Composting 101

Web-based Module - EME 6415

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April 17, 2008

Topic

Composting offers a way to "reduce, reuse and recycle" organic waste. This topic has wide relevance as issues such as water shortages, storm water run-off, and growing landfills are common challenges for most mid-size city dwellers. This module hopes to introduce the basics of composting by providing the instruction within a scenario-based design framework.

Learner Audience

The intended audience for this web module is any earth-bound citizen interested in recycling organic materials. Three different segments of the audience are represented via actors within the scenario. Cal is a dorm-living, college student. Avery is a typical, busy parent. And, Nona and Papi are two very hip, baby-boomers. The audience could essentially include anyone from ages 5 – 105.

Learning Objectives

The major learning objectives for this module are as follows:

- Learners will list the benefits of composting;
- Learners will identify common household items that can be included in composting and those that should be avoided;
- Learners will describe the basic steps to successful composting; and,
- Learners will solve common composting problems.

The objectives are within the cognitive domain and all involve the first three levels of Bloom's classification scheme: knowledge, comprehension and application. Only the first objective is fully developed as a unit within this module.

Courseware Design Principles

Several principles of courseware design were employed in the construction of this web module. Initially, following assignment guidelines, the elements of scenario-based design were developed as the structure for the module. Each of the six elements of this type of design is discussed in detail in the Composting 101 Design Document, available from the "References link" within the module. Scenario-based learning was involved in the instruction, as well as, in the assessment.

Gagne's nine events were also used in the development of the instruction and are also detailed in the design document referenced above. A pedagogical agent served as both guide and teacher within the module. The agent and guide, Dan D. used informal language and directly addressed the learner.

Visual design was considered an important part of this module, as well. A fairly, simple template with consistent navigation and image placement was used to orient the learner and not detract from instruction. Consistent tooltips were used for all links and every effort was made to present all the information "above the fold", so no scrolling would be required by the learner.

SCORM/Section 508

Ensuring Section 508 accessibility would not be difficult for this module. Content and presentation are separate through the use of Cascading Style Sheets (CSS) which help benefit assistive technology. All images have descriptive text and no information is provided exclusively in one format. This module has not been run through a Section 508 tester, however, and that would need to be done before its accessibility could be assured.

Compliance with SCORM standards would present design and development challenges. Extra time would need to be allotted to tag the content and to create the manifest. And, some sort of test would be necessary with a repository or Learning Management System (LMS) to make sure no metadata were missing. Also, the issue of scope would be very important if SCORM compliance was a requirement for this project. Consideration on how to organize the module into elemental Sharable Content Objects (SCOs) would be required at the beginning of the project and would more than likely affect the design of the module. Decisions on where overarching elements of the scenario would be included would need to be made at the beginning of the project and perhaps addressed iteratively as the module developed.

References

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