INTRODUCTION

When we think about teaching it is very natural that the classroom comes to mind. It is familiar to teachers and to students and accepted as the touchstone for our educational experience. This comfortable familiarity extends beyond the brick and mortar reality to a pedagogical one: an educational experience in which a teacher is the provider of knowledge, and students the receivers of same. Even in modern education, where learner-centered constructivist experiences are sometimes found, alternatives to the classroom have always striven to emulate and been measured against the classroom experience. This is perfectly normal since a
teacher and students in a classroom are what we know, and it makes sense to use what we know as we venture into areas that are not familiar. However, as our alternative toolkit for online experiences expands, it is time to stop treating the classroom as the standard to which all education is compared. It is time that we formulate and apply new pedagogical models of teaching and learning that fully utilize the potential of new immersive virtual learning environments, while maintaining the academic integrity of traditional academia.

Three-dimensional (3D) immersive learning environments are excellent examples of new and emerging tools with great potential to enhance teaching and learning online. These environments can be created to look and function like traditional face-to-face classrooms. However, given the flexibility of these environments and the numerous asynchronous and synchronous tools available, we can actually do more and have much more engaging interactions taking place virtually. And, as importantly, the tools we use to emulate the classroom in online and 3D virtual world environments are not truly the same nor should they be considered true replication of the activities that are conducted in the face-to-face classroom. We need to acknowledge these differences and begin to create educational settings that are best suited to online environments and not just naive attempts to recreate traditional physical classrooms.

In order to fully explore the similarities and differences of face-to-face and immersive virtual educational settings we address some key questions:

1. What are the significant similarities between face-to-face classrooms and immersive virtual settings?
2. What are the important differences?
3. How may these differences be leveraged to best enhance constructivist teaching and learning experiences in 3D worlds?

These questions will be addressed in this chapter.

**BACKGROUND**

This discussion is based on more than nine years of experience using a 3D virtual environment, AET Zone (Appalachian Educational Technology Zone or AETZ), in graduate teacher education programs at Appalachian State University. The environment was originally created utilizing the ActiveWorlds Universe Server (www.activeworlds.com) and now is transitioning to the Teleplace (www.teleplace.com) platform. The theoretical educational foundation for AETZ is based on the social constructivist Conceptual Framework of the Reich College of Education (Reich College of Education, 2005), based on the work of Vygotsky (1978). The following principles are inherent to this framework:

- Learning occurs through participation in a Community of Practice;
- Knowledge is socially constructed and learning is social in nature in a Community of Practice;
- Learners proceed through stages of development from Novice to Expert under the guidance of more experienced and knowledgeable mentors and among likeminded peers in the Community of Practice;
- An identifiable knowledge base that is both general in nature and also specific to specialties emerges from focused activity within the Community of Practice;
- All professional educators develop a set of Dispositions reflecting attitudes, beliefs, and values common to the Community of Practice.

Graduate programs at the University provide programming to support on and off campus programming. These off campus programs serve a