



<input checked="" type="checkbox"/>	Master's thesis
<input type="checkbox"/>	Licentiate's thesis
<input type="checkbox"/>	Doctor's thesis

Subject	Logistics	Date	23.10.2009
Author(s)	Kristiina Riska	Student number	
		Number of pages	86
Title	Learning in logistics simulation games based on constructivist learning theory		
Supervisor(s)	D.Sc., D.Sc. Juuso Töyli, M.Sc. Hanne-Mari Hälinen		

Abstract

Technology-based training in supply chain management in logistics companies has caused some individual success stories in logistics field, but still only little research has been conducted in this area. Despite of quite high rate in use of supply chain management training, there is a little evidence of effective use of computerized business games in education. The purpose of this study is to establish if logistics simulation games have certain characteristics of constructivist learning theory. The main objective is therefore to examine if the simulation games have same characteristics than the characteristics required from constructivist learning environments. Another objective is to find the main attributes, which illustrates the learning environments of the constructivist point of view, to find out what is meant by simulation games and define a learning aspect of them.

Theoretical framework in this study consists of two phenomenon, constructivist learning theory and the concept of simulation gaming. Constructivist learning theory is the main concept of this study. The definition of constructivism is stated and two major viewpoints of constructivist learning are introduced. Constructivist learning environment is defined and different learning styles are discussed. A chapter of simulation gaming defines different type of business games and simulations and discusses the learning aspect of them. To understand the use of the logistics simulations as teaching tools the terminology of supply chain management and its main logistics activities are defined. Part of the chapter deals with logistics business games and some examples of logistics business games are introduced.

This paper is a case study of one logistics simulation game. That game is called Realgame, which was developed in the Turku School of Economics as a part of a Doctoral dissertation. Data for the empirical part was gathered by a questionnaire in three Realgame gaming sessions in one Finnish electronic company and by direct observation in one of those sessions. Research results are summarized in the empirical part of this study.

It was shown in this study that the Realgame as a teaching tool sustains the constructivist learning perception. It was also shown that some other logistics simulation games have same characteristics, but that finding cannot be generalized to all logistics simulation games. Similar findings have been achieved in previous studies of Realgame, so the results mainly support the previous findings rather than show some very new ideas of the phenomenon.

Key words	Constructivism, learning environment, simulation gaming, business game
Further information	