

An Educational Model to Facilitate Mandated Environmental Behavior Change

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Concern over widespread ongoing tree abuse that was creating safety hazards for the public and threatening the health and longevity of the tree canopy in Broward County, FL, led the Board of County Commissioners to adopt an ordinance regulating the tree trimming industry in 2000. Known as the Broward County Tree Trimmer Licensing Ordinance, this legislation mandated that each organization that performs tree trimming obtain a license. One of the requirements for obtaining a license was passage of a mandatory training class that included a competency exam. Through extensive grass roots planning, a hands-on training curriculum for basic pruning was developed by UF-IFAS Broward County Extension. Curriculum materials were prepared and instructors were recruited and trained. Classes were conducted in English, Spanish, and Creole to meet the needs of this diverse industry. The combination of field-savvy instructors, lots of visual presentations, and outdoor “hands-on” pruning demonstrations has served the industry well. To date, nearly 5000 individuals have been trained. Special accommodations in the form of verbal exams, free retakes, and skills demonstration exams have been popular with learning impaired and functionally illiterate students. Continuing education classes have been developed to provide training in tree biology and hazard assessment, storm preparedness, and recovery pruning and safety. In a random sample of 104 trained tree trimmers, 94% (98) described the classes as providing a significant benefit to their business operations. Nearly the same percentage reported sharp reductions in hat-racking, over-lifting and flush-cutting of hardwoods and over-pruning of palms. This model of education has been successful because of its service orientation and relentless commitment to making every student’s experience a positive one. It has professionalized the industry and made the tree canopy safer and healthier.

In Oct. 2000, the Broward County Board of County Commissioners passed an ordinance that requires professional tree trimmers to obtain a license. This action was taken to put a stop to the widespread tree abuse (hat-racking, over-lifting, and flush-cutting) that had been occurring for many years across the county (Fig. 1). These practices can damage trees and reduce their functional value and longevity in the landscape (Gilman, 2002, 2009). The commissioners believed that better pruning practices would not only result in healthier canopy but would also protect the public from the hazards associated with poorly pruned trees. They voted to require proof of training in the form of certifications earned and directed staff at Broward County/UF-IFAS Extension Education to develop a tree trimming curriculum and administer exams to all who participate.

Materials and Methods

Extension responded to this need by working with an advisory committee to develop an introductory tree trimming course that debuted in May 2001. The advisory committee included representatives from the tree trimming industry, regulatory personnel and extension faculty. Classes were designed to be highly interactive with a variety of teaching tools utilized, including classroom presentations, group discussions, and outdoor pruning demonstrations (Fig. 2).



Fig. 1. Widespread tree abuse (hat-racking, over-lifting, and flush-cutting) that has been occurring for many years across the county.

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Fig. 2. Classes were designed to be highly interactive with a variety of teaching tools utilized including classroom presentations, group discussions, and outdoor pruning demonstrations.

Classes were offered in English, Spanish, and Creole and featured a study guide and/or several other related educational publications. Assessment options included a 50-question multiple choice written exam, verbal exams for non-readers, and an outdoor skills demonstration for learning-impaired students. Students who successfully pass the class receive a laminated certification card to carry on their person while they are working (Fig. 3). This certification card is also required for those needing to obtain their Broward County tree trimmer license. Students who fail the class are encouraged to repeat the class and take the exam over for no additional charge.

Between 2003 and 2008, three more continuing education courses were developed and offered: in 2004, Tree Trimmer II (Tree Biology and Hazard Assessment); in 2006, Tree Trimmer III (Storm Preparedness and Recovery Pruning); and in 2008, Tree Trimmer IV (Tree Trimmer Safety).

Results and Discussion

Since its inception, the program has trained nearly 5000 students with an overall average first-time passing rate of about 80%. When multiple retakes are factored in, the passing rate is much closer to 90%. Students have been trained to properly prune trees for clearance, wind tolerance, and canopy restoration using best practices to maximize tree longevity and workplace safety. Moreover, the program is making a difference in the health of our local tree canopy. Of a random sample of 151 trained tree trimmers who have completed one or more of these classes at Extension, 92% (139) described the classes as providing a significant benefit to their business operation. Better knowledge



Fig. 3. Students who successfully pass the class receive a laminated certification card to carry on their person while they are working.

and understanding of how to prune trees correctly and enhanced skills for improving storm tolerance and safety were cited as key benefits. Nearly the same percentage reported changing their pruning practices as a result of having taken these classes: they are refraining from common improper practices of the past, such as hat-racking, flush-cutting, and over-lifting hardwood trees and over-pruning palms.

Of those tree trimmers who have taken the safety course and completed a follow-up practice change survey, 95% report back that they are now having more frequent employee safety meetings and doing daily equipment inspection checks. Nearly 100% tell us they intend to make wearing personal protective equipment on the job site a priority and that as many as 50% to 75% of their employees already are doing so as a result of having attended the class.

The program has also benefitted the general public by increasing consumer awareness about the need for proper tree pruning and the importance of hiring trained and licensed tree workers who can provide proof of certification. It can also easily serve as a model for other counties to adopt. Adoption may result in reduced frequency and severity of tree abuse, reduce the number of tree services that operate without liability insurance and put consumers at risk, and reduce the incidence of tree worker injuries and deaths due to unsafe work conditions, poor equipment maintenance, and lack of use of required personal protective equipment. Despite the fact that the program requires significant amounts of staff time and resources, revenues generated through course fees can be used to help support county extension programs.

As mandates for environmental behavior change become more commonplace, this model of locally planned, locally delivered hands-on education, featuring special accommodations for reading- and learning-impaired clientele, can be utilized to achieve desired outcomes.

Literature Cited

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