FLORIDA-FRIENDLY LANDSCAPE TIPS: AN INTERACTIVE TOUCH-SCREEN INFORMATION KIOSK

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Abstract. The 'Florida Yards & Neighborhoods' Information Kiosk was developed as an outreach tool to provide 'Florida-Friendly Landscape Tips' through an interactive program running on a computer with a touch-screen monitor. The system was located at The Home Depot Garden Center, Pinellas Park, Florida from January 2000 to 10 April 2001, as a pilot project to determine whether the public will use this system to obtain landscape design and maintenance information. The number of users recorded at the kiosk averaged 204 per month during the 15 months it was at The Home Depot. On 10 April 2001, the kiosk was relocated to the Florida Botanical Gardens operated by Pinellas County Extension. Venues other than garden centers envisioned as appropriate for the kiosk include horticultural/ environmental exhibitions and festivals, shopping malls, lobbies of University of Florida/IFAS Extension Offices, and other organizations involved with environmental education. Three counties and one city have plans to purchase and implement a kiosk. Several other organizations have indicated interest.

Surveys show that homeowners obtain most of their landscape and plant information from garden centers and retail nurseries (Knox et al., 1995). As you would expect, the sale of merchandise is the primary concern at retail nurseries and garden centers. Customer service can sometimes be a priority, particularly when imparting information results in a sale. Retailers are not necessarily concerned with environmental and water conservation issues unless they observe a correlation to sales of particular products. This is most readily evident in the growing trend of retailers to display signs and encourage their suppliers to tag plants with details not only about general plant culture but also highlighting specific plant characteristics that consumers may view as desirable, such as drought tolerance or wildlife attracting qualities.

The University of Florida IFAS Extension is regarded by consumers as a source of high-quality gardening and landscape information that is unbiased (Knox et al., 1995). Previous efforts to provide IFAS information and recommendations to consumers through the retail garden center environment involved 17 Home Depot stores in southwest Florida. This 1996 pilot project was well received by some of the participating garden center personnel, but success was variable due to different levels of commitment to the project by store management. A major hindrance to the success of the project was the reliance on store personnel to install and maintain IFAS Extension displays and signs. Retail garden center personnel have other priorities, and as is common practice throughout the store, displays are typically installed and maintained by vendor representatives. It was therefore concluded that a display encouraging changes in consumer landscape practices would be better received by garden centers and retail nurseries if their employees were not involved in installing and maintaining the displays.

The 'Florida Yards and Neighborhoods' Information Kiosk was conceived by Dr. Gary Knox, Michael Holsinger, and Christine Kelly-Begazo, UF IFAS, as a means of providing retail garden center customers with information about the Florida Yards & Neighborhoods 'Florida-Friendly' landscape program. It was believed that by obtaining IFAS recommendations from a kiosk and from onsite literature, consumers would be encouraged to adopt water-conserving, environmentally-friendly landscape practices. A 16-unit pilot program in west central Florida developed by IFAS personnel, and installed and maintained by county extension personnel was proposed to Southwest Florida Water Management District (SWFWMD). The SWFWMD staff suggested that a one-unit pilot be evaluated in Pinellas County to determine the suitability and impact of a kiosk located in a garden center. Pinellas County Extension's FYN Coordinator submitted a proposal and subsequently received a grant from SWFWMD to fund the pilot project.

Materials and Methods

Staff from Pinellas County Extension, including the FYN Coordinator, FYN Program Assistant, Urban Horticulture Agent, Urban Horticulture Training Manager, Graphic Artist, and IFAS District IV Instructional Designer, formed a team to plan and implement the interactive touch-screen pilot project. Among the issues that had to be decided were:

Content Objectives

It was decided that the kiosk theme would be "Florida Friendly Landscape Tips" and would focus on landscape design and maintenance practices based upon the nine principles of Florida Yards & Neighborhoods. We secured an agreement with a local Home Depot to place the kiosk in a covered area in the outside garden center. While we did not consider the location environmentally ideal (heat, cold, humidity, dust), we were thankful for the partnership agreement. Since the location was on the end-cap of a large display rack, we decided to design a venue structure to house the kiosk, literature, and signage to better attract attention. The structure was sided with lattice and the roof finished in cedar shakes.

Development Software

Upon the recommendation of the Instructional Designer and Graphic Artist we chose Director, a Macromedia product, as the software development tool.

Hardware

Several kiosk manufacturers and touch-screen technologies were explored before we decided on the INFORMA-17 system from Mass Multimedia, available through www.touchscreens.com. This system was considered rugged enough for our outdoor environment without having an industrial ap-
pearence. The 17-inch touch-screen monitor selected is Surface Acoustic Wave (SAW) technology, recommended as desirable for the expected use and environmental conditions.

A new 500 MHz, Pentium III mini-tower computer with 128MB of RAM and a 10GB disk was purchased with an Iomega Zip drive and a CD-ROM drive. A standard monitor was not required since the touch-screen monitor came with the kiosk. National speakers were acquired to place in the grill openings of the kiosk cabinet. An Uninterrupted Power Supply (UPS) was added to provide battery back-up. The objective was to reduce the need for operator intervention in the event of short power outages, as is common in Florida during the summer.

**Fact Sheets**

The development committee decided that IFAS Fact Sheets and other Extension literature would be offered from racks at the kiosk site. Two racks, each with 23 slots, were chosen. Each of the 23 slots hold up to 50 single 8½ x 11” sheets.

In assessing the diversity of style and length of IFAS Fact Sheets, it was decided that a standardized appearance would be desirable. Also, based upon the space in each slot (only 12 copies of a four page fact sheet will fit in each slot) literature would be limited to a maximum length of two double-sided pages. To accomplish this objective, appropriate fact sheets were selected and then re-worked. The lengthy ones were edited to meet the maximum length requirements. After editing, fact sheets were printed by the Pinellas County print shop with a color banner, with related topics being the same color. For example, all those dealing with irrigation and water conservation were given a blue banner.

**Servicing/Restocking**

By including a UPS to keep the computer operating during short periods of power failure, it was intended to limit required visits to The Home Depot to weekly restocking of literature and cleaning of the cabinet and monitor glass. A visit was also planned at the first of each month to read the user counter.

**Results and Discussion**

We were fortunate to find a Home Depot garden center manager and store manager supportive of the kiosk pilot. They provided valuable floor space for the installation and an electrical outlet. Unfortunately, that space was outside. The main disadvantage of this location was a glare on the touch-screen monitor that was severe enough at times that it washed-out the content of the touch-screen monitor. Therefore, during certain times of the day the kiosk monitor was very difficult to see. A small fan in the cabinet exhausts heat from the computer and monitor, but there were concerns that the summer heat and the extremely dusty conditions of the outdoor location would result in early failure of computer components. However, no hardware failures were experienced during the pilot evaluation period even though the system operated 24 hours a day, 7 days a week.

The kiosk was installed at The Home Depot from Jan. 2000 through 10 Apr. 2001. Literature racks were filled when installed, but not counted. Each week the quantities of literature required to restock the racks was recorded. Due to the difficulty of physically moving the kiosk to gain keyboard access from the rear door, the user contact counter was read at the end of each quarter only, instead of monthly as originally planned.

Using pre- and post-education surveys to measure project impact was not practical in this situation due to the unattended operating mode of the kiosk. Therefore, determining the actual impact this distance-learning tool had on the public’s adoption of landscape practices that result in reduced landscape water consumption and reduction of non-point source pollution from runoff cannot be determined. It was therefore decided that the success of this pilot project would be determined by kiosk usage, number of fact sheets and publications taken, and level of acceptance and participation of garden center personnel in promoting its usage.

Positive feedback was received from The Home Depot employees and directly from customers when we had opportunity to speak with them. Employees did spend time using the kiosk to learn what information was available and they did take customers to the kiosk to obtain fact sheet information or to show them how to use the “Florida Friendly Landscape Tips” touch-screen kiosk to learn about specific topics.

Table 1 is a report, by quarter, of user contacts and the quantity of literature taken. The software is set to record a contact when a user touches the screen to begin. If the software detects no user activity for five minutes, it considers the contact session complete and returns to the beginning screen. The literature provided on-site was primarily fact sheets, but also included the Pinellas County Extension monthly newsletter, special publications, and brochures with general information about Pinellas County Extension.

On 6 Nov. 2000, a redesigned version of the software was installed that included additional graphics, and more importantly, voice-overs were added to most screens. The increased number of contacts in first quarter 2001 over first quarter 2000 may be attributed to the new software attracting more attention.

To evaluate the kiosk in other locations it was moved on 10 Apr. 2001, to The Florida Botanical Gardens operated by Pinellas County Extension. Table 1 shows dramatically increased user contacts and literature usage recorded. This increased activity has necessitated restocking literature daily rather than weekly as at The Home Depot site.

The pilot at The Home Depot is considered a success since the monthly average of 204 contacts over the 15-month period most likely would not have been made otherwise. One city and one county have already acquired funding and several other counties have applied for funding for an FNKiosk. Southwest Florida Water Management District staff have indicated their desire to fund a kiosk in every county in their district.

**Literature Cited**