

# An Experienced Austrian Educator's View on the 3-D Skills Implemented to Design and Integrate an Alien Mystery in OpenSim

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## ABSTRACT

*With their playful game-oriented nature, virtual learning environments can form constructive ecosocial settings for enacting game-driven collaborative tasks that have real pedagogical, learning, and teaching implications. Even though multiple studies have been undertaken in virtual learning environments, there is a dearth of studies on the constellation of complex interrelated skills and knowledge that second or foreign language educators integrate in actual situated contexts to design and offer task-oriented game-driven learning activities. Building on Compton's (2009) framework, this study investigates the complex set of technological, pedagogical, and evaluation skills that an expert Austrian educator, Franziska integrated to design a multifaceted game-oriented plot in the virtual village of Chatterdale in OpenSim in order to engage thirteen-year-old Austrian and Norwegian high school students in oral interactions during three slightly different task-oriented quests to solve an alien mystery. Data analysis of an interview, reflective comments on a wiki, and follow-up emails indicate that the design and integration of an epistemic game in praxis forms a collaborative endeavor involving the integration of a set of complex and multifaceted sets of skills and knowledge. The study investigates the skills that emerged during two stages, the planning, preparation, and student training stage and integration stage. The findings of this study can be used to broaden the pedagogical discussion on the skills and knowledge that second or foreign language teachers need to acquire and apply to design successful playful task-driven learning quests in virtual learning environments.*

## KEYWORDS

3D Virtual Learning Environments, Epistemic Games, OpenSim, Teacher Skills

## INTRODUCTION

Goal-driven learning experiences in virtual learning environments often need to challenge traditional epistemological beliefs on learning and teaching practices in institutional contexts and offer a new "epistemology of practice" (Shaffer, Squire, Halverson, & Gee, 2005) where learning, socialization practices, identity, and skills are constructed in new ecosocial learning contexts. Second language educators, researchers, ICT professionals, and other practitioners in the field need to be skillfully adept at leveraging the semiotic resources of virtual learning environments in order to construct game-driven learning experiences for language learners that have potential pedagogical, learning, and socialization implications (see Gee, 2003, 2007, Thorne, 2008; Barab, Gresalfi, & Arici, 2009; Reinhardt & Sykes, 2012; Zheng, Newgarden & Young, 2012; Godwin-Jones, 2014; Hadjistassou & Molka-Danielsen, 2016). As Shaffer, Squire, Halverson, and Gee (2005) postulate, "The epistemology of a practice thus organizes (and is organized by) the situated understandings, effective social practices,

powerful identities, and shared values of the community. In communities of practice, knowledge, skills, identities, and values are shaped by a particular way of thinking into a coherent epistemic frame” (p.107).

In virtual learning environments, an epistemic frame defines the thinking processes, knowledge, participation trajectories, and emerging actions of learners or players as they strive to become members of this virtually constructed culture. Second language educators, researchers, and ICT professionals need to construct game-based activities that promote virtual communities of practice (CoP) and can enact affordances for students to be immersed in new participatory cultures, ways of thinking, learning, and acting or what Shaffer, Squire, Halverson, and Gee (2005) term as epistemic frames. As they advocate, “If a community of practice is a group with a local culture, then the epistemic frame is the grammar of the culture: the ways of thinking and acting that individuals learn when they become part of that culture” (Shaffer, et al., 2005, p. 107). Acknowledging the value of these epistemological frames can also expand trajectories for exploring the pedagogical and learning potential of game-driven experiences in virtual learning environments. As Cornille, Thorne, and Desmet (2012) evince, “games are evoking a shift away from models of learning based on information delivery toward theories of human development rooted in experimental problem solving and complex and spatially distributed forms of collaboration” (p. 245). To design game-oriented tasks in virtual learning environments or what Schaffer, Squire, Halverson, and Gee (2005) term epistemic games, educators need to design plots, activities, and scenarios that “let players participate in valued communities of practice to develop a new epistemic frame or to develop a better and more richly elaborated version of an already mastered epistemic frame” (p.108). For example, second or foreign language learners participating in a game-driven quest in OpenSim to solve a mystery, build powerful virtual identities, shared salient values and social practices where new paths of thinking and engaging in actions are enacted and often realized. Scholarly research has been galvanized by the exploration of these emerging epistemologies and epistemic frames, such as participation in co-operative activities in problem-oriented settings such as Second Life and OpenSim that afford opportunities for co-actions and caring, avatar-enacted interactions and co-actions emerging from a learner’s extended virtual persona and co-acting virtual personas, goal-driven tasks that enact affordances for social interaction and intercultural communication (see Zheng, 2012; Zheng & Newgarden, 2012; Jauregi, Canto, de Graaff, Koenraad, & Moonen, 2012; Sykes & Reinhardt, 2013; Godwin-Jones, 2014; Hadjistassou, 2016). However, the type of skills and knowledge teachers and educators need to develop to construct such game-driven tasks in virtual learning environments that can promote new epistemologies and epistemological frames have not received equal attention. Only a few studies, such as Kozlova and Priven (2005) and Compton (2009) have explored the type of knowledge and skills required to teach in virtual learning contexts. Even though Kozlova and Priven (2015) situated their study in Second Life, their focus was not placed on investigating how experienced second language educators apply in praxis this constellation of complex skills in actual socially situated virtual contexts during an epistemic game. In this study, the focus was placed on investigating how a highly experienced or in Compton’s (2009) terms, an expert educator creatively applied this complex skills and knowledge to design and immerse second or foreign language students in a game-oriented quest to deconstruct an alien mystery in the socially situated context of the British virtual village of Chatterdale in OpenSim. Undertaking this investigation in the role of epistemic games in second or foreign language learning in virtual environments can play an important role in developing a better understanding on students’ participation and construction of social practices, virtual identities, salient values and paths of pursuing common goals and actions that can guide them in learning by engaging in and build new epistemic frames. Further, even though OpenSim forms multifaceted 3D platform that users can access through various clients and is rich in semiotic resources, its potential pedagogical and learning value for second

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