

## Fact Sheet 58

# *4-H Livestock Market Animal Record Book Rubric*

By

Carolyn Hendry Wyatt, Extension Agent III, Family & Consumer Science/4-H

The 4-H program is the single largest out-of-school youth organization in the United States (Harder, 2006). However, the learning model that is used in 4-H programming is the same that was developed and promoted in the school system by psychologist/educator John Dewey (Dewey, 1938). Dewey's learning model has become known as Experiential Learning and often referred to as "learn-by-doing" or "hands-on-learning" (Proudman, 1995).

However, not all experiences are equally educative (Dewey, 1938), and experience alone does not necessarily lead to learning or mean that learning will take place. Without the opportunity to reflect upon an experience and apply new knowledge, experiences may be miseducative (Dewey, 1938). The development and use of the project record book provides opportunity for 4-H'ers to not only report the steps to complete a project, but also to reflect upon the experience, thereby applying new knowledge to the experience.

While the assumption that effective learning has taken place by working through the project and completing a project record book could be strong, there needs to be some kind of an assessment to measure the extent that learning has occurred. The assessment could occur in various ways, such as interviewing or questionnaires. The most common method is the use of scoring sheets completed by volunteers serving as judges. The problem with interviews, questionnaires, and scoring sheets is that when deciding on a grade or a number value, the opportunity for subjectivity is high. When a final assessment is based on a subjective evaluation, there is no valid indication that learning has occurred.

A better assessment tool would be a rubric. "Rubrics are assessment tools that identify specific levels of performance required for each level of the rating scale. These can be very useful in helping to make sure that different people are scoring the performance in a similar manner and in communicating to individuals what they must do in order to reach a given performance level" (Armstrong, 2009).

Rubrics have multiple advantages over other types of assessment tools. "Sadler and Andrade (2004) suggest that rubrics be used as instructional scaffolds with students," (Anderson, 2008). This means that 4-H club leaders could use the rubric as a tool for guiding their youth in training, setting goals, coaching with projects, and preparing record books in a quality manner just to name a few instructional categories.

Another advantage of quality rubrics is that when provided to students, they give them a clearer understanding of what they need to do to be successful. A good rubric gives [students] constructive guidance in reaching the higher scores and allows them to engage in self-evaluation (Savage, 2008).

A third advantage of a good rubric is that there are clear descriptors so that there is a high degree of observer agreement concerning the score. This means that two or more people who view the same product or performance will award similar scores. Rubrics can go a long way in removing a lot of the subjectivity

that is often present in alternative assessment techniques. However, good rubrics are difficult to construct and often require considerable time to test and revise so that they truly capture different levels of performance (Savage, 2008).

Based on information learned about rubrics, agent made the decision to develop a rubric for assessing the 4-H Livestock Market Animal Record Book because this is the project most selected by Hardee County 4-H members (see attachment 1). Developing the rubric involved several steps:

1. Identify criteria from the 4-H Livestock Market Animal Record Book to be assessed.
2. Define specific levels of performance required for each of the four levels of the rating scale.
3. Prepare the rubric.
4. Recruit professional educators to critique and test the rubric.<sup>1</sup>
5. Revise the rubric accordingly.
6. Test the rubric by actually scoring 4-H Livestock Market Animal Record Books.
7. Make additional necessary revisions.

The rubric was completed in time to complete steps 6 and 7 for the 2013, 4-H Livestock Market Animal Record Book. From the beginning of the project, the rubric was formally revised (revised as a result of an educator's critique) thirteen (13) times, which is consistent with Savage's statement "good rubrics are difficult to construct," (Savage, 2008). It will probably be revised further as it is used in additional assessments.

The 2013 4-H Livestock Market Animal Record Books were assessed two ways: scoring sheets (the traditional assessment tool) and the newly developed rubric. The rubric was used only as a test. The official 2013 scoring was done with the scoring sheets. The comparison of the two assessment tools is shown in the table below.

2013	Rubric	Scoring Sheets
Blue Ribbon	12	58
Red Ribbon	28	24
White Ribbon	43	6
No Ribbon	5	0
Total	88	88

There is a significant difference in the assessment scores. The level of subjectivity is high using the scoring sheets, while the rubric provided virtually no level of subjectivity in the assessment process.

The implementation for the usage of the rubric will begin in the fall of 2013. The steps of implementation are:

1. Review the rubric with leaders in the August leaders' meeting each year.
2. Supply a copy of the rubric for each 4-H'er who raises a market animal for his or her project. The 4-H'er should use the rubric as a guide in completing the record book. The 4-H'er should know exactly what the grade will be. Leaders, as well as parents, may use the rubric to guide the 4-H'er and to check for compliance of the record book.
3. Leaders may complete a rubric to assess the completion of the record books, but this will be only for their information to guide the 4-H'er.
4. Members of the Advisory Committee will be trained in using the rubric for evaluating the record books. Their score will be used for determining the ribbon award.

With the implementation of the rubric, there should be a sense of fairness for the 4-H'er and an instructional tool for the leaders. The members of the advisory committee who tested the rubric stated that it was much easier to use than the previously used scoring sheets. Therefore, this is a positive development for the three parties who are involved with the assessment process—evaluator, leader, and 4-

H'er. The stakeholders will also benefit by knowing there is an accurate assessment of the youth's development into a responsible and involved member of the community.

## References

Armstrong, David G., Kenneth T. Henson & Tom V. Savage (2009). *Teaching Today: An Introduction to Education*, 8<sup>th</sup> ed., 191 (Upper Saddle River, NJ, Pearson Education, Inc.)

Dewey, J. (1938). *Experience and Education*, (New York: The Macmillan Company). In Enfield, Richard P., Lynn Schmitt McQuitty, & Martin H. Smith "The development and evaluation of experiential learning workshops for 4-H volunteers." *The Journal of Extension* [On-line], 45(1). Available at: <http://www.joe.org/joe/2007february/a2.php>

Harder, Amy. "The neglected life skill." *Journal of Extension* [On-line], 44(1). Available at: <http://www.joe.org/joe/2006february/comm1.php>

Proudman, B. (1995). "Experiential education as emotionally engaged learning." In Warren, K., M. Sakofs, & J. S. Hunt, Jr. (Eds.) *The theory of experiential education* (Dubuque, IA: Kendall/Hunt Publishing Co.) In Enfield, Richard P., Lynn Schmitt McQuitty, & Martin H. Smith "The development and evaluation of experiential learning workshops for 4-H volunteers." *The Journal of Extension* [On-line], 45(1). Available at: <http://www.joe.org/joe/2007february/a2.php>

Saddler, B., & Andrade, H. (2004). "The writing rubric." *Educational Leadership*, 62(2), 48-52. In Anderson, Rebecca S., Michael M. Grant, & Bruce W. Speck. *Technology to Teach Literacy: A Resource for K-8 Teachers*, 2<sup>nd</sup> ed., 206 (Upper Saddle River, NJ, Pearson Education, Inc.)

Savage, Tom V. & David G. Armstrong. *Effective Teaching in Elementary Social Studies*, 6<sup>th</sup> ed., 300-301 (Upper Saddle River, NJ, Pearson Education, Inc.)

## Endnote

<sup>1</sup>Recruited three professional educators: Janet B. Beckley, Principal, Zolfo Springs Elementary School and Hardee High School ESOL classroom teacher, Hardee School District, Florida; Dr. Frank Gibbs, Executive Director, Heartland Consortium, Florida, Assistant Superintendent for Curriculum, Guidance Counselor, and mathematics classroom teacher, Hardee County School District, Florida; Ray Gill, Assistant Principal, Nocatee Elementary School and second-grade classroom teacher, DeSoto School District, Florida.

## Hardee County 4-H Livestock Market Animal Record Book Rubric

Name: \_\_\_\_\_ 4-H Club: \_\_\_\_\_ Date Record Book Closed: \_\_\_\_\_

Criteria	4 Points	3 Points	2 Points	1 Point	Score
Cover Page, Agreement, Goals (pages 1,2,3)	All information on pages 1 & 2 is completed properly with appropriate signatures; 8 or more goals are selected and all appropriate columns are completed on page 3.	All information on pages 1 & 2 is completed properly with appropriate signatures; at least 6 goals are selected and appropriate columns are completed on page 3.	All information on pages 1 & 2 is completed properly with appropriate signatures; at least 4 goals are selected and appropriate columns are completed on page 3.	One or more lines of information are missing on pages 1 and 2; there are less than 4 goals selected; there is 1 or more appropriate columns left blank on page 3.	
Inventory, Health Record, Rate of Gain, Show Record (pages 4,5,10,11,12)	These 5 records are complete and accurate as required for the project. There is a minimum of 10 items for steers; 5 items for swine on the Inventory (page 4) and there are multiple entries on the health record.	Four of the records are complete and accurate as required for the project. There are 8-9 items for steers; 4 items for swine on the Inventory (page 4) and there are multiple entries on the health record.	Three of the records are complete and accurate as required for the project. There are 6-7 items for steers; 3 items for swine on the Inventory (page 4) and there are multiple entries on the health record.	Two or less of the records are complete and accurate for the project. There are less than 6 items for steers; less than 3 items for swine.	
Financial Records (pages 6,7,8,9,13)	All three financial records are complete and accurate with the appropriate number of entries for each.	Two of the three financial records are complete and accurate with the appropriate number of entries for each.	One of the three financial records is complete and accurate with the appropriate number of entries for each.	None of the three financial records are complete and accurate with the appropriate number of entries for each.	
Project Story, Pictures (pages 14,15,16)	<ul style="list-style-type: none"> <li>The story is handwritten and well organized with required elements (learned, safety, improve, skills) adequately addressed.</li> <li>There is a minimum of 4 pictures, each with a caption. The captions tell a story about the project (beginning to end).</li> </ul>	<ul style="list-style-type: none"> <li>The story is handwritten and well organized with three of the required elements (learned, safety, improve, skills) adequately addressed.</li> <li>There are three pictures, each with a caption. The captions tell a story about the project.</li> </ul>	<ul style="list-style-type: none"> <li>The story is handwritten and fairly well organized with two of the required elements (learned, safety, improve, skills) adequately addressed.</li> <li>There are two pictures each with a caption. The captions tell a story about the project.</li> </ul>	<ul style="list-style-type: none"> <li>The story is typed. One, or none, of the 4 required elements (learned, safety, improve, skills) are adequately addressed.</li> <li>There are less than 2 pictures.</li> <li>There are no captions on pictures.</li> <li><b>If there is no story or pictures, score is "0".</b></li> </ul>	
Neatness	<ul style="list-style-type: none"> <li>The record book has a cover (not a 3-ring binder).</li> <li>It is legible and reasonably neat with no crossed-out or hard-to-read words or numbers.</li> <li>It looks like the author took great pride in it.</li> </ul>	<ul style="list-style-type: none"> <li>The record book has a cover (not in a 3-ring binder).</li> <li>It is legible and reasonably neat but there are a few crossed-out, or hard-to-read, words or numbers.</li> </ul>	<ul style="list-style-type: none"> <li>The record book has a cover (not in a 3-ring binder).</li> <li>The book is legible but it looks like parts of it might have been done in a hurry or some pages are messy.</li> </ul>	<ul style="list-style-type: none"> <li>The record book has no cover, or is in a 3-ring binder.</li> <li>Most of the record book is barely legible.</li> <li>It appears that some parts of the record book were completed by someone other than the 4-H'er.</li> </ul>	

Score: \_\_\_\_\_

Circle Ribbon Earned:

Ribbon: 17-20 Points—**Blue**

13-16 Points—**Red**

8-12 Points—**White**

<8 Points—**No Ribbon**