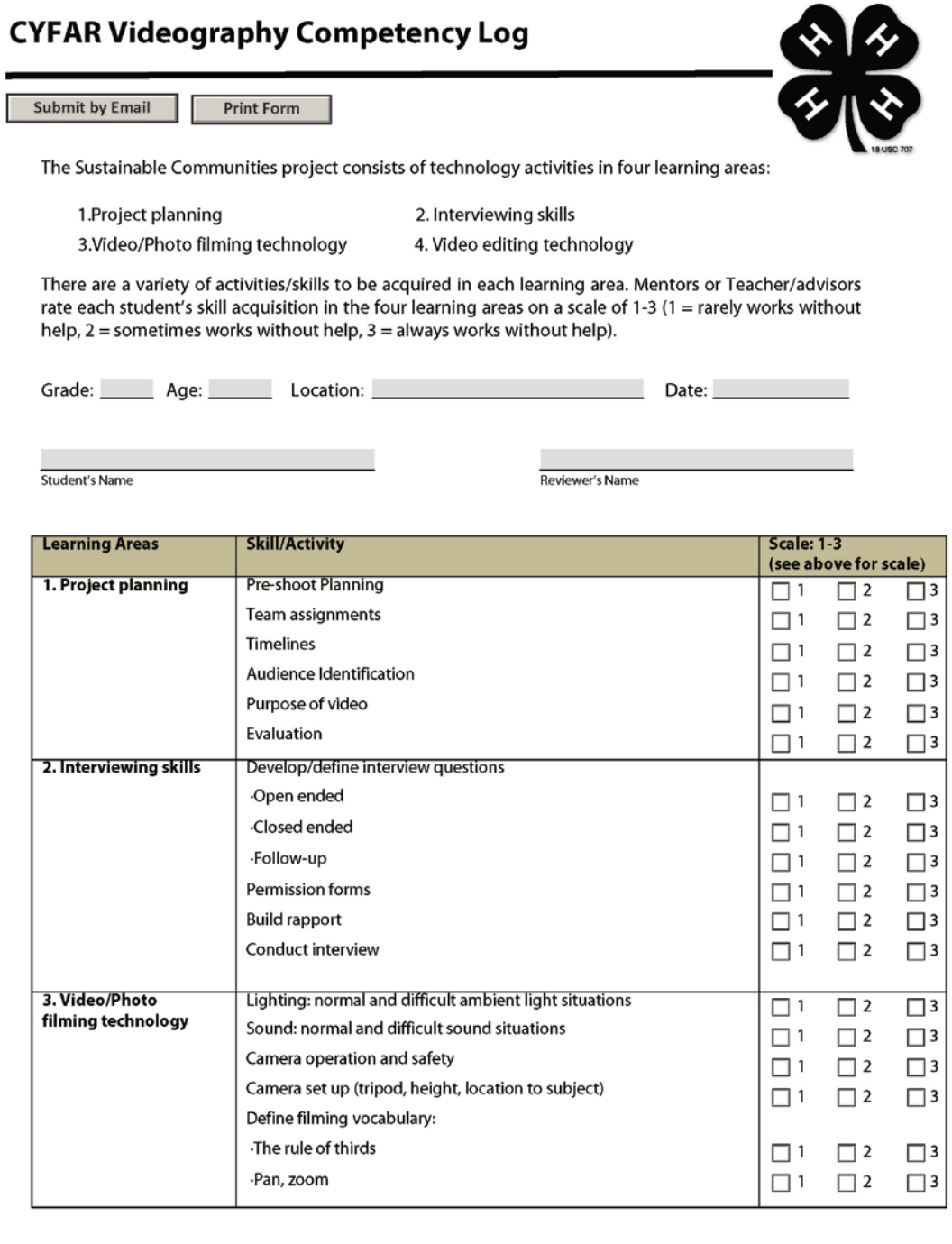
Tech Competencies

Project Planning:
- 75% scored a 2 on timelines
- 75% scored a 3 on purpose of video

Interviewing Skills:
- 75% scored a 3 on types of interview questions
- 75% scored a 3 on how to conduct an interview
- 100% scored a 2 on building rapport

Video/Photo Filming Technology:
- 100% scored a 2 on lighting, sound, camera use
- 100% scored a 3 on vocabulary use

Video Editing Technology:
- 100% scored a 2 on how to use video editing software for transitions and b-roll
- 100% scored a 3 on how to create titles and subtitles for their films.



CYFAR Videography Competency Log

Submit by Email | Print Form

The Sustainable Communities project consists of technology activities in four learning areas:

1.Project planning
2. Interviewing skills
3.Video/Photo filming technology
4. Video editing technology

There are a variety of activities/skills to be acquired in each learning area. Mentors or Teacher/advisors rate each student's skill acquisition in the four learning areas on a scale of 1-3 (1 = rarely works without help, 2 = sometimes works without help, 3 = always works without help).

Grade: _____ Age: _____ Location: _____ Date: _____

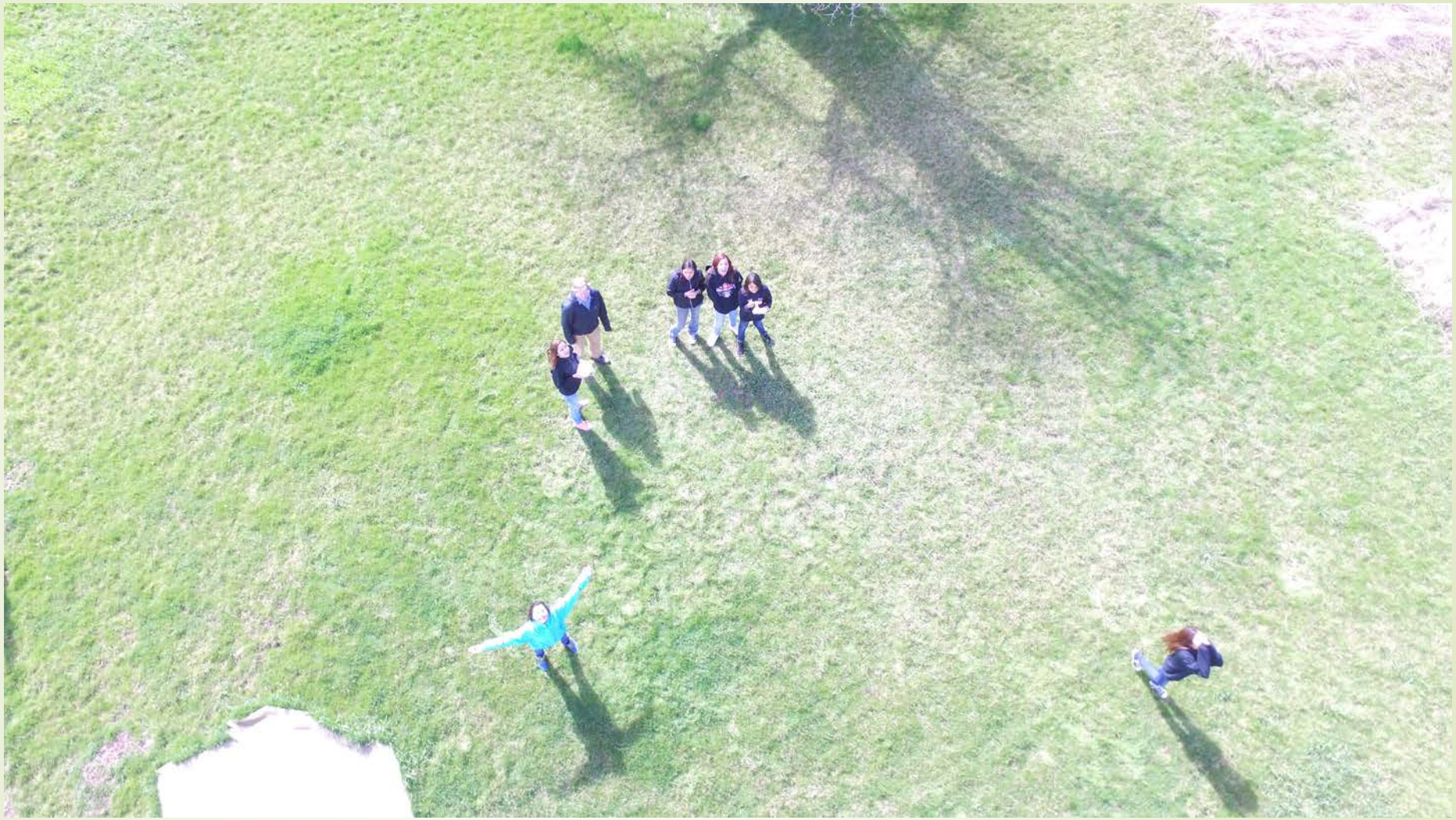
Student's Name _____ Reviewer's Name _____

Learning Areas	Skill/Activity	Scale: 1-3 (see above for scale)
1. Project planning	Pre-shoot Planning	☐1 ☐2 ☐3
	Team assignments	☐1 ☐2 ☐3
	Timelines	☐1 ☐2 ☐3
	Audience Identification	☐1 ☐2 ☐3
	Purpose of video	☐1 ☐2 ☐3
	Evaluation	☐1 ☐2 ☐3
2. Interviewing skills	Develop/define interview questions	
	·Open ended	☐1 ☐2 ☐3
	·Closed ended	☐1 ☐2 ☐3
	·Follow-up	☐1 ☐2 ☐3
	Permission forms	☐1 ☐2 ☐3
	Build rapport	☐1 ☐2 ☐3
	Conduct interview	☐1 ☐2 ☐3
3. Video/Photo filming technology	Lighting: normal and difficult ambient light situations	☐1 ☐2 ☐3
	Sound: normal and difficult sound situations	☐1 ☐2 ☐3
	Camera operation and safety	☐1 ☐2 ☐3
	Camera set up (tripod, height, location to subject)	☐1 ☐2 ☐3
	Define filming vocabulary:	
	·The rule of thirds	☐1 ☐2 ☐3
	·Pan, zoom	☐1 ☐2 ☐3

Promising Science Program - 2012

- Deep partnerships with schools
- Approach partnership development mindfully and persistently
- Integration
- Training (train-the-trainers)
- Hands-on
- School staff as decision-makers
- Evolutionary
- Build up resources

Questions?



MONTANA STATE UNIVERSITY

CYFAR Children, Youth and Families At Risk Program

USDA United States Department of Agriculture National Institute of Food and Agriculture