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A Checklist for Designing and Evaluating Physical Education Program Web Sites

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A Checklist for Designing and Evaluating Physical Education Program Web Sites

MICHAEL TUCKER GRANT HILL

A well-designed web site can promote a positive image of your physical education program.

The use of the Internet as both an informational and educational tool is increasingly important in schools (Swann, 2006). However, while most schools currently have web sites that inform their communities about what is happening in their various programs (Elliott, Stewart, Stanec, McCollum, & Stanley, 2007), many physical education departments are failing to take advantage of this great resource (Tucker, 2007; Woods, Karp, Hui, & Perlman, 2008). This is occurring despite the fact that improved web-site design capabilities and an increased understanding of specific content for school web sites has generally resulted in more attractive, well-designed, and effective web sites (Barnd & Yu 2002). Furthermore, the increased sophistication of school web sites, including common design templates, has made it easier for various departments within schools to create their own web site and easily post completed files (Swann, 2006). Organizations such as the National Association for Sport and Physical Education (NASPE, 2003) and the National Board for Professional Teaching Standards (NBPTS, 2003) have emphasized the importance of school web-site development by including standards specifying that physical education teachers should be able to demonstrate current knowledge in web-site design. Well-designed physical education web sites promote a positive image of a program and allow students and parents to find answers to commonly asked questions about the policies and procedures in physical education classes (Baker, 2001; LeMaster, 2000).

Because of the small percentage of physical education departments that appear to have quality web sites, there is a need to educate physical education teachers about how to design one (Tucker, 2007; Woods et al., 2008). Barnd and Yu (2002) have provided an outline for creating effective web sites based on Mok's (1996) web-page-design guidelines known as the "4Cs design model," which consists of content, control, consistency, and corroboration. Those who create, modify, or assess web sites should be aware of all four aspects of this model.

Content

Content is the actual words and information that are placed on a web site. A physical education web site should include comprehensive information about the department, as well as teacher contact information to facilitate and increase the lines of communication between parents and teachers in order to improve parents' involvement in their children's education (Wilkinson & Schneck, 2003). Teachers can provide a large amount of information relating to fitness, health, and physical activities that can assist in student learning. A well-designed physical education web site can entice students to continually revisit it and encourage them to increase their physical activity. Ultimately, a physical education department web site should help students to learn how to take control of their own health (Elliot et al., 2007).

Miller, Adsit, and Miller (2005) created a checklist of common items found in

school web sites and conducted a survey of users to determine the importance of each item. Many of the items they listed are applicable to a physical education web site, including a mission statement, rules and policies, curriculum standards, teacher information, homework, calendar of activities, links for parents, links for students, student work samples, and the school's street address. Contact information is very important because it facilitates communication with parents and others outside the school community. A teacher information section that includes a picture of each teacher with his or her name and contact information, and a brief biography listing education, affiliations, certifications, awards, and hobbies is a good way to show that the teachers are qualified (Miller et al., 2005). The teacher information section initiates a friendly and positive relationship with the web site users. The school name, address, and phone number provide contact information and inform the random reader where that specific school physical education department is located.

A comprehensive web site should include information that clearly articulates the expectations of the physical education department, including rules, procedures, and other items. A useful feature is a downloadable attachment of a physical education contract that includes all of the department policies. Additional methods to communicate expectations are through a department motto and a department philosophy statement (LeMaster, 2000). To reinforce the standards-based emphasis in education, a copy of the state physical education standards should be included. An outline of the units for the year will show the specific activities and fitness skills the students will be expected to learn. Another way to provide information about teacher expectations is to post detailed course descriptions. A helpful feature for teachers and students is the use of a class calendar (Miller et al., 2005). This allows teachers to list the activities and homework for each week or month of the school year.

A physical education web site should include fitness information (Elliot et al., 2007) that will increase the reader's fitness knowledge, including definitions of the five components of fitness and basic fitness principles. Test procedures and evaluation charts from whichever standardized fitness test a department administers during the year may improve the techniques and motivational level of students when they are fitness tested. Fitness test-score means from previous years and the department's goals for the current year may be another valuable source of motivation. Links to health-related web sites will add depth and direction to users' search for fitness information (Baker, 2001).

A helpful feature is to include performance cues for activities that will be taught during the year. Just as a demonstration of the activity increases the students' understanding during instruction, the use of pictures and video clips, along with the activity cues, provides valuable information for students when they view the web site (Elliott et al., 2007). Assessment tools used in grading, like rubrics, also inform students of the teachers' expectations and educate them on the combination of skills that are needed to perform various activities.

Creating a web site is useless if the target audience does not continually use it. A web site should be easy to navigate and enjoyable to use so users are encouraged to regularly return to it. Student recognition in the form of a "Student of the Week (or Month)" and examples of excellent student work may increase the probability of getting students to visit the web site. The use of motivational quotes and physical education tips that are changed daily, weekly, or monthly can also encourage return visits (Baumbach, Brewer, & Renfro, 2004). Providing students with feedback by giving them access to their current grade is a feature that could be included in a web site, provided a security password is required. Placing links to sport and physical education web sites designed for children should also increase students' use of the web site (Baumbach et al., 2004). The web site should also be linked to a search engine for kids to create the possibility of safe web surfing. Other content that will increase student use of the web site are announcements of upcoming events, the school's team sports schedules, intramural activities, and interesting or outstanding physical-education-related accomplishments of students, staff, or faculty (Miller et al., 2005).

A physical education web site should include information that will increase students' activity levels outside of class. Community resources such as contact information for gyms, youth sports leagues, and private instructors (dance, martial arts, etc.) should be included. Ferney and Marshall (2006) found that users of web-site-based physical activity interventions preferred web sites that provided access to information on specific, local, physical activity facilities and services. In addition, a section describing local community resources for health-related services and information should be included. Additional content features to include are departmental fundraising activities and parenting tips (Miller et al., 2005; Plano Independent School District, 2007). Parenting tips can include basic information to help parents improve the health of their children and assist in their children's learning.

Control

Control refers to the layout of the pages and the location of the information on the pages (Barnd & Yu, 2002). Web sites need to be easy to navigate, and the information should be easy to locate (Pratt, 2007). Navigational tools needed to create a functional web site include (1) up/down buttons (which take the user to various parts of the page) and home buttons (which return the user to the home page) on each page and (2) an index or table of contents for the site. Related topics should be grouped together and placed on the page so users can easily find them (Barnd & Yu, 2002), and design features should allow users to easily navigate between pages and sections within each page.

Consistency

Consistency deals with the design and visual appeal of the content placed on a web site (Barnd & Yu, 2002). Features that need to be consistent on all pages of the web site include (1) the location of text and icons, (2) link and font colors,

(3) use of easy-to-read fonts, and (4) background color. The background color should be a solid color that clearly contrasts with the font color. Patterned backgrounds often make the page difficult to read. Following common and universal Internet-design features—like having visited links change color, making sure links to other web sites are highlighted or underlined, and ensuring that all links to other pages are active—increases the readability of the web site (Nielsen, 2000). Consistency of the various design features allows the reader to accurately predict where information will be located and thus speeds up a search and increases the enjoyment and confidence of the web site users (Lynch & Horton, 1999).

Corroboration

Corroboration refers to creating meaningful titles and providing clear information that validates the information on the web site (Barnd & Yu, 2002). Titles should include simple key words because they may be linked to search engines that are used to locate web sites. The home page title should include the school name and the department name. Abbreviations or beginning a title with the word “welcome” should be avoided (Nielsen, 2000). A complete footer is an important feature to include on a web site. Footers inform the reader who is responsible for the information on the page and how to contact them either by posting the email address or a link. Included in the footer should be a copyright statement to protect original content, the date the web site was first published, the date the site was last updated, and the planned next update, all of which increase users’ confidence in the content of the web site (Barnd & Yu, 2002; Weiler & Pealer, 2000).

The Physical Education Web Site Checklist

The Web Site Checklist (figure 1, pp. 46-47) was created to help physical education departments evaluate their current web site or to create a new department web site. The Web Site Checklist may also be used to evaluate a sample of physical education web sites to determine how frequently each feature appears (links to more than 80 physical education web sites appear on PE Central [<http://www.pecentral.org/websites/peprogramsites.html>]).

Items on the Web Site Checklist were first identified by conducting a thorough review of the literature associated with school web-site design. The content and design features that experts viewed as important to include on a web site were combined to create the extensive checklist. The features on the checklist were organized into categories of content, control (navigation), consistency (readability), and corroboration (accountability) based on the recommendations of Barnd and Yu (2002). Later, the Web Site Checklist was reviewed by five secondary school web-site directors at middle and high schools for clarity and content in order to establish content validity. However, the features on the checklist should not be viewed as all-encompassing, but as a resource of ideas and suggestions. As technology and applications advance, new features can be added to the list.

For example, during the evaluation of the sample web sites the features of kid-friendly search engines and student and parent access to current class grades were added to the list. In the future, a teacher’s blog or a classroom podcast could be added as possible educational resources.

How to Use the Checklist. The first step in designing a web site is to contact the school’s web administrator in order to become aware of district web-site regulations and design parameters (Elliott et al., 2007). Once the teacher has an understanding of the district’s web site capabilities, web site content can be selected and created. Booher and Wilcox (2001) suggested making a list of the requests most often received from students, fellow staff, and parents. A review of the Web Site Checklist will also help in determining which content features to include. Teachers should first check to see whether the district or school already has a design template with space allocated for the physical education department. If they do not, then departmental collaboration about web site design should occur (Millholon & Castrina, 2001). When creating the web site, special attention should be given to the design features listed on the Web Site Checklist regarding navigation and readability. Content should be organized by grouping related topics together and placing them on separate pages. A site map should be included that shows how the pages are connected, starting from the home page and working down. All of the information should be entered into files using web-page-creating software or simply by following the method instructed by the school web administrator. The web site should be tested by having other people navigate through it and provide feedback so that any kinks can be worked out before activating it on the web (Pratt, 2007).

The checklist may also be used to help programs gradually upgrade their web site. Since there are 79 items, programs can keep score of their progress by assigning one point per item. Consequently, the scorecard capacity of the checklist may facilitate goal setting and monitoring of progress toward a goal. In addition, by highlighting the five central areas of web site design, department members should become more knowledgeable in evaluating the web sites of other schools and incorporating the strengths of those web sites into their own. Departments may also alter the checklist in order to customize it to address their own needs.

Final Thoughts

Communication is critical in this information age. Web sites are replacing traditional methods of locating information and are becoming the preferred method of communication and research. Many schools have developed well-designed web sites as a way to promote their programs and provide commonly sought-after information to the school community. Physical education teachers should tap into this great resource by developing comprehensive, attractive, and easy-to-use department web sites that both inform users about their program and educates them about the benefits of health-enhancing physical activity.

Figure 1. The Physical Education Web Site Checklist

Directions: Check “yes” to indicate the components that are included and “no” for the components that are either missing or inadequate.

Web Site Checklist		Yes	No			Yes	No
Content				Community resources for outside physical activities			
Physical education teachers				Community resources for health issues and information			
• Names				Interesting or outstanding accomplishments of students or faculty			
• Email addresses				Assessment tools used in grading			
• Phone numbers				Announcements of upcoming events			
• Pictures				Team sports schedules			
• Education				After-school or intramural physical activity information			
• Affiliations, certifications, awards,				Cues for certain skills (including pictures and/or video clips)			
• Hobbies				School name, address, and phone number			
Department policies (contract, locker room rules, etc.)				Physical education tip of the day/week/month			
Department philosophy				Motivational quotes			
Yearly unit plans				Fundraising activities			
State physical education standards				Parenting information to help parents assist their children’s learning			
Student recognition				Links to sport- and physical-activity-related web sites			
• Student of the week/month				Course descriptions			
• Examples of excellent work or accomplishments				Department motto			
Homework assignments				Search engine for kids			
Calendar of activities/homework/class				Access to current grades for students			
Fitness information				Control			
• Five components of fitness				Home, up, and down buttons on each page			
• Fitnessgram healthy zone charts							
• Links to health-related web sites							
• Fitness test procedures							
• Last year’s fitness test scores for school							
Department goals for current year							

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Web Site Checklist	Yes	No		Yes	No
Site map	—	—	Content fills at least 50 percent of page (80/20 content/navigation best)	—	—
Links to school and district home pages	—	—	No spelling or grammar errors	—	—
Page dimensions fit in display screen	—	—	All underlined words are linked to another web page	—	—
Index or table of contents	—	—	Physical Education department web pages are the same style as the school home page	—	—
Related topics grouped together	—	—	All links connect to active and correct web sites	—	—
Layout of page and location of information are appropriate	—	—	Corroboration		
Users can easily navigate between pages and sections	—	—	Headers/title page (used by search engines)		
Consistency			• Meaningful	—	—
Font			• Key words used	—	—
• Same font used throughout all web pages	—	—	• Different on each page within the web site	—	—
• Readable font (Arial is recommended for both PC and Mac)	—	—	• Essential words first for search engines	—	—
Location of text and icons	—	—	• Include school and department name	—	—
Link colors	—	—	Footer		
Font color	—	—	• Contact information	—	—
Background color			• Name of person responsible for content	—	—
• Same on all pages	—	—	• Email address	—	—
• Single color easier to read	—	—	• Telephone number	—	—
• Solid color that clearly contrasts font color	—	—	• Mailing address	—	—
• If graphic-themed background is used, it is used throughout	—	—	• Fax number	—	—
Easy on the eyes (visual consistency)	—	—	• Copyright statement	—	—
Visited links change color	—	—	• Date the web site was published	—	—
Links to other web sites are blue and underlined	—	—	• Date site was last updated	—	—
			• Planned next update	—	—
Comments: _____					

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