

but experienced assistants, who can write quizzes and tests, grade papers, conduct labs, and answer questions, save significant time. And, by training graduate students to teach, professors may discover some of their ingrained and biased teaching philosophies can change so students are able to retrain more than 17% of the subject matter (McLeish, 1968). For example, working with graduate assistants in this environment can convince a professor to alter his/her philosophy from "those who teach, can't do anything else," to:

Those who can, DO.

Those who do, TEACH.

Those who do teach, TEACH TEACHERS.

Summary

The quality of university instruction will erode unless future faculty learn to teach during their graduate careers. It is the professors' responsibility to teach the inexperienced students in the basic techniques of instruction, expand their subject matter

knowledge, develop their confidence, and exercise continual patience with them. With the more experienced assistant, refinement of teaching techniques and philosophies can be pursued while subject matter knowledge is further expanded.

Training students to teach can provide benefits to all involved: graduate assistants, students enrolled in the class, and professors. With total dedication from both student and teacher, M.S. and Ph.D. candidates can learn to teach, and conduct research, during their graduate careers.

References

Chambers, Jack A. 1972. *College Teachers: Their Effect on Creativity of Students*. U.S. Dept. Health, Educ. and Welfare. Office of Education. Final Rpt. Proj. No. 9-D-946. p. 90.

Henderson, Algo D. 1970. *The Innovative Spirit*. Jasley-Bass, Inc. pp. 1973-81.

Knauff, D.A. 1982. Training Graduate Students as Teachers. *NACTA Journal XXVI*, No. 3, 32-33.

McLeish, J. 1968. *The Lecture Method*. Cambridge Mono. on Teaching Methods, No. 1. Cambridge, England: Cambridge Inst. Educ.

A Hands-On Method of Teaching Horse Training Skills To Students of Varying Levels of Experience

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Introduction

The basic skills for safely and effectively communicating with and training horses must be acquired by all horsemen regardless of whether the skills are utilized for recreational purposes or as part of a career in the horse industry. To fulfill this need for students attending Texas A&M University, a hands-on course has been developed to give students the experience necessary for working with horses on a day-to-day basis. Taught in a lecture-laboratory format, primary emphasis is placed on training the students as they train the horses. The overall course objective is to help students learn safe, effective techniques for handling and training horses by giving them the opportunity to develop those skills from actual hands-on experiences. Students with similar levels of expertise are placed into lab sections. Horses are assigned to students which will help them to develop new skills, and improve upon existing skills. The result of this approach is that the students get systematic instruction for training horses and they become competent at certain horse training skills.

Description of Course Structure

The Horse Management and Training Course at Texas A&M University is taught in a 16-week semester for which the student receives 3 elective credits. Although the major thrust of the course is the attainment of skills through hands-on experience in the

laboratory sessions, students also attend a one-hour lecture each week in which major horse management principles are presented. Topics include behavior, selection based on conformation, unsoundnesses, nutrition, reproduction, disease prevention and facilities for horses. Discussion of these topics is confined to the relevance of each as it pertains to the handling and management of horses.

The laboratory of this horse management and training course is divided into six separate sections. The students work with horses in laboratory five hours per week under the supervision of the instructor and/or a graduate teaching assistant experienced in training horses. Students are enrolled in sections based on their previous experience with horses which is determined by interview and/or evaluation of skill. The sections are limited to 14 students to facilitate safety and management by the instructor and/or teaching assistant. Of the six laboratory sections scheduled per semester, three are for students with little or no previous experience with horses (beginning), two are for students who have experience with horses and some riding expertise (intermediate), and one lab is for those students who have had experience training, and/or showing horses in competition (advanced). Students with similar levels of expertise are placed in the same labs, and horses with similar previous training are assigned to the students in those labs. The labs are scheduled such that the periods for each type of student do not overlap and therefore, only one lab section is working at a specific time. Students are allowed to work with their horses only during their

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assigned laboratory period and, therefore, never work without supervision. Each student is assigned a horse to train as a semester project. Students generally work one-on-one with their horses, but may work in pairs to accomplish specific objectives more efficiently.

Specific Objectives

There are significant increases in learning when students are provided with a complete set of objectives for the course in which they are enrolled (Duchastel and Merrill, 1973; Rothkopf and Kaplan, 1972). At the beginning of each semester, students are presented with a list of the specific objectives they are expected to accomplish with their horses. Methods for accomplishing these objectives are presented in the lab manual (Webb et al., 1986) and by demonstration. Both cognitive and psychomotor domains of learning (Bloom et al., 1956) are affected by the students' attempts to master the objectives of the course.

Specific course objectives for the semester differ depending on the lab section. For those students with little horse experience, objectives to be accomplished with the horse include gentling, halter breaking, grooming, hoof care, and proficiency at longeing and showmanship at halter. The student develops these skills by training a weanling or yearling horse that has had very little previous handling. As horse and student progress toward fulfillment of course objectives, the student learns to evaluate techniques and adjust them as necessary in order to reach the various objectives. At the level with students having limited experiences, techniques for saddle-breaking, riding and basic maneuver training are demonstrated to the students who must learn the principles for training older horses but do not have to show skill proficiency for these tasks. Using the procedures outlined by Webb et al. (1986), students with little or no experience with horses can accomplish the required objectives and become competent in the use of basic skills.

The intermediate lab sections require that students demonstrate proficiency in all of the objectives for the beginning students. These are accomplished using yearling or two-year-old horses (depending on the semester) that have been trained by beginning students in the previously described lab. In addition, the objectives for students at this level include biting, driving, saddling, riding, teaching the young horse to move in a relaxed manner with a rider, and to perform basic maneuvers including the reinback and pivot on the forehand. Students who ride in a relaxed, comfortable manner and can adjust their use of aids and balance, as requested by the instructor, have no problem in completing the objectives set forth at this skill level. The students are required to develop the ability to interpret the horses' actions and responses, but do not need any great degree of skill at riding in specific events or advanced maneuvers.

For those students who have had extensive riding, training or competition experience, proficiency at those objectives required of previous two lab

categories is expected. In this laboratory section, there is some variation on the objectives set forth based upon the style of riding utilized by the student and by the previous training of the horse. All students are required to have the horse well-bitted, traveling comfortably at all gaits, performing basic maneuvers including leg-yielding, sidepassing, pivots on the haunches, and simple lead changes. Students may elect to include simple cavelletti work, lengthening and shortening of stride, initial developmental stages of collection, and beginning work for specific events. This allows students to review skills they had acquired before the course as well as develop competency at the use of new techniques. Horses used in this laboratory category are those trained in the previously described laboratory sections or that have had similar training by a previous owner.

The presentation of material to students in the various laboratory sections follows a logical, systematic progression from the simple to the more difficult tasks. This material has been organized in a laboratory manual (Webb et al., 1986) that is based upon input from all of the instructors and teaching assistants who have taught this course over the last 12 years. An example of a lesson format for teaching in the laboratory is outlined in Appendix 1. This shows how a specific objective is introduced to and practiced by students in a given laboratory section. The introduction of new material to students is based to some extent on accomplishment of the techniques of the previous chapter of the laboratory manual. During the semester, students are not expected to begin work on more advanced procedures until they and their horses have developed some degree of competency at simple procedures.

Hands On Theory

This course supports the theory that laboratory instruction and hands-on experience are effective ways to achieve educational objectives (McKeachie, 1978). It verifies that hands-on experience in a specific skill development situation is an excellent teaching method which helps in developing an understanding of the theory and principles of the subject. Other educators have also indicated that learning is positively reinforced by hands-on experience (Dewey, 1969; Keeton, 1983). From this standpoint, the active involvement of the students with horses, the sensory perception during hands-on activity, and the individualization of the student-horse partnership, all contribute in a positive manner to learning. Osborne (1986) also promotes laboratory exercises in support of classroom theory for the enhancement of cognitive and psychomotor accomplishment by the student. In this format, motivation, physical practice and immediate feedback are important for increasing retention of material and skill development.

Evaluation of Students

Students are evaluated on their comprehension and skill development in several manners. Barrick and

Deeds (1986) conclude that course objectives which determine the final course grades should be weighted accordingly and should evaluate student mastery of the objectives or subject matter. Toward accomplishing these criteria, written objective examinations allow students to demonstrate their understanding and comprehension of topics presented in the lectures, demonstrations and laboratory manual. Skill development is tested through student demonstration in the form of practical evaluations. Throughout the course, students are required to perform the various educational objectives for the instructor who offers suggestions for improvement of the specific task. Numerical grades are assigned to lend incentive for complete mastery of skills. Students are allowed more than one opportunity to demonstrate improvement and competency in the required objectives for their laboratory category. Students are also required to demonstrate their ability to evaluate and adjust training techniques relative to their horse's responses by keeping a daily training journal. This provides them the opportunity to review their progress regularly and to develop a system that works well for them because it is based on their application of the procedures they have learned.

Conclusion

Upon completion of the course, students have gained experience in handling horses through actual experience and skills development which is based on a systematic program for training horses. The students use safe and effective training techniques developed through practice which enable them to adapt to almost any training or management situation. Students from all levels of previous experience develop expertise with horses relative to the level of training of their project horses. This hands-on method of teaching horse training skills results in students who have acquired a degree of horse training ability and horses that are trained and useful for more advanced programs. The product of this hands-on laboratory course is students who are proficient in the use of safe, effective horse training techniques relative to the level of training of the project horse. By giving the students specific objectives to work toward and presenting techniques for accomplishment of those objectives, this course gives students a tangible and defined endpoint for which to strive. This format serves to enhance learning in the students. This course can be best described as one in which the students are taught to train horses while at the same time the horses get trained.

References

Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H. and Karthwohl, D.R. (1956) *Taxonomy of Educational Objectives: The Classification of Educational Goals Handbook I: Cognitive Domain*. New York: David McKay Comp.

Barrick, R.K., and Deeds, J.P. (1986). "Course Evaluation Based on Course Objectives". *NACTA J.* 30(1):42.

Dewey, J. (1969). *Experience and Education*. London: Collier-MacMillan.

Duchastel, P.C. and Merrill, P.F. (1973). "The Effects of Behavioral Objectives on Learning: A Review of Empirical Studies". *Rev. Educat. Res.* 43:53.

Keeton, M. (1983). "Is Experience the Best Teacher?" *Innovation Abstracts* 5(11):1-2.

McKeachie, W.S. (1978). *Teaching Tips: A Guidebook for Beginning College Teacher*. Lexington, Mass. D.C. Heath and Comp.

Osborne, E. (1986). "Teaching Strategies for Developing Psychomotor Skills". *NACTA J.* 30(1):54.

Rothkopf, E.Z. and Kaplan, R. (1972). "An Exploration of the Effect of Density and Specificity of Instructional Objectives on Learning from Text". *J. Educat. Psychol.* 63:295.

Webb, S.P., McCall, C.A., Vogelsang, M.M. and Potter, G.D. (1986). *Principles and Techniques of Horse Training and Management*. Boston, American Press.

Appendix 1

1. Give reading assignment describing the technique in laboratory manual.
2. Demonstrate correct procedure for using the technique to train the horse. Involve students by asking questions that could be answered by having read assignment.
3. Allow students to practice the procedure with a "trained" horse.
4. Have students utilize the techniques on their untrained project horse.
5. Give students ample time (several laboratory sessions) during which TA/instructor assist and offer suggestions for individual problems.
6. Evaluate student in laboratory practical situation. Present student with copy of his score and critique on the specific objective. Include positive and negative aspects of his performance and rate by numerical score.
7. Work with each student on specific problems he may be having to help him improve his score when next tested. Offer both encouragement and constructive criticism relative to students performance.
8. Review, with students as a group, accomplishments and procedures for improving their performance. Allow them to discuss individual responses they have observed in project horses.
9. Give practical evaluations to test for improvement of skill.
10. Test student by objective written examination on material presented in laboratory manual and through demonstration.

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