

## Chapter 32

# Task-Based Language Learning and Learner Autonomy in 3D Virtual Worlds

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### ABSTRACT

*This chapter investigates whether a problem-solving task with an environment exploration component mediates learner autonomy in a 3D virtual world (VW). Two groups of English as a foreign language (EFL) learners were to collect information by exploring the 3D VW and eliciting information from player avatars to complete the task. An analysis of student interaction reveals that only one of the groups acted as autonomous learners by generating new topics based on their observations in the environment; eliciting information and controlling the topics when interacting with the player avatars; and initiating repair leading to input modification, negotiation of meaning, and modification of output. Results suggest that learner autonomy could be promoted in 3D VWs by improving the clarity of task instructions and by designing learning tasks in such a way that students would be able to complete the tasks only if they share their observations with peers and player avatars.*

### INTRODUCTION

Autonomy has been one of the central topics in Second Language Acquisition (SLA) research for more than three decades, as evidenced by Benson's (2016) bibliography on autonomy in language learning, which includes 2,500 references. The concept of autonomy has been broadly explored; though many scholars acknowledge that this concept is "hard to grasp" (Schwienhorst, 2003), they tend to agree that autonomy refers to learners' ability or capacity to be in charge or to take control of their learning (Cotterall, 1995; Little, 2007). Autonomous learners are viewed as active agents whose learning depends on their ability and willingness "to make and carry out the choices which govern [their] actions" (Littlewood, 1996, p. 428). Learner autonomy is important for second language pedagogy because it concurs with

DOI: 10.4018/978-1-5225-8179-6.ch032

“our view that language learning requires the active involvement of learners; our attempts to introduce “learner-centred” methods; and our goal of helping learners to become independent from their teachers in their learning and use of language” (Littlewood, 1996, p. 427).

The concept of learner autonomy is of particular interest in Computer Assisted Language Learning (CALL) research (see Darasawang & Reinders, 2016; Kozlova, 2013; Schwienhorst, 2003; Smith & Craig, 2013; Vanijdee, 2003) because technology offers plentiful opportunities for learners to interact through audio-, text-, and video-based communication channels. As language-learning contexts expand to 3D virtual worlds (e.g., Second Life), scholars have begun to explore whether these immersive environments that resemble real-life geographical locations (Peterson, 2011) and offer real-life experiences (Schroeder, 2002) support autonomous learning. Although scholars argue that 3D VWs foster autonomous learning (Dalton, 2016; Deutschmann, Panichi, & Molka-Danielsen, 2009; Lan, Kan, Sung, & Chang, 2016; Schwienhorst, 1998), only one study to date, Collentine (2011), examines the relationship between learner autonomy and language learning, specifically, how learners’ choices to interact with non-player characters and objects in the environment (e.g., notes and letters) influence accuracy and complexity of their language production. Collentine’s (2011) study suggests that 3D tasks can facilitate learner autonomy, but the frequency and length of learner interaction with non-player avatars and objects in the environment do not guarantee the accuracy and linguistic complexity of the language they produce. Considering the findings of Collentine’s (2011) research, the present study takes a sociocultural perspective to investigate whether a problem-solving task with an environment exploration component encourages autonomous learning in 3D VWs.

## **BACKGROUND**

Sociocultural theory considers learners to be active agents. Within this framework, autonomy is defined as the “human ability to act through mediation, with awareness of one’s actions, and to understand their significance and relevance” (Lantolf, 2013, p. 19). Mediation is defined as a learner’s interaction with others and with their experiences with culturally constructed objects, or artifacts, which help carry out various tasks (Lantolf, 2000). While language is viewed as a culturally constructed artifact, it is also a learning object; therefore, autonomous language learners are those who make the conscious choice of using a language in order to learn it. Likewise, learning tasks and computer technology are artifacts that mediate language learning (Lantolf, 2000) and seem to have the potential to also mediate learner autonomy.

### **Artifact Mediation: Task as a Mediation Means**

Ellis (2003) defines a task as a workplan that requires learners to process language pragmatically in order to achieve an outcome, convey appropriately propositional content, communicate meaning using their own language resources, and use language that resembles language used in real life. Since participation in language tasks requires learners to produce language, learners make both linguistic choices and the choice to interact (or not). When working on a task, learners must take initiative in making input more comprehensible through the modification and negotiation of meaning, and in modifying their output in order to make “themselves understood whenever their own message is unclear” (Pica, Kanagy, & Falodun, 1993, p. 12). Therefore, communicative tasks have the capacity to mediate learner autonomy as they compel learners to control their own learning.

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