# Chapter 3 Hybrid, Online, and Flipped Classrooms in Health Science: Enhanced Learning Environments

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#### **ABSTRACT**

With the changing face of education and increased need for unique and technology-enhanced learning environments, educators must have current and relevant information to assist in making informed choices about how to create the most effective learning experiences. In this chapter, hybrid, online, and flipped classrooms are defined based on information found in relevant peer-reviewed and professional literature. Examples in practice within health sciences education are provided of each classroom type, as well as uses in environments where students take control of their own learning. Positive and negative aspects of each learning environment are discussed. Recommendations and best practices are suggested to facilitate the practical application of each.

#### INTRODUCTION

Now, more than ever, the educational system as we know it is evolving and will continue to change with the generations to come. Since the emergence of online learning in the early 1990s, course delivery options have expanded beyond the traditional face-to-face, teacher-centered classrooms. Rapid changes in technology

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alloweducators and students to take advantage of a variety of teaching and learning options. There is a plethora of new tools which further enhance opportunities for student learning as well as developing lifelong learning habits. This exciting time in history opens the door for people from all over the globe to interact by providing learning experiences which were previously not possible.

An important theme in higher education is the incorporation of transformative learning. With traditional learning environments, students rely on the educator for information rather than developing skills necessary for self-directed discovery. For transformative learning to take place, teachers and students must develop a new type of relationship where learning is student-centered and the educator acts as a guide or facilitator. This paradigm shift away from the educator being the sage on the stage to the guide on the side can be a challenge for both learners and teachers. The advances in, and increased demand for, current technology help make this transition not only possible, but necessary. The learner-centered environment has been proven effective, and the range of opportunities to provide such educational opportunities continues to grow.

Anemphasison transformative learning enableshealth science educators to nurture students' abilities to take responsibility for their learning and enhance the student-focused experience. Hybrid, online, and flipped class rooms provide settings in which students learn self-reflection and problem solving skills. These skills will transfer to students' professional careers and foster critical thinking and self-actualization. Educators and students must look beyond the traditional and explore current and emerging learning environments and opportunities. While there are many positive aspects to alternate class rooms, there are also concerns which must be considered when determining the most appropriate mode of information delivery based on needs, curriculum design, and institutional resources. In this chapter definitions of hybrid, online, and flipped class rooms are provided with examples in practice, along with information about the pros and cons of each.

#### BACKGROUND

In the broad timeline of higher education delivery, hybrid, online, and flipped classrooms are relatively new concepts. Each format involves some form of distance education and students spend little to no time sitting in the back of a large lecture hall. Students are able to use technologies and media available to them and explore new options. Settings are conducive to problem-based learning which allows students to work on projects and learn by developing critical thinking and problem solving skills. There are no set formats or procedures, and educators continue to experiment, study, and develop new ways to incorporate technology and innova-

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