



E-Learning Case Study
Dr. Brian McFarlin
University of Houston
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SitePal Speaking Avatars Enhance Course Material

Dr. Brian McFarlin is an Assistant Professor at the University of Houston in the Health and Human Performance Department with a specialty focus on Training Interventions & Genetics of Exercise Response. Dr. McFarlin is responsible for designing and implementing material for all of the courses that he teaches and has been utilizing various technologies to enhance his students' learning environment.

During the 2006-2007 school year Dr. McFarlin implemented a SitePal speaking avatar as an informational element within the curriculum for two of his classes, KIN 1304: Public Health Issues in Physical Activity and Obesity and KIN 3306: Physiology of Human Performance.

The KIN 1304 course is part of the University core curriculum for undergraduate students, thus a large number of students enroll in this course, about 250 per semester. KIN 1304 is taught as an online course using WebCT. WebCT is... **MUST GET PRODUCT INFORMATION.** KIN 3306 is an upper division course and required for all majors within the Health and Human Performance Department. He typically has 175-250 students take this course each year. KIN 3306 is taught in a hybrid format, meaning that half the course is taught in a traditional classroom setting and the other half is taught via WebCT. In addition to the above-mentioned courses, Dr. McFarlin is gradually incorporating SitePal into other classes that he teaches. The first of which will be in the Spring 2008 with a new course, PEP 8308: Genetic and Physiologic Implications of Obesity.

The Implementation of a More Personalized Solution for an Online Course

Dr. McFarlin's department Chair introduced him to SitePal and mentioned that he thought it was a technology, which may be useful as a teaching tool. The department purchased a license in June 2006 and he began implementing the speaking avatar technology into the KIN 3306 course that summer.

"The real use I envisioned for SitePal was the ability to put a face with my online courses. In strictly online courses, the instructor rarely meets their students. The technology allowed me to add some life and a face as well creative interactivity to the course. The students really appreciated the character and have reported that the speaking avatar provided them with a more personal experience. Most importantly, their improved grades showed me that the technology really helped them to be more successful and get more out of my classes," said Dr. McFarlin.

Initially, Dr. McFarlin created a character from the standard set of SitePal characters that are available with the license. Later on, he upgraded to a custom character of his likeness. When students come to the main page for their course, they click on the character logo and the Dr. McFarlin speaking avatar provides information on the course for the week. Updating the character is simple as Dr. McFarlin can record his own voice via microphone, use text-to-speech or call in his changes using the 1-800 dial-in feature.

Although the technology is mostly used to provide course announcements, Dr. McFarlin would like to expand his use to include development of an online question and answer artificial intelligence (AI) module, which would answer basic content questions that students have. SitePal provides this feature and makes it simple to use and program.

The Results... Higher Grades and Better Performance!

SitePal was not implemented by as a standalone solution. The tool was one component of a multi-faceted approach to developing a curriculum with rich interaction of multimedia and instructional technology. Collectively, the implementation of all these components, including SitePal, substantially improved the quality of the student performances in class. In general students traditionally performed better than in previous years. *In the KIN 1304 course, students experience a 21% increase in overall grade performance. In KIN 3306, the students earned on average 19% higher point totals than in previous semesters.*

Some of Dr. McFarlin's students provided great insight on the use of SitePal. When asked for feedback on the courses and material some stated:

"It was helpful to hear tone and see facial expressions. The character definitely helped to provide a richer way to relay info than normal text."

"I like the talking character. I thought that was pretty awesome when I first logged on and wished that all my classes could have used it."

"I felt it was useful because it gave insight on upcoming lectures/quizzes, and announcements."

In Dr. McFarlin's opinion the students' improvement in class is directly related to their improved knowledge of the course material and he credits the use of innovative technologies as one of the key factors for better performance. Due to the way the course and examinations are structured, it is obvious the improvement in grades was due to his students learning the material better and not simply memorizing more.

"I believe that the grades increased because the students were able to choose a learning environment that best complemented their own personal style. They were definitely engaged in several different ways. In surveys, I noted that students, who took advantage of all the technologies provided, tended to have the higher grades in class. Overall, I think that a SitePal character can be used as an effective part of a structured learning environment centered on the use of other instructional technologies," commented Dr. McFarlin.

In addition to higher grades, Dr. McFarlin recently won the UH Provost's Core Award for Teaching Excellence (2006-2007 academic year) for his work in the KIN 1304 course. The review committee informed him that he won the award because of his efforts to engage students using the wide range of instructional technologies that he employs.