

**Using Bitmoji Coaches to Promote Learning and Engagement in Online Courses**

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### **Introduction/Need for Innovation**

Learning in online environments has become increasingly frequent, with nearly 45% of learning now occurring in online environments (Clark & Mayer, 2016). The change in learning environment requires a change in pedagogical strategy. Clark and Mayer (2016) examined best practices for instruction and how they could be best applied in online learning environments. They described empirical evidence showing students learn better in online environments when instructors employ personalization and embodiment through the use of pedagogical agents. Pedagogical agents, sometimes referred to as virtual coaches or on-screen agents, are characters who help guide the learning process in an eLearning module. Personalization and embodiment activate a sense of social presence and cause the student to engage in deeper cognitive processing during learning, resulting in a better learning outcome (Mayer, 2009, 2014). I transitioned a traditionally face-to-face course for online delivery using Mayer's (2009) evidence-based principles for designing online instruction. Following Clark and Mayer's (2016) recommendations, I used a conversational tone and examples from pop culture to better engage the students with the content. I also chose to use Bitmoji avatars as pedagogical agents.

### **How it Works**

Bitmoji is a social media app which allows users to create cartoon versions of themselves. It is a popular app with undergraduate students. The app allows you to design avatars in a variety of poses and outfits. Each Bitmoji can be created in a matter of minutes. After creation, Bitmojis are easily downloaded for future use. After creating the avatars, I inserted them as I would any other image into the online modules. My Bitmoji me appeared on the screen while I spoke. Poses were matched to the content on the screen and included Bitmoji me carrying books, checking items off a to-do list, and so forth. Using Bitmoji images, I was able to virtually cheer for correct answers to the knowledge check questions and to encourage additional attempts when questions were answered incorrectly.

### **Results to Date/Implications**

Students in the course who came to my office hours reported high levels of engagement with the content. They thought it was "fun" that an instructor would not only know about Bitmoji, but also be effective at using it. They appreciated knowing what I looked like and felt they "knew me" based on my online expression of personality. Students also reported feeling "more comfortable" reaching out for help because I "seemed like a real person." This virtual bonding was an important motivator for them. The strategy appeared to increase learning as well. Final grades had a smaller standard deviation than the face-to-face course.

### **Future Plans/Advice to Others**

I plan to continue to use Clark and Mayer's (2016) principles of personalization and embodiment in future online courses. In a future online course, I plan to compare test results from modules

with and without the avatars to measure the true impact on grades. I will continue to use Bitmoji avatars as pedagogical agents until another social media app becomes more popular. Based on student feedback, I would highly recommend other online instructors employ pedagogical agents to create personal connections with students. Over the course of a semester, using Bitmoji avatars adds only a few minutes to content creation time. The increase in student willingness to engage with the instructor is well worth the time.

### **Costs and Resources Needed**

Bitmoji is available at no cost. It is available for download in Apple and Android stores, and may be used on a computer as well. Minimal technical skill is needed to successfully create and employ the avatars. I added the Bitmoji extension to Google Chrome so I could easily search for and download images for the online course. While the images may be downloaded in many formats, I used PNG files to take advantage of the transparent background feature.

### References

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