Teaching Weight Training to Teachers: A University Course

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WEIGHT TRAINING IS BEING recognized as a valuable activity for youth. Indications of this include the National Strength and Conditioning Association’s (NSCA) position statement on weight training for prepubescent youth (7) and the many articles that have appeared in this journal (1, 2, 3, 6).

For weight training to be safe and effective, however, programs need to be well designed and properly supervised. Recently, 11 professionals with expertise on the subject developed an NSCA position statement paper and comprehensive literature review on youth resistance training (4).

The position statement makes it clear that “properly designed and supervised resistance training programs” are essential if resistance training is to be safe and effective for youth. Therefore, instructors of these programs should be competent in designing appropriate weight training routines and teaching weight training techniques to youth.

Who is training these competent instructors? This article will describe one university’s course for training instructors.

As an adjunct faculty member in the department of physical education and dance at a western university, the lead author saw that some students studying to be physical and health educators were unfamiliar with the proper techniques and basic principles of weight training.

After reviewing the available undergraduate courses in physical education and health education, we both discovered that the university did not offer a course on how to teach weight training. The physical education and dance department did offer weight training activity classes, but these classes concentrated on teaching personal weight training skills to enrolled students.

We approached the physical education and dance faculty with a proposal to develop and teach a 1-credit undergraduate PE course called “Teaching Weight Training to Teachers.” The class was approved and scheduled, and the course was first taught in the fall 1995 semester (see syllabus).

Course Description

The purpose of the course is to teach physical and health educators how to design appropriate programs based on weight training principles, and how to teach correct weight training techniques to youth. The principles and techniques are taught through lectures and hands-on learning.

Due to the large number of potential weight training exercises and the introductory nature of this course, only basic exercises using free weights and machines are taught. Examples include leg presses, squats, barbell bench presses, and bent-over barbell rows are some of the exercises covered.

The course meets twice a week for 5 weeks and then once a week for the final 11 weeks of the semester. Each class is 50 minutes long. The first 5 weeks consist of lectures; the remaining 11 weeks of the course involve hands-on learning in both weight rooms.

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The students attempt the exercise with the proper technique while the instructors provide corrective verbal and kinesthetic feedback. Throughout the class, the students are encouraged to ask questions at any time and to share their experiences about weight training.

Last year, to provide students with a different perspective on teaching weight training, the university strength and conditioning coach was invited to address one of the classes. He spoke about his educational background, the duties and responsibilities of a university strength and conditioning coach, the rewards and frustrations of his job, and how he goes about developing weight training programs for student athletes.

■ Course Objectives

The course has 5 objectives, which are described as follows:

1. Students must demonstrate a knowledge of basic weight training principles and concepts.

During the first part of the semester the instructors lecture on weight training terms and principles, the benefits of weight training, designing weight training programs, motivating students, administering a schoolwide weight training program, special precautions when instructing young children (e.g., potential injuries, the size of weight machines to use, the children’s emotional maturity); including students with disabilities in weight training, and the possible effects of steroids.

The 5 weeks of lectures end with an exam that include matching, true/false, multiple-choice, short-answer, and essay format questions. Quizzes covering assigned readings and classroom discussions are given periodically throughout the course.

The university’s weight machine room is equipped with Cybex, Nautilus, and Champion machines plus a ParaGym 1000, an adaptive weight training machine for lifters with disabilities. In the free weight room are weight plates, dumbbells, barbells, and an assortment of benches.

Exercise techniques are studied during the hands-on learning classes. For example, various forms of the bench press may be highlighted. The instructors explain the technique for each exercise, demonstrate the correct technique, and point out common errors made by weight trainers.
2. Each student must teach a selected exercise to the other students during the exercise technique portion of the course.

When a student teaches, he or she is responsible for discussing the names of the muscles being worked, the correct exercise technique, a checklist of teaching points, safety concerns, and how the exercise can be adapted for students with disabilities. The teaching student outlines this information in a handout and gives copies to the other students. Each teaching session lasts approximately 15 minutes.

3. Students will participate in all sessions.

A large part of the course grade is determined by students’ participation. Therefore they are expected to attend classes, keep up with the required readings, and participate in the class discussions and hands-on learning sessions. Students earn a specific number of participation points during each class.

4. Students will correctly demonstrate and explain techniques for a variety of exercises.

After the instructors have demonstrated each exercise in turn, at least one student is asked to teach it to another student. The teaching involves physical demonstration and verbal explanation of the exercise.

5. Each student will research and write a 2-page paper on a topic related to weight training for youth.

To gain a broader perspective of the subject, students write a 2-page paper on a topic relevant to teaching weight training to youth, citing at least one reference. So far the topics have included the use of plyometrics, weight belts, and knee wraps, and how a disability affects the design of a weight training program.

Course Grading and Evaluation

There are 5 categories for determining grades for the course. The major category, active class participation, counts for 40% of the grade. The exam and the teaching session each count for 20%, while the quizzes and short research paper each count for 10%.

A total score of 90–100% = A; 80–89% = B; 70–79% = C; 60–69% = D; below 60% = F.

At the end of the semester the students evaluated the course. Their comments revealed that they enjoyed the “teaching session,” “the whole class,” and “learning the aspects of why we should work certain muscle groups, not just the technique.” Other comments were that “the teachers got us enthused” and “related it all to real life experiences.”

After reflecting upon the course, we would like to highlight three points. First, it is strongly recommended that lead instructors of similar classes recruit potential strength and conditioning professionals to help with the course. Often these would-be professionals are university juniors and seniors. It gives these students an opportunity to gain valuable teaching experience, work with a mentor, and learn more about the strength training profession.

Second, a strong point of the course is the teaching session. The teaching session provides an opportunity for students to improve their teaching skills and receive constructive feedback. It also requires the student to see how the movement could be adapted for students with disabilities.

Finally, a sequence of “How to Teach Weight Training” courses should be offered. The course described in this article would be the first in such a sequence.

The second course could cover advanced concepts such as integrating plyometrics into weight training programs, having students design several weight training programs based on periodization, and teaching students how to teach complex weight training movements such as the squat and power clean. (Both of these exercises were covered in this course but more time needs to be devoted to teaching them.)

The third course in the sequence would have the students teach weight training to children in schools. The student teachers could meet periodically to discuss their teaching experiences using a case study format. Each would present a difficult teaching situation he or she is experiencing. Peers would be asked what they would do, and why. The case study format would allow student teachers to share effective teaching and exercise techniques with their peers.

Conclusion

Children are taught weight training by physical and health educators. Therefore, physical and health educators should be encouraged to become certified strength and conditioning specialists. Undergraduate courses such as the one described in this article can ensure that children are learning correct weight training techniques and that they are participating in properly designed and supervised weight training programs.

References


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James B. Wise is completing his PhD at the University of Utah. His research interest is developing a curriculum to generalize self-efficacy gained from a strength training program to everyday activities in adults with physical disabilities.

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Strength and Conditioning 69