Chapter 12

Graduate Students’ Levels of Coping with Uncertainty: Hacettepe and Gazi University Sample

Nilay Neyişci
Hacettepe University, Turkey

Nihan Potas
University of North Carolina at Chapel Hill, USA & Gazi University, Turkey

ABSTRACT

It is imperative to note that education is facing extremely important changes in the modern society. In the past, education was perceived as an individual process, but it is now entering the interests of states and international organizations. Concepts like ‘knowledge-based society, lifelong learning, and international education fields’ appear to be a reflection of this change. It is difficult or may be unnecessary to predict with certain accuracy what is going to happen next. Education and teaching are forced to deal with chaos. This chapter describes a study in which the authors asked at what level graduate students in Hacettepe University and Gazi University are inclined to exhibit uncertainty-avoiding behaviors. Does the level of the inclination of the graduate students differ in accordance with the variables of age, gender and level of education? There is a significant difference between the groups considering the working experience of the graduate students in Hacettepe University and Gazi University from the aspect of their inclination level of exhibiting uncertainty avoiding behaviors. Uncertainty-avoiding behaviors could be acquired by the students in undergraduate and graduate period of their lives and for a longer period of time. Thus, it would be more effective in acquiring the desired behavior change.

DOI: 10.4018/978-1-4666-6070-0.ch012
INTRODUCTION

We live in a chaotic universe, full of uncertainty. It would be difficult to predict exactly what is going to happen at any given time, in the present or future. This wave of chaos and uncertainty creates dramatic consequences and influences deeply the social life and organizations. In science and technology, there is a paradigm shift from Newtonian certainty and predictability to quantum uncertainty and chaotic unpredictability. This comes largely as the logical consequence of discoveries in the theoretical physics in the 20th century and to the development of the mathematics of non-linear systems in 1950s. Taken together these intellectual developments represent a fundamental shift in our way of understanding the world. The search for the new questions itself are also sources of new answers, undermining the old certainties at the same time as it creates new ones, in the name of new knowledge. So this is the evidence of our experience information overload, yet at the same time there is a we realize how much we don’t know. We need knowledge to understand the new information, moreover agreement on priorities, discipline, epistemology, metaphysics, metaphors, and values.

Such a world is fundamentally uncertain world. According to Kelley (2006) that the fundamental complexity and the uncertainty of this world requires us to understand that, “humans are all essential parts of this modern world and must exercise collective creativity to discover orders beyond, new forms of action and exercise the ability to hold a variety of viewpoints in creative tension and mutual respect.”

Education is an uncertain issue. It is difficult to predict what will happen in the teaching-learning environment each day and it is nearly impossible to ascertain what might be the best course of education for any given person. The reasons for this could be as follow: education is universal and normally subjected to the chaos that naturally exists in the reality. It is easy to see from this description that all work is subjected to the whims of chaos. It is difficult or may be unnecessary to predict with certain accuracy what is going to happen next. Education and teaching are forced to deal with chaos. Every education environment is uncertain until it occurs. Despite the well planned lesson plans and the class room management techniques, the students will be subject to an infinite number of possible uncertainties. The connection between teaching and learning creates further uncertainty.

BACKGROUND

Uncertainty Avoidance in Chaos and in the Educational Environment

Chaos is natural. It is a key component of the universe. Chaos may cause uncertainty but it also offers opportunities that create innovation and change. Being the smallest part of the whole universe, each person creates one opportunity for the uncertainty with his/her specific behavior. Considering the chaotic world, all cultures carry with them different cultural norms and accepted patterns of behavior. It is a natural human instinct to avoid situations in which we feel uncomfortable and find chaotic; our cultural perceptions and expectations regulate the strength of desire with which we seek to avoid these situations. Any situation that does not fit within ones perception of what is normal will create a degree of uncertainty.

Physicists, mathematicians, philosophers and organizational theorists have studied uncertainty. Interdisciplinary effort of scholars is a compelling issue. However, there are seven general insights compiled from the literature.

Uncertainty is the inherent state of nature. The second law of thermodynamics, which explains chaotic and random behavior of gasses, is that the entropy of a system increases as the system undergoes a spontaneous change (Clampitt, Williams & Korenak, 2000). In other words it is a higher-level lack of order. According to Hiesenberg’s