

Discussion Paper

A State Educational Agency's Position on Science Curricula Involving Animals

William E. Spooner

As a division of a State Educational Agency, we have a legal responsibility for the overall science curriculum. We are constantly striving to improve the quality of science instruction through efforts in staff development, curriculum and facility improvements, and communications. In our communications and publications, we strive to inform teachers of issues and trends. Recent emphasis has focused on laboratory safety and the use of live animals in science teaching. With respect to animals, it is our belief that the use of live animals can and should be a vital component of any modern science program. Research on current learning theory strongly supports animal use as a means of providing meaningful, concrete learning experiences for students at all grade levels. These experiences are essential if students are to fully comprehend basic life science concepts.

Historically speaking, science teachers have never received formal training in laboratory safety or animal care, which also encompasses humaneness. However, we find science teachers are very responsive to social issues and are willing to change outdated teaching methods when new social standards develop. Science teachers ask for facts on such issues. They want to examine, discuss, and interact on all aspects of the issue, both pro and con. They also look to their major professional organizations for guidance and help on sensitive matters. Teachers are more likely to change classroom methods if new concerns are presented in a positive and objective manner, and specific alternatives to these problems can be suggested. "Hands-on" workshop experiences with such alternatives are very helpful.

Several aspects of the current animal issue cause concern. Perhaps the first and most important is the lack of consensus between professional groups on one major point relating to appropriate use of animals in science teaching. This disagreement centers around the use of vertebrate animals in activities that cause pain or stress. Since major organizations such as NSTA, NABT, HSUS, AWI, CSSS, ISAP, ISEF, APA, NSMR, and others are close to agreement, then every effort should be made by these groups for coalescence on the issue. At this point, it seems reasonable to support the position that any activity involving significant manipulation of an animal or its environment should be conducted at a regular research facility or its equivalent as a part of an ongoing research project.

The second concern relates to guidelines on the use of animals in science teach-

ing. Guidelines, codes of conduct, or position statements are essential. They need to be as short and simple as possible if they are to be used and understood by teachers at all levels of science instruction. It may be true that very few "inhumane" science projects get to state or national levels of competition. This point is supported by an analysis of projects at an independent regional science fair in North Carolina this past year. Three hundred and fifty-one projects were entered. Ninety-seven were in the biological area; only 24 projects involved vertebrate animals. Of these, three projects were observed to be questionable with respect to the current humane issue. Three may not seem excessive, but these three could have been prevented if guidelines had been established by the sponsoring group.

A new interest and awakening in science on a national level further supports the need for such guidelines. In North Carolina, we are aware of a growing interest in science fairs and research projects. There are about 400,000 students taking science in the secondary schools of our state. In the junior high grades, only 53% of the science teachers are appropriately certified to teach science. When this is coupled with the science backgrounds of elementary teachers, who are by law required to teach science, the problem is compounded. The number of science fairs at the local school level is increasing. Many of these take place in individual classrooms. Others involve the whole school system. Both elementary and secondary students are involved. Theoretically, thousands of science fair projects could, and do, take place in isolation of any recognized regional, state, or national science fair. Do these low-level fairs involve animals? Are guidelines on the humane use of animals applicable to these projects? If the response is positive to these questions, then simple, easy-to-understand guidelines are essential.

Discussion Paper

Implications of State Humane Laws for Education

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We have recently seen a number of laws being written which are directed at teachers in public schools regarding use of animals in classrooms. In Illinois a seventy-year-old law forbidding any experiment on any animal in a public school was resurrected as a result of a BSCS experiment involving testosterone injection into male chicks. This resulted in all animal experiments being halted in Illinois public schools. The Illinois House passed a bill which invoked the existing Animal Welfare Code. Strong opposition developed in the Senate and a compromise was worked out between the Illinois Association for Biology Teachers, the Illinois Science Teachers Association, and the American Humane Association (AHA). It was agreed that pithing of frogs, nutrition experiments, and cancer-induction experiments had no place in schools in Illinois. To cover nutrition experiments, a second section of the Animal Welfare Code was invoked; all animals shall be provided with proper feeding and water. George Zahrobsky, representing the teachers, agreed to write a letter to be published in the AHA newsletter setting forth the conditions for the compromise. However, when the bill reached the Senate floor, the hand shake agreement fell apart and strong opposition again developed preventing passage of the law and leaving the old law in place, thus preventing any animal experiments of any kind, including observation, in the public schools.

In Massachusetts a law was recently passed late in the legislative session which is again directed specifically at teachers. While less restricted than the Illinois laws, it effectively prevents chick development studies and animal husbandry studies, such as fish raising for food, in both schools and science fair projects.

I have a number of concerns: Who is to be arbiter of what is humane? I am concerned about any group which sets itself up as the sole authority on any topic. Secondly, I object, and will oppose, any special legislation which singles out the teachers and saddles them with regulations which do not apply to the society-at-large. We have existing animal welfare laws which should be used. Third, I am concerned about the drive to pass laws without first working out compromises at the professional level. The legislatures of the states are not equipped to handle these problems when they are presented from a unilateral standpoint. We all have similar aims, and we should work out acceptable guidelines outside of the political arena. Finally, I am concerned about the confrontation-style politics practiced by certain elements in the animal welfare lobby. Irrevocable positions and verbal overkill do not serve democracy well.

In 1966 Judge Charles S. Barrett of Essex County, New Jersey supported the right