Chapter 21
The Relationship between Education and Employment and Chaos

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ABSTRACT

Chaos theory conjectures can be found in most statistical data. Mentioned obscurities especially become important in consideration of educational data and related subjects. This chapter aims at explaining the relationship between education and employment in terms of chaos. In this context, education and employment data of Turkey and OECD countries of the year 2012 has been used. In employment of women, educational qualification is important and with the raise of educational qualification, the employment ratio is also rising which in turn reduces unemployment rate. Besides this, sensitive connectivity to initial situations, which is one of the important chaos theory conjectures, appears in obtained data. The low level of initial situation of Turkey compared to other OECD countries affects the speed and rate of progress in following years.

INTRODUCTION

The principles revealed by quantum theory have made it difficult to explain most events and ideas in accordance with current traditional or nontraditional theories. Conjectures put forward in relation to chaos and complication have been encountered not only in physics but also in social sciences. (Gleick, 2000). In this regard, the disconnection between causality and predictability can be interpreted with the unpredictability of results of goals which can be completely explained instead of the idea of the events which occur coincidentally. Even if the majority of the information obtained about a subject is related to the explanation of evolutionary progression, the final results can become unpredictable. Because, if it insists on the same way, an early change and evolution heads it to a different canal radically even if it looks like small and insignificant at that moment (Hobsbawm, 2002).

This work aims to present an analysis of the relationship between education and employment beginning from the chaos approach. Abstract
findings about the affects of education on both employment and unemployment in OECD countries are as below (OECD, 2013, pp.74-78):

The better educational status of the individual, the more chance to become employed. When we consider OECD averages, employment rates are highest among people who have a tertiary education; upper secondary education graduates have 13% more employment rate than individuals who are not graduated from upper secondary education; individuals who have at least an upper secondary education have a greater chance of being employed than those without that level of education. Better educational status is important for them to keep their current jobs and to not become unemployed during financial crisis. During the latest financial crisis, the rise of unemployment rate of individuals who hasn’t got a high school education is 1,1% more than high school graduates and 2,4% more than college graduates. Despite the fact that the rate of women who are graduated from colleges is higher than the men’s rate of high school graduation, their employment rate is lower than men’s. This difference is 25 points more for men in some countries. The employment rate of vocational education graduates (ISCED 3.4) is 4.8 percent more to liberal education graduates. Additionally, 25 to 64 aged vocational education graduates’ inactivity (unemployment) rate is 5 points lower than the same aged liberal education graduates. As seen in last 3 year progression, in OECD countries, the employment ratio of men and women who have a college graduation certificate is more than people who haven’t got college education. When considered the unemployment ratio, in this period, while college graduates have 5% ratio, people who haven’t got a high school graduation certificate are mostly over 10%.

The ratio above cannot easily be classified as an equation just like a smoke of a burning wood. Movement of smoke arises with crash of molecular smoke particles and air molecules. Besides, unpredictable shapes occur, because of the rise of warm air. At this point, it is not easily possible to predict how exterior impacts can affect labour force in times of crisis and in which conditions and aspects.

**RELATIONSHIP BETWEEN EDUCATION, EMPLOYMENT AND CHAOS**

While planning education policies, conceiving changing necessities, and determining deficiency and disparity of skills have become important. On the other hand, the idea of even small differences faced by the system could affect it is a situation that must be considered by educational politicians. As seen in “butterfly effect” of Lorenz, it can be possible to be faced with a structure that can turn into a natural disaster. At this point, we can see that predictions become speculations. During the economic crisis in 2008-2011, unemployment levels increased in almost all OECD countries.

In Table 1 which contains employment rates according to educational stages and gender; the more educational status, the more attendance rate to labour force for both genders. In OECD countries, average employment ratio for men with any tertiary grade is 88%, for women this rate is 77%; and for those who have low-secondary school graduation certificate this ratio is 69% for men and %48 for women. In Turkey, the difference in employment rates between men and women is particularly large in all grades. Therefore, this subject is noteworthy for Turkey whose 80% population have ability to work is lower than high school education (Ercan, 2011). In Turkey, while 2 of 10 women with secondary school graduation certificate are employed for any position, for women with college graduation certificate this ratio is 6 out of 10. This statistic shows us that especially for women, having a college graduation certificate is vital to become employed. For years, attendance ratio to labour force according to college graduation has lowered 8% for men, 18% for women between years 1988 and 2010 (Tansel 2012).